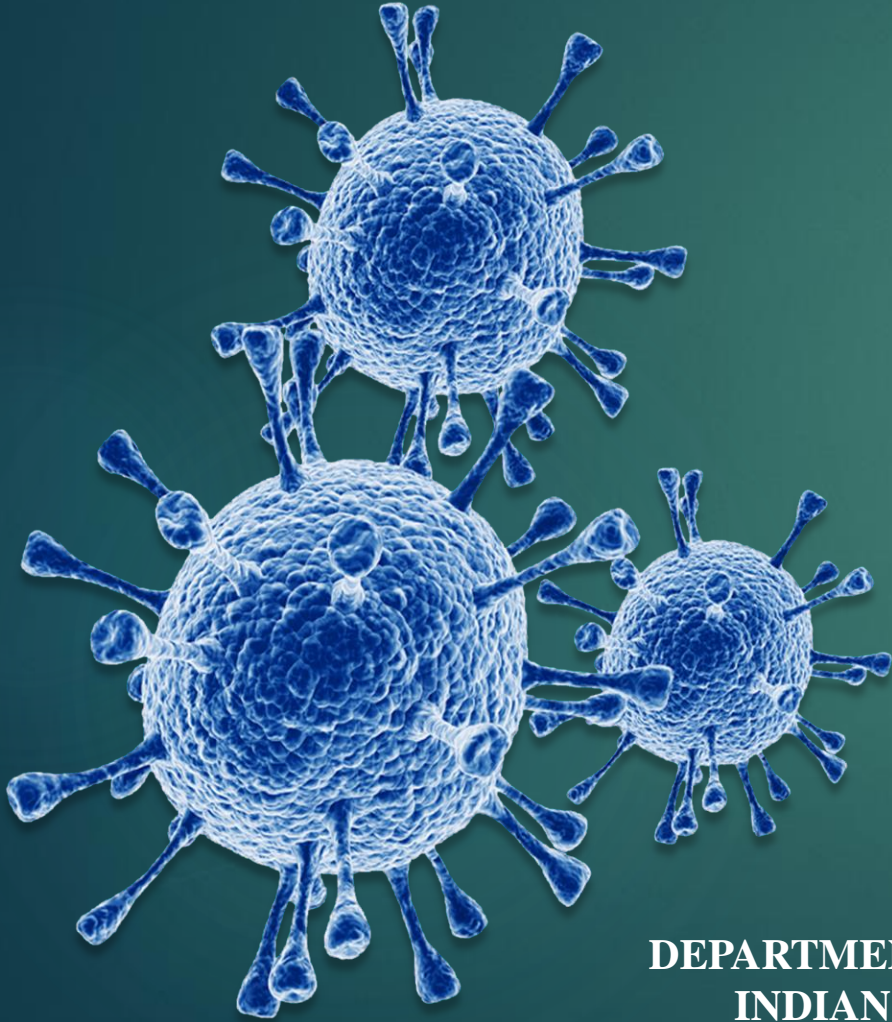


UNEP-IETC Global Dialogue workshop, 2021

Pandemics and the Rise of Plastic Pollution



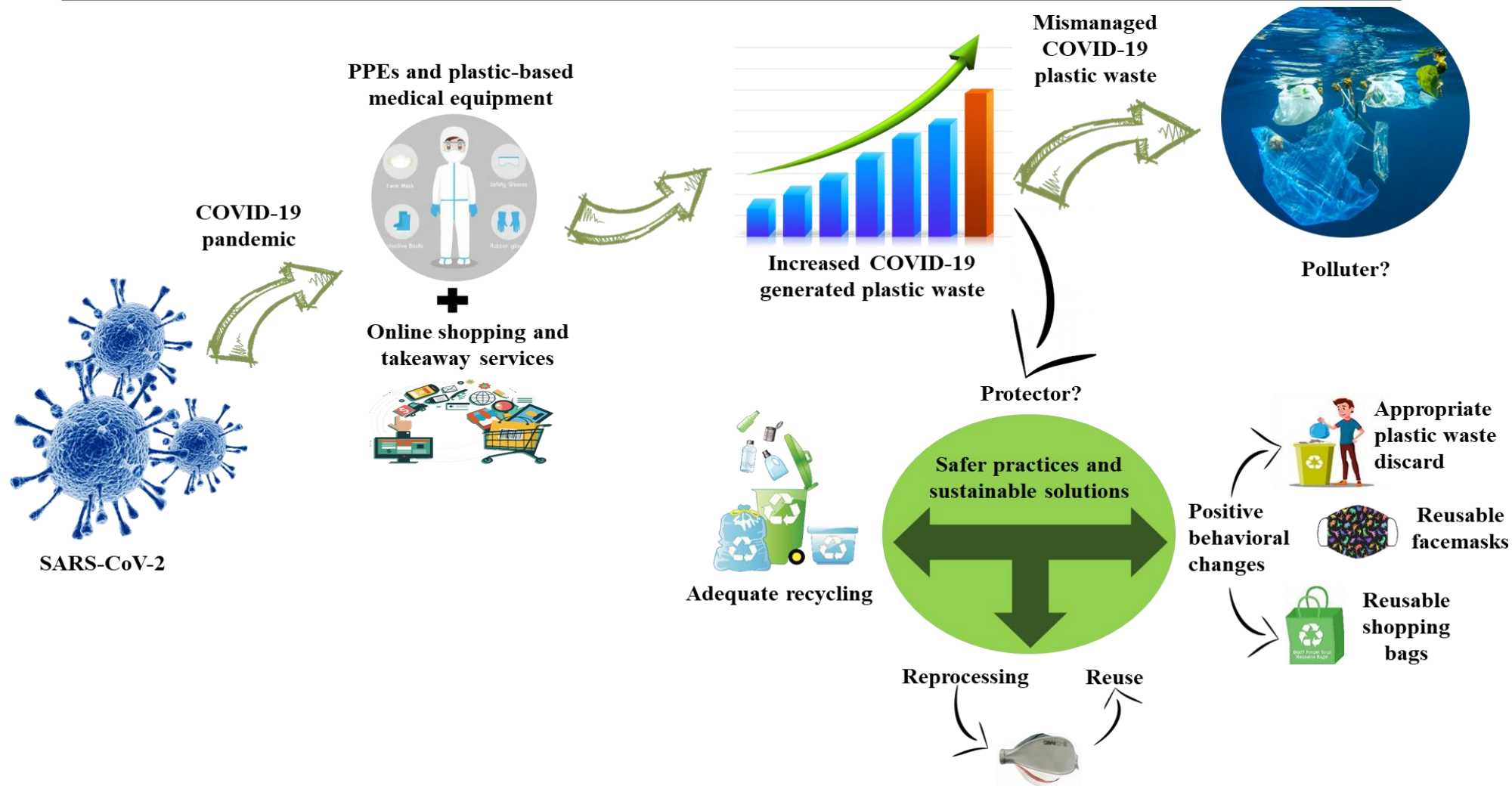
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Review

Plastics in the time of COVID-19 pandemic: Protector or polluter?

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The Covid-19 menace and future policies



INDIA: BMW (including plastic)

203 TPD average
BMW generated

250 TPD single day
peak generation in the year
2021

180-220 TPD single
day peak generation in the
year 2020

- As of June 2021, the United Nations Development Programme's (UNDP) Plastic Waste Management Programme in India has helped to process 83,900 Mt of plastic waste.

- The ambition is to process or recycle 85,000 Mt of plastic waste and reach 50 plus cities by the year 2024.

The expanding threats

Study estimated
discard of **386, 401,**
228 facemasks/day.



Total plastic waste generation
reported by the end of year
2020 **103, 500, 328.90**
tonnes.

Benson et al. 2021

Country's per capita plastic
waste generation is **7.6** g/day
and estimated to reach up to **3.3**
trillion g/year.

2/3rd of plastic waste comes
from states like **Maharashtra,**
Karnataka, Tamil Nadu,
New Delhi, Gujarat, West
Bengal and Uttar Pradesh.

The Hindu, 2021



Overall, a **47%** rise in
single-use plastic with a
spike in the use of
multilayer packaging.

There is at least a **10-15%**
jump in disposable
waste.

The Economic Times, 2020



About **198** CBWTFs are
involved in the treatment
and disposal of COVID-19
BMW across the country
yet the COVID plastic
waste has overburdened
the waste management
system.

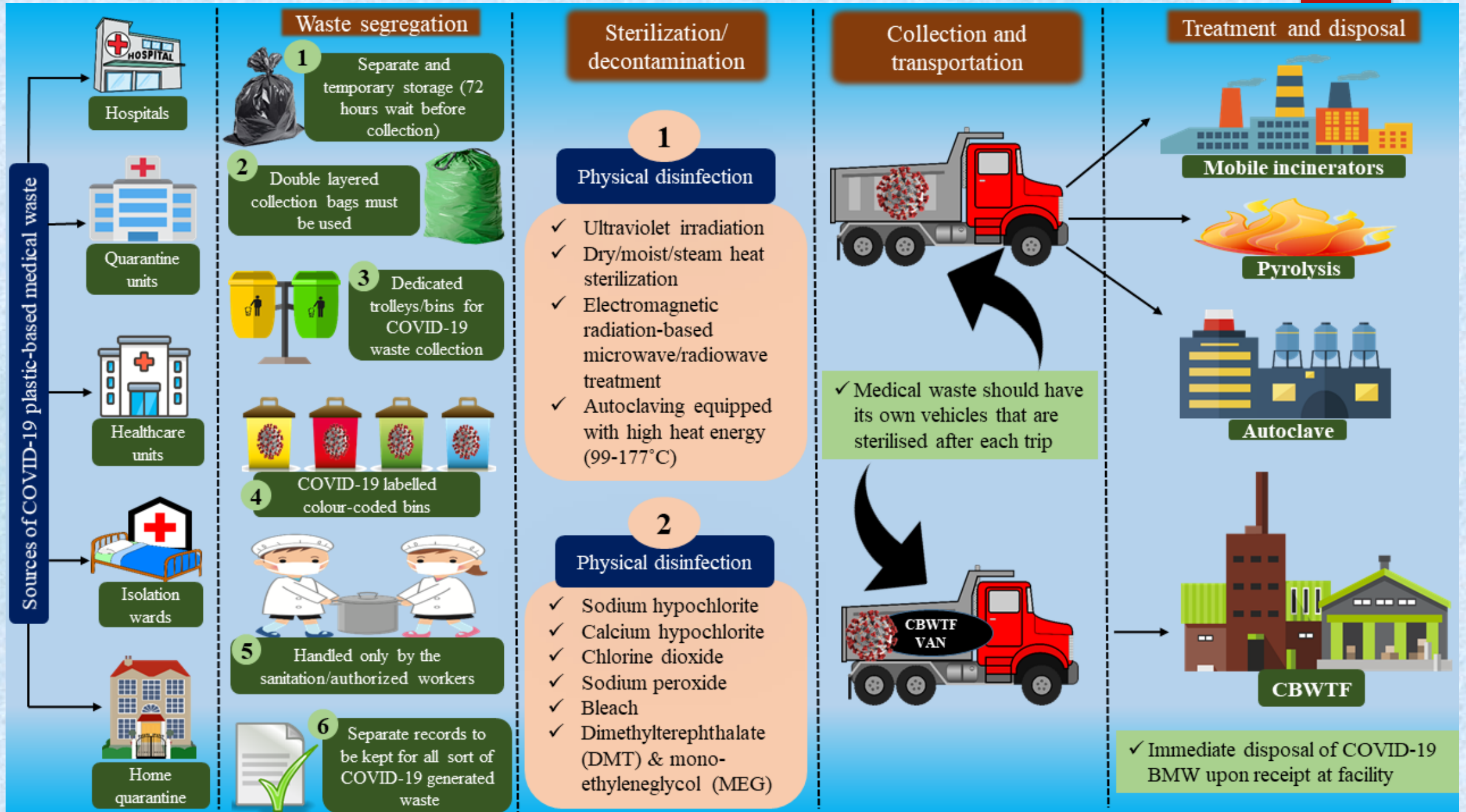
The Indian Express, 2020

In such a
scenario,
how will
India ever
meet its
objective of
“freeing”
the country
from
single-use
plastics?



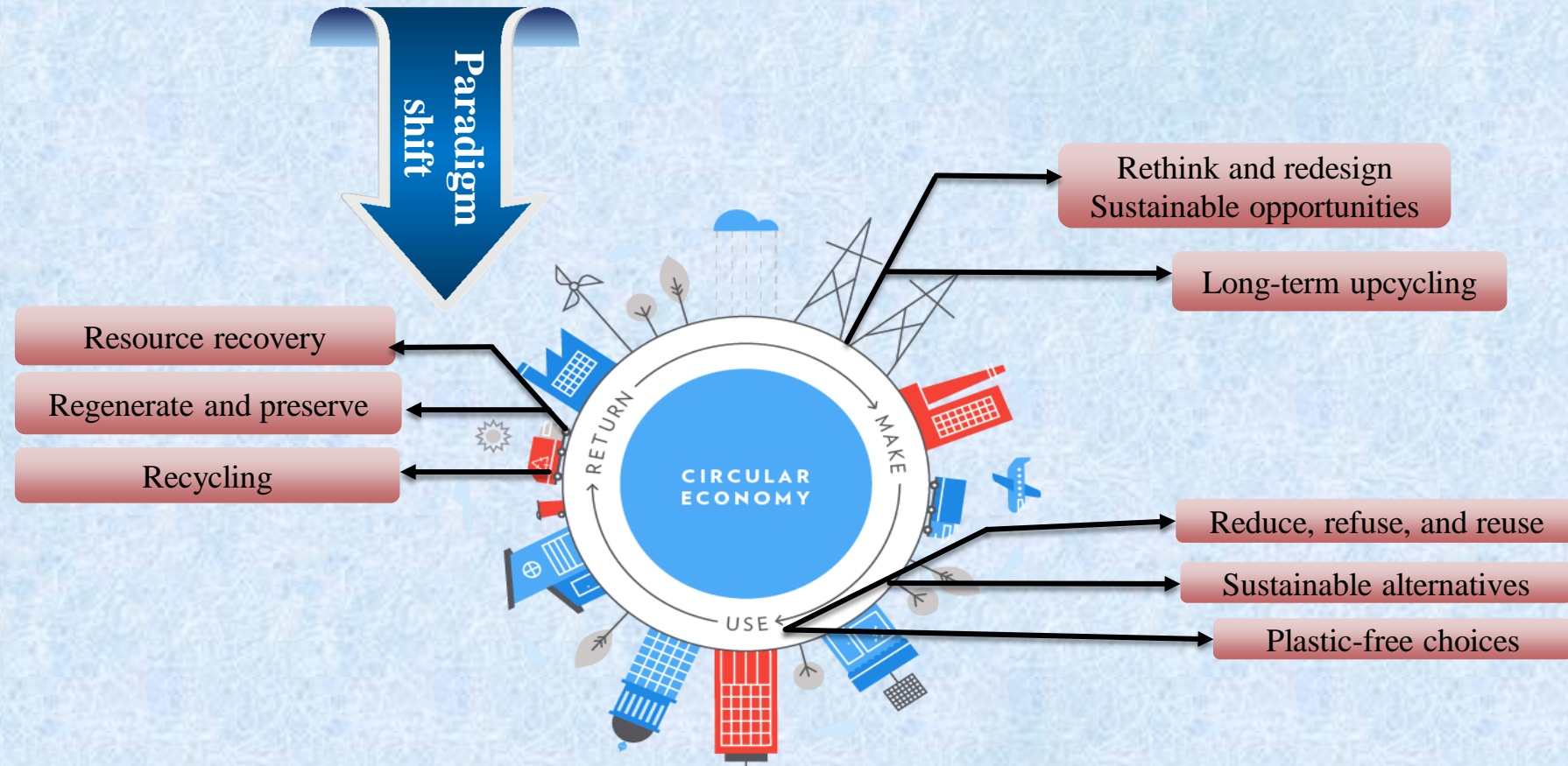
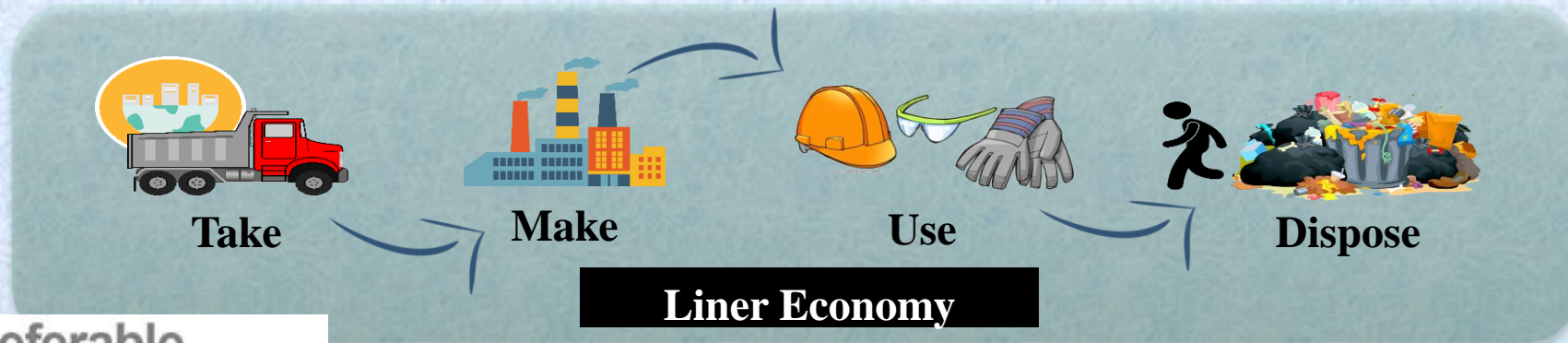
Managing the Covid-19 plastic waste...

4



Are we throwing away the resources of tomorrow?

5



Gender dimensions of Covid-19 pandemic

6



- The transition to a circular economy for plastics – and the shift to a green and sustainable world – must go hand-in-hand with building a plastics value chain that is inclusive and gender-equal



- Physiological vulnerability
- Access to services
- Social norms

Health and education

Economic conditions

- Livelihoods and income
- Sectors and jobs

Decision making

Response effects

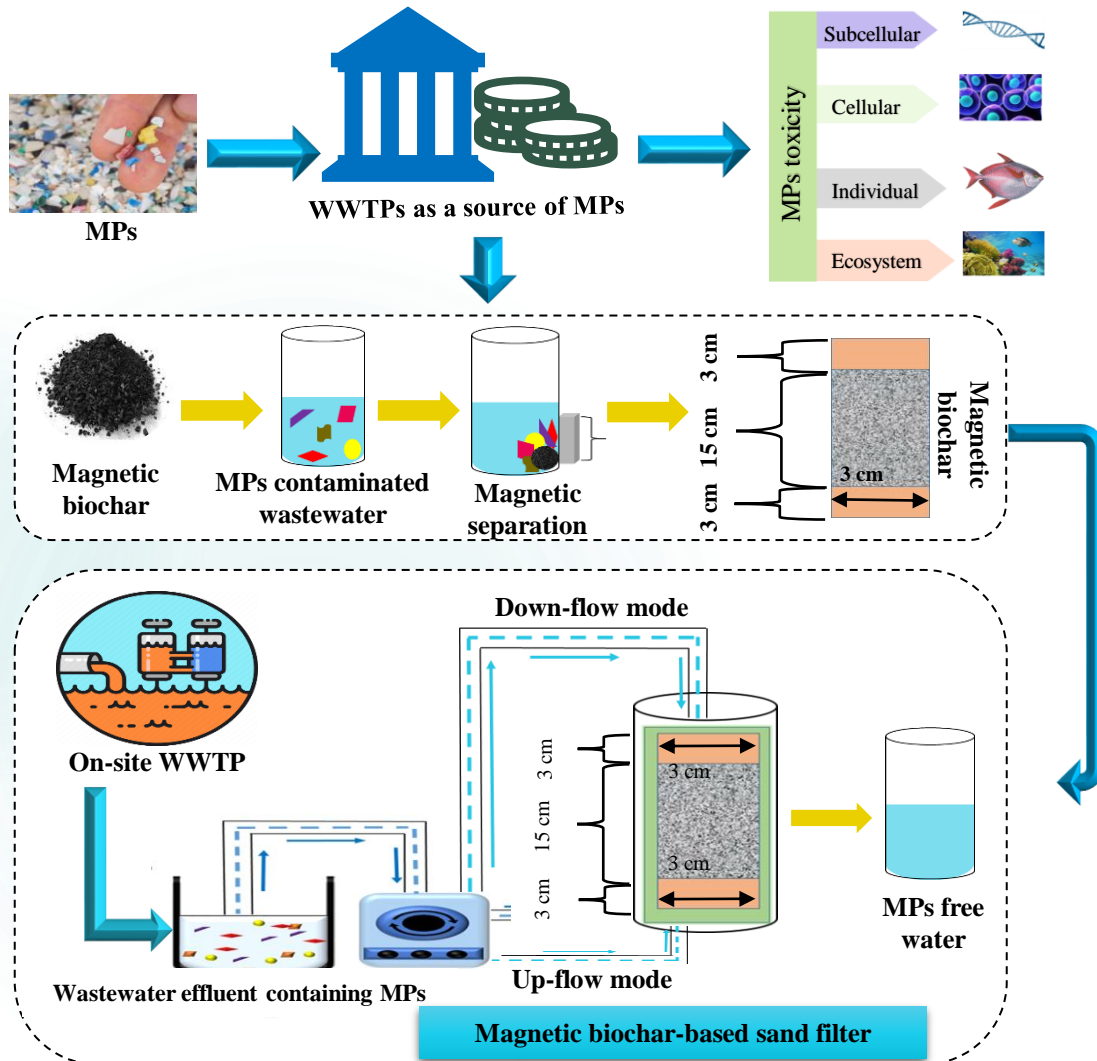
- Unequal power structures

- Negative coping strategies

Research @ IIT Patna...

7

Magnetic biochar-based sand filter for removal of microplastics from wastewater effluent



- Synthesis of a novel adsorbent material in form of magnetic biochar from locally-available agricultural residues for potential integration in sand filters for MPs removal from aqueous matrices
- Development of understanding of basic mechanisms of interaction of MPs with the surface of magnetic biochar, their immobilization and stability
- Development of magnetic biochar-based sand filter with scale-up field trials as a potentially low-cost, eco-friendly, and low maintenance tertiary treatment option

THANK YOU⁸

Be The Part Of Solution
Not The Pollution....!