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Virtual Dialogue on Lifestyles and Sustainable Consumption

23 September 2022 | 2:00 – 4:30 p.m. (IST)



Virtual Dialogue on Lifestyles and Sustainable Consumption in the Context of SDG 12

Date: 23 September 2022

Time: 2:00 p.m.–4:30 p.m. IST

EVENT PROCEEDINGS

WORLD SUSTAINABLE DEVELOPMENT SUMMIT

The World Sustainable Development Summit (WSDS) is the annual flagship Track II initiative organized by The Energy and Resources Institute (TERI). Instituted in 2001, the Summit series has a legacy of over two decades for making 'sustainable development' a globally shared goal. The only independently convened international Summit on sustainable development and environment, based in the Global South, WSDS strives to provide long-term solutions for the benefit of global communities by assembling the world's most enlightened leaders and thinkers on a single platform. Over the years, the Summit series has witnessed the participation of 54 Heads of State and Government, 103 Ministers, 13 Nobel Laureates, 1888 Business Leaders, 2745 Speakers, and 38,280 Delegates.

ACT4EARTH

Act4Earth initiative was launched at the valedictory session of WSDS 2022. Building on the discussions of WSDS, this initiative seeks to continuously engage with stakeholders through research and dialogue. Act4Earth initiative has two components: COP Compass and SDG Charter. The COP Compass will seek to inspire and mobilize leadership at all levels for inclusive transitions through ambitious and informed policies and measures, which will enable paradigm shifts towards meeting the United Nations Framework Convention on Climate Change (UNFCCC) and Paris goals through mitigation, adaptation and means of implementation. SDG Charter will seek to identify gaps and suggest ways for strengthening and mainstreaming sustainable in policy agendas for enhanced environmental, social, and economic outcomes.

Suggested Citation

The Energy and Resources Institute (2022), Virtual Dialogue on Lifestyles and Sustainable Consumption in the Context of SDG 12 [Discussion Summary], Act4Earth and World Sustainable Development Summit, New Delhi: The Energy and Resources Institute.

Disclaimer

The event summary is based on auto-generated transcript. Some edits were made on grammar and spelling. The discussion can be accessed from YouTube: <https://youtu.be/x9qOI6yBQLM>

THE DIALOGUE

The idea of 'Lifestyle for the Environment – LIFE Movement' was introduced by India's Prime Minister during the 26th United Nations Climate Change Conference of the Parties (COP26) in Glasgow last year. The idea promotes an environment-conscious lifestyle that focuses on 'mindful and deliberate utilisation' instead of 'mindless and destructive consumption by advocating sustainable choices by "Pro-Planet People"'. Sustainable consumption and lifestyles must be seen from the perspective of resource value chains that includes resource extraction, manufacturing, and processing, use by consumer, and disposal phase. Cross-cutting aspects include design, transport, and policy and regulatory frameworks. Sustainable consumer lifestyles or sustainable lifestyles is a part of the downstream segment of the resource value chain.

This dialogue is part of the SDG Charter component of the Act4Earth Initiative. The objective of the stakeholder consultations is to distil gaps and areas on strengthening downstream actions in the context of consumption and lifestyles and SDG 12.

SPEAKER LINE-UP

Welcome Address

- Dr Vibha Dhawan, Director General, The Energy and Resources Institute (TERI)

Keynote Address

- Mr Amitabh Kant, G20 Sherpa, G20 Secretariat, Ministry of External Affairs, Government of India

Presentation on the findings of TERI study

- Dr Shailly Kedia, Senior Fellow, TERI

Policy Perspective

- Ms Cheistha Kochhar, Senior Adviser, Behavioural Insights Unit, NITI Aayog

Roundtable Discussions

Chair

- Dr Prodipto Ghosh, Distinguished Fellow, TERI

Experts

- Dr Jorge Laguna Celis, Director, The One Planet Network (10YFP), United Nations Environment Programme
- Mr Shubhashis Dey, Director, Shakti Sustainable Energy Foundation
- Mr George Cheriyan, Director, CUTS international
- Mr Timon Lepold, Deputy Head, Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV) - Germany
- Mr Vivek Tejaswi, Deputy Director, Asian Development Research Institute
- Dr Bibhu Prasad Nayak, Associate Professor, Tata Institute of Social Sciences
- Mr Mohak Gupta, Programme Officer, Development Alternatives

Concluding Remarks and Vote of Thanks

- Dr Suneel Pandey, Director, TERI

ACTIONABLE MESSAGES

Message 1: Through G20, India can take a leadership role and launch a 'Global Coalition on Lifestyle for the Environment' and a 'Global Coalition of Responsible Advertisement'.

Message 2: The philosophy behind LIFE is that climate change must now become a movement of the masses. Addressing climate change requires participation of people. Stakeholders must actively think of ways in which we nudge citizens towards climate-friendly practices.

Message 3: SDG 12 indicators can have more downstream-related indicators, especially, when it comes to the consumer and individuals along with instruments such as eco-labels.

Message 4: There is need to examine the scope of deployment of all types of instruments ranging from command and control to voluntary instruments. The role of responsible advertising is key, and this is a segment which remains to be tapped.

Message 5: India is a global influencer, not just in terms of the size of our population, but also in innovations through policy actions, individual actions, and industrial actions. India has many entrepreneurs who are agile and who can shift more quickly to market demand.

Message 6: Science should help in understanding some of the successful solutions—behaviour change solutions, market solutions and policy solutions—that are being deployed in India and how these can be replicated and scaled in various contexts.

Message 7: Metrics need to consider a full system analysis considering lifecycle implications of products and services. When examining GHG emissions or water use in food items, there is a need to consider energy and water consumption in irrigation, fertilizer production and other inputs as well.

Message 8: A critical mass is needed for norms and institutions to change. There is a need for a global campaign that can be supported by all relevant actors at country level and global levels that will help promote this understanding on sustainable lifestyles.

Message 9: Forest-based communities are historically known to live in sync with nature, in a way that does not harm the environment. Traditional knowledge is important to be preserved as these may inspire behavioural interventions and insights.

Message 10: Considering disposal-related choices by consumers, waste management capacity and engaging with the informal sector is important. India has a little more than 1200 dismantlers who are the recyclers, and this capacity needs to be built.

Message 11: The Department of Consumer Affairs in India announced about developing a comprehensive framework for 'right to repair'. The 'right to repair' refers to government legislation that is intended to allow consumers the ability to repair and modify their own consumer electronic devices, where otherwise the manufacturer or such devices require the consumer to use only their offered services.

Message 12: Consumers need services rather than the products which implies that policies should aim at providing well-functioning and accessible public services along with enabling conditions for the market. For example, for mobility, policy instruments can be accompanied by certain business models, such as ride sharing.

Message 13: It is important to look at the aspect of pricing as masses may not be able to afford expensive goods and services. In the mobility section we are talking about scrapping of the older vehicles, but unfortunately talking very less about retrofitting of technologies and increasing the life of a vehicle. Retrofitting and supporting technologies should be explored to consider affordability as well as minimizing waste generation.

Message 14: Apart from measuring aspects such as how sustainable procurement policies of the government are, there is a need to capture aspects of policies that promote unsustainable consumption. There is a need to better understand as to what wasteful consumption is and how is it further promoted by existing policies.

Message 15: The aspect of trust also becomes important. Looking at it from the consumer behaviour perspective, it is very important for consumers to be able to trust the information that they get. It becomes important for governments also to be able to provide credible data or provide the mandate for other actors to do so.

Message 16: Data gaps need to be addressed. From a Global South perspective, when discussing lifestyles, climate change adaptation and mitigation need to be considered. Considering the growing middle class in the Indian context, promoting lifestyles through multiple means is important.

MAKING WORDS COUNT

“ The Prime Minister had emphasized individual behavioural change because from COP1 to COP26, the countries have not been able to fulfil their targets. We will go on talking about 2050, but in 2049 you will find countries not achieving their targets unless and until there is a fundamental behavioural change by individuals.

Mr Amitabh Kant, G20 Sherpa, G20 Secretariat, Ministry of External Affairs, Government of India

“ Despite the basic principle that demand is a key driver of supply, there exists significant gaps in data at the individual consumer levels including in global indicator frameworks. This gap needs to be urgently addressed.

Dr Vibha Dhawan, Director General, The Energy and Resources Institute (TERI)

“ Demands and behaviour changes can be understood at three levels. One is individual demand, one person in toto. The second is community demand, which is influenced more by social norms that are subject to change. And then the third is institutional demand. Institutional demand is both market and government as well as independent organizations.

Ms Cheistha Kochhar, Senior Adviser, Behavioural Insights Unit, NITI Aayog

“ When we talk about lifestyles in the context of resources, we look at resource value chains, which starts from resource extraction to the disposal phase. Demand drives supply. So, collective choices by individuals can influence supply and the upstream segment of resource value chains.

Dr Shailly Kedia, Senior Fellow, TERI

“ LIFE should consider mitigation and adaptation. In a wider normative moral sense, the animal rights dimension is important.

Dr Prodipto Ghosh, Distinguished Fellow, TERI

“ India can use and will use its leadership to bend the curve globally, in ensuring that we see a systemic shift towards sustainable consumption and production patterns by using its leadership in the G20 agenda.

Mr Jorge Laguna Celis, Director, The One Planet Network (10YFP), UNEP

“ The tribes and indigenous communities possess a vast repository of traditional knowledge that have resulted in distinctive culture and lifestyles. This knowledge, if systematically promoted or upscaled at a national level, and maybe at the international level, holds tremendous potential to promote sustainable lifestyles and tackle the impacts of climate change.

Mr Shubhashis Dey, Director, Shakti Sustainable Energy Foundation

“ There is a need to develop new business models to make sustainable living a default option. In the UN guidelines on Consumer Protection, the section on sustainable consumption clearly underlines the responsibility of various stakeholders.

Mr George Cheriyan, Director, CUTS International (Consumer Unity & Trust Society)

“ Under German Presidency, G7 has adopted the Berlin Roadmap on Resource Efficiency and Circular Economy, which also includes the necessity to have a good cooperation between the G7 and the G20.

Mr Timon Lepold, Deputy Head, Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV) - Germany

“ Messaging needs to be backed by factors such as pricing which is a huge factor when it comes to mass adoption. It is important to look at the aspect of pricing as masses may not be able to afford expensive goods and services.

Mr Vivek Tejaswi, Deputy Director, Asian Development Research Institute

“ We need to identify the potential conflict between the economic aspirations and sustainable lifestyles. The other is also recognizing the policy inconsistencies. Apart from measuring aspects such as how sustainable procurement policies of the government are, there is a need to capture aspects of policies that promote unsustainable consumption.

Dr Bibhu Prasad Nayak, Associate Professor, Tata Institute of Social Sciences

“ To address data gaps that exist right now, one of the ideas could be citizen science and exploring how citizens get involved in data collection. But by being involved in the process, citizens have a sense of agency for them to feel like they have a say in the decision-making process.

Mr Mohak Gupta, Programme Officer, Development Alternatives

“ Decoupling economic growth and with resource consumption and waste generation is possible and increase in per capita incomes does not have to translate into increase in unsustainability of consumption. It is important to conserve traditional practices.

Dr Suneel Pandey, Director, TERI

WELCOME ADDRESS**Dr Vibha Dhawan, Director General, The Energy and Resources Institute (TERI)**

Dr Vibha Dhawan welcomed the participants at the SDG Charter virtual policy dialogue on lifestyles and sustainable consumption in the context of SDG 12. SDG Charter is a component under Act4Earth Initiative that was launched during the Valedictory Session of TERI's flagship event—The World Sustainable Development Summit. We are looking forward to participation in the next edition of the Summit, which will be from 24th–26th February. The idea of Lifestyle for the Environment (LIFE) Movement was introduced by the Honourable Prime Minister, Shri Narendra Modiji during the 26th United Nations Climate Change Conference – COP26 in Glasgow last year. LIFE promotes environment conscious lifestyles that focuses on the idea that promotes an environment-conscious lifestyle that focuses on mindful utilization instead of mindless and destructive consumption by advocating sustainable choices by “Pro-Planet People. At 1.9 tonnes, India's per capita emissions are less than half the world average and the lowest among G20 countries. Even though, India is not part of the problem, it is part of the solution, and is doing far more than its fair share in addressing the climate change. Per capita and equity consideration will be key to equitable consumption space. Despite the basic principle that demand is a key driver of supply, there exists significant gaps in data at the individual consumer levels including in global indicator frameworks. This gap needs to be urgently addressed. India is due to assume G20 Presidency this year. In the context of LIFE, India can take a leadership role and launch a ‘Global Coalition on Lifestyle for the Environment’ and a ‘Global Coalition of Responsible Advertisement’.

Who better to drive this agenda than Shri Amitabh Kant who is credited with so many communication campaigns and policy initiatives in the country. Dr Dhawan introduced Shri Amitabh Kant and invited him to deliver the Keynote Address. Mr Amitabh Kant is presently the G20 Sherpa, Government of India, and the former CEO of NITI Aayog. He has authored ‘Incredible India 2.0’, ‘Branding India – An Incredible Story’ and has edited ‘Path Ahead – Transformative Ideas for India’. He has been a key driver of the campaigns such as “Incredible India”, “Make in India” and “God's Own Country” .

KEYNOTE ADDRESS**Mr Amitabh Kant, G20 Sherpa, G20 Secretariat, Ministry of External Affairs, Government of India**

Mr Kant expressed his delight to be participating in this session on sustainable lifestyles. Considering the climate impacts, the UN Secretary General has sounded a code red for humanity. The threat posed by unmitigated climate change is more real and palpable than ever before. Climate change has become an extremely important point of focus for countries across the world. We all must understand that how we act today will have a huge impact on the future of our world, which we all have a collective responsibility towards. The key is climate consciousness, climate justice, and climate action. We are all living through times of a global pandemic. The COVID-19 pandemic taught the world a very critical lesson that despite the incredible scientific and technological promise, we remain at the mercy of the natural world. Mr Kant underscored that the throwaway culture that exists has dire implications for climate change.

The transition to a circular economy from today's ‘take make use dispose’ economy is the need of the hour. India has always displayed strong climate leadership. The UN Emissions Gap Report outlines that India is the only G20 country whose nationally determined contribution was compliant to COP21. We have built a globally competitive renewable energy industry. We have world class clean energy players with top notch execution capability. At the COP26, the Honourable Prime Minister made a very strong commitment towards climate action through the *Panchamrit* formula. He said that India has demonstrated thorough climate leadership and our commitment towards reducing emissions are supported by concrete action. These include cutting India's total projected carbon emissions by 1 billion tonnes by 2030, reducing the carbon intensity of the nation's economy by less than 45% by the end of the decade, and net zero carbon emissions by 2070.

The Prime Minister had underscored the need for the world to come together and take Lifestyle for Environment forward as a mass movement of environmental conscious lifestyle. We cannot reduce the carbon footprint without fundamentally changing how we behave as individuals and the activities that we undertake daily.

The Prime Minister had emphasized individual behavioural change because from COP1 to COP26, the countries have not been able to fulfil their targets. We will go on talking about 2050, but in 2049 you will find countries not achieving their targets unless and until there is a fundamental behavioural change by individuals. And that is what the Prime Minister was talking about when he said that lifestyles for behavioural change, lifestyle as sustainable life and turning it into a mass movement. If you look at the many countries, their lifestyles are based on wastage of resources, particularly the developed world. Excessive use of personal vehicles, electricity consumption and wastage of water are many such examples. In India, we have a way of life which has always promoted and has respect for the environment and nature. The average carbon footprint per person in India is significantly lower than the global average. Indians have ingrained social norms and belief systems which have direct positive impact on the carbon footprint. This is applicable across household level when it comes to energy and water management.

As India urbanizes in the years to come, we encourage behaviours that are environmentally conscious such as mass based and public transport. With a long history of living in resource-constrained world, agrarian communities in India adapted themselves well. This is reflected in irrigation and farming practices such as construction of traditional water bodies to cope with the water-related stress and the widespread practice of planting neem, banyan and pipal trees alongside built structures.

As stated by the Prime Minister, India's relationship with its environment has been one of mindful and deliberate utilization. There is a need to study this relationship in greater depth and identify ways of leveraging the existing social norms for creating meaningful behavioural change amongst individuals. LIFE or Lifestyle for Environment is India's contribution to the global climate crisis. Through the LIFE campaign launched by the Prime Minister, we are aiming to encourage people to recognize the significant impact of the seemingly small actions on climate change. And that is why, we have invited ideas from universities, from think tanks across the world, so that those ideas can be then taken forward for implementation on the ground.

In his address to the World Economic Forum, the Prime Minister introduced the idea of P3—Pro-planet People Movement that underlines India's climate change commitments in the Global Forum. That time is right now to mobilize action and make the LIFE campaign into a pro-planet people mass movement, like what India had done earlier with the Swachh Bharat Abhiyan—the Clean India Mission, where concerted and sustained effort by individuals, households and communities became the key driver of ramping up sanitation coverage across the country in a relatively short period of time.

The philosophy behind LIFE is that climate change must now become a movement of the masses. We cannot combat climate change without the participation of people. We also must actively think of ways in which we nudge citizens towards climate-friendly practices. To translate the Prime Minister's vision of LIFE into reality it is vital to explore novel approaches that can nudge climate positive behaviour in individuals. Individual actions, in turn, can unleash a mass movement by encouraging and inspiring other members of the society.

We are very glad that all of you are working with the UN on taking this vision forward. I am certain that your policy brief would offer useful insight and propose impactful interventions, which can help governments and businesses kickstart the transition to sustainable lifestyles. We look forward to continued collaboration on this adaptation of sustainable lifestyles for countering climate change. We must now turn this into a global movement. And through this policy brief, we are taking the much anticipated first step, we would fully support this and during the G20, India would be the first one to take this forward.

Mr Kant conveyed his best wishes and once again complimented TERI, Dr Vibha Dhawan and the entire team and communicated that they would fully support this endeavour.

Dr Shailly Kedia, Senior Fellow, TERI (on behalf of the study team)

Dr Kedia took the participants through the framing presentation on a study on lifestyles and sustainable consumption in the context of SDG 12. The study will be brought out in the form of a policy brief, which will be launched during COP27 at Sharm el-Sheikh. She acknowledged the partners and the study team. The study and dialogue are part of the SDG Charter, which is a component under the Act4Earth initiative that was launched at the valedictory session of the World Sustainable Development Summit 2022. The study aims at contributing to framing of lifestyles and sustainable consumption and implications for policy instruments, market instruments and social instruments. The scope of the study is limited to G20 countries. The rationale behind the study is based on the premise that mainstream frameworks focus more on new upstream and midstream components of resource value chains and not so much on the individual consumer.

When we talk about unsustainable lifestyles, what do we visualize. The Anthropocene Chicken, which is basically the broiler chicken, which over the years, humans have modified, and mass produced. The size of a chicken has quadrupled simply to cater lifestyle needs of eating more meat. Another image is that of Anthropocene novel entities such as plastic litter strewn all over that is straining the ecosystem integrity.

When talking about sustainable lifestyles and consumption, the issue of underconsumption and equity must also be addressed. Developing countries including India, are on the path to development, and will need to have the fair share of the carbon space and development space. In terms of cumulative CO₂ emissions from 1850 to 2020, for G20 countries and the EU, the US has the highest share, and Argentina has the lowest share. In terms of per capita emissions, we see that amongst the G20 countries and the EU, India has the lowest share and Saudi Arabia has the highest share.

In terms of policy relevance of lifestyles and sustainable consumption, lifestyles have been on the global agenda since Agenda 21 and the 1992 Rio Summit. In 2015, the aspect of sustainable consumption and production or responsible consumption and production is included as one of the SDGs— SDG 12. Lifestyle for environment – LIFE movement is a focus of the updated NDCs as announced by the Prime Minister of India at COP26.

So, how do we define sustainable lifestyles? For this study, a working definition is “influencing choices and attitudes towards consumption of goods and services to further human well-being, while minimizing ecological footprint in ways to promote intergenerational and intragenerational equity for sustainable development”.

The related concepts of lifestyles and sustainable consumption include underconsumption, equitable consumption, and fair consumption. When we talk about lifestyles in the context of resources, we look at resource value chains, which starts from resource extraction to the disposal phase. When we talk about sustainable lifestyles, we talk more about the consumer, specifically the retail consumer. Demand drives supply. So, collective choices by individuals can influence supply and the upstream segment of resource value chains. Now, how do we frame sustainable lifestyles and sustainable consumption when we talk about choices. By whom? How do we see the individual? Do we see them as people who are impacted by government policies? Do we see them as political constituents? Or as consumer from the lens of markets? Or as humans embedded within the planet Earth? Planet earth has limitations in terms of carrying capacity and planetary boundaries. The question of choice of consumption of goods and service typically in economies are determined by income levels. There is consumer sovereignty, which can also be trumped based on evolving social and policy objectives. For example, intoxicants can be banned, vaccinations can be made mandatory, and individuals may be taxed or given subsidies. When it comes to choices, advertisement is a very powerful tool to influence consumer choices.

To understand the big picture for G20 countries, the study team developed a lifestyle and consumption index for G20. This metrics is an aggregate index based on four arenas of consumption food transport, residential and waste management. For food, we used meat and dairy production in per capita terms. For transport, we

used the total final energy consumption in the transport sector. For buildings, we used energy consumption in the residential sector. For waste management, we used plastic waste generation. The choice of these indicators is based on literature review. The metrics is constrained by the data availability. What we found is that indicators are not reported at the end consumer level, but at an aggregate economy level. Hence, per capita data was used. After normalization of individual indicators, the score was aggregated. The lifestyles and sustainable consumption index for G20 countries reveals that India has the highest score meaning it has the lowest consumption and the United States has the lowest score meaning that it has the highest consumption. These results are not surprising as lifestyles are determined by income levels of countries.

When it comes to policy instruments, when it comes to transport, what we see in G20 countries is that emissions and fuel efficiency standards are the most widely deployed policy instrument in terms of scale. In some countries, there is also taxation on fuel and high fuel emission vehicles along with levying registration fees. There is also investment in public infrastructure including for public transport and electric vehicles. There is a lot of scope for diversifying the types of instruments especially through market and social instruments. For example, eco-mobility can be promoted by private players, company logistics and contracts can be used at an institutional level and consumer rewards schemes can be introduced along with social instruments such as mass campaigns and use of advertisement for public sensitization.

When we talk about instruments in the food sector, the most dominant instruments across G20 countries is related to food safety standards and to some extent labelling. However, there is scope for scaling up these instruments across G20 countries. In terms of waste management, apart from NGO led campaigns, there are some initiatives related to buy-back schemes as well as labelling of recyclable products. Here again, there is a lot of scope for diversifying or introducing new types of instruments. In the residential sector, what we see is that on the appliance side there is significant development across the G20 countries. Also, to some extent utility demand side management, green building certification and building codes. Initiatives such as billing disclosure programmes can be further strengthened along with mandatory building audits.

In terms of metrics that can be used for measuring lifestyles and sustainable consumption and how can present indicator frameworks and SDG 12 be strengthened; the study team feels that SDG 12 indicators can have more downstream-related indicators, especially, when it comes to the consumer and individuals along with instruments such as eco-labels. Presently, within the existing indicator framework, this is not being monitored. At a normative level, G20 can take a larger leadership role. Data gaps need to be addressed because at least in the public domain, while we know that you know certain marketing and advertisement industries, through market research, do collect consumer data, this is not something that is available in the public domain to guide decision making processes. So, again this data gap needs to be addressed and what are the implications in terms of role of governments and policy instruments for various sectors. There is need to examine the scope of deployment of all types of instruments ranging from command and control to voluntary instruments. There needs to be a greater nudge at the sub-national level and across all levels. How can markets play a driving role in promoting sustainable lifestyles? Here we feel the role of responsible advertising is key and this is a segment which remains to be tapped.

What are the implications for India's leadership in making lifestyles and sustainable consumption a focus area for G20 discussions? Here, India can take a normative leadership to nudge countries to adopt a variety of instruments for sustainable lifestyles. This could be done through the constitution of the G20 Working Group on LIFE, launching a G20 coalition on sustainable lifestyles and launching a G20 coalition for responsible advertising.

POLICY PERSPECTIVES

Ms Cheistha Kochhar, Senior Adviser, Behavioural Insights Unit, NITI Aayog

Ms Kochhar gave an understanding about LIFE and key guiding principles with which this initiative has been conceived. LIFE is a recognition of the power of individual action in the climate debate. If one-eighth of the population adopted climate friendly behaviours, about 20% of our carbon in global carbon emissions can

reduce. To make it more relatable to India, if only 50% of the driving population in the country carpoled then we would save about 7.8 lakh rides in a day in India, which will save about 380 million litres of fuel in a day. That is the power of individual action, which LIFE is trying to capture.

This recognition is reflecting in India's updated NDCs which we have submitted as of August 2022. It is our commitment to the world to not only talk about climate action but walk the talk and demonstrate how individual actions can complement policy initiatives and not a standalone solution that we are claiming for climate action.

Ms Kochhar highlighted on three things about LIFE. One is that it is an India-led programme, but nevertheless it is a global programme. And why that is important to keep in mind is because we are the first movers. And that is important because when 17% of the world's population changes its way of living, that has an influence on changing social norms. When looking at behaviour change, it is important to consider the aspect of changing social norms surrounding sustainable consumption and production and not just consumption patterns of individuals. So, when the dominant section of the world population changes their behaviours, it affects social norms. And then that is an important recognition for us as first movers.

The second important recognition for us as both the upcoming G20 presidency, but also, as the first mover of LIFE is that we have to demonstrate success. India is one of the lowest carbon emitters per capita carbon emitters in the world. Our per capita carbon emission is much lower than the global average. Despite this, India wants to demonstrate that it can do even better in terms of climate action. There is so much scope for the rest of the world, especially the developed world to act and cover the delta.

Third, and the most important and I think most relevant for this discussion is that since it is a global programme, in which India is the first mover, it needs to be a replicable and scalable programme, which means that it needs to be a measurable programme. So, what is the theory of change behind this programme? How are we measuring it and what is some science that we want to introduce some of the answers we have and then some of them are open questions, where scholars like you can give important inputs.

India has the competitive advantage in taking forward the initiative of LIFE. One is that we have success with mass movements or *Jan Andolans* historically. *Swachh Bharat Abhiyan* has been globally acclaimed. There is the *Give It Up* campaign which reached about 10 million people and saved us about USD 50 billion to the exchequer through a mass movement. India has the experience and can look back and say what worked and what did not and what the learnings were. Secondly, we are a country of young technology entrepreneurs. Like scholars have highlighted, changing individual demand will rest on it being supported from the supply side. And it is difficult to move traditional industry. But, we are not dominantly occupied by traditional industry. We are dominantly occupied by entrepreneurs who are agile and who can shift more quickly to market demand and therefore it is in our interest to change the market demand. And then third is we are global influencers. On 5th June, the Honourable Prime Minister launched the Global Movement LIFE. Ms Inger Andersen highlighted, "When India leans in the world watches and follows". So, we are global influencers, not just in terms of the size of our population, but also in the innovation that we have been displaying in our policy action, in our individual action, and in our industrial actions. So, these are some of our competitive strengths to be the first movers in LIFE. And keeping that in mind, we are designing a model, and this is where I want to deviate from the general understanding of LIFE.

The first initiating component of LIFE is changing behaviours, which is not the final component. The theory of change is based on changes in individual demand which then send signals to the markets to respond to that change in demand. India is an entrepreneur dominant market and that is why signalling and market response is likely to be quicker than regions, which are more dominated by traditional industry. So, when individual demands change, it sends a signal to markets. When markets change, they further enable individual action to change. So, we are taking the first step in changing individual demand.

But by no stretch of imagination, are we thinking that is a sufficient thing to do. Where policy comes in is from the need of policy to trigger individual action and I will come to that in terms of what kind of policy and how can people like us play a role. And similarly, policy should enable the market to respond to changes more

swiftly. It can be done by giving incentives and enabling investments by incentivizing employment in the green industry, so that the market can respond to the change in demand more swiftly.

Changing demand and send corresponding signals to the market is an important component which can be influenced through campaigns, through mass movements, and through advertisements, which are known ways of how to change behaviour. But, there are also other ways that we are looking to exploring, which is how do you integrate LIFE principles in your existing programmes? Which is if you are granting say an award or a grant to a project in city development, how are you ensuring that project is not furthering unsustainable lifestyles, otherwise the entire objective of life is moot if we are continuing in parallel in supporting projects that are feeding into unsustainable lifestyles.

Similarly, we want to see what is it that your own institutions can do? And institutions are a big chunk in demand, which is, can you implement life within your institutions? Can the 50 employees of your institution become Pro-planet People? Can the 11 million employees of the Government of India become Pro-planet People to begin with? So, who are these people whose demands we must change? This can be understood at three levels. One is individual demand, one person in toto. The second is community demand, which are influenced more by social norms that are subject to change. And then third is institutional demand. Those institutional demands are both market and government as well as independent organizations. So, that is where the government can play a role. The role that academia and scholars can specifically play in is what Mr Kant also highlighted is the global call for ideas and papers.

It is important to specifically understand on what behaviours must we focus on to begin with? Or what are the initial behaviours to focus on, which are not only easy to change, and are less sticky, but also which have the most impact on climate indicators, which have the greatest attributable impact to climate indicators? What are those behaviours that we need scientists to focus upon? Most of the scholarly community has focused on these questions in the western context.

We need the scholarly community to focus on this in the Global South context. These behaviours also must focus on both adaptation and mitigation of climate change. So far, generally talking about behavioural change in climate action, the focus is on mitigation behaviours. There is a need to talk about adaptation behaviours and the scholarly community needs to step in to tell us what are those adaptation behaviours that individuals, communities, and institutions can adopt? And what is the projected impact on the climate indicators? There is limited science on this subject.

Second is how do we measure there is plenty science now on how we measure behaviours, but the causality or the attributable impact of these behaviours on climate indicators, needs behaviour scientists and climate scientists to work together and suggest on ways to measure behaviours. What is the causal impact that can be attributed to behavioural change and key climate indicators? We need science on that to step in.

Third, and most importantly, since LIFE is an India led programme but a global programme; we also need science to understand some of the solutions that are being deployed in India, behaviour change solutions, market solutions, and policy solutions. How can these solutions be scaled. What is the impact of LIFE? What right Honourable Prime Minister has been repeatedly saying is, when a billion people take one step, that is when it is a billion steps towards climate change, and towards climate action. It is not one step at a time, it is not incremental.

The approach for LIFE is not incremental. Behavioural change in India should not just lead to changes in few countries only, it should be global. That is not the approach that LIFE was built on. It is not incremental. It is when the world will change behaviours, that is when it will move the needle on climate indicators. So, we want to understand, and we want the best minds of India and the world to tell us, how are we going to scale the solution, given that behaviour change solutions are so context dependent? How are we going to change? How are we going to scale the solutions?

These are my asks of the global community and the scholar community sitting here, as you're going to proceed into the panel discussion. Help us understand and through this discussion through the policy brief,

but also through the global call for ideas and papers, and independently reaching out to the LIFE team. What are the behaviours, we need to focus on? Why are those the behaviours? What is the projected impact of those behaviours on climate indicators? How are we going to measure the impact from both existing datasets as well as new data and methodologies, and then how are we going to scale-up solutions.

That is where we need science to come in. What we want to introduce in LIFE in addition to climate change is the need for datasets on human behaviour. We do not have large-scale datasets on human behaviour. And therefore, we are not yet able to in a scientific manner, attribute change in development indicators to some of the behaviour change that we are causing at the mass scale. And India has a unique opportunity to do it. Because we have led Jan Andolans. We have led the world's largest Jan Andolans, such as Swachh Bharat, Give It Up Campaign, Ujjwala, and the Ujala schemes. These are massive campaigns.

We have data in silos. We do not have large-scale data sets, which can attribute impact of some of the surrounding social norms to behaviours and development indicators. These datasets are needed at not just the country level but at the world level. There is a need to link behavioural change to the Sustainable Development Goals. We have 169 targets across 17 SDGs. How many of those are behavioural indicators? There is a need to capture behaviours at institutional, community and individual levels that feed into SDGs that we are chasing as a global community. That is the scientific power that the group in this discussion can bring to the table on LIFE.

ROUNDTABLE DISCUSSION

Dr Prodipto Ghosh, Distinguished Fellow, TERI

Dr Ghosh set the stage for the roundtable discussions by underscoring some considerations for the LIFE movement and metrics to shape attitudes and lifestyle choices. The LIFE agenda has been conceptualized in the context of climate change. And indeed, the question of sustainable consumption and production has been a holy perennial in the climate change discussions for decades right since the very beginning of the climate change debates and the negotiating process, but it has not made much headway. Although everybody recognizes that the key to global sustainability lies through sustainable consumption and production.

However, we can also think of sustainability in a broader context than just climate change and develop metrics on lifestyles and sustainable consumption. It is alright to have an aggregated index, but we also need to preserve the granular information, so that in terms of different yardsticks and indicators, say food choices, transportation choices, space heating choices or space cooling choices, we are able understand how each country is placed and then countries can improve the ranking on the individual indicators. It is important to capture the GHG implications of different choices, which may vary from country to country depending on social and technological contexts.

The domain of LIFE beyond simply the climate change dimension could consider water. LIFE should consider mitigation and adaptation. In a wider normative moral sense, the animal rights dimension is important.

Animal rights has been relegated to policies of individual countries and no global norms exist. So, animals are reared in cages to enable mass production. They live in circumstances which would raise several moral issues. Can we think of indicators that in respect of individual and cultural choices of food while capturing the percentage of calories of food consumption derived from animals, which are reared in unethical conditions? What is the percentage of casualties from unhealthy food choices? What is the percentage of commuter travel by walking and cycling? GHG intensity of these consumption choices can also be captured. Some of these can be monitored independently as well.

Now, when it comes to calculating the sustainability involving certain choices and products, we need to conduct not merely a first level analysis, but we need to conduct a full system analysis considering lifecycle of products. When examining GHG emissions or water use in food items, we need to consider the energy and water consumption in irrigation, in fertilizer production, in the pesticide production and so on. Another aspect is that we have talked a lot about, about recycling and reuse. But we have ignored the dimension of

what happens when it is released to the environment. So, can we develop kind of metrics that capture information on the impact of lifetime of waste with certain toxicity levels and the impacts on the environment of different types of waste. This information can also influence and shape perceptions and attitudes.

Mr Jorge Laguna-Celis, Director, The One Planet Network (10YFP), United Nations Environment Programme

Mr Laguna-Celis expressed his delight in the virtual roundtable on lifestyles and sustainable consumption in the context of SDG 12. Particularly, in this pivotal moment, as we heard, in this morning's first presentation, the message that Mr Kant, that Incredible India can help lead the way. I am fascinated by two messages that I heard in this regard. The first key message is that India can use and will use its leadership to bend the curve globally, in ensuring that we see a systemic shift towards sustainable consumption and production patterns by using its leadership in the G20 agenda. This is critical. The second message that we are hearing that is critical is that from a national standpoint, India is taking forward interventions to ensure that at the national level, the norms, the values, and the Indian way of life of frugality retained as the country develops, as inequalities decrease and as consumption levels go higher.

The One Planet Network is hosted and supported by the United Nations Environment Programme. But, we go beyond one single organization, we bring together over six global coalitions that address sectoral components of the sustainable consumption agenda, the food systems that are required to be transformed, the built environment that provides us shelter and when we think about travel and leisure we need to talk about sustainable tourism. We also focus on enabling conditions that guide patterns of consumption and production, the way government purchases in the form of sustainable procurement, the way consumers inform themselves before making a consumption decision and adopt lifestyles. We need to change the way we think about sustainable consumption and production. There is this persistent message that wasteful consumption is a direct correlation of income levels. We do not believe in that. We think that we can strive for more sustainable and circular consumption patterns and more sustainable lifestyles, as we raise global incomes as we achieve the sustainable development goals as we close inequalities.

The first goal for the Indian Presidency on the G20 on lifestyles, the vision of Prime Minister Modi is to change the way we think sustainable consumption and production. This is not an agenda of the Global South; this is a global agenda. The second is changing the way we act on sustainable consumption and production. And this is where I will just bring three elements in which we can support the LIFE campaign, and we can support the ambitions of the G20 presidency. The first one is to call upon member states to demonstrate leadership and commitment to promote and implement sustainable consumption and production. This goes beyond the implementation of the climate agreements. It cuts to the heart of the nature and biodiversity agenda; it cuts to the heart of the pollution agenda. So, looking at sustainable lifestyles, and SCP (sustainable consumption and production), that's being the indispensable requirement of implementing the climate, biodiversity, and nature goals.

The second is to improve indicators, we want to create indexes, we want to create datasets and have the largest repository of information globally to help develop those indicators. But, we also have to ensure that we leave no one behind. As I speak today, over 100 member states are not in the position to report regularly on the targets and indicators of SDG 12, especially those that measure behaviours. We can use the influence and the impact of the G20 campaign to help countries harness data, close data gaps and ensure that countries particularly developing countries are equipped with the means and ways to report on their commitments and harness the information to develop policies that promote sustainable lifestyles.

On food systems, there are actions that can be taken by governments, there are actions that can be taken by enterprises, and there are actions that can be taken by individuals. On the built environment, there are number of opportunities there to impact the infrastructure to impact the resource efficiency agendas.

We need to create a global movement. And this is where the LIFE campaign becomes critical. Norms and institutions will not change if we do not create the necessary critical mass. There is a need for a global campaign that can be supported by all relevant actors at country level and global levels that will help promote

this understanding by which stakeholders including member states, public sector, private sector, NGOs, youth, increasingly engage in sustainable consumption and production and are able to measure their commitments and are able to create transparency and are empowered to create accountability.

We look forward to strengthening the leadership of India at the global level in a manner that is inclusive, that looks at the sustainable development goals as an opportunity to advance a global development agenda.

Mr Shubhashis Dey, Director, Shakti Sustainable Energy Foundation

India along with other UN member states has adopted the 2030 Agenda for Sustainable Development, which also comprises the 17 Sustainable Development Goals. Last year, India proposed lifestyle for environment at COP26 and is included in the national commitment and plan. India has also placed LIFE as an important discussion point for India's G20 Presidency.

SDG 12 and sustainable consumption and production has emerged as an important part of the SDGs. SDG 12 can only be achieved when every country makes sure that their production and consumption patterns are not undermining the boundaries of the planet, while simultaneously keeping the mind of social and economic impact. Indians, since ancient time, believe in resource preservation, and need-based consumption. We are suitably placed to drive the global movement on LIFE. Indian core values are based on consumption in moderation.

The tribes and indigenous communities possess a vast repository of traditional knowledge that have resulted in distinctive culture and lifestyles. This knowledge, if systematically promoted or upscaled at a national level, and maybe at the international level, holds tremendous potential to promote sustainable lifestyles and tackle the impacts of climate change. Several experiences exist from the north-eastern part of India where meat consumption is a way of life. However, this consumption is based on consideration and moderation. Fishes are not eaten in the periods when they hatch with a pure motive of conservation. As far as agriculture is concerned, Zabo farming system of Nagaland is an integrated farming system for water and soil conservation with the combination of crops, livestock, and fisheries.

Rearing of pigs is common in the northeastern states of India where pigs survive on agricultural waste, which is not burned. As far as water conservation is concerned, the long-standing practice of bamboo dripping in Meghalaya is significant where spring water is diverted to a lower part of the hill using bamboo. There are many such examples like the sacred groves in the forest. These groves are basically trees, which are considered as religiously important and are protected by forest communities. These sacred groves contribute to carbon sequestration and nutrient cycle topsoil preservation along with biodiversity conservation.

Down south in Kerala, the traditional farming techniques practiced by Bhutan are followed in Kerala where they use bund made of organic material for farming below sea level. And this has been declared as a Globally Important Agricultural Heritage Systems (GIAHS) by the Food and Agriculture Organization. Up in the north, in Himachal Pradesh, the traditional adaptive agricultural practice such as crop diversification, mixed farming help indigenous people in Himachal Pradesh to combat the effects of climate change. Multi-cropping has been used by various tribal communities in Odisha. Almost all tribal communities in Odisha observe various forms of social norms related to undertaking or not undertaking certain forest-related activities, eating, or not eating certain products, when and how to eat forest produce on a community basis.

When we talk about behavioural change, and we know that the behavioural change is required, it is a lot to do with the urban classes within India and other countries. Forest-based communities are historically known to live in sync with nature, in a way that does not harm the environment. Traditional knowledge is important to be preserved as these may inspire behavioural interventions and insights.

A challenge is what civil society can do as a community when accelerated impacts of climate change is becoming a reality. Time is not on our side. Civil society must create a global momentum driven by the Global South to build effective global narrative on LIFE and SDG 12. Platforms like UNFCCC, G20, WTO, and other global platforms can be used to propagate this message.

Here I see SDG 12 as a very sweet spot of technology, economics, and behavioural science. Sustainable consumption will not have an adverse impact on the economic drivers. It is pandemics and climate change that will result in the massive tanking of economies. There is need to support public institutions who apply behavioural insight to improve public policy. Here in India, Indian civil society organizations can work with policymakers to ensure the climate positive behaviours and insights are integrated in Indian policymaking.

Forest and many rural communities in India follow sustainable livelihoods and practices. It is urban India which needs to cope up. Greater urbanization is inevitable and when India moves towards greater urbanization, urban systems need to be built in a way that the core values of sustainable livelihoods, lifestyles and consumption remain ingrained in development.

Mr George Cheriyan, Director, CUTS International (Consumer Unity & Trust Society)

SDG 12 is aiming at transforming the current pattern and structure of consumer behaviour to a more sustainable one, and sustainable living and lifestyle for the first time it appeared in the SDGs. Sustainable lifestyle we all know is rethinking our ways of living, how we buy and how we organize our everyday life. It is also about altering how we socialize, exchange, share, educate, and build identities.

It means transforming our societies and living in harmony with our natural environment. As consumers at home and at work, many of our choices on energy use, transport, food, waste contribute towards building sustainable lifestyle. However, consumers simply do not change behaviour and adopt a sustainable lifestyle based on what they are expected to do.

They do not respond to data and statistics, nor two negative future scenarios. People act to fulfil their needs and aspirations. They make decisions based on pricing, accessibility, effectiveness and additional criteria like well-being or trends. Sustainability is not the defining criteria. We have done several consumer surveys. In the State of the Indian Consumer Report, consumers say about 67.5% say the BEE star rating on energy efficient products is good but when it comes to the purchasing decision, price matters.

Even the consumers who want to live more sustainably often lack information and access to affordable and desirable products and services. This underscores that beyond people, it is up to the governments and businesses who also are consumers to provide more information to support positive behaviour change. There is also a need to develop new business models to make sustainable living a default option. In the UN guidelines on Consumer Protection, the section on sustainable consumption clearly underlines the responsibility of various stakeholders.

Responsibility for sustainable consumption is shared by all members and organizations of society with informed consumers, government businesses and labour organizations. Consumer and environmental organizations play particularly important roles.

Coming to the Indian context, India is at a critical juncture of transition from a developing nation to a global leader and so India continues to face several inherent challenges in the realm of sustainable consumption and production. In India, traditional practices that are sustainable and environment friendly continued to be a part of people's life. India has a history of low carbon footprint and lifestyle. These need to be encouraged rather than replaced by unsustainable practices and technologies. So, we need to retain and regain these traditional practices. A couple of years back we had done a documentation of case studies on sustainable culture, practices and lifestyles from different states, regions and cultures and lifestyles in India. And it was a dedicated effort to bring forward some cases of diverse subjects, which have the potential to contribute massively towards sustainable development and push for a more responsible model of circular economy.

One of the solutions is looking back at the traditional practices that may not be adopted in the same manner but linking it with modernity and scaling it up. Coming back again to the consumer behaviour and lifestyle, we all agree it can contribute towards responsible consumption and influence production. However, huge part of global greenhouse emission is linked to private household. Energy, food, and transport sectors all contribute substantially towards lifestyle-based emissions from the electricity we use, to the food we eat, the

way we travel and the things we buy; but we can make a difference. Consumers are increasingly concerned about environmental, social and economic issues and increasingly willing to act on those concerns; however, consumer willingness is not translating into sustainable consumer behaviour and that is the biggest challenge that we are facing.

A variety of barriers have been identified such as availability, affordability, convenience, product performance, conflicting priorities, scepticism, and force of habit. A study by a consulting firm finds that at least 60% of the consumers in India are willing to pay the premium for sustainability products, while 52% in urban India expect to increase spending on planet friendly brands in the next three years. However, nascent understanding, high price, availability issues and lack of sustainable options are current challenges influencing the purchase. 43% rank sustainability as a top five key purchasing criteria, yet sustainable products comprise only 5% of the market share. Even though consumers want to opt for sustainable products, these are not readily available in the market.

It is the responsibility of the businesses to focus more on that. Some of the policy initiatives at the country level such as extended producer responsibility (EPR) and the polluter pays principle have been undertaken in India to move towards a regime of sustainable consumption and production through waste management rules for various streams of waste including plastic waste and e-waste. However, much more needs to be done. For a country like India, with just a little more than 1200 dismantlers are the recyclers, we cannot achieve these targets related to waste management.

Recently, the Department of Consumer Affairs in India announced about developing a comprehensive framework for 'right to repair'. The 'right to repair' refers to government legislation that is intended to allow consumers the ability to repair and modify their own consumer electronic devices, where otherwise the manufacturer or such devices require the consumer to use only their offered services.

Eco-labelling has emerged all over the world and is effective means to sensitize consumers. In India also we have adopted the eco-labels way back in 1991. But unfortunately, even after three decades, this has been a non-starter in India. Policy initiatives need to be backed by effective implementation so that policy objectives are achieved.

In terms of responsible advertisement, green washing, blue washing, and SDG washing is taking place where the businesses use their advertisements for marketing their positive contribution to some of these goals which is not the case. This is a serious concern. We need to help the consumers to buy better, to consume better, and to dispose better. Responsibility cannot be only on the consumers. Businesses must ensure that sustainable products are available and policy initiatives also need to support the change in the consumer behaviour.

Mr Timon Lepold, Deputy Head, Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV) - Germany

Mr Lepold recalled that earlier this year in May, Chancellor Olaf Scholz and Prime Minister Modi agreed to work together on a green and sustainable development partnership. The partnership illustrates our commitment to accelerate the implementation of the SDGs by 2030, as well as climate action, and allows us to intensify concrete cooperation in this area. This partnership is also a very good background for today's discussion.

The International Resource Panel of the United Nations has found that 90% of global biodiversity loss and water stress and half of global GHG emissions stemmed from resource extraction and processing. So, this shows that massive environmental footprint is embedded in everything we consume.

It is important to underline where the responsibilities really lie and where the areas of actions lie. So, some people say every time we go to a supermarket and buy products, we basically vote. This is almost a political act. Everything we consume has a big impact and has a massive environmental footprint across the value chain. And with that, comes a certain degree of responsibility.

If we take a quick look at Germany, the use of raw materials has remained stable over the last couple of years, but at a very elevated level, compared with the global average. That is especially important because Germany imports a lot of its raw materials, which means it has obviously a considerable environmental footprint across value chains. Now, the good news here is that since German GDP has grown in recent years, but resource use has remained constant, and so, there is a decoupling between GDP and resource use. On the positive side, resource productivity has gone up. However, the bad news is that decoupling is not enough. Resource use and related environmental footprint is still very high. Developed countries and G7 countries have a very high environmental footprint. And the new government has therefore announced to reduce the absolute use of primary raw materials and develop a circular economy strategy to accomplish that.

Now coming to the perspective of consumers, not all consumers are in the position to make the sustainable choices. Often sustainable choices are still much too expensive or burdensome. Often consumers are not even aware of certain sustainable options, which highlights the importance of consumer information. And this is where politics comes in. Obviously, businesses play a role here as well. Politics must provide and must enable consumers to make sustainable choices by setting the right framework conditions. I will quickly mention a couple of examples from the sectors that were highlighted. The electronics sector is a good example. A key question in this sector is reparability. We are very interested in having durable and having repairable products. However, this is not the norm in today's market. It is rather the exception. And normally, electronic devices do not last if they could, so they are not repairable. Sometimes there are no spare parts available. And even if they are they are not accessible or too expensive.

So, the German government would like to introduce a right to repair like India. And that is very important for consumer protection as well. The right to repair has also been included in the new coalition agreement of the new government. BMUV is currently coordinating a programme of action with other ministries, that should contain measures to make products more repairable and to strengthen consumers by giving them more rights. Measures could be on eco-design, procurement of goods, and financial incentives. And we also want to really support and build up the repair sector in Germany.

Another important sector, and that has been covered by TERI is transport. So, research by the International Resource Panel, the IRP, and others show that there must be a focus on human needs and well-being, which leads us really to the provision of 'services'. So according to IRP research, most people need the service, which is in this case, mobility, rather than the product, which would be a certain type of means of transport. That means, for governments that they should provide well-functioning and accessible public transport. This obviously can be accompanied by certain business models, such as ride sharing, so there are clear business opportunities there as well.

And that does not mean that individual mobility will go away entirely, many people will still have the desire to move around independently, which is fine, but the overall system should be changed. This systemic perspective, and systemic changes are most effective but individual measures can also make a difference. For example, the type of car. If choosing an electric car, knowing about the types of materials that go into the production of the car, that should be responsibly sourced. Also, circularity, and how to recover materials once the car cannot be used anymore. Another very important sector is food, as covered by TERI. And here food loss and waste are a massive problem that needs to be tackled. About 17% of global food production is wasted. And about 30% of agricultural land is used for food production and obviously has a massive biodiversity and climate impact.

All actors need to tackle this issue. Governments, for example, can contribute by raising awareness. There are business opportunities, for example, in Germany, but I believe in other countries as well. There are now apps for mobile phones that help businesses to distribute unsold food to customers at a reduced price. And there are also aspects of circularity in there, for example, where waste is inevitably generated, it could be used in other businesses such as fertilizers. The building sector has been covered by a comprehensive study by the IRP that looked where resource efficiency measures in the building in the residential sector can lead to climate protection.

In waste management, it is very important to keep the waste hierarchy in mind. So, the first step will be that we must avoid waste altogether. And we also must reuse products wherever possible. And then if there is waste, it must be recycled. So, these are the most important steps. The other steps such as recovery and landfilling should be if possible avoided and other methods should be preferred. For example, in Germany, there has been a ban on landfilling of unsorted municipal waste, which has massively reduced methane emissions from landfills. Governments here must provide adequate framework conditions such as collection systems and deposit and return schemes which have been a very successful measure in Germany when it comes to beverage packaging. EPR is a very important measure as well. Sorting facilities and processing facilities are very important. But information for consumers is key. When consumers are not aware of the systems that are in place, the systems cannot be used adequately. For consumers, that means consumers can avoid unsustainably produced products. They can avoid products that have too much packaging and can instead opt for reusable packaging. In Germany, restaurants or shops that provide takeaway food must use reusable packaging. In general, consumers can be quite conscious about consumption.

On the important topic on where India could play a leading role, and where Germany and India could work together. Germany has the G7 Presidency. The topic of sustainable lifestyles, resource use, and sustainable consumption and production is a core topic of Germany's Presidency this year. Germany has worked in the past on this at the G20 level as well. So, we are more than interested in working together on this topic. Earlier this year, under German Presidency, G7 has adopted the Berlin Roadmap on Resource Efficiency and Circular Economy, which also includes the necessity to have a good cooperation between the G7 and the G20. So, G7 countries have already agreed that this is a core element of their work, and we very much hope that this can be continued under the Indian G20 Presidency next year. And our view, the G20 Resource Efficiency dialogue would be an ideal forum to continue this conversation. India seems to be well placed to play a leadership role with its tradition of ecological awareness.

Mr Vivek Tejaswi, Deputy Director, Asian Development Research Institute

Mr Tejaswi highlighted observations from the state of Bihar, which is not as developed as other states in India. Messaging backed by considerations of affordability when it comes to promoting sustainable consumer choices plays a huge role where the governments, industries and provider of goods and services play a huge role.

Giving the example of LPG in Bihar, Mr Tejaswi underscored the need to consider pricing so that purchasing decisions can be made. Price remains an important factor. For example, in the rural setting, the consumption of LPG has drastically reduced as cheaper alternatives are always available for the cooking and heating purposes.

Messaging needs to be backed by factors such as pricing, which is a huge factor when it comes to mass adoption. It is important to look at the aspect of pricing as masses may not be able to afford expensive goods and services.

In the mobility section we are talking about scrappage of the older vehicles, but we are unfortunately talking very less about the retrofitting of the technologies and increasing the life of a vehicle. Retrofitting and supporting technologies should be explored to minimize waste generation.

Dr Bibhu Prasad Nayak, Associate Professor, Tata Institute of Social Sciences

Dr Nayak critically examined the narrative of the Indian frugal way of life in the present socio-economic and policy contexts of India. Several speakers have flagged this idea of Indian way of life, traditional knowledge, lifestyles. The fact that we are talking about the Indian way of life, traditional knowledge and lifestyle is an achievement by itself. And we are talking this in the context of climate change, and sustainable development. India has shown some initial potential to lead the world. However, let me be the devil's advocate here regarding this idea of Indian way of lifestyle. How close are we to that in reality? Are we hiding behind our poor masses? We also need to recognize the conflict that we have between consumption aspiration and the Indian way of life. Consumption itself is considered as an indicator of economic well-being in general. Are we

recognizing the conflict between these concepts and aspirations as one moves up in terms of income including the rising urban middle class in India?

We need more macro data on this. As our cities expand, the resource intensity of the cities is also rising. Cities are getting water from hundreds of kilometres away. So, is it something that we should also think about when we are talking about metrics of sustainable consumption and production.

We need to identify the potential conflict between the economic aspirations and sustainable lifestyles. The other is also recognizing the policy inconsistencies. Apart from measuring aspects such as how sustainable procurement policies of the government are, there is a need to capture aspects of policies that promote unsustainable consumption. There is a need to better understand as to what wasteful consumption is and how is it further promoted by existing policies. There are inconsistencies in the way policies are being implemented. For example, housing schemes in India are not promoting the use of local materials nor are they promoting local construction methods. Even in the Himalayas, materials transported from very faraway places are being used for house construction. There are policy inconsistencies in terms of subsidies for chemical fertilizer versus the kind of support that the organic fertilizer gets. Or the type of support which centralized and decentralized systems get is a matter to be investigated.

We need like radical changes, and we need mass movements to drive sustainable consumption. Ideas such as sharing economy and circular economy are important. Are we doing anything to preserve the communitarianism way of living in rural India? Are we moving away from the community-based lifestyles? While we are talking about this Indian way of lifestyle and frugal consumption pattern, we also need to do a ground reality check in recognizing the conflicts between sustainable consumption and aspirations of people as well as policy directions.

Mr Mohak Gupta, Programme Officer, Development Alternatives

Mr Gupta started the discussion on the aspect of lifestyle and implications for urban areas and rural areas. Considering the massive population in rural India right now and considering the urbanization trends and trajectory, a huge population will need to be looked at in terms of their traditional lifestyles and how they impact the environment. There may be an aspirational gap there in terms of the lifestyle choices that they make.

It is very important to look at this from a sectoral deep dive perspective. There are certain spaces where those that decision making holds a lot more impact. I want to take up the example of the housing sector where besides the issue of policy mismatch there may also be a behaviour change communication problem, especially in some areas where, since a lot of construction is yet to happen, there is a risk of locking in carbon intensive practices.

In the housing sector, there is a lot of focus on operational energy of buildings but not enough on embodied energy of buildings. A major contribution to those decisions should come from the embodied energy space, which are not adequately addressed yet in policy or even in certification systems. So also lies the problem of the data gap and providing credible and relevant information.

Because we do understand that a lot of the certification and eco-labelling systems that are in place right now do not adopt a complete cradle-to-cradle approach by not looking at the lifecycle impacts of goods and services. In those terms, it is very necessary to strengthen and make those certification systems robust, because that is what the end user is often grappling with.

The aspect of trust also becomes important. Looking at it from the consumer behaviour perspective, it is very important for consumers to be able to trust the information that they get. It becomes important for governments also to be able to provide credible data or provide the mandate for other actors to do so.

From the market perspective, brands have a very strong role to play in terms of demonstrating sustainability strategies not just in terms of projection but also demonstrating impacts on the ground. We see examples

such as the Patagonia Chairman giving away the company towards sustainability to build trust. Such people can become beacons of hope and become those leaders that people can look up to for inspiration. Similarly, within communities, it is also important to have that kind of conversation and trust building within the community, because a lot of our decision making is derived at that level. In the housing sector, the choice of materials might be coming from sources like the local masons. Those systems need to be maintained and made more robust.

Linking science to policy and enabling informed actions is important. To address data gaps that exist right now, one of the ideas could be citizen science and exploring how citizens get involved in data collection. But more importantly, I think it also allows citizens to feel a sense of agency in terms of effecting change. If they are very dissociated from the problem, there is very little they can do to address it. But by being involved in the process, citizens have a sense of agency for them to feel like they have a say in the decision-making process. So, that works as a data collection mechanism also as a means of building trust and that conversation within the communities.

In terms of India's role in terms of leading the activities for G20, this is probably the perfect opportunity for India to demonstrate all that the country has been talking about. Demonstrating those sustainable consumption and production decisions and practices will be very essential.

DISCUSSIONS

Audience questions were taken where the role of social media was discussed. The panelists generally felt that multiple modes of communications through a variety of agents would be key including through influencers and mass leaders. Social media can also be a source of misinformation, and this must be dealt with. Information campaigns to dissuade smoking is a good example of the power of communication and media tools. On potential conflict between per capita income increase and sustainable consumption, there is a mixed picture in the Indian context. While the Indian middle class may move from buses to two wheelers, and then from two wheelers to four wheelers as their per capita income increases. But at the same time, certain sustainable behaviours do not change much. For example, the proportion of meat in their diet does not change very much. Similarly, every Indian household uses the recycling system of Kabadi-wallah, which is a peculiar Indian institution. The Kabadi-wallah pays the household for waste and segregates whatever is recyclable or reusable. Another question pertains on whether to incentivize sustainable products to make them cheaper, or whether the pricing mechanisms for other products need to be revised to internalize their true environmental costs.

CONCLUDING REMARKS

Dr Suneel Pandey, Director, TERI

Dr Suneel Pandey summarized the discussions. The aspect of scalable solutions become important for creating meaningful impact. Data gaps need to be addressed. From a Global South perspective, when discussing lifestyles, climate change adaptation and mitigation need to be considered. Considering the growing middle class in the Indian context, promoting lifestyles through multiple means is important. Decoupling economic growth and with resource consumption and waste generation is possible and increase in per capita incomes does not have to translate into increase in unsustainability of consumption. It is important to conserve traditional practices. Barriers faced by consumers for opting for sustainable products can be addressed. The right to repair is being used as a policy in many countries. Realigning policies which are conflicting in nature is important for scalable and impactful interventions. Consumers are important stakeholders and must be included in decision making processes.
