Establishing ecosystem for sustainable recycling of post consumed Tetra Pak cartons

Background
Tetra Pak is a worldwide leader in aseptic food packaging solutions and this places an even greater responsibility upon us to also seek environmental leadership.

For Tetra Pak, sustainability is at the core of our growth strategy. Driving environmental excellence is one of the four strategic pillars besides growth, innovation and performance. We take a full life cycle approach with regards to sustainability- including end-of-life for used cartons. We are trying to ensure, in our own way, that cartons not just have minimal impact on environment but also get recycled at the end of their life.

Executive Summary
Even though various legislations to promote waste management exist, enforcement remains an issue. Waste is not segregated at source and therefore retrieving used Tetra Pak cartons from municipal solid waste has been a challenge in India. Collection of recyclables is largely left on to informal waste collectors, organising them is also a challenging task.

Despite such challenges, we are working to establish a sustainable ecosystem for carton recycling- by a) establishing recycling infrastructure; b) ramping up collections by partnering with waste pickers and c) Sensitizing consumers on their role to play in waste management for long-term benefits

While we continue to do our bit, in order to bring a transformational change in our recycling rates, collaboration is the key. Government has a larger role to play in enforcing legislations on source segregation; also consumers’ active participation is pertinent.

Initiative Highlights and Achievements
We believe our interventions go well beyond the recycling agenda to other aspects of sustainability – social and economic development. The recycling facilities generate additional livelihoods. Separate collections of used cartons provide an additional source of income/
waste collectors. Due to our persistent efforts over last 10 years, we estimate that more than 30% of used cartons are getting recycled in India. More than 16,000 waste collectors associate themselves to collecting cartons.

**Responsible Growth- how the recycling initiatives fit our growth strategy?**

**The business imperative**
The focus of our thrust has to reflect consumer, customer and market sentiments and so our conscious emphasis so far in India has been on ‘recycling’. Our cartons must be perceived as being both recyclable and recycled. This means that we must work hard to establish carton collection and recovery facilities; to identify recyclers who can turn them into useful products; raise consumer awareness and drive responsible behaviour about carton recyclability. We believe that early engagement provides a valuable opportunity to influence public perception, set a positive tone for our stakeholders and grow our business sustainably.

**The environmental imperative**
The landfills around our cities are filling up fast and this is leading to environmental problems. We are aware that waste is a serious issue. While the quantity of waste is increasing, the space for landfills / dumpsites continues to be limited. Besides, waste also has negative implications on the ecosystem- by polluting groundwater (through leaching) and surrounding environment.

**Tetra Pak’s core values and what we care about**
It’s in our core value to always consider the broader impact of what we do on the environment and society. Our responsibility doesn't end with supplying packaging material. For our long-term competitiveness, it is critical to ensure there is a sustainable recycling value chain for used cartons, so that all stakeholders know that beverage cartons are recyclable and are being recycled. **Our efforts in recycling is an investment in our future.**

**The Challenge: recycling, an uphill task**
Lack of legislation enforcement and consumer apathy creates challenges in retrieving used Tetra Pak cartons. India has a large informal sector for collecting waste through multitude of rag-pickers, scrap dealers and waste contractors. Picking and selling waste is a source of livelihood for them. The rag-pickers collect garbage from the streets, households and
commercial establishments. Later, they separate various wastes and sell it further for recycling.

Organising such informal waste collectors has its own set of challenges. Organising them for collections of any grade of waste depends a lot on volumes available for collection and an attractive price.

**Tetra Pak’s carton recycling initiative**

Tetra Pak’s four-pronged approach to actively drive up recycling is to

1. Partner with recyclers that see the benefit of recycling post-consumer cartons;
2. Establish collection networks by engaging waste pickers and
3. Invest in educating consumers and others in the waste chain about the recyclability of Tetra Pak cartons and proper waste management practices.
4. Driving thought leadership on waste management

This combination of a short-term (interventions to establish collections and recycling) and long-term approach (education) form the basis of an economic model where the buyer (the recycler) pays an attractive price to the seller (the waste collector) and the model feeds itself, save for some interventions from Tetra Pak in terms of communication, promotion and equipment support.

1. **Establishing a network of Recyclers**

Used beverage cartons are not waste, rather they are valuable resources for various recyclers. The different layers – paper, plastic and aluminium - from our cartons can be recycled, to get a new life as part of new products. As cartons are made from virgin wood fibres they are an especially valuable paper source to recycle. The fibres are long, strong and can be used again several times.

Studies from Central Pulp and Paper Research Institute (CPPRI) establishes the quality of recovered fibre from Tetra Pak cartons being superior to that of Indian old corrugated cartons (OCC) and at par with imported OCC. This makes Tetra Pak cartons a valued resource.

Usually in paper mills, cartons are mixed with water, either separately or with other types of paper, to create paper pulp. In the same process, the plastic and aluminium is separated from
the pulp. The pulp is used to make new paper products, e.g. corrugated board, kraft paper and tissue paper.

The remaining i.e. plastic and aluminium can be processed to produce products such as pallets, roof tiles, etc. The market for roofing sheets has grown significantly as they benefit consumers immensely. Studies among dairy farmers who use the sheets have revealed that milk productivity goes up 10% during summer months. Earlier, the extreme heat would result in 20% reduction in milk productivity.

Deluxe Recycling based in Palghar near Mumbai, produces sheets from full cartons (Eco Link Boards) that find good applications in pallets which are used for industrial packaging, furniture, school desks etc.

2. Engaging waste pickers... establishing collection networks
Waste collection, while comes with challenges also opens doors of opportunities to build a strong formal waste collection system. As a first step, we partner with NGOs, waste management companies, waste dealers to set-up collection centres in cities where cartons’ sales are higher. A typical collection centre would have a compacting machine (to compress the collected cartons for dispatch to recyclers), and trucks to collect cartons within the city. We identify pockets within the cities, wherein waste collectors not just reside but also bring recyclables for sorting.

Workshops and street plays for waste pickers
Through these workshops and street plays, we help the waste trade distinguish a Tetra Pak
carton and communicate how cartons can fetch them more income than if they mix it with the low grade paper. About more than 90 workshops were organised mostly in places where waste pickers live in last 3 years.

**Health Camps**

Waste pickers are highly vulnerable to health problems owing to their nature of work. Organising health camps for them and their families not just helps on health grounds, but also helps Tetra Pak build connections beyond business. Our collection partners have organised more than 30 health camps in last 3 years.

**Paryavaran Mitra Club**

Waste pickers, in our society are often perceived as marginalised and lack social affiliation. The club is a strategic initiative to provide a strong sense of bonding and affiliation and also nurture them as promising Tetra Pak collection partners.

3. **Educating society on waste management**

By 2010, most cartons produced by Tetra Pak India had the Mobius Loop printed on them, thereby communicating that Tetra Pak cartons carrying this symbol should be recycled.

**Project SEARCH with Schools**

Our future is being shaped in the classrooms today. Hence, we’re investing in raising awareness on the importance of recycling amongst school children through an initiative called SEARCH.

Initiated in 2009 to raise awareness on waste and recycling of Tetra Pak cartons, it involves teachers, school community and the society at large. Project SEARCH today, has an outreach of 200,000+ students across 200 schools in Delhi, Bangalore, Chandigarh, Hyderabad, Mumbai, Pune and Panaji. The project bagged The Wenhui Award for Educational Innovation and RCE (Regional Center for Expertise) Recognition Award in the year 2012.

**Cartons to Classroom**

Tetra Pak launched a first-of-its-kind initiative ‘Cartons to Classrooms’ in Bangalore with the objective to educate consumers about the recyclability of used Tetra Pak cartons.
The initiative brought the city of Bangalore together that collected more than 100,000 used Tetra Pak cartons, which were recycled into schools desks. Based on the success of this initiative, Tetra Pak launched a pan India initiative in 2013- Your Cartons My Classroom.

‘Your Cartons. My Classroom’ brought together Delhiites to collect over 200,000 used Tetra Pak cartons for recycling. The collected cartons were recycled into school stationery and furniture for six schools that were in need of a better learning environment. It created awareness about the need to segregate used Tetra Pak cartons, which can help improve the education environment for students.

‘Go Green with Tetra Pak’ programme

In collaboration with Sahakari Bhandar, Reliance Fresh and R U Recycling, an environment group encourages ‘mumbaikars’ to recycle. Launched in year 2010, the programme aims to raise awareness about the recyclability of Tetra Pak cartons among shoppers. Special bins made from recycled Tetra Pak packages are placed across 57 stores in prominent locations across Mumbai, to collect used cartons.
In Sahakari Bhandar stores more than 20% of the cartons sold are brought back for recycling. The project has entered the Limca Book of Records, for its uniqueness.

4. **Driving thought leadership**

Even though municipalities are required to drive segregation of waste at source, with Coca Cola, we have piloted project- Doh Bin, to advocate the need and benefits of source segregation of waste. Doh Bin, a pilot project, aimed at sensitising residents for a better waste management system in Gurgaon through a simple act of segregating wet and dry waste in our homes, offices, etc.

The landfills around our city are filling up fast, which is leading to environmental problems. By segregating wet and dry waste, we will not just control what is being sent to the landfills but will also lead to collection of clean recyclables by waste collectors and improvement in their income.

**Obstacles faced and Innovation**

Recycling value chain sustainability can be achieved when recycled products command enough economic value to pull collections. We are working to improve efficiencies at every level of the chain. Some of the major challenges being faced are as follows:

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<tr>
<th>Challenges</th>
<th>How we are addressing them</th>
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<tr>
<td>01 Recycled end products not been yielding enough to pay for high cost of collections and hence the value chain is supported to an extent</td>
<td>We are working on further enhancing the value of recycled end products. This is on both aspects- the pulp from used carton, through help of the Central Pulp and Paper Research Institute (CPPRI) as well as the PE and Aluminium.</td>
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<td>02 Lack of source segregation</td>
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<td>03 Carton sales increasingly spreading out to smaller cities and towns making collection/</td>
<td>Develop small scale recycling that will enable recycling of cartons in smaller cities</td>
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Benefits and Impact

Currently, it’s estimated that more than 30% of used Tetra Pak cartons are being recycled. What is unique about Tetra Pak carton collection model is that it addresses not just an environmental concern but also a social one.

We have been able to involve more than 16,000 waste collectors who go about collecting cartons collection every day and thereby, generate extra income. The Paryavaran Mitra clubs and health camps are a step forward towards increasing social affiliation for waste collectors. Recycling operations generate additional livelihoods.

Carton recycling not just saves natural resources from being wasted but also prevents landfill. Recycling helps reduce carbon footprint as the extraction of new raw materials (to produce plastic and aluminium) is more energy intensive than reusing the materials.