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Article · September 2022

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International Trade and the Circular Economy

Ritambhara Singh, K. M. Singh and Nasim Ahmad

Trade is the growth engine of any economy. The global trade balances are itself on David Ricardo's theory of Comparative Advantage, which suggests that a country shall export the commodity in which it can combine its resources efficiently. However, in different stages of food systems, natural resources like water and fossil fuel energy have a critical role. Thus, when commodities are traded, natural resources too are virtually traded. As the trade theories developed mainly on labour and capital as major resources, the thrust on natural capital remained weak as not many works focussed on their efficient quantification while calculating comparative advantage in trade. Crude oil, which is fossil fuel-based, forms the basis of the total international trade. In an oligopolist market structure, buyers are price takers. Petroleum and products have the largest share in India's import basket, and India shells out huge currencies to fulfil its energy requirements from crude oil throughout the year. Therefore, the cost of production of commodities depends on crude oil prices to a great extent. According to the World Bank, commodity prices have a robust and significant correlation with crude oil prices.

Additionally, as energy is needed for almost all operations in any food system, including the pumping of water, manufacturing electricity, storage, cold chains etc., the costs of these natural resources pile up, making food costlier for many nations. As the demand for food rises along with the rise in population, the demand for natural resources rises too. However, the availability of natural resources is a greater challenge, further challenging food systems throughout the World. About a decade ago 'Living Planets Report' by World Wildlife Fund indicated that with the speed of extraction of natural resources at that time, two earth will be required to fulfil human want for natural resources by 2030 and 2.8 earths by 2050. While we can't reverse the damage, controlling it by finding alternative solutions and modifying food systems accordingly could be a compelling idea. The need is to continue producing without damage and in a sustainable way. Nature must be at the centre of any economy, resource utilisation, including that of water and energy, must be efficient, material loops be closed, i.e. no wastage and loss, emissions be reduced and

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bio-economy be established. International trade in a circular bio-economy will make better off, everyone.

The increased energy and water costs in the food systems reduce the cost competitiveness and prevent many nations from enjoying the terms of trade. Hence under such a scenario, when producing surplus or trading (import and export) becomes uneconomical, the chances of worldwide poverty and hunger, and a global economic crash increase. While to some, it may look like an exaggerated hypothesis, International Organizations and many countries started seriously thinking about it long back. In India, high subsidies associated with inputs (power, water, fertiliser etc.) utilisation in agriculture could encourage efficient resource usage. Also, we failed to incentivise efficient usage of resources, incredibly natural resources. As a result, they were always overused, and India suffered colossal water and energy crises. Indeed, it is high time that India places nature at the centre of the economy and develops sustainable circular bioeconomic models. While the linear economy is based on take-make-dispose, a circular economy is based on reuse-recycle-reduce. Repair and remanufacturing are important components of the circular economy. A circular economy aids in the regeneration of natural resources by the creation of natural capital. Trade can gain significantly from circular bioeconomy models. The other way round, by restructuring our trade policies, we can effectively establish a circular economy, increasing India's comparative advantage in many commodities.

Closing the material loops and not leaving wastages or residues by adding value will create additional income and employment. The Government of India should incentivise efficient resource utilisation and alternate heavy subsidies. As per India's Bioeconomy report released in July 2022, the Indian Bioeconomy grew from $70.2 billion to $80.12 billion in 2021 and contributed 2.6 per cent to India's GDP. However, bio-agri contributed $10.42 billion, of which the majority was from Bt cotton and the remaining from Bio-pesticides. Biofuels contributed a 7 per cent share. The report predicts the bio-economy to expand to $270-300 billion by 2030, accounting for nearly 3-3.5% of GDP by then. There is a vast scope of expansion in the Bio-Agri and Bio-fuel market. With the huge bio-mass India has, the opportunities are enormous.

The expected benefits of placing a trade in the circular economy are immense. Geo-political conditions guide crude oil availability. Promoting alternative clean energy sources and reducing wastages, losses, and emissions will improve India's comparative advantage and cost competitiveness. Hence the focus of the current policy shall be on achieving material circularity. The trade of secondary raw materials (considered waste), value-added products and final products must be given due attention. It is time that India must strategically design its National Bioeconomy policy and guidelines. This will also help bring shifts in international trade via structural changes in production and consumption by transitioning to a

'circular economy. The European Union is already on a path. Hope India does it soon.

Disclaimer: The views are personal.