

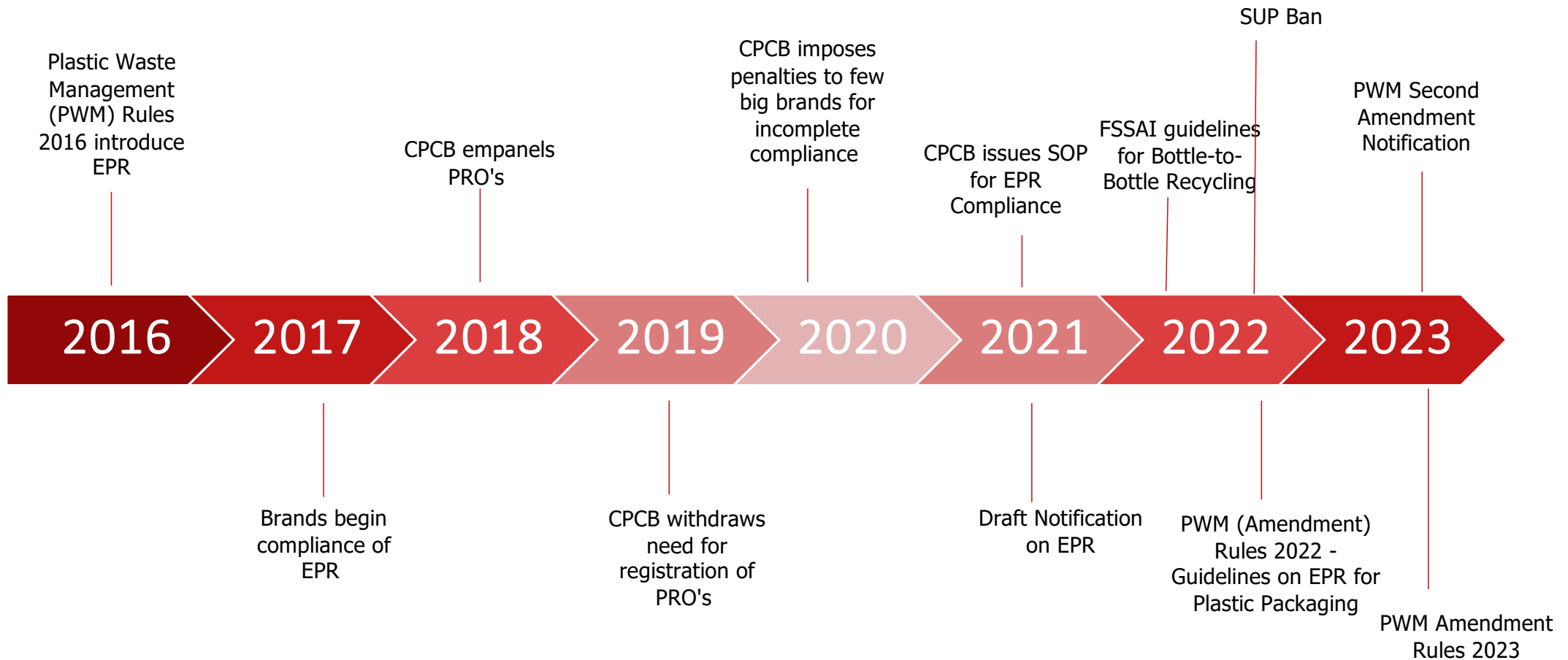


22

“Implementation plan of eliminating identified SUP items and effective implementation of Plastic Waste Management Rules, 2016”
Case Example from Uttar Pradesh DoEFCC, GoUP

February 17, 2024

PWM Timeline in India



EPR: Widespread and Successful

Today, we see EPR (mainly) for:

- **packaging waste**
- **electronic waste (WEEE)**
- **batteries**
- **end of life vehicles (ELV)**

New streams: e.g. **fishing equipment, Oil, Tyres, etc.**

Successful in waste collection and recycling however only gradually improving on waste reduction.

Separate waste management stream **increasing collection and recycling** rates of materials targeted and shifts financial responsibility from municipalities to producers



Returning resources into the material cycle **maximizing resource efficiency and closing the loop**, hence **minimizing the impact** of products on the environment

SUP free State; Four Step Roadmap



Manufacturing & Distribution

(Reverse logistics, Inter-state distribution, etc.)

Support to SUP Alternatives

(Innovation, Research, Financial, etc.)

Awareness/ Behavioral Change

Supply and Demand (SUP Manufacturers & Consumers)

Up-scaling of SUP Alternatives

(to cap its prices in competition to traditional SUP items)

Continual engagement at Mission Level : RACE

Global call to end plastic pollution – 5th UNEA*, Nairobi

LiFE*; Identified SUP items banned in India; From 1st July 2022

State level RACE initiative in UP; 28 Jun-3 Jul'22

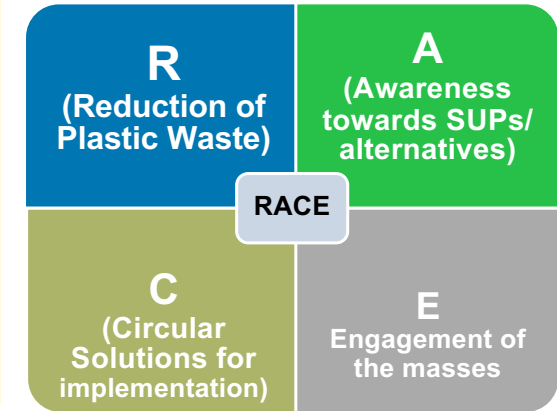
RACE 2.0 for LiFE; 05 June 2023

RACE 3.0 Ayodhya Jan 9, 2024



The week-long campaign concluded with the Uttar Pradesh Plastic Waste Management Conclave 2022 and

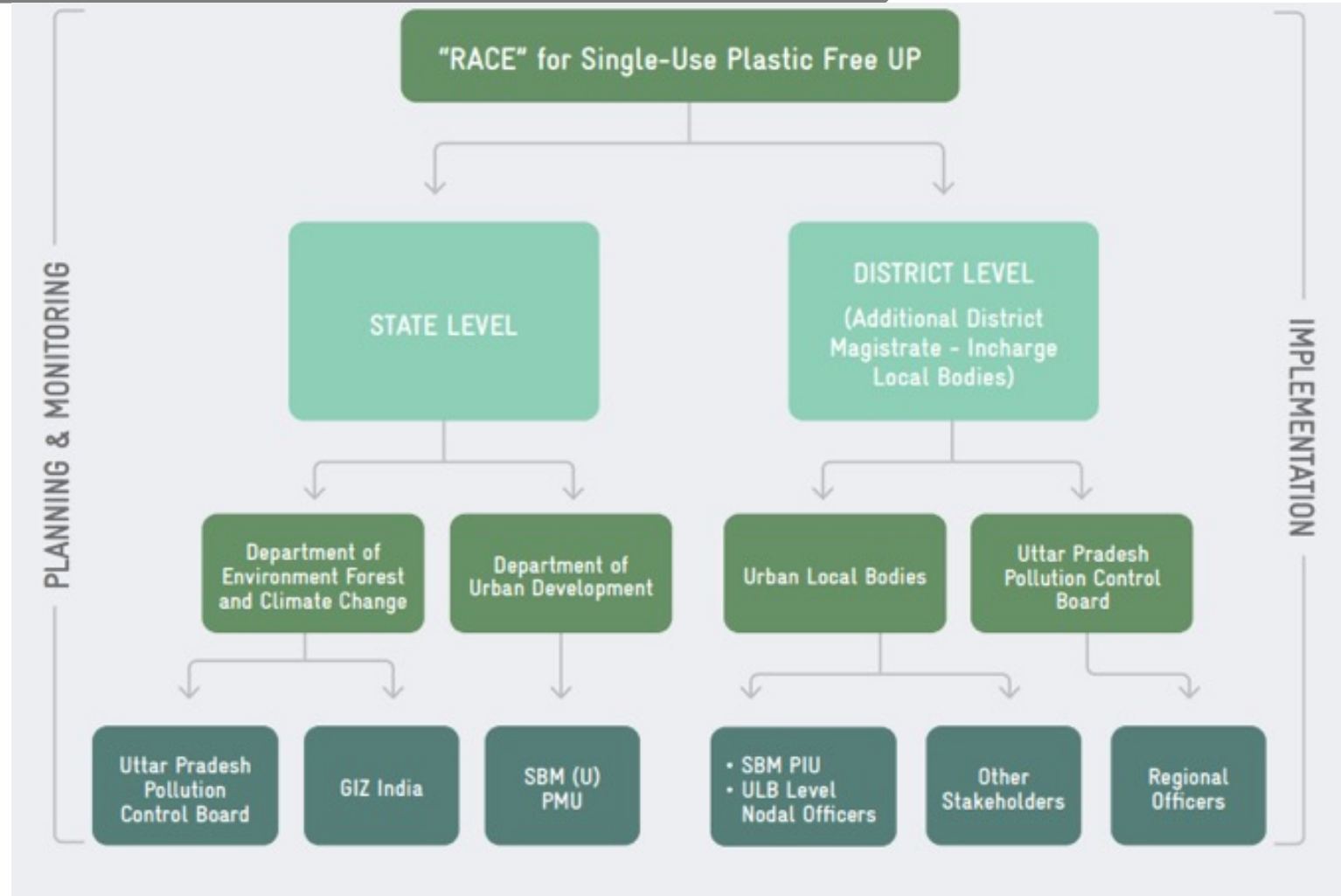
Technology Exhibition Showcasing Single-Use Plastic Alternative Solutions on 3 July 2022 (International Plastic Bag Free Day).



Inter-departmental Structured Engagement

An action plan was developed; it was approved by the **Chief Secretary Shri Durga Shanker Mishra** and coordinated by **Mr. Manoj Singh IAS, Additional Chief Secretary, DoEFCC, Government of Uttar Pradesh** for its implementation, with GIZ support (CES Marine Litter project).

The week-long plan of RACE Campaign schedule was created under two sections: **Planning and Monitoring, and Implementation.**



Multiple Activities and Monitoring

Three major cities were picked to organize mega plogging drives and mass ghat (Ganges) cleaning drives - **Lucknow, Prayagraj and Varanasi**. While **all other cities and towns** contributed with local plogging drives.

Also, Plastic Banks, Jhola Bank and Bartan Banks were installed throughout the state under the RACE campaign.



Plog Run and Mass Pledge Drive, Lucknow



Cleaning drives at Varanasi Railway Station



Plog Run and Awareness Drive, Prayagraj



Mass Ghat Cleaning Drive, Varanasi



Installation of Bartan Bank, Ghaziabad

Social Media and Outreach

LinkedIn (5,522 followers), **Facebook** (3,000 followers), **Twitter** (563 followers), and **Instagram** (4,789 Followers).

Citizens, ULBs and partners were encouraged to share the green stories tagging State handle.

The hashtag **#RACE4SUPFreeUP** was trending at 2nd position in India and ended at the 5th position by the end of the day on 3 July 2022.

CITIZEN PARTNERSHIP

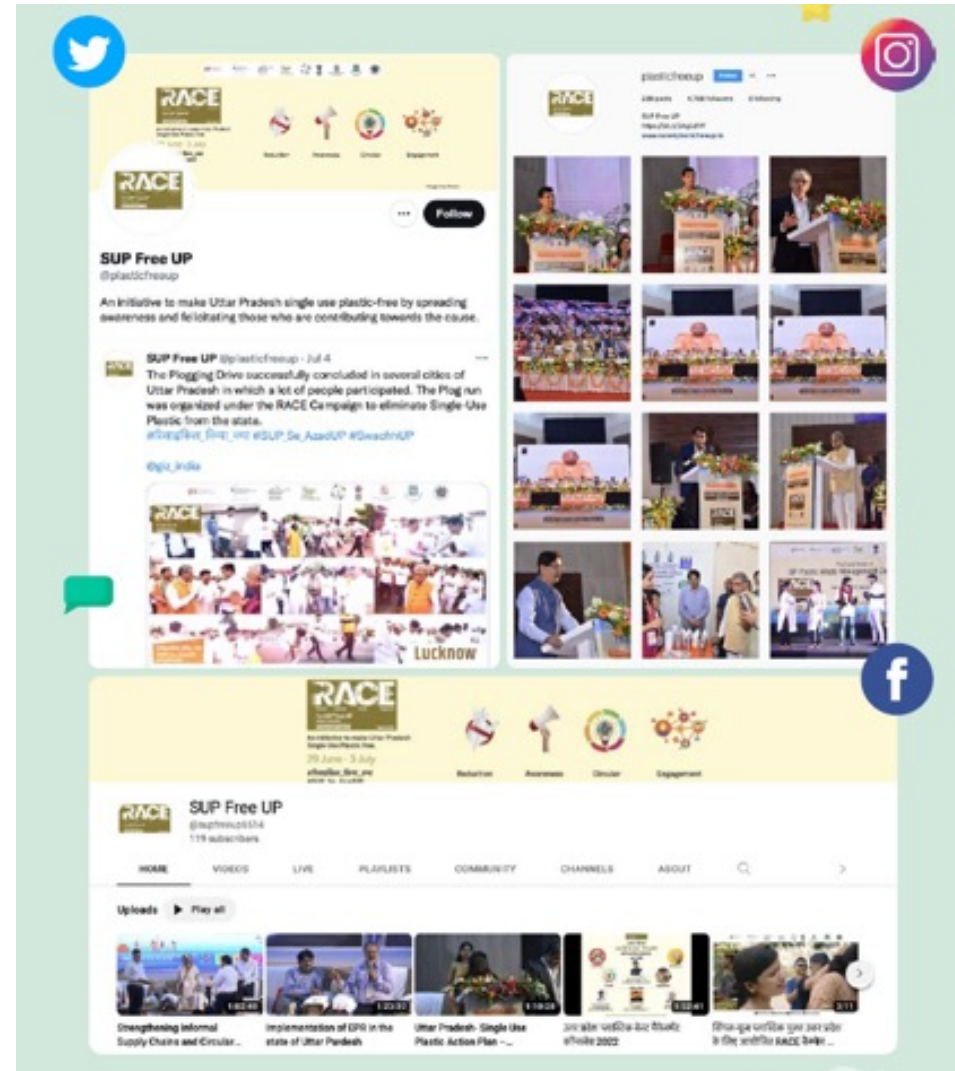


6,22,242
Direct
Engagement

RACE/TRAININGS



**3 RACE mega
campaign
& 10
training/consultations**



RACE 3.0

RACE 3.0 in Ayodhya: Unveiling New Dimensions for UP Government's SUP-Free Campaign

✓ **RACE 3.0, SUP Free Ayodhya**, mega public awareness campaign organized on January 9, 2024. **Hon'ble Chief Minister Shri Yogi Aditya Nath inaugurated the exhibition** showcasing alternatives to SUP. [10 exhibitors and around 150 participants]

- (i) **Plog Run** organized at Ram Ki Paudi [around 300 participants]
- (ii) **SUP Alternative Booklet** and Movie on **Plastic Free UP** were released by Hon'ble Minister Shri Arun Kumar Saxena and Shir Krishnapal Malik.
- (iii) Pakka Ltd (one of Exhibitor) signed **MoU with Ayodhya Ram Mandir Trust** as official compostable tableware brand. *Many others are in discussion with Trust and ULB's*



Participants during the Pledge and Plog Run with Ripudaman Bevli and Officials



Customised Products made by Exhibitors for RACE 3.0 (left to right: Substitute to Flower Bouquet wrapped in recycled paper post cards made of paper with seeds in it, a invitation letter/farman made of biodegradable material, Prasad boxes made by compostable material

Implemented Models ...

Refillable

DRS

EPR Legacy Waste Prayagraj

LVP to Inter-locking tyles

Infinity Box

Argo residue for SUP

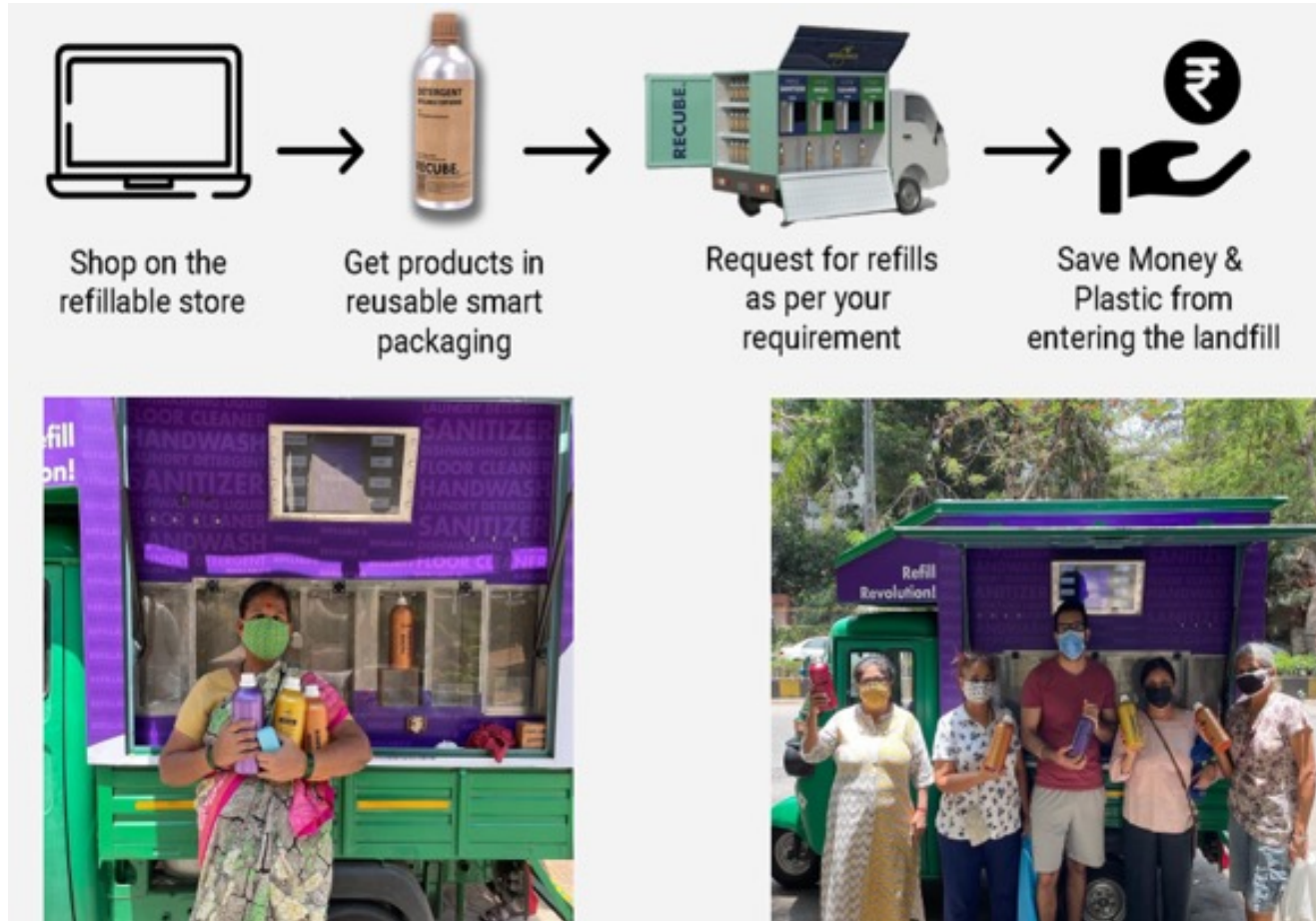
Innovative Products / Methods...

Refillable System (Avoid Packaging)

STAKEHOLDERS

State Government
Scheme Administrator
Scheme Operator
Material/Retailer
Brands
Consumer (B2B/B2C)

Success story:
DoEFCC in Lucknow,
and Refillable



Zero Waste



Zero Emission



Convenient Deliveries

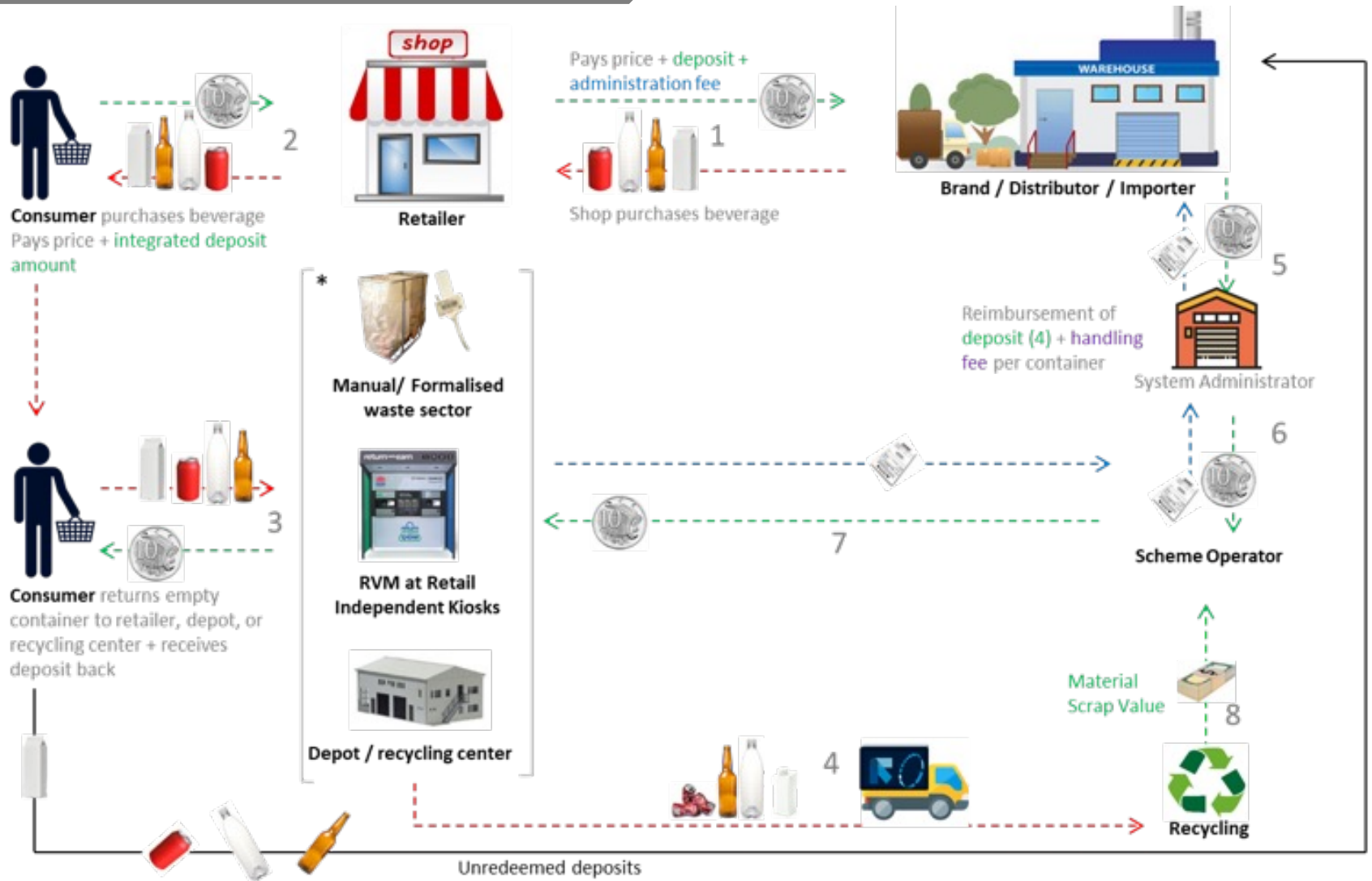
Since launch in Lucknow (November 2022) , 7,302 Ltrs of liquid has been refilled, which eliminated approximately 730 kg of plastics and saved 606,066 gms of CO2 equivalent of emissions.

Deposit Refund Systems (DRS)

STAKEHOLDERS

- State Government
- Scheme Administrator
- Scheme Operator
- Retailer
- Brand
- Consumer

Success story:
District administration
Rudraprayag &
Recykal)



EPR led Business Model for Legacy Waste Management

Intervention

Impact

Prayagraj Model

EPR Led Business Model for Legacy Waste Management to be implemented at 'Naini-Baswar' landfill site Prayagraj

- ✓ **Timely intervention** (through a binding Tri-partite agreement) as 14 Lac Metric Tonnes of Legacy waste to be disposed before Kumbh 2025.
- ✓ **Quality of RDF was main concern** as RDF was rejected by Cement plants
- ✓ **12 process improvement measures** implemented, 10 lab tests conducted, continual **on-site interactions** with bio-mining agencies [average CV improved from 2200-3800 kCal/kg]



- ✓ **Training and consultations with PMC/biomining agencies/stakeholders** helped building conducive engagement and even facilitated introduction of new innovative ideas (bulk transportation of RDF via railways).
- ✓ **Daily clearing and disposal** of C&D waste and bio soil (weekly)

EPR led Business Model for Legacy Waste Management



EPR led Business Model for Legacy Waste Management

Overall IMPACT

- ❑ **Model Implemented:** Quality improvements and regular intake RDF by Dalmia & other cement plants started.
 - ❑ **5,133 MT** total RDF disposed to Dalmia Cement
 - ❑ EPR credits to be generated/transferred to BO's

- ❑ **Model Scaled-up:** with consultations, on-site visits, four more cement plants engaged with PMC
 - ❑ **49,553 MT total RDF mobilised under project**
 - ❑ **5 cement Plants engaged now**
 - ❑ **** 82,643 tons CO₂eq offset**

- ❑ **Model Replicated:**
 - ❑ Ultratech joined, basis same model practices
 - ❑ **Lucknow** willing to replicate same model/learning
 - ❑ Plastic Waste **Characterisation** Study process
 - ❑ **CSR based Model (1440 MT) also initiated****

** Calculation: Basis actual CV of RDF & respective emission factors of fuel mix (peat, lignite/bituminous/anthracite coal) Source: https://www.epa.gov/sites/default/files/2015-07/documents/emission-factors_2014.pdf



Picture: During World Environment Day, June 05, 2023, Hon'ble Chief Minister, Uttar Pradesh Launched Factsheet of EPR led Business Model of Prayagraj

Engagement and Recognition to SUP alternatives/manufacturers

- ✓ Facilitation Support for SUP Manufacturers to switch towards alternative
- ✓ B2B meet created a platform for exchange and dialogue on innovative solutions for SUP alternatives
- ✓ Potential collaboration and partnership opportunities – B2B and B2G as well as Research and Development support to be discussed



Engagement and Recognition to SUP alternatives

Winners at UP Plasticathon, Nov'22



UP PLASTICATHON 2022

Showcasing Circular Economy Solutions for Plastic Waste

The Winners

Congratulations!



Infinity 

INFINITYBOX



SALTECH 

SALTECH DESIGN LABS PVT. LTD.



Plastic Free Store 

ARANI ECOSTEPS

instaGood 

INSTAGOOD TECHNOLOGY SOLUTIONS PVT. LTD.



SUP SUPPORT

82

Exhibitors
1800 visitors



EXHIBITIONS

6

Exhibitions
on SUP
alternatives



Support Innovative Ideas and Products



MINTOO
Toothpaste Tablets



BERRYL
Floor Cleaner Pods



SPRUCE
Laundry Detergent



Any Time Bag (ATB) Vending Machine

Support Innovative Ideas and Products

Creating value for Argo residue

Wheat straw



Baggasse



Bamboo



No water consumption & green manufacturing



FARMER



FIBER



IBANSS CREATES GRANULES
OUT OF FIBERS



Use of bamboo as industrial material



Create sustainable material to replace SUP

Support to SUP Alternatives

Intervention

Impact

✓ National/Global Exposure

ANN agreed for 1TPD pilot scale plant. Partial funds arranged through AFD-MoHUA Swachhata Grant through Villgro, HDFC Parivartan, Private Companies & Brands



✓ Saltech was winner and went to Germany for Managers Programme



✓ Two winners
- Arani, Gurgaon
- Ecolastic, Hyderabad



✓ ISC3 Germany, an international center to fosters transition of chemical/chemical-related sectors to Sustainable Chemistry, promoting a CE Models



✓ Upcycling of contaminated plastics from RDF / MSW & dust/aggregate from C&D waste into composite building material products

Support to Innovative Technologies

EVER-GROWING WASTE



**WORLDWIDE – 380* MMTA OF PLASTICS
RECYCLING < 9% OVERALL**

URBAN INFRASTRUCTURE NEED



**TOWNS & CITIES - 1/3rd OF INDIA'S POPULATION
SLUMS - 1/4th OF ALL URBAN HOUSING**

Support to Innovative Technologies

THE GREATEST THREAT TO OUR PLANET IS THE
BELIEF THAT SOMEONE ELSE WILL SAVE IT

- ROBERT SWAN

OUR EFFORTS
ARE ALIGNED
WITH

7

SDGs 2030

8 DECENT WORK AND
ECONOMIC GROWTH



9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE



11 SUSTAINABLE CITIES
AND COMMUNITIES



12 RESPONSIBLE
CONSUMPTION
AND PRODUCTION



13 CLIMATE
ACTION



14 LIFE
BELOW WATER



15 LIFE
ON LAND



Infinity Box

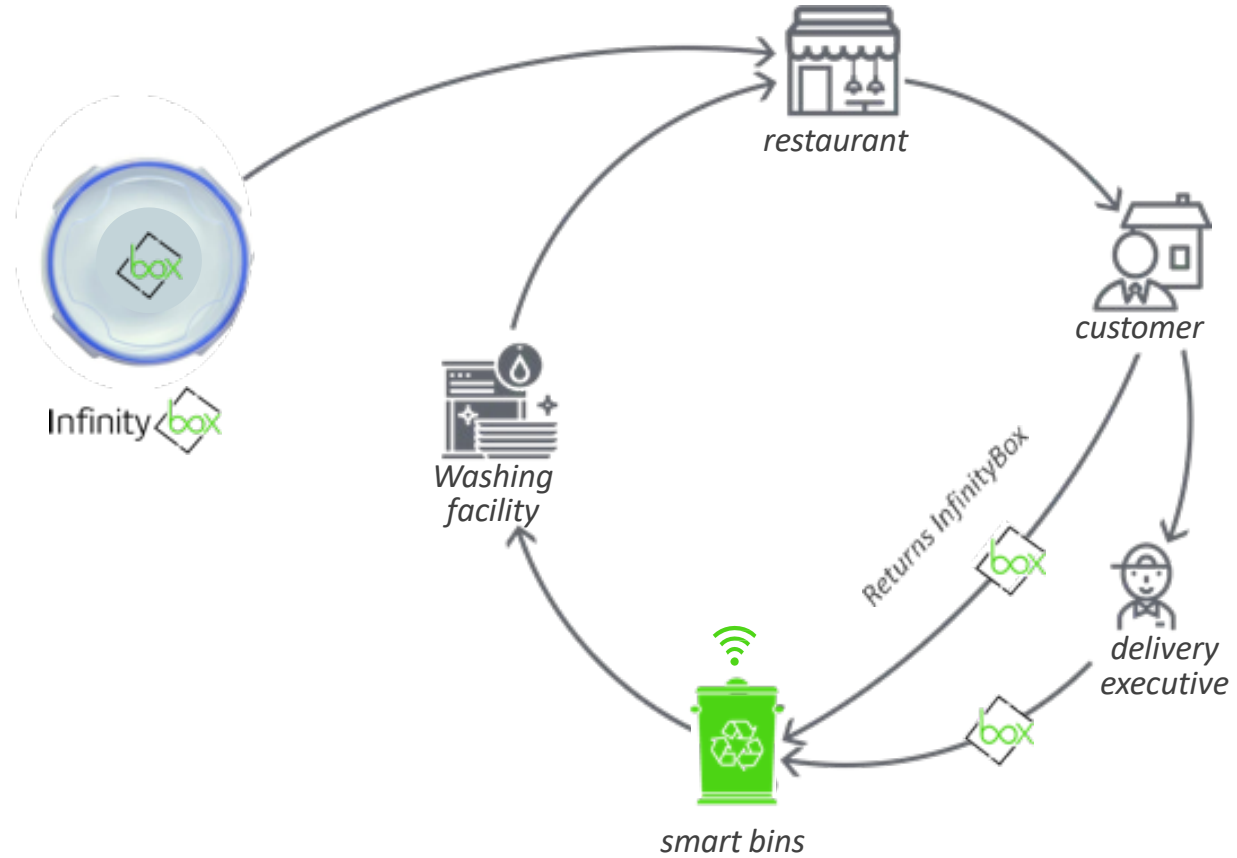
Collection Channels



Proprietary smart bins placed in housing societies, offices, etc. to ease returns



Integrating products into existing supply chains and start reusable option with customers (B2B and B2C and B2C Ad-hoc)



B2C Ad-Hoc



B2C Subscription



B2B



Overall Project Impact in UP (2022-24)

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6,22,242
Direct
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SUP SUPPORT



82
Exhibitors
1800 visitors

EXHIBITIONS



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Exhibitions
on SUP
alternatives

RDF



49,553 MT
of RDF
Mobilised

RACE/TRAININGS



3 RACE mega
campaign
& **10**
training/consultat
ions

EPR CREDITS



25,171
EPR Credits
(Cat I, II, III) to
be Claimed

CO₂ eq. OFFSET



82,643
tons CO₂eq
offset

hashtag #RACE4SUPFreeUP was trending at 2nd position in India during RACE (3rd July 2022)



Thanks for your time...!

