

Environmental Challenges of Uttar Pradesh and Role of Directorate of Environment of the State – An Analysis

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Abstract: Today environmental problems and challenges posed serious threats to the existence and survival of mankind. In India too, this issue has become a matter of grave concern for policy makers, planners, administrators, academicians, social activists and common man as well.

The insufficient development and poverty together with increasing stress of population in Uttar Pradesh have posed serious challenges to the natural resources of the state and generated many problems like malnutrition, health hazards, lack of sanitation, increasing slums, air, water and noise pollution, hazardous and bio-medical waste and overall poor quality of life. The present research paper analyses the environmental problems and challenges of the state and the attitude & role of Directorate of Environment which is one of the key institution for environmental governance in UP. The research paper is based on an empirical study conducted on environmental politics and role of enforcement institutions in Uttar Pradesh.

Keywords: Water Pollution, Loss of biodiversity, Key Institutions, Directorate of Environment.

I. INTRODUCTION

The state of Uttar Pradesh, the biggest Pradesh of India in population, has 75 districts and 18 commissionaires. The state is situated in the northern part of India, constitutes 628 urban local bodies and 52029 Gram Panchayats. Due to its huge population and important location, the state has been playing a decisive role in making of governments at central level. In comparison to the other states of India, UP having maximum number of Lok Sabha seats (80), constitutes the highest sharing in political power of the country.

II. ENVIRONMENTAL CHALLENGES OF UTTAR PRADESH

In Uttar Pradesh the deteriorating conditions of land, rivers, biodiversity, groundwater, deforestation, poisonous air and unbearable noise affected badly to the lives of the people in the state. Due to the loss of agriculture, water shortages, ruthless droughts, land degradation, adverse impacts on forests and biodiversity, the state faces severe environmental challenges. Uttar Pradesh is the producer of huge hazardous waste and bio-medical waste. All these need to be knobbed properly to check considerable health and irreversible ecosystem damages.

The state was reported on the top position in producing greenhouse gases. The environment ministry in its report in 2010 stated the fact that in total of national emission of greenhouse gases, the share of Uttar Pradesh is of 14%. The districts of Sonbhadra, Raibareilly, and Gautam Bhuddha Nagar are the main culprits in this regard. The report further highlighted that the emission of greenhouse gasses in UP have 66% of carbon dioxide, 26% of Methane and 8% of Nitrous Oxide. Petro products are mainly responsible for this chronic problem (*Report: 2010*).

The environmental degradation in Uttar Pradesh has reached at alarming level. Many studies and reports pointed out that almost 22 small and big districts of the state have been converted into 'environmental hotspots' and other districts are also facing stern environmental problems. The political dynamics of eco-politics of the state throws light on the fact that there

are some major problems affecting environmental policy implementation just as politicization of environmental issues in case centre and state are ruled by different sets of political parties, lack of environmental sensitization in political parties-Samajwadi Party, Bahujan Samaj Party, Bhartiya Janta Party and Congress working at state level, environmental bureaucracy, lack of good governance, loopholes in environmental provisions, insufficient role of the Ministry of Environment and Forest at the centre and in the state, ineffective role of State Pollution Control Board, Jal Nigam and other enforcement agencies of the state. Apart from sloppy attitude and role of political and administrative machinery various socio-economic factors like poverty, population explosion and dormant civil society are also responsible for environmental havoc in the state.

Emphasizing environmental degradation of UP, a report was jointly prepared by the state's Directorate of Environment and World Bank, was submitted to the 13th finance Commission to seek higher allocation for environment management in the state. The report, precisely pointed out environmental threats to UP such as-BOD load on surface water of fluoride nitrate or iron in ground water is beyond the WHO prescribed drinking water standards. In the report, hazardous waste over 500 tons, municipal solid waste generation 600 tons per year and degraded land area over 9% was observed in the state (http://www.prsindia.org/uploads/media/13_financecommissionfullreport.pdf).

The environmental scenario in the state has been complicated by the failure of effective mechanism to check pollution of surface water, ground water, disposal of hazardous and municipal solid waste and contain land degradation, besides excessive exploitation of groundwater.

The report submitted to thirteen finance commission, stated specifically that Kanpur city became the most polluted city of UP. Further, environmental threats in eight districts of UP like-Sonbhadra, Budaun, Bulandshahar, Ghaziabad, Mathura, Meerut, Moradabad and Saharanpur became very serious. The report also mentioned the names of other districts, having serious environmental coercion. Rampur, Lucknow, Bareilly, Auraiya, Aligarh, Agra, Kanpur Dehat, Jhansi, Rai Bareilly, Unnao, Muzaffarnagar, Bijnor and Allahabad (<http://www.prsindia.org/uploads/media/13financecommissionfullreport.pdf>).

Loss of Bio-diversity and Wild life in UP

In regard to water pollution of the state, many studies conducted on this issue, observed that 38.5% people of the state are facing water problems. The availability of safe and adequate drinking water and lack of sewerage and sanitation is the biggest challenge in Uttar Pradesh. The cities like Lucknow, Kanpur, Agra, Varanasi, Mathura, Aligarh, and Ghaziabad are witnessing rapid ground water depletion and poor water quality at places.

The report of a survey conducted by the government in association with the UNICEF in 2008, stated alarming facts regarding mixing of arsenic in ground water in 20 districts of UP. It was observed beyond the tolerable limit of 0.05mg per litre. The main districts, where arsenic content was seen in ground water, were-Gorakhpur, Basti, Siddhartnagar, Bahriach, , Balrampur, Santkabir Nagar, Chanduli, Gazipur, Unnao, Bareilly and Moradabad. Apart from this, seven districts were reported as partly affected namely-Raibareilly, Mirzapur, Bijnor, Meerut, Sant Ravidasnagar, Shahjahanpur, and Gonda. The then Mayawati government assured for taking all possible steps to overcome this dangerous situation. To combat this challenge, a task force was constituted consisting members of Central Ground Water Board, UP Jal Nigam, UNICEF and experts of IIT sector from the Institutes of Kanpur and Lucknow (*The Indian Express, March 06th, 2008*). But this initiative of the state government could not give positive results in subsequent years and the problem became grave.

Further in 2010, a study was conducted by the Minor Irrigation and Ground Water Department, revealed the big amount of arsenic in the ground water of 49 districts of Uttar Pradesh. This is unfortunate that a large population in Uttar Pradesh is using water for survival, is mix-up with cadmium, fluoride, arsenic, nitrates and lead. It was observed in many studies, that lack of proper system of municipal and industrial waste disposal and excessive use of pesticides for agricultural purposes are mainly responsible for ground water pollution. The report submitted to the state government on June 10, 2010, alarmingly indicated that majority of the districts in western Uttar Pradesh, including Meerut, Agra, Bijnore, Saharanpur, Badaun, Bareilly, Moradabad, Baghpat, Gautam Buddh Nagar and Muzaffarnagar, have traces of arsenic in the ground water. In eastern UP, maximum of arsenic was found in Ballia. On the basis of this report, Urban Development Minister Nakul Dubey said that the government had identified the areas where dangerous arsenic in ground water was found and taking precautions handpumps were marked by red colour (*The Pioneer, July 09th, 2010*).

Inadequate and polluted water supply in urban and rural areas of Uttar Pradesh is also one of the biggest challenges of the state. Many parts of the state are witnessing severe water born diseases due to the use of polluted water and poor sanitary conditions.

The rivers of Uttar Pradesh are dangerously polluted for long time. In this connection, the river policies of central government to check and control the pollution of rivers has given partial results. The major causes of river pollution have been sewage waste, industrial waste, rural waste water mixed with pesticide, fertilizer and other chemicals, directly flowing into rivers and disruption in the flow of the rivers. Although, under Ganga Action Plan-I, implemented in 1985, twelve Sewage Treatment Plants of 274 MLD capacity were constructed and Ganga Action Plan-II started in 1993, constructed Sewage Treatment Plants in 22 towns, sewage and industrial effluents were also checked (<http://jn.upsc.gov.in/page/en/ganga-plan-i>), but in later years, these actions of the government may be observed as limited efforts in view of the size of the problem. The implementation of Yamuna Action plan phase I, phase II and Gomti Action Plan phase I and phase II by the central government more or less repeated the same story of policy failure due to many socio-economic, political and administrative reasons.

Air & Noise Pollution – Biggest Challenges of UP

Air pollution in U.P. has reached an alarming level. Lucknow, Kanpur, Agra, Ghaziabad and Varanasi became the top five cities in air pollution in the state. This information was given by the then environment minister Nakul Dubey in the Vidhan Sabha in replying to the question which was raised by Shyam Dev Rai Choudhary, MLA of Varanasi in 2010 (*Hindustan, November 17th, 2010*).

Vehicular emissions, traffic jam and encroachment emerged as the main causes of air pollution in the state. CNG, LPG based cooking and plantation drives are possible remedies which need to be encouraged largely in the state.

The state of Uttar Pradesh is suffering from noise pollution as well. The U.P. Government, headed by Yogi Adityanath, banned the unauthorized use of loudspeakers and public address systems at religious and public places across the state. The action was taken in the light of Allahabad High Court's decisions in this matter in January 4th, 2018 (*DainikJagran January 4th, 2018*) keeping in view the seriousness of the noise pollution, this is the need of the hour that sensitive areas standards in terms of noise pollution should be strictly enforced. Pressure horns and noisy generators should be banned.

Other Major Problems of Environmental Pollution in UP

Biodiversity and Wild Life are also facing severe challenges in the state. The five biodiversity zones of Uttar Pradesh are under tremendous pressure in terms of quality of water, climate change and loss on many species etc. In this connection, a UP Biodiversity Board, Government of UP was set up to work for the protection of bio- diversity. The Principal Secretary, Forests designated as the Chairman of the Board (*Report:2010:101*).

Land resources in Uttar Pradesh became a troublesome affair. The trend of using agricultural land for non- agricultural purposes has increased in UP in last 35 to 40 years. Further, soil erosion, excessive use of fertilizers and pesticides and poor water management has been severely affecting the health of the soil in the state.

The health of soil in UP is a matter of grave concern which is affecting agriculture determinedly. The State Environment Report 2010, indicated that almost 3.8 million hectare of land in UP witnessed deterioration. With the formation of Uttarakhand state, a large part of forest and green area of UP separated from the state. It is seen that, this problem became acute afterwards. Though to combat this situation, the state government has been running various social forestry programmes but these became insufficient for the betterment of this situation. The government sanctioned big amount for social forestry programmes (*report: 2010:95*).

Inadequate Solid Waste Management in UP

Solid waste generation and its improper management may also be seen as the biggest problem in UP. Though the law in this context has been enacted but the unhealthy practices prevailed among the large population of the state has aggravated the problem. The government machinery is not successful in managing solid waste.

Industrial Pollution of leather, sugar and power projects etc. also became major source of pollution, affecting adversely the state in many ways. The state is known as the largest sugar producing (almost 70% sugar producer) state of the country. Kanpur, Gautam Buddha Nagar, Ghaziabad, Kaushambi, Raebareilly and Bulandshahar are the main industrial zones (*Report:2010:177*).

Uttar Pradesh faces natural calamities frequently. Due to this problem, the state witnesses loss of public lives, property and erosion of fertile land. The state needs proper disaster management. The existing management system has given partial results.

Directorate of Environment, Government of Uttar Pradesh – An Analysis

On the directions issued by the then Prime Minister of the country to the state government to constitute an environmental committee or Board to look into the matters of environmental pollution, a State Board of Environment and Ecology was constituted in February, 1976. It was also directed by the central government to the government of UP to make it mandatory for taking consent before sending proposals to the government of India.

Following the instructions of central government, directions were also issued by the government of Uttar Pradesh in 1985, that without the approval of the Directorate of Environment no proposal will be sent to the central government (http://upenvis.nic.in/Content/institute_137.aspx).

In 1976, the Directorate of Environment was constituted in Uttar Pradesh. In 1976 the apex post was designated as the Director, Environment and Ecology. The head office was situated in Lucknow. The Directorate has two regional offices located in Varanasi and Meerut. The Directorate, at grass root level works with the help of the regional centres of UPPCB located in 24 cities of the state. The Forest Department also helps the Directorate in the accomplishments of its functions (*Report:2010:29*).

The Directorate of Environment, UP, has been imparting environmental education, training and spreading environmental sensitization in the state. The monitoring of chronic pollution affecting areas, promotion of environmental impact assessment, on biodiversity of the state, EIA clearances, hazardous and solid waste management, documentation of data and reports and preparation of drafts on environmental protection and promotion of research in significant areas of environment etc. are some most important functions of the Directorate of Environment(*Report:2010:29*).

The Directorate of Environment also draws the attention of the government on the severe issues of environmental degradation and suggests remedial measures in order to solve the problems. The Directorate covers multi-dimensional tasks such as- administration of boards and institutions working to check and monitor air and water pollution, mapping of environmental sensitive areas, conservation of wildlife, forest and wetlands, adopting new strategies and models to combat challenges of pollution, looking after the management of river basins and other water resources, using of alternative energies sources and participation in the programmes run by the United National Environmental Programme etc (http://upenvis.nic.in/Content/institute_137.aspx).

With the objective to conserve natural resources, the National Environment Policy of 2006, ensured the action points for the State also. Earlier in December 1982, Environmental Information System (ENVIS) was established by the Government of India with the aim that knowledge is power. The Environmental Information System (ENVIS) in Uttar Pradesh is a part of the Directorate of Environment (http://upenvis.nic.in/Content/Focal_Point_496.aspx)

It is pertinent to mention here, in brief, the activities of the Directorate of Environment of Uttar Pradesh -

Directorate of Environment Government of Uttar Pradesh - Activities
1. Environmental Education Training and Awareness programme, 2005-06. 2. Environmental Research and Awareness programme.
1. Environmental Education Training and Awareness programme, 2006-07. 2. Environmental Research and Awareness programme. <ul style="list-style-type: none"> ● Seminar on “Shushk Bhumi Mein Jaiv Vividhata” on the occasion of International Bio-Diversity Day 27th May, 2006. Fund Sanactioned Rs. 0.70 lacs for head office and Rs. 0.50 lacs for regional offices of Varanasi & Meerut. ● World environment day was celebrated on 05 June, 2006 seminar on “Marusthal aur Marusthalikaran”. ● Inauguration of Environmental awareness centre on 22nd June, 2006. ● Seminar on “Ozone Parat Ki Raksha Kare Prithivi Par Jivan ko Bachaye” on the occasion of International ozone layer conservation day 16th Sept., 2006. ● Programme for environmental awareness in schools and colleges. ● Environmental Training Programme.

- Promoting Research on environmental performance rating on “Asvani Industry” in UP.
 - Continuation of Programme on “Taj Trapezium” Central Government Sanctioned National Green Core Planning. For this constitution of state steering committee.
 - Making website as per the policy of ENVIS plan of Government of India to promote e-governance.
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- Environmental Education Training and Awareness programme, 2009-10.
 - Environmental Research and Awareness programme.
 - Programmes funded by Central Government.
 - Direction & Administration.
 - On 22nd May, 2008, on the occasion of “International Bio-Diversity Day”, the seminar was organized on “Bio diversity and Agriculture”. Fund of Rs. 1.20 lacs was sanctioned for head office & Rs. 0.50 lacs for regional centre.
 - Celebration of World environment day 05 June, 2008 seminar on “Carban Utsarjan ko Kam karne wali Arthvyastha ko apnaye”. Fund of Rs. 1.40 lacs for head office & Rs. 0.50 lacs for regional centre.
 - International Ozone Layer Conservation day seminar on “Montrial Protocol – Sarvaumik Labho ke Liye Vishwvyapi Sahbhagita per adharit rahe”. Fund of Rs. 1.50 for head office & Rs. 0.60 for regional centre.
 - Environmental programmes in schools.
 - Participation in CMS environment 2008- environment & wild life travelling film festival.
 - Promoting Research on environmental performance rating on “Asvani Industry” in UP.
 - Preparation of environmental perspective plan by Directorate of environment. Fund sanctioned Rs. 4.18 lacs.
 - Computerization of directorate in the scheme of e-governance Rs. 2.00 lacs for this was sanctioned by the state government.
 - State Level Environment Impact Assessment Authority, UP, on 12th July, 2007, sanctioned Rs. 10 lacs for this.
 - Establishment of laboratory in directorate of environment sanctioned Rs. 10 lacs for this programme.
 - Under Central Government sanctioned project – Taj Trapezium, waste disposal arrangements (Centre – 50/State – 50).
 - Establishment of waste disposal management in industrial area (Centre – 50/State-50).
 - Establishment of State Education, Development and Research Institute, etc.
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- To spread environmental awareness through various programmes, 2013-14.
 - To work for environmental conservation and implementation.
 - To work for Public grievances received with connection with environmental deterioration and pollution.
 - To advice different department and development authorities from ecological point of view.
 - To advice environmental planning for ecological condition of the state.
 - To work according to the directives and allotted work by environment ministry of UP Government.
 - The Directorate of Environment has also been functioning as the secretariat of State evaluation committee & state ecological impact authority. For this purpose a circular was issued by the environment department of government of India on 14th September, 2006. Apart from environmental education training and research programme, the department has been working to conduct programme for river conservation.
 - Preparation of status report of environment of Lucknow & Gautam Buddha Nagar.
 - Constitution of state expert evaluation committee of UP.
 - Centre Assisted Plans.
 - Waste disposal arrangements (Centre-50/State-50)
 - Action regarding 08 Missions of Subject related to Climate Change
 - Environmental Information System
 - UP Expert Committee at state level and Establishment of State Environmental Impact Assessment Authority, etc.

(Source: Reports: 2005-06, 2006-07, 2009-10, 2013-14) please see work cited .

Requisite of Strengthening of Directorate of Environment Uttar Pradesh

Keeping in view the multifaceted and large scale functions of the Directorate of Environment to sustain the environment of Uttar Pradesh, reform in the structure and functioning pattern of the Directorate is essentially felt in the observation of the present study. To conclude, it may be said, here, that for a better and accountable functioning of the Directorate, organizational, structural and financial strengthening is a necessity.

Directorate of Environment is a part of Uttar Pradesh Government and these days Directorate is working in many areas of environment. It is observed in the present study that the draft for State Environment Policy was prepared by the Directorate of Environment in 2002, though it is still in the form of draft in 2018. This is true that the Directorate of Environment prepares environment policy but it needs co-ordination among different government departments to get it into final form. In this context, the various departments whose approval is required are Environment Department, Transport Department and Public Works Department etc. Unfortunately there is seen lack of co-ordination in these departments. The other problems of the Directorate of Environment may be seen as the Directorate is suffering from financial deficit. The main function of Directorate of Environment is to prepare and implement environment policy and to create awareness among masses on environmental sustenance, but due to the lack of staff and resources, Directorate of Environment is unable to work efficiently. This necessitates structural reform in Directorate of Environment. Otherwise, it will continue as fulfilling quorum only. It is suggested here that in the Directorate of Environment, responsibility from top to bottom should be ensured. It is also observed that regional centres of Directorate of Environment are in non-functional mode. There is seen political pressure for the transfer of staff from regional to the main centre located at Lucknow.

In an interview conducted in the present study, Yashpal Singh, former Director, Directorate of Environment Uttar Pradesh, presently, expert, Appraisal Committee, Ministry of Environment and Forest, Government of India suggested that there is fundamental requirement to make the Directorate of Environment more powerful, responsible, efficient and more effective.

III. CONCLUSION

To conclude it may be said that to improve the functioning of the Directorate of Environment of the state some important steps are to be taken essentially as -

- a) Directorate of Environment, UP needs visionary and dynamic leadership as it is lacking an effective, active and proficient leadership.
- b) The environment of the Directorate needs to be positive, action oriented, professional and energetic. It will create positivity and creativity among the staff of the Directorate.
- c) Beurocratic style of functioning of the Directorate needs to be checked.
- d) There is a greater need to develop the Directorate as empowered institution which will be helpful in the enforcement of environmental laws.
- e) Funds and staff should be increased to make the Directorate more effective.
- f) There should be proper co-ordination of the Directorate with the Department of Environment and other related departments.
- g) It is essential that the Principal Secretary and the state government pay proper attention to the suggestions given by the Director.

Overall restructuring and reform in the Directorate of Environment will certainly improve the environmental governance of Uttar Pradesh.

REFERENCES

- [1] *Karya Kalap (Activity Report)- Environment Department*, published by Department of Environment, Uttar Pradesh, Lucknow, 2005-06.
- [2] *Karya Kalap (Activity Report)- Environment Department*, published by Department of Environment, Uttar Pradesh, Lucknow, 2006-07.

- [3] *Karya Kalap (Activity Report)- Environment Department*, published by Department of Environment, Uttar Pradesh, Lucknow, 2007-08.
- [4] *Karya Kalap (Activity Report)- Environment Department*, published by Department of Environment, Uttar Pradesh, Lucknow, 2009-10.
- [5] *Karya Kalap (Activity Report)- Environment Department*, published by Department of Environment, Uttar Pradesh, Lucknow, 2010-11.
- [6] *Karya Kalap (Activity Report)- Environment Department*, published by Department of Environment, Uttar Pradesh, Lucknow, 2012-13.
- [7] *Karya Kalap (Activity Report)- Environment Department*, published by Department of Environment, Uttar Pradesh, Lucknow, 2013-14.
- [8] *State of Environment Report-2010, Uttar Pradesh*, Lucknow, published by Directorate of Environment, Government of UP, Lucknow, 2010.
- [9] "Arsenic Threat Looms Large Over State." *The Indian Express*, Lucknow, March 6th, 2008.
- [10] "Illegal Loudspeaker: Deadline Over, UP Government Orders Action." *Hindustan Times*, Lucknow, January, 17th 2018.
- [11] "Lucknow is in top five in Air pollution in U.P.]" *Hindustan*, Lucknow, November 17th, 2010.
- [12] "Water Contamination high in U.P. " *Pioneer*, July 9th, 2010.
- [13] <http://jn.upsdc.gov.in/page/en/ganga-plan-i>.
- [14] http://upenvis.nic.in/Content/institute_137.aspx.
- [15] http://upenvis.nic.in/Content/Focal_Point_496.aspx.
- [16] http://www.prsindia.org/uploads/media/13_financecommissionfullreport.pdf.