

GOVERNMENT OF INDIA
MINISTRY OF STEEL

RAJYA SABHA
UNSTARRED QUESTION NO. 2230
TO BE ANSWERED ON 09/08/2024

STEPS TO REDUCE CARBON FOOTPRINT IN STEEL INDUSTRY

2230. Shri Haris Beeran:

Will the Minister of Steel be pleased to state:

- (a) whether it is a fact that the recent protectionist policies of European Union, UK, USA are likely to affect the country's export of steel;
- (b) the technological steps adopted by Government to reduce carbon footprint in steel industry;
- (c) the financial loss/expenditure to be borne by Government in transition to less carbon intensive technologies;
- (d) the steps planned to be implement by Government to achieve the Paris Goals; and
- (e) whether Government has approached international bodies against the protectionist policies of EU, UK and USA?

ANSWER

THE MINISTER OF STATE IN THE (SHRI BHUPATHIRAJU SRINIVASA VARMA)
MINISTRY OF STEEL

(a)to(e): Government is committed to Net-Zero target by 2070. Towards this, in the short term (FY 2030), reduction of carbon emissions in the steel industry through promotion of energy and resource efficiency as well as renewable energy is being focused on. For the medium term (2030-2047), utilisation of Green Hydrogen and Carbon Capture, Utilisation and Storage are the focus areas. For the long term (2047-2070), disruptive alternative technological innovations can help achieve the transition to net-zero. For this purpose, the technological steps taken by Government to reduce the carbon footprint in the steel sector are as under:-

- (i) 14 Task Forces had been constituted with engagement of industry, academia, think tanks, S&T bodies, different Ministries and other stakeholders to discuss, deliberate and recommend upon the different levers for decarbonisation of the steel sector. These also span technologies including Energy Efficiency, Renewable Energy, Green Hydrogen, Material Efficiency, Process Transition from coal based DRI to Natural Gas based DRI, Carbon Capture, Utilisation and Storage (CCUS) and Use of Biochar in steel industry.

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- (ii) Ministry of New and Renewable Energy (MNRE) has announced National Green Hydrogen Mission for green hydrogen production and usage. The steel sector is also a stakeholder in the Mission and has been allotted Rs. 455 crores under this Mission to promote the utilisation of Green Hydrogen in the iron and steel making.
- (iii) National Solar Mission launched by Ministry of New and Renewable Energy in January 2010 promotes the production and use of solar energy which contributes in reducing the emissions in steel industry by increasing the uptake of renewable energy.
- (iv) Perform, Achieve and Trade (PAT) scheme, under National Mission for Enhanced Energy Efficiency, incentivizes steel industry to reduce energy consumption.
- (v) The steel sector has adopted several Best Available Technologies (BAT) available globally in the modernization and expansions projects.
- (vi) Japan's New Energy and Industrial Technology Development Organization (NEDO) Model Projects for Energy Efficiency Improvement have been implemented in some steel plants.
- (vii) The Carbon Credit Trading Scheme (CCTS) has been notified by the Central Government on 28th June, 2023, which provides an overall framework for the functioning of the Indian Carbon Market and includes detailed roles and responsibilities of stakeholders towards operationalization of the scheme. The objective of CCTS is to reduce or avoid greenhouse gas emissions from various sectors of Indian economy by pricing the emissions through a carbon credit certificate trading mechanism. CCTS is intended to incentivize the emissions reduced by steel companies.

The exports of Finished Steel from India to European Union, UK, USA and India's total exports of Finished Steel for the last 5 years i.e. FY 2019-20 to FY 2023-24 are as under:-
(‘000 tonnes)

| Country / Region | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
|-------------------------------------|---------|---------|---------|---------|---------|
| European Union (EU) | 1864 | 2426 | 3576 | 2488 | 4031 |
| UK | 83 | 86 | 237 | 172 | 326 |
| USA | 51 | 27 | 214 | 165 | 95 |
| India's Total Exports | 8,355 | 10,784 | 13,494 | 6,716 | 7,487 |
| Source: Joint Plant Committee (JPC) | | | | | |

The European Union has come up with several policies/regulations recently such as the Carbon Border Adjustment Mechanism (CBAM) which may increase compliance burden for Indian steel exports to EU. In December 2023, the UK Government announced its plans to implement a Carbon Border Adjustment Mechanism (UK CBAM) from 2027, which may increase compliance burden for Indian steel exports to UK. Concerns on EU Carbon Border Adjustment Mechanism have been raised in relevant WTO bodies.