



# CASE STUDY

2025

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## Case Title

# Scaling Scrap Supply Chain for Tata Steel's Sustainable Steel Ambition

**Introduction:**

Tata Steel, one of India's leading integrated steel producers, has always prioritized its role as a corporate citizen towards the people and planet. Moving towards sustainable steel production, it had started Steel Recycling Business in 2020. As part of this initiative, Tata Steel has set up its first state-of-the-art steel scrap recycling plant of 0.4 MnTPA (million tons per annum) in Rohtak, Haryana. The scrap is procured from various market segments such as end-of-life vehicle scrap, obsolete household scrap, construction and demolition scrap, industrial scrap etc. Scrap processing removes the contaminants, yielding Quality Processed Ferrous Scrap, a homogenized, cleaner scrap of high bulk density and high ferrous content.

In alignment with its sustainability goals and India's push toward low-carbon steelmaking, Tata Steel is setting up a greenfield project in Ludhiana, Punjab – an Electric Arc Furnace (EAF) of 0.75MnT annual capacity, which will use steel scrap as primary raw material. This EAF will use both processed and unprocessed scrap. With this context and to enable the above objective, the Steel Recycling Business has a herculean task of ramping up scrap procurement to ~75 KT scrap per month in the next 6-8 months, i.e., by the time plant gets commissioned.

**Background:**

India has an annual scrap consumption of ~34 MnT, of which nearly 25% is imported, thus making it a scrap-deficit nation. The North Indian region generates ~6 MnT scrap annually of which Prompt Scrap constitutes about 30-35% with balance 65-70% coming from Obsolete Scrap. This market is highly fragmented and informal, led by numerous small players with minimal focus on quality, safety and governance. This poses a high compliance risk for the scrap requirement at EAF, especially in the Obsolete Scrap segment.

Given the significant gap between current procurement (30-35 KT/month) and the required supply to EAF (~75 KT/month), Steel Recycling Business is bound to face logistical, operational, and strategic hurdles in scaling up its scrap procurement in short span of time. The task in hand now is to assess how to bridge this gap through a combination of strategies.

**Project Scope/ Constraints:**

- Case Study is specific to sourcing scrap from regions within 300-400 kms of EAF location, i.e., Ludhiana.
- Project focus is for Securitizing the Obsolete Scrap from various sources/segments like end-of-life vehicles, household, demolition/dismantling, etc., which will constitute almost 65-70% of overall EAF Scrap requirement of 75 KT.
- Reverse logistics to be considered to ensure optimum supply chain cost.

**Critical Problems to be solved:**

- In a scrap-deficit market, creating the supplier traction and ensuring continual supply at the right value to facilitate smooth operations at EAF Ludhiana.
- Formalizing the current unorganized and non-compliant landscape.