







Climate Change and Trade Protectionism February 2023

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## There is a rush to secure the green supply chain of the future...

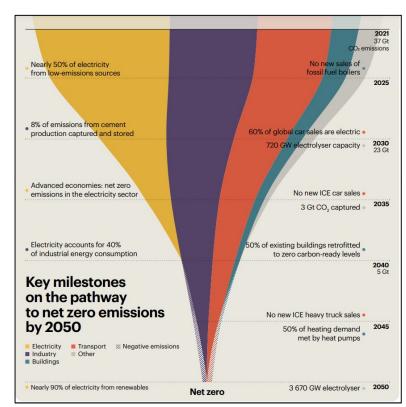
To achieve net zero emissions for the energy sector by 2050, the IEA states that:

- 60% of global car sales must be electric by 2030
- Electricity must account for 40% of industrial energy consumption by 2040
- · Nearly 90% of electricity must come from renewables by 2050

This will require unprecedented economy-wide investment in green technologies; industrial sector will be at the center of this transition

Countries have proposed policies to speed up the transition from fossil fuels, promote manufacturing of clean energy technologies at scale and decarbonise the industrial sector

While there are many benefits, they have also sparked fears of trade wars, as governments on the pretext of climate action try to reshore green industries and dominate the global supply chain of goods and technologies essential to avert a climate catastrophe



Source: IEA

## Two major developments have brought attention to this shift

Carbon Border Adjustment Mechanism (CBAM) – EU, 2022

- Tax applied to eliminate the difference in carbon price paid by companies subjected to EU's domestic compliance-based carbon market - the emissions trading system (ETS) - and the price paid by companies elsewhere whose manufactured goods are imported into the EU
- Importers of goods covered by CBAM > buy carbon certificates priced according to EU's ETS
- If the exporting country has implemented an equivalent carbon price > no tax is charged
- · Essentially a green tariff wall

The Inflation Reduction Act (IRA) – US, 2022

- About \$370 billion in subsidies over 10 years, mainly through tax credits, for renewable energy, electric vehicles, energy-efficient appliances, carbon capture and storage and clean hydrogen
- Applies "domestic content" requirement, where parts have to be manufactured or assembled in North America

Both are eligible for questioning at the WTO, if the current trade regime's rules are applied

WTO – heavily influenced by developed countries - treats subsidies, tariffs, and export bans as "trade distorting"



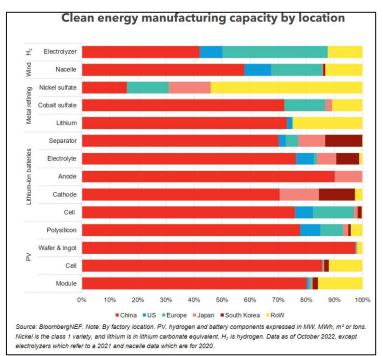
## One country dominates green technology supply chains



These efforts are mainly to counter China's dominance of green technology manufacturing, achieved through decades of investments "through low-interest loans, free land, cheap energy and other subsidies"

Reducing dependence on China would **cost the EU about USD 149 billion** and the **US about USD 113 billion** to build plants to manufacture solar panels, batteries and electrolyzers to meet domestic demand in 2030 (BloombergNEF)

But policies like the IRA and CBAM may hinder the green transition in other developing countries. We analysed this in 3 ways as the following slides show...







# Don't kick the green development ladder away

A CBAM raises costs for developing country manufacturers and reduces competitiveness

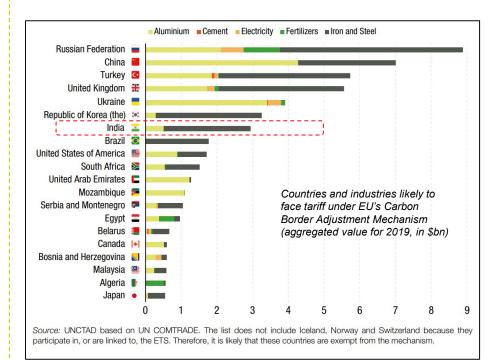
If implemented at \$44 per tonne, it reduces **global carbon emissions by not more than 0.1%**, but will decrease global real income by \$3.4 billion, with developed countries income rising by \$2.5 billion while developing countries' incomes fall by \$5.9 billion (UNCTAD)

EU is India's third largest trading partner. Iron and steel, and aluminium sectors will be the most exposed, but less so than other countries

India does not have one domestic carbon price – but it has an upcoming domestic carbon market, a national NDC and net zero target, and voluntary climate targets by industrial firms. Its exposure to the tax needs to be determined

CSE analysis shows that the emission reduction targets set by many Indian steel players are even more ambitious than the National Steel Policy 2017

Large players will adapt more easily





# Don't kick the **green** development ladder away

### #2 Impact of green subsidies

While the IRA is a positive effort by the US for domestic decarbonization, the trade and industry-related critique is that it allows **extensive subsidies for domestic green industry** 

For the EU, South Korea and Japan, this means losing companies who now want to invest in the US and benefit from the tax credits. EU announced its own *Green Deal Industrial Plan* in response

!! Meanwhile, developed countries and trade agreements have prevented the developing world from implementing such industrial policies in the past !!

# India Out-subsidied – Case study of Electric Vehicles

Extent of domestic subsidies provided by the US cannot be matched by most developing countries. For 'transportation and EVs' alone it provides about USD 23.4 billion of investments (Mckinsey). Only China exceeds this – it offered USD 33 billion to the EV sector in 2021 alone (CSIS)

India's EV subsidies:

FAME II scheme - USD 1.2 billion PLI scheme for battery storage - USD 2.3 billion PLI scheme for the automotive sector which includes EVs - USD 3 billion



#### A new giant enters the search for critical minerals

China is the biggest buyer of minerals such as lithium, copper, nickel and cobalt. If the US gets more involved in accessing minerals for domestic manufacturing, India will have to aggressively scale up production to command prices on its own terms

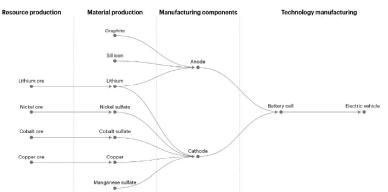
According to CSE experts, India should focus on the sectors in which it has a ready domestic market— two-wheelers and three-wheelers which constitute 63% and 34% of the domestic EV market

It can also become a hub for recycling of spent batteries, which will enable it to recover the processed critical minerals that it is currently lacking



# Don't kick the green development ladder away

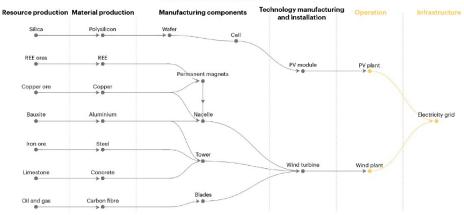
## #3 Critical mineral sovereignty



**BATTERY ELECTRIC VEHICLES** 

#### Source: IEA

#### LOW-EMISSION ELECTRICITY



To hit net-zero globally by 2050, would require **six times more mineral inputs in 2040 than today** (IEA)

Reserves of these are heavily concentrated in a few countries, many of which are developing economies. Their mineral assets give them bargaining power in an otherwise inequitable global trade regime

#### Case study: Indonesia

Supplies 40% of the world's nickel ore

response to the needs of economic development

Export ban on raw nickel announced in 2014 to capture value added from processing

Share of global refined nickel output: 1% in 2013 > 30% in 2021 (IEA)

Disputed by EU; WTO panel ruling suggested that Indonesia could only block exports in acute crises like mass starvation — and not in

This shows that the current WTO regime leaves little space for developing countries to implement domestic policies for development

# Many emerging questions at the intersection of climate justice, industrial policy, and trade

- Green trade wars are not new, but in the era of climate change they take on a new urgency
- \* "There is a missing developmental dimension in trade commitments, combined with mounting evidence that industrialized economies are outsourcing pollution at the same time as they avail themselves of industrial policy tools to bolster their dominance within emerging green industries" (UNCTAD)
- Measures like CBAM violate CBDR enshrined in the Paris Agreement unless coupled with access to finance and technologies to enable decarbonization of manufacturing sectors in developing economies
- Clear and transparent rules are needed for calculating embedded emissions in trade, and the level of tax to be levied
- Developing countries must be allowed to deploy 'industrial policy' tools like subsidies to forge their own equity and green development growth paths, without being subject to over-reaching trade rules
- The full extent of 'reshoring' impact on the developing world is yet to be seen, although India is a part of the EU and US' 'friend-shoring' efforts
- More fruitful discussions are likely to happen bilaterally, than at the WTO whose dispute settlement body is currently non-functional due to the US blocking appointments to the body

# Thank you avantika.goswami@cseindia.org