



## Summary

The "Market Study for Thailand: Plastics Circularity Opportunities and Barriers" report by the World Bank assesses the challenges and opportunities for enhancing plastics circularity in Thailand. It highlights that in 2018, Thailand disposed of 2.88 million tonnes of plastics, losing 87% of their material value, equating to an annual loss of USD 3.6-4.0 billion. The study identifies several barriers to recycling, including low local demand for recycled plastics, reliance on the informal sector for collection, and insufficient recycling capacities.

Thailand's plastics industry, while significant, faces economic and environmental costs due to mismanaged waste. Notably, the country has set ambitious national goals for plastic waste management, such as achieving 100% recycling of plastic waste by 2027.

The report recommends six key interventions to improve recycling rates and unlock material value, such as increasing waste collection efficiency, setting recycled content targets, mandating design-for-recycling standards, and enhancing recycling capacities. Each intervention has the potential to unlock between USD 1.1 billion to USD 2.6 billion annually. The study emphasizes collaboration between the government and private sectors to implement these changes effectively.

## Low Circularity Factor Rate (CFR) in Thailand

This can be attributed to several key reasons:

### *Prioritization of Higher Value Plastics:*

The informal sector tends to focus on collecting higher value plastics, neglecting lower value plastics, which results in lower overall recycling rates for products like films and straps

### *Contamination Issues:*

Lower value plastics, such as those used in food packaging, are often more contaminated than rigid plastics. This contamination makes them less desirable for recycling, thus further decreasing CFR. See also below "why is there low recycling capacity in Thailand".

### *Legal and Safety Challenges:*

Informal waste workers lack legal recognition and face precarious working conditions, which discourages participation in recycling efforts

### *Market Demand:*

There is a lack of local demand for recycled plastics, particularly for those that could be used in high-value applications. This leads to poor financial incentives for collectors



### *Inadequate Recycling Capacity:*

Thailand has a significant gap in recycling capacity, which limits the amount of plastic that can be processed

### *Impact of COVID-19:*

The pandemic exacerbated the reliance on the informal sector, leading to reduced collection capabilities and further declines in recycling rates

## Why is there a low capacity of recycling in Thailand

In comparison, projects that manufacture plastic products from recycled plastics (i.e. the recycling industry) receive fewer incentives — the major one being a 3-year corporate income tax exemption contingent on recyclers using only domestic plastic raw materials.

A major recycler interviewed for this study reported that while BOI has started promoting recycling as a business activity, it does not allow washing as a promoted activity. This is detrimental to the promotion of recycling as the washing step is a key cost and operational component of any recycling process. A large aggregator who supplies the feedstock to several recyclers in Thailand reported never receiving any tax incentives throughout decades of operation.

Additionally, high quality recycled products such as rPET and rHDPE for food-grade applications do not receive any local demand due to product bans on food-grade recycled plastics and lack of any recycled content policies.

Therefore, in comparison to local virgin resin production, recycled resins receive a different set of fiscal incentives and benefits due to unaddressed market failures and existing policy misalignments. This creates an unfair playing field, dampening the growth in recycling capacity, thus negatively impacting CFR rate. The disparity makes more competition for virgin resin prices compared to recycled resin prices, which lowers the price yield of locally produced recycled resins.

## Conclusion

To improve the CFR of plastics the following needs to happen:

- Instead of focusing on value of the recycled product, focus needs to be on the contribution to the CFR
- Increase capacity by providing:
  - o Start-up funding
  - o BOI incentives
- Improve labour conditions
- Establish EPR schemes for all types of plastic