



Sustainable Development Goal - 12

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Dear Friends,

This month we shall discuss the 12th Sustainable Development Goal: Responsible Consumption and Production. In this blog, we shall try to explain:

- a. What it is and why is this relevant
- b. What are its indicators and targets
- c. Where do we stand in India
- d. What can we do to support the goal

As stated earlier, I have little to contribute on my own. I have attempted to provide a few references, so that if anyone is interested in probing deeper, you could do so.



What is SDG 12? [1]

The purpose of SDG 12 is to ensure sustainable consumption and production patterns. What do we mean by sustainable consumption? If you may recall, we discussed the concept of sustainability earlier, and referred to the first definition offered by Brundtland Commission as:

"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs"

The term 'inter-generational equity' attempts to capture this idea. Drawing upon this definition, we may get a meaning of sustainable consumption as a pattern of consumption that meets our present needs without sacrificing those for our progeny. However, after 1967, humanity has been consuming every year, more than what the Earth could provide, and this has been continuously on the rise. The Earth Overshoot Day [7] calculated by the Global Footprint Network tells us the day in a year when we as a whole consume what the full earth could offer, and then start eating out of the ecological capital, so to say. The moment we do so, we begin to endanger the availability of these resources in the future. This date fell on July 29 in 2018 and 2019. For 2020, this was August 22, reflecting the impact of Covid-19, and reduced consumptions globally. If the date comes earlier, it implies that we are consuming faster. Please refer Fig. 1 and Fig. 2 below.

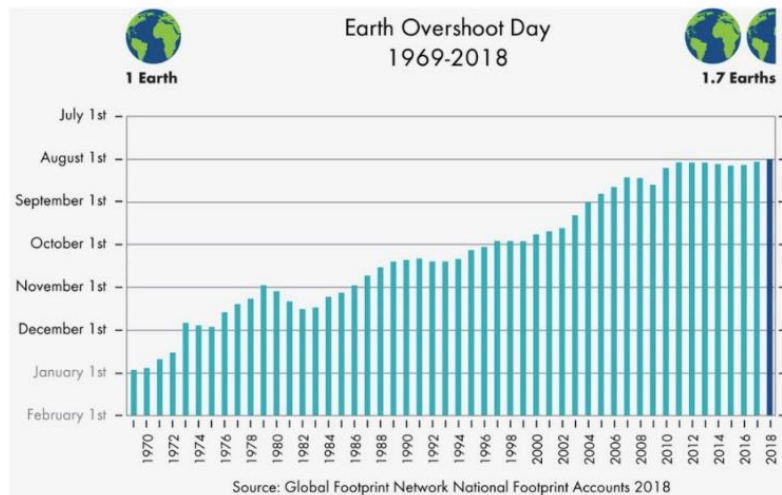


Fig. 1 Earth Overshoot Day 1969 - 2018

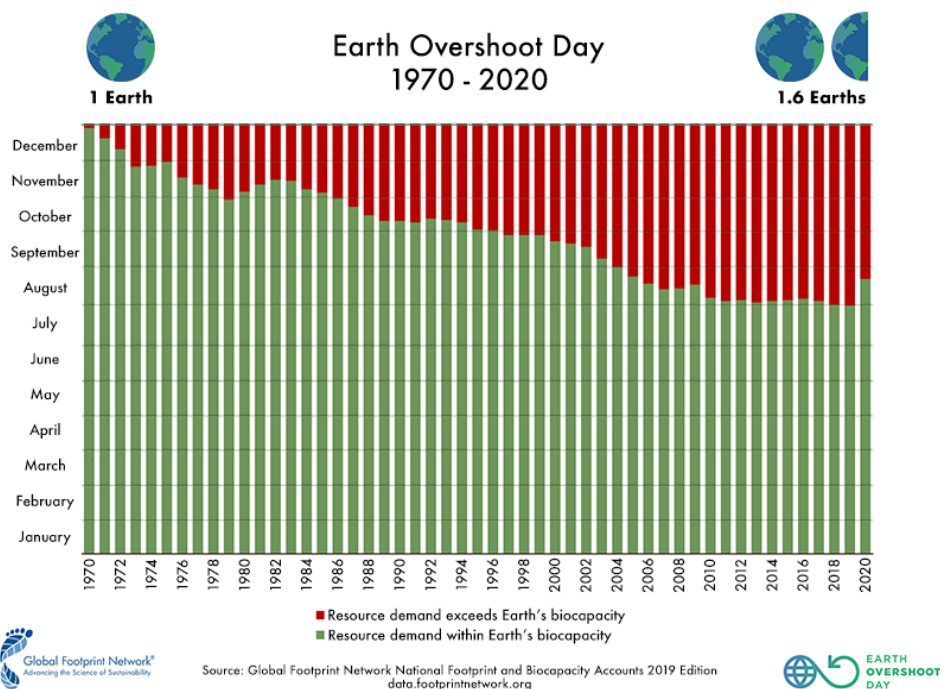


Fig. 2 Earth Overshoot Day 1970 - 2020

Sustainable production refers to the efficiency of resource use (water, energy, materials etc.) for production. This has two dimensions. One is efficiency. For example, how much water is consumed for production of each kilogram of beef? The other is wastefulness. It is estimated that one-third of the food produces is ultimately wasted in harvesting, transportation, processing, and storage and left over on our plates and fridges.

Why is this important? [2]

Although 3/4th of Earth's surface is covered by water, only 3% is drinkable; and out of this 2.5% is frozen as ice. Therefore, we have to live on only 0.5% of all available water. Two billion people on earth suffer from high water stress and 1 billion do not have access to fresh water. 69% of human water consumption goes for agriculture, 18% for industry and 12% for households. Our water use has been rising at about 1% annually since the 1980s [1]. Mass

migration from Syria [8] has been linked to water scarcity. In the World Economic Forum 2015, experts raised the alarm that the ongoing water scarcity threat is “greater even than political instability or unemployment”.

We turn to the next resource, energy. As we have seen under SDG 7, development and better standards of living are closely linked with higher levels of energy consumption. However, due to our dependence on fossil fuels, greater energy consumption leads to higher CO₂ emission, the root cause of global warming. Therefore, it is an imperative to use energy efficiently, and find more renewable, clean energy sources like solar, wind and hydel energy. Transportation, including air transportation is the fastest growing sector of energy usage, followed by buildings – both residential and commercial. On the other hand, equity demands that we assure access to electricity to almost 1 billion population who do not yet have access to electricity [1].

Food constitute the third strategic resource. The UN SD web notes:

‘Land degradation, declining soil fertility, unsustainable water use, and overfishing and marine environment degradation are all lessening the ability of the natural resource base to [supply food](#)’.

We may safely conclude that we are facing a double squeeze. On the one hand our demands are increasing, and on the other, the ability of Mother Earth to fulfill our needs is decreasing, due to our activities.

To my mind, SDG 12 presents the biggest challenge to humanity, calling for simultaneously, a close look at our lifestyles and consumption patterns for those who can afford it, and a compassionate effort at providing the basic minimum to those who do not have it.

What are its indicators and targets? [3]

The indicators for SDG-12 are as under:

- 12.1** Implement the 10-year framework of programmes on sustainable consumption and production, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries
- 12.2** By 2030, achieve the sustainable management and efficient use of natural resources
- 12.3** By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses
- 12.4** By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment
- 12.5** By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse
- 12.6** Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle
- 12.7** Promote public procurement practices that are sustainable, in accordance with national policies and priorities
- 12.8** By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature

- 12.A** Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production
- 12.B** Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products
- 12.C** Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities

Where do we stand in India?

The following images [4] offer some national as well as global status on SDG-12 and trends:

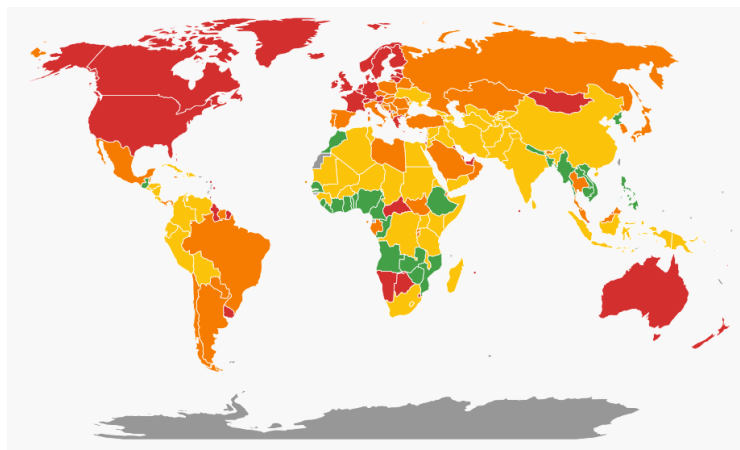


Fig 3. Status of SDG-12 in 2020

The above figure shows that the status in India comes under the category ‘Challenges remain’ while the trend (below) shows that this data is not available for the entire globe.



Fig 4. Trends SDG-12 in 2020

Specifically, India’s standing in 2019 [5] is shown below:

SDG12 – Responsible Consumption and Production

Municipal Solid Waste (kg/day/capita)	0.3	●	●●
E-waste generated (kg/capita)	1.5	●	●●
Production-based SO ₂ emissions (kg/capita)	6.2	●	●●
Imported SO ₂ emissions (kg/capita)	-0.4	●	●●
Nitrogen production footprint (kg/capita)	12.9	●	●●
Net imported emissions of reactive nitrogen (kg/capita)	-8.7	●	●●

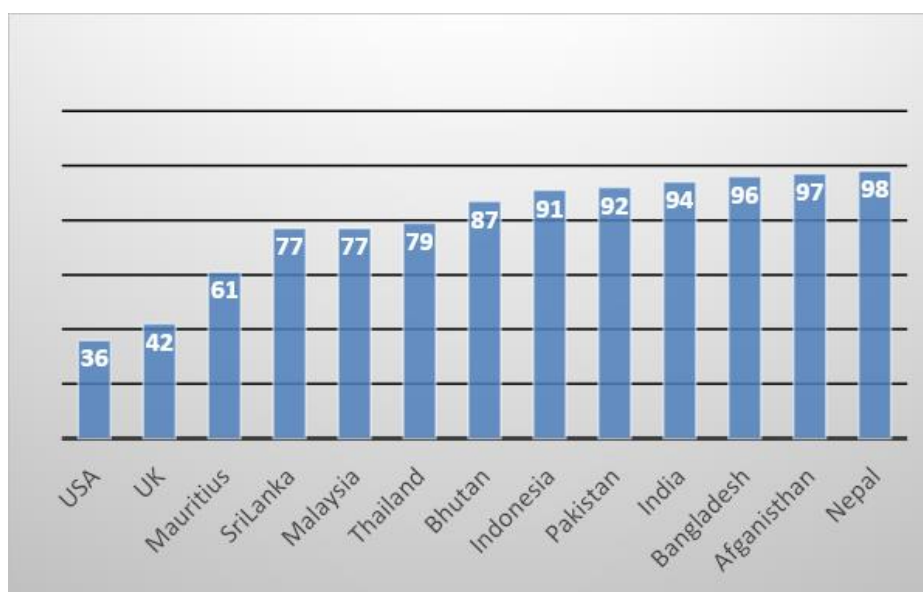
The standing in 2020 [6] is as under:

SDG12 – Responsible Consumption and Production

Municipal solid waste (kg/capita/day)	1.0	2001	●	●●
Electronic waste (kg/capita)	1.5	2016	●	●●
Production-based SO ₂ emissions (kg/capita)	7.0	2012	●	●●
SO ₂ emissions embodied in imports (kg/capita)	0.4	2012	●	●●
Production-based nitrogen emissions (kg/capita)	13.2	2010	●	●●
Nitrogen emissions embodied in imports (kg/capita)	0.6	2010	●	●●



In the following graph we offer a comparison of SAARC nations, 3 ASEAN countries and UK, and USA on the performance on SDG-12 in 2019. Nepal tops the comparison group followed by Afghanistan, Bangladesh and India respectively. USA has the lowest score, followed by UK. Some of the key indicators are: material footprint, material footprint per capita, and material footprint per GDP, domestic material consumption, food loss index and food waste index, hazardous waste generated, national recycling rate, number of companies publishing sustainability reports and degree of sustainable public procurement policies and action plan implementation.



If we look at the indicators level, the comparison is shown below [5]:

This data should be cited as: Sachs, J., Schmidt-Traub, G., Kroll, C., Lafortune, G., Fuller, G. (2019): Sustainable Development Re

Country	Normaliz ed Score sdg12_ms w	Dashboard Color sdg12_ms w	Normaliz ed Score sdg12_e waste	Dashboard Color sdg12_e waste	Normaliz ed Score sdg12_pr odso2	Dashboard Color sdg12_pr odso2	Normaliz ed Score sdg12_so 2	Dashboard Color sdg12_so 2	Normaliz ed Score sdg12_re acnitro	Dashboard Color sdg12_re acnitro
Afghanistan			98.28	green	99.44	green	98.29	green	100.00	green
Bangladesh	90.83	green	97.00	green	99.42	green	98.83	green		
Bhutan	62.22	yellow	90.13	green	99.44	green	98.29	green	90.98	yellow
India	93.33	green	94.42	green	91.60	green	100.00	green	100.00	green
Mauritius	38.89	red	63.95	orange	59.30	orange	100.00	green	47.72	red
Nepal	99.44	green	97.42	green	99.06	green	98.48	green	100.00	green
Pakistan	79.44	green	93.99	green	93.40	green	98.66	green	100.00	green
Sri Lanka	0.00	red	81.55	green	90.72	green	97.17	green	100.00	green
Indonesia	88.33	green	79.83	green	94.10	green	99.77	green	98.33	yellow
Malaysia	60.56	orange	63.09	orange	87.26	green	95.99	yellow	84.87	yellow
Thailand	53.89	orange	69.10	yellow	88.33	green	100.00	green	100.00	green
United Kingdom	53.06		0.00	red	86.41	green	32.88	red		
United States	31.11		17.60	red	49.28	red	48.96	red		
China	74.44	yellow	78.54	yellow	63.18	orange	100.00	green	100.00	green
	Municipal solid waste		E-waste		SO ₂ Production		SO ₂ Import		Reactive nitrogen	

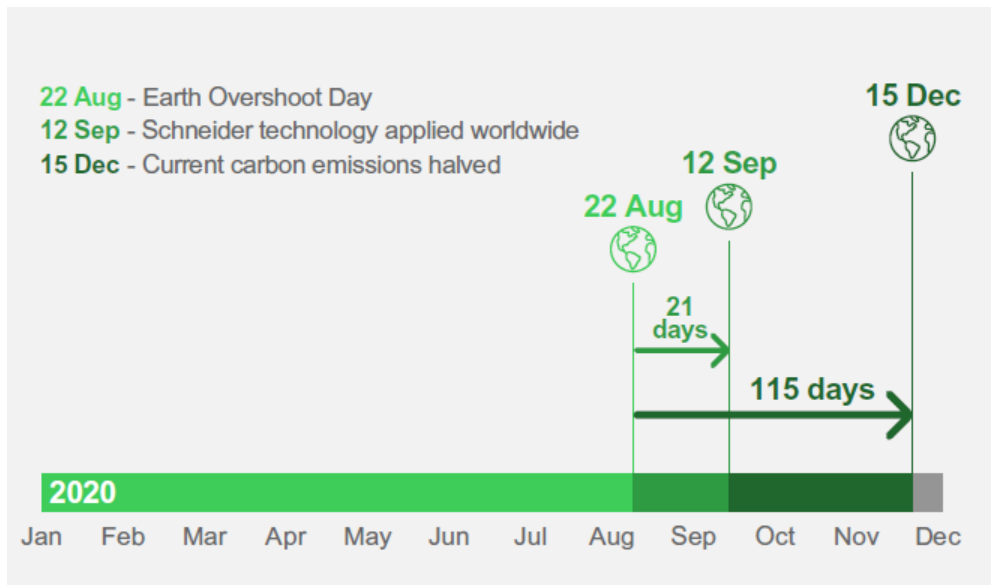
What can we do to support the goal?

First and foremost, each one of us can try to critically ask ourselves, do I really need this? Could I not live without it? But this is a very difficult task. The difference between luxury and necessity is getting blurred. I grew up in a well to do joint family system in a small town. During my childhood, we did not have electricity and piped water, till I was about ten. All my parents and grandparents were educated and lived a decent middle class existence, minus these two essentials. In comparison, today we have the Internet, a mobile handset for each member in the family, a desktop and a laptop, TV, air-conditioner, geyser, car, fridge, three wardrobes full of apparel, and yet the mind is restless, wanting to have a new car, new apparel etc. As the Covid-19 pandemic set in, someone commented, the economy is going down because we are not buying things that are not necessary. We have got ourselves caught in the trap of 'The Stuff'.

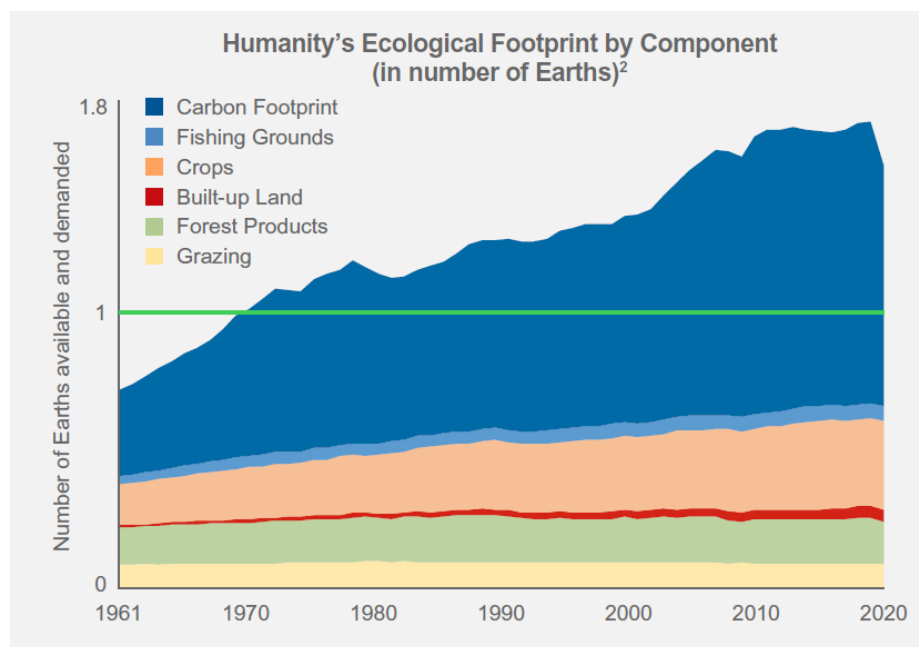
I looked at the literature to see if anyone is attempting to recommend a curb on our non-essential consumption pattern. However, apart from a vague reference to 'Lifestyles', no one apparently dares to speak out against mindless consumption patterns. As I have mentioned above, the nearest we have come so far is to enhance the efficiency of our production systems, and minimize waste.

One source [9] claimed that if only we could eliminate the emissions from fossil fuel energy sources, we could save 115 days from the Earth Shoot Day, implying that we could live sustainably thereafter.

Such analyses are, to the best of my understanding, a myopic view of the entire scenario.



“If humanity could cut carbon emissions by half without increasing the rest of our Ecological Footprint, Earth Overshoot Day would move to December 15 – a total shift of 115 days”.



The analysis shown above is interesting but incomplete for many reasons. The most important reason is that this is a very limited view of the entire situation, and completely ignores issues of inequalities leading to poverty, hunger, and lack of proper healthcare, education, water and sanitation, etc. for the deprived population.

So, what is the solution? Let me humbly offer my submission. Mainstreaming the basic principles of spirituality offers a solution. Humanity is searching for happiness in the wrong place. We must try to experience happiness in giving, in helping others, in living a simple life and take pride in being sustainable individually. Yet, as I mentioned before, this is not an easy task.

References:

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