

# Have Solid Waste Markets Gone Awry in Region 7?

April 23, 2019

# Background

- China became the world's main solid waste importer in the 1980's when it need cheap, raw materials to feed its growing economy.
- Contamination of recycling has been an issue for some time.



Photo: Jerry Powell,  
Resource Recycling

# Background

- Sizable changes in the Chinese economy have created a vast and surging middle-class with lifestyle changes.
- More trash. Need to develop domestic recycling infrastructure.
- The government has initiated major anti-corruption and pollution control initiatives.



# Background

## Customs Enforcement

- 2013:
  - The Green Fence
  - Reject recycling shipments at ports if they were too contaminated.
- February 2017:
  - As part of a broader “National Sword” campaign
  - Customs enforcement began a one-year crack down on illegal smuggling of “foreign waste.”

# Background

## Materials Ban

- July 18, 2017:
  - Notified the World Trade Organization (WTO) of intent to ban 24 materials from being imported.
  - These include mixed plastic and mixed paper effective January 1, 2018.
- April 19, 2018
  - China announces that additional materials will be prohibited from import by the end of the year:
    - Post-industrial plastics
    - Scrap metals
  - Announces that more materials will be banned by end of 2019.
- July 18, 2018
  - New proposal would completely ban recovered fiber imports and every form of “solid waste” in 2020 (but likely to be earlier).

# Background

## Quality Standard

- Late July, 2017:
  - Announced a new quality standard for material, limiting impurities to 0.3 percent (down from 1.5 percent).
  - This requirement applies to all materials, even those that are not banned (such as ONP or OCC).
- November 2017
  - Revised quality standard to an allowable limit of 0.5 percent contamination.
- Effective March 1, 2018.
- Mid-March 2018
  - China enforces the import restrictions as part of Blue Sky 2018.

# Background

## Trade Wars and Tariffs

- Late March 2018
  - Trade wars and tariffs:
    - The U.S. imposed tariffs on Chinese steel and aluminum.
    - China enacted a 25 percent duty on U.S. scrap aluminum (April 2).
- August 8, 2018
  - Growing tariffs:
    - China proposes 25% tariff on U.S. shipments of cardboard, recovered fiber and scrap plastic.
    - Another proposal targets paper pulp

# Background

## Result:

- There will be/has been a reduction of all recyclable tons entering China.



# Why do China's policies matter?

- Lots of stuff headed to China...
- Global issue – EU, Canada, Japan all experience restrictions

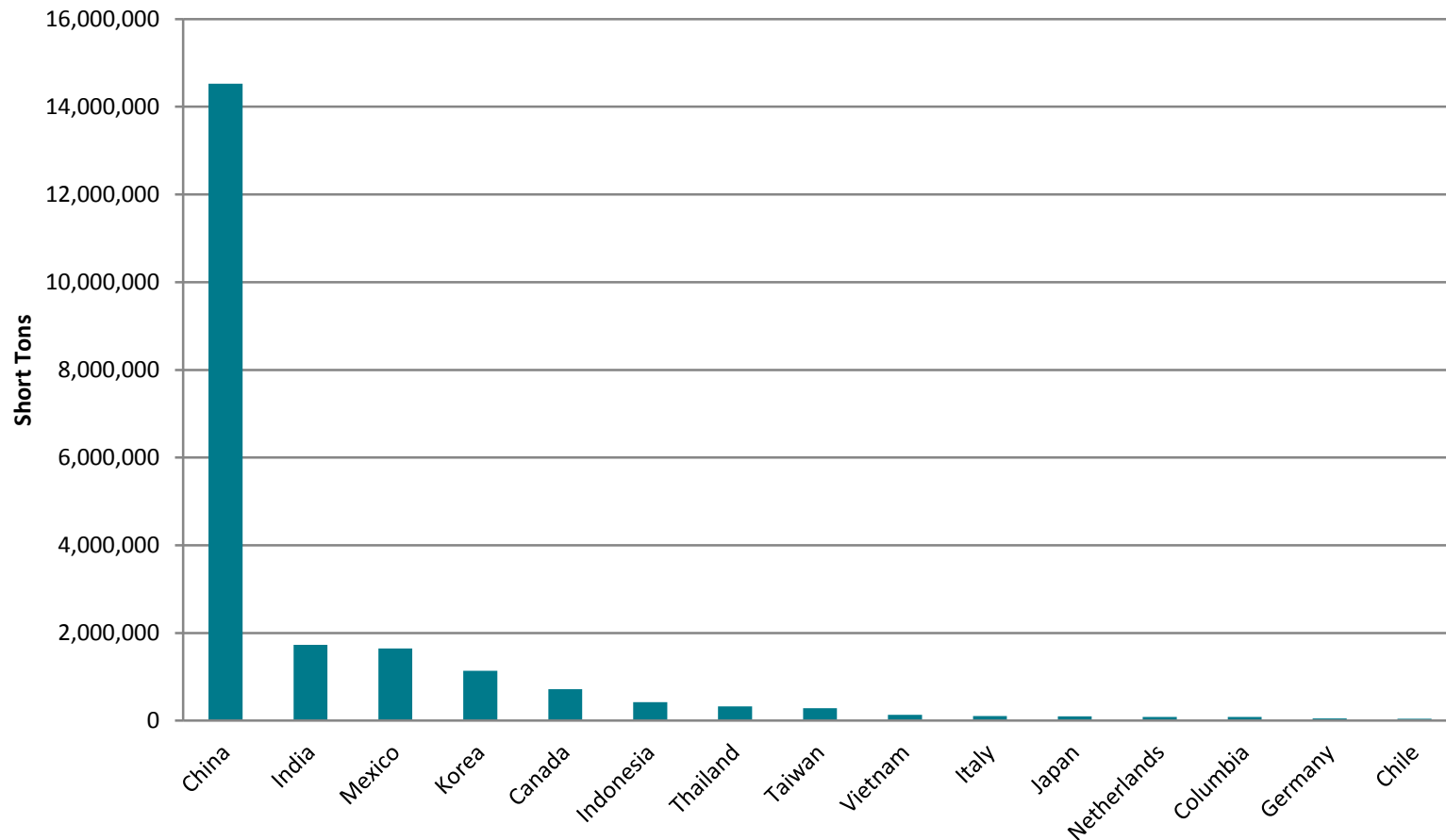


# Recycling Industry Exports

- Pre-Ban Exports:
  - 37 million metric tons exported from U.S.
  - \$16.5B value of U.S. materials exported
- Approximately 30% of scrap processed in US was destined for export
- China was the single largest consumer of recyclable materials exported from the United States.

# US Paper Exports

## US Recovered Paper and Fiber Export Volume - 2016

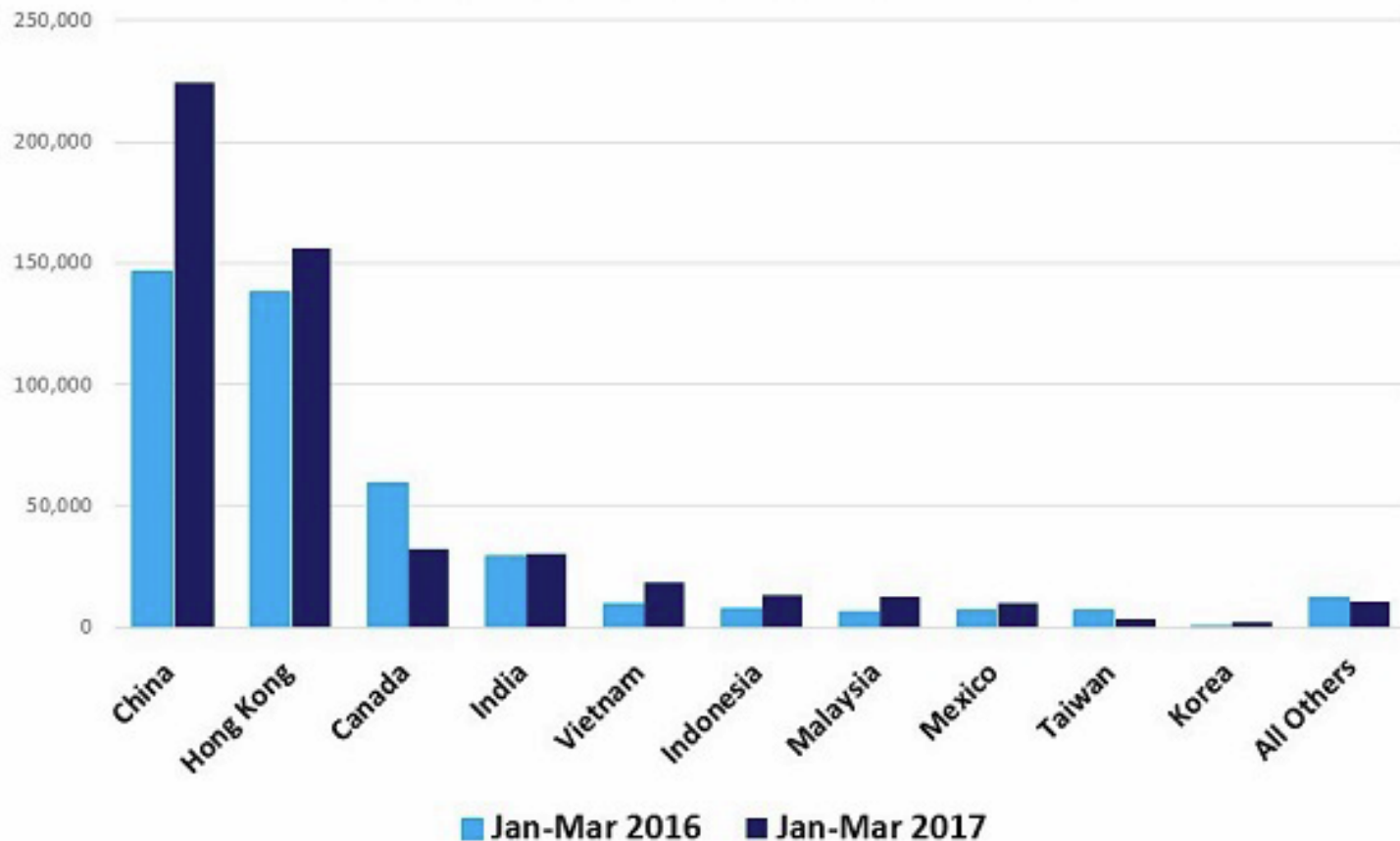


Source ISRI

# US Plastic Exports

YTD U.S. Plastic Scrap Exports by Major Destination (metric tons)

Sources: U.S. Census Bureau/U.S. International Trade Commission



# Impact of Ban

- The ability of other international markets (e.g., Malaysia, Indonesia, Taiwan, Vietnam) to absorb all the recyclables will be strained.
  - Vietnam has stopped accepting plastic and new requirements for paper.
  - Thailand banned scrap plastic imports.
- One quarter of the export market has disappeared.
- Domestic markets will not be able to respond.
- Some materials may not be able to find an end market:
  - Drop in commodity prices,
  - Reduction in the types of materials accepted in recycling programs,
  - Stockpiling of materials,
  - Closures of recycling facilities,
  - Landfilling of recyclable materials.

# Industry Response

- The recycling industry is working to better sort incoming recyclables to lower contaminant levels and improve the quality of the material that is exported:
  - Increasing its workforce
  - Slowing down processing times.
  - Investments in new technologies to improve quality.
- Recycling revenues fall: material value doesn't cover the cost of processing.



Photo: Waste Management of Kansas

# Municipal Impacts

- Ban has had significant adverse impacts on municipal recycling programs in the United States:
  - Additional charges due to excessive contamination
  - Risk sharing
  - Price increases
  - Fewer rebates
  - Elimination of materials accepted in recycling programs

# Headlines – sell news

- **As Costs Skyrocket, More U.S. Cities Stop Recycling** – New York Times
- **What Happens Now That China Won't Take U.S. Recycling** - The Atlantic
- **China Ceased Buying Recycling, Filling US Cities With Trash** – Fortune
- **Under China's New Rules, U.S. Recycling Suffers** – Governing
- **U.S. Recycling Companies Face Upheaval from China Scrap Ban** – WSJ
- **Where Will Your Plastic Trash Go Now That China Doesn't Want It?** - NPR



# Waste Dive Assessment

- Waste Dive has been tracking the effects of China's scrap import policies across all 50 states (and the District of Columbia):
  - Minimal = Aside from the average market fluctuations, no major issues were reported.
  - **Noticeable** = Material is still moving, but with more difficulty, and local programs may be considering cuts.
  - Heavy = Recycling programs have been cut back, recyclable material is being disposed, or markets are shrinking.
- Iowa, Nebraska, Kansas and Missouri are all in “Noticeable” category.

# Kansas City Impacts

- Not all gloom and doom for KC Metro:
  - Domestic markets have been found for most materials.
  - Not moving plastics #3, #4, #6.
  - One KC metro MRF (out of three) has announced that it will no longer accept single stream recycling beginning May 1
  - Contamination surcharges being assessed

# Bright Spots?

- A push for domestic solutions.
- Chinese processors looking to set up U.S. operations:
  - Recycled pulp
  - Clean plastic pellets
- China needs our materials. Will it loosen its bale standards?

# Thank You!

Lisa McDaniel

[lmcdaniel@marc.org](mailto:lmcdaniel@marc.org)

816-474-4240