

# Clear thinking needed

Global warming cannot be dealt with using today's tools and mindsets. So create some new ones

IN SOME ways, the climate talks that begin in Paris today will show world leaders at their best. Taking a break from pressing issues such as terrorist threats and stuttering economies, they will try to avert a crisis that will pose its gravest risks long after they have left office. It is the opposite of the myopic thinking that is often said to afflict politics. A pity, then, that politicians have set themselves an impossible task, and that they are mostly going about it in the wrong way.

That climate change is happening, that it is very largely man-made and that it is exceedingly dangerous, are all now hard to deny (though America's leading Republican presidential candidates routinely try). This year will all but certainly be the hottest since 1880, when NASA's records begin. If so, 2015 will break a record that was set only in 2014. Every single year so far this decade has been hotter than every single year before 1998.

The wind turbines and solar panels that are spreading across Europe, America and China are barely restraining carbon-dioxide emissions. Since the turn of the century, global energy has become more, not less, carbon intensive. Coal now supplies 41 per cent of the world's electricity and 29 per cent of the world's energy — a bigger share than at any time in at least four decades. The atmospheric concentration of carbon dioxide is 40 per cent higher than it was at the beginning of the industrial revolution.

## A terrible two

The presidents and prime ministers who gather in Paris will insist that global warming must be halted before the world becomes 2°C (3.6°F) hotter than it was in pre-industrial days. That is what they have said for years but, considering the momentum behind climate change, this target is as unrealistic as it is arbitrary. If annual greenhouse-gas emissions remain at the present level, enough pollution will enter the atmosphere in just 30 years eventually to warm the world by two degrees.

Greens say that the target is a rallying point — that it is useful because it inspires action, and action, once under way, will inspire yet more action in a virtuous circle. If only world leaders would stiffen their spines and promise even more green energy, they argue, disaster could be averted. But this drastically understates the challenge. The parts of the planet that have become rich have done so by tapping a vast store of fossil energy with feckless, if understandable, abandon. For the rest of the world to join them over the century ahead, and then for all concerned — as well as the planet's non-human inhabitants — to flourish in the centuries that follow, will take a lot more than just a big expansion of existing renewable technologies.

The world and its leaders need more ambition and more realism. The ambition requires increasing the options available. Generous subsidies perpetuate today's low-carbon technologies; the goal should be to usher in tomorrow's. Unfortunately, energy companies (unlike, say, drug firms or car companies) see investment in radical new technologies as a poor prospect, and governments have been feeble in taking up the slack. A broad commitment quickly to raise and diversify R&D spending on energy technologies would be more welcome than more or less anything else Paris could offer.

This would be costly. But remember



That climate change is happening, that it is very largely man-made and that it is exceedingly dangerous, are all now hard to deny. This year will be the hottest since 1880, when NASA's records begin. *Reuters*

three things. One is that spending money to reduce grave risks is reasonable. The second is that some of today's climate policies cost a lot more than a greatly expanded research portfolio and yield rather less. The subsidies that have created thousands of wind and solar farms have achieved only a little and at great cost. Other green subsidies, such as some of those for biofuels, have done actual harm. There is plenty of money to be saved.

A third is that one of the best measures against climate change raises money. Well-designed carbon prices can boost green power, encourage energy-saving and suppress fossil-fired power much more efficiently than subsidies for renewables. A few brave places have plumped to set such prices through carbon taxes: the latest is Alberta, in Canada. Most countries that have tried to price carbon have instead issued

tradable pollution permits — invariably too many of them, with the result that the price is too low to change behaviour. Ideally such countries would admit their mistake and start taxing. Failing that, they should keep their emissions-trading schemes but add a floor price, and raise it steadily.

The new research agenda needs to tackle the deficiencies of renewables. Though solar, in particular, has become a lot cheaper, new materials, manufacturing and assembly technologies could make it cheaper still. Better ways of storing energy are required — so that wind or solar power can be used, for example, in the cold, still winter evenings when European electricity demand tends to peak. So are better ways of getting it from A to B, either through larger grids or in the form of newly synthesised fuels. Could biotechnology produce photosynthetic bugs that pump out lots of

usable fuels? No one knows. It would be worth a few billion to find out.

Nor should the ambitions for research be limited to renewables. There are other forms of fossil-fuel-free energy, such as nuclear. Innovation in nuclear energy is not easy: such power plants are dangerous and need vigilant, independent regulation; they are unpopular and currently vastly expensive. But a civilisation that looks decades or more ahead cannot exclude new forms of nuclear from the research agenda.

## Living with it

Radical innovation is the key to reducing emissions over the medium and long term, but it will not stop climate change from getting worse in the meantime. This is where the realism comes in: many people will have to adapt to a hotter Earth, and some of them will need help.

Wealthier countries (including China) have promised \$100 billion a year to help poorer ones. The trouble is that it is not clear what counts towards this total or what the money is for. If the Paris climate conference dissolves in rancour, this will probably be the cause. The priority should be research into crops that can survive extreme weather; better sanitation and health care to make the poor more resilient to climate shocks; and cheap energy, whether green or not. The poor need all these things more than they need gifts of green-power technologies that even the West finds too expensive.

The final strand of new thinking ought to be research into cooling the Earth artificially. Climate models suggest that global warming could be slowed by spraying particles into the stratosphere or by using salt crystals to make clouds whiter, and hence

better at reflecting sunlight. No one knows whether such "geoengineering" projects can be designed in a way that does not replace existing climate risks with worse new ones. But that is a reason for research and debate, not for looking the other way. Geoengineering is not a substitute for cutting greenhouse-gas emissions (for one thing, it does not stop carbon dioxide from changing the chemistry of the oceans). But putting it off-limits, as many greens desire, is foolish.

**IN SHORT:** thinking caps should replace hair shirts, and pragmatism should replace green theology. The climate is changing because of extraordinary inventions like the steam turbine and the internal combustion engine. The best way to cope is to keep inventing.

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# Reforming or risking water governance?

PAWAN KUMAR BANSAL

The Centre could endanger water security by trying to dilute the role of two major institutions on the basis of inaccurate reading of their roles. Funds are the real problem and the Centre should bank on previous reports to make water governance institutions more efficient.

**G**OVERNANCE is serious business and undoubtedly a challenging task. Water governance is more so because of the ever-increasing challenges in the water sector and associated complexities and sensitivities. Water governance cannot be clearly defined but it includes political, socio-economic processes and institutions to address wide-ranging issues related to water management.

The processes for reform should factor in the present scenario and future expectations. The government's decision to restructure the Central Water Commission (CWC) and Central Ground Water Board (CGWB) should be seen in this light.

However, a cursory look at the recent Order constituting a committee on restructuring CWC and CGWB for "Optimal development of water resources in the country in the backdrop of integrated water resources management" does not convincingly convey such an impression. On the contrary, one gets the uncomfortable feeling that the government is perhaps planning to dilute the vital professional role of these two important technical organisations which have, over the years, substantially helped in water resources development in the country.

The Order downplays the functions of both CWC and the CGWB, saying that "CWC is generally confining its manpower resources to according techno-economic clearance (TEC), whereas



Do not tamper with institutions without fully appreciating their role. REUTERS

CGWB.... has conducted its activities in an unsystematic manner". This is a strong indictment indeed.

CWC is associated with schemes for control, conservation and utilisation of water resources for various purposes. It also undertakes investigations, construction and execution of schemes, if required. Often, it is engaged for design consultancy and has a noteworthy record in flood forecasting. It has also earned respect for total professionalism while investigating and reporting on conflicting claims of river-basin states on a host of disputes.

To say that "CWC confines its manpower to according TECs" is incorrect and repudiates the good work it does. The TEC is an advisory committee of Ministry of Water Resources (MoWR) that considers detailed project reports for this purpose.

CGWB has the responsibility to develop and propagate technologies and implement policies for the scientific and sustainable development of groundwater resources. It has compiled hydro-geological maps based on data collected from field studies and exploratory drilling depicting various major aquifer groups and their characteristics. The sumise that CGWB has "conducted its activities in an unsystematic manner" is wholly unfounded.

The constraint, if any, is that of funds. Budgetary allocation for has plummeted from Rs. 12,961 crores in 2013-14 to a mere Rs. 2,000 crores in 2015-16 including that for the new Pradhan Mantri Krishi Sinchai Yojna (PMKSY). Also, a paltry Plan allocation of Rs. 30 crore (Rs.100 crore in 2012-13) for R & D will affect research activities required to

address growing challenges in sector and the likely impact of change on water resources.

The announcement of PMKSY hopes of a substantial increase in investment in irrigation. But to come so far, is unsatisfactory. first year of its commencement, Rs. 4 crores was spent.

Members of the committee on restructuring are all eminent persons with expertise in their fields. However, a serious flaw due to non-representation of state governments and the absence of experts from various related disciplines. Also, the opinion expressed by members from time to time creates a feeling the Committee may end up recording the jettisoning of major hydro or multipurpose projects. This accentuated when the present Committee read with an earlier missive that it a blanket ban on CWC approving any structure "till a committee already set up for the purpose of mining e-flow submits its report

Environmental flows (e-flows) : one of the key elements in water resource planning and management for sustainable development. E-flow for a river must not be compromised for driven growth, but should it dis water needs and uses? With demand for water; it is difficult to v a situation where the reservoirs have stored adequate water in monsoon during the longer non-monsoon period

Transfer of water from water rich to deficit basins (Interlinking of

ON THIS DAY 100 YEARS AGO

QUICK CROSSWORD

SUDOKU

**The Times of India**

**Title : World rallies to save the Earth**

**Author :**

**Location :**

**Paris:**

**Article Date : 11/30/2015**

### **'325,000 People Across 175 Nations Part Of Protests'**

Protesters linked hands near the heart of the Paris terror attacks on Sunday but others clashed with police, giving an emotional jolt to world leaders flying into the French capital to try to save Earth from climate catastrophe.

As hundreds of thousands of people joined protests worldwide, the human chain aimed to send a highly symbolic message to leaders on the eve of the official opening of a 195-nation UN climate summit in Paris.

French authorities cancelled two climate demonstrations in the City of Light after gunmen and suicide bombers killed 130 people on November 13 for security reasons. Though the Paris protests were overwhelmingly peaceful, a small band of anti-capitalist militants clashed with riot police in the late afternoon leading to the arrests of about 100 people.

Instead of marching, many activists left thousands of pairs of shoes -weighing more than four tonnes according to organisers -on Place de la Republique square. A pair of running shoes was left by UN Secretary General Ban Ki-Moon, and Pope Francis sent shoes to be placed on his behalf.

In the first organised demonstration in the French capital since the attacks, climate protesters of all ages lined the wind-blown streets to link up in a two-kilometre (1.2-mile) human chain. "He ar our voices! We are here!" they chanted. Protesters left a 100-metre gap in the human chain outside the Bataclan concert hall, the site where gunmen killed 90 people, as a mark of respect to the victims.

Some 150 leaders, including US President Barack Obama, China's Xi Jinping, India's Narendra Modi and Russia's Vladimir Putin, will attend the official start on Monday of the UN conference tasked with reaching the first truly universal climate pact. About 2,800 police and soldiers will secure the site of the November 30-December 11 conference, and 6,300 others will deploy in Paris.

The goal of the climate talks is to limit average global warming to no more than two degrees Celsius (3.6 degrees Fahrenheit), over pre-Industrial Revolution levels by curbing fossil fuel emissions blamed for climate change.

Rallies demanding curbs on carbon pollution have been growing around the world sin ce Friday , with marches involving tens of thousands across Australia on Sunday kickstarting a final day of people-powered protest. In London, where thousands of people rallied, Oscar-winner Emma Thompson called on world leaders to grab the "historic" opportunity to reach a deal.

More than 325,000 people across 175 countries were involved in the rallies, according to a preliminary estimate by Greenpeace, one of the organisers.



**CLIMATE OF PROTEST:** (Clockwise from top) Hundreds of pairs of shoes are displayed at de la Republique in Paris during a climate rally on Sunday. Rallies in Berlin (Germany) and London (UK)

**The Times of India**

**Title : In Paris, India to fight for 'climate justice'**

**Author : Vishwa Mohan**

**Location :**

**Paris:**

**Article Date : 11/30/2015**

**Delhi to play key role as summit opens today**

Barely two weeks after the terror attacks that left 129 people dead and many others injured, the French capital is ready to host 150 presidents, PMs and heads of states for a crucial summit beginning on Monday that will decide how the world deals with climate change in the next decade and a half.

By the end of the summit on December 11, the countries hope to reach a global agreement based on commitments by all to reduce emissions of greenhouse gases that's causing the earth to heat up.

Though most of the world leaders, including Prime Minister Narendra Modi, will leave Paris after giving political momentum to the summit by Tuesday, negotiators from 196 countries will stay put to resolve many sticky points before a deal can be sealed.

The negotiators will have to arrive at a consensus on key issues such predictability of providing climate finance by developed countries, transfer of technology from rich to poor developing nations to fight warming, framework of monitoring and review mechanism of countries' action to curb emissions and the legal status of the agreement during the 12 days of negotiation. India's role is crucial for arriving at a deal which can ensure environment protection without compromising on economic growth, development goals of poor and developing countries. India has long been demanding the deal that ensures 'climate justice' wherein the developed nations take responsibility by cutting carbon emissions in a big way and helping poor and developing countries with finance and technology.

After opening of the summit -called 21st Conference of Parties (COP21) -by UN secretary general Ban Ki-moon, Modi, who reached Paris on Sunday night, along with French President Francois Hollande will jointly launch an International Solar Alliance of over 100 countries on Monday.

The alliance is meant to present a group of sunshine countries as a block to get a better deal in the rising renewable energy market. The move was conceived by Modi in January. Later, he pursued it with many other sunshine-rich countries and convinced them to join the alliance.

India's environment minister Prakash Javadekar and renewable energy minister Piyush Goyal will also attend the summit to explain India's actions towards a clean energy path. The country has already been moving on a path to produce 175 GW of electricity from clean energy sources such solar (100 GW), wind (60 GW), biomass (10 GW) and small hydro (5 GW) by 2022.

Modi will also attend 'Mission Innovation' to be hosted here by US President Barack Obama after the summit's inauguration. Both leaders will also meet on the sideline of the climate summit.

India's climate actions will also be explained at the country's pavilion at the COP21 venue in Le Bourget, a suburb of Paris. The pavilion, showcasing India's harmony with nature, environment and commitment to mitigate climate change, will be inaugurated by the PM Modi on Monday.

Security for the summit is tight but arrangements have been made in a way that these do not inconvenience residents and participants.

For the full report, log on to <http://www.timesofindia.com>





## MULTI-LAYERED SECURITY

### STRICT SECURITY MEASURES AT VENUE

➤ Host France makes **multi-layered security arrangements** at the conference venue & outside

➤ France, like previous summits in other countries, **adopts strict screening methods** through prior accreditation process for participants

➤ Anyone **without prior accreditation will not be allowed to enter** the venue

➤ Upon arrival at the conference venue, **visitors have to register themselves** on the basis of their prior accreditation and a valid passport



**Participants are issued high-security badges for entry**

➤ Accreditation is done after a thorough verification exercise

➤ A person **without the badge** can't enter the premises

➤ All accredited persons accessing the conference premises have to pass through **security screening**, including those with equipment

**The Times of India****Title : The need for an ambitious but equitable agreement****Author : By Sunita Narain****Location :****Article Date : 11/30/2015**

World leaders meet on Monday in Paris, not to discuss terrorism, but to discuss another of our generation's biggest threat, climate change. It is clear that already, when temperatures have risen by less than 1°C, over pre-industrial era, the world is seeing weird and devastating weather events. In India, farmers are hit again and again with unseasonal rain, hail and extreme rain and temperatures, which is crippling their livelihoods, driving them to destitution and even death. Therefore, Paris needs to arrive at an effective and ambitious agreement to reduce emissions and to keep the world below the 2°C rise guardrail -an increase that is seen to be least risky and most attainable today.

But we also know that limiting the rise of temperatures also limits the amount of carbon dioxide that can be emitted in the atmosphere. So, Paris is about an agreement to share the global carbon budget. The fact is that in spite of all the talk and all the rhetoric, the world has still not delinked growth from emissions. This is the really inconvenient truth -not what former US president Al Gore made famous through his film on climate change.

The stakes are high. In Paris, the very terms of the agreement will change. Instead of requiring countries to cut emission based on their contribution to creating the problem, each country can decide how much it will cut. Furthermore, all countries are needed to take action, not just the countries, which are responsible for the bulk of emissions in the atmosphere. In this way, the firewall, which differentiated between the developed world responsible for climate change and the countries, which needed right to development, will be removed. In this way, equity and differentiation will be erased.

But this is not all. The UN has accepted that the intended nationally determined contributions (INDC) -actions submitted by all countries to reduce emissions by 2030 -will take the world to at least 2.7°C rise, if not much more. So, the world must also agree to how it will ratchet up the commitments of all countries to cut emissions further. This is where the real rub lies. How will it share the carbon budget? According to the Intergovernmental Panel on Climate Change, to keep the world below 2°C, with a 66% probability, the budget is some 2,900 billion tonnes of carbon dioxide between 1870 and 2100. Industrialised nations have emitted the bulk of the 1,900 billion tonnes of carbon dioxide in the atmosphere. The world is left with 1,000 billion tonnes. The aim of the INDC is to surreptitiously appropriate the carbon budget. The US, for instance, has already used up some 21% of the used carbon budget. Between now and 2030, as per its lacklustre NDC, it will take up another 8-10%. In this way, the INDC is not just a country's commitment to reduce emissions, it is its intention to occupy global carbon space. Once this space is taken, it is difficult to vacate. The only way now to operationalise equity is to make sure that all countries are required to take actions to reduce emissions based on the fair share of the carbon budget. But rich industrialised world do not want this discussed.

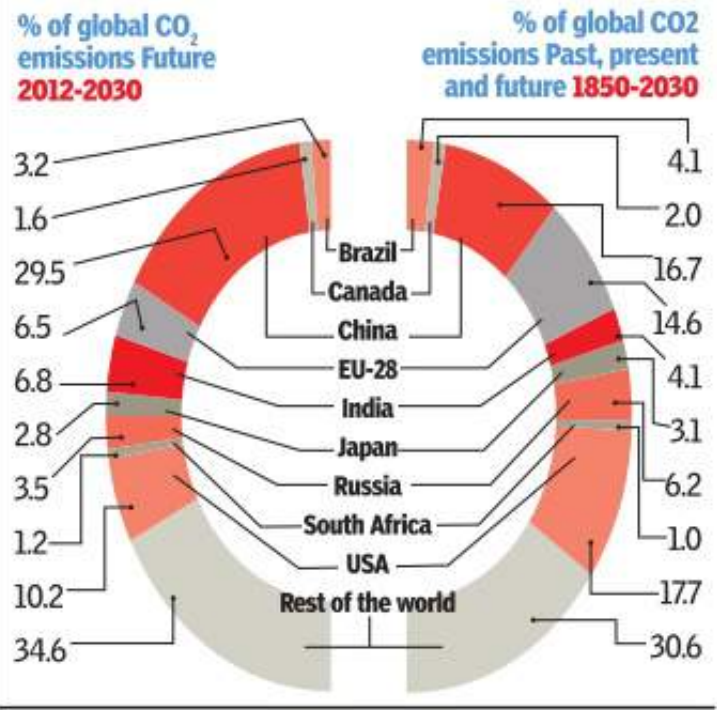
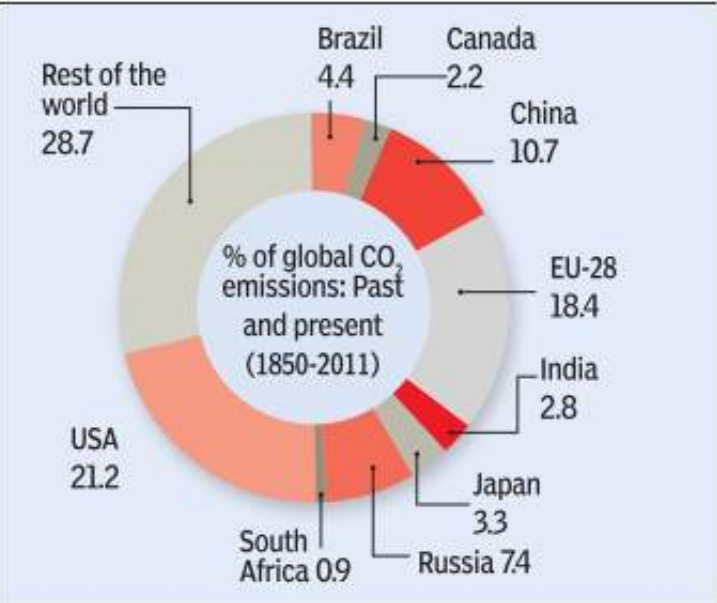
This is why western media has started an orchestrated campaign to paint India, which is asking for a fair share, as the climate villain.

But this is why India must set the narrative straight. We are not climate deniers -we are worst hit by climate change. We are taking action to cut emissions. India's INDC is more ambitious than the US in terms of moving towards nonfossil fuels. The US in 2030, will have only 30% non-fossil in its energy mix, we have committed to 40%. The US even today has more per capita consumption of coal and its switch to natural gas means it is moving away from renewables. The fact is that natural gas is only marginally cleaner than dirty coal. It keeps the US locked into fossil fuels.

So, Paris is not just about an agreement to cut emissions, it is also about how the world will operationalise equity. Otherwise, socialist France will preside over climate apartheid.

(The writer is the director general of Centre for Science and Environment)

**EMISSIONS: GLOBAL SCENARIO**





## **The Times of India**

**Title : India questions veracity of OECD's funding report**

**Author :**

**Location :**

**New Delhi:**

**Article Date : 11/30/2015**

The government on Sunday said there is a need to establish more credible, accurate, and verifiable numbers on the true size of the mobilisation of climate change finance commitments and flows from developed to developing countries.

Ahead of the Paris climate meet, the Centre found serious problems on all counts with the OECD report that claimed significant progress has been made. During the recent Lima World Bank and IMF meets, India had raised the issue on a road map for \$100 billion in climate change financing a year by 2020.

Economic affairs secretary Shaktikanta Das said India raised questions on the OECD report's correctness. The review of the report by experts in India suggests it may have overstated the progress.

“Need genuine provision of climate change finance from developed to developing countries as per commitment and not clever accounting... Clean technology is important. Not unreasonable standards which create markets for developed countries and escalate growth costs for others,” Das tweeted.

The OECD in partnership with Climate Policy Initiative released the recent paper 'Climate Finance in 2013-14 and the \$100 billion goal'.

The 'preliminary estimates' were that the mobilisation of climate change finance from developed to developing countries had reached \$62 billion in 2014 and \$52 billion in 2013, equivalent to an annual average over the two years of \$57 billion.

The review released by the finance ministry examined the OECD report's accuracy, methodology and verifiability of the numbers and found serious problems on all counts. “Numbers were derived on self-reported basis from self-interested players, and open to 'gaming' and exaggeration. Definitions of climate change finance used were not consistent... Methodologies used were inconsistent with the literature and best practice and even 'bent' in ways to find more flows than reality,” the review by Indian experts have shown.

Meaningful, independent verification was impossible since only aggregate numbers were reported with lack of transparency.

For the full report, log on to <http://www.timesofindia.com>



Eco affairs  
secy Das





Activists fly a hot air balloon depicting the globe near the Eiffel Tower ahead of the climate conference, in Paris on Sunday. **Alive steps, P2**



**The Times of India**

**Title : In 'Mann ki Baat', PM hails UP's lady of solar lamps**

**Author :**

**Location :**

**New Delhi:**

**Article Date : 11/30/2015**

On the eve of the Paris climate summit, PM Narendra Modi on Sunday held up the example of Noor Jahan from Kanpur who formed a group of women engaged in making and renting solar lanterns, and he also urged farmers not to burn crop residue and instead use it as organic manure.

“One Noor Jahan is inspiring everyone else. Her name also signifies giving light to the world,” the PM said in his 'Mann ki Baat' radio address. Noor Jehan has set up a factory of solar lamps. These lamps are rented out to about 500 households for Rs 100 each per month while the charging costs about Rs 3-4 daily, the PM said “Her work can be an inspiration for all those who want to fight climate change,” he added.

Urging people to adopt measures for energy conservation and efficiency so that global warming was avoided, Modi said the government was running a number of schemes, like LED bulbs and asked people to take advantage of these. He also said it was everyone's responsibility to combat the challenge of climate change.

He also held up the example of one Javed Ahmed who, disabled after a terror attack, has engaged in social work.

This is the third instance in recent weeks that the PM has held up examples of persons from the Muslim community to highlight how individuals are making a difference to society.

Modi also expressed sympathy for the people of Tamil Nadu who were facing hardships due to floods.

For the full report, log on to <http://www.timesofindia.com>





# How big cities across the world are fighting climate change, together

## METRO MATTERS



SHIVANI SINGH

If you thought climate change was only about melting glaciers and sinking islands, you have underestimated it. A report by C40, a global network of 82 megacities - including Delhi - committed to fighting climate change, says that at least 70% of these urban centres are already affected by climate change. Not all of them are coast or hill towns.

As population is increasing in these megacities, rising pollution, growing congestion and mounting waste are throttling local environments. If not suffering already, these cities are likely to face climate hazards such as storms, surge, floods, drought, heat waves, smog, groundwater depletion and outbreak of vector/water-borne disease.

But the C40 report also offers a silver lining. At least 19 of the participating cities (the report does not name them) have reduced greenhouse emissions following some serious climate risk mitigation measures. By 2015, they are expected to cut a cumulative emission of 28 metric tonnes of CO<sub>2</sub> - equivalent to the annual emissions of nine coal-fired power stations.

The report, released ahead of the United Nations Climate Change Conference in Paris, shows that 60% of reported cumulative savings come from taking five actions - imposing time/day restrictions on personal vehicle usage, promoting bus rapid transit, entering into long-term contracts with renewable energy generators, encouraging energy efficient appliance purchases, better landfill management and push-



■ Delhi has failed to enforce recycling of waste or recognise rag-pickers.

GURINDER OSAN/HT FILE

ing landfill gas to energy.

We don't know how Delhi fared on these counts because it did not provide action data in response to the 2015 Climate Action in Megacities survey. A city where the air is foul, energy is sourced from coal-fired plants, dumpsites are overfilled, and every third resident is living illegally on a river that resembles an open sewer, Delhi wouldn't have had much to flaunt.

There is hope, though. The report says 30% of all climate action taken in C40 cities is a result of city-to-city collaboration. Here are some inspiring urban experiments Delhi could pick from:

**WASTE MANAGEMENT:** The study found recycling, composting, and waste prevention to be the most popular strategy among the C40 cities.

Rio de Janeiro learnt about management of waste cooperatives in Johannesburg and Jakarta. It got cooperative workers to operate sorting centres, reduced street and landfill scavenging and increased its recycling rate. Milan collaborated with Seoul to learn how to implement pay-as-you-throw fee mechanisms for residen-

tial and commercial waste, the report states.

These are good lessons for Delhi that has failed to enforce recycling of waste or recognise thousands of rag-pickers who informally do what is essentially the job of the citizens and the municipal staff.

**TRANSPORT:** The focus of C40 cities is on providing infrastructure for non-motorised transport through cycle hiring and sharing programmes and improving mass and bus transit. Increasing routes, frequency and night services has been the most popular action in this sector, the report states.

**LAND USE:** To adapt to landslides or subsidence caused by heavy rainfall, Bogotá, Caracas and Curitiba have identified high-risk zones and imposed land use restrictions. It is also planting trees and creating green spaces in vulnerable areas.

**ENERGY:** According to the report, Cape Town has completed retrofitting of 26% of its large municipal buildings with power saving fittings and 50% with smart electricity meters. The city also runs a behaviour

change programme to enable building managers to keep tabs on energy consumption resulting in energy savings of 1,068 MWs. Delhi's power consumption on the other hand, is growing at 10% each year.

Singapore is investing in R&D to improve the efficiency and lower the price of solar technologies for adoption on a larger scale. San Francisco Public Utilities Commission supplies all municipal buildings with 100% carbon free electricity.

Changwon in South Korea is subsidising cool roofs (heat-reflective surfaces), a technology it picked up from Tokyo. It reduces the need for air conditioning, saves power and cuts emission, the report states.

Delhi is the seat of the highest level of urbanisation in India and faces a far grimmer future than many other C40 cities do. Successful experiments in climate mitigation will be the city's insurance and also better our quality of life. As Norway's former prime minister and C40 patron Gro Harlem Brundtland puts it: Fighting climate change is less about particulates per ton and more about the well-being of people.

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# Yamuna aarti: Bid to clean river, promote tourism



**SYED ALI AHMED**

TRIBUNE NEWS SERVICE

**NEW DELHI, NOVEMBER 29**

Soon after Diwali this year, the Delhi government launched a unique event, 'Yamuna aarti', on the banks of the river, thus replicating the age-old practice witnessed on the ghats of Varanasi and Haridwar for the Ganga.

Since the practice started on November 13, a debate too began whether the exercise had any religious history, with some priests in the vicinity discounting mention in religious scriptures. But the Delhi Government is clear that it is intended to bring into focus two issues—cleaning the river and promoting tourism along the banks of the Yamuna.

Chief Minister Arvind Kejriwal led the 'aarti' performed by 11 priests from Varanasi at Gita Ghat near Kudesia Ghat in North Delhi. "Yamuna is not cleaned but this has been a very big start. We will revive the river within five years. A plan has been prepared to stop the flow of drains into the Yamuna within two years," an official said.

The government along with the Union Urban Development Ministry plans to form a company on the lines of the Delhi Metro that will be tasked to keep the river clean and develop its banks to promote tourism.

The 'aarti' is performed each day at sunset by a group of priests. The opening day function incurred an



Delhi CM Arvind Kejriwal and Deputy CM Manish Sisodia attend the first-ever Yamuna aarti at Kudesia ghat in Delhi. FILE PHOTO

## No religious history?

- Chief Minister Arvind Kejriwal kicked off the 'aarti' on the Yamuna banks on November 13
- The 'Yamuna aarti' began despite several historians claiming that the event had no religious significance
- The Delhi government aims to revive the river within five years by stopping the flow of drains into the Yamuna

expenditure of around ₹8 lakh, said Delhi CM's media adviser Nagendra Sharma.

Yet there are others who hold a different view. "Yamuna aarti has no mention in history. It is even not mentioned in the Hindu scriptures. There is only 'Ganga aarti' that has been performed since thousands of years in Varanasi and Haridwar with a faith that Devas come there to celebrate Diwali", said S Lakshminarayanan, president and honorary secretary of Jagadguru Shankra Charya Mahasamsthanam Dakshinamnaya Sri Sharda Peetham Sringeri in Delhi.

Prem Chand Sharma, one of the leading 'pandas' whose

family has been living at Yamuna Ghat for generations, is also of the view that though the Yamuna Ghat in Delhi has its religious significance, 'aarti' of the kind has never been performed while it is routine for devotees to undertake it. The 'aarti' project initiated by the Kejriwal government, he felt, did not have a religious touch.

He felt that work done by the previous Congress government by constructing drains at Yamuna ghat to prevent sewage flowing into the river has not been de-silted, resulting in dirt directly flowing now. Sharma said despite spending ₹1,300 crore on the construction of sewage treatment plants, desired results could not be achieved.



# PM HEADS TO PARIS, SOLAR ALLIANCE ON AGENDA

## HEADS OF 147 COUNTRIES CONVERGE ON FRANCE CAPITAL FOR CLIMATE SUMMIT

SNS & AGENCIES

New Delhi, 29 November

Prime Minister Narendra Modi today left for Paris to attend the world conference on climate change, where he will join leaders of nearly 150 countries in trying to craft a long-term deal to limit carbon emissions.

India, which is seeking a grand alliance among 122 nations to pursue solar energy, hopes to make a significant impact at the 12-day climate change conference in Paris, with Mr Modi due to unveil the country's position on Monday, the opening day.

Mr Modi is among the 147 heads of state and government who have, thus far, consented to attend the event - officially called the 21st Session of the Conference of Parties under the United Nations Framework Convention on Climate Change.

Around 50,000 participants, including 25,000 delegates and stakeholders from 196 nations, are to converge in the French capital to forge a legally-binding deal to protect the environment from global warming, without sidestepping the aspirations of poor and developing nations.

"Developed countries have to walk the talk," India's Environment Minister Prakash Javadekar told news agency IANS

### HIGHLIGHTS OF INDIA'S POSITION



Performers wearing effigies of German Chancellor Angela Merkel, China's President Xi Jinping, US President Barack Obama, Prime Minister Narendra Modi and French President Francois Hollande breakfast in Paris, on the eve of the conference on climate change. *AFP*

- Formation of solar alliance
- Strive for equitable and just climate agreement
- Push for funding and technology transfer from developed countries
- Propose a healthy and sustainable way of living based on tradi-

tion, conservation and moderation

- Propose to cut CO2 emissions by 2-3 billion tonnes by 2030 through forest, tree cover
- Mobilise funds from rich nations for bridge resources required towards mitigation
- Push for global framework for quick diffusion of technology and collaborations.

ahead of the crucial meet, hoping for some flexibility from rich nations led by US President Barack Obama, German Chancellor Angela Merkel and French President Francois Hollande.

He also listed the main criteria: A pact on keeping the rise in global temperatures at below 2 degrees Celsius, monitoring mechanism on commitments by countries, steps to raise \$100 billion annually for a climate fund, and technology transfer from developed to developing nations.

On the opening day, Prime Minister Modi and President Hollande will

propose a collaborative pact among 122 countries, many of them located between the tropics of Cancer and Capricorn, for an alliance to be named the International Agency for Solar Policy and Application.

"We must all do our part. For India a target of 175 GW of additional capacity in renewable energy by 2022 and reduction in emission intensity of 33-35 per cent by 2030 are just two of the steps of a comprehensive strategy," Mr Modi had said at a business event in London earlier this month.

"We all look forward to a concrete outcome in

Paris, within the framework of the UN Convention on Climate Change. The framework has an appropriate balance of collective action: Equity and common-but-differentiated responsibility and respective capabilities," Mr Modi had added.

Mr Javadekar said there was also no problem in raising the \$2.5 trillion that is needed to fund the solar alliance proposed by India over the next decade. "We have worked out the mathematics and it's not just a wishlist but concretely backed by money power."

At the larger level, the poor and emerging economies want clean

and green technology and funding from rich nations to pursue their national interests without harming the environment further, as they hold the industrialised responsible for polluting the earth in the past.

"What we are asking for is absolutely fair and the developed world must recognise that they have to atone for the historical carbon emissions that they have been putting out in the atmosphere for over 150 years in their search for prosperity," Mr Javadekar said.

India also submitted on October 2, coinciding with Mahatma Gandhi's birth anniversary, its action plan on climate change, called Intended Nationally Determined Contributions, pledging to slash by 33-35 per cent over 15 years, while also pursuing its own sustainable development agenda.

These submissions, asked from the 196 members, will serve as the basis for negotiations.

"One can reasonably expect a deal in Paris for a process of continuously improving the mitigation ambitions of countries. But that will also not be easy. One may also hope for an agreement related on financing," said Manish Kumar Shrivastava, fellow with The Energy and Resources Institute.

# PM'S CALL ON CLIMATE CHANGE

SAYS IT'S RESPONSIBILITY OF ALL TO ENSURE EARTH'S TEMPERATURE DOES NOT RISE

PRESS TRUST OF INDIA  
New Delhi, 29 November

Preparing to attend the world meet on climate change in Paris tomorrow, Prime Minister Narendra Modi today said it is the responsibility of all to ensure that the Earth's temperature does not rise as global warming is already creating disasters like recent heavy rainfall in Chennai.

He asked the people to adopt energy conservation and energy efficiency measures like the maximum use of solar-powered items.

In his monthly radio programme 'Mann Ki Baat', Modi recalled his proposal for setting up a SAARC disaster response mechanism and said the recently-held 'table talk exercise and best practices seminar' in Delhi was a good beginning in this regard.



A man holds a placard as he takes part in a Global Climate Walk in New Delhi on Sunday. AP

"We keep receiving news about the natural disasters from every corner of the world. Such are the tragedies which have never been heard earlier or imagined. We are now experiencing the impact of fast-changing climate. In our own country, massive rains recently hit Tamil Nadu and caused losses to it as well as other states. Several people lost their lives. I offer my condolences to

them," he said.

"The whole world is worried about climate change. There are discussions everywhere over it and concerns are being expressed. There is acceptance for it (climate change) as an index before any work is done. The temperature of the Earth should not increase now. It is the responsibility and concern of all," he said in his 20-minute programme.

His emphasis on the responsibility of all assumes significance as the developed world is placing greater onus on developing nations like India in the fight against climate change.

India has been maintaining that the developed countries have been the major polluters over centuries and should assume greater role in fighting global warming by funding and transferring low-cost technology to developing nations.

The Prime Minister asked people to adopt measures for energy conservation and energy efficiency so that global warming is avoided.

The government is running a number of schemes, like LED bulbs, Modi said, asking people to take advantage of these.

Giving examples of how some common people are contributing in their own

way, he cited the case of one Noor Jehan of Kanpur who is apparently not much educated but has set up a factory of solar *latteins* (lamps).

These *latteins* are rented out to about 500 households for Rs 100 each per month while the charging costs about Rs 3-4 daily, he said.

Hailing Noor Jehan, Modi said she is working as per the meaning of her name - 'giving light to the world'. "Her work can be an inspiration for all those who want to fight climate change," he added.

In the context of climate change, a caller from Jalandhar highlighted the problem of burning of crop residue.

Responding to this, Modi said the problem was not confined to Punjab and Haryana but it was there all over the country as farmers find it to be the easiest way to dispose of the crop residue.



# Paris must pave way for better governance

bharat dogra

ONE of the most important but neglected aspects of the crisis of climate change is that it raises very uncomfortable but at the same very important questions about the existing models of development and governance.

The existing discourse on climate change makes it clear that it is likely to be quite difficult to honestly implement even the limited agenda of reduction of greenhouse gas (GHG) emissions. However reduction of GHG emissions is by no means the only critical global challenge facing our threatened world today; in fact there are several such serious challenges which have to be tackled simultaneously.

The Global Environment Outlook Report 5 has presented "undeniable evidence that the world is speeding down an unsustainable path." This report shows that already air pollution is among the main causes of premature deaths and health problems, especially among children. Water quality remains the largest cause of human health problems. The number of coastal dead zones has increased dramatically in recent years. This report has voiced a clear warning that urgent changes are needed "to avoid exceeding critical thresholds beyond which abrupt and generally irreversible changes to the life support functions of the planet could occur."

This issue of critical significance has been taken up in greater detail in the work of scientists at the Stockholm Resilience Centre (SRC). Johan Rockstrom, director of SRC says, "The human pressure on the Earth System has reached a scale where abrupt global environmental change can no longer be excluded. To continue to live and operate safely, humanity has to stay away from critical 'hard-wired' thresholds in the Earth's environment, and respect the nature of the planet's climatic, geophysical, atmospheric and ecological processes."

Summarising the results of this work, the SRC says, "The group of scientists including Hans Joachim Schellnhuber, Will Steffen, Katherine Richardson, Jonathan Foley and Nobel Laureate Paul Crutzen, have attempted to quantify the safe biophysical boundaries outside



that should be respected in order to reduce the risk of crossing these thresholds...The nine boundaries identified were: climate change, stratospheric ozone, land use change, freshwater use, biological diversity, ocean acidification, nitrogen and phosphorus inputs to the biosphere and oceans, aerosol loading and chemical pollution...The study suggests that three of these boundaries (climate change, biological diversity and nitrogen input to the biosphere) may already have been transgressed. In addition, it emphasizes that the boundaries are strongly connected — crossing one boundary may seriously threaten the ability to stay within safe levels of the others."

In this context a key research paper titled "Planetary Boundaries: Exploring the Safe Operations Space for Humanity" authored by Johan Rockstrom and 26 other scientists has been published in the journal *Ecology and Society*. This paper says, "The exponential growth of human activities is raising concern that further pressure on the Earth System could destabilize critical biophysical systems and trigger abrupt or irreversible environmental changes that would be deleterious or even catastrophic for human well-being. This is a profound dilemma because the predominant paradigm of social and economic development remains largely oblivious to the risk of human-induced environmental disasters at continental to planetary scales..."

operating space for humanity. Humanity thus needs to become an active steward of all planetary boundaries - the nine identified in this paper and others that may be identified in the future - in order to avoid risk of disastrous long-term social and environmental disruption. Current governance and management paradigms are often oblivious to or lack a mandate to act upon these planetary risks despite the evidence of an acceleration of anthropogenic pressures on the biophysical processes of the Earth System."

Clearly some of the topmost experts are in agreement that the existing development and governance frameworks are not capable of effectively tackling the most seriously global environmental problems which now pose a serious survival risk for life on earth. As the Paris climate change is the biggest gathering of world leaders and experts on such issues, this can form the base for initiating such efforts towards new paradigms of development and governance which are capable of effectively tackling the emerging survival crisis.

Some essential features of the new paradigm may be outlined here. Firstly basic indicators of development should be firmly detached from GNP and instead linked to fulfillment of basic needs of people, reduction of inequalities, protection of environment and social harmony. The focus should be on how these aspects of real progress can be achieved in harmony with each other.

equality and meeting the basic needs of all people of all nations and continents while protecting life-giving conditions on Mother Earth.

The patterns of material progress should also change very significantly keeping in view the above mentioned objectives. For example while it is clear that the production of goods which meet the basic needs of people should continue to increase significantly, curbs have to be placed on destructive goods like weapons and also on highly wasteful forms of consumption, particularly those involving non-biodegradable and hazardous wastes. Increasing production of goods which harm environment and health should be used as negative points on any index of progress, although these are at present shown as adding to GNP.

Sharp reduction of weapons, violence, civil strife and war provides the obvious pathway for a safer future. Yet the world leadership has been remarkably unsuccessful in ensuring this so far. Nuclear weapons stockpiles are still enough to destroy the world several times over, and the use of tactical nuclear weapons in the battlefield is becoming a very real threat. The spread of no-holds-barred terrorists has added a new dimension to the possibility of increasingly destructive weapons and weapon technologies.

This, as well as the failure on critical environmental issues makes it clear that apart from a new development para-

which, they believe, the Earth System cannot function in a stable state, the state in which human civilizations have thrived...The scientists first identified the Earth System processes and potential biophysical thresholds, which, if crossed, could generate unacceptable environmental change for humanity. They then proposed the boundaries

On a concluding note this paper says about the inadequacy of existing efforts to cope with new and extremely serious problems, "Transgressing one boundary may, furthermore, seriously threaten the ability to stay within safe levels for other boundaries. This means that no boundary can be transgressed for long periods without jeopardizing the safe

Reduction of inequalities means not only reduction of inequalities within the various nations but in addition this emphasises reduction of international inequalities. The entire framework of various international trade, debt and development framework agreements needs to be changed to ensure that the world moves rapidly towards greater

digim, there is also need for new governance framework at least to tackle the most pressing, survival-threatening global issues.

**The writer is a free-lance journalist who has been involved with several social initiatives and movements.**





# EVERYTHING (IMPORTANT) YOU NEED TO KNOW ABOUT THE CLIMATE TALKS

Ahead of the UN climate conference opening in Paris on Monday, here's a brief primer



## WILL IT SET THE COURSE FOR A COOLER PLANET?

- > A binding agreement that countries will implement emission cut pledges declared earlier is expected. **177 countries/ blocs including India, China, US, EU have declared these plans.** They account for 93% of current global carbon emissions
- > The agreement will **go into effect in 2020.** Most countries have pledged cuts going through till 2030
- > The formal target is of limiting global warming to **2 degrees C above pre-industrial levels.** But scientists say that this is no longer attainable with the pledges submitted so far. Temperatures will rise by anything between **2.7 to 3.6 degrees C by 2100**



## TOP CARBON EMITTERS

**China is the world's top emitter,** with 10,260MtCO<sub>2</sub>e. followed by US and India. Australia is the largest emitter per capita

Source: World Resources Institute (2011 data)



## IN NUMBERS

- 21** The official name is **21st Conference of Parties (COP 21)**
- 12** Number of days the talks will be on (Nov 30 - Dec 11)
- 196** A total of 195 countries plus European Union will gather at Le Bourget, a suburb of Paris
- 120,000** police and soldiers: There is an unprecedented security lockdown in the wake of the 13 Nov terrorist attacks
- 147** Heads of State have confirmed participation
- 40,000** No of officials expected to attend

## STICKING POINTS

- > Rich countries had promised to pay at least **\$100 billion every year to poorer countries by 2020** for adapting to climate change and reducing emissions. At present they are paying about half of that. In the Paris talks, this will be a big sticking point with developing countries demanding more, and beyond 2020, while the richer world will probably resist this
- > These funds are needed to **adopt green technologies, renewable energy and shift to low-carbon paths** of development
- > Since the rich, developed countries have contributed most to carbon emissions historically, many poorer developing countries are demanding that they should **pay 'loss and damage' funds** for taking care of the damage caused by ongoing and future climate change



## FUTURE STEPS

To have a **'ratchet mechanism'** so that in future, beyond 2030, the good work continues with increasing cuts and a regular monitoring mechanism

Text | Subodh Varma      Graphic | Kumarapuram

## RIVER CLEANSING

# Yamuna will become good enough for a dip in 3 yrs: Minister

HT Correspondent

htreporters@hindustantimes.com

**NEW DELHI:** Water minister Kapil Mishra on Saturday assured that the Yamuna's water will be improved within three years to make it good enough to bathe in.

"Rivers are a reflection of our cities... In three years, the river will be clean enough to take a dip in," Mishra said, while addressing the gathering at the India Rivers Day function here.

He also stressed that Delhi does not require any more water from external sources such as the Renuka Dam or Sharda Yamuna River link.

"Likeminded people have started to run the show now and I truly believe that together all this positive energy is sure going to bring about a positive change and will help us save the river," said Mishra.

The India Rivers Day brought together several individuals and organisations who have been working on the issues of river conservation in the country.

"Following the success of last year's first ever India Rivers Week held in November, the consortium of NGOs including WWF-India, INTACH, SANDRP, Toxic Link and Peace Institute have also organised an exhibition on the occasion to showcase the past, present and (desirable) future of the Yamuna, which will remain open to public at INTACH till November 30," one of the organisers said.

Water activist Manoj

**▶** Likeminded people have started to run the show now and I truly believe that together all this positive energy is sure going to bring about a positive change and will help us save the river.

KAPIL MISHRA,  
Delhi minister for water

Mishra also participated in the function.

"The event was made memorable and defining through plain speaking both by minister Kapil Mishra and Anupam Mishra in his keynote address. The event also highlighted the relevance of Bhagirath Prayas Samman," he said.

The event also saw activists and conservationists being awarded with the Bhagirath Prayas Samman for their work towards protecting and rejuvenating rivers.

Save Mon Region Federation for their work to safeguard the integrity of the river Tawang and Nyamjangchhu (Arunachal Pradesh), Sachidanand Bharati, of Doodhatolli Lok Vikash Sansthan (Uttarakhand) for efforts on rejuvenating river Gad Ganga, Sambhaav Trust for their work on revival of river Nanduwalli in Alwar and Emmanuel Theophilus for his work on protecting the integrity of river Mahakali in Uttarakhand were feted with the award.



# Manali, Rohtang get season's first snow

Solang Nullah, Kothi, Gulaba, Marhi don white mantle

**TRIBUNE NEWS SERVICE**

**MANDI, NOVEMBER 27**

Manali and its surrounding areas received the season's first snowfall last night.

The mild snowfall experienced by the town was later washed away by the rainfall. But surrounding areas of Manali, including Solang Nullah, Kothi, Gulaba, Marhi and the international tourist destination Rohtang Pass, were covered with a thick blanket of snow. Solang Nullah received more than 5 inches of snow, whereas Kothi and Gulaba witnessed nearly 8 inches snow. However, the majestic Rohtang Pass received nearly one-and-a-half feet of snow.

Manali SDM Jyoti Rana said tourists were not allowed to go beyond the Gulaba barrier on the Rohtang road, but they enjoyed snow at the Solang Nullah.

Manali Hoteliers Association vice-president Budhi Prakash said it was a good sign for the coming Christmas and New Year revellers. A good spell of snow would attract tourists to the town, he added.

Higher mountains in Mandi district, including Kamarunag and Shikari Devi, also witnessed the snow. Kamarunag received around 2 inches of snow whereas Shikari Devi experienced nearly 4 inches of snow.

The Border Roads Organisation (BRO) started snow-clearance operation on the Manali-Rohtang-Koksar road in the morning.



A school under thick layer of snow at Koksar in Lahaul & Spiti on Friday. PHOTO: JAI KUMAR

## State in grip of severe cold

**TRIBUNE NEWS SERVICE**

**SHIMLA, NOVEMBER 27**

Most parts of the state are in the grip of a severe cold with the tribal districts of Kinnaur and Lahaul Spiti and the higher reaches experiencing snowfall.

While the higher reaches experienced snowfall, the lower parts of the state were lashed by scattered rains accompanied by high velocity winds. This led to a sharp decline in the minimum temperature with the mercury dipping considerably in the tribal areas. Rohtang Pass experienced almost 30 cms of snow while Keylong and Kalpa received two cms of snow. The majestic Dhauladhar ranges in Kangra, Churdhar ranges in Sirmaur and Chansel, Saach and Kunzam Pass also received fresh snowfall.

People shivered with the freezing cold. The rain and snow have brought cheers to those associated with the tourism industry and the farmers. The spell of rain is

likely to be beneficial for the Rabi crop, whose sowing has just been completed.

The minimum temperatures hovered around the freezing point in tribal areas and other higher hills as the piercing cold wave conditions intensified with minimum temperature ranging between minus five and minus eight degree C.

Keylong recorded a low of minus 0.7 deg C, followed by Kalpa 0 deg C, Manali 0.2 deg C, Dalhousie 1.5 deg C, Una 4.0 deg C, Shimla 4.3 deg C, Palampur 7.0 deg C, Bhuntar 7.5 deg C, Solan 8.2 deg C, Dharamsala 8.8 deg C, Sundernagar 10.1 deg C and Nahan 12.4 deg C.

Banjar in Kullu district had 14 mm of rains, while Seobagh and Bhoranj recorded 13 mm followed by Rampur, Hamirpur and Mandi 12 mm each, Bhuntar 10 mm, Saloni, Sundernagar and Gohar 9 mm each and Jubbarhatti, Kumarsain and Dalhousie 8 mm each. Shimla received 5 mm rains while Solan had 4 mm rains.

# Pollution levels in city, Yamuna take centre stage in Delhi Assembly

**KAUNAIN SHERIFF M**

NEW DELHI, NOVEMBER 27

WITH THE capital's air quality deteriorating due to smog conditions, the debate over rising pollution levels took centre stage in the Delhi Assembly Friday.

AAP legislators Rajesh Gupta, Anil Kumar Bajpai, Nitin Tyagi and Kailash Gahlot, posed questions to environment minister Imran Hussain on steps taken by the Delhi government to control pollution levels.

In his reply, Hussain said air quality is being monitored and its online monitoring would be given a further push.

He added that the government is in the process of determining the "levels" of different pollutants and the reasons. For this, the environment department has asked IIT Kanpur to submit a detailed report.

The government also said as per air quality monitoring, Anand Vihar is the worst af-

fected.

Gupta then asked the minister if the government is considering a subsidy to those industries which manufacture products that can be recycled. Hussain said there is no such proposal as of now.

The legislators also raised the issue of rising pollution levels in the Yamuna. The government said the Delhi Jal Board has proposed to construct a 59-km long interceptor sewer which would be set up in areas that do not have sewer lines. These include Shahdara, Najafgarh and Seelampur.

The interceptor sewer would then carry polluted water to the nearest sewage treatment plant and discharge it back into the main drains before they meet the Yamuna, the minister replied.

The government also said it would spend Rs 378 crore to clean up the river, of which Rs 350 crore would be set aside exclusively for setting up the sewer.

**ST STEPHEN'S FACILITY TO GOVERNING BODY**



**TODAY'S PAPER**

NEW DELHI, November 30, 2015

**Don't let Earth heat up more: PM**

- [Vikas Pathak](#)

Prime Minister Narendra Modi left for Paris on Sunday to take part in climate change talks, where, among other things, India and France will jointly host a meeting of an international solar alliance to accelerate the development of solar power.

Mr. Modi set the stage for the Paris talks with his *Mann Ki Baat* address in the morning, in which he called for energy conservation to combat climate change and shared the story of a Kanpur woman, Noor Jahan, who has been lighting 500 homes with solar lanterns.

He said she, along with other women, set up a plant to make solar lanterns and rented these lanterns to people at Rs.100 a month. He added that 500 households used the lanterns at night and got them charged again in the day. "Big people must be doing a lot on climate change in the world but Noor Jahan has something that is an inspiration," he said.

"The whole world is worried about climate change," Mr. Modi said. "The earth should not be allowed to heat up further. This is everyone's responsibility, as also worry. And the first way to avoid global warming is energy conservation."

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## Fresh snowfall in Himachal



View of the snow-capped Dhauladhar range from Dharamshala on Friday after fresh snowfall in many parts of Himachal Pradesh.— PHOTO: PTI

Fresh spell of snow in the higher reaches of Himachal Pradesh and scattered rains accompanied by icy winds in some other areas brought the temperature down across the hill state on Friday.

While the higher reaches received moderate snowfall, mid and lower hills experienced scattered rains accompanied by strong velocity icy winds.

Rohtang Pass, at the height of 13,050 feet, received 30 cms of snow till noon and was closed for vehicular traffic, cutting off the road link between Lahaul, Udaipur and Pangi tribal valleys and the rest of the state.

The key tourist resort of Manali and its upper areas also received moderate snowfall. Manali also received 16 mm of rains, pulling down the minimum temperature to 0.2 degrees.

Solang Nallah, Mari, Koksar and other tribal areas received 15 cm to 30 cm of snow, aggravating cold wave conditions in the adjoining valley areas. The sprawling Dhauladhar ranges in Kangra, Churdhar ranges in Sirmaur and Chansel, Saach and Kunzam pass also received fresh snowfall.

Strong winds blew across the state capital Shimla while the sky remained heavily overcast with dark clouds, reducing visibility to few meters even during the day.

The rains and snow have, however, brought cheers to hoteliers in Manali and adjoining areas as snowfall has coincided with the winter tourist season. The rains too may prove beneficial for farmers for sowing of Rabi crop.

- PTI

### FROM AROUND THE WEB

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# The debate is heating up

The Paris climate summit begins today.  
A perfect agreement may not be possible

**I**n a month's time, the curtain will come down on 2015. It would, perhaps, not be wrong to say that the year has been dominated by the war in Syria and the rise and rise of the Islamic State (IS). Yet in this challenging period, the world leaders have managed to set aside their differences and put their heads together to sign the critical Sustainable Development Goals (SDGs) at New York in September. Hopefully, that momentum and heady camaraderie will continue in Paris, where the climate change meet begins today. The meeting is critical because for the first time in over 20 years, a climate meet will aim to achieve a legally binding and universal agreement on climate to keep global warming below 2 °C. The conference's own carbon footprint will not be too moderate though: It is expected to attract close to 50,000 participants. A deal in Paris would be crucial since the current commitments on greenhouse gas emissions run out in 2020 and scientists have warned that if emissions continue to rise, we will pass the threshold beyond which global warming becomes irreversible.

**ourtake**

The latest report from the World Meteorological Organization says that 2015 will be the hottest on record and 2016 could be even hotter due to the El Niño weather pattern, warning that inaction on climate change could see global average temperatures rise by 6 °C or more. Global average surface temperatures in 2015 are likely to reach what the WMO called the 'symbolic and significant milestone' of 1 °C above the pre-industrial 1880-1899 era, and around 0.73 °C above the 1961-1990 average. While discussions on climate change have been on for the last 20 years, it would not be wrong to say that it has not taken the public imagination by storm. One of the key reasons for the public's business-as-usual attitude is because the discourse has failed to establish in layman's language the correlation that exists between climate change, and say, political instability. For example, many believe that the Syrian conflict has its roots in climate-change-fuelled drought that had engulfed the country just before the civil war began.

Even though everyone agrees that the world needs a road-map to tackle climate change, several sticking points remain. The developing world, including India, will stick to the principle of equity and common but differentiated responsibilities, and its right to develop. It will also insist on transfer of clean technology and climate finance. Already certain pre-meet tensions are visible: Last week, environment minister Prakash Javadekar hit out at US secretary of state John Kerry's statement that India was being over cautious towards the new global climate regime that was expected in Paris. The US has been trying hard to break the 'firewall' between the obligations of developed and developing countries as it presently exists in the UN Framework Convention on Climate Change, under which the Paris agreement is to be signed. Expect more such fireworks.

Published: November 29, 2015 20:12 IST | Updated: November 30, 2015 05:09 IST WASHINGTON, November 29, 2015

## India a partner in climate change fight: US



• [Varghese K. George](#)



AP

During an online conference with reporters last week, U.S. Special Envoy on Climate Change Todd Stern also ignored the request for an explanation on U.S. Secretary of State John Kerry's statement but repeatedly mentioned China as a good example that developing countries must emulate

*Comes after Kerry's statement that India could be a 'challenge' in negotiations did not go well in New Delhi.*

The United States appears careful not to be confrontational with India ahead of the Paris climate conference, after New Delhi reacted sharply to Secretary of State John Kerry's statement earlier this month that India would be a "challenge" in negotiations.

A State Department spokesperson, despite repeated attempts by *The Hindu*, refused to elaborate what the Secretary of State meant by 'challenge,' and instead chose to underscore that the U.S and India were partnering in combating climate change.

### China cited as good example

During an online conference with reporters last week, U.S. Special Envoy on Climate Change Todd Stern also ignored the request for an explanation on Mr. Kerry's statement but repeatedly mentioned China as a good example that developing countries must emulate.

Mr. Stern said developing countries must take up more responsibility, including in financing mitigation efforts, and this may not be music to India's ears. President Barack Obama is scheduled to meet Chinese President Xi Jinping and Prime Minister Narendra Modi in Paris on Tuesday.

### Strategic partner

In an e-mailed statement to *The Hindu*, a State Department spokesperson said: "We are partnering with India on responsible energy development. India is a strategic partner that has one of the largest economies in the world, and it recognizes the critical importance of increasing energy security, reducing emissions, and improving resilience in the face of climate change."

"We maintain a robust program of cooperation in this area, including the highly successful U.S.-India Partnership to Advance Clean Energy (PACE). We are expanding our policy dialogues and technical work on clean energy and low emissions technologies. This cooperation strengthens our bilateral relationship, enhances economic growth in both countries, and promotes the development of new and innovative technologies and products to address our shared challenges," he said.

### 'Paris, a departure from Kyoto'

In a potential dilution of the principle of differentiated responsibilities, Mr. Stern explained how Paris would mark a departure from the Kyoto agreement. "Well, what I mean by saying that this is not Kyoto is...What was a distinguishing feature of Kyoto is that all of the new obligations were only directed at developed countries, so it was really a developed country agreement with developing countries on the sidelines. That doesn't work anymore."



The U.S would push for what Mr. Stern described a 'hybrid' approach to an agreement, of which, processes and rules would be binding but targets themselves would not be. The U.S position is that binding targets would stop countries from committing to ambitious targets.

**Expanding donor base for poor countries**

The U.S would also pitch for expanding the donor base, "the number of parties who are prepared to contribute financing to poor countries," and would seek more private investments. The onus of attracting such private investment would be on developing countries that should "create the enabling environment," according to Mr. Stern.

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» TODAY'S PAPER » NATIONAL

Published: November 30, 2015 00:00 IST | Updated: November 30, 2015 05:53 IST IDUKKI, November 30, 2015

## Mullaperiyar panel inspects reservoir

• [Giji K. Raman](#)



The district administration has alerted the people living in the downstream of the Mullaperiyar dam following a rise in water level in the reservoir.— File Photo: H. Vibhu.

The Mullaperiyar subcommittee on Sunday visited the Mullaperiyar dam in the wake of increasing water level.

There were also reports of a leak in the baby dam.

The committee took note of the water level. The supervisory committee is scheduled to visit the dam on Monday. The water level in the dam rose to 138.8 ft. The maximum allowed water level is 142 ft.

The district administration has alerted the people living in the downstream of the dam as per the Theni Collector's alert.

Tamil Nadu is drawing water from the dam at a low level. The district administration has identified 129 people living in the downstream to be shifted to shelter homes if the dam shutters were to open after reaching the water level over 142 ft. Though, there was increased inflow into the dam following heavy rainfall in the catchment area on Saturday, there is no possibility of a sudden rise in the water level.

The subcommittee consisted of Chairman Harish Girish Umberji, Kerala's representative George Daniel and N.S. Preseeda and Tamil Nadu representatives Seventher and Madhavan.

***The water level in the dam rose to 138.8 ft. Maximum allowed water level is 142 ft.***

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## No dearth of funds for 'Clean Ganga' mission: Gadkari

- PTI



Union Transport Minister Nitin Gadkari and Water Resources Minister Uma Bharti during a symposium on "Ganga Conservation" in Meerut on Sunday. PHOTO: PTI

Union Minister Nitin Gadkari on Sunday said the Central government is giving priority to making the Ganga pollution-free and there is no dearth of funds for the 'Clean Ganga' mission.

Projects worth crores of rupees have been launched to make the river pollution-free. A number of ghats and gardens would be built on its banks boosting tourism and provide a source of income for at least 10 lakh youths, Union Road Transport and Highways Minister Nitin Gadkari said.

He was speaking at a symposium on conservation of the Ganga organised at Chaudhary Charan Singh University here, which was also attended by a number of leaders including Union Water Resources Minister Uma Bharti.

The government alone can't keep the Ganga clean. It can make the river pollution free by spending Rs 20,000 crore but the society has to come forward to keep it that way, Ms. Bharti said, adding the Supreme Court, political parties, media all are united in cleaning the river.

"I have dedicated myself for the Ganga. My life would find its true success once I succeed in making the river pollution-free and I will succeed in my endeavour," she said. PTI

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[OPINION](#) » [EDITORIAL](#)

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## Grasp the climate moment

The [Paris Climate Change Conference](#) could become a landmark summit in the history of world development, if leaders of the rich nations show the vision to come up with a just and equitable agreement that supports carbon-free growth. The heads of government meeting at the United Nations Framework Convention on Climate Change conference opening on November 30 are under pressure to evolve a concrete plan that goes beyond incremental measures and acknowledges the seriousness of scientific evidence on dangerous climate change. Any agreement must incorporate liberal financial and technological assistance from developed nations, which have a historical responsibility for global warming. [Developing countries such as India face the difficult path](#) of bringing millions of people out of poverty without significantly increasing their carbon emissions. India also has to adapt to the severe consequences of changing climate, such as catastrophic droughts and storms, damage to agriculture, loss of biodiversity and harm to human health. In Paris, the negotiations revolve around a target of further maximum rise in global temperatures of only 2 degrees Celsius over pre-industrial levels. This goal imposes a ceiling on the amount of carbon dioxide that can be added to the atmosphere by all countries put together, which is about 1,000 billion tonnes. Without radical decarbonisation measures, this carbon budget would be exhausted in less than two decades according to some estimates.

In recent years, the richer half of the world has been demanding that developing nations with high rates of economic growth, including India, accept legally binding emissions cuts. This approach does not meet the test of fairness and equity, since those who are not responsible for the problem are being asked to share the burden equally. The principle of differentiated responsibilities was fundamental to the Kyoto Protocol, and there is no cause to review that for a new agreement. Instead, the focus must be on the absence of working arrangements to substantially fund mitigation of emissions and to help vulnerable countries adapt to the effects of climate change. A \$100 billion annual fund to be available from 2020 has made no great leap, having received only pledges of aid. A smaller Green Climate Fund has set apart a mere \$168 million for eight projects, some of which have run into hurdles. The negotiators at Paris thus have the challenge of crafting an agreement that incorporates all the key elements needed to attain the climate target. Fortunately, most countries including those in the global south have signalled their intention to take national actions to cut emissions. What they need is barrier-free financing and open source technologies in order to do more. Paris presents the moment, and the leaders must grasp it.

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# ग्लोबल वार्मिंग से बढ़ रहा डेंगू और चिकनगुनिया

पेरिस जलवायु परिवर्तन सम्मेलन में वैश्विक नेताओं को ग्लोबल वार्मिंग के एक अन्य दुष्प्रभाव पर ध्यान देना होगा। भारत और अमेरिका में हुए शोध में साबित हुआ है कि ग्लोबल वार्मिंग से दुनिया भर में कीट जनित रोग जैसे डेंगू, मलेरिया और चिकनगुनिया तेजी से फैल रहे हैं। तापमान बढ़ने से कीट 'वेस्ट निल' जैसे वायरस को बड़े क्षेत्र में ले जाने में सक्षम हो जाते हैं। इसका असर भारत जैसे उष्णकटिबंधीय देशों में ज्यादा नजर आ रहा है।

## बदलता कीटों का जीवन

तापमान में परिवर्तन रोगजनों के पारिस्थितिक तंत्र को बदल देता है। अगर तापमान ज्यादा होगा तो कीट बढ़ेंगे और उनसे होने वाली बीमारियां भी। ठंड कम होने से वायरस संक्रमित मच्छरों के जीने की क्षमता बढ़ जाती है।

# 11.9

से 42 डिग्री सेल्सियस के बीच ज्यादा फैलता डेंगू

# 32.0

से ज्यादा तापमान पर दोगुनी होती मच्छरों की प्रजनन क्षमता

89/14



गर्म मौसम में मच्छर ज्यादा उड़ते हैं और ज्यादा लोगों को काटते हैं। गर्मी से संक्रमण और वायरस भी तेजी से बढ़ते हैं। अगर धरती का तापमान बढ़ेगा तो स्थितियां बदतर होंगी।

रॉबर्ट हेले, महामारी विशेषज्ञ, टेक्सस यूनिवर्सिटी

## भारत से अमेरिका तक असर

इस सिक्किम, राजस्थान, मध्य प्रदेश से लेकर दिल्ली तक डेंगू के मामले बढ़े हैं। जबकि उत्तर प्रदेश और बिहार के तराई क्षेत्र में जापानी मस्तिष्क बुखार पांव पसार रहा है। 2012 में टेक्सस में कम बर्फ गिरी और सर्दी भी कम रही। इस दौरान मच्छरों ने पूरे इलाके में महामारी फैला दी। सिर्फ डलास में 400 लोग वेस्ट निल वायरस के शिकार हुए, जिनमें से 19 लोगों की मौत हो गई। जब वैज्ञानिकों ने खोजा तो जलवायु परिवर्तन को बीमारियां बढ़ने का बड़ा कारण पाया। इन इलाकों में कीटनाशक का छिड़काव शुरू हो गया है, जो पिछले 50 साल में कभी नहीं हुआ था।



राष्ट्रमंडल देशों ने छोटे और गरीब देशों के लिए धन तक पहुंच बनाने का मार्ग निकाला

# जलवायु परिवर्तन केंद्र पर सहमति

वैलेता (माल्टा) | एजेंसियां

राष्ट्रमंडल देशों ने एक जलवायु परिवर्तन केंद्र स्थापित करने पर सहमति जताई है। यह केंद्र छोटे और गरीब देशों के लिए धन तक पहुंच सुगम बनाने में मदद करेगा। यह फैसला भारत की उस मांग के अनुरूप है जिसमें उसने ग्रीन हाउस गैसों का उत्सर्जन कम करने के लिए विकासशील देशों को पर्याप्त वित्तीय संसाधन उपलब्ध कराने की बात कही थी। यह फैसला ऐसे समय आया है पेरिस में 30 नवंबर से जलवायु परिवर्तन पर विश्व नेताओं का शिखर सम्मेलन शुरू होने से पहले आया है।

राष्ट्रमंडल महासचिव कमेलश शर्मा ने कहा, नेताओं ने एक नए तंत्र की स्थापना का भी फैसला किया है जो गरीब देशों को जलवायु प्रबंधन पर आने वाले ऋण की व्यवस्था में मदद करेगा। इस तंत्र के तौर तरीकों पर काम किया जा रहा है। उन्होंने कहा कि कई द्वीपीय देश एवं छोटे देशों को ग्रीनहाउस गैसों के उत्सर्जन में कमी लाने के लिए वित्तीय मदद हासिल करने में कठिनाइयों का सामना करना पड़ रहा है। जलवायु परिवर्तन केंद्र उन्हें धन मुहैया कराएगा।

निवर्तमान महासचिव शर्मा कहा, अब तक इन छोटे देशों को धन के बारे में बताया जाता था, लेकिन कैसे यह मिलेगा यह उन्हें पता नहीं था। यह केंद्र जलवायु वित्तपोषण को हकीकत बनाएगा।

सम्मेलन में भारत ने जलवायु परिवर्तन से निपटने के लिए राष्ट्रमंडल देशों के नीतिगत बयान को अंतिम रूप दिए जाने में विकासशील देशों की अपनी चिंताओं को जोरदार ढंग से व्यक्त किया था। इसका पेरिस में सोमवार से शुरू हो रहे सीओपी-21 में चर्चा पर प्रभाव पड़ने की संभावना है। भारतीय अधिकारियों ने तर्क दिया कि सम्मेलन के परिणाम को लेकर पहले से धारणा नहीं बनानी चाहिए।



ऑक्सफैम संस्था के कार्यकर्ताओं ने भारत के पीएम नरेंद्र मोदी सहित विश्व के कई दिग्गज नेताओं का मार्क पहनकर जलवायु सम्मेलन का विरोध किया। • रायटर

## ओलांद को बाधा की आशंका

वैलेता। फ्रांस के राष्ट्रपति फ्रांस्वा ओलांद ने आशंका जताई है कि पेरिस में सोमवार से शुरू हो रहे जलवायु शिखर सम्मेलन में कुछ देश बाधा पहुंचा सकते हैं। ओलांद ने शनिवार को कहा, महत्वाकांक्षी समझौते पर पहुंचना मानव जाति का कर्तव्य है।

जलवायु सम्मेलन में एक समझौते पर पहुंचना होगा। लेकिन कई देशों का

मानना है कि कुछ बाध्यताएं उनके विकास में बाधक हैं। ऐसे देश सम्मेलन में बाधा पहुंचा सकते हैं। ओलांद ने ये बातें राष्ट्रमंडल सम्मेलन के दौरान यहां एक कांफ्रेंस को संबोधित करते हुए कहीं। फ्रांस के राष्ट्रपति के तौर पर ओलांद 30 नवंबर से 11 दिसंबर तक चलने वाले जलवायु सम्मेलन की मेजबानी करेंगे।

## कई देशों में रैलियां निकाली

मनीला। एशिया प्रशांत क्षेत्र में शनिवार को जलवायु परिवर्तन के मुद्दे को लेकर निकाली गई अलग-अलग रैलियों में हजारों लोगों ने हिस्सा लिया।

पेरिस में जलवायु शिखर सम्मेलन से नतीजों की मांग को लेकर दुनिया भर में इस सप्ताहांत इस तरह के आयोजन किए जा रहे हैं। ऑस्ट्रेलिया, बांग्लादेश, जापान, न्यूजीलैंड और फिलीपींस में हई रैलियों

में जलवायु परिवर्तन के प्रभावों को लेकर व्यापक चिंताएं जाहिर की गईं। फिलीपींस की राजधानी मनीला में धर्मगुरुओं, छात्रों और कार्यकर्ताओं सहित करीब तीन हजार लोगों ने मार्च में हिस्सा लिया।

ब्रिस्बेन की रैली में पांच हजार से अधिक लोग जुटे। मेलबर्न में बीते शक्रवार रैली निकाली गई।

राष्ट्रमंडल सम्मेलन में लिए गए निर्णय पेरिस सम्मेलन के सकारात्मक परिणाम का संकेतक हैं। मैं राष्ट्रमंडल नेताओं की जलवायु परिवर्तन से लड़ने में इस तरह की मजबूत प्रतिबद्धता से प्रोत्साहित हूँ।

-बान की मून, महासचिव, संयुक्त राष्ट्र

## जलवायु परिवर्तन पर कोष बनाने का संकल्प

वैलेता (माल्टा)। राष्ट्रमंडल देशों ने जलवायु परिवर्तन से लड़ने के लिए अरबों डॉलर का कोष बनाने का संकल्प लिया है। इस बीच, ग्रीन हाउस गैस उत्सर्जन को सीमित करने में विकासशील देशों की मदद के लिए कनाडा द्वारा सबसे ज्यादा दो अरब डॉलर की मदद की घोषणा की गई है।

राष्ट्रमंडल सम्मेलन में जलवायु परिवर्तन पर एक विशेष सत्र में कनाडा के प्रधानमंत्री जस्टिन ट्रूडो ने कहा, मेरा देश विकासशील देशों को जलवायु परिवर्तन से लड़ने और उनका स्वच्छ ऊर्जा उत्पादन बढ़ाने में मदद करेगा। ट्रूडो ने अपनी पिछली प्रतिबद्धता दोगुनी करते हुए पांच वर्ष में करीब दो अरब डॉलर की मदद देने का संकल्प लिया।

माल्टा के प्रधानमंत्री जोसेफ मस्क्रे ने राष्ट्रमंडल में पर्यावरण संबंधी परियोजनाओं की मदद के लिए एक अरब डॉलर की कामनवेलथ ग्रीन फाइनैंस फैसिलिटी पेश की। ब्रिटेन ने आपदा प्रबंधन के लिए 2.1 करोड़ पाउंड तथा समुद्र आधारित अर्थव्यवस्था के लिए 55 लाख पाउंड की मदद की प्रतिबद्धता जाहिर की।



# हिमाचल में बर्फबारी, उत्तर भारत में बढ़ी सिहरन

24.11.2019

## पलटा मौसम

प्रदेश में एक ही दिन में 7 डिग्री तक गिरा तापमान

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patrika.com/city

समूचे उत्तर भारत में शुक्रवार को मौसम का मिजाज अचानक पलटा और सर्द हवाओं ने ठिठुरन बढ़ा दी। सीकर में पारा 3.6 डिग्री पर पहुंच गया, वहीं जयपुर समेत विभिन्न शहरों में अधिकतम व न्यूनतम तापमान में 3 से लेकर 7 डिग्री तक की गिरावट आई।

सर्दी के कारण सीकर जिले के श्रीमाधोपुर में एक जने की मौत हो गई। मौसम विभाग के अनुसार एक-दो दिन में प्रदेश भर में बारिश की संभावना है।



## बर्फ की श्वेत चादर

मनाली के सोलोन नुल्हा में बर्फबारी का लुत्फ उठाते पर्यटक।

## 3 दिन से हिमपात

हिमाचल के ऊंचाई वाले इलाकों में बुधवार से ही बर्फबारी जारी है जबकि मैदानों में बारिश हुई है। इससे राजस्थान शीतलहर की चपेट में है। रोहतांग, किन्नौर और लाहौल स्पीति के अधिकतर इलाकों में रुक रुक कर हिमपात हो रहा है। पारा भी शून्य डिग्री सेल्सियस तक पहुंच गया है।

## कुछ दिनों तक असर

मौसम विभाग के अनुसार पश्चिम राजस्थान और पाक के ऊपर कम दबाव का क्षेत्र बनने के कारण मौसम में बदलाव आया है। इसके कुछ दिनों तक बने रहने और इस दौरान राजस्थान में कई जगह हल्की बूंदबांदी होने के आसार हैं।

शिमला में न्यूनतम तापमान 4.3 डिग्री और सीकर में 3.6 डिग्री रहा।



# जलवायु सम्मेलन आज से, दुनिया के दिग्गज करेंगे पृथ्वी की सेहत की चिंता

30/Nov/24



## जलवायु समझौते पर हस्ताक्षर होने की संभावना बढ़ी



सम्मेलन से पहले दुनिया में रैलियां हुई हैं। इन रैलियों में विश्व नेताओं से मांग की गई है कि वो जलवायु परिवर्तन को रोकने के लिए कदम उठाएं।

### पेरिस में ओलांद से मोदी की भेंट आज

नई दिल्ली. प्रधानमंत्री नरेंद्र मोदी रविवार को 21वें जलवायु शिखर सम्मेलन की कॉफ़्रेस ऑफ़ पार्टीज (सीओपी) में शिरकत करने के लिए देर रात पेरिस पहुंच गए। मोदी सोमवार को फ्रांस के राष्ट्रपति ओलांद से मिलेंगे। विदेश मंत्रालय के प्रवक्ता विकास स्वरूप ने ट्विटर पर लिखा कि प्रधानमंत्री नरेंद्र मोदी ने हमारे साझा घर की हिफाजत में भारत के सहयोग का संकल्प लिया है।

### 25 लाख डॉलर मदद का ऐलान

वैलेता. भारत ने रविवार को ऐलान किया कि वह राष्ट्रमंडल के तहत आने वाले कमजोर देशों को 25 लाख डॉलर उपलब्ध करवाएगा। इससे इन राष्ट्रों को स्वच्छ ऊर्जा का इस्तेमाल करने और ग्रीन हाउस गैसों का उत्सर्जन कम करने में मदद मिलेगी।

पेरिस में सम्मेलन से पूर्व हुए एक प्रदर्शन में सैकड़ों जोड़ी जूते-चप्पल रखे गए। इसमें क्लाइमेट जस्टिस की मांग करते हुए 'वॉक फॉर अर्थ' की मांग की गई।



d documented at Bhagirath(English)& Publicity Section, CWC.



मेरठ में रविवार को गंगा संरक्षण पर संगोष्ठी के दौरान केन्द्रीय परिवहन मंत्री नितिन गडकरी और केन्द्रीय जल संसाधन मंत्री उमा भारती आपस में बातचीत करते हुए। (छाया : प्रैट्र) 30/06/11



# जलवायु सम्मेलन में बाधा डाल सकते हैं कुछ देश : ओलांद

29/11/82

वैलेता, (एफपी): फ्रांस के राष्ट्रपति फ्रांस्वा ओलांद ने सभी देशों से सोमवार से शुरू हो रहे संयुक्त राष्ट्र जलवायु समझौते का समर्थन करने का आह्वान किया और आशंका जताई कि कुछ देश इस प्रक्रिया में बाधा पहुंचा सकते हैं।

माल्टा में राष्ट्रमंडल सम्मेलन के दौरान 53 देशों के संगठन को संबोधित करते हुए ओलांद ने कहा कि इस 'महत्वाकांक्षी' समझौते पर पहुंचना मानव जाति का कर्तव्य है ताकि जलवायु परिवर्तन को काबू में किया जा सके। उन्होंने चिंता जताते हुए कहा कि कई भिन्न मत वाले इस स्वप्न को साकार नहीं होने देंगे। यह वार्ता 195 देशों वाले 'यूएन फ्रेमवर्क कन्वेंशन आन क्लाइमेट चेंज' (यूएनएफसीसीसी) के बैनर

## आशंका व्यक्त

जलवायु परिवर्तन  
पर नियंत्रण के लिए  
'महत्वाकांक्षी' समझौते  
पर पहुंचना मानव  
जाति का कर्तव्य

तले हो रही है जिसमें सर्वसम्मति से किसी नतीजे को स्वीकार किया जाता है। ओलांद ने एक प्रैस कान्फ्रेंस में कहा, "मेरी आशंका है कि हमें एक सम्पूर्ण समझौते पर पहुंचना होगा।" उन्होंने कहा, "ऐसे कुछ ही देश हैं जो इस प्रक्रिया में बाधक हैं, इनकी गारंटी नहीं है क्योंकि उनका अभी भी मानना है कि कुछ बाध्यताएं

उनके विकास में बाधक बनेंगी।" फ्रांस के राष्ट्रपति के तौर पर ओलांद 30 नवंबर से 11 दिसंबर तक चलने वाले इस सम्मेलन की मेजबानी करेंगे। उन्हें संयुक्त राष्ट्र महासचिव बान की मून की ओर से राष्ट्रमंडल वार्ता के लिए आमंत्रित किया गया था। सोमवार से फ्रांस की राजधानी में जलवायु परिवर्तन पर चर्चा शुरू होने से पहले हुई यह आखिरी महत्वपूर्ण अंतर्राष्ट्रीय बैठक थी। उन्होंने कहा, "पेरिस सम्मेलन की तैयारी के लिए राष्ट्रमंडल सम्मेलन एक बेहतर मंच रहा।" बान ने कहा कि अपने भौगोलिक विस्तार और विविधता के कारण जी 7 शक्तियों से लेकर छोटे द्वीपीय देशों वाला राष्ट्रमंडल "अंतर्राष्ट्रीय समुदाय का सूक्ष्म जगत है।"

# जलवायु परिवर्तन सम्मेलन आज से

नई दिल्ली, पेरिस, (वार्ता): फ्रांस की राजधानी पेरिस में सोमवार से जलवायु परिवर्तन पर एक अहम सम्मेलन शुरू हो रहा है जिसका लक्ष्य ग्रीनहाउस गैसों के उत्सर्जन को सीमित कर धरती के तापमान को बढ़ने से रोकने के लिए एक वैश्विक समझौते पर पहुंचना है।

सम्मेलन की शुरुआत के मौके पर प्रधानमंत्री नरेन्द्र मोदी, अमरीका के राष्ट्रपति बराक ओबामा, चीन के राष्ट्रपति शी जिनपिंग, रूस के राष्ट्रपति व्लादिमीर पुतिन सहित करीब 150 देशों के नेता मौजूद रहेंगे। सम्मेलन का उद्देश्य एक वैश्विक जलवायु समझौता कायम करना है जिसके तहत दुनिया के 195 देश 2020 तक उत्सर्जन की सीमाएं तय करने के लिए बाध्य हों। वैज्ञानिकों का कहना है कि सन् 1850 से औसत तापमान एक डिग्री

सेल्सियस बढ़ा है जबकि औद्योगिक क्रांति के शुरू होने के बाद से कार्बन डाई ऑक्साइड के उत्सर्जन में 30 प्रतिशत की बढ़ौतरी हुई है।

इसी तरह आर्कटिक सागर की बर्फ 1979 की तुलना में चार प्रतिशत घट चुकी है। अब तक रिकार्ड किए गए दस सबसे ज्यादा गर्म वर्षों में नौ साल 2000 के बाद रिकार्ड किए गए हैं।

कार्बन उत्सर्जन को ही लू, बाढ़, सूखा और समुद्र के जलस्तर में बढ़ौतरी का कारण माना जा रहा है। वैज्ञानिकों ने चेतावनी दी है कि अगर धरती के तापमान को बढ़ने से नहीं रोका गया तो दुनिया को तूफान, सूखे और समुद्र का जल स्तर बढ़ने जैसी प्राकृतिक आपदाओं का सामना करना पड़ेगा।

संयुक्त राष्ट्र के महासचिव बान

**पूरी दुनिया की नजर**

**पीएम मोदी, ओबामा,  
शी जिनपिंग, पुतिन  
समेत 150 देशों के नेता  
रहेंगे मौजूद**

की मून का कहना है कि विज्ञान ने तो अपनी बात रख दी है अब नेताओं को आगे की कार्रवाई करनी चाहिए।

हमारे पास बहुत समय नहीं है। उन्होंने कहा कि जैसे किसी बच्चे को बुखार होने पर सबसे पहले तापमान घटाने की जरूरत होती है उसी तरह धरती के बढ़ते तापमान को रोकने के लिए तुरंत और व्यापक कार्रवाई की जरूरत है। पेरिस सम्मेलन का मकसद एक ऐसा रास्ता निकालना है जिससे

ग्रीनहाउस गैसों के उत्सर्जन में कमी लाई जा सके और विकासशील देश अपनी विकास यात्रा को जारी रख सकें। इसे दुनिया का अब तक का सबसे महत्वाकांक्षी समझौता माना जा रहा है लेकिन 195 देशों को किसी बात के लिए सहमत करना आसान नहीं है।

जलवायु परिवर्तन के मुद्दे पर विकसित और विकासशील देशों के बीच कई मुद्दों पर गंभीर मतभेद हैं लेकिन अधिकांश देश इस बात से सहमत हैं कि सभी देशों को कार्बन उत्सर्जन पर अंकुश लगाने के लिए काम करना चाहिए।

वैश्विक तापमान वृद्धि को लेकर दुनिया के तमाम देश बेहद चिंतित हैं क्योंकि अगर अभी तुरंत कुछ ठोस कदम नहीं उठाया गया तो आगे हालात ऐसे हो सकते हैं कि चाहकर भी कुछ करना बेहद मुश्किल होगा।



# यूएन क्लाइमेट चेंज कॉन्फ्रेंस इन पैरिस : विकासशील देशों को उम्मीद दुनिया को तोहफा देने का मौका

30 NOV 2015

TOI

पैरिस में 177 देशों की यूएन क्लाइमेट कॉन्फ्रेंस आज से शुरू हो रही है। इस कॉन्फ्रेंस में देशों की ओर से कार्बन उत्सर्जन में कटौती के लिए गए ऐलानों को लागू करने का अनिवार्य समझौता होना है। भारत, चीन, अमेरिका, यूरोपियन यूनियन के देश पहले ही अपने-अपने प्लान बता चुके हैं। ये देश दुनिया में 93 फीसदी कार्बन उत्सर्जन करते हैं। इस कॉन्फ्रेंस में होने वाला समझौता 2020 में लागू होगा। हालांकि कई देशों ने इसे 2030 से लागू करने को कहा है।

कॉन्फ्रेंस का औपचारिक टारगेट ग्लोबल वॉर्मिंग को 2 डिग्री सेल्सियस कम करना है। लेकिन वैज्ञानिकों का मानना है कि देशों ने अपनी सुविधानुसार जो प्लान पेश किए हैं, उनसे यह लक्ष्य हासिल नहीं होगा। उनका मानना है कि कई कदम उठाने के बावजूद 2100 तक धरती का टेम्परेचर 2.7 से 3.6 डिग्री तक बढ़ेगा ही।

इसी बीच अमीर देशों ने वादा किया है कि उत्सर्जन कम करने के लिए वे हर साल 100 बिलियन डॉलर गरीब देशों को देंगे। यह फंड ग्रीन टेक्नॉलजी और रिन्यूअल एनर्जी अपनाने के लिए दिया जाना है। वर्तमान में इसकी आधी रकम ही दी जा रही है। माना जा रहा है कि पैरिस कॉन्फ्रेंस को यही बात सबसे ज्यादा उलझाएगी। क्योंकि गरीब देश 100 बिलियन डॉलर से भी ज्यादा मांग रहे हैं। गरीब देशों को कहना है कि अमीर और विकसित देश ही सबसे ज्यादा कार्बन उत्सर्जन करते हैं, इसलिए उन्हें ही इस नुकसान का बोझ सहना चाहिए। फिलहाल दुनिया में चीन सबसे ज्यादा कार्बन उत्सर्जन करता है। इसके बाद अमेरिका और भारत आते हैं।



## चिंताएं भारत की

■ **विस, नई दिल्ली :** पैरिस क्लाइमेट कॉन्फ्रेंस में भारत समेत तमाम विकासशील देशों की चिंता यह है कि जो भी डील होगी, वह उनके हितों के खिलाफ न हो। भारत अपने 50 सदस्यीय दल के साथ इस कॉन्फ्रेंस में पूरी तैयारी के साथ शिरकत कर रहा है। पीएम मोदी पैरिस पहुंच चुके हैं। हालांकि भारत ग्रीन हाउस गैसों का उत्सर्जन करने वाले देशों की लिस्ट में चौथे नंबर पर है, इसलिए उस पर कई दबाव भी होंगे। भारत ने पिछले दिनों यूएन को सौंपी अपनी कार्ययोजना में कहा है कि वह साल 2030 तक अपने ग्रीन हाउस गैसों के उत्सर्जन को 2005 के स्तर से 33 से 35 फीसदी कम करने का प्रयास करेगा।

### क्या है मांग और कारण

■ विकासशील देशों को काफी पैसा

चाहिए। विकसित देश फंड देने के प्रति गंभीर हों। (यूएन ग्रीन फंड)

■ विकासशील देशों को लेटेस्ट टेक्नॉलजी जल्द दी जाए। बिना इसके क्लाइमेट चेंज से निपटना आसान नहीं।

■ इतनी जल्दी उद्योगों को हटाया नहीं जा सकता, नहीं तो करोड़ों बेरोजगार हो जाएंगे। विकसित देश विकल्प दें।

■ भारत की बड़ी आबादी LPG जैसी सुविधाओं से महरूम है। इसलिए लकड़ी और कोयला जलाना पड़ता है।

■ वनीकरण कार्यक्रम को मजबूत बनाया जा रहा है। (फरिस्ट डिवेलप)

■ 7 वर्षों में सौर्य उर्जा से एक लाख मेगावॉट बिजली बनाने का लक्ष्य (वैकल्पिक उर्जा)

■ वीडकल पल्यूशन पर लगाम लगाने के लिए यूरो-5 स्टैंडर्ड को अपनाएगा।



# किसे कहते हैं क्लाइमेट चेंज?

हमारे क्लाइमेट में पिछली कुछ सदियों से धीरे-धीरे बदलाव हो रहा है। इसका मतलब है कि देशों और महाद्वीपों में सैकड़ों साल से जो एक औसत मौसम बना हुआ था, वह अब बदल रहा है। उदाहरण के लिए भारत में तीन प्रमुख मौसम होते हैं। सर्दी, गर्मी, बारिश। वहीं

## वजह : ग्रीन हाउस प्रभाव

पृथ्वी जिस तरह सूर्य की कुछ एनर्जी ग्रहण करती है, उसे ग्रीन हाउस प्रभाव कहते हैं। पृथ्वी के चारों ओर ग्रीन हाउस गैसों की एक परत होती है। इन गैसों में कार्बन डाईऑक्साइड (CO<sub>2</sub>), मिथेन, नाइट्रस ऑक्साइड और जल के कण शामिल होते हैं। यह परत सूर्य की अधिकतर

खतम हो रहा है, जोकि क्लाइमेट चेंज का एक बड़ा कारण है।

कार्बन डाईऑक्साइड तब बनती है जब हम ईंधन जलाते हैं, जैसे- कोयला, तेल, प्राकृतिक गैस आदि। इसके बाद हम पेड़-पौधों को भी काट रहे हैं। ऐसे में उनकी भी कार्बन डाईऑक्साइड वातावरण में मिल रही है। ज्यादा खेती, जमीन के अलग-अलग इस्तेमाल के कारण मिथेन और नाइट्रस ऑक्साइड गैस ज्यादा मात्रा में डिस्चार्ज हो रही है।

वैज्ञानिकों के अनुसार 1750 में आई औद्योगिक क्रांति के बाद से कार्बन डाईऑक्साइड (CO<sub>2</sub>) का लेवल 30% बढ़ा है। वहीं मिथेन का लेवल 140% ज्यादा हुआ है। ये दोनों लेवल 8 लाख वर्षों के सबसे ऊंचे स्तर पर हैं। हालांकि कई लोग यह सवाल करते हैं कि जब वातावरण में पहले से ये गैसें मौजूद हैं, तो हमारी छोड़ी गई गैसें कैसे वातावरण को नुकसान पहुंचाती हैं। इसका जवाब है कि हमारी गैसें नैचुरल कार्बन साइकल को डिस्टर्ब करती हैं।

## कैसे नुकसान पहुंचा रहे हैं हम

- कोयला, पेट्रोल आदि ईंधन का इस्तेमाल कर (इंडस्ट्रीज, वीकल्स)
- जमीन की चाहत में पेड़ों को काटकर
- डिक्पोज न होने वाले सामान जैसे प्लास्टिक का ज्यादा इस्तेमाल कर
- फर्टिलाइजर और पेस्टिसाइड्स का यूज कर

एंगल पर, अपने ऑर्बिट में झुकी हुई है। इस झुकाव में बदलाव के कारण कहीं ज्यादा गर्मी, तो कहीं ज्यादा सर्दी पड़ने लगती है। समुद्री तरंगें : धरती के 71 फीसदी हिस्से में फैला समुद्र सूर्य की एनर्जी को ज्यादा ग्रहण करता है। फिर यह एनर्जी तरंगों में बदल जाती है। जो उमस पैदा करती है।

## क्या होंगे इसके प्रभाव



**1. तापमान तेजी से बदलेगा :** दुनिया के कुछ इलाकों में गर्मी बढ़ेगी। वहीं कुछ इलाकों में ज्यादा ठंड होगी। इसके कारण इंसानों और जीव जंतुओं की जिंदगी पर असर पड़ेगा। एक खास मौसम में सरवाइव करने वाले पेड़ या जीव जंतु विलुप्त होने लगेंगे।

**3. समुद्र फैलता जाएगा :** मौसम गर्म होने पर ध्रुवों की बर्फ पिघलती जा रही है। इससे समुद्रों का जल स्तर बढ़ रहा है। इसके कारण छोटे छोटे द्वीप समूह या देश, जो समुद्रों के बीच में या किनारे स्थित हैं, वे डूबने लगेंगे। इससे इंसानी आबादी को नुकसान होगा। वर्ल्ड वॉच इंस्टिट्यूट के अनुसार धरती पर फैली बर्फ की चादर कहीं तेजी से पिघल रही है।



समुद्र के लगातार बढ़ते जल स्तर से मालदीव पर खतरा मंडरा रहा है।

**भारत पर संकट :** भारत के इंदिरा गांधी इंस्टिट्यूट ऑफ डिवेलपमेंट रिसर्च की रिपोर्ट में क्लाइमेट चेंज से होने वाले आर्थिक नुकसान का अनुमान लगाया गया है।

**9%** फीसदी तक नीचे आ सकती है जीडीपी क्लाइमेट चेंज के कारण

**70** लाख लोगों को दूसरी जगह बसाना पड़ेगा (मुंबई और चेन्नै के कई हिस्से डूबने के बाद)

**2. मौसम के भीषण रूप :** मौसम के भीषण रूप सामने आएंगे। जैसे बहुत तेज बारिश, सूखा, बाढ़, तूफान, तेज गर्मी आदि। उदाहरण के तौर पर हिमालय की बर्फीली चट्टानें तेजी से पिघलने लगेंगी। नदियों का पानी कम होने लगेगा।



**4. महा-चक्रवात :** ग्रीन हाउस गैसों का उत्सर्जन बढ़ने से सूर्य की ऊर्जा बहुत तेजी से हमारी धरती पर आने लगेगी। इसका असर ये होगा कि बहुत तेज तूफान, महा चक्रवात, अंधड़ और आंधी के साथ बारिश की घटनाएं बढ़ेंगी।

**5. इकोलॉजिकल सिस्टम टूटेगा :** जिस तरह शिकारी शिकार पर निर्भर होता है और शिकार पेड़-पौधों पर। उसी तरह धरती का एक इकोलॉजिकल सिस्टम होता है। यहां पेड़-पौधे और जीव-जंतु एक दूसरे पर निर्भर होते हैं। इसी सिस्टम के तहत भोजन, पानी, सुरक्षा, औषधियां आदि जैसी चीजें आती हैं। क्लाइमेट चेंज से यह सिस्टम टूटने लगेगा।



## ग्लोबल वॉर्मिंग के सबूत

**0.8** डिग्री सेल्सियस टेंपरेचर धरती की सतह का बढ़ा है (पिछले 100 वर्षों में)

**0.6** डिग्री सेल्सियस टेंपरेचर धरती की सतह का बढ़ा है (पिछले 3 दशकों में)

**3mm** सी लेवल हर साल बढ़ रहा है (सेटेलाइट डेटा के अनुसार)

**4%** प्रति दशक के हिसाब से पिघल रहे हैं ग्लेशियर

**1.5** डिग्री सेल्सियस टेंपरेचर बढ़ जाएगा 21 वीं सदी में (1850 की तुलना)

यूरोप में चार मौसम होते हैं- बसंत, गर्मी, पतझड़ और सर्दी। इन मौसमों का अपना एक समय और अपनी खास विशेषता होती है। लेकिन पिछले कुछ दशकों में बारिश का ढंग बदल रहा है। गर्मी का मौसम लंबा होता जा रहा है। सर्दी छोटी होती जा रही है। यह सब एकसाथ पूरी दुनिया में हो रहा है। इन्हीं सब घटनाओं को हम क्लाइमेट चेंज के नाम से जानते हैं।

एनर्जी को अब्सॉर्ब कर लेती है और कुछ एनर्जी पृथ्वी की ओर जाने देती है। जो एनर्जी धरती तक पहुंचती है, उसके चलते हमारे गृह की सतह गर्म रहती है। अगर यह परत नहीं होती, तो धरती 30 डिग्री सेल्सियस ज्यादा ठंडी होती। यानी यहां जीवन नहीं होता। वैज्ञानिकों का मानना है कि हम लोग इंडस्ट्रीज और कृषि के जरिए जो गैसें वातावरण में छोड़ रहे हैं। उससे ग्रीन हाउस गैसों की परत मोटी होती जा रही है। इससे प्राकृतिक ग्रीन हाउस गैसों का प्रभाव

## प्राकृतिक कारण भी

क्लाइमेट चेंज के लिए कई प्राकृतिक कारण भी जिम्मेदार हैं। महाद्वीपों का खिसकना : महाद्वीप वायु के प्रवाह के कारण खिसकते रहते हैं। इस प्रकार की हलचल से समुद्र में तरंगें व वायु प्रवाह पैदा होता है। इससे भी क्लाइमेट चेंज

होता है।

**ज्वालामुखी फूटना :** जब भी कोई ज्वालामुखी फूटता है, तो काफी मात्रा में सल्फरडाई ऑक्साइड, पानी, धूलकण और राख के कण वातावरण में जाते हैं। इससे भी धरती के तापमान पर फर्क पड़ता है।

**धरती का घूमना :** धरती 23.5 डिग्री के

**भारत पेट्रोलियम**  
(भारत सरकार)

सेन्ट्रल प्रोक्योरमेंट ऑफि  
ए इन्स्टॉलेशन, शिबडी-फोर्ट रोड, शिबडी (छत्तीसगढ़), मुंबई

**निधियां**

हमने निम्नलिखित ई-निधियां जारी की हैं :

CRFQ नं.	मदद का विवरण
1000243702	संपूर्ण भारत में विभिन्न बीपीसीएल अ (अंतर्राष्ट्रीय निधियां)

(नियंत्रण तथा MOV दोनों)



# बिगड़े मौसम ने 80 करोड़ से ज्यादा भारतीय प्रभावित

पेरिस में जलवायु परिवर्तन पर गंभीर मंथन शुरू हो गया है। इसके केंद्र में इस कारण बिगड़ती मौसम की चाल है। संयुक्त राष्ट्र की जारी एक ताजा रिपोर्ट के मुताबिक 20 साल में मौसम की बिगड़ी चाल के कारण 80 करोड़ से ज्यादा भारतीय प्रभावित हुए। दुनियाभर में चार अरब लोगों पर इसका असर पड़ा। आइए नजर डालते हैं 1995 से 2015 तक मौसम के असर पर-

भारत और एशिया सबसे ज्यादा प्रभावित

**80.5** करोड़

लोग प्रभावित हुए भारत में बिगड़े मौसम से। इसमें बाढ़, तूफान और सूखा शामिल हैं।

**30.0** करोड़

लोग प्रभावित हुए भारत में 2002 में पड़े सूखे से, इस दौरान किसान सबसे अधिक प्रभावित हुए

**47.0** फीसदी

हिस्सेदारी कुदरती कहर में बाढ़ की है। एशिया में सबसे ज्यादा मौतें बाढ़ से होती हैं।

**2495** आपदाओं

में 3.7 अरब लोग प्रभावित हुए, और 332,000 लोगों की मौत हुई, एशिया में 20 साल में

**3300** मौतें

भारत व बांग्लादेश में बाढ़ से 2007 में, 2010 में बांग्लादेश में 2100 व चीन में 1900 मौतें

दुनिया में हर साल 20 करोड़ लोगों पर असर

● 1995 से 2015 के बीच 6,457 मौसम संबंधी आपदाएं घटीं। इनमें 606,000 जानें गईं। चार अरब से ज्यादा लोग प्रभावित। इन आपदाओं से हर साल 20.5 करोड़ लोग दुनियाभर में प्रभावित होते हैं।

● विश्व में मौसम की अति से सबसे ज्यादा प्रभावित आबादी वाले दस देशों में चीन सबसे ऊपर है। वहां

20 साल में 227.4 करोड़ लोग चपेट में आए। भारत 80.5 करोड़ के साथ दूसरे क्रम पर है।

● बिगड़े मौसम के कारण बांग्लादेश में 13.1 करोड़, फिलीपींस में 13 करोड़, थाईलैंड में 7.6 करोड़, पाकिस्तान में 5.5 करोड़, ब्राजील में 5.1 करोड़, केन्या में 4.7 करोड़, वियतनाम में 4.4 करोड़,

इथियोपिया में 4.1 करोड़ लोग प्रभावित हुए।

● 2005 से 2014 के बीच औसतन हर साल 16.5 करोड़ लोग प्रभावित हुए जबकि 1995

● 2015 की शुरुआती रिपोर्ट (अगस्त तक) के मुताबिक आठ महीनों में 1.4 करोड़ लोग आपदाओं से प्रभावित हुए।

335 प्राकृतिक आपदाएं हर वर्ष

● मौसम संबंधी आपदाएं 1990 के आखिर में तेजी से बढ़ीं। विश्व में 2005 में 401 आपदाएं दर्ज की गईं।

● 2005 के बाद इनमें कुछ कमी आने के बावजूद औसत सालाना 335 आपदाएं दुनियाभर में हुईं। ऐसा बाढ़-तूफानों की संख्या बढ़ने से हुआ।

1995-2004 के दशक मुकाबले यह संख्या 35 फीसद और 1980-89 के मुकाबले दुगुनी है।



and documented at Bhagirath(English) & Publicity Section, CWC.

# हरनंदी और यमुना के बाद गंगा स्वच्छ होगी : उमा

गाजियाबाद | हिंदी 30 (M)

हरनंदी और यमुना को स्वच्छ करने के बाद गंगा नदी को स्वच्छ किया जाएगा। दिल्ली सरकार के साथ मिलकर यमुना और हिंडन नदी को साफ करने की योजना तैयार की गई है। यह कहना है केंद्रीय जल संसाधन मंत्री उमा भारती का। रविवार शाम वह संघ नेता बनवारी लाल को श्रद्धांजलि देने नेहरू नगर स्थित पूर्व मेयर दमयंती गोयल के घर आई थीं।

उमा भारती ने बताया कि शहर की पूर्व मेयर दमयंती गोयल का सपना हरनंदी का स्वच्छ करने का था। छोटी नदियों को साफ किए बिना गंगा जैसी बड़ी नदी की सफाई नहीं की जा सकती है। उन्होंने बताया कि यमुना और हिंडन नदी को साफ करने के लिए अरबन डबलपमेंट अथॉरिटी, इंग्लैंड



● उमा भारती, केंद्रीय जल संसाधन मंत्री

वाटर अथॉरिटी, डाइंग और दिल्ली सरकार के साथ मिलकर प्लान तैयार किया गया है।

उन्होंने बताया कि गाजियाबाद में हरनंदी की सफाई को लेकर पहले भी कई बार अभियान चले हैं, जो किसी कारण वश अंजाम तक नहीं पहुंच सके थे। इस दौरान महेश चंद गोयल, मयंक गोयल, प्रदुमन कुमार, भारती मजदूर संघ के मंत्री अनुपम जायसवाल आदि उपस्थित रहे।



# Sunny days ahead with fog in morning

TNN | Nov 29, 2015, 11:50 PM IST  
NEW DELHI: Clear, sunny afternoons are expected to return to Delhi by the middle of this week. Moderate fog is expected in the early morning hours for the next 2-3 days, while minimum temperatures may also come down by a couple of degrees.

The western disturbance that resulted in the clouding and fall in maximum temperatures since Friday is set to move eastwards and the wind direction will change from easterly to westerly. "The easterly winds are warm and carry moisture. The availability of water vapour resulted in the clouding. This, in turn, led to a fall in temperatures during the day because there was no sunlight," said a Met official.

Sunday's maximum temperature was one degree below normal, at 24.3 degrees Celsius while the minimum was 12.2 degrees Celsius, two degrees above normal. . Humidity levels ranged between 60% and 95%.

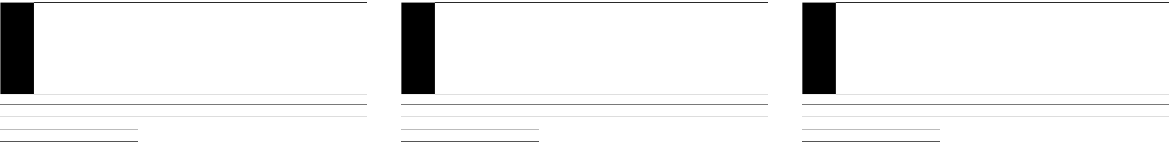
"Visibility at IGI Airport was around 1,100m since the past two days. On Sunday, it went to a low of 200m for an hour around 7.30am. Fog in the morning will persist because humidity levels are high, but the minimum temperature is now enough for formation of long duration of dense fog," said RK Jenamani, director in-charge, IGI Met.

The department said that the sky in Delhi will become mainly clear from December 2 with thunder on December 1.

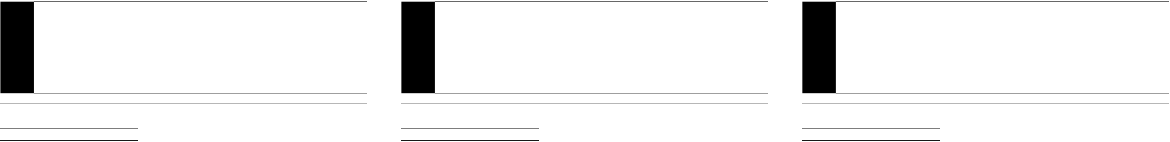
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# This cannot be watered down

*India must treat water as a strategic resource and shine an international spotlight on China's unilateralist course, writes BRAHMA CHELLANEY*

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As if to underscore the contrast between an autocracy and a democracy, China's announcement recently that all six power-generating units at the world's highest-elevation dam in Zangmu, Tibet, are now fully operational coincided with protesters stalling the movement of trucks to Lower Subansiri, India's sole large dam project currently under construction. After finishing the \$1.6 billion Zangmu project on the Brahmaputra ahead of schedule, China is racing to complete a series of additional dams on the river. These dams, collectively, are set to affect the quality and quantity of downstream flows.



The water situation in India is far worse than in China, including in terms of per capita availability. China's population is just marginally larger than India's but its internally renewable water resources (2,813 billion cubic metres per year) are almost twice as large as India's. In aggregate water availability, including external inflows (which are sizeable in India's case), China boasts virtually 50% larger resources than India.

Yet, even as China's dam builders target rivers flowing to India, including the Brahmaputra, Indus, Sutlej and Arun (Kosi), New Delhi has failed to evolve a strategic, long-term approach to the country's pressing water challenges. The flash floods that ravaged Himachal Pradesh and Arunachal Pradesh between 2000 and 2005 were linked to the unannounced releases from rain-swollen Chinese dams and barrages.

China's centralised, megaprojects-driven approach to water resources, reflected in its emergence long ago as the world's most dam-dotted country, is the antithesis of the policy line in India, where water is a state (not federal) subject under the Constitution and where anti-dam NGOs are powerful. The Narmada Dam remains incomplete after decades of work. The largest dam India has built since Independence — the 2,000-megawatt Tehri Dam on the Bhagirathi — pales in comparison to China's giant projects, such as the 22,500-megawatt Three Gorges Dam and the new Mekong mega-dams like Xiaowan, which dwarfs Paris's Eiffel Tower in height, and Nuozhadu, which boasts a 190-square km reservoir.

India's surface-water storage capacity — an important measure of any nation's ability to



deal with drought or seasonal imbalances in water availability — is one of the world's lowest, in per capita terms. Amounting to 200 cubic meters per head yearly, less than 1/11th of China's. The 2030 Water Resources Group has warned that India is likely to face a 50% deficit between water demand and supply by 2030.

In 1960, India generously reserved more than 80% of the Indus basin waters for its adversary Pakistan under a treaty of indefinite duration. This pact remains the world's most generous water-sharing arrangement. (The volume of waters earmarked for Pakistan — by way of comparison — is over 90 times the 1.85 billion cubic metres the US is required to release to Mexico under a bilateral treaty.)

India's 1996 Ganges water-sharing treaty with Bangladesh guarantees specific cross-border flows in the critical dry season — a new principle in international water relations. This provision means that even if the river's flows were to diminish due to reasons beyond India's control — such as climate change or the planned Chinese damming of a key Ganges tributary, the Arun (Kosi), which contributes significantly to downstream Ganges water levels — India would still be obligated to supply Bangladesh 34,060 cubic feet of water per second (cusecs), on average, in the dry season, as stipulated by the treaty. Bangladesh's share of current downstream flows is about 50%.

But China is not India: With its frenzied dam building, Beijing refuses to enter into a water-sharing arrangement with any co-riparian nation, even though its control over the Tibetan Plateau (the starting place of major international rivers) and Xinjiang (the source of the transnational Irtysh and Ili rivers) has armed it with unparalleled hydro-hegemony. There is deep concern among its riparian neighbours that, by building extensive hydro-engineering infrastructure on upstream basins, it is seeking to turn water into a potential political weapon. China pays little heed to the interests of even friendly countries, as its heavy upstream damming of the Mekong and Salween illustrate.

New Delhi has to brace for China moving its dam building from the upper and middle reaches to the lower, border-hugging sections of the rivers flowing to India. The Brahmaputra is particularly a magnet for China's dam builders because this river's cross-border annual discharge of 165.4 billion cubic metres into India is greater than the combined trans-boundary flows of the key rivers running from Chinese territory to Southeast Asia. As China gradually moves its dam building to the Brahmaputra's water-rich Great Bend — the area where the river takes a horseshoe bend to enter India, forming the world's longest and steepest canyon in the process — it is expected to embark on Mekong-style mega-dams.

Only five rivers in the world carry more water than the Brahmaputra and only one — mainland China's Yellow River — carries more silt. The Brahmaputra is the world's highest-altitude river. It represents a unique fluvial ecosystem largely due to the heavy load of high-quality nutrient-rich silt it carries from forbidding Himalayan heights. The Brahmaputra annual flooding cycle helps re-fertilise overworked soils in the Assam plains and large parts of Bangladesh, where the river is the biggest source of water supply. The likely silt-movement blockage from China's upstream damming constitutes a bigger threat than even diminution of cross-border

flows.

India must get its act together, both by treating water as a highly strategic resource and by shining an international spotlight on China's unilateralist course. Just as China — through a creeping, covert war — is working to change the territorial and maritime status quo in Asia, its dam frenzy is designed to appropriate internationally shared water resources. No country faces a bigger challenge than India from China's throttlehold over the headwaters of Asia's major transnational rivers and its growing capacity to serve as the upstream controller by re-engineering trans-boundary flows through dams.