

जलवायु परिवर्तन में भारत की महत्वपूर्ण होगी भूमिका

वॉशिंगटन @ पत्रिका

patrika.com/world

पेरिस में जलवायु परिवर्तन पर होने वाले सम्मेलन को लेकर अमरीका ने उम्मीद जताई है कि इसमें भारत अपने महत्वपूर्ण योगदान के लिए कदम उठाएगा। क्लाइंट हाउस के प्रेस सचिव जोश अर्नेस्ट ने कहा, निश्चित तौर पर हमें उम्मीद है कि भारत इस व्यापक वैश्विक प्रयास में योगदान करेगा। उन्होंने कहा कि यह भारत की आर्थिक चुनौतियों के समान ही है। उन्होंने कहा, लेकिन यह भी बताना चाहेंगे कि हम यह देख चुके हैं कि अतीत में भारत ने महत्वपूर्ण कदम उठाए हैं।

सचिव ने कहा कि भारत हाइड्रोफ्लोरिक कार्बन में कटौती की प्रतिबद्धता पहले ही जता चुका है। अर्नेस्ट ने कहा, तेल व गैस जलाने की तुलना में इन प्रयासों का जलवायु परिवर्तन की चुनौतियों पर अधिक महत्वपूर्ण प्रभाव पड़ेगा।

उन्होंने कहा, इसीलिए अतीत में भारत महत्वपूर्ण प्रतिबद्धता के प्रति तत्पर रहा है, जो इस व्यापक प्रयास में योगदान है। उन्होंने कहा, लेकिन हम निश्चित तौर पर एक ऐसे देश को देखना पसंद करेंगे, जिसकी अर्थव्यवस्था भारत की तरह मजबूत हो और इस प्रयास में एक महत्वपूर्ण योगदान करे।

अमरीका के समझौते में तीन अहम मुद्दे



अर्नेस्ट ने कहा कि पेरिस में 30 नवंबर और एक दिसंबर को होने वाली जलवायु वार्ता में ओबामा शिरकत करेंगे, साथ ही अमरीका एक समझौते को आगे बढ़ रहा है, जिसमें तीन चीजें हैं

■ यह सम्मेलन के प्रतिभगी सभी देशों के महत्वाकांक्षी जलवायु लक्ष्यों को दर्शाता है।

■ यह दीर्घवर्ष के ढांचे को पेश करेगा, जो देशों को एक समयांतराल में जवाबदेही के उच्च मानकों और सदी के अंत तक कम कार्बन उत्सर्जन के लक्ष्यों की प्राप्ति के साथ उत्सर्जन कम करने को प्रोत्साहित करता है।

■ यह कम कार्बन विकास और जलवायु अनुकूलन के लिए चल रहे वित्तीय व तकनीकी सहायता को संगठित करता है, सबसे गरीब व सबसे कमजोर देशों के लिए।

0402395, आर.एन.आई. नं. डेलिहिन/2005/15156 सम्पादक: भुवनेश जैा



RTI: Bihar worst affected by floods

ABHIJEET ANAND

anandabhijeet@thestatesman.net

New Delhi, 10 November

While elections in Bihar may throw up a fascinating verdict, one thing will not change in the state ~ the damage caused by floods. It is among the worst affected states when it comes to floods, an RTI reply has revealed.

The River Management Wing of the Central Water Commission in its reply to an RTI query said on an average 1.28 million hectares got affected in the state between 1953 and 2012 which is the highest after Uttar Pradesh. But the average number of people affected by the floods is the highest in Bihar at 6.46 million every year. According to official figures, in West

Bengal, more than 3 lakh houses get damaged due to floods every year which is the highest among all states.

Data revealed in the response to the RTI filed by Gopal Prasad, a Delhi-based activist, showed that floods in Sone, Punpun, Bagmati, Kamla Balan, Kosi and Mahananda rivers have been affecting Bihar year after year. Floods in the Ganga

affect both UP and Bihar. When the Ghagra and Gandak rivers are in spate, Bihar gets affected. The Kosi which flows through Nepal as well as Bihar is also known as 'Sorrow of Bihar' since the river gets flooded every year. North Bihar is particularly troubled by floods as tributaries of Ganga including Ghagra, Gandak, Mahananda and Kosi are located in this part.

Among the other states that get affected badly by floods are Assam, Odisha and West Bengal.

Bihar as a state received the largest share of funds meant for the flood management programme during eleventh and twelfth financial plan. Altogether Rs 891 crore was disbursed to Bihar under flood management programme.

SNOWFALL DENTS HIMACHAL MERCURY

Shimla, 11 November: Temperatures across Himachal Pradesh on Wednesday plummeted as high-altitude areas received mild spells of snow while other parts experienced rains.

"High hills in Kullu, Kinnaur, Lahaul and Spiti and Chamba districts experienced light snowfall," a weather department official said. Shimla and its nearby areas like Kufri and Narkanda experienced mild rain. So did the picturesque tourist resort of Manali, which saw the temperature sliding to a low of 0.2 degrees Celsius. The minimum temperature in capital state of Shimla was 7.4 degrees Celsius.

IAN S

—

Climate change, terrorism to be discussed at G-20 summit: PM

INDO-ASIAN NEWS SERVICE

New Delhi, 10 November

India will take up the issues of climate change and terrorism among others in the G-20 summit to be held in Antalya in Turkey on November 15-16, Prime Minister Narendra Modi said on Tuesday.

In a series of Facebook posts, Modi, who will leave for Turkey on 14 November after the completion of his bilateral visit to Britain, wrote that the summit was being held "at a critical juncture, just after the adoption of Sustainable Development Goals agenda at the United Nations, and just before discussions on climate change" at Conference of Parties (COP)-21 climate summit in Paris on November 30-December 1.

"During the Summit, we will review the progress on decisions taken at the (2014) Brisbane Summit and take up issues of climate change, terrorism, refugees, weak



growth in global economy, strategies for growth and employment, investment strategies, trade, energy and financial sector resilience," Modi said.

As in 2014, India would focus on mitigating the menace of black money, tax erosion and bringing greater transparency, he said.

"There will be several bilateral meetings too with world leaders on the sidelines of the Summit, which will help deepen our bilateral ties," the prime minister said.

Addressing the media here on Friday, Arvind Panagariya, vice chairman of

the NITI Aayog and India's sherpa at the G-20 summit, said that Turkey, after assuming the G-20 presidency from Australia in December 2014, had taken growth as a main theme during its tenure.

He said that the G-20 countries had agreed at the very beginning of the Turkish presidency had agreed that the leaders' communique to be submitted after the Antalya summit would be "short and focused".

During Turkey's presidency, meetings of the energy and agriculture ministers of the G-20 countries.

"The energy and agriculture ministers have never met before. This was the first time," Panagariya said.

Another commendable initiative under the Turkish presidency was the addition of the Women-20 (W-20), he said.

"There has been the B-20 (Business-20), C-20 (Civil Society-20), L-20 (Labour-20), T-20 (Thinktanks-20)," he said.

INCESSANT RAIN, FLOOD KILLS 27 IN TAMIL NADU

₹4 LAKH HANDED OVER TO FAMILIES OF DECEASED, KARUNA FLAYS GOVT

INDO-ASIAN NEWS SERVICE

Chennai, 11 November

Twenty-seven people have lost their lives in Tamil Nadu's Cuddalore district in the last two days due to floods following incessant rain, chief minister J. Jayalalithaa said on Wednesday. Jayalalithaa also added that relief efforts were on in full swing.

A solatium of Rs.4 lakh to the family members of each of the deceased was handed out on Wednesday, the statement said.

However, there was no official figure as to the total number of people who lost their lives due to rains in the state in the last two days. Unofficial estimates put the number around 40.

According to Jayalalithaa, Cuddalore district, against a normal rainfall of 697 mm during the northeast monsoon between October-December, received 500 mm rain till date this year result-



People wade through flooded streets of Tamil Nadu. =File photo

ing in heavy floods.

Meanwhile, the state government is trying to restore electricity supply to villages in Cuddalore district through diesel-run generators as power supply was disrupted by heavy rain.

The government has also deployed personnel from other districts to help resumption of power supply.

On 9 November, a deep depression over the Bay of Bengal crossed near the Tamil Nadu-Puducherry coast, resulting in heavy

rain and consequent flood in Cuddalore district.

The official statement said the government was ensuring safe drinking water supply through tankers in the flooded areas.

According to the Cuddalore administration, 35 health camps have been set up in the district and the affected people administered injections and tablets to prevent spread of water-borne diseases.

People living in the flood-affected areas have been

shifted to camps and food packets are being distributed among them. However, relief measures are yet to reach some pockets in the district, according to reports here.

Roads and railway lines have been damaged due to flood waters.

"Flooding of residential areas has become a recurring feature in Cuddalore district," an affected person told a television channel.

In other parts of the state, standing crops were damaged by the heavy downpour.

The Indian Coast Guard has deployed Dornier aircraft and patrol vessels to locate around 120 unmanned fishing boats drifting in the sea. Fishing boats anchored in the Gadilam river at Devanampattinam in Cuddalore district were dragged away to the sea by the huge waves.

According to the Tamil Nadu government, the Coast Guard has located 40 boats in two locations and efforts are on to retrieve them.

WHILE THE JUDICIARY HAS PLAYED ITS PART IN ESTABLISHING THE POLLUTER PAYS PRINCIPLE, IT IS TIME THE LEGISLATURE CAME UP WITH AN UNAMBIGUOUS LAW THAT INCORPORATES THE PRINCIPLE, SAYS STUTI BHATNAGAR

Environment protection and maintenance of ecological stability have assumed undisputed importance in international as well as national domain in recent years. The need for this arises from the fact that any further degradation of the environment could precipitate catastrophic results for future as well as current generations. Such concerns demand evolution in environmental jurisprudence which could give rise to better and newer techniques of safeguarding resources. The principle of 'polluter pays' plays a vital role in this context. Its recognition in recent years by scholars as well as the judiciary has augmented its importance and today it has become integral in guiding environmental policy.

The 'polluter pays principle' means that those responsible for degrading the environment in any form should compensate for the damage caused. It includes being responsible for full environmental costs i.e. cost of pollution or any other harm caused to the ecology and not just those which are immediately tangible costs. This principle has been widely analysed in different ways by different nations. Although the precise legal definition remains elusive, the core of this principle stems from the fundamental, logical and fair proposition that those who generate pollution, and not the government should bear pollution costs.

The polluter pays principle was first widely propounded by the Council of Organization of Economic Co-operation and Development (hereinafter, OECD) in 1972. It has gained wide prominence and acclaim and has played a vital role in shaping international environmental policy in the 40-plus years since its pronouncement. But there are many faulty presumptions and analysis surrounding the core of this principle. This article aims at analyzing this principle and delving deeper into its meaning. It seeks to examine its viability in current environmental jurisprudence of India and the manner in which the Indian judiciary has interpreted and applied it in various cases.

This principle found its first formal mention at an international level in a 1972 recommendation by the OECD Council on guiding principles concerning international economic aspects of environmental policies. The formulation in brief is worth stating:

"In many circumstances, in order to ensure that the environment is in an acceptable state, the reduction of pollution beyond a certain level will not be practical or even necessary in view of the costs involved. The principle to be used for allocating costs of pollution prevention and control measures to encourage rational use of scarce environmental resources and to avoid distortions in international trade and investment is the so-called 'Polluter-Pays Principle'. This principle means that the polluter should bear the expenses of carrying out the above-mentioned measures decided by public authorities to ensure that the environment is in an acceptable state. In other words, the cost of these measures should be reflected in the cost of goods and services which cause pollution in production and/or consumption"

The Polluter Pays Principle (hereinafter, PPP) recalls well established legal precedents that hold that polluter who creates environmental harm is liable to pay compensation and costs to remedy that

harm. However PPP has evolved and in 1989 OECD included costs related to accidents caused due to hazardous installations, accidental pollution, stating that:

"In matters of accidental pollution risks, the Polluter-Pays Principle implies that the operator of a hazardous installation should bear the cost of reasonable measures to prevent and control accidental pollution from that installation which are introduced by public authorities in Member countries in conformity with domestic law, prior to the occurrence of an accident in order to protect human health or the environment".

Prima facie, the intention of the OECD has been to expand the scope and the ambit

of this principle so as to fosterational and better use of sparse environmental resources.

The legal fraternity has often analyzed this principle as a requirement that polluters are responsible for the costs of environmental damage that is caused due to their conduct.

In 1973 the European Community followed the example of OECD principles from 1972 by adopting the first Environmental Action Programme (EAP). Principle 16 of the Rio Declaration of 1992 also illustrated this principle. Initially the principle was interpreted in an extremely strict sense and thus was applied only to those cases where one was actually involved in the pollution of environment. But the principle has been subsequently extended to activities which were involved in deterioration of environment.

The role PPP has played in the evolution of environmental jurisprudence has assumed relevance in recent times. In simplest terms, pollution would mean discharge of such unwanted materials in the environment, consumption and production of which would prove harmful for the people. Polluter could be referred to as a person who will be held responsible and liable for such contamination. PPP mandates that the cost of pollution should be borne by those who are responsible for causing it. PPP is basically implemented through two different policy approaches: command and control and market based.

Command and control approaches include performance and technology standards, such as environmental regulations in the production of a given polluting technology. Market based instruments include pollution or eco taxes, tradable pollution permits and product labeling. Generally this principle takes the form of taxes which are extracted by the government from those responsible for pollution or degradation of the environment. This principle encourages producers to reduce the level of harm-

ful emissions in order to avoid payment of taxes. 'Carbon price' is also imposed by way of implementing this principle. This imposes a charge on the emission of greenhouse gases equivalent to the corresponding potential cost which will be caused through future climatic change.

A persistent argument

The Court observed, "We are of the opinion that any principle evolved in this behalf should be simple, practical and suited to the conditions obtained in this country. Once the activity carried on is hazardous or inherently dangerous, the person carrying on such activity is liable to make good the loss caused to any other person by his activity irrespective of the fact whether he took reasonable care while carrying on his activity." As a result it held the

no doubt that it was deemed the law of land. Also the bench that this principle formed an integral aspect of international environmental law and thereby formed a part of domestic law also according to some scholar discussion in the judgments relating to the polluter pays principle is unsatisfactory (S. Divan, Armin Rosencranz, *Environmental Law and Policy in India*).

The court in this case discussed the aspects of 'Sustainable development' and its relevance in the history of environmental jurisprudence and international law.

M.C. Mehta v Union of India

This was perhaps one of the benchmark decisions in which the court laid specific emphasis on the polluter pays principle and emphasized its importance in environmental law. A petition filed by public interest was directed against the Kanpur tanneries under Article 32 of the Constitution. Various industries located on the banks of river Ganga were ordered to stop discharging untreated effluent into the river. The court held the tanneries responsible for such contamination. The judgment created the *Vellore Citizens' Welfare Forum v Union of India* precedent that the polluter pays principle has been accepted as a part of the judicial framework in India. They interpreted PPP to mean that remediation is a part of the principle of 'Sustainable development' and such polluter will be responsible to pay the costs to the individuals affected as well as the cost of restoring damage to ecology. The court in this case directed the tanneries to pay for the damages caused by their acts. The court also held the tanneries responsible for the removal of all the sludge and other pollutants.

PPP as interpreted by the court means that the absolute liability for harm to the environment extends not only to compensate the victims of pollution but also the cost of restoring the environmental degradation. The Court also laid down the provisions of the Constitution, Water Act, Air Act and the Environment Protection Act. It was laid down that in lieu of presence of these provisions there would be absolutely no doubt in holding that PPP forms part of the environmental law of the country.

Vellore citizens welfare forum v Union of India

The apex court in this case highlighted the importance of PPP by reiterating that it had been accepted as part of the law of land. This case pertained to tanneries and other polluting industries of Tamil Nadu. The Central government was required to establish an authority under the Environment Protection Act to identify individuals who had suffered due to this pollution and determine the compensation that had to be paid by the polluters.

Justice Kuldeep Singh incorporated PPP into the domain of Indian law. He referred to the principles that were evolved under international law and said Articles 47, 48A and 51A(g) incorporate within themselves the element of PPP. It was held that in addition to this all laws that governed the environment in India accepted the proposition of PPP and there was

Making the Polluter pay

has developed over the uniformity of carbon price, which will inadvertently benefit major polluters of nations where proper and stringent environmental regulations are not present, since according to many scholars, this will allow the polluters to pollute more without any constraints.

India is a country where environmental jurisprudence is still evolving. Until recently the country was devoid of a basic structure concerning environmental law. But after major events that affected the environment, the framework of environmental law in India has expanded. The judiciary has played an integral role in deciding such cases where in spite of absence of laws those liable for environmental disasters were punished.

There are many landmark cases where courts have incorporated PPP to justify and increase the ambit of degradation of environment to include the compensation that would polluters would be required to pay. This paper looks at three major cases.

Indian Council for Enviro-Legal Action v Union of India

Also known as the *Bichhri village case* the court in this case held PPP to be a sound principle in environmental law. In this case a number of private companies were creating hazardous waste in the form of chemical sludge and other harmful wastes that polluted underground water. A writ petition was filed against such companies by an environmental NGO under Article 32 of the Constitution for recovery of the costs that were incurred on remedial measures from the com-

Way ahead for water security

S K Sarkar

The 2015 Paris Climate Conference commencing from November 30 will for the first time in over 20 years seek to achieve a legally binding and universal agreement on climate with the aim of maintaining global warming below 2 degrees centigrade over the 21st century relative to pre-industrial levels. Many countries including India will be discussing their 'Intended Nationally Determined Contribution' (INDC) and India has already prepared its contribution keeping in mind climate justice and sustainable development goals for its 1.2 billion people.

In any climate change debate, the water issue is important as there is a close nexus between water, food, energy and climate factors underlying sustainable development. Temperature increase and occurrence of extreme events, as predicted by the Fourth and Fifth Assessment Reports of the Intergovernmental Panel on Climate Change (IPCC), will affect rainfall, snowmelt, river flows and ground water. Their effect on water security is well documented, resulting in increase of water stress in the world including India.

Water is a finite resource; globally only 0.5 per cent of total water is available for use by various sectors. Of all the demands on water, agricultural use is the highest followed by industrial and domestic sectors. In India, at current levels of water availability, we will not be able to meet the projected demand of 2050. Climate change impact will further stress the availability of water at local levels.

Given the scenario, what can we do collectively? India's INDC proposal along with the enunciation of various adaptation strategies will be discussed in the Paris meeting. In India, we need to undertake a lot of initiatives on the ground to transform into reality these adaptation strategies in the water sector.

First, for managing increasing water demand, enhancing water use efficiency in all sectors is of utmost importance. The 'per drop more crop' policy in practice in select areas in India is a successful effort in sustainability, but this initiative has to be scaled up. Similarly, in the industrial sector,



statistics show that Indian industries consume about 2 to 3.5 times more water per unit of production compared to similar plants operating in other countries. The ratio of water consumption to economic value creation (at US \$ 7.5 per cubic meter of water) in Indian industry is very low in comparison to many other countries, for instance UK (at US \$ 444 per cubic meter of water).

Water audit, recycle/reuse of water, improved technology and processes should be adopted by industries to enhance their water use efficiency. Similar initiatives have to be taken by way of conservation of water in the domestic sector. The National Water Mission of the Central government has already set a bench mark of 20 per cent improvement in water use efficiency in India. Various sectors have to undertake measures to align their water use efficiency with this national target.

Second, on the supply side of water management, augmenting safe water supply is critical by way of river conservation, sustainable ground water use, conservation of water bodies and rainwater harvesting. Today, Indian rivers are under threat due to flow alteration, water extraction and dam building, degradation of flood plains and drainage basins; over-exploitation of fish, contamination and of course climate change.

Cross-sectoral policy initiatives are called for to restore the health of rivers. The 'Namami

Gange' programme of the Central government is a step in the right direction. However, such initiatives need to be backed by institutional innovations, adoption of technology for easy management of industrial sewage before discharging in river water, undertaking mass awareness and consensus-building campaigns, adopting integrated basin level approach rather than the existing river-centric mindset, integrated broader development policies, etc.

Third, maintaining water quality for river water as well as ground water at an acceptable level will enhance water security. Ground water in India is highly polluted and so is river water. Since both waters are closely connected, increasing water contamination, say in ground water will affect the river water quality and vice versa, and hence adversely affect water security. There are millions of users of ground water as well as river water. Mass campaign for increasing awareness and consensus building in this direction is called for in addition to the existing efforts of various governments.

Human induced climate change is now a reality. A need to have a climate resilient approach in dealing with water security is the need of the hour.

THE WRITER IS A DISTINGUISHED FELLOW AND DIRECTOR, WATER RESOURCES DIVISION IN TERI, NEW DELHI AND A FORMER SECRETARY, MINISTRY OF WATER RESOURCES, GOVT. OF INDIA.

