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# Green Public Procurement of Steel in India



## The scale of Public Steel Procurement and the Impact of Green Public Procurement on GHG Emissions in India

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# The Scale of Public Procurement of Steel

India spends billions of dollars each year on public procurement. This large-scale purchasing power gives governments leverage in driving markets toward the development of low-carbon goods and services. Green public procurement (GPP) is a policy instrument where public entities seek to procure goods with a reduced environmental impact throughout their lifecycle relative to similar goods that provide the same function. GPP adoption is increasing around the world as national governments, sub-national governments, and multilateral entities develop policies to reduce their carbon footprints and create new low-carbon markets. Prime Minister Narendra Modi has made several ambitious commitments in Glasgow, like India's non-fossil energy capacity will reach 500 GW by 2030; India will transition to net zero emissions by 2070. The GPP, as a policy tool, can help India to achieve its carbon neutrality target and reduce air pollution while maintaining its growth and competitiveness.

India produced 111 million tonnes (Mt) of steel in 2019 and total steel consumption in India was around 100 Mt in that year. From that, around 25.6 Mt was used in Government-funded projects in India. Figure 1 shows the estimated total steel procurement by both public and private sectors in India in FY 2019-2020.

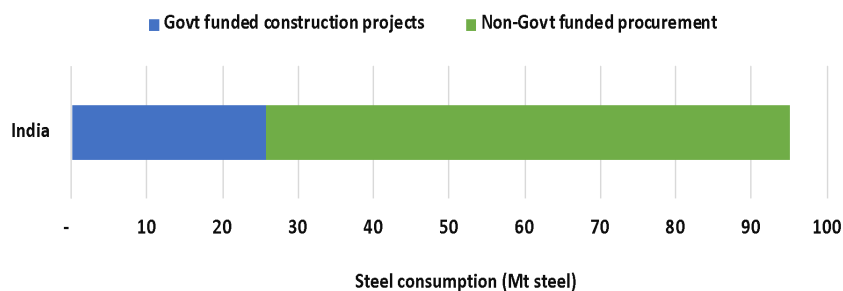


Figure 1. Public and private procurement of steel in India in FY 2019-2020

Using the weighted average CO<sub>2</sub> intensity of steel produced in India (2,147 kg CO<sub>2</sub>/t steel) (both primary steel and electric arc furnace (EAF) steelmaking), we can estimate the annual CO<sub>2</sub> emissions associated with steel used in India in FY 2019-2020 (Figure 2). Approximately 27% of the annual CO<sub>2</sub> emissions linked with steel consumption in India are associated with Government-funded projects, which were around 61 Mt CO<sub>2</sub> in FY2019-2020. This is a substantial emission equal to annual CO<sub>2</sub> emissions from more than 13 million passenger cars. Therefore, government procurement can be a strong driver of demand for low-carbon steel in India.

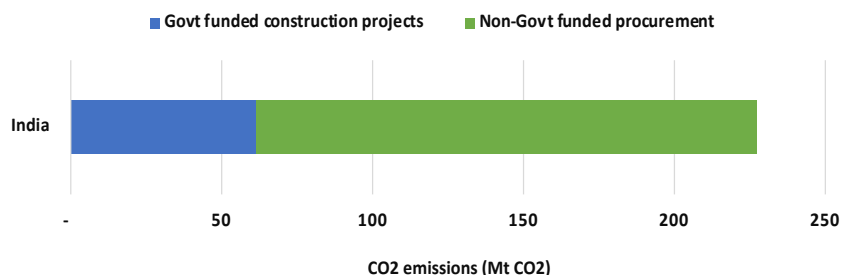


Figure 2. Annual CO<sub>2</sub> emissions associated with steel used in India in FY2019-2020

# Impact of GPP of Steel on GHG Emissions

To estimate the potential impact of GPP on CO<sub>2</sub> emission associated with steel consumption in India, we developed several scenarios with various GPP targets for the CO<sub>2</sub> intensity of steel set by a GPP policy (Table 1). Since steel imports account for only 9% of steel consumption in India, we used the average CO<sub>2</sub> emissions intensity of India's domestic steel industry as the baseline for the target setting for steel GPP in India.

Table 1. GPP target scenarios for the steel industry in India

Buy Clean Target	% reduction in steel CO <sub>2</sub> intensity from baseline	Steel CO <sub>2</sub> intensity (kgCO <sub>2</sub> /t crude steel)
Baseline	-	2,147
Low	15%	1,825
Medium	30%	1,503
High	50%	1,074
Transformative	75%	537

Using the annual CO<sub>2</sub> emissions associated with steel used in India as presented on the previous page and the targets set in Table 1, we can estimate the annual CO<sub>2</sub> emissions reduction potential resulting from GPP for steel in India in FY 2019-2020. Figure 3 below shows that under the Low scenario for the GPP target for steel, an annual emissions reduction of 8.3 Mt CO<sub>2</sub> can be achieved directly from the public procurement of steel in India. This direct annual CO<sub>2</sub> emissions reduction potential would increase to 28 Mt CO<sub>2</sub> and 40 Mt CO<sub>2</sub> under High and Transformative scenarios, respectively. The potential CO<sub>2</sub> emissions reduction impact of GPP for steel in India could increase by almost four-fold if we consider the potential indirect impact from the steel sold to non-public funded projects if we assume the changes steel plants make for CO<sub>2</sub> emissions reduction applies to all steel they produced for the market.

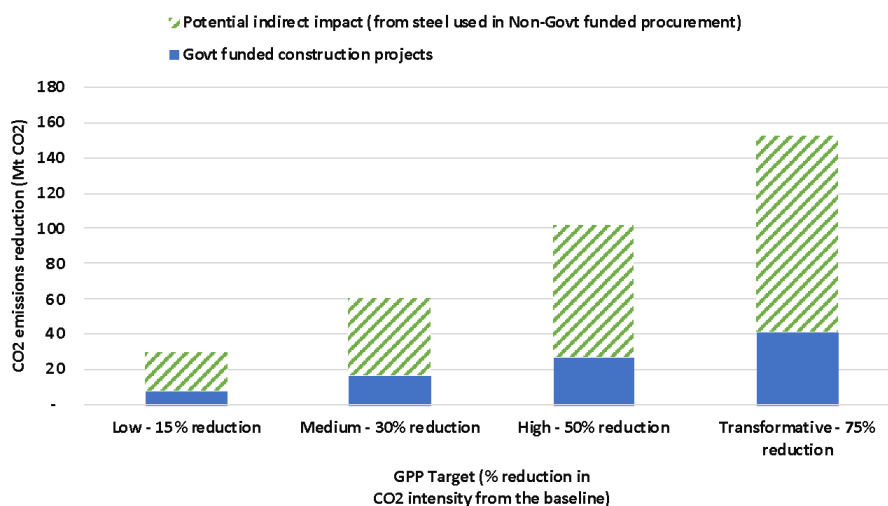


Figure 3. Annual CO<sub>2</sub> emissions reduction potential resulted from GPP for steel in India