

In over six eventful decades of his life – from being a corporate leader to occupying the Constitutional office of Delhi's Lieutenant Governor - Vinai Kumar Saxena has throughout remained an ardent environmentalist and a vociferous crusader for Green and Sustainable Development.

Notwithstanding the positions and the responsibilities he held, Saxena acted voluntarily, often surpassing his mandate, to work for the environmental cause that majorly involved large scale tree plantation and revival and rejuvenation of water bodies. From his early years as a young officer in JK White Cement Plant in Rajasthan to nearly 7 years as Chairman of the Khadi and Village Industries Commission (KVIC), Saxena remained committed environmental protection. Even while serving as the Lieutenant Governor of Delhi, Saxena has laid great emphasis on creating Green and Blue Assets in the National Capital by way of planting trees, creating open green public places and reviving and rejuvenating water bodies across the city.



A mega nationwide tree plantation drive- "Ek Ped Maa ke Naam", launced by Hon'ble PM Shri Narendra Modi by planting a sapling at Buddha Garden on 05 June 2024

Having joined his first job with JK Cements in 1984 at Gotan in the deserts of Rajasthan, Saxena's first initiative was to create a water body on the barren lands where water and greenery was a rarity. This water body soon started catering to the water needs of nearly 500 villagers around the area. Any visitor today to this lush green area now, will not believe the barren landscape that it once was. Over 20,000 saplings planted by him and his factory teammates, within the premises of the plant during 1985-90, as part of different initiatives, today stand as fully-grown trees altering the landscape.

However, one thing that still remained the most difficult thing to get in the region was drinking water. Moving a step ahead, on Saxena's initiative, the JK Cement management also started supplying drinking water from its own tubewell within the campus to the nearby parched villages on the request of the village Sarpanch. To meet the villagers' water needs, one water tanker was, every day, sent to the villages, within a radius of 50 km from the plant as and when requested. This added to the goodwill of the company among the villagers while it also brought out the humanitarian side of Saxena's personality.

Shifting from Rajasthan to Dholera in the perpetually parched Bhal region of Gujarat for the development of greenfield port project, Saxena, through his NGO - National Council for Civil Liberties (NCCL), took up the deepening of silted village ponds with local people's participation in 13 villages of driest Bhal region of Gujarat during the year 1999–2000. This was a participatory model where the villagers offered "Shramdaan" and NCCL bore the cost of the works. Two to three meters of silt was removed from the ponds which helped store enough rain water for the entire year. Saxena further initiated and planted hundreds of trees around these water bodies that survive even today. NCCL also supplied free water in remote villages of Bhal region of Gujarat every year since 2001 till 2005. The then Dy. Chief of UNESCO, Mr. L.A. Mandalia, who was a specialist in water sciences, personally visited these villages, witnessed Saxena's water conservation efforts in the region and appreciated the same.



UNESCO Dy, Chief (Specialist in Water Sciences) Mr. L. A. Mandalia (second from left) who had specially come down to Gujarat in August 1999 to assess the development of the brackish Bhal region being undertaken by NCCL, talking to Mr. V. K. Saxena in village Bayellari, dist Ahmedahad



Mr. V. K. Saxena at the site of deepening of pond at village Kadipur, breaking new



Mr. V. K. Saxena explaining the benefit of water conservation and people's participation before the start of ponds deepening work at village Jasvantpura.



A village women offering "Shramdan" at Bavliari.



Image: Pond deepening work in progress at Dholera, Ahmedabad district on June 2000



Image: A rejuvenated waterbody at Dholera in September 2000. Hundreds of trees were planted around these waterbodies.

Saxena was also involved in Water Resource Planning and Water Shed Management for Gujarat & Rajasthan. To catalyze the process of deeper scientific understanding of environmental matters by very competent Indian and foreign Scientists, NCCL commissioned a study in the year 2003 called "Trishna" for bringing unutilized water to the parched areas of Gujarat & Rajasthan.

Green Initiatives at Khadi & Village Industries Commission

In his role as Chairman of KVIC during 2015-2022, Saxena first initiated a nationwide campaign for plantation of Moringa trees and got over 45,000 moringa saplings planted in states like Uttar Pradesh, Delhi, Bihar, West Bengal, Assam, Gujarat and Rajasthan among others. Plantation of Moringa saplings were essentially aimed at supporting beekeeping activities as well as creating awareness about the medicinal values of Moringa among the masses. Similarly, 1000 saplings of Sandalwood and Bamboo were planted at KVIC's training centre at Nashik, an exercise replicated across the country thereafter, with an aim to monetize the land resources and ensuring financial sustainability of farmers and land owners.





Image: The grown-up Bamboo and Sandalwood trees that were planted at KVIC training centre at Nashik on 25 June 2020.

PROJECT BOLD (Bamboo Oasis on Lands in Drought)

Taking a cue from Prime Minister Narendra Modi's appeal for preventing degradation and desertification of land, Saxena initiated Project BOLD (Bamboo Oasis on Lands in Drought) on 04 July 2021. Project BOLD was aimed at creating bamboobased green patches in arid and semi-arid land zones in the country. Under this project, over 31,000 bamboo saplings were planted over 42.47 lakh sq.ft in regions as diverse as Udaipur, Jaislmer, Barmer, Leh-Ladakh, Goa, Gujarat, Varanasi and Jammu.

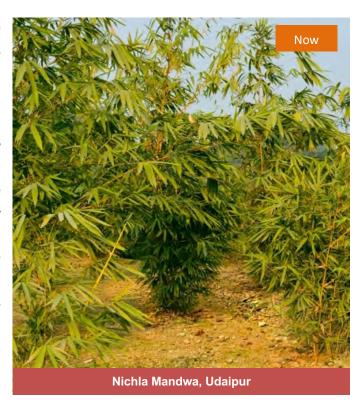








Image: Bamboo Plantation at Nichla Mandwa, Udaipur. 04 July 2021



Image: Bamboo Plantation at Dholera, Ahmedabad. 20 July 2021



Image: Bamboo Plantation at Village Tanot, Jaisalmer. 27 July 2021



Image: Bamboo Plantation at Village Chuchot, Leh. 18 August 2021



Image: KVIC distributed Bamboo saplings to local villagers in Village Chuchot, Leh on 18 August 2021



Image: Bamboo plantation at Agarwada Chopdem in Goa. 06 September 2021





Image: Bamboo plantation at BSF campus in Barmer, Rajasthan on 07 September 2021



Image: Bamboo plantation at BSF camp in Samba, Jammu on 15 September 2021



Image: Bamboo plantation at Sewapuri Ashram in Varanasi on 17 September 2021



Image: Bamboo plantation along Narmada Canal in Ahmedabad on 15 August 2021



Image: Bamboo plantation at Dharoi Dam in Gujarat on 10 August 2021

Bamboo Plantation under Project BOLD

Sr No	Location	Date of Launch	No of Bamboo plants	Area Covered
01	Nichla Mandwa, Udaipur	04/07/2021	5000	6.72 lakh sq ft
02	Tanot, Jaisalmer	27/07/2021	1000	2.50 lakh sq ft
03	Dholera, Ahmedabad	20/07/2021	5000	5.65 lakh sq ft
04	Dharoi Dam, Gujarat	10/08/2021	5000	4.5 lakh sq ft
05	Narmada Canal, Ahmedabad	15/08/2021	10,000	11 lakh sq ft
06	Chuchot Village, Leh	18/08/2021	1000	2.50 lakh sq ft
07	Agarwada Chopdem, Goa	06/09/2021	550	1.10 lakh sq ft
08	Barmer, Rajasthan	07/09/2021	1000	2.50 lakh sq ft
09	Samba, Jammu	15/09/2021	500	1.00 lakh sq ft
10	Sewapuri, Varanasi	17/09/2021	2000	5.00 lakh sq ft
11	Defence Institute of High Altitude Research (DIHAR), Leh	14/10/2021	50	
Total			31,100 plants	42.47 lakh sq ft

Creating Green Assets in Delhi

Ever since he took over as Lt. Governor of Delhi in May, 2022, Saxena's contribution to restoration of degraded land through greening and planation, restoration of monuments through ecological advancements and specific afforestation / plantation activities have been immense.

While dumping yards of solid waste on the banks of Yamuna were developed into lush green open public spaces in the shape of ecological parks like Asita at ITO, Baansera at Sarai Kale Khan and Yamuna Vatiika between the Iron Bridge and ITO. Nurseries at Vaishnavi in Ashok Vihar and Roshanara Bagh got functional, providing saplings to one and all.

Baansera









Image: Laying of Foundation Stone at Baansera. 09th August 2022











Image: Bamboo plantation at Baansera. 2022 - 2023

Asita Park



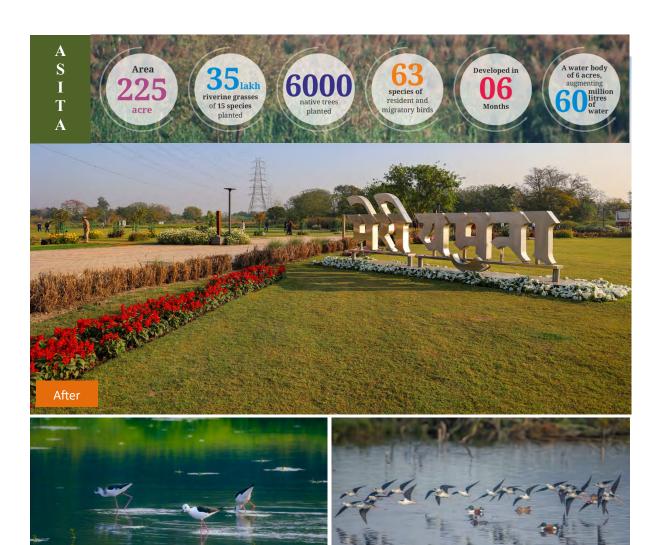


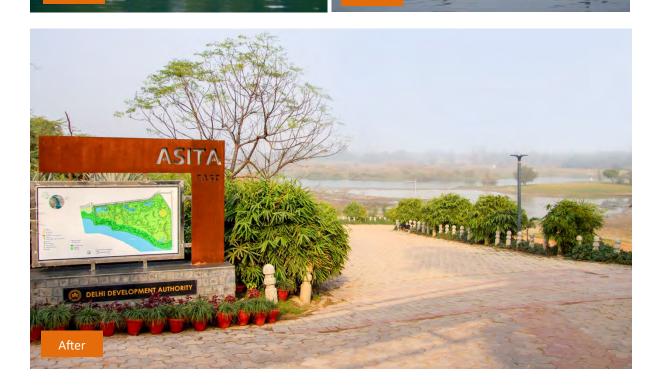
Image: Laying of Foundation Stone at ASITA. 07 September 2022











Yamuna Vatiika

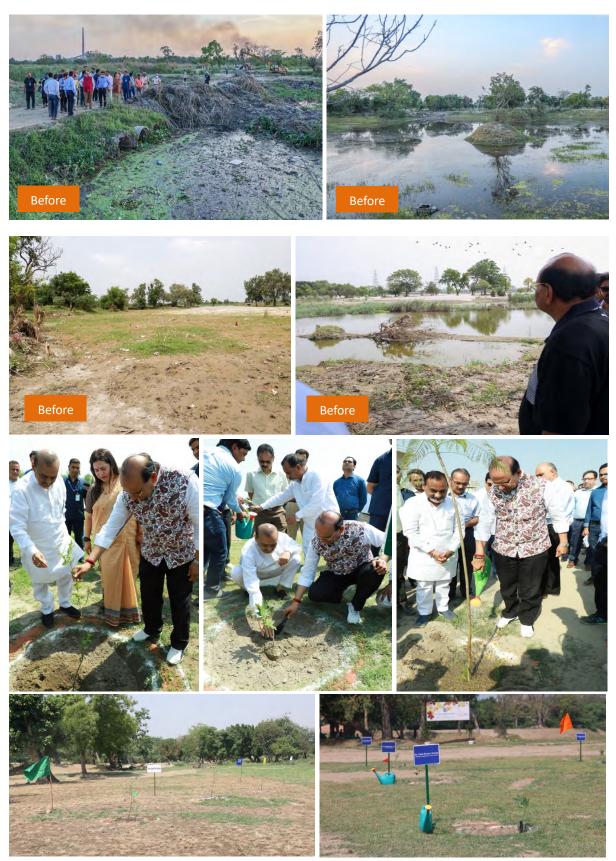


Image: Plantation at Yamuna Vatiika. 2022 – 2023









Roshanara Bagh Hi-Tech Nursery



Image: Inauguration of Hi-Tech Nursery at Roshanara Bagh on 28 December 2022

Mega Plantation Drives

With Saxena's direct intervention, while 48 lakh trees and shrubs were planted across Delhi during 2022-23, the number rose up exponentially to 89 lakhs during 2023-24. The same stands at 67 lakhs during the current year, despite paucity of land in the Capital.

About 10 lakh trees of these, were planted under Saxena's direct supervision. These include 5.50 lakh trees at Asola Bhati Mines in July, 2023, a lakh each by MCD and DDA in their specific plantation drives in the parks under their jurisdiction. Apart from this, 83,500 bamboo and flowering trees were planted at Garhi Mandu and about 20,000 trees that include bamboo, were planted along roadside in the run up to G-20 Summit.

Triple Grid Layered Plantation at Garhi Mandu





Image: Plantation on the Garhi Mandu Bela Farm Stretch on 21 March 2023

Enriching Delhi's Flora

Saxena launched a first of its kind initiative to introduce new varieties of flora in Delhi's Ecosystem. For the first time, saplings of Cherry Blossom, Chinar, Green Apple, Water Apple and Sandalwood were planted at different locations including the Raj Niwas. Green Apple and Water Apple planted at Raj Niwas around September 2022, bore the first fruits in just 08 months. On the other hand, saplings of Cherry Blossom, Chinar and Sandalwood have been flourishing well ever since they were planted in May 2023. The excellent growth of these flora has busted the myth that these plants and fruits cannot be grown in Delhi.





Image : Sandalwood, Cherry Blossom and Chinar saplings planted at Raj Niwas in May 2023



Image: The first fruits of Water Apple and Green Apple at Raj Niwas in May 2023



Image : Chinar, Cherry Blossom, Sandalwood, Green Apple and Water Apple trees at Raj Niwas as on 11 July 2024

Plantation specifically done on the initiative of VK Saxena:

Date	Plantation Details	No. of Plants
25 Jun 2020	Sandalwood and Bamboo planted at KVIC's Nashik Training Centre	1,000
2020 - 2022	45,000 Moringa & 25,000 Bamboo planted by KVIC across the country	70,000
2021-2022	Bamboo plantation by KVIC under Project BOLD	31,100
24 July 2022	Plantation at Asola Bhati Mines Sanctuary	1,00,000
28 July 2022	Special plantation drive by MCD	1,00,000
July-Aug 2022	Sandalwood saplings planted on the campus of Universities and vacant land of Delhi Police	10,000
02 Sept 2022	Sandalwood planted at Qutabgarh Village	1,000
21 Mar 2023	Bamboo & Flowering Trees planted at Garhi Mandu	83,500
07 May 2023	Cherry Blossom, Chinar, Amaltas, Gulmohar and other Flowering Trees planted on Yamuna Floodplains	1,700
22 July 2023	Massive tree plantation at Asola Bhati Mines	5,50,000
July-Aug 2023	Flowering plants and bamboo planted along the arterial roads in run up to the G-20 Summit	20,000
13 Apr 2023	Guava & Grapes distributed and planted at Qutabgarh Village	2,000
2022 - 2023	Tree plantation at Asita Park	6,000
2022 - 2023	Bamboo plantation at Baansera Park	30,000
	TOTAL	10,06,300





Image: Plantation at Sardar Patel Marg (Ridge Crossing) on 25 September 2023





Image: Plantation at Asola Bhati Mines Sanctuary on 24 July 2022





Image: Distribution of Sandalwood plants at Village Qutabgarh on 02 September 2022





Image : Plantation at a newly developed grazing ground for cattle at Jaunti Village on 02 Dec 2023



03.07.2022 Sunder Nursery



05.06.2022 Nehru Park



07.05.2023 Yamuna Island



09.08.2022 Baansera



10.09.2022 Neela Hauz



11.06.2022 Bharat Vandana Park



21.03.2023 Garhi Mandu



24.07.2022 Asola Bhati Mines



29.09.2022 Dwarka Sec 25



07.09.2022 Asita



18.06.2022 Roshanara Bagh



02.09.2022 Qutabgarh Village

Water Conservation Initiatives

Saxena's crusade for environmental protection was not only confined to creating "Green Assets" by way of tree plantation but he contributed significantly and pro-actively to enriching the vital "Blue Assets" as well, that entailed reviving and rejuvenating the dead lakes and ponds and creating new water bodies. Having successfully revived over a dozen water bodies in the Bhal region of Gujarat in the late 90's and the early 2000's, Saxena replicated the model in Delhi and Varanasi, during his stint as Chairman KVIC. With participation of the local villagers, Saxena took up the revival of water bodies in Qutabgarh Village in Delhi and Admapur Village in Varanasi.



Responding to Hon'ble Prime Minister Shri Narendra Modi's call to save the water bodies across the nation through 'Jal Shakti Abhiyan', Saxena, while at KVIC, first initiated and undertook the restoration of two dead ponds in Admapur village in Prime Minister's Parliamentary constituency of Varanasi. He also took up the task of deepening and cleaning at least one pond in a village in all the states and union territories of India. Besides Admapur, Saxena made efforts to restore parts of Dal Lake in Srinagar and revived a dead pond in Qutubgarh village in Delhi.





Image: The Qutabgarh Pond restored in 2019



Image : Restoration of a pond in Village-Admapur, Varanasi in July 2019

Further, Saxena personally intervened and got a check dam constructed at KVIC's Nagpur centre at a nominal cost of just Rs. 2 Lakh as against the original estimate of Rs. 23 Lakh. This check dam not only saved a huge cost but also went a long way in meeting the water needs and recharging the groundwater significantly.



Image: A check dam constructed at KVIC's Nagpur centre

Enriching Delhi's Blue Assets

Saxena's efforts to restore and rejuvenate water bodies gained further momentum with his appointment as the Lt. Governor of Delhi in May 2022. What followed next was identifying the dying lakes, ponds and waterbodies in Delhi, some of them being heritage ones, and his successive visits and meetings to ensure prompt action to bring these water bodies back to life.

The dried up lake in historic Roshanara Bagh, the sludge-filled waterbody at the heritage Mehrauli Archaeological Park, the ancient Anang Tal Baoli, Lal Kot Baoli and Rajon ki Baoli are some of the heritage water bodies whose restoration has been taken up in a mission mode by Delhi Development Authority (DDA) and other agencies, on the initiative of Saxena. Apart from these, a massive exercise has been undertaken to restore Sanjay Lake in east Delhi, Bhalswa Lake in north west Delhi and creation of five new water bodies in Dwarka sub-city in south west Delhi. Water conservation by restoring and creating water bodies in every village is also a key focus of the ambitious "Delhi Gramodaya Abhiyan" ideated by Saxena and being executed by DDA at a cost of Rs. 960 Crore.

Roshanara Bagh Lake







Image: Restoration work underway at Roshanara Bagh Lake



DDA Mehrauli Archaeological Park

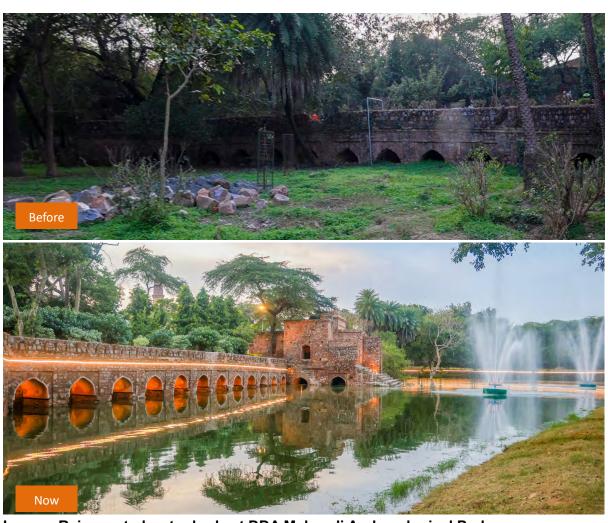


Image : Rejuvenated water body at DDA Mehrauli Archaeological Park

Sanjay Lake

During his successive visits to Sanjay lake, Saxena had instructed DDA to construct channels from the adjoining NH-24, from where water used to flow down into the neighbouring residential localities, into the Sanjay Lake. He had also asked for large pipes to be positioned by making large holes in the boundary wall of the neighbouring residential areas, so as to ensure water flows from these areas into the Sanjay Lake. This simple exercise, apart from rejuvenating the lake, successfully prevented waterlogging in these residential colonies during heavy rains.

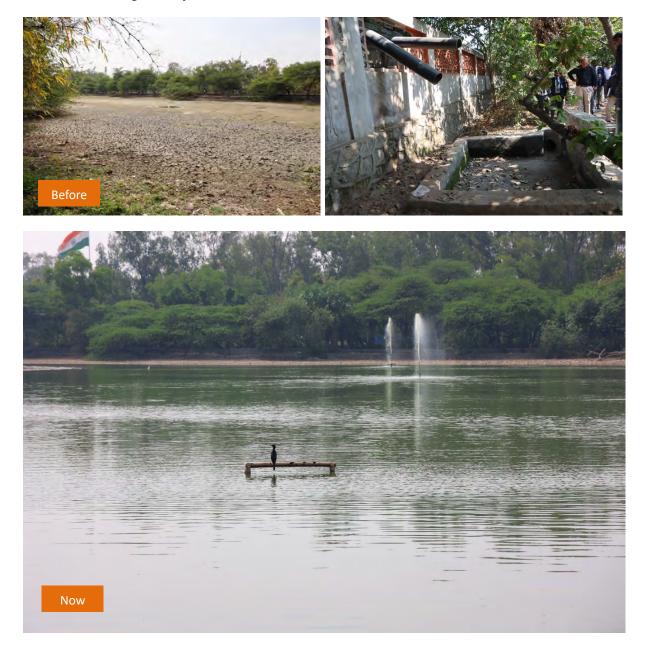


Image: A section of rejuvenated Sanjay Lake in East Delhi

Bhalswa Lake







Image : Cleaned and rejuvenated Bhalswa Lake in North West Delhi

An ancient well at Quila Rai Pithora at Sanjay Van





Creating/reviving 05 waterbodies in Dwarka Sub-city

After taking over as the LG, Saxena took up the construction and commissioning of Airport Drain, which was pending for nearly 3 years owing to government apathy. It was the non-existence of this drain that caused heavy flooding in and around IGI Airport and the Dwarka Sub-city every year. However, with persistent efforts, the Airport Drain was commissioned in December 2023, in a record time of 15 months.

The idea was to channelize the rain water from IGI Airport to PWD Trunk Drain No.02, and in the process recharging 05 new waterbodies created by DDA on the initiative of Saxena. These water bodies are located in DDA parks in various sectors of Dwarka. Existing depressions were dredged and de-silted for up to 2 to 3 meters so that rain water could be collected in these water bodies when the Airport Drain overflows.





Image: Water body at created Store Wala Park Sector - 08 Dwarka





Image: Water body at Pond Wala Park in Sector - 08 Dwarka

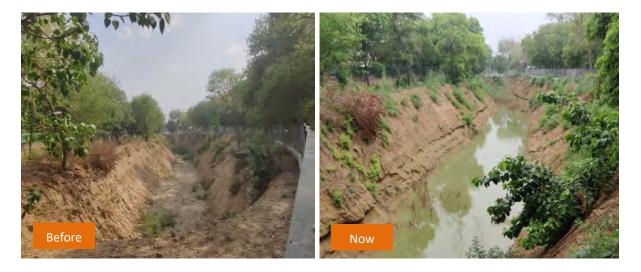


Image: Water body behind Store Wala Park Sector - 08 Dwarka



Image : Rejuvenation of a water body underway at Sector – 20, Dwarka





Image : A rejuvenated water body at Sector – 23, Dwarka

Mission ENDURE (ENsuring DUst REduction)

Saxena's contribution in reducing dust pollution in Ahmedabad City, way back in 2004, is widely recognized. To make the city of Ahmedabad dust free, Saxena through his NGO - NCCL in July 2004, launched an ambitious project called Mission ENDURE (ENsuring Dust REduction). Mission ENDURE was the first ever endeavour of its kind and size in the country in which an NGO was promoting a practical, positive and participatory solution to reduce dust pollution in a large city like Ahmedabad. Over 2.25 lakh sq. meter of footpath were constructed under the project in Ahmedabad, with public participation.



This eco-friendly scheme not only reduced dust pollution but also allowed rainwater to recharge the aquifer. Mission ENDURE has won Dubai International Award instituted by UN-HABITAT. NCCL was selected for this award from 650 entries from 140 countries. This project was showcased at World Urban Forum for Worldwide emulation.



Innovations for Environment Protection

In his sustained efforts to protect the environment, Saxena, apart from using the traditional methods also employed his sharp scientific acumen and was instrumental in developing several innovative projects and products that were eco-friendly, that saved the environment from potential hazards and at the same time created large scale employment in the village industry sector. The most notable among these include Plastic Mixed Handmade Paper and Khadi Prakritik Paint made from Cow dung, which Saxena ideated, conceptualized and executed while at the helms of affairs at KVIC as its Chairman and even got patent for the two innovations.

Plastic Mixed Handmade Paper

Under the guidance of Saxena, KVIC, in September 2018, innovated a unique way to reduce plastic menace, under its project REPLAN (REducing PLAstic from Nature). Its unit Kumarappa National Handmade Paper Institute (KNHPI), Jaipur, developed handmade paper by mixing up to 20% plastic waste with the paper pulp to make costeffective paper carry bags and other items. This innovation ideated by Saxena, got Patent certificate in August, 2021. This is the first of its kind project in India, where plastic waste is de-structured, degraded, diluted and used with paper pulp while making handmade



paper and thus reduces plastic waste from nature. In just 02 years of its launch, KNHPI consumed nearly 50 MT of waste plastic from Jaipur city.







Image: Making of Plastic Mixed Handmade Paper at KNHPI, Jaipur

Khadi Prakritik Paint

Saxena's another innovation that got widely appreciated, has been the first of its kind distemper and emulsion paint made from cow dung which was named "Khadi Prakritik Paint". The project was conceptualized by Saxena in March 2020, its manufacturing, testing and trial use was completed by November 2020. The cow dung paint was launched on 12 January 2021, which got the patent certificate on 23 September 2022.



(22) Date of filing of Application :08/01/2021		(43) Publication Date : 23/09/2022		
(54) Title of the invention : PAINT COMP	RISING COW DUNG			
(51) International classification (31) Priority Document No (32) Priority Date (33) Name of priority country (86) International Application No Filing Date (87) International Publication No (61) Patent of Addition to Application Num Filing Date (62) Divisional to Application Number Filing Date	:B44D0003120000, A61K0035240000, C10L0005420000, A01K0001010000, C09D0005020000 :NA :NA :NA :NA :NA :NA :NA :NA :NA :NA	(71)Name of Applicant: 1)Kumarappa National Handmade Paper Institute Address of Applicant: Ramsinglipura, Sikarpura Road, Sanganer, Jaipur, Rajasthan-303902, India Rajasthan India (72)Name of Inventor: 1)Shandilya Giriraj Singh 2)Vinai Kumar Saxena 3)Badri Lal Meena 4)Moh. Esa Khan 5)Saakshy		
dung. The paint composition additionally c	omprises fillers and bine	dung preferably cow ders. The present invention also relates to a process to prepare the hing the cow dung thus refined. Further, binders and fillers are also		

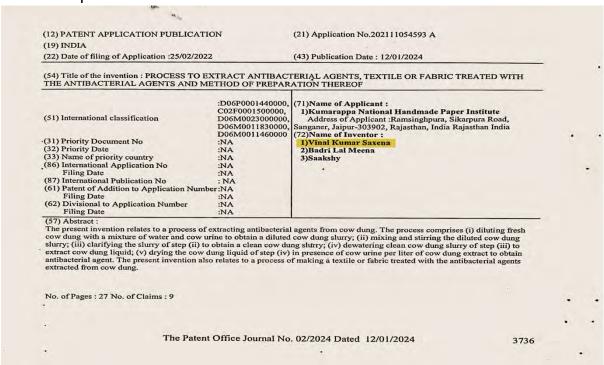
Khadi Prakritik paint is eco-friendly, anti-bacterial, anti-fungal, cost-effective, non-toxic product and free from heavy metals. This paint contains low Volatile Organic Compounds (VOC). Apart from creating extra income for farmers and Gaushalas by sale of cow dung to these paint manufacturing units, this project is also proving helpful in preventing the disposal of cow dung in open that leads to clogging of drains and thus cleans environment.





Unique Khadi Anti-Bacterial Fabric

Saxena's another innovative idea of developing a unique anti-bacterial fabric was executed by KNHPI, Jaipur, under KVIC. This innovation too got the patent on 12 January 2024. The fabric is treated with anti-bacterial agent extracted from cow dung which prevents bacterial growth in the fabric, making it of great use in hospitals and other medical facilities.



Cow Dung Mixed Flower Pots

Even as Saxena, as Delhi LG, supervised over a massive tree plantation drive in the capital, he ideated another way of reducing the plastic menace, sustaining plantation and creating income for the poor. In December 2022, he instructed for replacing the black plastic bags that are used for wrapping the soil surrounding the roots of the saplings for plantation, with dried up cow dung mixed soil, in the shape of soft solid earthen pots. Now the plastic bags have been discarded and the saplings are being planted in these soft pots that dissolve into the soil once planted and apart from mitigating the pollution caused by the plastic earlier, also provides the sapling with fertilizing nutrients. Earlier this plastic planted into the soil along with the saplings used to cost soil degradation or if removed, would lie as heaps of non-degradable plastic waste.







Social Commitment

Apart from his passion and commitment for the cause of the environment, Saxena also exhibited his commitment for the social cause. While it was his voluntary efforts to provide drinking water to the villagers in the parched regions of Rajasthan and Gujarat, his NGO- NCCL also took up the noble task of reconstructing and mondernizing 12 dilapidated houses of tribals in Adivasi village Vanaj in Gujarat. This was followed by reconstructing six houses in Admapur Village in Varanasi.

Project "Rainbow Hills"

On 21.11.2014, NCCL launched its Project "Rainbow Hills" from village Vanaj in Sabarkantha district of Gujarat for re-constructions/repairs and modernization of tribal houses in the picturesque Adivasi Vanaj village which is situated on a small hillock facing a huge lake. The 12 selected houses in village Vanaj, were constructed by the Adivasis using mud for walls and local wood for ceiling.

These dilapidated dusty houses were in unhealthy conditions to live in. NCCL completed repair and reconstruction of these 12 houses in just 3 months. Under the scheme, repairing of walls, floor, roof, Verandas, etc. were done including construction of toilets. The aim of the scheme was to provide basic amenities to the poor Adivasis, without disturbing their lifestyle, traditions and surroundings. These Adivasis were also guided to rent out one room in these neatly re-constructed houses to the tourists visiting the picturesque lake, to generate income for them.















Image: Tribals' houses being reconstructed by NCCL







Reconstruction of Village Houses in Admapur, Varanasi

In the year 2018, this successful social experiment was replicated in Admapur Village of Varanasi. NCCL renovated 6 dilapidated mud houses of the village into concrete houses at the cost of Rs. 1 lakh per unit.









Image: A reconstructed house in village Admapur in Varanasi

Despite various external and internal challenges of environmental degradation, V. K. Saxena's endeavours have been consistent. Even as LG Delhi, apart from ensuring plantation of trees in a perpetual mission mode, Saxena has taken various long term steps to curb dust pollution and the war against vehicular emission is next on the agenda. The work goes on.
