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G20 from a Climate Lens:

Analysing Climate Contributions and India's Standing

| Rishya Dharmani



Curated Voices

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| Rishya Dharmani

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ABSTRACT

July 2023 was the hottest month in recorded history (Scientific American, 2023) For more than a century, the grand state centric narratives refrained from discussion on climate, which was then seen as a part of 'low politics'. Today, the science in climate change discourse has been replaced by geopolitical stunts in high-profile climate summits. And yet the baulking response of the world to devise actionable policies in the face of this existential crisis is not confounding. Even as record-breaking disasters are being reported, most countries and their populations do not see global warming as causing epic future disruptions. India, increasingly considered the fastest-growing among newer debates seize the day in climate change conferences even as old issues remain unresolved.

Advanced economies [AEs] with favourable international relations, demographics, and massive public investments hold the reins of climate leadership. It has pioneered leadership in steering global discourse on the climate crisis and national policies to secure EV transition, greenhouse gas reductions, curb deforestation and protect biodiversity. The Ministry of External Affairs [MEA] has specified that the Indian presidency will focus on climate finance, development of green hydrogen and energy security (Ministry of External Affairs, 2022). Continuous attempts of the erstwhile first world to dictate the environmental 'terms of trade' in global stocktakes including even the contours of mitigation policies of Least Developed Countries [LDCs] is an infringement of their sovereign rights. The developing world must balance its developmental needs with climate commitments over the renewable transition and claim technology transfer. G20 offers a viable platform for actionable goals and agenda setting by securing civil society, business, and G2G engagement.

Keywords:

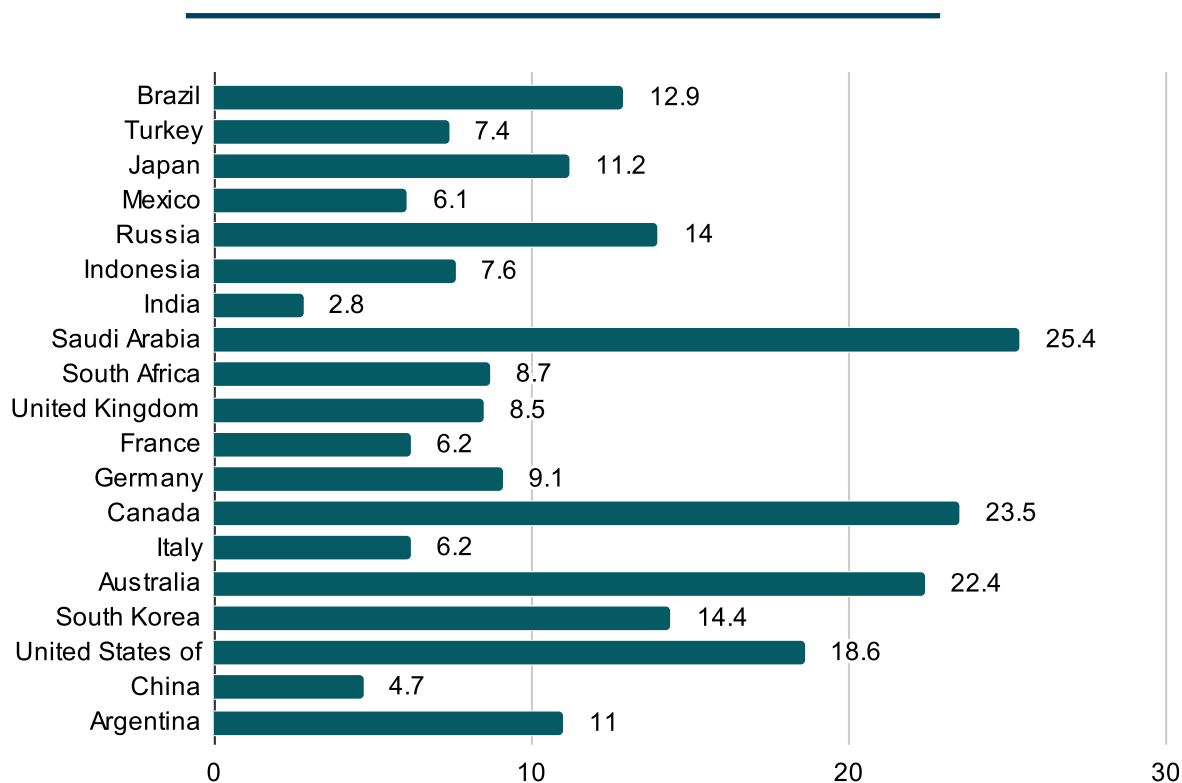
G20, India, Climate Justice, Net Zero, Blue Economy, Disaster Mitigation, Energy Transition

Managing climate change means future-proofing communities from the inevitable catastrophic impacts of a wide array of destructive events like droughts, floods, landslides, unseasonal rainfall, increasing cyclonic formations, and wildfires among others. G20 members count as the fastest growing economies of the world and their societies remain threatened by multifarious impacts of climate change which include income security, access to infrastructure, health, education services and threat to ecosystem services.

Regional imbalances and domestic policies of these countries over energy transition, management of bioresources, and disaster risk reduction will impact the world. Conflicts over resources can easily spiral into geopolitical showdowns, the possibility of which will increasingly become clearer as climate emergency approaches a point of no return. The food-fuel-fertiliser crisis initiated by the Russian-Ukraine war is a case in point for the G20 to conflict-proof its nutrition and energy security.

The world's average per capita emissions is 4.7 tonnes of carbon. All G20 members except India and China emit far more (Figure 1). This observation entitles time-bound action since the remaining carbon budget¹ will sustain for only 11 years (of 2020 levels) if the warming is to be kept at 1.5° C (Carbon Brief, 2021).

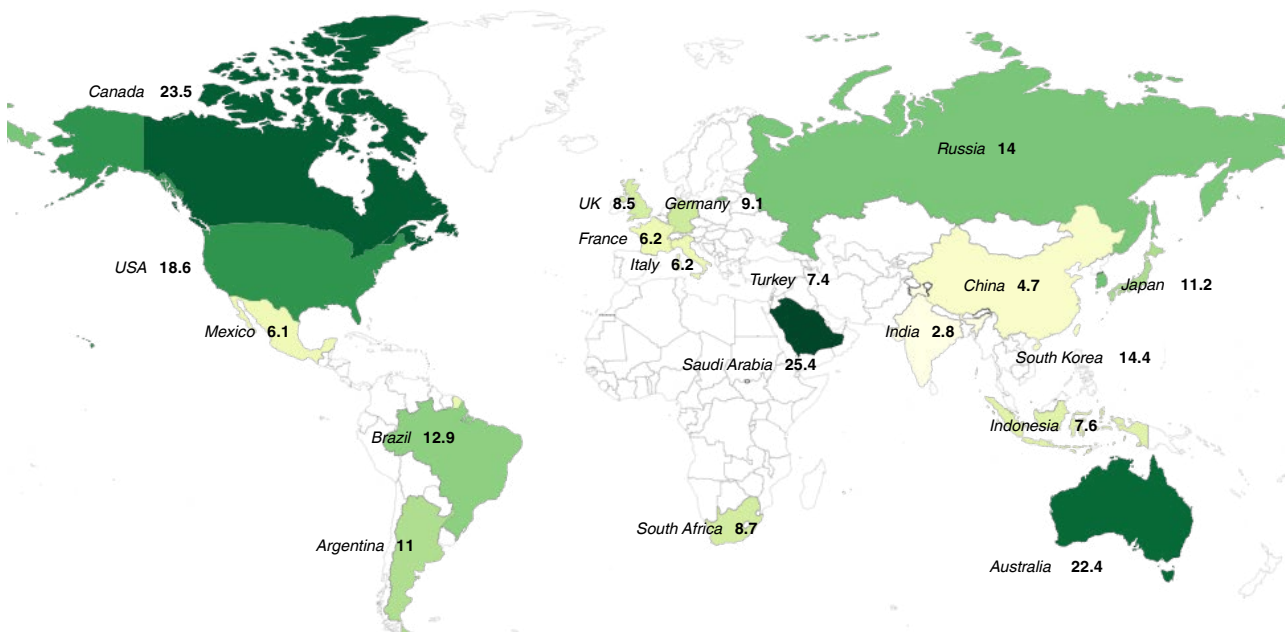
Figure 1: Per Capita emissions by G20



Source: World Data Lab, 2022

¹ Carbon budget is the amount of Greenhouse Gas emissions remaining in future to keep Earth's average temperature at 1.5°C

Per Capita emissions by G20



Source: World Data Lab, 2022

This urgency has precipitated wide-ranging actions. G20 states such as Canada, Germany, the UK, and South Korea have promised the elimination of coal domestically whereas Saudi Arabia, India, China, and South Africa call for phasing out. It is worth recalling that G20 accounts for 80% of global emissions (Donat, 2019).

Almost all of India's G20 priorities resonate with climate goals including green development, climate finance and the LiFE Mission, progress on SDGs, accelerates, inclusive and resilient growth (PIB, 2022). India's Nationally Determined Contributions under the Paris Agreement and espoused goals under Panchamrit on emission reductions and transition roadmaps are all on track, already achieving 40% of the renewable energy mix (Biorl and Kant, 2022). Targeted steps like the International Solar Alliance, Green Hydrogen Mission, and Coalition for Disaster Resilient Infrastructure position India as a conscious voice for the Global South.

Suggesting the possible inclusion of the African Union in G20 becomes critical from the perspective of managing the fragile health of the planet and bridging the climate divide. As a victim of climate-related exigencies like food security, economic growth, political stability, loss of biodiversity and so forth, the developing world is being torn apart by the climate emergency.

Climate equity and justice, premised upon Common but Differentiated Responsibility, is a hallmark of international climate governance. LDCs have taken note of some recent attempts in the Bonn Conference, as the paltry financial contributions under Green Climate Fund (GCF) trickle in. There are debates on who funds the transition, who is entitled to the remaining carbon budget, what the roadmap is to net zero (and carbon neutrality), and whether to prioritise mitigation or adaptation.

A starting point would be emphasised marrying science with equity for the way forward, as suggested by Conference of Parties (COP) 28 President-Designate Dr. Sultan Al Jaber and UN Climate Change Executive Secretary Simon Stiell on the G20 outcomes (UNFCCC 2023).

AN OVERVIEW OF THE G20 CLIMATE AGENDA

According to the Ministry of Earth Sciences, “[G20] Working groups this year will focus on global priority areas such as green development, climate finance, inclusive growth, digital economy, public infrastructure, technology transformation, and reforms for women empowerment for socio-economic progress. All these steps are taken to accelerate progress towards the Sustainable Development Goals and secure a better future for the generations to come (MOES, 2023). Several action areas have been identified with efforts towards consensus building. This article specifically focuses on the action proposed under the climate vertical.

The 20th Energy Transitions Working Group meeting noted India’s proposal for the Green Hydrogen Innovation Centre and the Global Biofuel Alliance with the Working Group. It released 13 global studies focusing on energy transition goals, providing valuable insights and guidance for collective efforts by enumerating global best practices. Sub-themes like renewable supply chain, low-cost finance, including biofuels in the energy mix, and transnational energy grids (for solar and hydropower) were covered. Geoeconomics is now wed with climate politics as concerns about low-cost finance for energy transition, renewable energy supply chains amidst geopolitical vulnerabilities in fossil fuels supplies and the need to secure energy efficiency are evident (G20 Press Release 2023).

The Sherpa Track houses Working Groups on agriculture and disaster reduction as key focus areas. India’s ‘whole of society’ approach is evident in the Presidency’s active focus on these earlier less prioritised areas given that they impact a wide range of communities and ecologies. On the restoration of degraded land, the Gandhinagar Implementation Roadmap (GIR) and the Gandhinagar Information Platform (GIP) called for work on mining and forest fire-impacted areas on a voluntary basis. This is significant as many regions from the Americas to Eurasia have suffered losses from wildfires and pitfalls of environmentally unfriendly mining practices. The G20 countries falling in diverse agro climatic zones have a high level of disaster exposure with 9% of their average annual infrastructure investment under risk. The Disaster Risk Reduction Working Group (DRRWG) focuses on disaster risk assessment, financing mitigation and future-proofing of risk, compensation through catastrophe bonds and insurance measures. Pathways to direct capital by adopting a multi-hazard approach can be augmented by linking economic decision-making with disaster risk reduction strategies. There should be more clarity on the Loss and Damage Fund with participation from green finance instruments like Environmental, Social and Corporate Governance (ESG) funds and GCF.

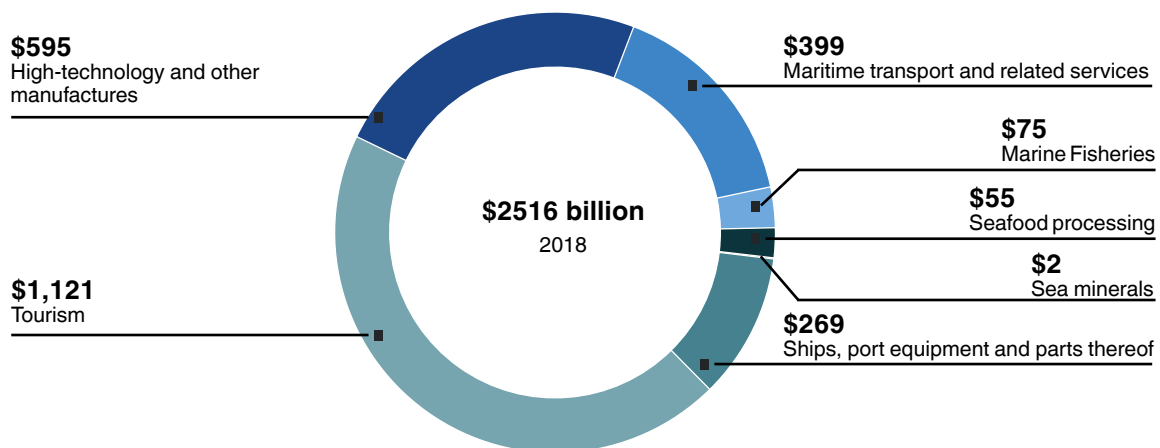
Onboarding of sub-themes like energy efficiency has been particularly instructive. The Argentine Presidency in 2018 established the Climate Sustainability Working Group (CSWG), while Japan in 2019 initiated the Environment Deputies Meeting. Both focused on environmental issues like circular economy, ocean health, coral health, ecosystem degradation, and water resource management among other pressing concerns. Initiating agenda setting in global climate action plans, G20 since 2009 has been discussing energy as a critical component of a sustainable and equitable global economy. A dedicated Energy Sustainability Working Group was established in 2013 to discuss energy-related issues. De-linking of energy issues from climate has boosted a business-friendly approach by steering conversations around technology, financing, affordability and accessibility of energy. “The performance of key tracks like Green Finance Study Group (GFSG) operationalised under the G20 Finance Track to identify market and institutional barriers to green finance can be assessed.” (Dharmani, 2023: 50-51). ESWG pivots deliberations on energy security, accessibility and affordability, energy efficiency, renewable energy, innovation, technology and financing (G20

Sherpa Track, 2023). Energy Transitions Working Group has focused on promoting a climate-smart blue economy, checking land degradation and encouraging resource efficiency and circular economy.

Energy efficiency and security can be secured by diversifying supply chains, access to low-cost financing and responsible consumption. Green hydrogen, Fuels for the Future and Biofuels are just some of the pathways that are paving the way for the industrial transition towards net zero fulfillment. For that by 2050, 90% of the world's electricity must be sourced from renewables, which currently stands at only 27% (IEA, 2021). The energy transition is not progressing as fast as expected with currently 30% being sourced from renewables in G20 (Roy and Mehta, 2023). However, sunrise sectors like green hydrogen are capturing positive sentiments with a forecasted growth rate of 129% of electrolyser capacity by 2030. The dampener is the concentration of 80% of manufacturing capabilities in critical technologies like lithium-ion batteries, solar PV modules, and wind in a few countries. This challenges the decarbonisation of economies and the adopting of sustainable green energy infrastructure and inputs.

The concept of a blue economy has been mentioned under the Indian G20 Presidency. According to UNDP, it consists of “sustainable use of ocean resources for economic growth, jobs, and social and financial inclusion, with a focus on the preservation as well as restoration of the health of ocean ecosystem” (UNDP, 2023). The three sub-themes under its umbrella are addressing marine litter for a sustainable blue economy, conservation and enhancement of coastal and marine ecosystems along with marine spatial planning for a resilient blue economy. It enriches the “green economy” by shifting the lens to the unique characteristics of marine ecologies and economies (Niner, 2022). The vagaries of climate change have posed existential and severe resource threats to SIDCs and coastal communities. PM Modi recently advocated for a change in terminology calling them “large ocean” instead of “small island states” indicating the immense potential of marine resource systems. The shift from a traditional exploitative relationship with ocean resources is evident with leveraging newer opportunities like desalinated seawater, marine aquaculture, offshore wind energy, cruise tourism, and marine genetic resources among others (Jouffray et al., 2020).

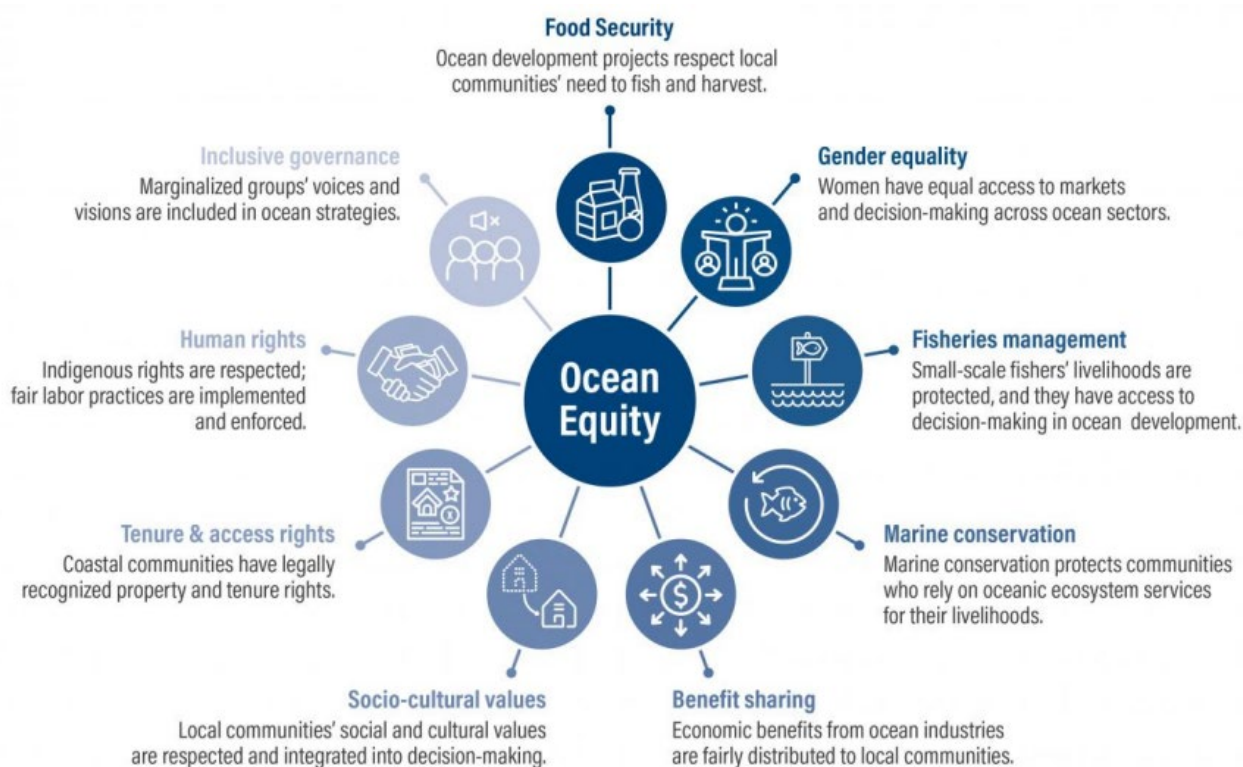
Figure 2: Sectoral contribution of blue economy



Source: UNCTAD, 2021: 12

It has been estimated that the size of the ocean economy in terms of gross value added (GVA) was around US\$ 1.5 trillion in 2010. Numerous benefits accrue from sustainable management of marine resources including climate regulation and resilience, participatory development involving coastal communities, sustainable tourism, biodiversity conservation and renewable energy as is clear from a perusal of Figure 2. By 2030 the blue economy is projected to shoot to \$ 3 trillion, employing 40 million people full-time (OECD, 2016) Industry watchers report bright investment prospects with ambitious national strategies focusing on marine energy, climate-sensitive tourism, ecologically responsible aquaculture, bioprospecting, blue finance etc (The Economist, 2015).

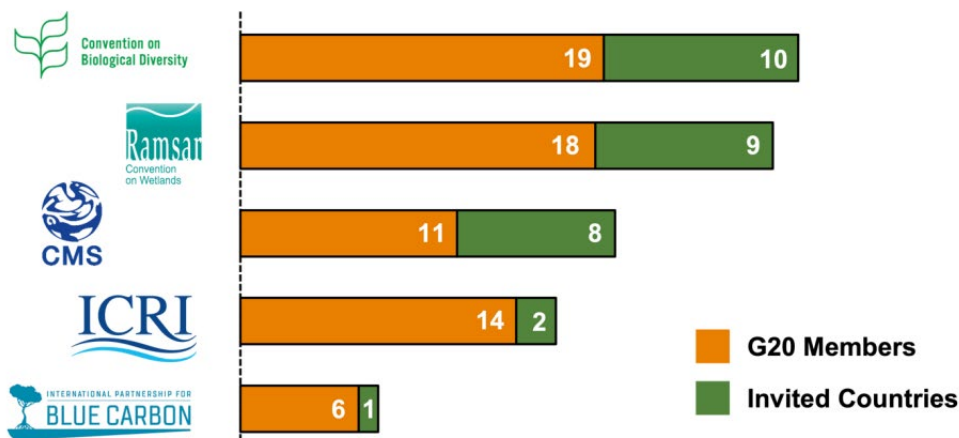
Figure 3 : Elements of blue economy



Source: WRI, 2022

As the oceans are also among the worst impacted by anthropogenic activities, G20 has taken an active role. Implementation Framework for Actions Against Marine Plastic Litter in 2019 as the Osaka Blue Ocean Vision was a trendsetter. The Saudi Arabian Presidency, in 2020, inaugurated the Coral Research and Development Accelerator Platform to fast-track global research and develop solutions to save the world's coral reefs. The 2022 Indonesian presidency spearheaded the 'Ocean 20 Launch Event' to draw. This year, India organised the 'Ocean 20 Dialogue' on a wide range of policy, science and technology and sustainable blue finance. Given the fragility of marine ecosystems and the host of benefits that responsible management promises, it is imperative that concerns like the environmental impact of deep-sea mining, IUU, biodiversity loss and piracy are on the table. It is pertinent to note that the blue economy approach recognises the rights of indigenous communities in accessing marine genetic resources and sustaining water-based ecosystems as depicted in Figure 3.

Figure 4: Signatories of international conventions



Source: MoEFCC and UNDP, 2023 : 50

The UN High Seas Treaty also affirmed this approach to secure ‘people, planet and prosperity’ as fair and equitable benefit cum risk sharing of ocean resources will ensure community rights and conservation plans. Other international conventions like CBD, Ramsar Convention for protection of biodiversity, Convention on conservation of migratory species among others also vet this stance.

Another takeaway is the shift to a circular economy from ‘take-make-use-dispose’ economy. There was a growing realisation of recognising ecosystem-based approaches and deriving nature-based solutions. The road to mitigation and adaptation is forged by balancing growth and the creation of carbon sinks as recognised by the Rome Declaration of 2021. Climate change adaptation is best facilitated by shifting to a circular bioeconomic model by adopting best practices to foster sustainability and innovation. One of them is newer food sources (plant proteins, cell based food products) which improve nutritional security as these inputs require lesser inputs, water and energy needs. Roadblock like economic, and technical challenges, stubborn land use patterns, archaic legal framework, mindset, and negative socio-eco impacts of biomass/biofuels remain. Growing calls for Global Circular Bioeconomy Partnership (GCCP) for science-technology innovation, industry and citizen participation to steer multi stakeholder engagement (farmers, communities, municipalities) to adopt synergise manufacturing bio-based products by utilising industrial by-products and waste streams have been voiced.

ALIGNMENT OF LOCAL SDGS WITH THE CIRCULAR ECONOMY

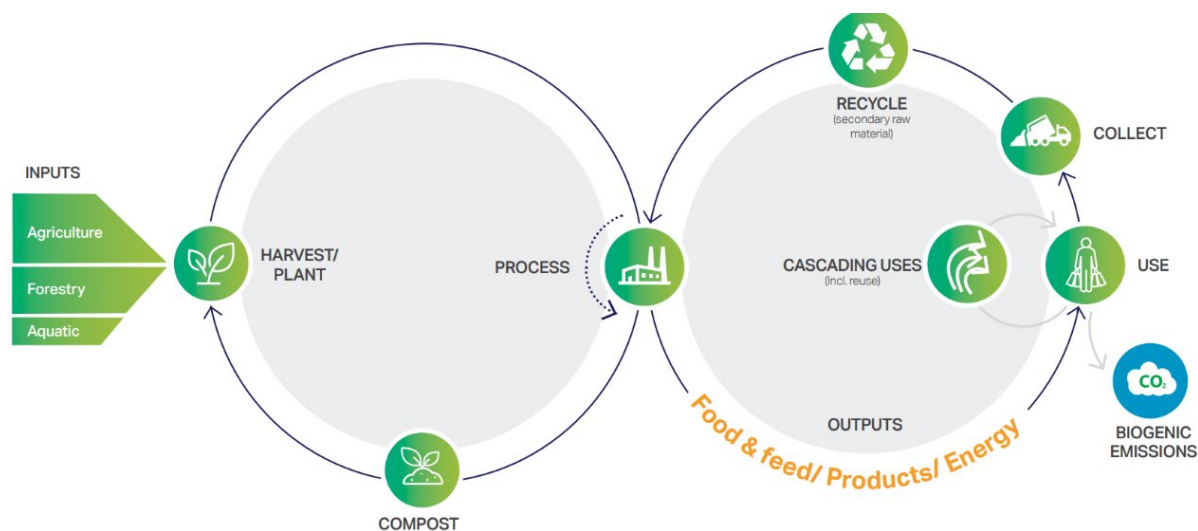
As illustrated in Figure 5, it can provide wide ranging solutions in these times of food and energy crisis. ‘Whole-of-society’ approach i.e. job creation, food security, climate change mitigation, growth, social benefits (equity, support local communities). India’s presidency lies midway 2030 agenda and SDG goals. Developing circular bioeconomy offers an opportunity to synergise efforts by industry, local communities, policymakers and civil society collectively. Such an effort must be backed by solid

investments, innovations and regulatory support. Circular bioeconomy can contribute to the fulfilment of 12 of the 17 SDGs. The recognition was made for the first time in Osaka Leader's Declaration in 2019 recognising the 3Rs while circular economy as a topic was first included in the 2017 Hamburg agenda when the Resource Efficiency Dialogue (G20RED) commenced.

A G20 Resource Efficiency Dialogue for sustainable and efficient use of natural resources was established at the 2017 G20 summit in Hamburg. Indian Presidency in 2023 underscored the need for industry coalition to reduce costs in channeling transition by addressing technology access and funding gaps. Resource Efficiency and Circular Economy Industry Coalition (RECEIC) should nudge capacity building and collaborative efforts in sector-specific initiatives in food and agriculture, plastics, carbon-intensive industries like cement and steel, textiles, electronics etc.

Sector specific measures had emerged much earlier with the Saint Petersburg Declaration of 2013 had called for sustainable production of bioenergy while the Riyadh Declaration of 2020 elaborated on the carbon circular economy by proposing 4Rs (Reduce, reuse, recycle and remove). For industries dependent on bio resources, the life cycle approach focuses on reintegration of waste products like compost, biochar, and biogas in revenue streams. Further industrial processes can be made more efficient by developing more end uses, limiting emissions and ensuring recycling of by-products.

Figure 5: Illustration of circular economy



Source: WBCSD, 2020: 11

It is evident that a multipronged approach is needed to adapt to current climatic dysfunction and mitigate future catastrophes. A step in that direction is the LiFE movement building on sustainable lifestyles, consumption and production patterns. Environmentally responsible and conscious living has been recognised in the SDG 12, the UNFCCC and the Paris Agreement, G20 Rome Leaders' Declaration, G20 Bali Leaders' Declaration. It is globally recognised that urgent and sustained collective breakthroughs are imperative to harmonise human activities with earth's carrying capacity.

HEADWINDS AND WAY FORWARD

As multilateralism faces threats from all quarters, G20 remains a rare platform which is representative of diverse voices. Two of three of its stated objectives are concerned with the engagement with civil society in sub groups like U20 will be pivotal in addressing climate change as local sustainable development goals (LSDGs) implementation hinges on grassroots acceptability and participation. Similarly, if the world is to transition itself to climate neutrality and adopt clean and resilient lifestyles, there would need to be a reversal of business as usual approach. This is all the more pressing as most G20 countries are still not on track, only having reduced their GHG emissions by 10% by 2030 (Li and Kroese, 2022). There is a lacklustre commitment to climate goals by economies like Japan, Argentina and Australia. Engagement groups like Think20, Urban20, Women20, Business20, Labour20 and Civil20 act as lighthouses in agenda setting by begetting active civil society participation from individuals and organisations from member states.

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