

Plants and Pollution

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Plant: Enviornment & Health Benefits

NATIONAL BOTANICAL RESEARCH INSTITUTE, LUCKNOW

A tree for every major life event" to boost air quality and mental health

Horticulture Week, 13 February 2018

A Northern Ireland local authority has begun a programme of planting a native tree to mark every birth, death and marriage registered with it, "as part of a wider strategy to improve air quality and the public's mental health".

The Life Tree Project has been launched by Derry City and Strabane District Council in partnership with Northern Ireland's Public Health Agency, which provided funding, and the North West Regional College, which assisted in its marketing. It will see around 4,000 new trees planted in the area each year, with the council encouraging registering families to plant the tree at their own property, but if this lacks a suitable location it says it will plant a tree for them in its parks and green spaces.

Launching the scheme, Mayor of Derry City and Strabane District Council, Councillor Maolíosa McHugh congratulated the partners for "leading the way with this novel initiative which is a poignant means of marking and remembering the registrations of birth, deaths and marriages in our City and District".He added: "Planting trees can not only decrease air pollution but it improves both the urban and rural landscape and encourages the public to experience the outdoors and the associated health benefits, so I am pleased that we are the first Council in the North to introduce this scheme."

PHA head of health and social wellbeing improvement Brendan Bonner said: "Reducing air pollution by planting more trees has the potential to decrease respiratory and heart conditions and illnesses, and improve the health and well-being of the population in the Derry and Strabane areas.

"This project matches up particularly well with our Take 5 Steps of Wellbeing initiative where we are encouraging the public to connect with each other, be active, take notice of the beauty around you, keep learning and to do something that helps other people."

Planting Trees in Cities Leads to Positive Economic, Environmental and Health Benefits

Sense & Sustainability, 15 February 2018

Worldwide, heat waves account for the deaths of 12,000 people per year while exposure to high levels of air pollution causes up to three million deaths per year. Many of these deaths occur in large urban cities as an increasing number of the earth's population are choosing to live in urban rather than rural locations.

The World Economic Forum (WEF) claims there is "One beautifully simple action that municipal leaders can take to reduce both extreme heat and air pollution: plant more trees." It further claims that planting trees "Is a one-two punch of environmental action." This is due to the fact that trees and other green vegetation are responsible for naturally cooling the air around but also because they act as filters and are capable of reducing particulate matter (PM) levels in the surrounding 30 metres by as much as 25%.

Planting trees, particularly in large urban centres, should be viewed as a low-cost solution that can lead to a reduction in greenhouse gas emissions as well as improved health levels of societies. A global investment of only \$100 million could potentially provide as many as 68 million people with significant reductions in PM levels while also contributing to a 1-degree Celsius reduction in air temperature for 77 million people. Additionally, "An investment equivalent of \$4 per person could save 11,000-36,000 lives annually and reduce adverse health effects for tens of millions of people."

Where tree planting as a climate change reduction strategy really stands out is in ability to address both urban heat and air pollution. Other strategies such as industrial scrubbers, limits on car, bike and truck traffic and the use of light-coloured building materials are also good strategies that have an important part to play and can be adopted by municipal leaders but they only address urban heat or air pollution and not both simultaneously.

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Efforts to clean Air: Delhi

Delhi plans its first 'green' budget to tackle bad air

The Times of India, 05 February 2018

NEW DELHI: With alarmingly high pollution levels in the capital raising serious health concerns, the Aam Aadmi Party government has decided to come up with a multi-department action plan in the 2018-19 Delhi Budget, to be presented in March. Discussions around what is being projected as Delhi's first "green budget" started last week and, by mid-February, the government plans to finalise proposals that will form a part of an action plan to be implemented in the new financial year.

Through this action plan, the government is aiming for a "visible impact" over the next two years, sources say, adding that the government feels that air pollution in Delhi has reached crisis levels. Officials cite several scientific studies that show high exposure to particulate matter, nitrogen oxides and carbon monoxide can cause lasting health damage and lead to increased mortality.

Deputy chief minister Manish Sisodia who holds charge of the department of finance sees the 2018-19 budget as an opportunity to strengthen the government's efforts to combat air pollution by "bringing out a special package, together with a comprehensive action plan". This plan will involve five departments — environment, transport, industries, energy and the Public Works Department. "By doing so, it will become Delhi's first green budget," Sisodia has said in a note issued to the departments concerned.

Department-level discussions for shortlisting the proposals started on February 2 and will go on till February 14. A budget meeting will be held on February 15 to discuss and shortlist proposals from each department for inclusion in the "green budget" and these will be finalised between February 16 and 17. Each proposal will lay down "objectives, timeframe for implementation, proposed outlay, potential impact on pollution and possible difficulties in implementation". Officials have been asked to dwell on revenue generation possibilities to meet the expenses of the ambitious plan.

Clean Air Campaign to curb Delhi pollution begins on Saturday

The Times of India, 08 February 2018

NEW DELHI: After several poor air quality days during winter, the Centre and Delhi government will initiate a two-week Clean Air Campaign in the capital, which would involve checking vehicular pollution, inspection of power plants to ensure norms compliance, dust management at construction sites, a marathon to improve awareness and indoor air quality management.

The campaign will begin from February 10. Environment minister Harsh Vardhan reiterated that the campaign is not just a symbolic exercise, but a serious effort to drastically bring down pollution levels in the capital.

"A strong message has to go down that pollution is a serious economic and health issue and is linked to our national image also."

The two-week campaign will start from Saturday with Delhi Government, New Delhi Municipal Council (NDMC), Central Pollution Control Board (CPCB) and other municipal agencies, for clean air in the capital city.

"The campaign seeks to sensitise groundlevel functionaries and general public to enforce the habit of environmental protection," a spokesman from the ministry said.

"During the campaign resident Welfare Associations (RWAs), shopkeeper associations and the civil society will be encouraged to become a part of teams and participate in the campaign for mitigation of pollution."

Officials said the teams would be provided with checklists so that there is focused activity on mitigation of pollution, including effective measures for dust mitigation, solid waste management and prevention of garbage burning.

The move comes at a time when the Indian capital city and its outskirts are facing air pollution crisis.



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Breathing bus stops and forest cities

The Telegraph, 13 February 2018

This week marks the 15th anniversary of the London Congestion Charge, the revolutionary initiative to reduce traffic and cut air pollution in the capital.

On top of the standard congestion charge, highexhaust vehicles are now penalised extra for entering the low-emission zone under the T-Charge scheme, to be replaced by the Ultra Low Emission Zone in 2019. This will be expanded out to the North and South Circular roads in 2021.

But despite all efforts, both congestion and air pollution in the capital are still excessively high. Traffic analytics firm INRIX recently revealed that London is Europe's second most congested city after Moscow, reporting that drivers in the capital spend an average of 74 hours per year in gridlock – up one hour on 2016.

The poster-child of polluted London, Brixton Road reached its annual legal limit for toxic nitrogen dioxide just one month into 2018. This is actually an improvement on previous years, when the busy south London thoroughfare crossed the red line even earlier in January.

Of course, London is not the only city blighted by poor air quality. In December 2016, Paris made all public transport free while the city experienced its worst air pollution crisis in a decade, and rolled out a system banning cars from the city on certain days depending on whether they had odd or even number plates.

The outlook is equally hazy in parts of Asia. In its annual 'No List', travel publisher Fodor's actually advised visitors to avoid Beijing because of its high pollution levels, and in November last year United Airlines was forced to cancel flights into New Delhi due to an extreme smog alert.

Shortly after, the Associated Chambers of Commerce and Industry of India (ASSOCHAM) reported that travel agents are experiencing an acute rise in cancellation and postponement requests due to pollution alerts in India's capital.

CSIR project to find pollution spots

The Hindu, 28 February 2018

To warn people of pollution hotspots, the National Institute of Science, Technology and Development Studies (NISTADS) — the policy arm of the Council of Scientific and Industrial Research (CSIR) — is rolling out a project to install pollution sensors at the Capital's traffic junctions.

Message alert

The aim, said NISTADS director Prashant Goswami, was to develop a messaging alert system that will warn people of spikes in pollution in certain localities.

Test project

For over a year, NISTADS researchers have been running a test project that involved a pollution-monitoring unit affixed on a van which went around specific localities in Delhi. It recorded the waxing and waning of particulate matter throughout the day. Generally, pollution levels tended to be higher in the morning and ebbed as the sun ascended. "Along with our own data, we have also analysed pollution data collected by the Central Pollution Control Board [CPCB]," said Mr. Goswami, adding, "However, there is no information on how pollution levels changed throughout the day. That is what we hope to conceive as a service."

The NISTADS expects private companies to buy the idea, tap the CSIR body's database and offer this as a product similar to how Google Maps warns users of an impending roadblock. The process of data collection is still on and the NISTADS is also looking to develop a prototype of pollution sensor that can be easily affixed atop trafficjunctions.

'Clean Air for Delhi'

Recently, the Delhi government and the Union Environment Ministry had joined hands for 'Clean Air for Delhi' campaign which witnessed nearly 7,000 environmental violations and 3,000 challans being issued for a range of infractions, ranging from open burning of waste, construction and road dust violations and vehicular pollution, and 635 cases of traffic congestion.



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Plant as an environmental purifier in context of Urban Area

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Dedicated plan for 100 cities to reduce air pollution levels

The Economic Times, 14 February 2018

NEW DELHI: Looking beyond Delhi which has long been in focus due to its bad air quality, the Centre has decided to launch dedicated air pollution abatement programmes soon in around 100 additional cities with a target to reduce pollution levels in each of these cities by 35% in the next three years and 50% in the next five years.

It'll be part of the Centre's ongoing National Clean Air Programme where the environment ministry in coordination with the state governments would work on achieving results within the set time-line. The list of 100 cities, identified on the basis of level of pollutants such as NO2, PM2.5 and PM10, include all the major cities including Mumbai, Pune, Nagpur, Lucknow, Kanpur, Varanasi, Chandigarh and Kolkata among others. Maharashtra has the maximum number of cities (17) in the list followed by Uttar Pradesh (15), Punjab (8), Himachal Pradesh (7), Odisha (6) and Madhya Pradesh, Andhra Pradesh, Assam and Rajasthan (5 each). "We will strengthen the National Clean Air Programme in around 100 non-attainment cities where parameters (air quality) are not right and require attention", said environment minister Harsh Vardhan while announcing the Centre's target plan of abating air pollution in those cities.

The programme will include expanding monitoring network, setting up of air information systems, certification of monitoring institutions, air quality forecasting systems, strengthening of implementation mechanism, awareness and capacity building drives among others. All civic authorities in those cities will work in coordination with the respective State Pollution Control Boards (SPCBs).

Support for strict implementation of identified actions for abatement of air pollution from all sources will be the key component of the programme. "Idea is to implement all the measures by taking lessons from the best practices of other countries", said an official.

In times of pollution, air purifying plants at Noida flower show a hit with visitors

Hindustan Times, 24 February 2018

'Detox plants', which act as 'vacuum cleaners' inside the house, are a hit in the ongoing Noida Flower Show, as residents and nature enthusiasts are preferring them for pollution control as well as interior decoration.

Plants such as Aloe Vera, Sansevieria, Areca Palm, Dracaena, Rubber Plant and Money Plant are in demand in the three-day long flower show which was inaugurated on Friday evening.

As many as 85 stalls have been put up by florists, gardening equipment wholesalers and seed retailers at the on going flower show. Entry to the show has been made free for all. However, this year, it's the pollution control plants that have been grabbing all eyeballs.

"We are hosting the 32nd Noida Flower Show this year and its themes are controlling air pollution and conserving water. We have several plants that control air pollution inside the house such as Aloe Vera, Sansevieria, Areca Palm, Dracaena, Rubber Plant, Spider Plant Money Plant, Ficus Benjamina, Golden Pothos, Syngonium and Peace Lilly," Deepa Pasricha, joint secretary, The Horticulture Society, Noida, said.

Elaborating on 'pollution controlling plants', Pasricha said, "All plants emit oxygen, but it was established in a study conducted by National Aeronautics and Space Administration back in 1989 that some indoor plants could be extremely useful in controlling the air pollution by acting as a 'vacuum cleaner' against the pollutants and absorbing them."

Mentioning the benefits of Sansevieria plant, Pasricha said, "Ideally, a 400 square feet house must have 5-6 vases of Sansvieria plants as they help in absorbing pollutants. These plants don't require much sunlight to grow and can be kept in the house for 20-25 days at a stretch. This is a best suited plant for households which can be placed anywhere in the rooms. Earlier, it used to come free of cost, but now, due to rising air pollution and the benefits that it brings, the price is ₹150 for a vase plant."