Sustainability and India – A Primordial Review

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Abstract

The mission statement of the United Nations Sustainable Development Goals (SDGs) states that the SDGs are "A shared blueprint for peace and prosperity for people and the planet, now and into the future" (www.sdgs.un.org Retrieved on Aug. 10, 2022). Based on the United Nations' 17 Sustainable Development Goals – Agenda 2030 (which was adopted by 192 member nations), India's rank was 120 in 2016 – a drop from 117 a year ago (www.business-standard.com. Retrieved on Aug. 19, 2022). India had an overall SDG score of 60.32/100. This makes India fall behind all nations in South Asia, barring Pakistan – which at rank 125 is four notches below India. Notably, Maldives (score of 71), Bhutan (score of 70), Sri Lanka (score of 70), Nepal (score of 66), and Bangladesh (score of 64) are all above India (https://dashboards.sdgindex.org/rankings. Retrieved on Aug. 19, 2022). As per the State of India's environment report 2022 (Centre for Science and Environment. https://csestore.cse.org.in/. Retrieved on Aug. 21, 2022), this drop in rank is primarily because of 11 of the 17 sustainable development goals (Yadav, 2022). One of the prime lookouts of the National Institute of Transforming India (NITI Aayog), India's apex economic policy think tank, is the attainment of the sustainable development goals (SDGs) for 2030, and measuring and monitoring each of the 28 states' and eight union territories' progress towards the same. No wonder, NITI Aayog painstakingly firmed up the structural edifice of the first SDG India Index and its Baseline Report (https://www.niti.gov.in. Retrieved on Aug. 11, 2022). This paper is an attempt to trace the history of the UN SDGs and an attempt to understand and review India's progress on them.

Keywords: Sustainability, Development, United Nations, NITI Aayog, SDG India Index

INTRODUCTION

Based on the United Nations' 17 Sustainable Development Goals – Agenda 2030 (which was adopted by 192 member nations), India's rank was 120 in 2016 – a drop from 117 a year ago (www.business-standard.com. Retrieved on Aug. 19, 2022). In the 2022 Global Index of SDGs, the country further slipped down to 121. Notably, it had ranked 117 in 2020 and 120 in 2021 (*Sustainable Development Report SDSN, 2022*).

India had an overall SDG score of 60.32/100. This makes India fall behind all nations in South Asia, barring Pakistan – which at rank 125 is four notches below India. Notably, Maldives (score of 71), Bhutan (score of 70), Sri Lanka (score of 70), Nepal (score of 66), and Bangladesh (score of 64) are all above India (https://dashboards.sdgindex.org/rankings. Retrieved on Aug. 19, 2022).

As per the State of India's environment report 2022 (Centre for Science and Environment. https://csestore.cse.org.in/. Retrieved on Aug. 21, 2022), this drop in rank is primarily because of 11 of the 17 Sustainable Development Goals (Yadav, 2022). Prominent of the 11 being goal no. 2 (zero hunger), no. 3 (good health and well-being), no. 5 (gender equality), and no. 11 (sustainable cities and communities). The report also mentioned that India's performance under goal no. 4 (quality education and life) too left lots to be desired.

In 2021 as well, the nation was found wanting on goal no. 2 (zero Hunger and food security) and no. 5 (gender equality). Other areas of concern were goal no. 9 (inclusive and sustainable industrialisation and innovation).

This paper is an attempt to trace the history of the UN SDGs and an attempt to understand and review India's progress on them.

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UNITED NATIONS AND THE SUSTAINABLE DEVELOPMENT GOALS

The mission statement of the United Nations Sustainable Development Goals (SDGs) states that the SDGs are "A shared blueprint for peace and prosperity for people and the planet, now and into the future" (www.sdgs.un.org Retrieved on Aug. 10, 2022).

Promulgated by the United Nations General Assembly (UN-GA) Resolution in 2015, and adopted by all the UN member states, these SDGs were included as a part of Agenda 2030. The agenda was to provide a shared blueprint for peace and prosperity for all inhabitants of planet earth (https://www.un.org/ga/search/view_doc. Retrieved on Aug. 12, 2022).
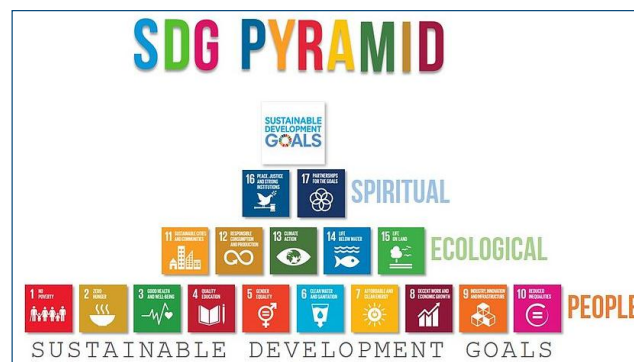
A FEW MODELS ON THE SUSTAINABLE DEVELOPMENT GOALS
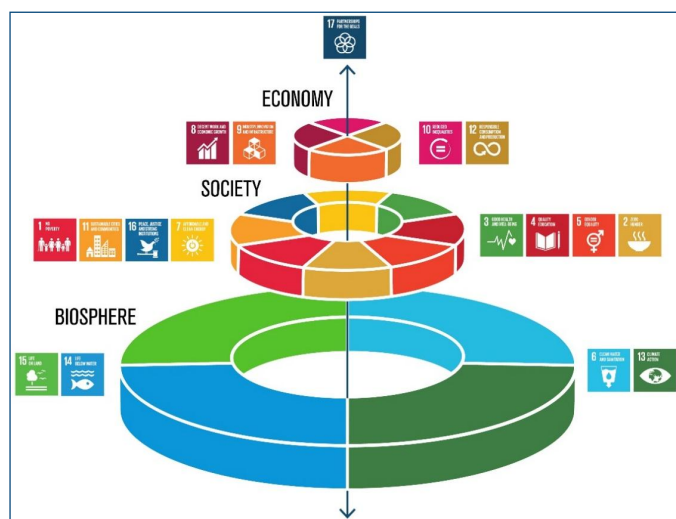
Source: www.stockholmresilience.org. Retrieved on Aug. 10, 2022.

Fig. 1:   The SDG Wedding Cake Model

The wedding cake model depicts the peeling of all the SDGs specifically into three layers, viz., the layer of biosphere, the layer of society, and the layer of economy.

Source: Unity in Diversity Creative Campus @ Kura Kura Bali, 2016. Retrieved on Aug. 12, 2022.

Fig. 2:   The SDG Pyramid Model

The SDG pyramid model, on the other hand, divides the 17 SDGs into three steps – the base being people-related, the middle being ecology-related, and the top being spiritually-related.

MILLENNIUM DEVELOPMENT GOALS TO SUSTAINABLE DEVELOPMENT GOALS

The 17 sustainable development goals (SDGs) for 2030 evolved from the millennium development goals (MDGs) for 2015.

These were developed as part of the post-2015 development agenda to succeed the millennium developmental goals ending in 2015.

Source: Author's Self Repository.

Fig. 3:   The 18 MDG Targets

Table 1: **The 8 UN Millennium Development Goals (MDGs) 2000-2015**

Goal	Target Description
1) Poverty/Hunger	i) Reduce the below-poverty line population by 50%
	ii) Reduce the hungry people population by 50%
2) Education	iii) All boys and girls to complete primary education
3) Gender/Equality	iv) Eliminate gender disparity in primary and secondary education
4) Children	v) Reduce child mortality by two-thirds
5) Maternal	vi) Reduce MMR by three-fourths
6) Diseases	vii) Halt the spread of HIV/AIDS
	viii) Halt the spread of Malaria
7) Sustainable Development	ix) Reverse environment loss and integrate sustainable development into national policies
	x) Improve the life of at least ten crore slum dwellers
	xi) Improve water sanitation among the masses by 50%
8) Partnership	xii) Training reforms, financial inclusion, good governance
	xiii) Align and address the needs of the LDCs
	xiv) Align to the needs of small islands and land-locked countries
	xv) Address the debt problem of developing countries
	xvi) Support youth productive work
	xvii) Push for affordable drugs – with the support of pharma companies
	xviii) Promote ICT technology with the help of private companies

Source: Author's Self Repository.

Table 2: **The 17 Sustainable Development Goals (SDGs) 2016-2030**

Goal	Target Description
1	End poverty in all its forms, far and wide.
2	End hunger, achieve food security and bettered nutrition, and promote sustainable agricultural husbandry.
3	Ensure healthy lives and promote healthiness for all, at all periods.
4	Ensure inclusive and indifferent quality education and promote lifelong literacy openings for all.
5	Achieve gender equivalency and empower all women and girls.
6	Ensure sustainable operation of water and sanitation for all.
7	Ensure access to affordable, dependable, sustainable, and ultramodern energy for all.
8	Promote sustained, inclusive, and equitable economic growth, full and productive employment, and decent work for all.
9	Build flexible structure, promote inclusive and sustainable industrialisation, and foster innovation.
10	Reduce inequality across countries.
11	Make human settlements inclusive, safe, resilient, and sustainable.
12	Ensure sustainable consumption and production patterns.
13	Take critical action to combat climate change and its impacts (noting agreements made by the UNFCCC forum).
14	Conserve and sustainably use the abyss and marine life and coffers for sustainable development.
15	Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage timbers, combat desertification, and halt land declination and biodiversity loss.
16	Promote peaceful and inclusive societies for sustainable development, give access to justice for all, and build effective, responsible, and inclusive institutions at all situations.
17	Strengthen the means of perpetration and revitalise the global cooperation for sustainable development.

Adopted from The Sustainable Development Goals (UN website).

THE HISTORY OF SUSTAINABLE DEVELOPMENT GOALS

Keeping 2015 as the target year, the millennium development goals were promulgated in 2000 as a set consisting of eight development goals. This was an earnest attempt towards establishing measurable goals on key and critical challenges across the globe. The universe was privy to major economic and political challenges during the entire period of 2000-2015.

Primarily based on the outcome document of the Rio+20 summit (UN Conference on Sustainable Development held in Rio de Janeiro, Brazil, in 2012, commemorating the 20th Anniversary of the Rio Earth Summit held in 1992) named 'Future we want', the formulation of sustainable development goals (keeping in mind the momentum created by the MDGs) started in 2012.

Table 3:　The Comparison

Prominent Attributes	*The Goals – MDG*	*The Goals – SDG*
Number of Goals	8	17
Number of Targets	21	169
Number of Indicators	63	230
Area Coverage	Developing countries – Particularly the poorest	All countries – Both rich and poor
Implementation Timelines	2000-2015	2016-2030
Scope and Focus	Social focus, especially poverty reduction	Global development – Economic growth, social inclusion, environmental protection, and sustainability

Source: Ite, 2018 (Comparison-of-Millennium-Development-Goals-and-Sustainable-Development-Goals) Society of Petroleum Engineers, Nigeria Annual International Conference and Exhibition 2018.

Table 4:　The Differences

	MDG	*SDG*
Origin	Hatched and incubated by a 'home-grown' group of experts at the UN headquarters	Evolved after a long and extensive consultative process including 70 Open Working Groups (OWG); Civil Society Organisations (CSO); thematic consultations, especially the Hunger Group (THG); country consultations; and public participation through face-to-face meetings, online mechanisms, and door-to-door survey
Aid and Spending	Developing countries' budgeting basis is grants-in-aids	Smart spending the key for all countries
The Pillars	None specifically mentioned	Human development, human rights, and equity
Collaboration	None specifically mentioned	Building vibrant and systematic partnerships with private sector – IMPACT 2030
New Areas	NA	Climate change, economic inequality, innovation, sustainable consumption, peace, and justice
Nature	Independent goals	Interdependent goals

Source: Author's self-drawn repository.

To expedite matters and prepare a proposal on SDGs, the United Nations General Assembly (UNGA) constituted a 30-member Open Working Group (OWG), which also included India. This OWG was expected to facilitate and augment the consultation and implementation process for fructification of the SDGs.

Between March 2013 and July 2014, there were 13 sessions of the OWG which led to the submission of the final report in Sept. 2014 (at the 69th session of UNGA). This was formally adopted by all leaders present (including the Prime Minister of India) under the resolution, 'Transforming our World: The 2030 Agenda

for Sustainable Development'. The adoption took place a year later, at a special UN Summit at New York in Sept. 2015, where 17 SDGs and 169 related targets were enunciated.

INDIA AND THE SUSTAINABLE DEVELOPMENT GOALS (SDGs)

Currently the fastest growing economy in the world, India's position is unique, especially on its commitments to sustainability and development. Not only has the nation had a big role to play in shaping up the UN SDGs, but it did also do so keeping in mind the critical balance between the economy, society, and Environment (https://sustainabledevelopment.un.org/content/documents/15836India.pdf. Retrieved on Aug. 16, 2022).

A FEW CRITICAL 'SDG'-ALIGNED PROGRAMMES AND INDIA

As a key member of the High-Level Political Forum (HLPF), 2017, India took up seven critical SDGs (Goal Nos. 1, 2, 3, 5, 9, 14, and 17) for Voluntary National Review and Disclosures (VNR-D).

The specific goals and associated programmes taken up for the VNR-D were:

Goal 1: End poverty in all its forms far and wide.

To keep a tag on the progress on this goal, the country identified five national-level indicators – poverty rate estimation (Tendulkar estimates), health insurance coverage, employment provisioning, maternity benefits, and hospitalisation.

Many related and robust schemes were accordingly launched. For example, the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) – today, this unique anti-poverty measure is successfully being implemented across the length and breadth of the country.

Further, the drop in poverty levels, sustained economic growth, gainful employment, rise in wages, and increased revenue volumes have all led to a high level of social spending. This also enabled flagging off the world's largest financial inclusion programme – the Pradhan Mantri Jan Dhan Yojana (PMJDY) – as the shield against

nations fight against poverty.

With the implementation of the Pradhan Mantri Jeevan Jyoti Beema Yojana (PMJJBY) and Pradhan Mantri Jeevan Suraksha Beema Yojana (PMJSBY), risk mitigation, pension, and insurance for all, especially the underprivileged, and employment in the unorganised sector have borne fruits.

By the successful implementation of schemes like Pradhan Mantri Awas Yojana – PMAY (Housing for All) and the Pradhan Mantri Ujjwala Yojana, access to drinking water and sanitation, and clean sources of cooking fuel have also seen the light of the day.

Goal 2: End hunger, achieve food security and bettered nutrition, and promote sustainable agricultural husbandry.

Just like goal no. 1, under goal no. 2, India identified yet another four national-level indicators:

i) The households covered under food subsidy (through PDS), ii) anaemia among women, iii) agricultural productivity (through promotion of soil-health cards), and iv) nourishment of children under five years of age (Stunting).

Critical and sustainable programmes like the National Nutrition Mission, the POSHAN Abhiyaan, Antodyaya Anna Yojana (AAY), Integrated Child Development Scheme (ICDS), mid-day meal (MDM) scheme, the Pradhan Mantri Matru Vandana Yojana (PMMVY), and so on, have all played their part in the successful implementation and roll-outs under goal no. 2.

Such programmes were also backed up by notable primary sector-related policies, viz., the National Mission on Agriculture Extension and Technology, the National Mission on Sustainable Agriculture, and the National Food Security Mission.

Goal 3: Ensure healthy lives and promote healthiness for all, at all ages.

To measure the performance of SDG no. 3, India identified another five national-level indicators – the maternity mortality rate (MMR), the under-5 (years) mortality rate, immunisation and coverage (especially in children), health workforce, and incidence on tuberculosis.

Accordingly, the various policies of the government have been earmarked through initiatives – notable among them being the National Health Mission (NHM) and its various sub-missions – the National Urban Health Mission (NUHM), and the National Rural Health Mission (NRHM), Pradhan Mantri Jan Arogya Yojana (AYUSHMAN BHARAT), the Revised National Tuberculosis Control Programme (RNTCP), the Integrated Disease Surveillance Programme (IDSP), the National Mental Health Programme (NMHP), and the National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases, and Stroke (NPCDCS).

To augment measures, a composite index is also being used to monitor and incentivise improvements in health service delivery across all states in the country.

Goal 5: Achieve gender equivalency and empower all women and girls.

Under goal no. 5, the country did identify six national-level indicators:

(i) sex ratio at birth; (ii) wage gap (male/female); (iii) domestic violence; (iv) women in leadership; (v) ratio of female labour force participation rate; and (vi) family planning.

To keep pace with the developments and to monitor performance, a few national-level schemes and programmes were aligned. These include gender budgeting, the Beti Bachao Beti Padhao initiative and campaign (Save the Girl Child, Educate the Girl Child), Sukanya Samridhi Yojana, and the Janani Suraksha Yojana.

Goal 9: Build flexible structure, promote inclusive and sustainable industrialisation, and foster innovation.

Quite like the earlier goals, the four national-level indicators adopted here were: (i) road connectivity; (ii) mobile tele-density; (iii) Internet density; and (iv) gram panchayats covered under 'Bharat Net'.

Here too, specific initiatives to boost the infrastructure sector were taken up, such as the Pradhan Mantri Gram Sadak Yojana (PMGSY), Bharatmala, Sagarmala, and so on. In addition, to foster innovation and industry

development, certain flagship programmes such as Make in India, Digital India, and so on were adopted.

One of the prominent and progressive initiatives – The Bharat Broadband Network Ltd. initiative – has been aiming to provide high-speed broadband connectivity to all village councils in the country.

Likewise, the 'Start-up India' programme is to promote entrepreneurship and labour-intensive economic growth in every nook and corner of the hinterland.

Goal 14: Conserve and sustainably – use the abyss and marine life and coffers for sustainable development promoting the 'Blue Revolution'.

Under this initiative, the government activated the Coastal Ocean Monitoring and Prediction System (COMPS).

Also in vogue is the Integrated National Fisheries Action Plan (INFPA) to promote the livelihoods of fishing communities, as well as to maintain the ecological integrity of the marine environment.

Yet another effective and impactful scheme is that of the Sagarmala programme, which improves port connectivity, port-linked industrialisation, and bolsters the coastal community development.

Goal 17: Strengthen the means of perpetration and revitalise the global cooperation for sustainable development.

Goal no. 17 highlights the need for international cooperation for curbing illicit financial flows, defining unambiguous aids, and establishing robust systems for monitoring commitments made by donor countries.

To partake activities under this goal, the specific initiatives undertaken by the government have been to: enable financing for development; provide access to technology; promulgate capacity-building measures; promote trade as a facilitator of global growth; push for institutional coherence and policy convergence; induce involvement of multi-stakeholders; and buttress forging partnerships, thereby also ensuring accountability by regular monitoring.

Notably, the Swachh Bharat Abhiyaan (Clean India Campaign) and Aadhaar (Biometric Identity System)

have been well-campaigned, well-implemented and widely circulated.

A PICTOGRAPHICAL ACCOUNT OF SDG NO. 12 AND INDIA DURING 2010-2020

A pictographical view of how the country has been faring over the past decade (2010-2020), especially in terms of goal no. 12, is shown in the following section.

Sustainable development goal no. 12 is about ensuring sustainable consumption and production patterns.

Shown is an account of sustainability in price levels for a few staple and essential food items in India, during the 2010-2020 decade.

The items taken up for review include milk (1L), tomato (1Kg), and apple (1Kg); and to keep the review a tad different, a combo meal at McDonalds is included.
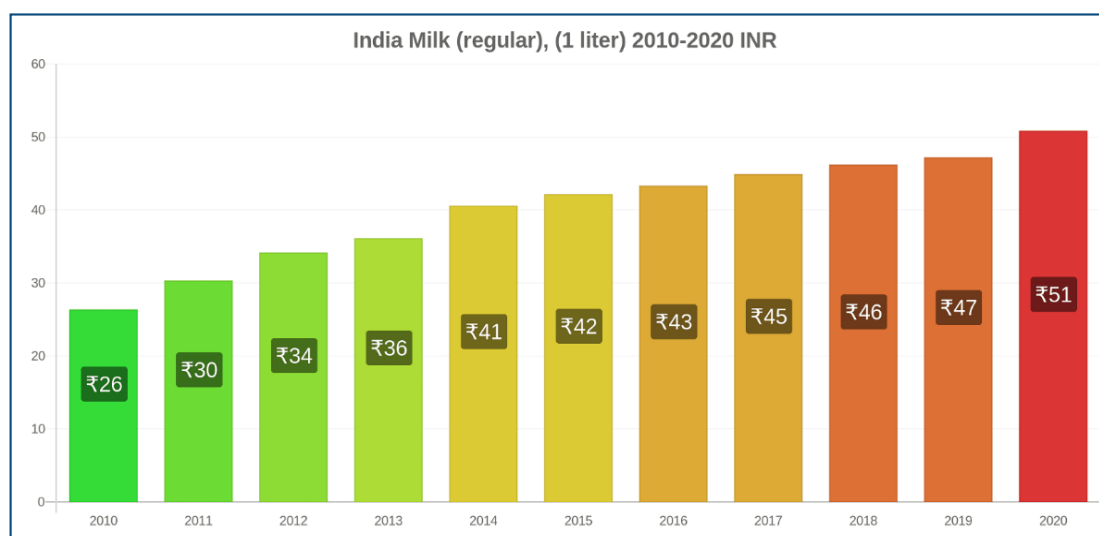
Source: http://hikersbay.com/prices/india (Retrieved on Aug. 15, 2022).

Fig. 4: **India – Price of Milk (1 Litre) during 2010-2020**

There has been a steady rise in the price of milk every single year, during the 2010-2020 period. While it was 26 per litre in 2010, it rose to 51 per litre in 2020 (a rise of almost double the base).
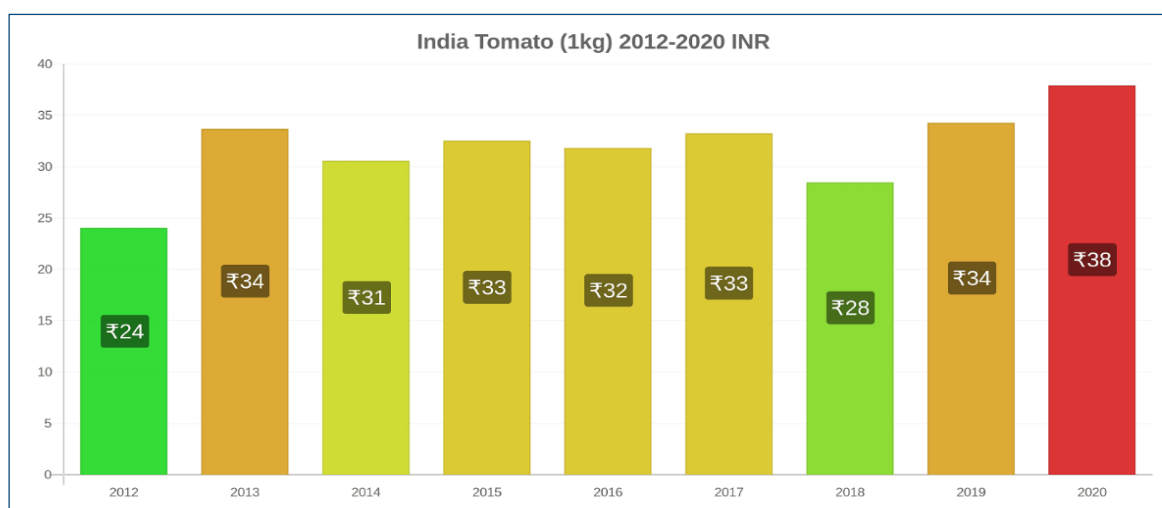
Source: http://hikersbay.com/prices/india (Retrieved on Aug. 15, 2022).

**Fig. 5:** **India – Price of Tomato (1Kg) during 2012-2020**

In the case of tomatoes, it was more of a business cycle-induced price change (a zigzag pattern formation y-o-y), with the price starting at 24 per kilo in 2012 and closing at 38 per kilo in 2020 (a rise of more than 50%).
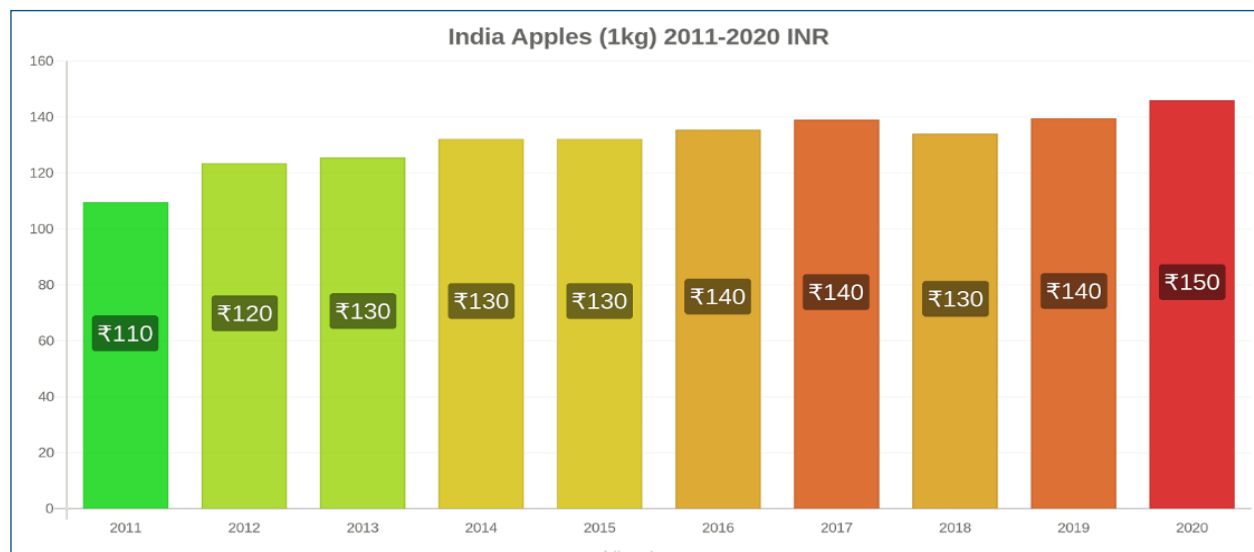
Source: http://hikersbay.com/prices/india (Retrieved on Aug. 15, 2022).

Fig. 6: India – Price of Apples (1Kg) during 2011-2020

In the case of apples, it is observed that, starting with 110 (as the price of 1Kg) in 2012, the same quantity was available at 150 in 2020 (a rise of almost 50%). In fact, during the entire period it was quite the same, except for a single year where the price dipped y-o-y.
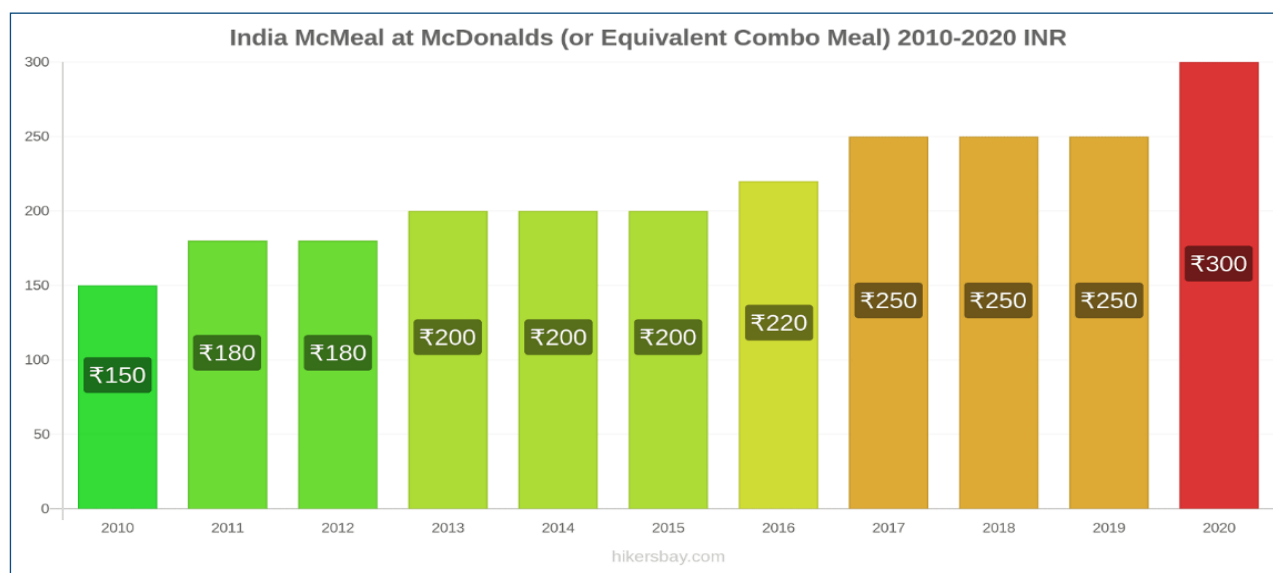

Source: http://hikersbay.com/prices/india (Retrieved on Aug. 15, 2022).

Fig. 7: India – Price of Combo Meal (McDonalds) during 2010-2020

Finally, in the case of one combo meal at McDonald's, starting with 150 (in 2010), the price movements were more or less of a distinct pattern (rise-stabilise-rise), with a closing price of 300 (in 2020) – a rise of double the base.

For an effective study and comparison, we also look up the GDP per capita growth rate of India (Fig. 8) during the same period.
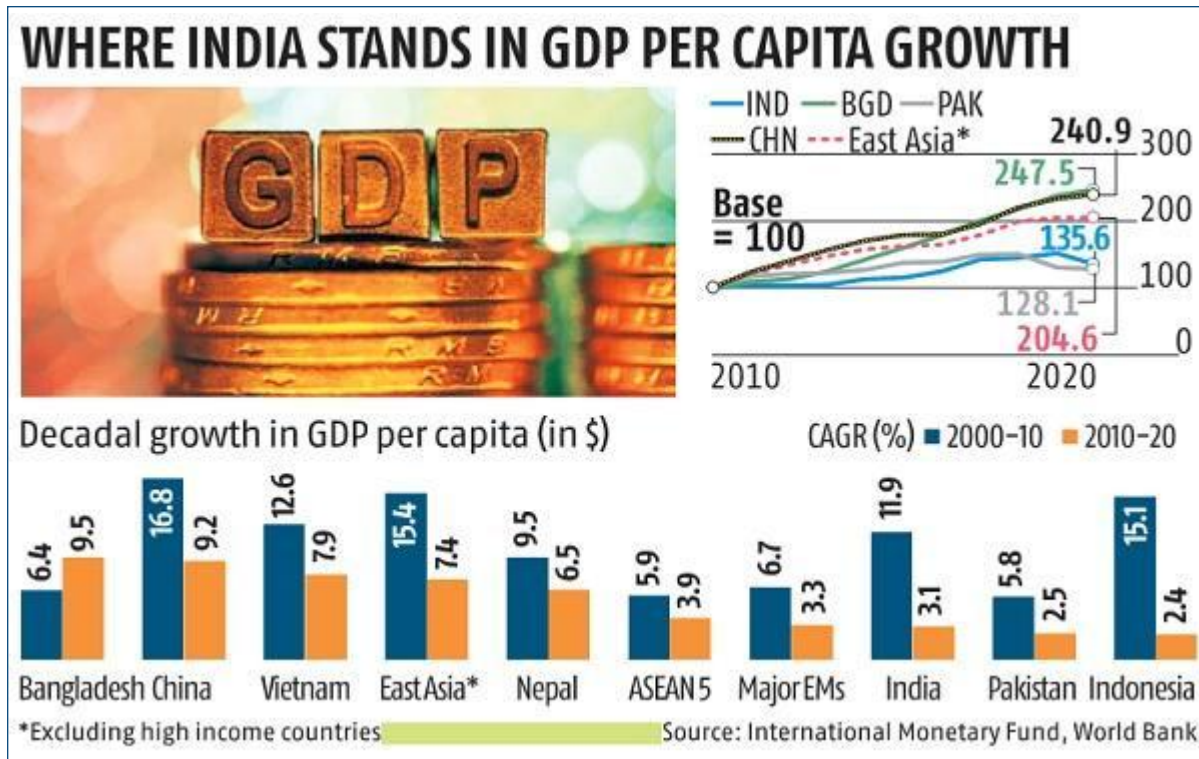
Fig. 8: **India's GDP Per Capital Growth during 2010-2020**

Accordingly, looking at the GDP per capita growth and SDG No. 12, it can be stated that, during the period 2010-2020, though the prices of a few essential and staple commodities like milk, tomatoes, and apples, or even a combo meal at McDonald's saw an upwards trend in the Indian market, the country's growth in GDP per capita (USD) did not give a correlated and commensurate picture. Accordingly, going forward under the SDG No. 12, India needs to pay critical attention to sustainable consumption and production patterns, as well.

CONCLUSION

To promote global partnership, the United Nations identified 17 sustainable development goals and gave an urgent call for action by all countries.

The critical goals identified were zero hunger, no poverty, good health (and well-being), quality education, gender equality, clean water (and sanitation), affordable (and clean) energy, decent work, economic growth, industry, infrastructure, and innovation.

A few more add-on goals were reduction in inequalities, sustainable cities and communities, improved production and responsible consumption, life on land, life below water, action on climate change, peace and justice, institution building, and strengthening global partnerships.

The sustainable development goals are for the betterment, prosperity, and economic progress of a nation. As studied from the report, the Indian story is a tad different, yet more interesting.

Starting off at a growth rate of 8.498% (2010-11), the country's annual GDP rate dipped to 5.241% (2011-12), then rose for five consecutive years to 8.256% (2016-17), and underwent three successive dips and closed at 4.181% (2019-2020). Hence, over the decade 2010-2020, the annual GDP growth rate saw a net dip from 8.498% to 4.181% (a fall by more than half the base).
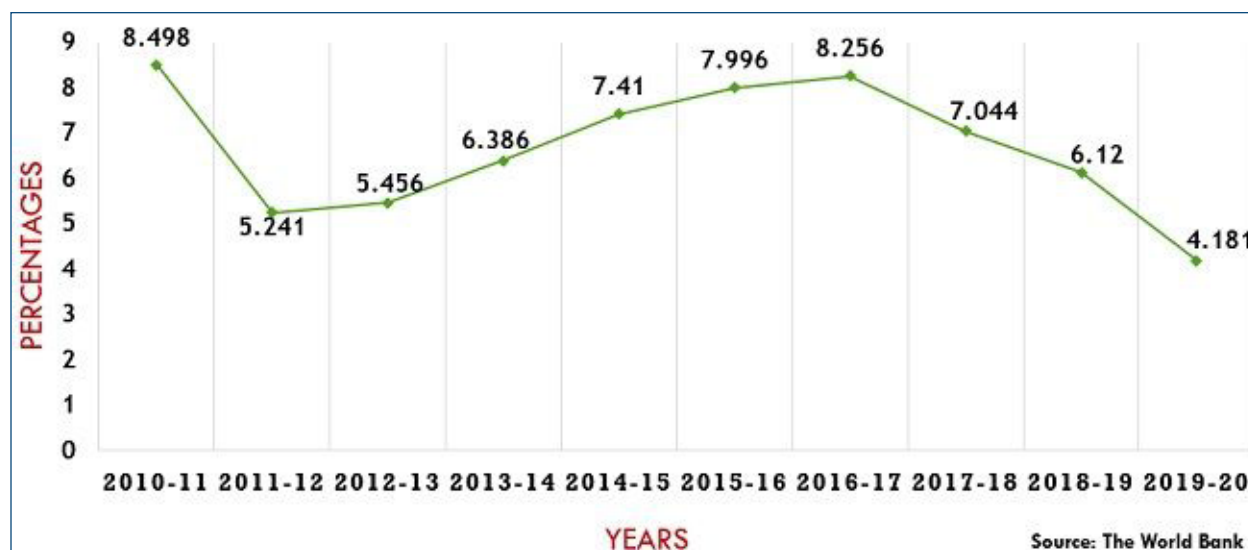
Source: https://theinvestorsbook.com/gross-domestic-product-gdp.html (Retrieved on Aug. 28, 2022).

Fig. 9: **Annual Growth Rate Chart of Gross Domestic Product (GDP) of India 2010-2020**

Even though the Indian federation specifically identified seven of the 17 SDGs as critical areas of lookout, success cannot be achieved in an ad-hoc manner. Achievement and sustaining the targets can only be taken up with the coordination and collective efforts of both the centre and the states and UTs.

One of the prime lookouts of The National Institute of Transforming India (NITI Aayog) – India's apex economic policy think tank – is the attainment of the sustainable development goals (SDGs) for 2030, and measuring and monitoring each of the 28 states' and eight union territories' progress towards the same.

The report also mentions that based on the current levels, the states of Bihar and Jharkhand look to be the least prepared to meet the SDG targets by 2030. The first position (in terms of on-target achievement) was occupied by Kerala, with Himachal Pradesh and Tamil Nadu occupying second place. The states of Andhra Pradesh, Goa, Karnataka, and Uttarakhand were jointly third.

While on the Union Territories' side (in terms of on-target achievement), Chandigarh occupied the top position, with Delhi, Lakshadweep, and Puducherry occupying the second position jointly. Andaman and Nicobar Islands came a creditable third position.

No wonder, NITI Aayog painstakingly firmed up the structural edifice of the first SDG India Index and its Baseline Report (https://www.niti.gov.in. Retrieved on Aug. 11, 2022).

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