

Corru Cartons India Pvt Ltd

Green Manufacturing- Energy Efficiency and Green Initiatives



energy efficiency

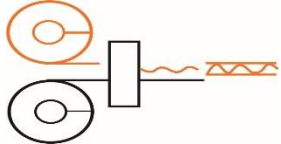


*Green
Initiatives*



- **Presented By:**
Sandeep Agarwal
(M.D - Corru Cartons India Pvt Ltd).
- **Venue:**
I A Modi Hall, Worli.
- **Date:**
• 15th March 2019





Organization Profile



PLANT: 01- Corru Cartons

- Established Year: 1988
- Location: Palghar
- Plant Area sq. ft: 20,000
- Manpower strength: 90



PLANT: 02 – Paper Cartons (Sister Concern)

- Established Year: 2010
- Location: Chiplun
- Plant Area sq. ft: 10,000
- Manpower strength: 35

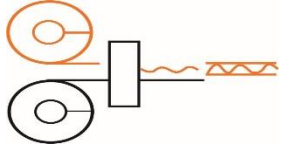


PLANT : 03- Corru Cartons

- Established Year: 2018
- Location: Harneri (Pali)
- Plant Area sq. ft: 26,000
- Manpower strength: 30

Some Key Clients whom we serve:





Process Involved



Corrugation



Pasting



Scoring



Slotting

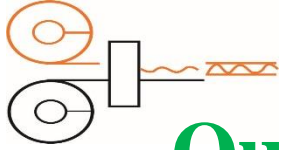


Top Bottom Box



Stitching

Perfection has to do with
the end product, but
EXCELLENCE has to do
with the **PROCESS**.



Our Products-We make more than 500 SKU's



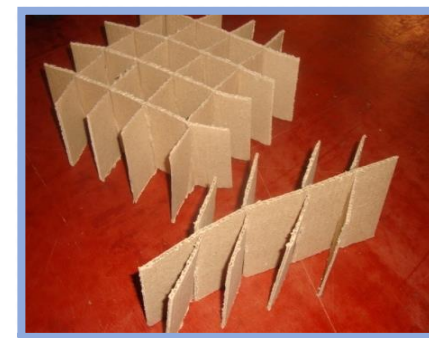
Auto-Locking Style



UFS with Binding Cloth at Edges



Top and Bottom Style

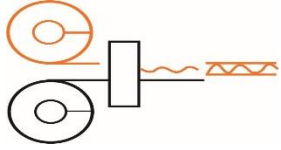


Box Partitions

100 % of our product is
Re-cyclable



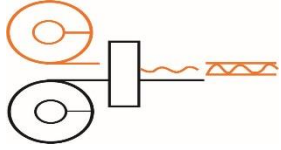
Boxes made out of
Corrugated
Cardboards



How we Started..?

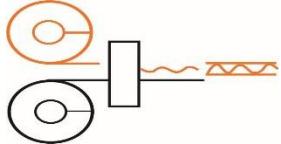


1. In 2015, we started the Journey by joining CII- Greenco Cluster where one of the vital point was Environment protection and Sustainability.
2. “Environment” being one of the core value for our Key Client- Godrej Interio, we were always guided and motivated by them to be environment friendly company.
3. We started monitoring Resource consumption such as Energy, Water, Waste etc and setup the target to reduce it on YOY basis.



As we started monitoring resources... we realized the following

1. High Specific Energy Consumption of Electricity, Furnace Oil and Diesel.
2. High domestic water usage and waste water not utilized.
3. No proper waste management system followed.
4. No measures were taken to control emission of GHG (Green House Gas).
5. No GSC (Green Supply Chain) system followed.



GreenCo Awareness



GreenCo Kickoff Ceremony



Training & Awareness on GreenCo

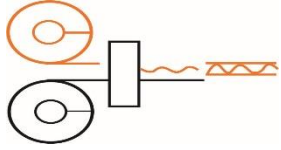


Tree Plantation

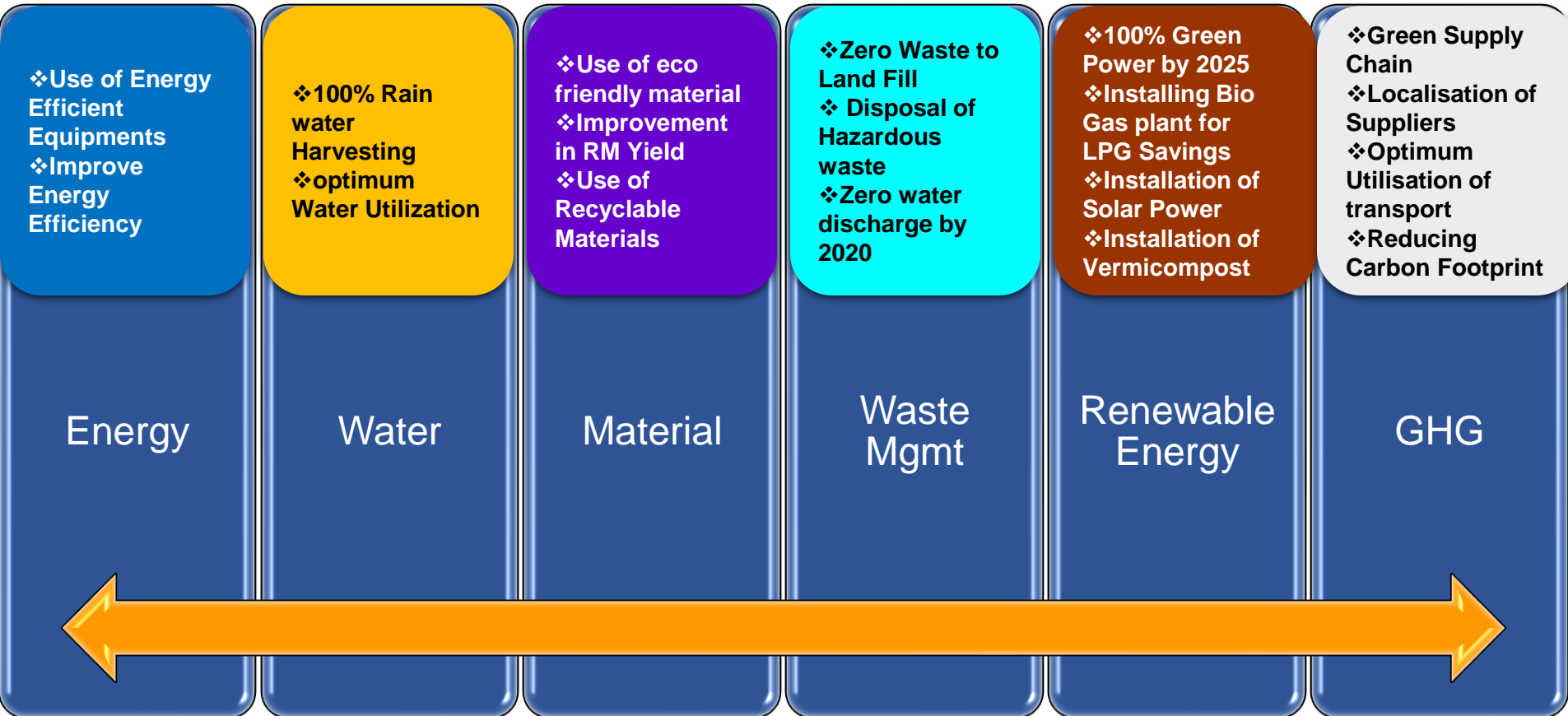


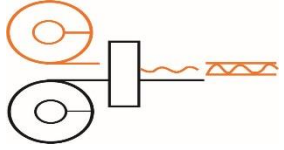
Tree Plantation

GreenCo Kick off Ceremony, Awareness Season & Tree Plantation Conducted on 13th Dec 2016



Green Vision

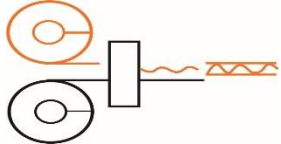




Energy Audit



Detailed Energy Audit conducted by consultant from ISTSL on 11th March 2017, Checked efficiency of Boiler, Efficiency of all Motors of machines etc



Green Investments



Solar Panel Installed on the roof top



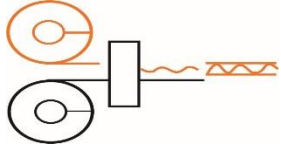
Biogas Plant Installed



Developed Garden, and Sprinkle water pumping

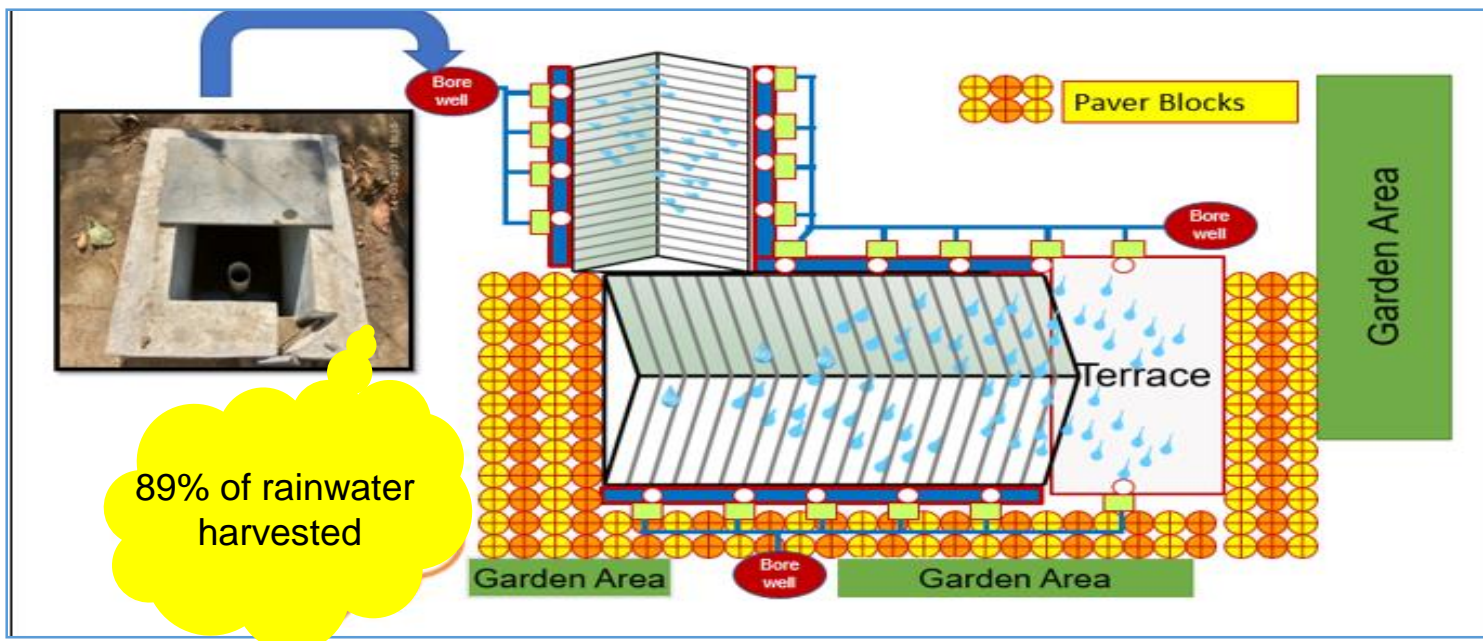


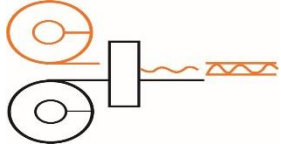
Vermi compost useful for plants and trees.



Rainwater Harvest

Sr. No.	Type of Catchment	Area (m2)	Runoff Coefficient	Annual Rainfall	Harvesting Potential (cubic Mtrs/yr)	Actual Area (m2)	Actual Rain water Harvested	% Potential Captured
		(A)	(C)	(Mtrs)	(HP=A*C*R)	(AA)	HA=AA*C*R	(HA/ HP)
1	Main Roof Top	1677	0.8	2.11	2831	1677	2831	100%
2	Reel Godown Roof	278	0.8	2.11	469	278	469	100%
3	Office Terrace	202	0.8	2.11	341	202	341	100%
4	Garden Area	718	0.075	2.11	114	718	114	100%
5	Paved Area	859	0.6	2.11	1087	454	575	53%
Total		3734	0.615	2.11	4845	3329	4320	89%





Waste Water Utilization



R.O on Ground floor



Empty space after shifting R.O



R.O shifted to Terrace



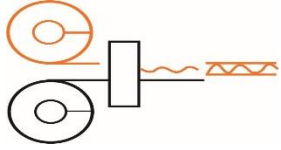
Toilet



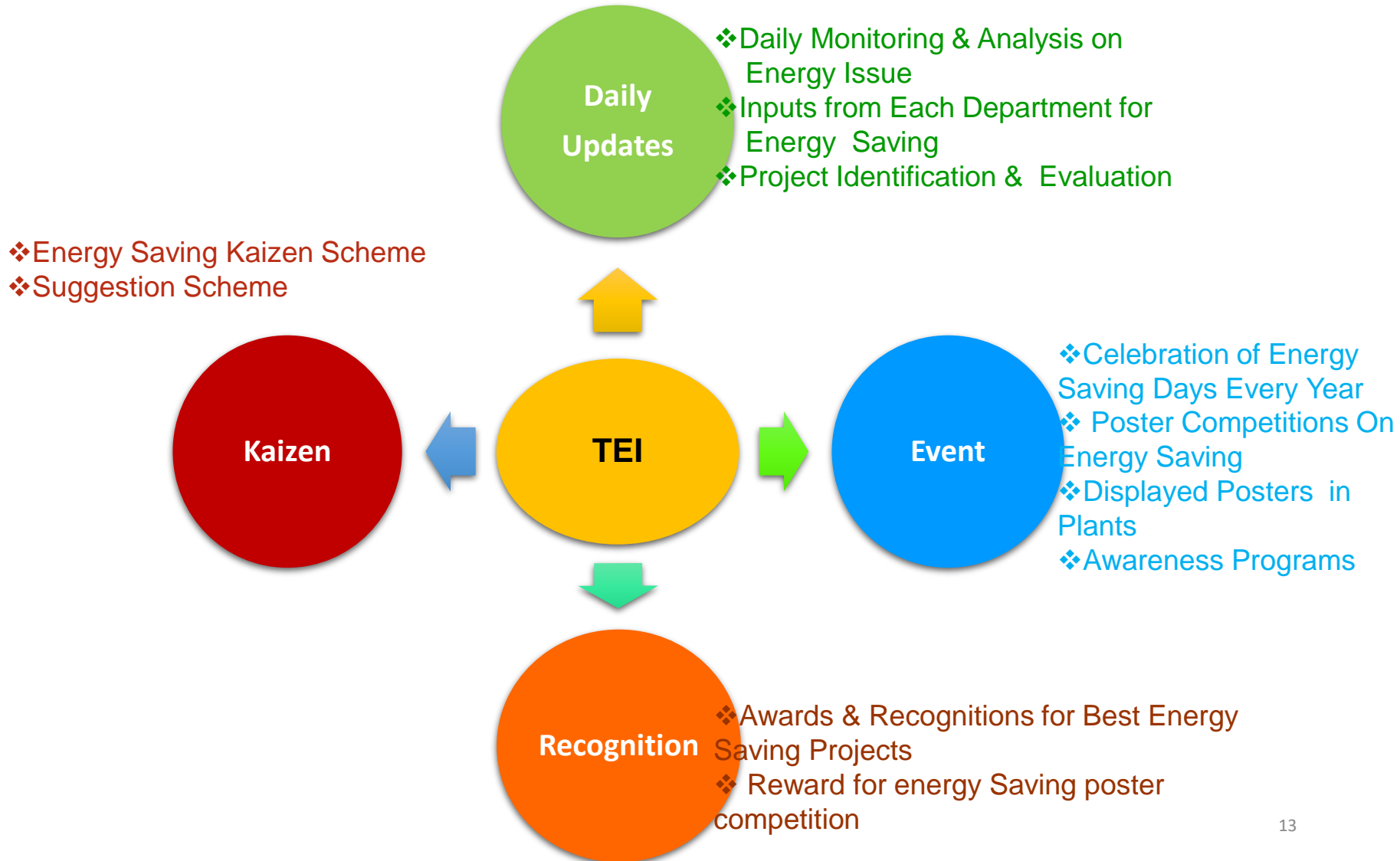
Gardening

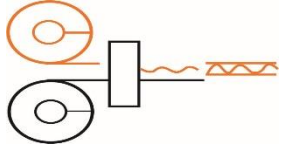


Gum Tank



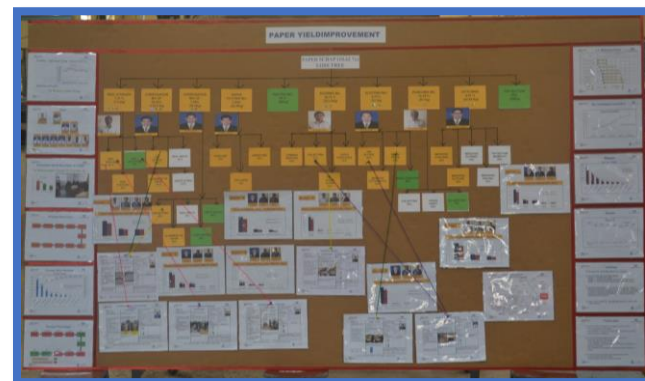
Employee Involvement



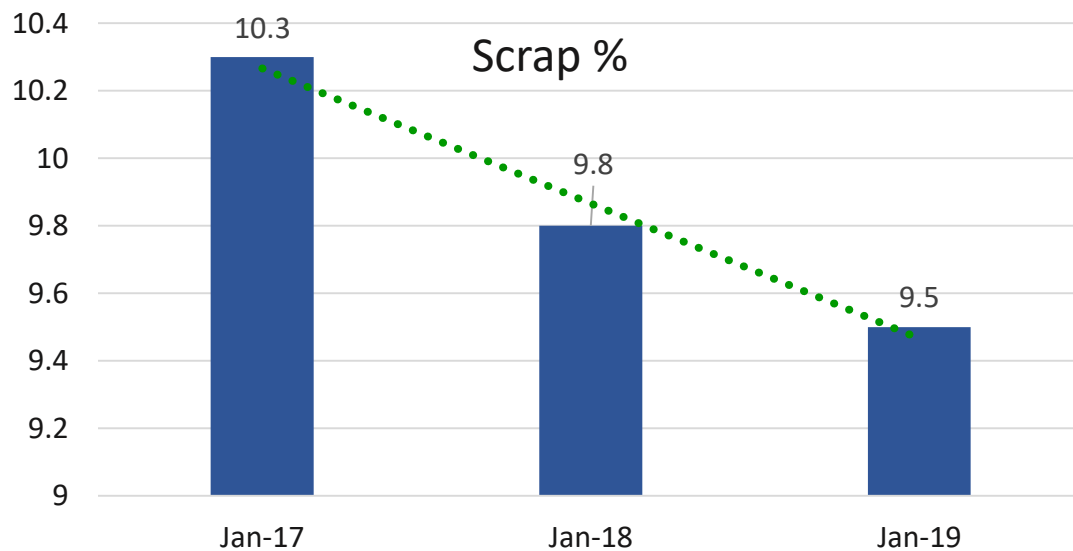


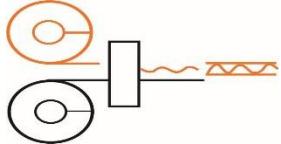
Paper Yield Improvements

- **Problem:** High Paper wastage.
- **Objective:** To reduce paper wastages
- **Actions:**
 - Loss Tree diagram displayed on Floor.
 - Provided Training.
 - Kaizens (Few examples on next slide).
- **Results:** 10% Reduction in Paper waste.

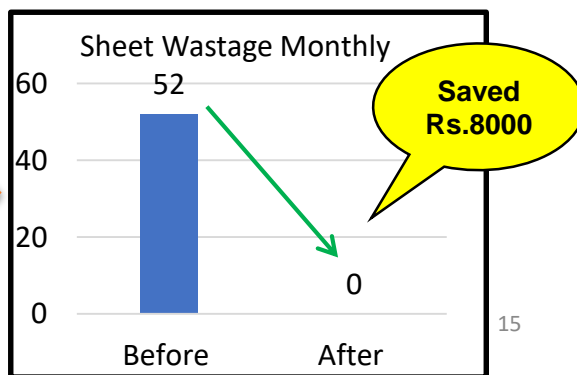
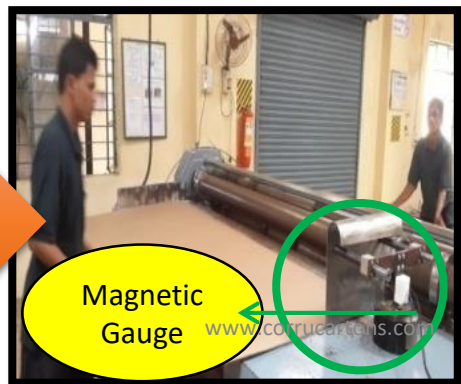
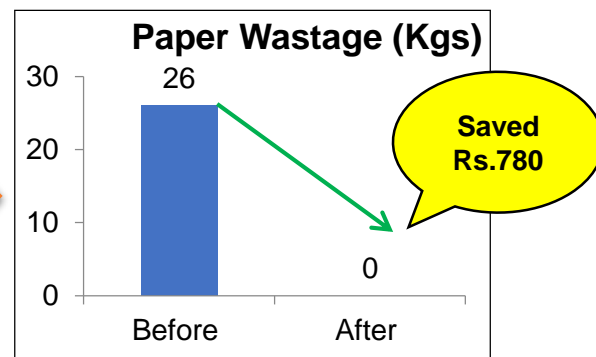
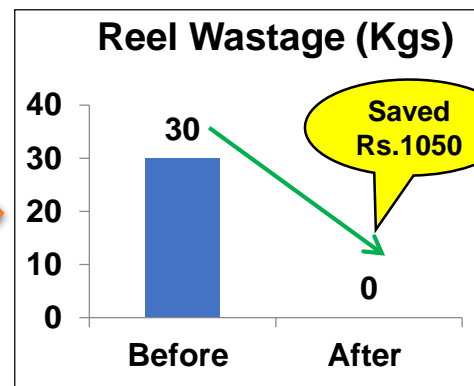


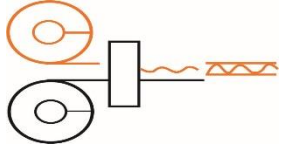
CEO Conducting Brainstorming Session with Employees to generate ideas to Reduce Scrap





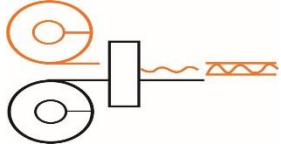
Kaizens on Paper Yield Improvements





Green Initiatives and Savings

Sr. No	AREAS IDENTIFIED FOR ENERGY SAVING	ACTION TAKEN	SAVINGS
1	Solar Energy	Solar Panels Installed to capture solar energy and reduce power consumption from MSEB	Rs. 2,75000 p.a
2	Biogas Plant	Installed Biogas plant, to use biogas for canteen purpose.	Rs 5500 p.a
3	Rain water harvesting	Built up borewells to capture maximum of rainwater	-
4	EPS Thermocole Scrap	Thermocole scrap send to vendor which is recycled approx 250 kg/month	Rs 56,500 p.a
5	Boiler Heater Running time reduced	Circulate the steam pipeline surrounding to F.O Tank to keep oil hot due to which boiler heater time reduced by 6hrs daily & saved 5616 units p.a	Rs.44,928 p.a
6	Internal Movement of truck at Godrej Interio	Excessive movement of truck reduced at Godrej Interio by through & through movement of vehicles , Internal truck movement Reduced by 130 km/month	1) Carbon footprint reduced 2) Diesel saving of Rs.20,000 p.a
7	Water Savings	Waste water released from R.O reused to Gardening, Gum Tank & Toilet.	Rs. 9360 p.a
8	Lightings across company	45 Tubelight Changed to CFL & LEDs	Rs. 5200 p.a



Achievements and Future Target

% reduction



Year	2015-16	2016-17	2017-18	2018-19	2019-20
Total Energy Consumption (Kwh/Ton)	237.16	220.14	212	205.6 ↓	195 ↓

25.8% 4.10% 4.28%

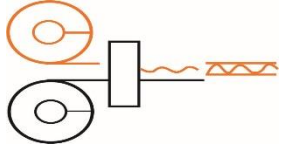
Year	2015-16	2016-17	2017-18	2018-19	2019-20
Total Water Consumption (Ltr/Person/Day)	197	146	140	134 ↓	124 ↓

1.8% 1.05% 2.12%

Year	2015-16	2016-17	2017-18	2018-19	2019-20
Total Waste (H / N.H) (Kg/Ton)	96.40	95.20	94.30	92 ↓	90 ↓

10% 15.2% 4.7%

Year	2015-16	2016-17	2017-18	2018-19	2019-20
Paper Scrap (%)	13.8%	12.5%	10.6%	10.10 ↓	9.00 ↓



Beyond the Fence Initiatives



Planted more than 500 Trees near Manor area.



Drawing and Poster making competition related to Save Energy and Save Water for awareness amongst youth.

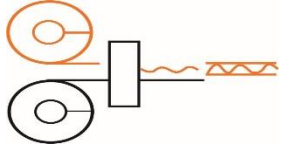


Corporate Social Responsibility

Sustainable Impact. Social Engagement.
Environmental Sustainability. People's Rights.

sats

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Participation in various Conferences / Forums



Certificate in Green Conclave at Pune on 17th Nov 2016



2 Kaizens on Energy displayed at 10th CII National Summit-2017



Advance Training on Energy Mmgt at CII Vikhroli 5th March 16



Achievement award in Green initiatives received from Godrej Interio on Feb 2018

ACCOLADES AND ACHIEVEMENTS IN 2017



Feb 2017- Recognized with Overall Operational Excellence Award at Annual Supplier Meet by Godrej Interio.



June 2017- Recognized with GreenCo Gold Award at CII Summit in Pune.



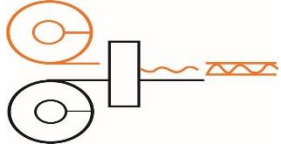
Dec 2017- Awarded 1st Rank in Total Employee Involvement at 10th CII National Summit in New Delhi.



Dec 2017- Awarded 1st Rank in Green Manufacturing at 10th CII National Summit in New Delhi.



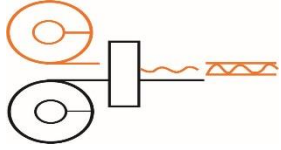
Dec 2017- Awarded 1st Rank in Kaizen on Environment at 10th CII National Summit in New Delhi.



Learnings and Take Away

- Sustainable energy is clean and can be used over a long period of time.
- It is one of the the best cost cutting and resource savings investment option.
- Even a small contribution of each one of us towards sustainability can together generate significant results in Energy Savings.
- Educating Employees, Stake holders, Society and specially young generation for Environment protection should be undertaken.





Thank You



*Bridging the Gap.. and
stepping towards GreenCo
Platinum*

