



Recyclables: Mixed Paper & India

January 2020

Overview

The recycling industry has been very successful at providing environmental benefits including diverting material from landfills, conserving natural resources, and reducing greenhouse gas emissions by displacing the use of raw materials. This success was accomplished through the combined efforts of both the public and private industry to collect, sort, bale and market the recyclables to their end-markets. However, over the past few years, the recycling industry has experienced significant structural changes that impact material flow and commodity prices. Most recently, announcements from India are impacting mixed paper.

Most paper recovered from households is made into mixed paper bales. Mixed paper consists of junk mail, newspaper, magazines, office paper, paperboard packaging like cereal boxes, phone books, and some corrugated cardboard.

Approximately 38.3 percent of all paper recovered in North America was exported in 2018. For the past two years, more than 40 percent of mixed paper exports went to India. However, India is set to reduce the allowable contamination for mixed paper to only one percent with random inspections of five bales of mixed paper for each container which is causing some disruptions in the export market.

As a result, all mixed paper exports to India have halted until there is certainty in India's requirements. The domestic impacts of this disruption vary regionally. The most significant impacts are being felt on the eastern seaboard; except Atlanta which has sufficient domestic capacity. Barring any further changes from the export markets, these disruptions are anticipated to be temporary lasting 30-60 days. This is a fluid, dynamic situation that is subject to change.

Background on mixed paper

1. February 2017 - as part of China's broader "National Sword" campaign, customs enforcement began a one-year crack down on illegal smuggling of "foreign waste."
2. January 2018 - China bans mixed paper from being imported.
3. 2018 – present

- a. China imports of mixed paper plummet as a result of the ban dropping from 1.8 M tons in 2017 to 92k tons in 2018 to only 53k tons through October 2019.
 - b. India becomes dominant export country for mixed paper, rising from less than 15 percent of the market prior to 2018 to greater than 40 percent.
4. July 2018 - China releases draft rules that propose a complete ban on recyclable imports effective 2020
 5. 2019 – The second largest export country in 2018, Indonesia, announced a 0.5 percent contamination rate on mixed paper. Exports drop by 95 percent from 47k tons in January 2019 to only 2k tons in October 2019.
 6. January 2020 – India announces strict one percent allowable contamination and random inspections of containers.

Impact to U.S. Recycling

- **No outlet available at any price.** Since February 2019, the average price of mixed paper in the U.S. has been negative. Depending on the market, there might not be an outlet for mixed paper bales at any price.
- **Temporary disposal of processed mixed paper bales.** Without an outlet, there may be short-term disposal of mixed paper bales.
- **Higher costs and lower revenues:**
 - **Lower revenues due to depressed commodity prices.** The overall revenues from the combined recycling stream is depressed. Sample price differences between end of 2018 and end of 2019 are shown below:

| <i>Commodity</i> | December 2018 | December 2019 |
|-----------------------------|----------------------|----------------------|
| <i>Corrugated cardboard</i> | \$70/ton | \$25/ton |
| <i>Mixed paper</i> | \$4.69/ton | Negative \$2/ton |
| <i>Aluminum cans</i> | 60.19 cents/pound | 51.06 cents/pound |
| <i>PET bottles and jars</i> | 15.11 cents/pound | 10.29 cents/pound |
| <i>HDPE</i> | 38.69 cents/pound | 58.25 cents/pound |
| <i>Glass</i> | Varies regionally | Varies regionally |
| <i>Contamination</i> | Varies regionally | Varies regionally |

- **Higher processing costs.** In order to meet the new quality standards, MRFs have upgraded equipment and added labor. Processing at some facilities has been changed from negative sorts to positive sorts resulting in more effort to produce less salable material. These measures reduced throughput and increased processing costs.
- **Stockpiling issues.** Due to storage capacity issues, stockpiling is not a viable option. Warehousing is also an issue due to availability of space and costs of facilities. The quality of processed bales of mixed paper deteriorates over time which creates unacceptable safety hazards and unmarketable recycled product.
- **Regional variations.** The impact varies by region and local markets across the country.

- **Development of new outlets.** Numerous new or expanded facilities have been announced which will provide new domestic outlets for materials, especially recovered paper. When these facilities will begin accepting materials, however, is uncertain due to its dependence infrastructure development. NERC has tracked the progress of the mills and followed the opening of some of these facilities.

Actions to take

- **Ensure High Quality Recyclables.** High quality material is more likely to find a market. The new one percent prohibitive limit is below normally accepted standards. However, high quality material will be welcomed by both domestic and international markets. Focus on core recyclables to reduce contamination.
- **Work with the entire industry.** This is a global and an industry-wide issue, not a local or individual company issue. Our industry will benefit if we work together with city and state officials to develop solutions in the near term, and to work together for longer term solutions.
- **Communicate.** It is important to communicate with recycling partners to focus on quality and to develop solutions for your communities. See the communications strategy below for more suggestions.
- **Review contracts.** Recycling requirements may need to be amended through force majeure provisions as this is a global situation. In addition, both recyclers and municipalities should review contracting provisions to ensure fair and equitable contracts. NWRA and SWANA worked together to develop a Joint Advisory on Designing Contracts for Processing of Municipal Recyclables along with two attachments, one on auditing and the second on determining the value of recyclables. These documents should be utilized to inform future contracts. The documents can be found [here](#).
- **Talk with regulators.** States may need to approve temporarily suspensions of recycling requirements where there is no market.