



Sustainable initiatives taken by p&g to protect environment

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Abstract

In the era of rapid industrialization and fast-track development the environmental issues suffer a lot. Be it any industry, organization or society the development must be carried out keeping the sustainability in mind. The opportunity of these overnight development approaches has ramified the environmental issues. The present communication enumerates the measures of environmental impact by taking a case of Procter and Gamble. Authors have studied the strategies of Procter and Gamble and their sustainable behavior in Indian as well as global context. Various data of last decade has been analyzed. It is found that the company P&G is moving in a right direction by providing new paradigms of realistic development. All the data for this study has been taken from secondary sources.

Keywords: Environmental issues, Industrialization, Innovation, Procter & Gamble, Sustainability

INTRODUCTION

The global concern, these days, has shifted towards the sustainable utilization of resources to evolve various renewable techniques in order to sustain & survive in the cycle of rapid industrialization. Sustainability refers to better quality of life for everyone, now and for generations to come.

In this communication authors have chosen P&G to study the sustainable initiatives taken by them.

COMPANY PROFILE

For 177 years, P&G has been providing trusted, high-quality brands that make every day better for the world's consumers. The Company markets more than 300 products in more than 180 countries around the world and employs nearly 126,000 people.

P&G's worldwide headquarters is located in Cincinnati, Ohio, U.S.A. Till 2004 only two plants were there in India namely Goa and Bhopal. These days P&G has expanded itself in as many no. of cities in India.

Some of the popular products of P&G are AmbiPur, Ariel, Bounty, Charmin, Crest, Dawn, Downy, Duracell, Fairy, Faberge, Fusion, Gain, Gillette, Head & Shoulders, Iams, Lenor, Mach3, Olay, Oral-B, Pampers, Pantene, Prestobarba, SK-II, Tide, Vicks, Wella, and Whisper.

In year 2013 its net annual income was US\$ 11.31 billion. The main competitors of P&G are Johnson&Johnson, Kimberly-Clark Corporation, Unilever. The annual turnover of P&G is way more than its competitors.

VISION & CREDENTIALS

P&G have a vision of:

- Powering their plants with 100% renewable energy
- Using 100% of recycled material in all products and packaging
- Having zero consumer or manufacturing waste going to landfills

Their work has been recognized by many environment monitoring institutions. P&G Argentina's pillar plant received environmentally responsible company award from prospector for its efforts in effluent management.

The Malaysian Society of Occupational Health & Safety Grand Award 2003 was received by olechemicals a unit P&G.

U.S. Environmental Protection Agency names P&G an Energy Star 2003 for their national campaign to reduce green house gas emission by activating energy efficient features on compactors monitors.

P&G U.K. (Egham & Brookland) awarded Surrey Sustainability Business Award in 2003 in the category of Social Responsibility.

Apart from that; their outstanding progress has been recognized with 7 external sustainability awards (2012) within P&G for achieving zero manufacturing waste to land fill.

P&G is a member of FTSE4 Good and DJSI (Dow Jones Sustainability Index) since their inception. They are listed on the corporate knights global 100 list of the world's most sustainable corporations.

SUSTAINABLE INITIATIVE TAKEN BY P&G

Being the foremost driver of consumer based economy, the responsibility of P&G are more towards the sustainable development. The first environmental safety publication was created in P&G in 1956 which shows their deliberance towards sustainable strategies. They have bifurcated their strategies as:

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- Conservation of resources.
- Usage of renewable resources.
- Waste management.

CONSERVATION OF RESOURCES

P&G has executed its plans to reduce the amount of energy and CO₂ as well as they have worked to reduce packaging. Their work is remarkable in conservation of water and its sustainable management.

USAGE OF RENEWABLE RESOURCES

P&G has envisioned powering their all existing ventures into 100% renewable energy consuming sites. The newly installed solar and wind power plant in China are the epitome of their commitment.

They have focused and planned to replace 25% of their petroleum-driven raw materials with sustainably sourced renewable materials.

As a member of the Consumer Goods Forum, P&G has pledged to achieve zero net deforestation by 2020.

WASTE MANAGEMENT

The Global Asset Recovery & Purchase Team of Procter & Gamble has worked a lot to reduce and recycle the manufacturing wastes. They could reduce manufacturing waste to 0.65% of input materials which directly adds to a 99.35% of beneficial use of all input materials via recycling, reuse or other energy conversion methods. Almost 50 sites of P&G have achieved 0% manufacturing waste to landfill.

INNOVATIVE INITIATIVE BY P&G

Pampers emerged with Dry Max which is the biggest innovation of brand in the last 25 years. Pampers innovated the Dry Max technology, which gave the solution to the removal of the air felt (paper pulp) from the nappy core. Laundry Compaction After innovating to convert parts of our liquid laundry detergent portfolio to a "2X" concentrated formulation, the company uses less water, generate less emissions and packaging, and this immediately affected the shipping part.

Ariel Turn to 30°C Campaign

After perusing the assessment for one life cycle of laundry detergent revealed the energy consumed in one step is much more than any other. Without compromising with performance the company gave its consumers, in the U.K., the opportunity to reduce household electricity consumption by developing the technology behind Ariel cool clean.

Ariel Excel Gel

The products environmental impact is apparently reduced by air excel gel which is consumer- inspired innovation several parameters such as manufacturing process which save energy, water consumption and the no of trucks a graphically reduced

Olay's New Pump

Total Effects, Olay's top-selling product has innovated and improved pump which is expected to save 800,000 pounds of plastic a year which is equal to the weight of a Boeing 747.

Braun

Smart Plugs, available with nearly all Braun electric razors, use 64% less energy than standards heaters almost double the Energy Star certification average. The energy saved by one Smart Plug on standby for a year is enough to power a 60-watt light bulb for six days and nights.

TIDE Pods

They have used more efficient packaging in newly launched Tide Pods in order to meet goal of reducing approximately 4.5% per consumer usage. In reducing Tide Pods they have exercised the method of product compaction packaging light weight etc without failing to meet the critically of packaging the product.

SUSTAINABLE STRATEGIES: INDIAN

P&G is embracing the vision and leveraging innovation to drive environmental sustainability through its operation and products.

P&G has improved the lives of over 315 million children. In India, their Corporate Social Responsibility initiatives 'Shiksha' and the 'Parivartan - Whisper School Program' are helping children from lesser-privileged backgrounds, by giving them access to health and education.

P&G's Goa plant has recycled and reused over 4000 tons of scrap, which equates to the daily paper & plastic waste generated by 12 times the population of a major Indian Metro Cities.

As per the reports provide by P&G its *Bhiwadi* plant has saved energy equivalent to the daily energy need of more than 12,000 people in India. The plant saved 13.3 million liters of water, the sludge's from site; waste water treatment plant and the oil soaked cloth from the blade manufacturing process were applied for cement production process.

Mumbai Head Office of P&G has achieved a reduction in its annual energy consumption by 27% over the last 9 years, saving over 1700 gigajoules of energy.

P&G's *Baddi plant* has adopted various innovative ideas to transform 575 tons of scrap material into useful daily needs. The melted plastic is being used for making chairs while the metal laminate is being applied as mixture with cement for construction. 380 tons of shampoo production waste has been converted to car washing agent. 5.5 tons of manufacturing scrap of skin care product has been turned into tire polishing material. The plant has achieved 40% reduction in carbon footprint over the last 3 years.

SUSTAINBLE STRATEGIES: GLOBAL

The *Ireland* site of P&G has focused on installing energy efficient lighting using ultrasonic detection. The site has reduced energy consumption by 12% CO₂ emission by 16% disposed waste by 97% and water consumption by 27%.

The *Boston, Massachusetts* site has created innovative sustainability partnership with Local electricity provider, universities and the city of Boston. This site is producing enough electricity to power over 1700 average U.S. homes for a year.

In the partnership with world wild life fund, they have started a small pilot project at a wetland in the *lake of Tai Banin* activities to remove incisive species, rebuild wetland system and re-introduced native species.

In *North America* P&G has converted 20% of its transportation demand from diesel to natural gas. This would reduce 7% of diesel consumption and thereby the emission CO₂.

In *Mexico*, paper sludge from a Charmin toilet tissue plant is turned into low cost roof tiles used to build homes.

At a *Pamper site (U.S.)*, the scrape from the manufacturing process is converted to upholstery filling.

The *Gillette site (U.K.)* has started composting the waste foam and then used to grow turf for commercial use.

For the very first time, P&G has installed (2012) solar photovoltaic panels in Asia at the *Huangpu plant in China*. This plant can eliminate 600 metric tons of CO₂ emissions annually. Apart from this plant they have also employed a wind plant in *Jiangsu province of China*. This wind plant is 100% powered by renewable energy only and thus has reduced 5000 metric tons emissions of CO₂.

Louveira Brazil site of P&G has achieved a net reduction in waste of more than 3000 metric tons per year, despite a production increase of 30% (2004).

Akashi Japan site has been working on reducing industrial waste by recycling defective products and unused raw materials.

Their unit at *Cairo Egypt* has increased the waste recycle at the plant from 66% to 88% (2004).

VARIATION OF DIFFERENT PARAMETERS AFFECTING ENVIRONMENT IN LAST DECADE

It is evident from the fig (1) that the yearly % of waste recycling has been increased during last decade. It is found to be the maximum as 81% in the year 2013; there is overall 50% gain in last decade.

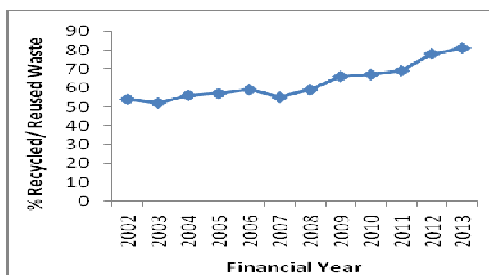


Fig 1. Yearly variation of % recycled/reused waste.

Fig (2), shows the yearly variation of utilization of raw material from recycled used. The trends indicate that this utilization was maximum in year 2009;

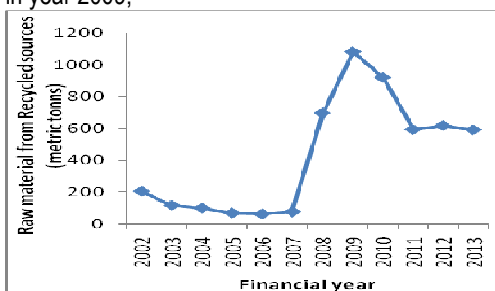


Fig 2. Yearly variations of raw materials from recycled sources.

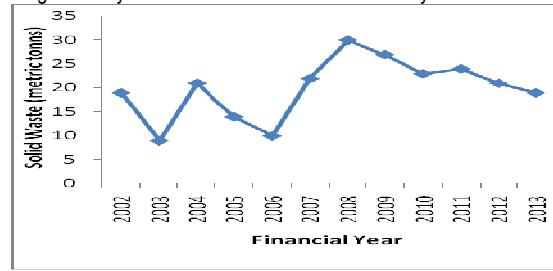


Fig 3. shows the trends of solid waste disposals of the last decade the values are discrete.

The Green House Gas Emission has been reduced to a considerable extent in the last decade. It shows the good sign of sustainable approach.

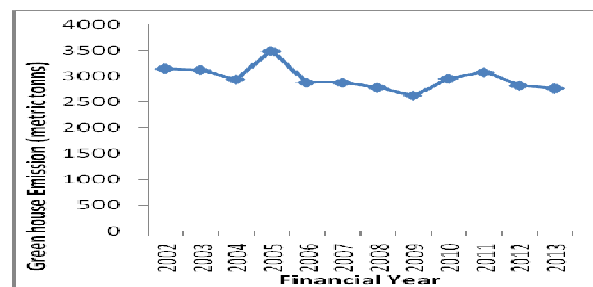


Fig 4. Yearly variation of green house gas emission.

CONCLUSION

The present study has revealed the progress of Procter & Gamble in last decade. It was found that P&G has taken diversified sustainable initiatives all over the globe. The analyzed data has indicated that there is a overall 50% gain achieved by P&G in the field of waste recycling. Furthermore, their visions of powering existing sites by 100% renewable energy resources as well as the strategy of 0% manufacturing waste to landfill are remarkable. It is found that the company P&G is moving in a right direction by providing new paradigms of realistic development. In addition to these, their goals of 2015 and 2020 are right on track which includes the use of 100% of the virgin wood fibers in toiletries, third party inspection certification recognized by different environmental council, optimization of distribution network to minimize the truck transportation are considerable.

REFERENCES

- [1] http://en.wikipedia.org/wiki/Procter_%26_Gamble
- [2] http://www.pg.com/en_IN/downloads/sustainability/reports/PG_2011_Sustainability_Overview.pdf
- [3] http://www.pg.com/en_IN/downloads/sustainability/reports/PG_2010_Sustainability_Report.pdf
- [4] http://www.pg.com/en_IN/sustainability/environmental_sustainability/environmental-sustainability-initiatives-in-india.shtml
- [5] http://www.pg.com/en_IN/sustainability/environmental_sustainability/long-term-environmental-vision-and-2020-goals.shtml
- [6] http://www.pg.com/en_US/downloads/sustainability/reports/PG_2013_Sustainability_Report.pdf

- [7] http://www.pg.com/en_US/downloads/sustainability/reports/PG_2013_Sustainability_Summary.pdf
- [8] http://www.pg.com/en_US/sustainability/policies_practices/california.shtml
- [9] http://www.pg.com/en_US/sustainability/policies_practices/palmoil.shtml
- [10] http://www.pg.com/en_US/sustainability/policies_practices/woodpulp.shtml
- [11] <http://www.pgpro.com/solutions/sustainability/>
- [12] <http://www.scienceinthebox.com/water-savin>
- [13] www.pg.com/en_UK/sustainability/environmental_sustainability/sustainable_innovation.shtml (2013)
- [14] www.pg.com/en_IN/sustainability/environmental_sustainability/environmental_sustainability_initiatives_in_india.shtml 12/16/13
- [15] www.pg.com/en_IN/sustainability/environmental_sustainability/environmental_sustainability_initiatives_in_india.shtml 12/15/13
- [16] PGIndia.com Sustainability Overview: sustainability goals, scorecard 12/13/13