



PAPER WASTE RECYCLING IN INDIA: CURRENT SCENARIO AND FUTURE PROSPECTS

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Overview of Indian Paper Industry

Overview of INTRODUCTION

Fourth largest paper producer in the world

Annual production of 24 million tons

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Per capita consumption of paper is 15 kgs

80% pulp production is from recycled paper

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Population explosion

Unprecedented levels of urbanization

Greater volume of waste generated

Ramifications of urbanization exist

Waste management- a mammoth task

Recycling is the solution



cont..

- India's expanding population and paper consumption create both opportunities and challenges.
- Regulatory, infrastructural, government and citizen-centric interventions in paper waste collection, sorting, processing, and recovery for reuse are crucial.
- Implementing principles that help in reduced reliance on imported waste paper and virgin raw materials for paper production is a pressing priority.

Waste paper, a vital resource, can be repurposed for various applications beyond papermaking.



Waste Paper Recycling Benefits

Low technology requirements

Limited exploitation of natural resources

Employment generation

waste Paper cost of raw materials

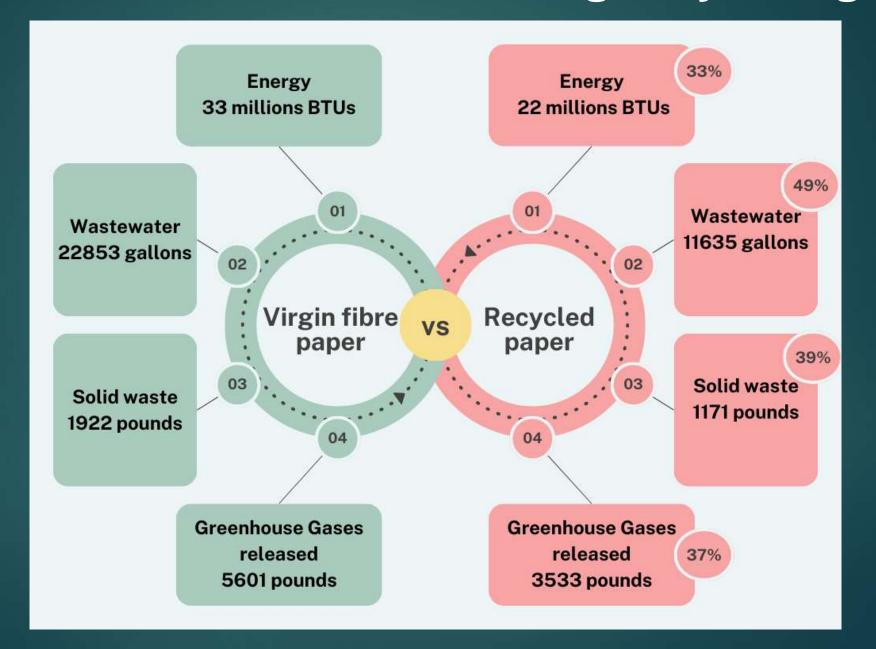
Recycling Benefits

Reduced quantity of solid waste

Reduced import requirement of raw materials

Reduced

Environmental benefits of using recycled grade

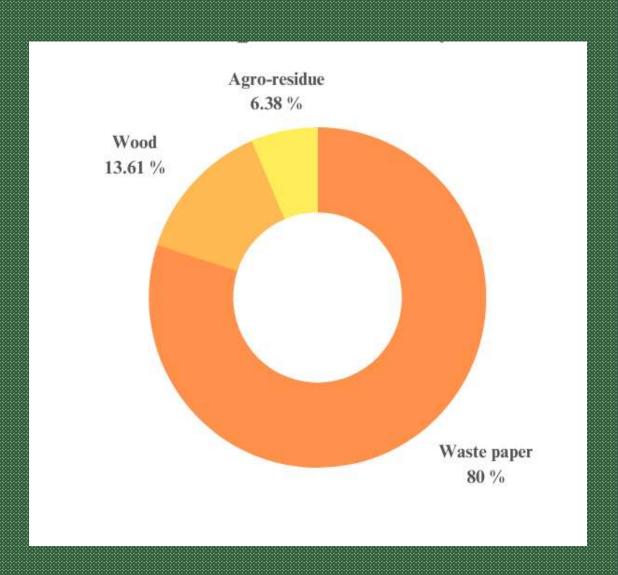


Scenario Scenario

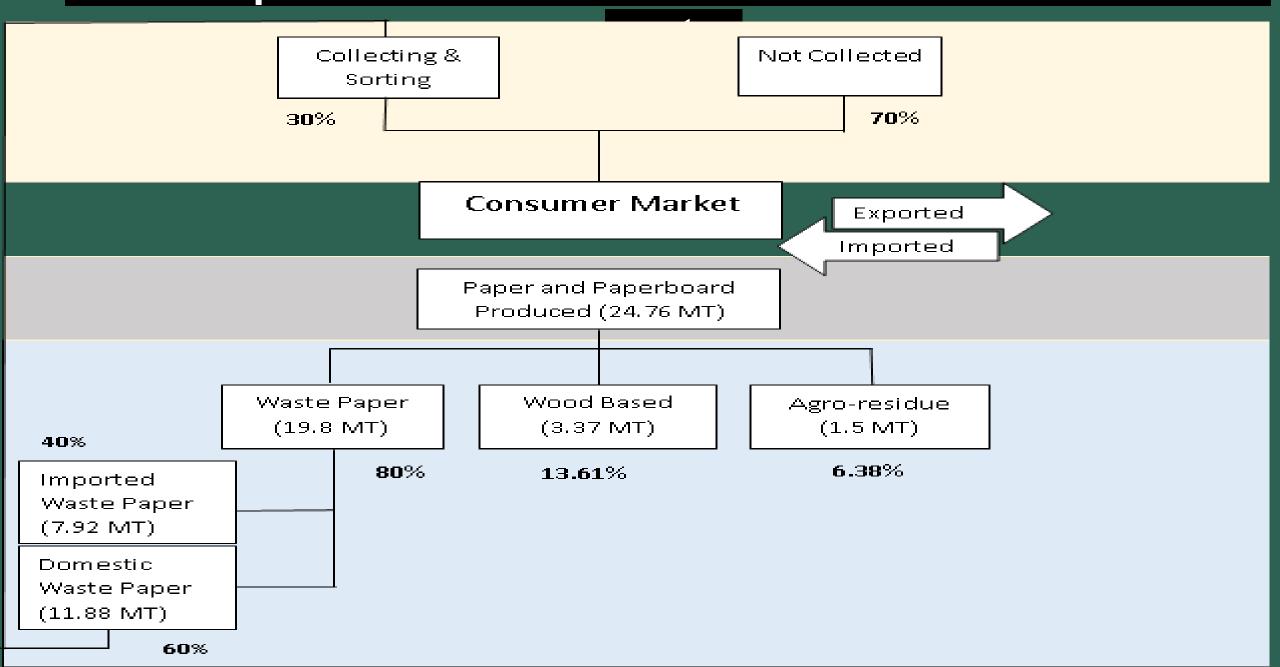
 Paper waste accounts for about 0.1 lakh metric tons of municipal solid waste annually.

• India's recovery rate is only 25-28%.

 Reduced recovery rate is due to abysmal state of collection, sorting and grading system of waste paper.



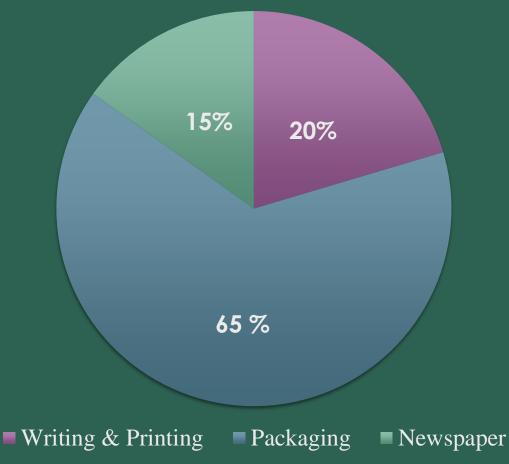
Waste Paper Reutilization trends in India: Current Scenario



Waste Paper Reutilization trends in India: Current Scenario cont..

 60% of waste paper is sourced domestically and 40% has to be imported.

 Whole demand of about 20 million tons encompasses 13 million tons domestic collections and remaining 7 million tons imported.







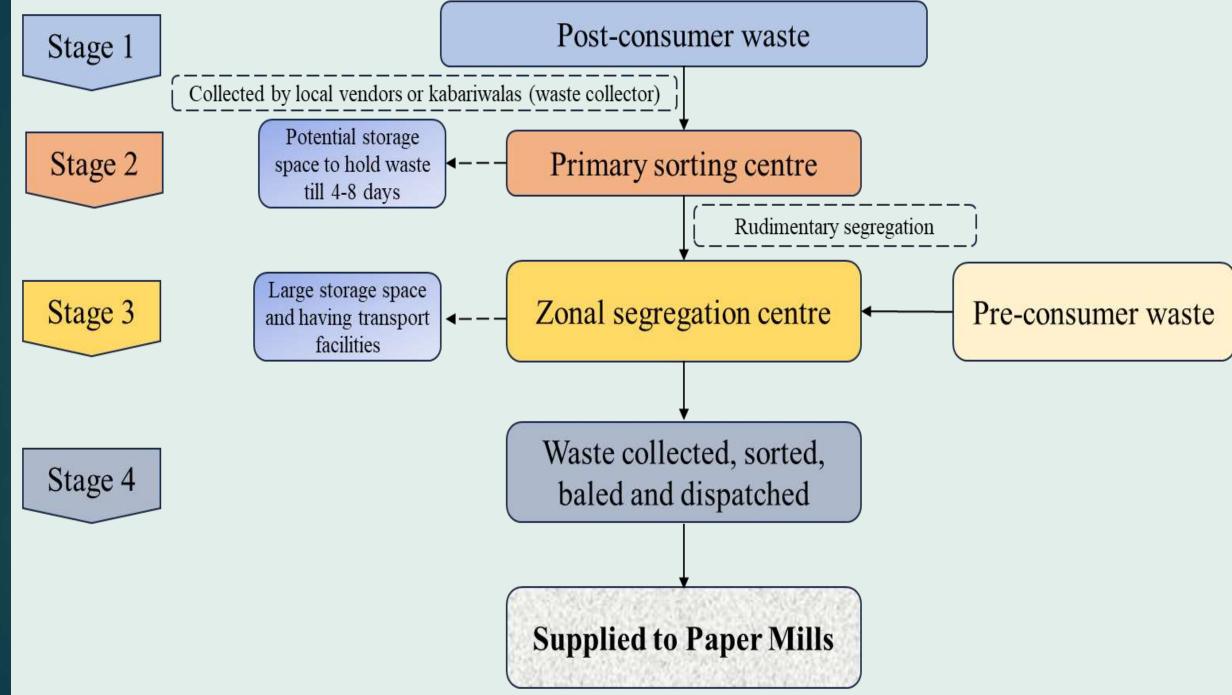
Unorganized Collection System



Direct and Indirect Sources



Pre-consumer and Post-consumer Waste



SOURCES OF WASTE PAPER COLLECTION

WASTE PAPER COLLECTION

Sources

Sources

Sources

HOUSEHOLD

PRINTERS,
PUBLISHERS &
CONVERTERS

INDUSTRIES, OFFICE, LIBRARIES

Items collected

Items collected

Items collected

Old newspapers, notebooks & Magazines

Paper trimmings, print rejects, overprints and other waste

Old corrugated cartons, old office and library records

Collected by

Collected by

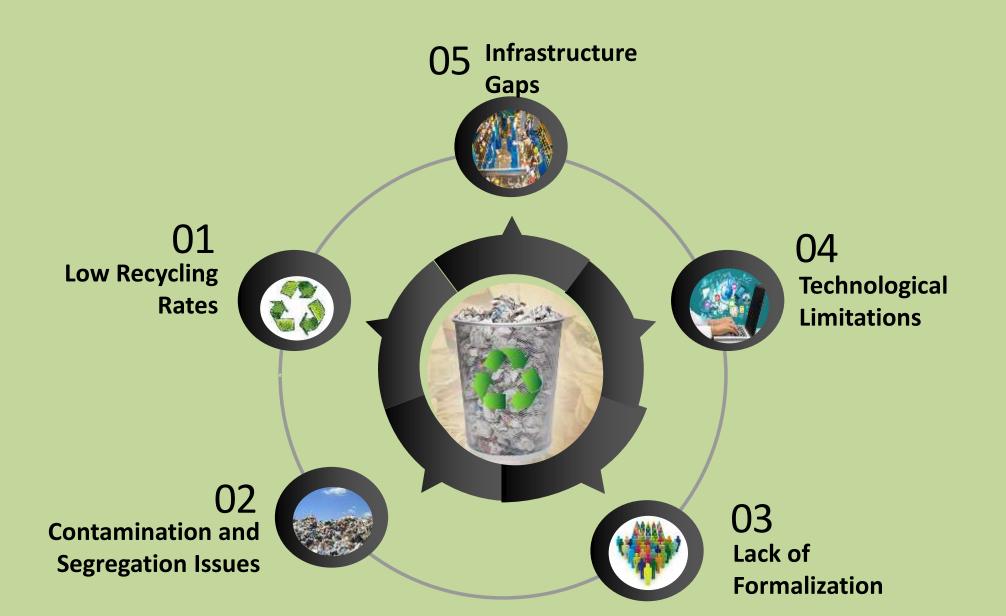
Collected by

Weekend hawkers

Contractors

Contractors

CHALLENGES IN PAPER RECYCLING



FUTURE PROSPECTS



Increased Awareness



Technological Advancements



Cross-Sector Collaborations



Circular Economy Integration



Conscientious Protocols



Mandatory Recycling Targets

Conscientious Protocols



Research
Grants and
Infrastructure
Investment



Extended
Producer
Responsibility
(EPR)



Green
Certification
Standards



Taxation
Policies
and Import
Regulations

CONCLUSION

- Need of robust policies coupled with effective on-ground implementation
- Adoption of cutting-edge technologies & circular economy principles is vital
- Increased public awareness need of the hour
- Achieving sustainable paper waste recycling practices in addition to better quality and yield obligatory for Indian Pulp and Paper industry



Our Team



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Ph.D. Scholar









