

NEWSWATCH



INDIAN ENVIRONMENTAL ASSOCIATION

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Editor: Pramod Shah

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President: Madhukar Naik

From the President's Desk:



Dear friends and members of IEA, **the Indian Environmental Association**

Greetings from me and the entire IEA Board.

The Monsoon this year is not uniform. It has flooded somewhere and some places have gone dry or with partial rainfall. Nevertheless the overall picture is not as grim as was painted before monsoon.

But my editor Mr Pramod Shah says that water is going to be an important issue in the coming years. We have to take immediate steps to rejuvenate our water bodies, take effective steps for rainwater harvesting and conservation of fresh water sources by recycling wastewater.

The priorities of the Government are as follows:

1. Water for drinking and human consumption
2. Water for irrigation
3. Water for Industries.

IEA has been invited as a supporting organization at the upcoming IFAT at Bombay Exhibition Centre on 8th, 9th and 10th September 2026. IEA will play an active role in some of the events involving discussions and technical debates.

IEA also has been invited as a supporting organization at the upcoming Envirotech, however, it has some more time say February 2027. this August edition of the NewsWatch is very interesting one focusing on water related issues.

No explanation is required to an Environmental Engineer as why there is a huge Global warming. We will have to work hard to counter the Global warming.

Now IEA looks forward to new financial year. Kindly suggest new plans and new events to hold and celebrate.

Governing Body of IEA has been formed, with three layers of management, The Directors, the Managing Committee members, and sub-committee members. We have even formed a working group that actively works for drafting, follow-up, invitations, booking of venue, and so on.

India is among a handful of countries where Environmental Protection and wildlife protection are part of The Constitution. To be compassionate to other animals is part of our duties. In short, Environmental Protection includes all surroundings including plants, forest land, wild and domesticated animals, etc. This covers the full spectrum of Environmental Protection.

Do contribute to the NewsWatch on current Environmental issues. You may e-mail the articles, and newspaper cuttings to indenvassociation@gmail.com

Yours truly

M A Naik

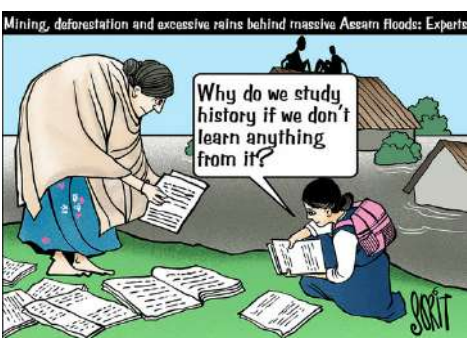
President IEA

NewsWatch at a glance

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Shrimp, crabs, and fish return to Karambavne creek*

Reduction in Lote pollution, Chiplun positive impact of sewage pipeline renovation

After several years, the Karambavne creek has started showing signs of revival. Following a decline in pollution levels, various species of fish, shrimp, crabs, and mollusks have begun to reappear. This has created an atmosphere of satisfaction among local fishermen.

Due to industrial pollution from the Lote MIDC area, the creek had become severely contaminated. However, recent improvements—especially the renovation and better functioning of sewage drainage pipelines—have led to a noticeable reduction in pollution.

As a result:

- Aquatic biodiversity is gradually returning
- Fishermen are once again able to catch shrimp, crabs, and fish
- Local livelihoods are improving

Earlier, due to heavy chemical pollution, fish populations had drastically declined. Wastewater discharge had severely affected marine life. Now, with pollution control measures being implemented, natural regeneration is visible.

Fishermen report that:

- Catch volumes have improved
- * Market availability of seafood has increased
- Income opportunities are recovering

Concerns remain:

- Pollution has not been completely eliminated
- Continued monitoring and strict control measures are necessary

The situation in the creek is improving, but sustained environmental management is essential to ensure long-term ecological recovery and livelihood stability.

The Brazil Comparison Fallacy

By Lalit Vashista
Diva Envirotec

Invoking Brazil to justify India's ethanol policy is not just weak—it is technically misleading. The comparison ignores fundamental differences in agro-climatic conditions, water economics, and vehicle ecosystem readiness. When examined quantitatively, the argument collapses.

1. Rainfed vs Irrigated — A Non-Negotiable Asymmetry

Brazil's sugarcane economy is fundamentally rainfed, concentrated in regions such as São Paulo where climate, rainfall distribution, and soil conditions naturally support high yields without irrigation. Energy inputs for water extraction are therefore negligible.

India operates in an entirely different regime. Irrigation is not supplementary—it is foundational. Approximately 9 MJ of fossil energy is consumed per litre of ethanol purely for groundwater pumping, accounting for over 56% of total fossil energy input.

The consequence is structural, not incremental:

- India's net energy yield: ~6 MJ/litre
- Brazil's net energy yield: ~18 MJ/litre

Brazil delivers nearly 3× higher energy return per unit of fossil input. This is not a policy efficiency gap—it is a thermodynamic and agro-climatic constraint.

2. Water Stress — India Extracts, Brazil Utilizes

India's ethanol push is effectively tied to groundwater extraction in already stressed basins.

- * Sugarcane occupies only 3–4% of India's agricultural land but consumes up to 60% of irrigation water in key states.
- * Water withdrawal-to-availability ratios in cane-growing regions range between 50–70%, indicating systemic over-extraction.
- * Water requirement: ~12,000 m³/ha/year (~20 million litres/ha/year).

Brazil, in contrast, relies almost entirely on rainfall, with only limited “rescue irrigation” reducing water footprint marginally (~7%).

total water usage further exposes inefficiency:

- Brazil: ~82 billion m³ for higher ethanol output
- India: ~73 billion m³ for lower output

India is effectively expending comparable water resources for a smaller and less efficient ethanol outcome, in regions already categorized as groundwater-critical.

3. Yield Gap — More Input, Less Output

Brazil's productivity advantage is consistent and structural:

- Brazil average: ~81 MT/ha (São Paulo ~85 MT/ha)
- India: ~70 MT/ha in Uttar Pradesh; higher in Maharashtra but with significant drought vulnerability

Lower yields imply that India requires more land and more water per litre of ethanol, compounding inefficiencies already driven by irrigation dependence.

4. Fleet Compatibility — Retrofitting a Mismatch

Brazil's ethanol success is inseparable from its automotive strategy. Flex-fuel vehicles were introduced in 2003, engineered from inception to handle varying ethanol blends—materials, fuel systems, and engine calibration were aligned.

India has taken the reverse approach:

- Ethanol blending mandates have preceded fleet readiness
- ~200 million two-wheelers and millions of cars were designed for lower ethanol blends

The result is predictable:

- Reduced fuel efficiency
- Increased maintenance costs
- Material degradation and component wear

This is not a transitional inconvenience—it is a systemic mismatch between fuel policy and installed hardware.

The Core Reality

Brazil's ethanol model is not a policy template—it is a product of geography, hydrology, and long-term industrial alignment. India is attempting to replicate the outcome without replicating the underlying conditions.

Yes, ethanol blending offers forex savings and diversification of fuel supply. However, framing it as “Brazil has already proven this” is analytically flawed.

India is simultaneously:

- Extracting water from stressed aquifers
- Consuming higher fossil energy per litre of ethanol
- Delivering lower net energy returns
- Forcing compatibility onto a legacy vehicle fleet

This is not strategic replication—it is policy overreach against physical constraints.

A credible ethanol strategy for India must be grounded in its own resource realities, not borrowed narratives.

Cities that breathe: Lessons from England's community forests for urban India

By [Brijesh Pal Yadav](#)
(Published on:
11 Jul 2026,)

Take a walk in Delhi in May, and you'll notice the heat rising from the pavement even after dark. The air hangs heavy between the concrete buildings. In Bengaluru, people who once needed sweaters in the mornings now sweat through the night, since urban forests that once cooled the city have been replaced by new construction. In Hyderabad, students protested in April 2025 when 400 acres of green land were cleared for an IT park, a conflict that ultimately reached the Supreme Court.

These events are not happening in isolation. They are part of a bigger crisis across urban India: our cities are losing green spaces faster than they can be replaced, and the impact is now clear to everyone.

The numbers tell the story. A 2024 study in Heliyon found that Delhi's built-up area grew from 7.67 per cent in 1977 to 38.28 per cent by 2014 and could reach 53.83 per cent by 2030, largely replacing farmland and forests. Another review showed that urban wetlands can cool nearby areas by about 4.7–4.9°C, and street trees lower air temperatures by about 3.8°C on average. The 2025 Lancet Countdown Report on India found that extreme heat in 2024 resulted in the loss of 247 billion potential labour hours and an economic loss of US\$

194 billion. Urban India is not just getting hotter; it is also losing wealth. Solutions exist. Now, India needs a way to put them into action.

I work as a Community Woodland Officer with North East Community Forest in England, one of 15 Community Forests in the country. A Community Forest is not just a traditional forest. It includes urban neighbourhoods, farmland, old industrial sites, and the green spaces in between, all focused on planting trees and making green spaces accessible. When these forests began in the early 1990s, the average canopy cover was only 6.9 per cent, much lower than England's national average. These areas were chosen because they needed trees the most. Before moving to the UK, I worked in India's forestry and highway greening sector, including at the National Highways Authority of India. This background helps me compare how both countries address the same challenge.



River Tyne Buffer Planting: A completed river-edge buffer planting scheme near Gateshead city center, creating a green corridor between residential areas and the river. Photo credit: Brijesh Pal Yadav / North East Community Forest

In the UK, new green infrastructure is a central part of development, not something added at the end. It is funded, planned, professionally designed, and managed for the long term with support from the central government. Programs like Trees for Climate cover every stage of a project, from early studies and surveys to land purchase, design, community involvement, planting, and 15 years of post-planting care. Fifteen years of management is standard practice.

What makes this model different is the support it gives to landowners and farmers. Creating new woodlands, orchards, or hedgerows can be costly, but under the Trees for Climate program, farmers and private landowners pay nothing. All costs for surveys, design, planting, and 15 years of management are covered. The grant process is simple: landowners reach out to their local Community Forest, and the team guides them through each step. Planting trees becomes a good business decision, not just the right thing to do.

Before planting any trees, the site is carefully studied. Archaeological records are checked, ecological surveys are carried out, and environmental impact assessments are prepared. The goal is always to make sure the project suits the land and does not harm it.

The results speak for themselves. Since 2020, more than 8 million trees have been planted across England's 15 Community Forests, creating over 5,500 hectares of new woodland and hedgerows. Independent studies show that for every £1 the government invests, there is £8 in economic benefit. My own community forest has added over 500 hectares of green cover, including woodlands, orchards, hedgerows, wetlands, and street trees in some of England's most industrialised areas.

dormancy, leading to insufficient chilling, desynchronised spring leaf-out, and reduced investment in frost protection,

Before planting any trees, the site is carefully studied. Archaeological records are checked, ecological surveys are carried out, and environmental impact assessments are prepared. The goal is always to make sure the project suits the land and does not harm it.



Milkwellburn Wood: Volunteers planting trees during the community woodland creation event. Photo credit: Brijesh Pal Yadav / North East Community Forest

But what really makes England's Community Forests special is not just the funding. It's the people who take part.

In just the 2024/25 season, 19,159 local people took part in planting and caring for the 15 forests. At our Milkwellburn woodland project, 168 volunteers gave over 840 hours in one season. These volunteers included local residents, school groups, young people interested in nature, and retired professionals. They came to plant trees and left feeling connected to the land they helped shape. Many came back, and some even became interested in careers in landscape architecture, ecology, or conservation.

This kind of multiplier effect is what India's urban greening efforts are currently missing.

India has a huge pool of talent. Millions of young people want meaningful jobs, students want hands-on environmental education, and many citizens care about the loss of green spaces. The motivation is there. What's missing is a clear system to turn this energy into lasting habitat creation, with trained professionals leading and volunteers helping to make it happen.

I

India already has the right foundations. Programs such as the National Mission for Green India, the Smart Cities Mission, and AMRUT 2.0 support urban greening. Now, what's needed is to add the community forest model: local green groups, skilled professionals leading design, long-term funding that lasts beyond the first monsoon, and organised volunteer programs that help citizens become real caretakers of their urban spaces.

A community greening program where schoolchildren plant trees they can watch grow for years, and young graduates get hands-on experience with professionals, creates something no government grant can buy: a living culture of caring for the environment. It helps grow both careers and trees.

India does not have to look only to England for ideas. Medellín in Colombia faced a similar problem: rapid urban growth took away green spaces and raised city temperatures. In 2016, Medellín started its Green Corridors program, turning the sides of 18 roads and 12 old waterways into green strips that connect parks, hills, and public spaces. In just three years, temperatures in these areas dropped by several degrees, respiratory illnesses fell by over 30 per cent, and cycling increased by more than a third. The city trained local people, including those displaced by conflict, as professional gardeners, making the program a source of good jobs and climate resilience. Medellín won the Ashden Award for Cooling by Nature, and other cities in Colombia and South America have followed its lead. A city with real heat and resource challenges turned its concrete into a living system. India's cities can do the same.

Delhi's draft Master Plan 2041 addresses urban heat by promoting mass tree planting and green-blue infrastructure. This is a good start, but talking about it is not enough. Real progress needs funding that lasts beyond the planting season, skilled professionals to design healthy landscapes, volunteers who stay involved, and a national plan that treats green spaces as essential public infrastructure, just as important as roads and electricity.

India's cities are at a turning point. The choices made over the next ten years will determine whether they become resilient, livable places or become harder to live in.

India has the land, the people, and the determination. Now it needs a system to bring these together and help create something lasting. The real question is not whether India can do it, but whether it will.

From Waste To wonder

During Coconut Oil manufacturing coconut shells are expected as solid waste. The coconuts are broken in automatic machines continuously.



Shells are separated as by-products. Premium shells are grouped for making specific products and transferred to Cutting department. Skilled workers process shells in machines to make Service Bowls.

Each Shell is checked for cracks and strength and sensing with compressed air. Different shapes are given as per products with the help of machines. Each surface of Finished Products is polished with natural oil.

The coconut shell finds the new life, beautiful and perfect products for everyday use, shapping in stylish for everyone.



Dr. Keki Hormusji Gharda

The global chemical giants were smug. The multi-billion-dollar conglomerates of Europe & America looked at a newly independent India and saw a permanent, captive market. The narrative was unyielding: Developing nations can harvest crops, but they do not have the brains to manufacture the complex molecules required to protect them. India was forced to import vital agrochemicals & dyes at astronomical, monopolistic rates, draining the nation's wealth.

They did not account for a fiercely stubborn, eccentric Parsi man who possessed a manic obsession with chemical formulas & zero respect for Western monopolies.

This is the story of **Dr. Keki Hormusji Gharda: the "Father of the Indian Agrochemical Industry."** A man who used nothing but a rented shed, a wooden drum & raw intellectual defiance to orchestrate a molecular revolution that broke Western chemical empires forever.

In the 1960s, Western conglomerates like Sandoz, Bayer & Hoechst ruled the global chemical landscape. They guarded their patented chemical processes like nuclear launch codes. If an Indian farmer needed a specific pesticide to save his crop from devastation/a local textile mill needed high-quality dyes, they had to pay whatever extortionate price the Western giants demanded.

Keki Gharda was an anomaly. He had finished his PhD in the US on multiple prestigious scholarships & American university labs were practically begging him to stay. But in 1964, he returned to a struggling India. He did not have millions in venture capital. He did not have a grand lab.

With just ₹2 lakhs pooled together by his mother & sisters, Keki rented a small, primitive shed in Dombivli, near Bombay. The setup was so barren & crude that he literally used an empty wooden drum as his office table & a heavy chemical carboy as his chair.

The Strategy was reverse-engineer the world's most complex, patented molecules, bypass their expensive processes & manufacture them using cheap, indigenous "jugaad" chemistry.

Gharda directly took on the global monopoly of "German Blue" (Phthalocyanine) pigments & high-end pesticides. The European giants claimed their synthesis processes required rare, expensive catalysts & highly specialized infrastructure that India simply did not possess.



Father of The Indian Agrochemical Industry

Keki locked himself in his sweltering, fumes-choked shed, working up to 16 hrs a day. Neighbors would literally ask his wife, Abaan, if Keki had a mistress because he never came home before midnight.

Her legendary reply? "Yes - Chemical Technology."

Through sheer genius, Gharda shattered the Western molecular blueprints. He invented entirely new, unpatented pathways to create the exact same high-performance molecules. In fact, he made them purer, cleaner & at a jaw-dropping fraction of the global cost.

When Gharda Chemicals unleashed its indigenously manufactured agrochemicals into the market, the global giants were pushed into absolute panic. MNCs that had ruthlessly controlled prices for decades were forced to slash their rates by 50% to 70% just to survive the "Gharda Effect."

He single-handedly democratized the Green Revolution for the Indian farmer.

The Western powers were so flummoxed by this 1 man demolition crew that in 2004, the American Institute of Chemists did something unprecedented: they awarded Keki Gharda the prestigious "Chemical Pioneer Award", making him the 1st Indian & the 1st Asian, to ever receive it. Global behemoths like DuPont eventually came knocking on his door, offering a staggering ₹1200+ crore to buy him out.

Keki looked at the mountain of Western money & walked away.

Why? Because his life was not about the ARR/personal luxury. Keki lived economically & wore simple clothes. When he passed away in late 2024, he did not leave his massive empire to corporate sharks.

He transferred 99% of his personal holdings & wealth into a philanthropic research trust dedicated to upgrading rural India, transforming his life's work into a permanent engine for public good.

Keki Gharda proved that true sovereignty is not just about drawing lines on a map; it is about owning the molecules that feed & protect your people. He showed the world that a brilliant mind sitting on an empty chemical carboy in a rented Indian shed could out-innovate the greatest labs of the Western world.

IEA Report

IEA will be a Supporting Partner for IFAT India 2026, India's Largest Trade Fair for Water, Sewage, Solid Waste and Recycling to be held from September 9 to 11, 2026 at Bombay Exhibition Center, Goregaon, Mumbai.

- The three day event will provide opportunities and facilitate networking among Environmental experts, designers, technology providers, potential partners, and collaborators, corporate, government bodies, funding organizations, etc.



The invitation card features a background image of blue water treatment granules. In the top right corner, there is a logo for 'MESSE MÜNCHEN' consisting of three slanted parallel lines. The card has a white central area with rounded corners containing the invitation text and logos.

Exclusive Invitation for
IEA Members

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You are cordially invited to visit
India's Largest Trade Fair
for Water, Sewage, Solid Waste
& Recycling

September 09-11, 2026
Bombay Exhibition Centre, Mumbai

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