



India's Environmental Transformation

4th June, 2025

Introduction

India has always had a deep respect for nature. As the Atharva Veda says, "The Earth is our mother and we are her children." This belief has been part of our way of life for centuries. Over the last 11 years, under the leadership of Prime Minister Narendra Modi, this ancient wisdom has been turned into strong and practical action. India has moved from being a follower in global climate efforts to becoming a leader. Through clear policies, public participation, and a strong push for clean energy and sustainability, the government is working to build a greener, healthier and more secure future for everyone.

A Climate Champion On The World Stage

In 2014, India was seen as a hesitant participant in global climate talks. That changed as Government brought in the concepts of climate justice and equity, reshaping the global climate narrative.

- ❖ At **COP21 (Conference of Parties 21) in Paris**, India pledged to achieve 40% of its installed electricity capacity from non-fossil fuel sources by 2030; a goal met ahead of time in November 2021.
- ❖ At **COP26 in Glasgow**, PM Modi launched **LiFE (Lifestyle for Environment)**, encouraging sustainable habits and promoting mindful consumption over wasteful use. India also introduced the **Panchamrit**, five key targets for climate action.
- ❖ At **COP29 in Baku (Nov 2024)**, India showcased its progress in climate adaptation and clean energy through global partnerships. Sessions focused on disaster-resilient infrastructure, industrial decarbonization, solar energy, and women-led climate action, in collaboration with

Sweden, CDRI (Coalition for Disaster Resilient Infrastructure), ISA (International Solar Alliance) and NRDC (Natural Resources Defense Council).

Panchamrit of India's climate action

- Reduce total projected carbon emissions by **1 billion tonnes by 2030.**
- Cut carbon intensity of the economy by **less than 45% by 2030.**
- Fulfil **50% of energy** requirements from renewable sources by **2030.**
- Create **500 GW** of non-fossil **fuel energy capacity by 2030.**
- Achieve net-zero emissions by 2070.

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Renewable Energy: From Promises To Performance

India made significant strides in renewable energy during FY 2024–25, achieving its highest-ever annual capacity addition. This progress reflects the country’s strong commitment to a cleaner, greener future.

India's Clean Energy Progress

In FY 2024–25, India added a record 29.52 GW of renewable energy capacity, increasing the total installed capacity to 220.10 GW, up from 198.75 GW in FY 2023–24. This marks strong progress toward the 500 GW non-fossil fuel target by 2030.

Solar Energy

India’s solar energy installed capacity saw a 25.46-fold increase, rising from 2.82 GW in 2014 to 71.78 GW in April 2025. Solar tariffs dropped by 65%, from ₹6.17/kWh in 2014–15 to ₹2.15/kWh in 2024–25, making them the lowest in the world.

Wind Energy

Wind energy capacity grew 2.38 times, from 21.04 GW in March 2014 to 50.04 GW in March 2025. The government has set a target of achieving 140 GW of wind power capacity by 2030.

Nuclear Energy



Nuclear energy capacity has seen an 84% increase since 2014, rising from 4.78 GW to 8.78 GW in 2025. The government has set an ambitious target of 100 GW nuclear power capacity by 2047.


Global Recognition

India ranks **7th** in the Renewable Energy Country Attractiveness Index. This reflects its growing global leadership in clean energy.

India's

Clean energy revolution has reshaped its energy landscape

-  Clean energy capacity has nearly tripled, from **76.38 GW in 2014** to **228.28 GW** by April 2025.
-  Solar energy capacity surged 25.46 times from **2.82 GW in 2014** to **71.78 GW in April 2025**.
-  Solar tariffs **dropped by 65%**, from **₹6.17/kWh in 2014-15** to **₹2.15/kWh in 2024-25** – among the lowest in the world.
-  Wind energy capacity grew 2.38 times, from **21.04 GW in March 2014** to **50.04 GW in March 2025**
-  Nuclear energy capacity increased from **4.78 GW in 2014** to **8.78 GW in 2025**. The government has set target of 100 GW nuclear power capacity by 2047.



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Flagship Initiatives for a Sustainable Future

India is paving the path toward a sustainable future through bold clean energy initiatives focused on solar power and green hydrogen. These efforts aim to reduce carbon emissions, enhance energy access, and foster rural and economic empowerment.

International Solar Alliance (ISA)

Launched by **India and France at COP21 in 2015**, ISA is a global platform promoting solar energy for energy access and climate action. Headquartered in India, it has **105 member countries** and aims to mobilize **\$1 trillion in solar investments by 2030**.

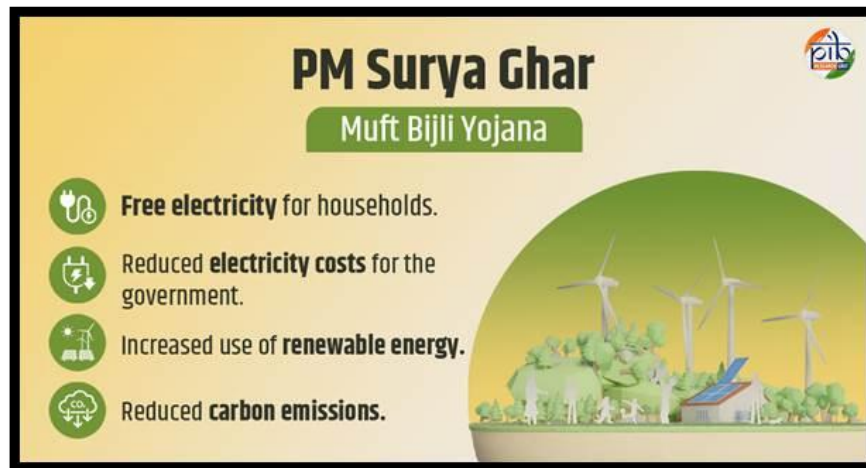
National Green Hydrogen Mission

Launched in January 2023, the mission aims to make India a global hub for green hydrogen production and export. It targets 5 MMT annual capacity by 2030, with over ₹8 lakh crore in investments, creation of 6 lakh jobs and reduced fossil fuel dependence.



PM Surya Ghar: Muft Bijli Yojana (PMSGMBY)

Launched by Prime Minister Narendra Modi on February 15, 2024, PMSGMBY is the world's largest domestic rooftop solar initiative. Focused on benefiting low-income households, the scheme has already brought **rooftop solar to 11.88 lakh homes till April 2025**. A dedicated digital platform ensures easy access to subsidies and loans, making clean energy adoption more accessible and efficient.



Model Solar Village | A Key Component of PM Surya Ghar Muft Bijli Yojana

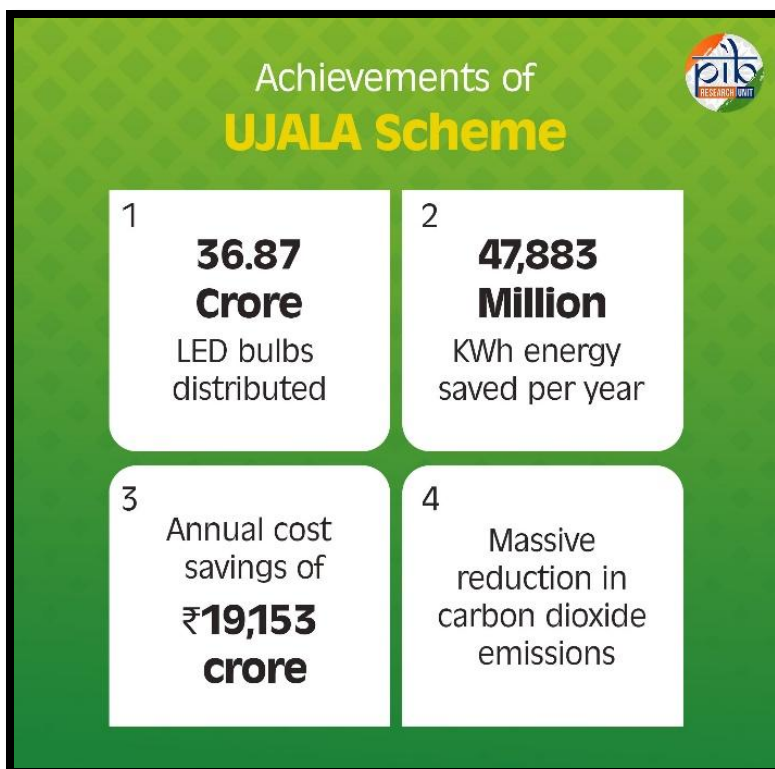
Under this major component, one solar-powered model village will be developed in every district to promote decentralized solar adoption and rural energy self-reliance. With a total outlay of **₹800 crore**, each selected **village receives ₹1 crore** in Central Financial Assistance. Eligible villages must be revenue villages with populations over 5,000 (or 2,000 in special category states). The initiative aims to create replicable models of solar-powered rural development across India.

PM-KUSUM (Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan) Scheme

Launched in **March 2019**, the PM-KUSUM scheme promotes solar energy in agriculture by supporting solar-powered irrigation systems. It offers 30% to 50% central subsidy for new solar pumps and solarizing existing ones. The scheme targets solarisation of 49 lakh agricultural pumps in coming years, ensuring reliable energy for farmers and reducing carbon emissions.

UJALA Scheme (Unnat Jyoti by Affordable LEDs for All)

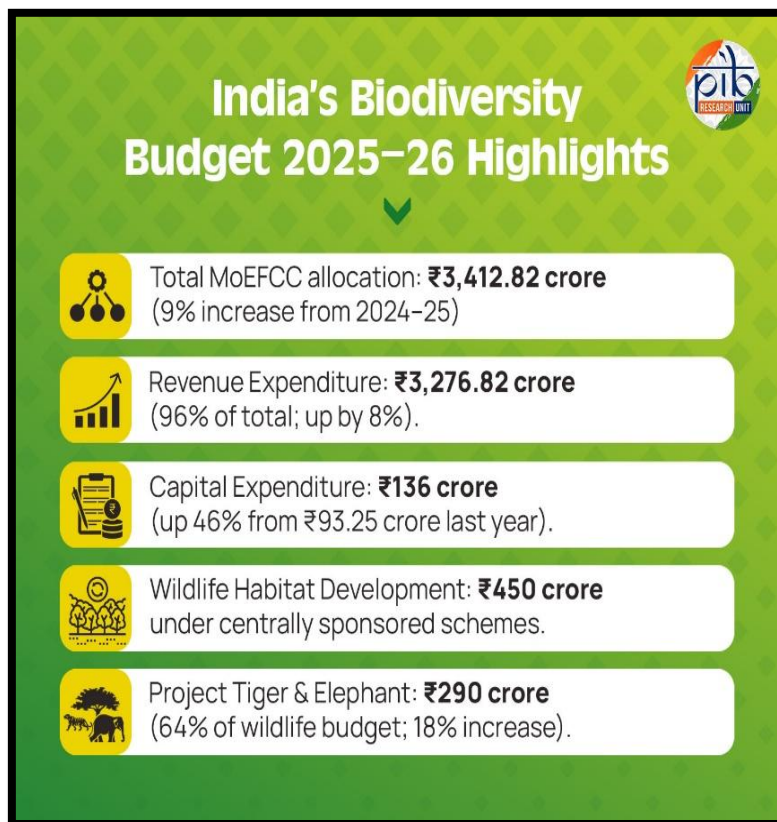
Launched on **5th January 2015** by Prime Minister Narendra Modi, UJALA (Unnat Jyoti by Affordable LEDs for All) promotes energy efficiency by distributing LED bulbs, tube lights, and fans. Initially called DELP (Domestic Efficient Lighting Programme), the scheme has helped reduce electricity consumption and made sustainable lighting affordable for millions. As of 6th January 2025, the UJALA scheme has distributed **36.87 crore LED bulbs**.



Conservation And Wildlife Protection: Nature Strikes Back

Preserving the environment requires more than just schemes, it needs strong funding, effective implementation, and community participation. India, one of the world's most biodiverse countries, is taking key budgetary steps to support conservation.

- Biodiversity Richness:**
 Though covering just 2.4% of Earth's land, India hosts 7–8% of global species, including 45,000+ plants and 91,000+ animals.
- Biodiversity Hotspots:** India includes 4 major global hotspots; the Himalayas, Western Ghats, Northeast, and Nicobar Islands.



➤ India's environmental success extends beyond energy

• Forest cover has increased significantly

India State of Forest Report (ISFR) 2023 released in December 2024, the report shows India's forest cover grew from **698,712 km² in 2013** to **715,343 km² in 2023**. The country's carbon sink reached **30.43 billion tonnes of CO₂ equivalent**, adding **2.29 billion tonnes** since 2005. This progress aligns with India's NDC (**Nationally Determined Contribution**) target of 2.5 to 3.0 billion tonnes by 2030, reflecting strong strides in forest conservation and reduced fire incidents.



• Tiger population more than doubled

As per the 5th cycle of the All India Tiger Estimation 2022 (usually done in cycles of four years) summary report, India has a minimum of 3682 tigers and is now home to more than 75% of the world's wild tiger population.

• Project Cheetah

Project Cheetah is the world's first inter-continental large wild carnivore translocation project. It aims to reintroduce cheetahs in India after their extinction, restoring ecological balance and boosting biodiversity. Under Project Cheetah, Prime Minister Narendra Modi released eight wild cheetahs brought from Namibia into Kuno National Park on **17th September 2022**. The project achieved a major milestone when cheetah cubs were born in India for the first time in 70 years, symbolizing a hopeful revival of the species in their historic habitat.

• Project Lion

Project Lion was announced on August 15, 2020 as a major step to ensure the long-term conservation of the Asiatic lion. This initiative focuses on habitat development, disease control, and a dedicated lion conservation breeding program. The project is centered in Gujarat, the last natural habitat of the Asiatic lion. In 2010, there were an estimated 411 lions. **By 2020, that number had grown to 674**, reflecting the success of conservation measures. To further strengthen this progress, ₹155.52 crore was allocated for Asiatic lion protection in the year 2023–24.

• 13 Indian beaches have received Blue Flag Certification.

The Foundation for Environment Education (FEE) in Denmark gives the Blue Flag certification, a global eco-label. The Blue Flag initiative began in France in 1985 as a symbol of excellence in environmental management, safety and sustainable tourism. In 1987, the first Blue Flag

certifications were awarded across ten European countries, marking the beginning of it as a formal ecolabel. **India joined the Blue Flag programme in 2018.**

- **Palli in J&K became India’s first carbon-neutral panchayat.**

Under the revamped National Panchayat Awards in 2023, Ministry of Panchayati Raj has instituted 'Carbon Neutral Vishesh Panchayat Puraskar' to award Panchayats for exemplary work towards achieving Net-Zero carbon emission.

- **The “Ek Ped Maa Ke Naam” campaign has seen the planting of over 142 crore trees.**

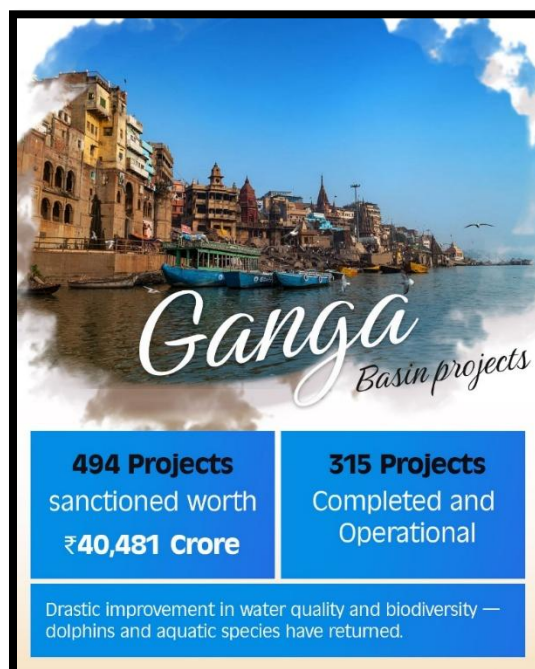
On the occasion of World Environment Day, Prime Minister Narendra Modi launched the 'Ek Ped Maa Ke Naam' campaign, a unique initiative combining environmental responsibility with a heartfelt tribute to mothers. This campaign was inaugurated on June 5, 2024, with the planting of a Peepal tree by the Prime Minister at Buddha Jayanti Park in Delhi.

- **Ramsar Sites in the country stands at 85**

India is a Contracting Party to the Ramsar Convention, signed in 1971 in Ramsar, Iran. India joined the convention on 1st February 1982. From 1982 to 2013, 26 wetlands were designated as Ramsar sites. Between 2014 and 2024, India added 59 more sites. As of 2024, the total number of Ramsar sites in the country stands at 85. This shows India’s growing focus on wetland conservation.

The Namami Gange Mission: A Holy Transformation

Rivers are the lifelines of ecosystems, supporting biodiversity, agriculture, and communities. In response to the mounting ecological degradation of the Ganga, the Government of India launched



the Namami Gange Programme (NGP). Launched in 2014, the Namami Gange Programme reflects Prime Minister Narendra Modi's personal commitment: *"It's my destiny to serve Maa Ganga."*

Clean Villages, Circular Economy

India has achieved new milestones through the Swachh Bharat Mission and GOBARdhan. The mission promotes sustainable waste-to-wealth solutions, driving cleaner and healthier communities nationwide.

Swachh Bharat Mission (Urban)

The Swachh Bharat Mission-Urban (SBM-U) was launched on October 2, 2014, to address urban garbage, waste, and sewage issues. SBM-U 2.0 started on October 1, 2021, aiming for safe sanitation and scientific municipal solid waste management by 2026.

The budget outlay for Swachh Bharat Mission-Urban (SBM-U) from 2014 to 2021 was ₹62,009 crores, with a central share of ₹14,623 crores. For SBM-U 2.0 (2021-2026), the budget is ₹1,41,600 crores, including a central share of ₹36,465 crores.

Swachh Bharat Mission (Grameen) [SBM(G)]

SBM (G) was launched on October 2, 2014, to achieve Open Defecation Free (ODF) status in rural India. By 2019, sanitation coverage rose from 39% to 100%, with 12 crore toilets built, improving health and hygiene. Phase II, started in 2020, focuses on ODF sustainability and waste management, aiming for ODF Plus by 2025-26.

Under SBM (Grameen), funds released over the past 10 years and the current year include ₹2,849.95 crore in 2014-15 and ₹3,014.06 crore in 2024-25.

GOBARdhan (Galvanizing Organic Bio-Agro Resources Dhan)

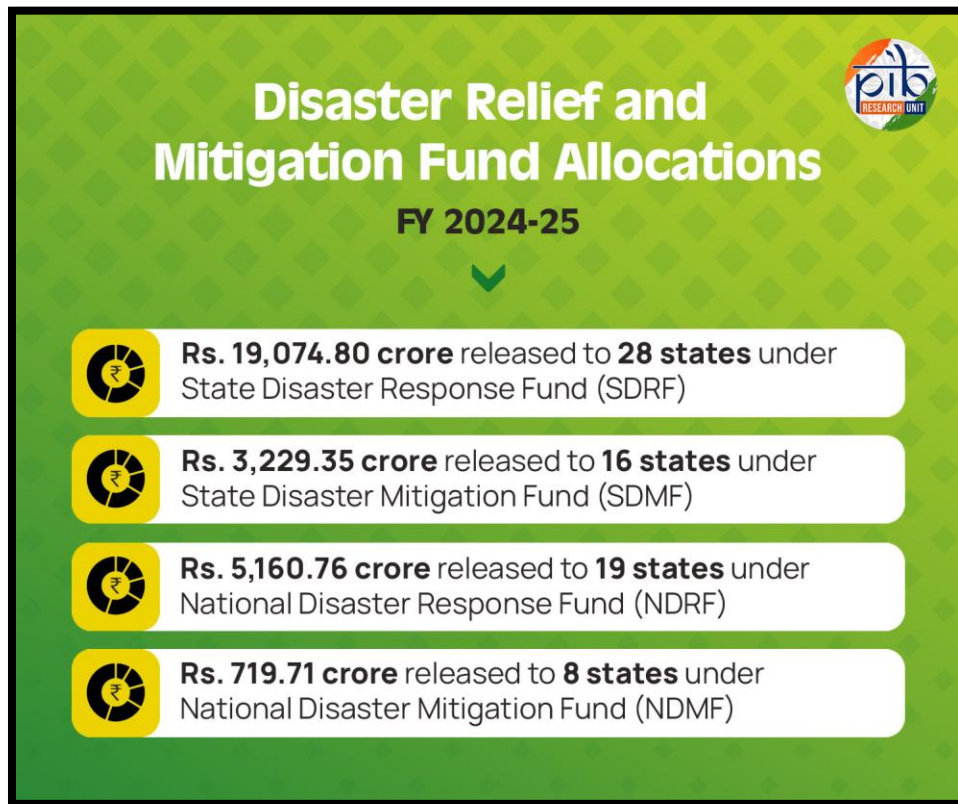
Galvanising Organic Bio-Agro Resources Dhan (GOBARdhan) is a major multi-ministerial initiative of the Government of India, launched in 2018 as part of the Swachh Bharat Mission – Gramin. The scheme focuses on converting cattle dung and agricultural waste into valuable resources like compost and biogas. It promotes rural cleanliness, effective bio-waste management, and encourages rural entrepreneurship, empowering local communities.

The budget announcement 2023 provided a major fillip to this transformative initiative by announcing establishment of 500 new "waste to wealth" plants with an investment of Rs. 10,000 Crore. During FY 2023-24, 198 plants were set up which includes 12 Compressed Biogas (CBG) plants and 186 biogas plants. Further, 556 plants are under construction stage which include 129 CBG plants as well as 427 biogas plants.

Disaster Preparedness And Resilience

A number of steps have been taken to prevent any extensive loss to life and property during disasters by strengthening disaster risk reduction system in India. On March 2025, Central Government has allocated a total amount of Rs.5,000 crore under NDRF for “Expansion and Modernization of Fire Services in the states” and had already approved the proposals of 20 states for a total of Rs. 3,373.12 crore.

- Till Now ₹46,000 crore allocated for disaster readiness.
- Formation of 16 NDRF battalions, upgraded infrastructure.
- Deployment of Dial 112 emergency system.



Heritage, Tourism & Sustainability

Infra development with ecological conservation is the new hallmark of governance. Projects like the Kedarnath and Hemkund Sahib ropeways reflect this balanced vision of progress and preservation.

Kedarnath Ropeway Project: The Union Cabinet has approved the construction of ropeway project from Sonprayag to Kedarnath in Uttarakhand. The project is being developed on Design, Build, Finance, Operate and Transfer (DBFOT) mode. The ropeway project will be a boon to the pilgrims visiting Kedarnath as it would provide an environment-friendly, comfortable and fast connectivity and reduce travel time in one direction from about 8 to 9 hours to about 36 minutes.

Hemkund Sahib Ropeway: The Union Cabinet has approved two key ropeway projects in Uttarakhand under the National Ropeways Development Programme – Parvatmala Pariyojana. One of these connects to Hemkund Sahib Ji, located at an altitude of 15,000 feet and visited by 1.5–2 lakh pilgrims annually. Situated near the Valley of Flowers, a UNESCO World Heritage Site, the project will ensure smoother access while preserving the fragile Himalayan ecosystem through eco-friendly transport.



Ministry of Information and Broadcasting
Government of India

CABINET DECISIONS
05th March 2025

CABINET APPROVES ROPEWAY PROJECT FROM SONPRAYAG TO KEDARNATH

- 12.9 km** long Ropeway project under NRDP* – Parvatmala Pariyojana
- Project cost: **₹4,081 Crore+**
- Designed Capacity: **1,800 PPHPD***
- Carrying Capacity: **18,000 passengers per day**

*Note: *As per the approved project proposal.*



Cabinet Approves
ROPEWAY Project from Govindghat to Hemkund Sahib Ji

12.4 KM long Ropeway
Project under NRDP – Parvatmala Pariyojana

- Project Cost:** ₹2,730.13 Crore+
- Designed Capacity:** 1,100 PPHPD
- Carrying Capacity:** 11,000 passengers per day

Conclusion

As PM Modi aptly put it, “*Our planet is one, but our efforts must be many.*” India’s 11-year journey proves that sustainable development is not a distant dream but a vibrant, achievable reality. From the deep cleaning of the Ganga to becoming a global renewable energy giant, and from reviving cheetahs to energizing villages with solar power, India is scripting a new ecological narrative one that blends heritage with innovation, local action with global leadership and vision with relentless execution. India’s green transformation is not just a policy shift. It is a people’s movement, a planetary commitment, and a promise to future generations.

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Santosh Kumar/ Ritu Kataria/ Kamna Lakaria/ Priya Nagar