

Pre-assessment of Potential Industry Products for GreenPro Certification

Priority Matrix

January 2017



Introduction

The United Nations Industrial Development Organization (UNIDO) implements in cooperation with the United Nations Environment Programme (UNEP) a global Programme that is aimed at building capacity and supporting the scaling up and mainstreaming of Resource Efficient and Cleaner Production (RECP). RECP applies preventive environmental management and total productivity practices and methods to (industrial) processes, products and services with the triple aim of improving the productive use of natural resources (materials, water, energy, etc.), minimizing the generation of waste and emissions and reducing (industrial) risks. RECP boosts business performance through cost savings, productivity increases and process and product innovation, as proven by numerous company examples from all major industry sectors around the globe (see e.g. www.unido.org/cp).

Innovative green labelling standards provide one promising avenue for scaling up and mainstreaming RECP in industries, in addition to enabling policy and financing and collective multi-enterprise approaches, in clusters and/or supply chains. With regards to green products, there are singular attempts and pilots of certification. Still, challenges remain as certain existing labelling systems are based on uncertified claims, lack a unified and standardized approach and examinees and examiners are often the same institutional body.

Furthermore, first steps have been taken in the establishment of a rating system for Green Products (GreenPro) as there is a lasting dependence on external rating systems from other countries that are not tailored to the industrial processes and regulations in India. GreenPro is a holistic framework to assess how green a product is and to highlight the way forward for the product to achieve excellence environmental performance.

GreenPro guides manufacturers to assess their products as green and eco-friendly. The GreenPro certification system adopts the cradle-to-cradle approach for evaluation, on par with international product certification standards. GreenPro encourages product manufacturers to implement green measures in all aspects of life cycle of the product. This project is aimed at piloting the GreenPro system in new sectors of Indian industry.



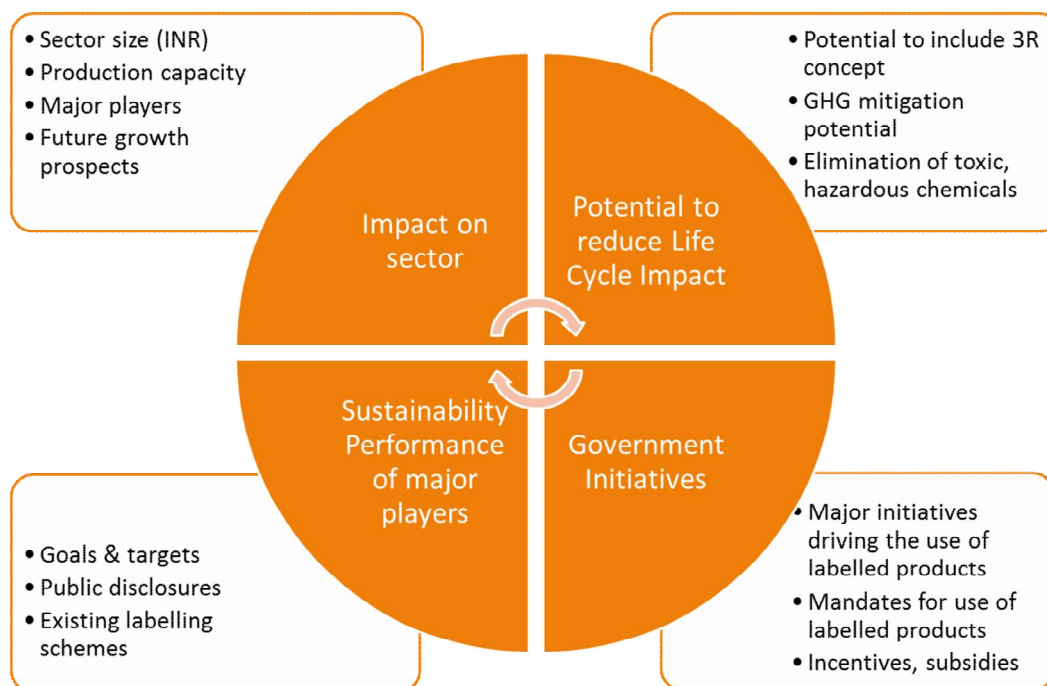
Project Objectives

Under this project, the GreenPro certification system is expected to be upscaled and applied in select manufacturing industries/subsectors and, on basis thereof, the applicability of this labelling method will be appraised with a view to achieve the scaling-up and mainstreaming of RECP in particular in small and medium manufacturing enterprises in India and possibly elsewhere.

Pre-assessment of potential industry products and Development of Priority Matrix

To achieve the objective, as a first step, CII has carried out a detailed assessment of various industry products and developed the priority matrix to shortlist product categories for GreenPro certification. This has been done based on the inputs received independently from various stakeholders from industry such as operating and maintenance personnel, sustainability experts, consultants, product manufacturers, technology suppliers etc.

The overall frame work and the parameters considered for developing the priority matrix are as below.



Based on the inputs various stake holders and prior experience of CII-Godrej GBC the following product categories have been identified for detailed evaluation and development of priority matrix.

1. Industrial Lighting
2. Industrial Paints & Coatings
3. Packaging
4. Industrial Flooring
5. Industrial Roofing
6. Recycled Plastic Products
7. Lubricants
8. Industrial Cleaning and Degreasing Agents

1. Industrial Lighting

Sector Analysis

1. Current Market size: USD 2.07 Billion as on 2013
2. Future growth potential: USD 5.78 Billion by 2020¹
3. Production Capacity:



4. Major Players: GE lighting, Osram, Philips, Havells India, Wipro lighting, Halonix, Syska LED, Everready, Moser Baer, Crompton Greaves, Sylvania, Surya Roshni, Bajaj Electricals etc.
5. Government initiatives:
 - Domestic Efficient Lighting Programme (DELP) announced Unnat Jyoti by Affordable LEDs for All (UJALA)² in Jan 2015, an initiative by Indian Government to use LED bulbs in place of incandescent bulbs, tube lights and CFL bulbs.
 - National Programme for LED-based Home and Street Lighting.

Sustainability performance – Present Status

1. Public disclosures: Major players have sustainability reports at company level or group level
2. Goals & targets: Targets are specified in their sustainability reports
3. International labelling schemes:
 - o Good Environmental Choice Australia
 - o Green Council, Japan Environment Association (JEA)

¹ <http://www.elcomaindia.com/wp-content/uploads/ELCOMA-Vision-2020.pdf>

² <http://www.iledtheway.in/ujala-scheme>



- Korea Eco-Products Institute
- SIRIM QAS International Sdn Bhd
- Green Seal Inc.
- Philippine Center for Environmental Protection and Sustainable Development (PCEPSD)
- Ecological Union
- Singapore Environment Council
- Thailand Environment Institute

Why GreenPro for Industrial Lighting?

1. *There is a need for encouraging energy efficiency in Industrial lighting*
 2. *Recycling or safer disposal for used lamps is at nascent stage*
 3. *There is no Ecolabel for lighting available in India today*
 4. *GreenPro for industrial lighting will facilitate increased energy efficiency and recycling*
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2. Industrial Paints & Coatings

Sector Analysis

1. *Current Market size:* USD 7 Billion in 2016
2. *Future growth potential:* Data not available
3. *Production Capacity:*
4. *Major Players:* Akzo Nobel, Asian PPG, BASF Coatings, Becker Coatings, Du Pont, Esdee Paints, Jotun, Kansai, Marpol, Nippon, MRF Specialty coatings, Nerolac, Shalimar Paints, Sherwin Williams, etc.
5. *Government initiatives:* None

Sustainability performance – Present Status

1. *Public disclosures:* Major players have sustainability reports at company level or group level
2. *Goals & targets:* MNC manufacturers have targets w.r.t. energy, GHG emissions, water and waste.
3. *International labelling schemes:*
 - o Good Environmental Choice Australia
 - o China Environmental United Certification Center
 - o Environment and Development Foundation
 - o Green Council
 - o The Standards Institution of Israel
 - o Japan Environment Association (JEA)
 - o Korea Eco-Products Institute
 - o SIRIM QAS International Sdn Bhd
 - o The New Zealand Ecolabelling Trust
 - o Nordic Ecolabelling Board
 - o UL Environment
 - o Green Seal Inc.
 - o Philippine Center for Environmental Protection and Sustainable Development (PCEPSD)
 - o Singapore Environment Council
 - o Thailand Environment Institute
 - o All Ukrainian NGO Living Planet
 - o GS - 11 standard for Paints & Coatings



Why GreenPro for Industrial Paints and Coatings?

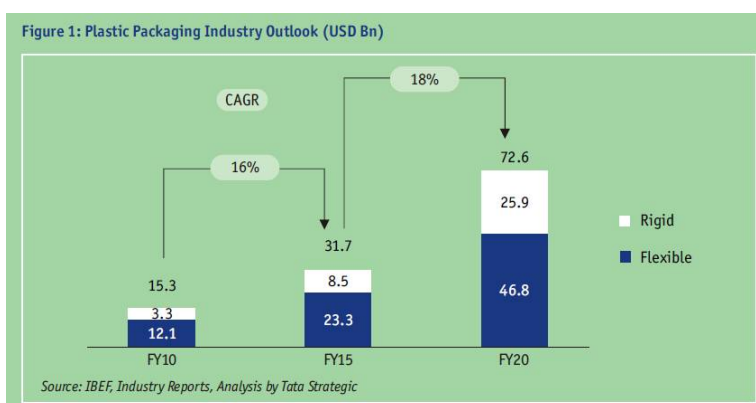
1. *Presence of toxic substances and hazardous chemicals are very high in industrial paints and coatings. There is a need for minimising the same.*
 2. *Production of industrial paints and coating likely increase with the increase in industrial growth and hence greater environment impact.*
 3. *There is no label or certification available for industrial paints and coating*
 4. *Already some of the major players have expressed interest for Greenpro certification*
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3. Packaging

Sector Analysis

1. *Current Market size:* USD 32 Billion in 2015³
2. *Future growth potential:* USD 73 Billion by 2020
3. *Major Players:* ITC, TCPL, Parksons Packaging, Horizon Packs, Chandra Packaging, Balmer Lawrie & company, Ester Industries, Parekh Aluminex, Ess Dee India, Max India, Jindal Poly Films, Uflex, Time Technoplast, Flexituff International etc.
4. *Production Capacity:* 30 Million Metric Tonnes (MMT) with current production levels at 12.8 MMT



5. *Government initiatives:* Plastic wastes from packaging has been addressed as part of the recently introduced plastic waste rule 2016 by MOEFCC. Extended producer responsibility is also introduced as part of the rule for effective implementation.

Sustainability performance – Present Status

1. *Public disclosures:* Major players have sustainability reports at company level or group level
2. *Goals & targets:* “Out of 42 FMCG businesses operating in India, 23 have sustainability reports taken initiatives in their own way for reducing the packaging.
3. *Existing labelling schemes across the Globe:*
 - o Blue Angel
 - o China Environmental Labelling
 - o Good Environmental Choice Australia etc.

³ <http://ficci.in/spdocument/20690/Plastic-packaging-report.pdf> (page 6)



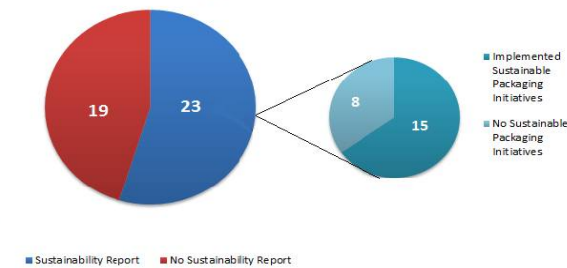
**INDIA ANALYSIS
PACKAGING & FMCG MARKET
[AUGUST 2014]**

**MNCs GUIDING THE PATH TO
SUSTAINABLE PACKAGING IN INDIA**

Businesses in India view sustainable packaging as an important initiative in their overall sustainability goals. Out of the top 42 FMCG businesses operating in India 23 have sustainability reports, all of which regard sustainable packaging as a key issue in their supply chain. Out of those 23 FMCG businesses, 15 have implemented one or more sustainable packaging initiatives within their supply chain in India, while 8 either have future plans or solely mention its importance. (FIG 6)

**Sustainability
Outlook**

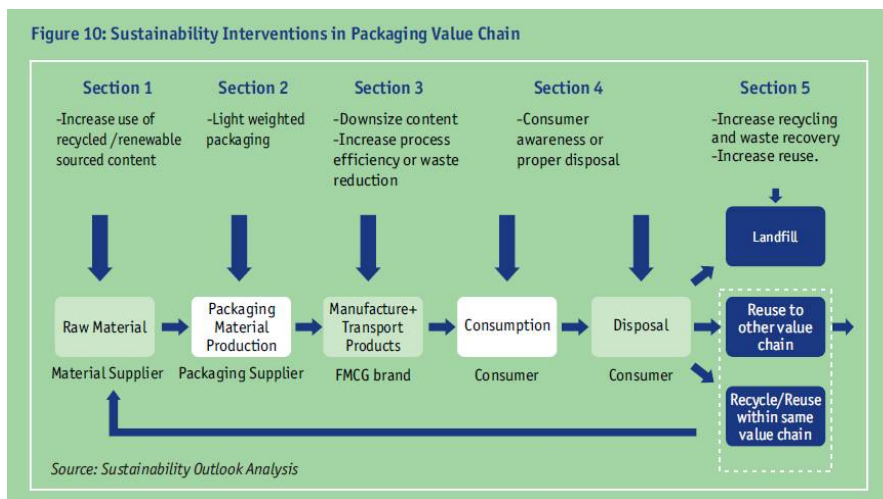
FIG 6: Corporations operating in India



Sources: Sustainability Outlook analysis

Why GreenPro for Packaging?

1. Opportunity to incorporate Sustainability interventions in the packaging value chain is significant and the details are depicted in the figure below⁴.



2. A study of Packaging initiatives in Indian FMCG and MNC FMCGs highlights the opportunity to use recycled/renewable content in packaging⁵.

- a. GHG mitigation potential: High. Other benefits include;
- b. Due to high product to package ratio, reduction in usage of resources and materials
- c. Reduction in fuel consumption for transport
- d. Elimination of toxic, hazardous chemicals: Solid waste disposal is a major problem caused by plastics used for packaging. However, the impacts can be reduced through effective reuse / recycle the plastic products

3. No Ecolabel available for packaging materials

⁴ <http://ficci.in/spdocument/20690/Plastic-packaging-report.pdf>

⁵ http://shlf.sustainabilityoutlook.in/file_space/SO_ML_PDEs/The%20Packaging%20Problem_FINAL.pdf



4. Industrial Flooring

Sector Analysis

1. *Current Market size:* USD 12 Billion in 2014 (Global market size)⁶
2. *Future growth potential:* USD 20 Billion in 2022 (Global market size)
3. *Production Capacity:* 193.51 Billion Square feet in 2014 and is expected to grow to 314.47 Billion square feet by 2022. The demand in Asia Pacific region is expected to be around 40% of global market size.
4. *Major Players:* Fosroc, 3M, Flowcrete, Ardex Endura, Conpro Chemicals Private Limited, MC-Bauchemie India Pvt. Ltd., Bekaert Industries Pvt. Ltd., Bomanite India, JBA Concrete Solutions, Neocrete etc.
5. *Government initiatives:* None

Sustainability performance – Present Status

1. *Public disclosures:* Most of the MNC companies have a minor section on sustainability. Not much emphasis on sustainability is noticed
2. *Goals & targets:* None
3. *International labelling schemes:*
 - o Floor score label⁷
 - o Good Environmental Choice New Zealand⁸

Why GreenPro for Industrial Flooring?

1. *Potential to use recycled materials in the manufacturing of industrial flooring is immense*
2. *There is a need to reduce the VOC levels and minimize the toxic and hazardous materials usage*
3. *There is no Ecolabel for Industrial flooring available in India today*
4. *GreenPro for industrial floors will facilitate low VOC and elimination of phthalates in flooring materials*

⁶ <https://globenewswire.com/news-release/2016/04/13/828422/0/en/Flooring-Market-Size-forecast-to-reach-USD-418-86-Billion-by-2022-Global-Market-Insights-Inc.html>

⁷ <http://www.eurofins.com/consumer-product-testing/information/ecolabels-quality-labels/floorscore-label/>

⁸ <https://www.environmentalchoice.org.nz/assets/Specifications/ec-28-15-floor-coverings-specification.pdf>



5. Industrial Roofing

Sector Analysis

1. *Current Market size:* USD 5.75 Billion in 2013⁹
2. *Future growth potential:* Not available
3. *Production Capacity:* Not available
4. *Major Players:*
 - a. *Fibre Cement sheet market players - Everest Industries Ltd, Hyderabad Industries Ltd, Visaka Industries Ltd, Ramco Industries Ltd.*
 - b. *Metal roofing - Tata Bluescope, Lloyds Insulations, Pennar, Kirby, Hindalco, Interarch*
 - c. *Other roofing solutions manufacturers - Monier, Gallina India, Sika India etc.*
5. *Government initiatives:* None

Sustainability performance – Present Status

- *Public disclosures:* Global Companies like 'Sika Sustainable Solutions' are publishing their sustainability report every year since 2013. The Indian companies are still in the nascent stages of adopting sustainability reporting.
- *Goals & targets:* 'Sika Sustainable Solutions' has targets w.r.t. Development of sustainable product portfolio, energy, waster/water etc.¹⁰ Indian companies do not have goals and targets.
- *International labelling schemes:* Not available

Why GreenPro for Industrial Roofing?

1. *Potential to increase the use of recycled / recyclable material in production*
2. *Can contribute significantly to energy efficiency*
3. *GreenPro will serve as a market tool to facilitate implementation of sustainability concepts and take it step further*
4. *No ecolabels exist for this product category*

⁹ <http://www.consultmcg.com/blog/roofing-material-market-in-india/>

¹⁰

http://www.sika.com/content/corp/main/en/group/sustainability/StrategyandManagement/_jcr_content/parRight/download_3ba8/file.res/Sika%20Sustainability_More%20Value%20Less%20Impact_Final_April2016.pdf



6. Recycled Plastic Products

Sector Analysis

1. *Current Market size:* 3.6 Million Tons¹¹ (~30% of total consumption)
2. *Future growth potential:* 17.8 Million Tons (MT) in FY 2016-17
3. *Production Capacity:* Not available
4. *Major Players:* The plastic recycling industry in India is dominated by small scale players. Notable companies from the formal recycling sector include JJ Group of Companies, Green-O-Tech India, Shakti plastic industries, Let's Recycle etc.
5. *Government initiatives:* The Indian Government has recently notified "Plastic Waste Management Rules 2016"¹². The following excerpts from the notification will aid in increasing the recycled products market.
 - a. Producers, importers and brand owners to establish a system to collect the waste generated due to their products
 - b. Manufacture and use of non-recyclable multilayered plastic if any should be phased out in two years' time
 - c. Producers to keep a record of their vendors to whom they have supplied raw materials for manufacturing. This is to curb manufacturing of these products in un-organized sector

Sustainability performance – Present Status

1. *Public disclosures:* Global Companies like 'Sika Sustainable Solutions' are publishing their sustainability report every year since 2013. The Indian companies are still in the nascent stages of adopting sustainability reporting.
2. *Goals & targets:* 'Sika Sustainable Solutions' has targets w.r.t. Development of sustainable product portfolio, energy, waster/water etc.
3. *International labelling schemes:*
 - o SCS recycled content¹³
 - o Green Seal¹⁴ (for plastic resin film bags)
 - o Good Environmental Choice Australia¹⁵

¹¹ <http://tmrlive.com/wp-content/uploads/2016/01/plastic-industry.pdf>

¹² http://www.moef.nic.in/sites/default/files/PWM%20Rules,%202016_0.pdf

¹³ <http://www.ecolabelindex.com/ecolabel/scs-recycled-content>

¹⁴ http://www.greenseal.org/Portals/0/Documents/Standards/GS-45%20Stn%20Dev/call_for_stakeholders_GS_45.pdf

¹⁵ <http://www.geca.org.au/products/standards/2/>



- Good Environmental Choice New Zealand¹⁶

Why GreenPro for Recycled Plastic Products?

1. *Avoid the disposal of plastic to landfill*
2. *Conserves the oil resources*
3. *Reduced use of energy and GHG emissions when compared to the manufacturing of products using virgin materials*
4. *GreenPro will drive the informal recycling industry towards formalizing their processes*
5. *There are no ecolabels in India which certify recycled plastic products*

¹⁶ <https://www.environmentalchoice.org.nz/assets/Specifications/ec-06-15-recycled-plastic-products-specification.pdf>



7. Lubricants

Sector Analysis

1. *Current Market size:* USD 7.7 Billion by 2017¹⁷
2. *Future growth potential:* Not available
3. *Production Capacity:* 2.5 Billion Litres per year. Projected to grow at a 2.3 per cent compounded annual rate (automotive lubricants and industrial form 52% and 40% of total market share respectively)
4. *Major Players:* IOC, BPCL, HPCL, Shell, Exxon Mobil, Total, IPOL, Petronas Lubricants International, Respol, Tide Water Oil India, Savita Chemicals Ltd., Gulf Petrochem etc.
5. *Government initiatives:* Not available

Sustainability performance – Present Status

1. *Public disclosures:* Sustainability reports are published by all major manufacturers
2. *Goals & targets:* Have sustainability targets w.r.t. energy, GHG emissions, waste and water.
3. *International labelling schemes:* The following Eco Labels have a standard for certification of Lubricants¹⁸
 - o EU Ecolabel¹⁹
 - o Blue Angel
 - o Swedish Standard
 - o Nordic Swan

Why GreenPro for Lubricants?

1. *Reduce the impact on environment by certifying products which have lower toxicity, faster biodegradation rate and low potential for bioaccumulation.*
2. *Increased use of renewable content*
3. *There are no ecolabels in India which certify lubricants*

¹⁷ <http://projectvendor.com/make-india-mantra-indian-lubricant-industry/>

¹⁸ <http://www.biosmeermiddelen.nl/Portals/1/kennis/bijlagen/Env%20Acceptable%20Lubricants.pdf>

¹⁹ <http://ec.europa.eu/environment/ecolabel/documents/lubricants.pdf>



8. Industrial Cleaning and Degreasing Agents

Sector Analysis

- a. *Current Market size: USD 39.24 Billion in 2014²⁰ (Global)*
- b. *Future growth potential: USD 50.24 Billion by 2020 (Global)*
- c. *Production Capacity: Not available*
- d. *Major Players: Evonik Industries, BASF. The industry is dominated by large number of small players.*
- e. *Government initiatives: None*

Sustainability performance – Present Status

1. *Public disclosures: The industry do not have an awareness on sustainability.*
2. *Goals & targets: None*
3. *International labelling schemes:*
 - o *Nordic Ecolabelling²¹*
 - o *Green Seal²²*
 - o *EcoLogo²³*

Why GreenPro for Industrial Cleaning and Degreasing agents?

1. *Encourage the use of materials which are renewable, bio degradable and non-toxic.*
2. *GreenPro will drive the small scale players to adopt 'Green' features into manufacturing of their products.*

²⁰ <http://www.marketsandmarkets.com/Market-Reports/industrial-institutional-cleaning-chemicals-market-52902227.html>

²¹ http://www.svanemerket.no/PageFiles/12570/065e_3_0_background_document_for_consultation.pdf

²² <http://www.greenseal.org/GreenBusiness/Standards.aspx?vid=ViewStandardDetail&cid=6&sid=20>

²³ <http://www.comm-2000.com/ProductDetail.aspx?UniqueKey=24139>



Proposed way forward

CII proposes the following for launching GreenPro certification for the identified industry product categories.

- A joint stake holder consultation involving key industry stake holders such as end users, industry product manufacturers, technology suppliers, sustainability experts, consultants, testing laboratories, conformity agencies, relevant government departments such as Quality council of India, Bureau of Indian Standards etc. to
 - Appraise about the launch of GreenPro certification of industry product categories and take their opinions and inputs
 - Present the priority matrix and further shortlist four product categories for development of GreenPro certification.
 - Seek the commitment and support from the industry stakeholders for the development of GreenPro certification of industry products
- During the phase -II of the project, the following activities related to launch of GreenPro certification for the identified product categories can be taken up.
 - Development of certification standards for the identified industry product categories
 - Facilitation of adoption of GreenPro certification by volunteering product manufacturing companies
 - Information dissemination and reach out to the end users.

