



Pragati Maidan, New Delhi



**International Conference on New Technologies
and Innovations in Rural Roads from 24th – 26th
May 2022 at Pragati Maidan, New Delhi”**

**Technical Presentation by:
Bitchem Asphalt Technologies Limited**

Dated: 25th May, 2022

BitChem Video Link

[Bitchem V 7.mp4](#)



BitChem is a Cleantech Venture from Assam

India's leading company in Coldmix® Technology promoting Green Roads



Deals in Tailormade Coldmix® Binder, Bitumen Emulsion, Bitumen and Modified Bitumen

India's 1st Venture to be funded by Technology Development Board, DST, Govt. of India.



BIS Licence Certified Company as per IS 8887 : 2017 (Licence No. CM/L-5100165786)

State-of-the-art manufacturing units from Denmark



Manufacturing Unit at 2 Locations – Durgapur and Near Guwahati



Technology used to lay over 8500+ kms of Green Roads in challenging conditions and remote rural areas of India

8500+

What is BitChem Plant Cold Mix® ?



A Tried, Tested & Proven Product used to lay 8500+ kms



Meets and Exceeds IRC SP 100 : 2014 Specifications



50% Higher life



Upto 100% Pollution Free

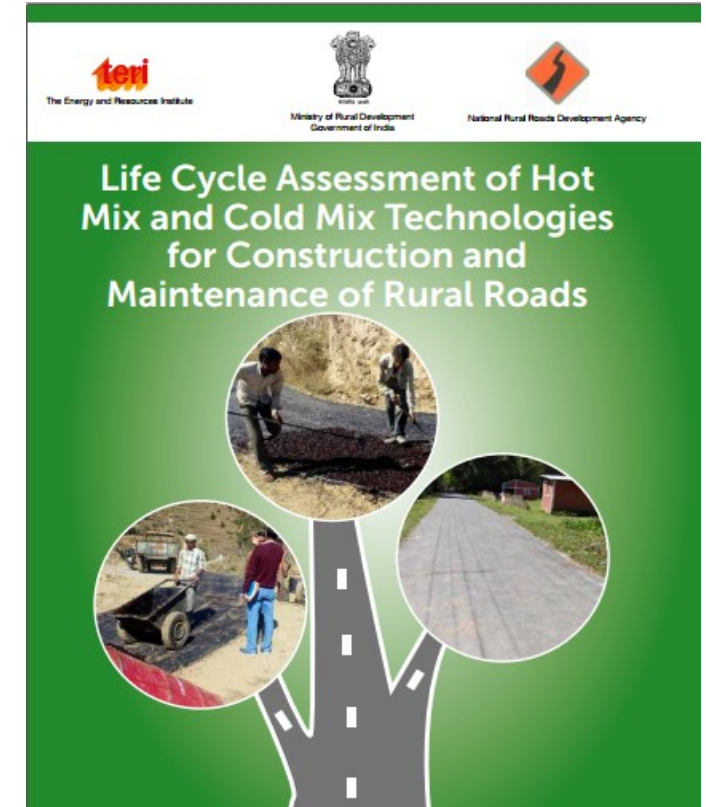


200% Faster Progress Per Day



Lower NPV than Hot mix, Over 35% savings on life cycle cost basis

**Ref to TERI Report on "Life Cycle Assessment of Hot Mix and Cold Mix Technologies for Construction and Maintenance of Rural Roads prepared for NRRDA, 2016"*



Milestones....



BitChem Team led by Founder - CEO Mr. Rajeev Agarwal representing North-East India at Make in India, Mumbai in frame with Mr. Pawan Goenka, Executive Director Mahindra & Mahindra.



Presented CSIR Technology Award 2017 for Sustainable Cold-Mix Technology by the Hon'ble President of India Shri Ram Nath Kovind.



Govt. of India grants patent to BitChem for its Green Invention "TAILOR MADE COLD BINDER" vide Patent No.- 376242 for a period of 20 years effective from June 30, 2017.

2016

2017

2021

2016

2018

2022



Selected as Home-Grown Innovation by TDB Team to join in Hon'ble Prime Minister Shri Narendra Modi's Delegation to Kenya.



Funded by Technology Development Board, DST, Govt. of India to set up a state of the art automatic Industrial facility in Durgapur, West Bengal.



Awarded the 2nd Runners Up in GITA (Global Innovation and Technology Alliance) Awards 2021 under Small Category.

BitChem's Contribution to Hon'ble PM Narendra Modi's Vision of Reducing 1 Billion Ton Carbon Emissions by 2030 Using ColdMix Technology for Roads Construction



Fuel Savings of upto 5,000 Ltrs. Per km in road construction.



Nation saves fuel worth upto Rs. 2,100 Crores under PMGSY Projects.*



Nation saves Carbon Emissions of approx. 6.5 Lakh ton per annum under PMGSY Projects.**

**Considering Diesel Avg. Value of Rs. 84 per Ltr at Avg. 50,000 kms of road construction per annum.*

***Considering 13,100 kg of CO2 Emission per KM.*



**GLIMPSES OF BITCHEM HIGH LIFE POLLUTION-FREE COLD MIX®
TECHNOLOGY FOR
BUILDING GREEN-ROADS ACROSS PAN
INDIA**



SDBC Road at Kendukona, Rangia Assam in 2013



SDBC Road at Rani, near Guwahati - Assam in 2015



BitChem Cold mix Road at Sikkim



BitChem Coldmix Road from Rampria to Mawrok, Meghalaya in 2021



**BitChem Coldmix Road at Kaduru,
Karnataka in 2020**



**BitChem Coldmix Road at Jayashankar,
Telangana in 2019**



**BitChem Coldmix Road at Mahabubabad,
Telangana**



BitChem Coldmix Road at Chamba, HP



BitChem Coldmix Road at Jammu



**BitChem Coldmix Road at Devaprayag,
Uttarakhand**



**BitChem Coldmix Road at Udupi, Karnataka
in 2022**



BitChem Coldmix Road at Raipur, Chattisgarh

Proven 6 Years Surface Life of BitChem Coldmix Road executed in 2016 at Satana, Nashik – Maharashtra as on May, 2022

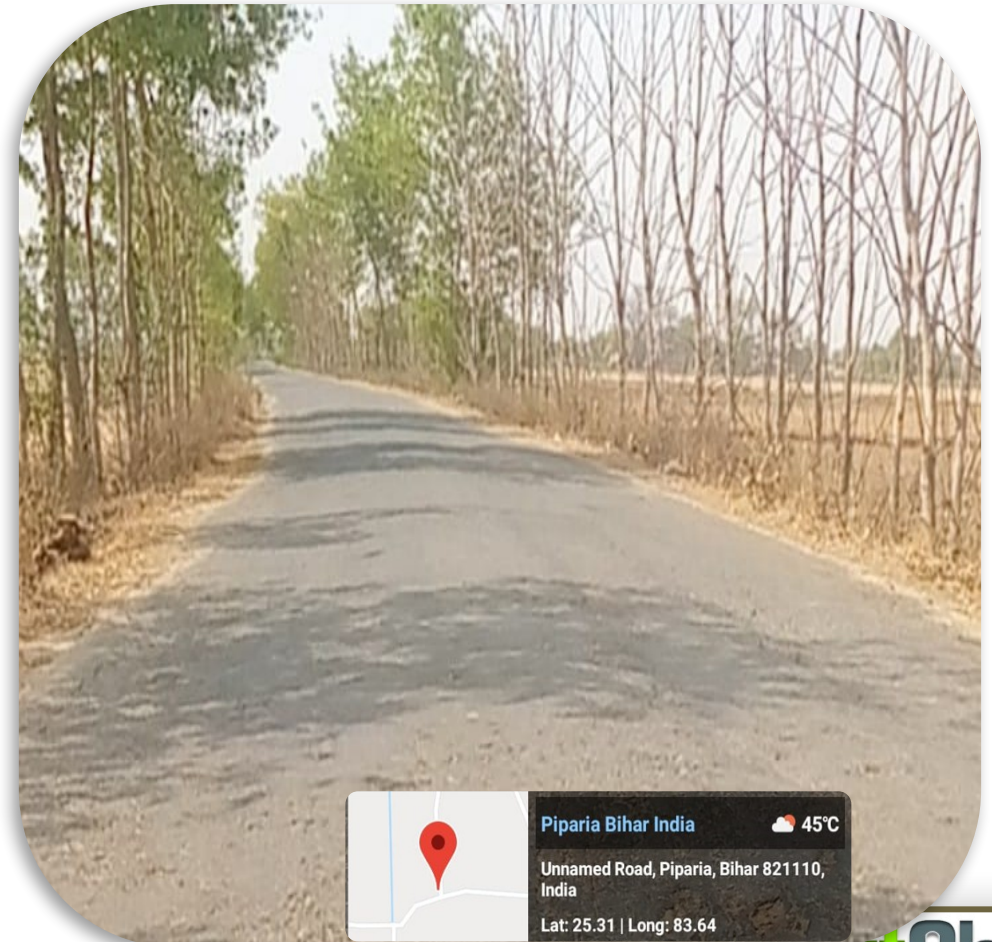
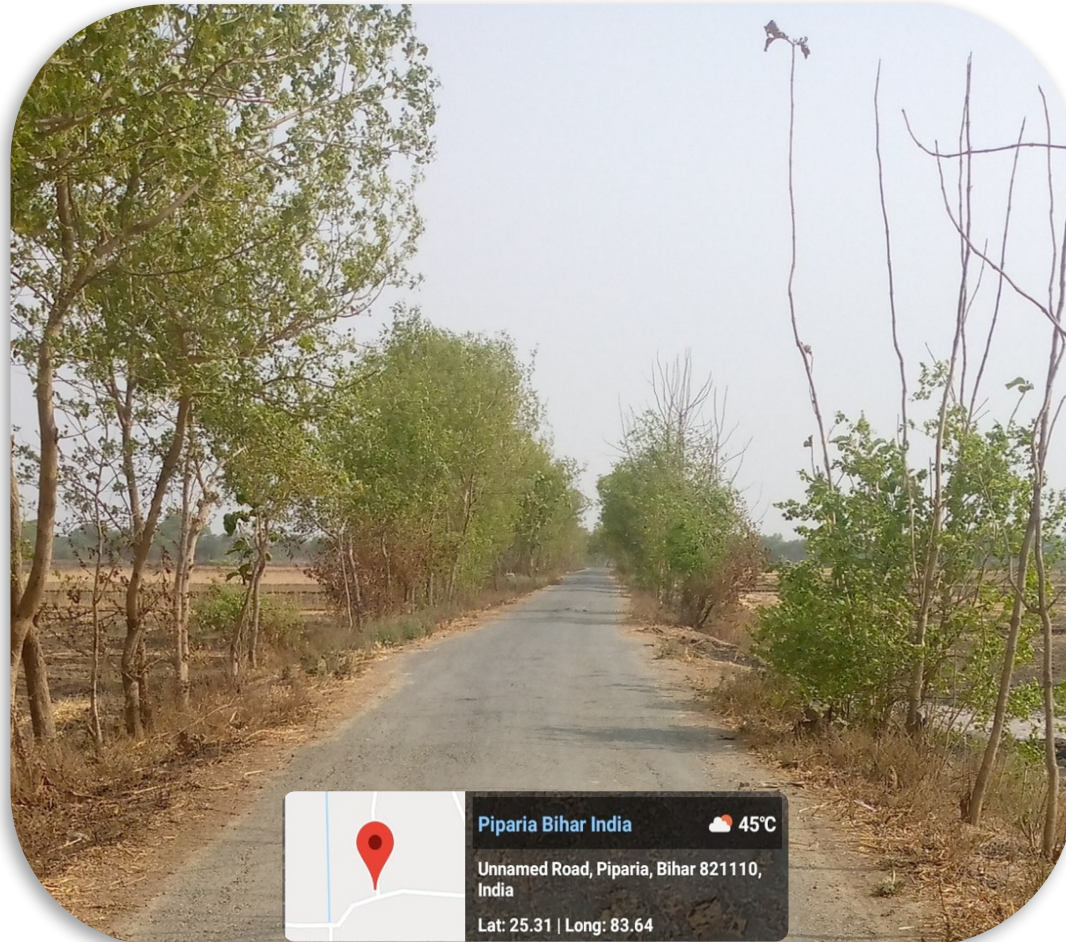


Photographed in 2016



Present Photograph as on May 2022

Proven 8 Years Surface Life of BitChem Coldmix Road executed in 2014 at Mohania, Bihar as on May, 2022



SUCCESS STORIES OF BITCHEM PLANT COLDMIX



BitChem Coldmix Road at Dalhousie, Himachal Pradesh in 2018



BitChem Coldmix Road at Barkot, Uttarakhand in 2021



BitChem Coldmix Road at Jammu in 2020



BitChem Coldmix Road at Udipi, Karnataka in 2021



BitChem Coldmix Road at Chamba, Himachal Pradesh in 2021



BitChem Coldmix Road at CSIR - NEIST, Jorhat in 2016



BitChem Coldmix Road at Chumukedima, Nagaland in 2019



BitChem Coldmix Road at Bilaspur, Himachal Pradesh in 2020



BitChem Coldmix Road at Udipi, Karnataka in 2021



BitChem Coldmix Road at Devprayag, Uttarakhand in 2021



BitChem Coldmix Road at Chamba, Himachal Pradesh in 2021



BitChem Coldmix Road at Chokladhara road, Jorhat 2013



BitChem Coldmix Road at Chikmagalur, Karnataka in 2016



BitChem Coldmix Road at Badagaon, Uttarakhand



BitChem Coldmix Road at Mohania, Bihar in 2014



BitChem Coldmix Road at Narayanpur, Chhattisgarh in 2018



BitChem Coldmix Road at Mahabubabad, Telangana



BitChem Coldmix Road at Jayashankar, Telangana in 2019



BitChem Coldmix Road at Jalpaiguri, North Bengal



BitChem Coldmix Road at Hosur, Tamil Nadu in 2018



BitChem Coldmix Road at Himachal Pradesh



BitChem Coldmix Road at Darjeeling, North Bengal



BitChem Coldmix Road in Nellore, Andhra Pradesh in 2018



BitChem Coldmix Road in Cuddapah, Andhra Pradesh in 2018



BitChem Coldmix Road at Salem, Tamil Nadu in 2018



BitChem Coldmix Road at Salana, Maharashtra in 2016



BitChem Coldmix Road At Nashik, Maharashtra



BitChem Coldmix Road at Tumkur, Karnataka in 2018



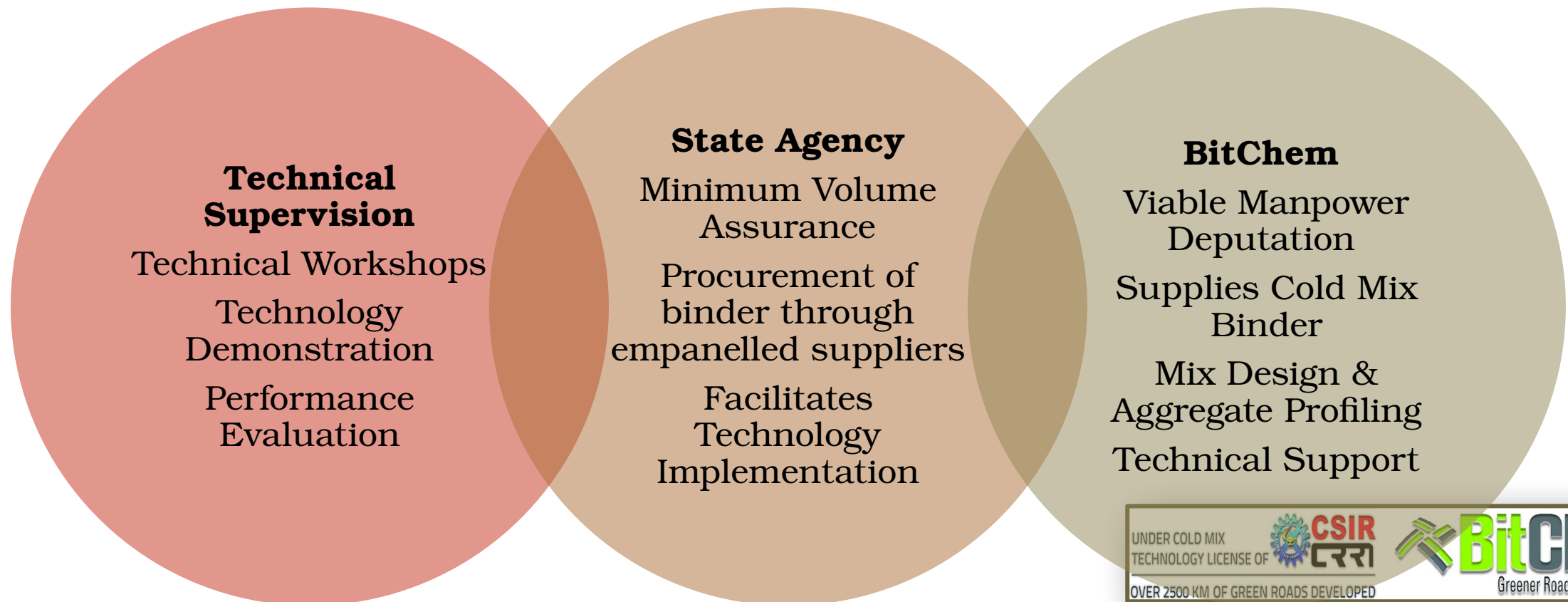
BitChem Coldmix Road at Paschim Medinipur, West Bengal



BitChem Coldmix Road in Ooty, Tamil Nadu in 2018

What is Technology Management Agreement ?

► TMA is a tripartite technology management agreement between State Agency, Bitchem and Contractor with hand-holding approach, which will be the best model for large scale implementation of the Cold Mix Technology to take advantage of the technical benefits it can accrue.



Few Model Tripartite Technology Management Agreement with various departments across nation

Sl. No.	Name of Department	Year of TMA
1	PWD/ R&B Deptt. , SIKKIM	2014
2	SRRDA/ RM&D Deptt., SIKKIM	2014
3	Bihar Rural Roads Development Agency, Patna, Bihar	2014
4	OSRRA/ R.D Deptt., Govt of Odisha, Bhubaneswar	2015
5	Jharkhand State Rural Road Development Authority, Ranchi, Jharkhand	2016
6	Uttar Pradesh Rural Road Development Agency (UPRRDA)	2016
7	Executive Engineer Project Division, Tumkur, Karnataka Pkg No. – KS25-36	2018
8	Executive Engineer Project Division, Tumkur, Karnataka Pkg No. – KS25-38	2019
9	Executive Engineer Project Division, Tumkur, Karnataka Pkg No. – KS25-37	2019
10	Executive Engineer Project Division, Tumkur, Karnataka Pkg No. – KS25-56	2019
11	Executive Engineer Project Division, Mangalore Pkg No. – KS11-40	2019
12	H.P. State Industrial Development Corporation Limited, Shimla-I	2019
13	Executive Engineer Project Division/P.R.E. Deptt., UDUPI	2021

Industry Challenges faced in Implementing Cold Mix Technology

- 1. Failures during Implementation** – Due to no Technology Management Agreement (TMA) presently, contractors just focus on procurement at lowest cost and workmanship is suffering at many locations. **It is evident to overcome years of hot mix culture, we need to implement TMA for next few years.**
- 2. Empanelment of credible technology providers** by Central or State Agencies for smooth implementation of the technology and avoiding failures. Suppliers should have BIS License, R&D setup and automatic manufacturing setup.
- 3. Target setting for 100% mainstream of cold mix technology** by States & Central Agencies to save precious fossil fuel and mitigate carbon emissions timely.
- 4. Easy Financial Support to Convert Ongoing works from Hot Mix to Cold Mix** for conversion of ongoing tendered works from hot mix works to be converted to cold mix. Earlier, Ministry issued some advisory, but it needs a decentralized process which could be done smoothly and quickly.
- 5. Inadequate Commercial Volume** due to **minimum 15% New Technology** directions in the guidelines.

To know more about us :
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**Thank you
India !!!**