



Dalmia Cement
Visualizing Beyond Carbon Neutrality



A Carbon Negative Commitment

AGENDA

Legacy Waste Opportunity & Challenges for Cement Industry

01

Need of SWM

02

Contributors to Biomining waste

03

Dalmia – Carbon Negative Target

04

Infrastructure required by Cement plant for Co-processing

05

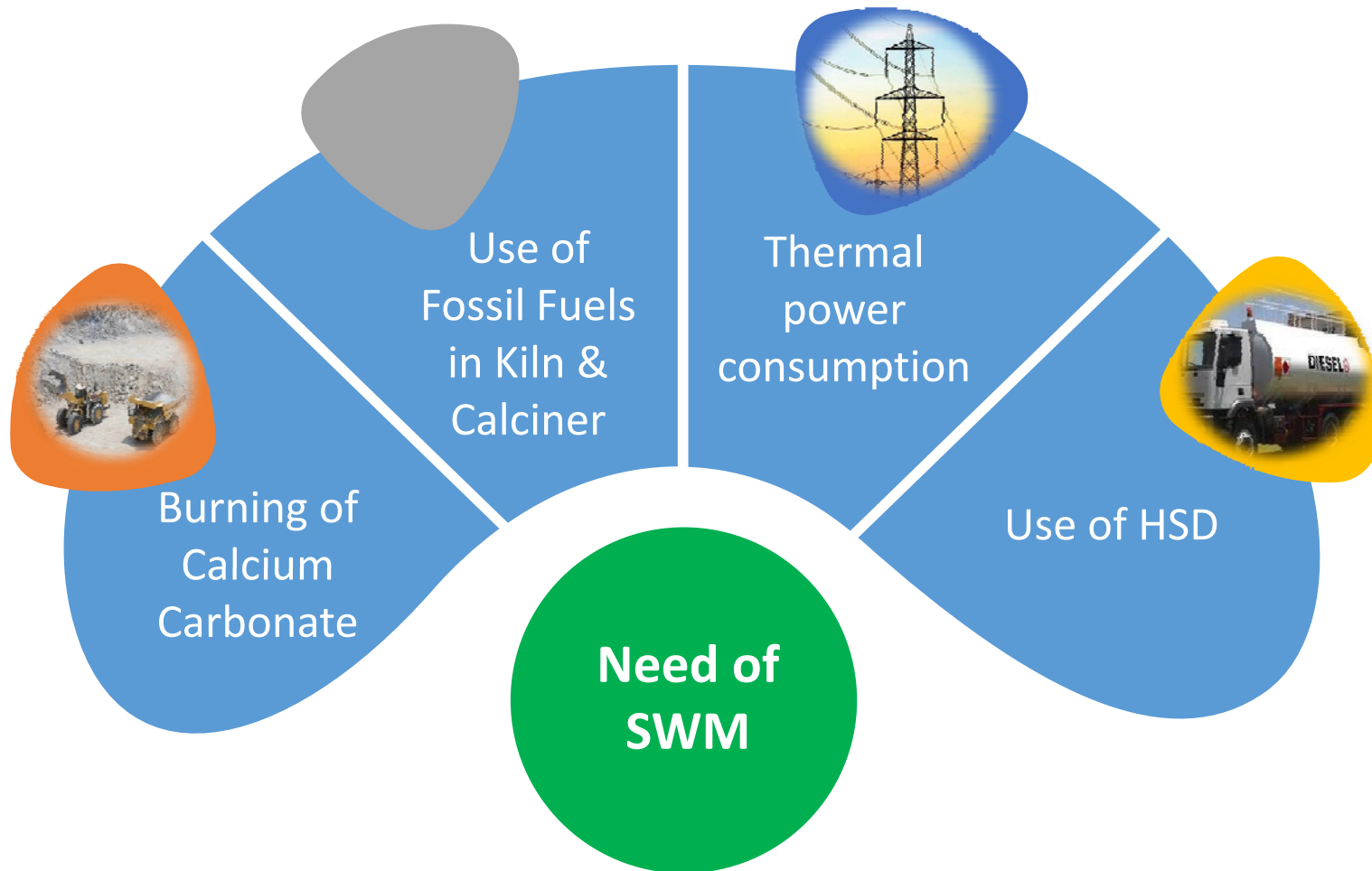
Challenges faced by Cement Industry

06

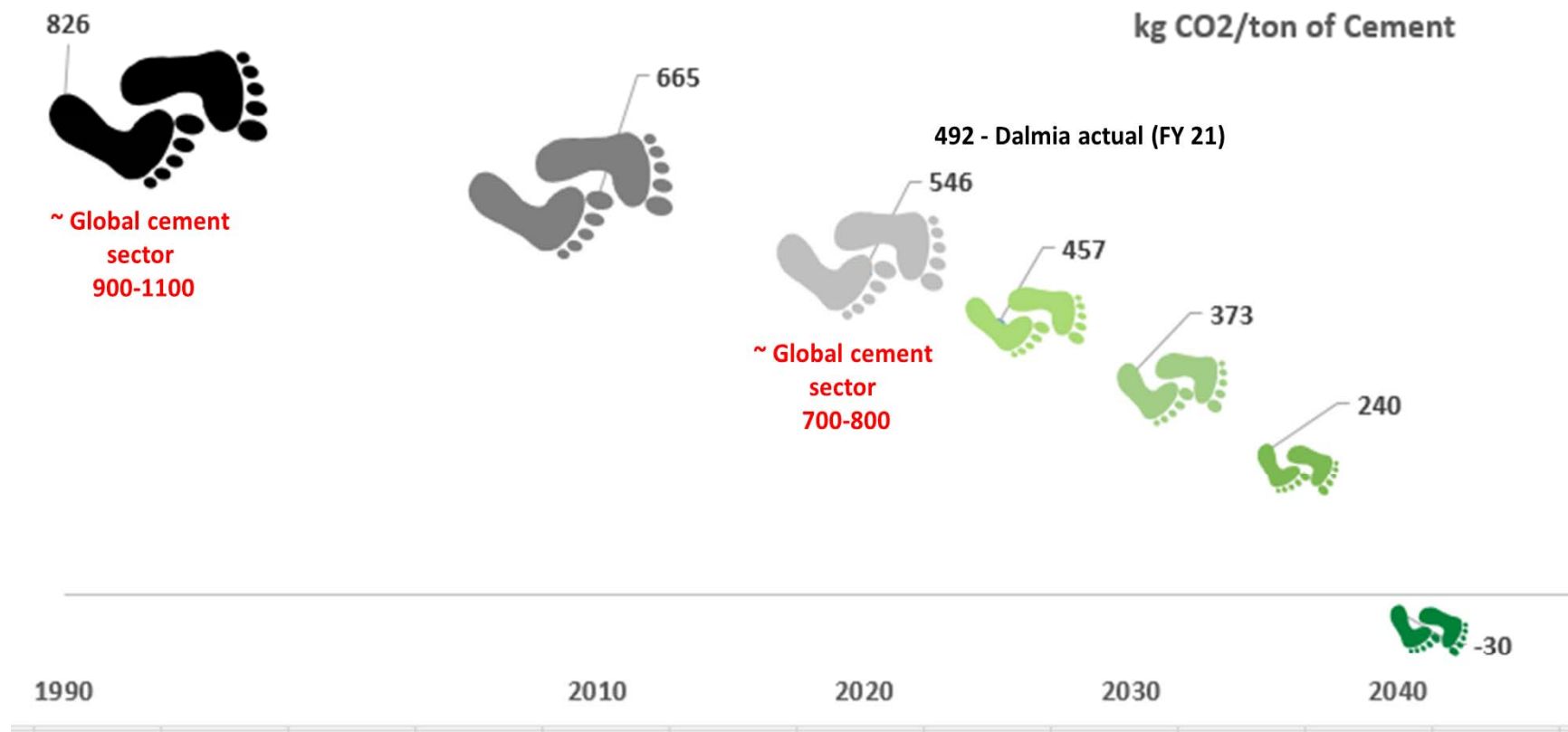
Support required to maximize consumption



Solid Waste Management : A Step Towards Net Zero



Dalmia Group – Carbon Negative By 2040



1. CO₂ emission-Kg/ton of cement (Based on Global Cement & Concrete association GNR Data as on FY19)
2. As per CDP (Cement) report 2018

Composition of Biomining Waste



Households

Kitchen & Sanitary waste, Paper, Bottles, News paper...



Industrial & Other Sectors

Rubber, Plastic, Metal, Textiles, Glass, C&D waste...

Infrastructure for Co-Processing



Unloading System

Excavator, Tippers, Grab Bucket Arrangement



Laboratory Setup

Essential Testing Equipment's



Storage System

Concrete Flooring, Structural Sheds, Fire Fighting, Odor Control System

Large Capex Investment



Segregation System

Trommel, Shredders, Ballistic & Magnetic Separators



Feeding System

Extractors, Belt conveyor, EOT Crane, Feeding Pump, Chlorine Bypass System



Emission Control System

Continuous Emission Monitoring systems and SO_x & NO_x control systems

Challenges of Cement Industry





Quality Constraints



Foreign material like metal piece, stones ...



Presence of high ash, high moisture, mud ...



Effects on raw mix & fuel mix designing (recipe)



Controlling chloride & ash contents in hot meal & clinker

- Continuous fluctuations of required specific heat due to inconsistent moisture & CV in the legacy waste.
- Variation in ash & chloride level in legacy waste leads to continuous change in raw mix to maintain the quality of clinker.
- This leads to requirement of high grade limestone & depletes the life of mines.



Cost Constraints



Inconsistent running of kiln, lowers clinker prod. & increases usages of power & fuel



High moisture leads to high transportation & handling cost



Increase in coal consumption for drying moisture.



Higher consumption of high grade limestone to cover up high ash contents in legacy waste.

- Handling and transportation cost.
- Cost of production – Coal & Limestone.



**Regulatory
Support**

Establishing green fund for promoting pre-processing & co-processing activities

Subsidy on Capital investment to co-processors & biomining agencies

Covering RDF in EPR



Cost



**Regulatory
Support**



**Setting up quality standards for RDF and thus standardising process
of segregation & treatment of waste**



**Setting up technology standards for establishing pre-processing
units**

We believe in Building Long Term Partnership with Waste Generators & Other Stakeholders to grow together

Liabilities	
Current liabilities	161,430
Non-current liabilities	19,507
	180,937
Equity	
Share capital	74,193
Reserves	1,225
	75,418
Income statement	
Revenue	12,378,016
Net profit	1,001,000
Dividend	10,000
Expenditure	
Research and Development	1,000,000
Marketing expenses	1,000,000
Salaries	1,000,000
Net income	8,000,000

Profit and loss	
Revenue	12,378,016
Cost of sales	11,377,016
Gross profit	1,001,000
Operating expenses	1,000,000
Operating profit	1,000,000
Finance income	1,000,000
Finance expense	1,000,000
Profit before tax	1,000,000
Income tax	1,000,000
Profit after tax	1,000,000

Cash flow statement	
Operating activities	1,000,000
Investing activities	1,000,000
Financing activities	1,000,000
Net change in cash	1,000,000



Credibility

Globally recognized for its efforts in sustainable manufacturing practices



Capability

Robust infrastructure which can process all type of Industrial Waste



Commitment

Commitment to move to negative carbon foot print



Thank You