1 NO POVERTY

2 ZERO HUNGER

4 QUALITY EDUCATION

6 CLEAN WATER AND SANITATION

5 GENDER EQUALITY

SUSTAINABLE DEVELOPMENT
=
DIA-LA(W)-GUE

HERITAGE LAW COLLEGE

INNOVATION STRUCTURE

10 REDUCED INEQUALITIES

11 SUSTAINABLE CITIES AND COMMUNITIES

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

13 CLIMATE ACTION

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

15 LIFE ON LAND

14 LIFE BELOW WATER

17 PARTNERSHIPS FOR THE GOALS

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  6th Semester

- **PRIYADARSHINE LAW**

  6th Semester

No. _____

FROM THE EDITOR'S DESK

Hello Everyone!

On behalf of the editorial team, I am proud to announce the launch of the Sixth Edition of our E-Magazine, Dia-Law-Gue on the theme 'Sustainable Development: Pitfalls and Challenges.'
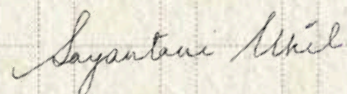
The excruciating heat of the summer days that we have all endured in the last few months have once again testified to the mounting significance of this apparently clichéd theme that was chosen by our team to commemorate the World Environment Day which was celebrated with usual fanfare on 5th June. As always, this edition has a remarkable assemblage of articles and artwork brilliantly authored by our students on the Sustainable Development Goals (SDGs) along with an impressive compendium on global environmental activism, research and strategy planning.

Apart from that, we are indeed blessed to publish two interviews and an article by distinguished resource persons from both legal and non legal disciplines which provide us with thought provoking insights into the cataclysmic reality of ground zero to which they belong and from where they relentlessly struggle to effect change.

The theme, as I mentioned earlier, may appear rather prosaic to many but gained precedence over other pressing concerns because of an overwhelming sense of foreboding coupled with responsibility that is implicit within it. The foreboding of the impending doom that inevitably results from manhandling the environment is elaborated through the pages of this edition along with a gentle reminder that our responsibility to celebrate the health of Mother Earth cannot be possibly restricted to a single day but should become a ceaseless endeavor sustainable through days, months and years.

Kudos to the team who has once again burned the midnight oil to publish the E-Magazine!!

Cheers to a greener future!!!

Sayantani Akhil

Editor,
Team Dia-Law-Gue

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" ADVOCATING FOR ENVIRONMENTAL CAUSES IS A PASSION GOING BEYOND MONETARY GAINS..." ADV. RACHIT LAKHMANI IN CONVERSATION WITH PRIYADARSHINE LAW AND UTANK BANERJEE

1. How long have you been connected to environmental law and what changes have you observed in the field overtime?

Ans: I have been connected to environmental law for seven to eight years and have observed significant changes during this time. One major shift is the growing involvement of vigilant citizens in the judicial process through public interest litigation, distinguishing genuine cases from those driven by private interests. Public awareness regarding environmental issues has notably increased, emphasizing the importance of effective law implementation over mere policy formulation. This awareness extends from the grassroots to the educated class, whose influence is amplified by independent media. The rise of media scrutiny has heightened public consciousness and driven more rigorous environmental action, marking some of the most significant changes in the field.

2. How effective do you believe national policies are in promoting sustainable development?

Ans: Yes, India has several national policies aimed at environmental protection and sustainable development, such as the Air Act, Water Act, and Environment Protection Act. These laws cover various aspects of environmental regulation, but their implementation is often weak. Enforcement gaps allow businesses to bypass regulations, sometimes through relationships with bureaucrats. Additionally, environmental pollution can occur under the guise of religious practices and festivals, contributing to noise, water pollution, and clogged sewage systems. While India's legislative framework is robust and aligns with international standards, effective implementation is critical for these policies to truly promote sustainable development. Improving enforcement mechanisms is essential to address this challenge.

3. What role do Environmental impact assessments (EIAs) play in sustainable development?

Ans: Environmental impact assessments (EIAs) are vital for sustainable development, especially for activities like mining that impact the environment. EIAs enforce the "polluter pays" principle, requiring businesses to compensate for environmental damage through mitigation measures. They help identify specific environmental problems and set conditions for businesses to minimize harm, such as afforestation, water management, and dust control. Without EIAs, authorities cannot establish necessary remedial measures. Rigorous and honest EIAs ensure economic activities proceed with careful environmental management, supporting sustainable development.

4. Can you describe your approach to advising clients on environmental compliance and risk management? How would you handle a situation like where a client was in violation of an environmental regulations?

Ans: Yes, I believe India's national policies for sustainable development are aligned with international standards. As a litigating lawyer, I often handle cases involving environmental violations. While India's legislative framework is robust, the main challenge is in implementation. When advising clients in violation of environmental laws, the priority is to rectify the violation and ensure compliance, demonstrating to the court that corrective measures have been taken. This approach helps mitigate severe penalties or operational shutdowns. Balancing environmental protection with industrial activity is crucial, and effective implementation of existing policies is key to achieving sustainable development.

5. Can you share a case where you successfully contributed to a sustainable development outcome?

Ans: Certainly. One notable case where I successfully contributed to sustainable development, impacting society, involves the firecracker ban in West Bengal. Two years in a row, we achieved a complete ban on firecrackers in Calcutta and the broader state. Although the Supreme Court later modified this to allow limited firecracker use during specific hours on Diwali, the ruling established clear guidelines for permissible firecrackers, allowing only those certified as "green" by the Petroleum and Explosives Safety Organisation (PESO). This decision significantly reduced pollution and public nuisance during major festivals.

Another impactful case involved illegal mining in West Bengal and Jharkhand. I represented 125 miners accused of illegal mining, facing exorbitant penalties that would have devastated their livelihoods. The penalties were imposed based on a flawed interpretation of National Green Tribunal (NGT) orders. By challenging these demands, we succeeded in having the penalties quashed. The court directed the authorities to conduct a proper assessment to distinguish between legal and illegal mining activities, ensuring penalties were only levied for actual infractions. This case underscored the importance of fair and accurate implementation of environmental laws, protecting both the environment and the rights of individuals. These cases highlight how effective legal interventions can balance economic activities and environmental sustainability, demonstrating my commitment to fostering sustainable development through the legal system.

6. What advice would you give to the students entering the field of environmental law?

Ans: Entering the field of environmental law offers a dynamic and impactful career path that intersects with numerous legal domains, such as human rights, corporate social responsibility, and international law. Aspiring environmental lawyers should cultivate a broad legal foundation and explore diverse opportunities, including roles in NGOs, international organizations, corporate CSR departments, and government bodies. Engaging in pro bono work can be particularly fulfilling, as many lawyers find passion in advocating for environmental causes beyond monetary gains. Staying informed about evolving laws and scientific advancements is crucial, as is networking with professionals and participating in environmental law groups. Balancing personal passion with professional responsibility is essential, ensuring that advocacy is grounded in solid legal principles. Ultimately, a career in environmental law requires dedication, adaptability, and a genuine commitment to making a positive difference in society and the natural world.

ADV. RACHIT LAKHMANI

Adv. Rachit Lakhmani is a prominent advocate practicing at the Calcutta High Court and a visiting lecturer at the West Bengal National University of Juridical Sciences (NUJS), Kolkata. Having graduated from the Government Law College in Mumbai, he specializes in environmental law and has significantly contributed to the field through his involvement in landmark cases. Notably, he played a crucial role in the ban on firecrackers in West Bengal, addressing severe health and environmental concerns, and has been instrumental in halting illegal mining activities in Jharkhand and West Bengal, thereby protecting local ecosystems and communities. thereby protecting local ecosystems and communities. His dedication extends beyond the courtroom as he imparts his knowledge and passion for environmental justice to future legal professionals at NUJS. Mr. Rachit Lakhmani's career is a testament to his commitment tofostering a sustainable and equitable environment through both his legal and academic endeavours.

Sustainability - Greening of Poverty
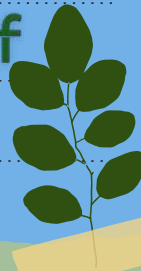
-Dr. Mohit Ray,
*Human Rights and Environmental Activist*

Environment is different from Nature. Nature has evolved in its own way. Environment is the surroundings that humans have built or impacted for its own interest. So human civilisation is synonymous with using and changing nature for its living. It started with the use of fire. Shifting cultivation from forests to other land uses has been done since humankind settled as farmers. Domestication of animals, development of agriculture, selection of crops – all were against nature. However, the impact was mostly manageable though not always.

Industrial revolution in west two centuries back brought unprecedented human development. Humans are living more years, more comfortable life, healthier than before. Science and technology brought whole world closer. In the middle of last century, issue of pollution became critical in Western countries and they took up different steps, from technical solutions to legal interventions. Within few decades environment in West became much better than even before industrial age. However, they also could find that environmental pollution is a global issue and they started to impose their standards and understandings on the third world.

They discovered that development in Third world has impact on rest of the world too so it needs to be controlled. The campaign for anti-development started and Environment became a new religion in West.

Sustainability

Sustainability is now the most used term in environmental discourses and already is considered as panacea for all environmental and development issues. All big corporations in the western countries now have ESG (Environment, Sustainability, and Governance) section in their management hierarchy. The term sustainability was introduced at the world theatre in 1987, five years before Rio Conference. Brundtland Report, a report prepared under the auspices a UN commission known as Brundtland Commission started the ball rolling. The commission of 22 members was composed of mostly politicians, diplomats and lawyers of various countries headed by Gro Brundtland, Norway's past socialist premier. It defined Sustainability as meeting our own needs without compromising the ability of future generations to meet their own needs. Though sustainability for last three decades has been defined in various ways, convenient to the user, its main focus is anti-development.
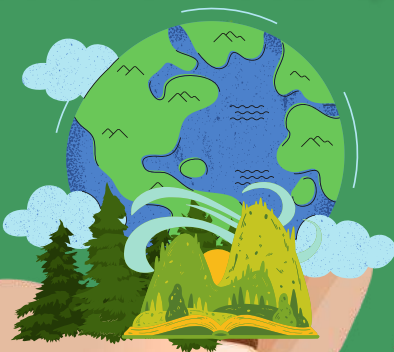
The whole issue of anti-development mindset came from rich section of the western societies who are tired of affluence and want to seek some alternative pleasure through some old days adventure. It's like you have a big flat in the poshest quarter of the city with all the highest civic amenities but still like to spend some days in your old village house without electricity and running water, spending some days with nature. And for that you need some underdeveloped villages. The tribes in Amazon Forest or Andaman Islands, without contact with rest of the world, are living there for thousands of years. A sustainable living indeed.

Do we want to live that quality of sustainable life? Did humans come out of Stone Age due to lack of sustainability of stones? Development is the key to building of civilisation and humans are doing it continuously. So, for developing societies, sustainability has come as greening of the poverty. By championing 'small is beautiful' ideas it tended to suppress development programme in the poorer countries. The politics of sustainability is actually greening of the poverty but enjoying rich life elsewhere.

This should not mean that development work in our countries do not need environmental regulations. All developmental work should go through impact assessment, pollution control methods. However, the projects should not be stopped because of sustainability campaign or intervention by western NGOs or their funded groups. Biggest pollutant is poverty and to sustain it is against humanity.

Dr. Mohit Ray

Dr. Mohit Ray, with a PhD in Engineering from Jadavpur University and an MSc in Chemical Engineering from Manchester University, is a distinguished environmental professional. He has extensive experience in Environmental Impact Assessment, Management, and

Risk Assessment working with the World Bank on projects in India, Bangladesh, South Korea, and Myanmar. An EIA coordinator accredited in five sectors, he is also known for his pioneering research on Kolkata's water bodies.

.He has actively participated in efforts to restore water bodies, save the Adi Ganga, and promote non-polluting vehicles like bicycles. A prolific writer in Bengali, his seminal work

includes the discovery, identification, and documentation of various heritage water bodies as well as several thousand such bodies in and around Kolkata.

"WHAT ARE WE DOING TO MAKE THE EARTH BETTER?..." DR. NAYAN MITRA IN AN EXCLUSIVE INTERVIEW TO DIA- LAW-GUE

1. What are the biggest challenges you face in your work towards environmental sustainability and SDG achievement?

In 2018, when we initiated Sustainable Advancements as a Company, the biggest challenge was that, the market was not ready. Some of the biggest corporations, civil societies, communities would use the term 'Sustainability' loosely without understanding the real meaning or the weight of it. Most often than not, sustainability management was confused as environmental management or financial sustainability. Yes, indeed planet (environment) is important, but so are people, prosperity, peace and partnerships holistically. Moreover, there was no one who was responsible for integrating sustainability into the Organization. Hence, sustainability was nobody's business, but everybody's concern.

Hence, we had to start with raising awareness on the topic, handholding professionals into gradually speaking the right language and thereby integrating sustainability into their businesses. This was undoubtedly an uphill task. Cannot say, we have succeeded 100%, but yes, we have done our part in transforming some of these issues through training over 3500 stakeholders in the last 5 years alone, who are now taking the journey forward in their own domains.

2. Do you feel social responsibility like Community Engagement, Employee Practices, Fair Trade and Labour Practices are essential parts of SDG and Corporate Social Responsibility? If so, how?

Corporate Social Responsibility (CSR) and Sustainable Development Goals (SDGs) are not synonymous. SDG is the bigger umbrella; CSR is a part of the entire SDG portfolio. While all actions of CSR must align to SDGs, it is not vice versa. All actions of SDGs may not be CSR activities. The entire company has to align to the SDGs; and CSR is a part of it.

However, a closer look would reveal that the majority of Schedule VII of the Companies Act 2013 align with the 17 goals of the SDGs. This alignment does not mean that all of the SDG impacts have to be done solely through CSR. It is the company that has to align to the SDGs or commit to the SDGs. They should use the data from their CSR projects and integrate them within their Sustainability Reports. Community Engagement, Employee Practices, Fair Trade and Labour Practices are not recognized as CSR under the CSR rules of the Companies Act, 2013. According to the Rule 2(1)(d) of the Companies (CSR Policy) Rules, 2014, CSR and the following activities and some more are specifically excluded from being considered as eligible CSR activity: activities undertaken in pursuance of normal course of business of the company, with certain exceptions for R&D; activities benefitting employees of the company as defined in Section 2(k) of the Code on Wages, 2019; sponsorship activities for deriving marketing benefits for products/services; activities for fulfilling statutory obligations under any law in force in India.

While fair employee practices, labor practices would be more of a function of the Human Resource department; Fair Trade would be more of the company's strategic action. Community Engagement will depend on the kind of stakeholder and the nature of the engagement. While these are not considered CSR under the Companies Act 2013, these can definitely add up to the companies Sustainability practices.
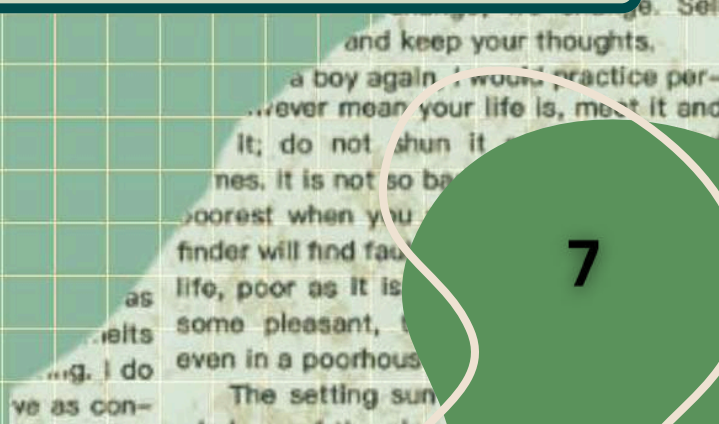
3. How has the legal framework and judicial activism of our country aided the achievement of SDG goals in India? Do you suggest enactment of any new legislation for attainment of SDG?

The legal framework and judicial activism have helped. If we connect only CSR to SDG, India is the first country that can actually calculate the amount of money that has been spent and also the kind of interventions that has been done to attain the SDGs through CSR activities. Each company under the purview of mandated CSR, is required to submit an 8-column report to the MCA (Ministry of Corporate Affairs) at the end of every year. This report outlines exactly what kind of projects the companies do and how much money they have spent in that financial year. This means that if we take data from the last 10 years, we will have exactly the amount of money that has been spent through CSR by these Companies towards attaining the SDGs. This is possible because we had CSR as a mandate under the Companies Act 2013.

About enactment of any new legislation for attainment of SDGs, right now I would not want to comment on that because when we talk about the SDGs, it is here for the next 6 years only. SDGs, as floated by the United Nations, have a time span between 2016- 2030. Laws cannot be made with specific timeframes. But if we are talking about sustainability, it is another matter altogether. Various international and domestic laws and compliances have been/ are being floated keeping Sustainability in mind. Eg. The E-Waste Management Rules of 2022, The Waste (Disposal and Management) Act, 2023, Business Responsibility and Sustainability Reporting Framework,2021.

4. Being an ardent advocate of SDG 5, how do you ensure that your gender equality initiatives are inclusive and address the needs of diverse groups of women, including those marginalized by race, disability, or socioeconomic status?

Sustainable Advancements is a woman-led, equal opportunity company and a signatory to the Women's Empowerment Principles (WEPs) by the UN Women. Moreover, Sustainable Advancements is also the Secretariat for the Women's Indian Chamber of Commerce and Industry (WICCI) Sustainable Businesses Council; and have conducted numerous researches like Women@Work (UN Women), Women in Sustainable Business (Business Call to Action, UNDP) that have been published and disseminated in various international platforms to name a few. That apart, Sustainable Advancements is a proud promoter of the books Creating a Culture of Diversity and Inclusiveness in India Inc.; Diversity and Inclusion in the Startup Ecosystem under the series Responsible Leadership and Sustainable Management by Springer (Series Editors: Dr. Nayan Mitra and Dr. Rene Schmidpeter).

Infact, one of the key brands of Sustainable Advancements is 'Alna' that aims at mainstreaming vulnerable and rescued women of trafficking by providing them financial independence by empowering them with design sensibilities in creating sustainable lifestyle products and generating market linkages through collaborations, thereby leaving no one behind. Unsafe migration is a pertinent problem in West Bengal (India), that leads to it being a source, transit and destination for trafficking in persons both for the north-east states of India as well as cross border with the neighboring countries. Post rescue, where repatriation is not possible, women and girls are rehabilitated in shelter homes. They often lack education, skills and most importantly traumatized by their experiences. Alna helps in bridging this gap.

Alna is recognized as an Industry Disruptor by the UN Women and an awardee by the Rotary's Choice Award for 'Promoting and Enabling Women's Participation.' Our work in these spaces have also attracted a number of awards, that includes, but not limit to 'Exceptional Woman Award (2019)' by Women's Economic Forum; 'Global Excellence Awards for Top 40 Female Leaders of the year- 2021'; '1000 Women of Asia Awards- 2021' at the. Womennovator Global Sumit.

5. What suggestions do you have for improving the integration of environmental sustainability into the SDGs framework and motivating young students towards such initiatives?

Every act counts. The integration of environmental sustainability to SDGs framework is already there. However, what lacks among young students are awareness, motivation and role models. We cannot expect young people to do things that we, ourselves are not doing.

Motivation to change is a very important driver because every action matters and for every action that matters, each one of us have to do our parts. And that has to start with raising awareness and doing our part, which means, that if we are pointing one finger out to the youth, we have to point four fingers towards ourselves and ask the question - What are we doing to make the earth better? We cannot have an environmentally unsustainable lifestyle and advocate the young people to take all the hardship. It cannot happen that way. We have to teach them how to do things by doing them ourselves – by being the harbingers of change.

DR. NAYAN MITRA

Dr. Nayan Mitra works and contributes in the space of Sustainability, CSR and Responsible Leadership. Her Company, Sustainable Advancements [OPC] Private Limited is a woman-owned company that broadly aims to promote the Sustainable Development Goals [SDGs] through advocacy and implementation [www.sustainableadvancements.com]. Under her leadership, Sustainable Advancements has been established as a holistic institution of international and national repute.

Dr. Nayan Mitra is the series editor of Responsible Business and Sustainable Management by Springer, is the editor of the books 'Corporate Social Responsibility in India: Cases and Development after the Legal Mandate' in India [2017], 'Mandated Corporate Social Responsibility: Evidence from India' [2019], 'Corporate Social Responsibility in Rising Economies: Fundamentals, Approaches and Case Studies' [2020] with co-editor, Dr. Rene Schmidpeter [Germany] that has been published by Springer International [Switzerland]. Dr. Mitra has over 60 peer reviewed research publications in international journals and books; and is Academic Council member and Science Board member in International Academic forums USA. She is often invited by thinktanks internationally to conduct trainings and provide advisory. She spearheads the India CSR Leadership Interview Series by India CSR, where she brings together the collective thoughts, ideas and practices of distinguished corporate leaders on Sustainability and CSR.

She feels deeply for women's issues and is the National President of the Women's Indian Chamber of Commerce and Industry [WICCI] Sustainable Businesses Council; G-100 for Circular Economy; Dr. Mitra is the recipient of a number of prestigious awards including the Author Award at the Indian SR CSR Leadership Summit which she has received for three consecutive years.

ENVIRONMENTAL MOVEMENTS IN INDIA: A LEGACY OF RESISTANCE AND CONSERVATION

India, with its vast and diverse natural landscapes, has witnessed numerous environmental movements over the decades. These movements have been driven by the need to protect natural resources, prevent environmental degradation, and ensure sustainable development. From the Himalayan forests to the coastal ecosystems, grassroots movements have played a crucial role in shaping India's environmental policies and raising awareness about ecological conservation.

The Bishnoi Movement (1730)

In 1730, Maharaja Abhay Singh of Jodhpur sent soldiers to fell Khejri trees in the village of Khejarli for his new palace. The Bishnoi community, which follows a religious tenet to protect nature, opposed this act. Amrita Devi Bishnoi and her three daughters sacrificed their lives by hugging the trees to protect them. Following their example, 363 Bishnois were killed in an attempt to protect their sacred trees.The Bishnoi Movement led to the issuance of a royal decree protecting the Khejri trees in the region. The community's dedication to environmental conservation continues to inspire contemporary environmentalists.

Silent Valley Movement (1978-1983)

Silent Valley in Kerala, a pristine tropical rainforest, faced the threat of destruction due to a proposed hydroelectric project. The valley was home to numerous endemic species, including the endangered Lion-tailed Macaque. The movement gained momentum through the efforts of environmentalists and scientists like Dr. Salim Ali, who emphasized the ecological value of the valley. In 1983, Prime Minister Indira Gandhi declared Silent Valley a national park, thereby protecting it from the proposed dam project.

Chipko Movement (1973)

The Chipko Movement originated in the Himalayan region of Uttarakhand (then part of Uttar Pradesh) as a response to rampant deforestation and commercial logging. The local villagers, particularly women, relied heavily on the forests for their daily needs and recognized the ecological imbalance and socio-economic hardships caused by deforestation. The villagers led by Gaura Devi and other activists, hugged the trees to prevent them from being cut down. This non-violent protest gained widespread attention when women in the village of Reni clung to the trees to stop contractors from felling them. It resulted in reduced logging in the region, influenced sustainable forest policies, and inspired global environmental movements, highlighting women's crucial role in conservation.

Appiko Movement (1983)

Inspired by the Chipko Movement, the Appiko Movement began in the Western Ghats of Karnataka to counter deforestation and monoculture plantations that threatened biodiversity and local livelihoods. Villagers in Uttara Kannada district, led by Panduranga Hegde, embraced trees in protest against commercial logging. The movement also involved extensive grassroots education campaigns about the importance of forest conservation.

Bhopal Gas Tragedy (1984) and Environmental Justice Movements

The Bhopal Gas Tragedy of 1984, one of the world's worst industrial disasters, exposed the severe risks of industrial negligence. The release of methyl isocyanate gas from the Union Carbide plant led to thousands of deaths and long-term health consequences for the residents of Bhopal. The tragedy spurred environmental justice movements in India, advocating for stricter industrial regulations, accountability, and compensation for affected communities. Organizations like the Bhopal Gas Peedit Mahila Udyog Sangathan and the International Campaign for Justice in Bhopal continue to fight for justice and safer industrial practices.

Save Western Ghats Movement (1987-Present)

The Save Western Ghats Movement is an ongoing campaign to protect the Western Ghats, one of the world's biodiversity hotspots. This movement began in 1987 with a march along the Western Ghats to raise awareness about the region's ecological significance and the threats it faces from deforestation, mining, and unplanned development. Activists and environmentalists have been advocating for sustainable development practices and the implementation of the Western Ghats Ecology Expert Panel (WGEEP) recommendations, which call for the conservation of ecologically sensitive areas and stricter regulation of developmental activities.

Coastal Regulation Zone (CRZ) Notifications (1991-present)

The Coastal Regulation Zone (CRZ) notifications aim to protect India's coastal ecosystems from unplanned development and degradation. Revisions to these notifications have led to movements defending coastal habitats and livelihoods. Environmental groups and local communities have protested amendments they believe weaken coastal protections, using public hearings, legal actions, and advocacy for stricter enforcement. These efforts have fostered a nuanced understanding of coastal management, balancing development with conservation, and continue to shape policies to ensure local communities' voices are heard.

Narmada Bachao Andolan (1985-present)

The Narmada Bachao Andolan (Save Narmada Movement) arose in response to the construction of a series of large dams on the Narmada River, particularly the Sardar Sarovar Dam. These projects threatened to displace hundreds of thousands of people, submerge vast tracts of forest, and alter the river's ecosystem. Led by activists Medha Patkar and Baba Amte, the movement employed non-violent protests, hunger strikes, and legal battles. The movement brought to light the issues of displacement, environmental degradation, and the rights of indigenous communities. Although the dam construction continued, the movement succeeded in raising awareness about the social and environmental costs of such projects and influenced policies on resettlement and rehabilitation.

Tehri Dam Protests (1990s-2000s)

The construction of the Tehri Dam on the Bhagirathi River in Uttarakhand posed severe threats of displacement, ecological disruption, and geological instability in a seismically active zone. Environmentalist Sunderlal Bahuguna led the protests, including hunger strikes and extensive campaigns to raise awareness about the dam's adverse impacts. Despite strong opposition, the dam's construction continued. The protests brought significant attention to the environmental and social issues associated with large dams.

Kudankulam Anti-Nuclear Movement (2000s-present)

The Kudankulam Nuclear Power Plant in Tamil Nadu faced opposition due to concerns about nuclear safety, environmental degradation, and the lack of adequate disaster management plans. Local villagers, supported by activists like Dr. S.P. Udayakumar, organized protests, hunger strikes, and legal battles. The Fukushima nuclear disaster in 2011 intensified the fears and resistance among the local population. While the power plant became operational, the movement highlighted the need for greater transparency and public participation in decisions regarding nuclear energy.

Jaitapur Nuclear Power Project Protests (2010s-present)

The proposed Jaitapur Nuclear Power Project in Maharashtra faced opposition due to environmental, safety, and livelihood concerns. The site is in a seismically active zone, raising fears of potential nuclear disasters. Local farmers and fishermen, alongside environmental activists, have organized protests, demonstrations, and legal challenges against the project. The movement has gained national and international attention, emphasizing the risks associated with nuclear energy.

Recent Movements: Coal Mining Protests and Climate Activism

In recent years, environmental activism in India has also focused on coal mining projects, which threaten forests and indigenous communities. Protests against coal mining in areas like the Hasdeo Arand forests in Chhattisgarh and the forests of Jharkhand highlight the ongoing conflict between development and conservation. Additionally, the rise of climate activism, particularly among the youth, is a notable trend. Movements like Fridays for Future India, led by young climate activists, emphasize the urgency of addressing climate change and call for policies to reduce carbon emissions and promote renewable energy.

From the Bishnoi Movement to the protests against nuclear power plants, these movements have brought attention to the intricate links between ecological health and social justice. They have not only achieved tangible victories in terms of policy changes and project cancellations but also fostered a culture of environmental stewardship and grassroots activism. As India continues to develop, the lessons from these movements remain vital for balancing growth with ecological sustainability and social equity.

Compiled by
Soupama Sen

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CHANGE SETTERS, TREND SETTERS

Salim Ali (12 November 1896 - 20 June 1987) was an Indian environmentalist, ornithologist, and naturalist awarded the Padma Vibhushan and Padma Bhushan. He was also the first Indian to conduct systematic bird surveys across India. He was also known as the "Birdman of India." He also prevented the destruction of what is now the Silent Valley National Park. He was a leading conservation scientist and influenced our country's environmental policies.

M. S. Swaminathan (7 August 1925 - 28 September 2023) was an environmentalist, agricultural scientist, plant geneticist, Indian agronomist, administrator, and humanitarian who helped introduce Mexican semidwarf wheat plants to Indian fields and helped bring greater acceptance of modern farming methods. He is renowned for his leading role in India's "Green Revolution." It is a program under which high-yield varieties of wheat and rice seedlings are planted in the fields of poor farmers.

Sunderlal Bahuguna (9 January 1927 - 21 May 2021) was an Indian environmentalist who fought to preserve forests in the Himalayas and the anti-Tehri Dam movement. He also worked to improve the plight of the hill people, mainly working women, and was associated with temperance movements and, earlier on, with struggles against caste discrimination. He is considered one of the early environmentalists in India.

Tulsi Gowda (born 1944), an Indian environmentalist known as the "Encyclopedia of the forest" and the "trees goddess" by her tribe, is renowned for her self-taught ability to identify mother trees of every species and her expertise in seed collection. Despite no formal education, she has planted and cared for nearly 100,000 trees in Karnataka. Her efforts have strengthened numerous reserves and wildlife sanctuaries, preventing poaching and forest fires, and providing sustainable livelihoods. She received the Padma Shri Award in 2020.

M. C. Mehta (December 12, 1946) is a public interest attorney who has worked on several landmark cases in the arena of environmental law in India. A few of his notable works are his efforts that led to the introduction of lead-free gasoline in India and the ban on shrimp farming, and several critical environmental issues plaguing the country such as industrial pollution along the Ganges, corrosion of Taj Mahal and shrimp farming along the coast.

Dr. Vandana Shiva (born 5 November 1952) is a renowned Indian environmental activist known for her campaigns against globalization and the Green Revolution. She argues that environmental conservation is a feminist issue and is a notable critic of Asia's Green Revolution, which began in the 1960s to boost food production through high-yield seeds, pesticides, and fertilizers. In 1991, she launched "Navdanya," a project aimed at opposing monoculture promoted by large corporations.

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Medha Patkar (born December 1, 1954) is an Indian social activist and environmentalist who launched the "Sutlej Bachao, Punjab Bachao" campaign in Ludhiana. Patkar shares her views by stating that they are working on protecting the Narmada because they consider it their mother. She is an advocate of human rights and founded her campaigns on two basic tenets of the Indian Constitution.

Himmat Ram Bhambhu (born 1956), A farmer and conservationist from Rajasthan has planted numerous trees in the desert regions of Nagaur, Jodhpur, and Jaisalmer, etc. for the last 25 years. His efforts have created a unique agroforestry plantation and a biodiversity conservation center, significantly contributing to forest conservation in arid areas. He has been associated with Mahavir International Sansthan Nagaur for Green Indian Mission since 2013. Also been Awarded by UNESCO in 1999 for environmental protection.

Mansukhbhai Raghavjibhai Prajapati (born 1965), a rural innovator from Gujarat, is recognized for his eco-friendly clay products tailored for rural communities. His most notable invention is the Mitticool refrigerator, a clay fridge that works without electricity, inspired by the 2001 Gujarat earthquake. His products are marketed both in India and internationally, promoting environmental sustainability. He is celebrated as one of India's influential rural entrepreneurs and was awarded the True Scientist award by President Dr. A.P.J. Abdul Kalam in 2007.

Marimuthu Yoganathan (born 1969) is an Indian environmentalist and bus conductor who has been awarded the "Eco Warrior" award by the Vice-President of India. He has also created awareness about protecting the environment among the students. He also received recognition from the US-based footwear company Timberland for his outstanding work in planting around 1,20,000 saplings across the state. He also created awareness about protecting the environment among the students.

Dr. Krithi Karanth (born 1979) is a leading conservation biologist in India, serving as the Chief Conservation Scientist and Director at the Centre for Wildlife Studies in Bangalore. Her research focuses on human-wildlife interactions, species distribution, and land use changes, often involving citizen science initiatives with hundreds of volunteers. She has received several prestigious awards, including the WILD Innovator Award in 2021, becoming the first Indian and Asian woman to receive it. In 2024, she was named to "The Explorers Club 50".

Compiled by
Tiyasha Hazra
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PAVING THE PATH FOR A SUSTAINABLE FUTURE

Debabrati Roy Chowdhury

Sustainable development epitomizes a comprehensive strategy aimed at fostering societal progress while safeguarding the well-being of our planet and preserving opportunities for future generations. This multifaceted approach intertwines economic, social, and environmental considerations, striving for enduring prosperity, fairness, and ecological resilience. At its core, sustainable development endeavors to harmonize economic growth with social inclusivity and environmental stewardship. By prioritizing the equilibrium between these facets, sustainable development ensures that current developmental endeavors cater to present needs without compromising the capacity of future generations to flourish. Central to its ethos is the acknowledgment of the intricate interdependencies among economic, social, and environmental systems. This recognition underscores the imperative of addressing the intricate interplay between these dimensions to attain genuine sustainability.

Sustainable development stands as humanity's cornerstone for survival, preserving essential resources, stabilizing the environment, promoting social equity, fostering economic opulence, acknowledging interconnectedness, and triumphing long-term planning. Through responsible resource management, environmental mitigation, social justice initiatives, economic fortification, collaborative efforts, and visionary foresight, sustainable development paves the path towards a prosperous and equitable global society. Embracing sustainability not only ensures human survival but also cultivates a world where every individual thrives harmoniously within the boundaries of ecological sustainability.

General awareness about sustainable development is imperative in both rural and urban areas to ensure effective implementation and meaningful progress. In rural settings, the emphasis is placed on meticulous resource management, encompassing sustainable farming practices, proactive promotion of renewable energy sources, livelihood diversification strategies, and fostering robust community engagement. Conversely, urban environments prioritize the establishment of green infrastructure, advocacy for public transportation usage, efficient waste management systems, and the implementation of smart growth initiatives. Collaboration among governmental bodies, civil society organizations, academic institutions, and private enterprises is pivotal in both contexts to catalyse substantial change. By empowering communities with comprehensive knowledge and ample resources, sustainable development endeavors can be pursued with vigour, fostering resilient, inclusive, and environmentally sustainable societies for both present and future generations to thrive within.

Legal safeguards for environmental protection encompass an intricate and multifaceted framework of environmental laws, regulations, and policies meticulously

crafted and implemented by governments at the local, national, and international levels. These measures delineate stringent standards for pollution control, prudent natural resource management, steadfast habitat conservation, and rigorous environmental impact assessments. Moreover, they prescribe penalties for transgressions and establish robust mechanisms for enforcement. Reinforcing these efforts are international agreements such as the Paris Agreement and the Convention on Biological Diversity, which bolster global endeavors to combat environmental challenges. Additionally, legal frameworks often embody principles like the precautionary principle and the polluter pays principle, holding individuals and industries accountable for environmental degradation while fostering a culture of sustainable practices and stewardship.

Germany's Renewable Energy Transition, facilitated by policies like the Renewable Energy Act, has decreased carbon emissions, enhanced energy independence, and spurred job creation in the renewable energy sector.

The Paris Agreement, signed by nearly 200 countries, is a pivotal global commitment to combat climate change. Despite ongoing challenges in achieving its goals, the agreement has fostered global cooperation and accelerated efforts to transition towards low-carbon economies.

Rwanda's Green Growth Strategy promotes sustainable economic development and climate resilience through initiatives like afforestation, sustainable agriculture, and renewable energy investments.

The aforesaid examples demonstrate that sustainable development can be achieved through a combination of political will, effective policies, and international cooperation, leading to positive outcomes for both people and the planet.

In the dynamic tapestry of global progress, sustainable development emerges as the linchpin for transformative change. It embodies the ethos of resilience, equity, and prosperity. With unwavering dedication, we can navigate the intricate nexus of economic growth, social inclusion, and environmental stewardship, ushering in a new era of sustainable transformation that transcends borders and empowers humanity towards a flourishing future.

HARNESSING TECHNOLOGY FOR SUSTAINABLE DEVELOPMENT: INNOVATIONS AND CHALLENGES

Krishna Shukla

In today's rapidly evolving world, the intersection of technology and sustainable development has become increasingly crucial. As humanity faces pressing environmental and social challenges, leveraging technology for sustainable development has emerged as a beacon of hope. This article delves into the multifaceted relationship between technology and sustainable development, exploring both its potential benefits and inherent complexities.

1. Driving Innovation:

Technology serves as a catalyst for innovation, offering solutions to mitigate environmental degradation and address societal needs. From renewable energy technologies such as solar panels and wind turbines to advancements in agricultural practices like precision farming and vertical farming, innovative technologies are reshaping industries towards more sustainable practices.

2. Enhancing Efficiency:

One of the key advantages of technology in sustainable development is its ability to enhance efficiency across various sectors. Smart grids optimize energy distribution, reducing waste and carbon emissions. IoT (Internet of Things) devices enable real-time monitoring of resource consumption, leading to more informed decision-making and resource management.

3. Empowering Communities:

Technology empowers communities by providing access to information, education, and resources. Mobile applications and online platforms facilitate knowledge sharing and capacity building, empowering individuals to take proactive measures towards sustainable living. Additionally, technologies such as 3D printing enable decentralized production, fostering local economies and reducing reliance on centralized supply chains.

4. Fostering Collaboration:

Collaboration is essential for achieving sustainable development goals, and technology serves as a bridge connecting stakeholders across geographical boundaries. Digital platforms facilitate collaboration between governments, NGOs, businesses, and academia, fostering partnerships to tackle complex challenges such as climate change, poverty alleviation, and healthcare access.

5. Addressing Challenges:

Despite its potential, the integration of technology into sustainable development is not without challenges. The digital divide exacerbates inequalities, as marginalized communities lack access to essential technologies and digital infrastructure. Moreover, the rapid pace of technological advancements raises concerns regarding data privacy, cybersecurity, and ethics.

6. Promoting Responsible Innovation:
To harness the full potential of technology for sustainable development, it is imperative to promote responsible innovation. This entails prioritizing ethical considerations, ensuring inclusivity, and mitigating potential risks. Stakeholder engagement, regulatory frameworks, and ethical guidelines play a crucial role in guiding the development and deployment of sustainable technologies.

7. Cultivating a Culture of Sustainability:
Ultimately, the success of technology in advancing sustainable development hinges on fostering a culture of sustainability. Education, awareness campaigns, and community engagement initiatives play a vital role in promoting sustainable behaviors and values. By instilling a sense of responsibility towards the environment and future generations, we can collectively work towards a more sustainable and equitable world.

In conclusion, technology holds immense potential to drive sustainable development, offering innovative solutions to global challenges. However, realizing this potential requires a concerted effort to address disparities, foster collaboration, and promote responsible innovation. By harnessing the power of technology in alignment with sustainable principles, we can pave the way towards a more prosperous future for all.

OBSTACLES ON THE PATH TO SUSTAINABILITY : THE IMPACT OF WAR AND ECONOMIC CRISIS

Sajeda Zaman

Sustainable development is something that can help the entire world's population and it helps supply security for future generations, but it is not without its challenges. There are a large number of challenges that need to be met if we are to achieve a better future. Billions of our citizens continue to live in poverty and are denied a life of dignity. There are rising inequalities within and among countries. There are enormous disparities of opportunity, wealth and power. Unemployment particularly youth unemployment, is a major concern. Climate change is one of the greatest challenges of our time and its adverse impacts undermine the ability of all countries to achieve sustainable development. Increases in global temperature, sea level rise, ocean acidification and other climate change impacts are seriously affecting coastal area and low-lying coastal countries, including many least developed countries and small island developing states.

War can indeed be a significant deterrent to sustainable development. It consumes resources, damages infrastructure, disrupts economics, displaces populations, and diverts attention and funds away from long-term development goals. The aftermath of war often requires extensive resources and time for recovery and rebuilding, hindering progress towards sustainability.

When there is turmoil, instability and war between nations it stands to reason that sustainable development cannot occur. For instance, the war in Ukraine had a negative impact on sustainable development. In fact, one of the biggest issues is that, this war has affected countries outside of Ukraine. Since Ukraine and Russia are big producers of wheat and barley. This is one of the adverse effects of globalization, nations have become dependent on each other to support their own standards of living. It is difficult to maintain a civil society and the well-being of people when there is war or the treat of conflict over a country. In these cases, sustainable development goals cannot be easily met.

IFAD's (International Fund for Agricultural Development) experience shows that responsible and targeted investments in agriculture and rural development can make an important contribution to reducing conflict and achieving peace and stability in NENA (Near East and North Africa). Ultimately, investing in food security is also an anticonflict remedy. But food security and social stability also depend on strengthening institutions, spur innovation to facilitate job creation, along with rural economic growth to achieve the 2030 Agenda.

SAVE THE PLANET

HARMONY IN PROGRESS: EXPLORING SUSTAINABLE DEVELOPMENT IN A CHANGING WORLD

Sasmit Paul

Sustainable development is a leading principal which focuses on sustaining natural resources in the world's eco system and on ensuring human development. It acknowledges the requirements of the natural environment along with the aims to work towards a safe and protective future. There are seventeen such sustainable development goals, and each of them are governed by fundamental aspects of human life. The environment is crucial for our survival. Sustainable development ensures that we use natural resources from this environment, wisely and reduce pollution to keep our planet healthy. Sustainable development is all about making sure that everyone has access to education, healthcare, clean water, and a decent standard of living. Human survival is under threat due to rapid degradation of environment and moreover we humans are still in the process of degrading it rather than conserving our environment. Sustainable development is long term process but the outcome of such process would eventually help us to lead a safe life in order to ensure a healthy future.

Though its implementation has been largely spoken of yet in reality there are number of challenges which we face while putting sustainable development into practice. One of the major problem is the rapid growth of human pullulation, due to which huge quantum of natural resources are being use that leads to environmental degradation. Major challenge is the ability of a nation to implement the sustainable development programs. Many a times we see that government take oaths and undertake various sustainable development initiatives in the summits but when it comes to actual field work it fails to achieve such goals. Implementing sustainable development often requires a change in the behavior, policy and infrastructure which can face resistance from the vested interests or inertia within existing systems. Such challenges should be undertaken to solve and the people must be made ware about the importance of sustainable developments.

It can be concluded by asserting that sustainable development offers a vison of a better world where everything can coexist harmoniously. It's a way that leads us away from the environmental and social challenges we face today and towards a bright future. We should work to achieve the sustainable development rather than keeping it only in the articles. A better environment means healthy and safe future for our upcoming generations.

CHALLENGES OF IMPLEMENTING THE SUSTAINABLE DEVELOPMENT GOALS

Chandrani Sarkar

Brundtland Commission's report of Our Common Future (1987) describes Sustainable development as the development which meets the needs of the present without compromising the ability of future generations to meet their own needs. The Sustainable Development Goals (SDGs) adopted by the United Nations in 2015 present a potent roadmap for tackling the global issues like poverty, inequality, and the climate change. The SDG framework has expanded through their perspectives and implementation in the global realm. It is a significant shift from mono-disciplinary, vertical paradigms to a model of unified policies across sectors. The interconnected SDG goals have stimulated multisectoral coordination and systematic partnerships between the international organizations, local authorities, civil society, businesses, and private sector enterprises for implementation, monitoring, and accountability. While the goals are largely supported worldwide, their implementation faces a complex web of challenges .One significant hurdle is the lack of sufficient financial resources. Achieving the SDGs requires massive investments in infrastructure, education, healthcare, and clean energy. Developed nations often fail to meet their promised aid commitments, placing a heavy burden on developing countries.

Additionally, attracting private sector investment can be difficult, especially when short-term profits conflict with long-term sustainability goals. Closely linked to financial constraints is the issue of governance and accountability. Corruption, weak institutions, and political instability can all hinder progress. Without strong governance, funds allocated for SDG initiatives may be mismanaged or misappropriated. This undermines public trust and discourages further investment. Furthermore, holding governments accountable for their commitments within the framework of the SDGs remains a challenge. Further complications arise from competing priorities. National governments often face pressure to address immediate crises like food insecurity or political unrest, leaving less resources for long-term development projects aligned with the SDGs. Balancing these competing needs requires effective leadership and a clear vision for a sustainable future. The SDGs also necessitate a significant shift in consumption patterns, particularly in developed nations. Unsustainable practices, from excessive energy use to a throwaway culture, need to be replaced with more responsible habits. However, changing ingrained behaviors can be a slow and difficult process. Public education campaigns and government policies that incentivize sustainable choices are crucial for driving this transformation. Finally, achieving the SDGs requires international cooperation on a massive scale.

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Developed and developing nations need to work together to share knowledge, technology, and resources. Trade policies need to be reformed to promote sustainable development practices. However, geopolitical tensions and a rise in nationalism can hinder cooperation and make it difficult to reach global consensus on critical issues.

Despite the numerous challenges, there are rays of hope for optimal development. Technological advancements offer innovative solutions for many SDG-related problems. Civil society organizations play a vital role in holding governments accountable and raising awareness about sustainability issues. There is a growing global movement of young people demanding action on climate change and other pressing issues. Achieving the SDGs is a complex and ongoing challenge. However, by acknowledging the difficulties and working collaboratively on solutions, we can navigate these challenges and build a more sustainable and equitable future for all.

PITFALLS IN THE PATH TO SUSTAINABLE DEVELOPMENT

Adrija Dey

Sustainable development can be defined as the economic and social development of a country without compromising the value of environment. The Sustainable Development Goals (SDGs) are expected to stimulate developmental actions in areas of critical importance such as ending poverty and hunger, providing healthy lives and quality education, achieving gender equality, providing modern energy, promoting sustainable economic growth, reducing inequality, etc . As per the SDG Index score, with the target being 100, India scores 63.45 whereas Finland tops the list as per the 2023 SDG index. In terms of the environmental dimension of development, the SDGs cover natural resource management, climate change, water-related issues, marine issues, biodiversity and ecosystems etc. Some of the legal safeguards and principal activities undertaken by the Ministry of Environment & Forests, consists of conservation & a survey of flora and fauna, forest and wildlife, prevention & control of pollution, afforestation, Fly Ash Utilisation Action Plan, Clean Development Mechanism etc. The SDGs, as ratified in 2015, ensure the development of humankind without exhausting the resources for future generations. They are designed to address a wide range of global challenges like poverty, hunger , sanitation, gender equality, quality education and 12 more by 2030 on which the human survival thrives. The implementation of SDGs in urban and rural areas is also noticeable as it addresses the dynamic nature of urbanization and creates opportunities for investment in slum areas and participation of general mass in institutional decision making. SDG 11 talks about such issues and aims to plan human settlements inclusive and sustainable. Talking about implementations, it is imperative to discuss the major challenges facing the UN`s SDGs. Firstly, it is difficult to get the right stakeholders at the right time to solve complex sustainability problems. Secondly, since SDGs will also involve tradeoffs, certain tough choices need to be made. Lastly, ensuring responsibility and accountability for progress of SDG is another thriving issue.
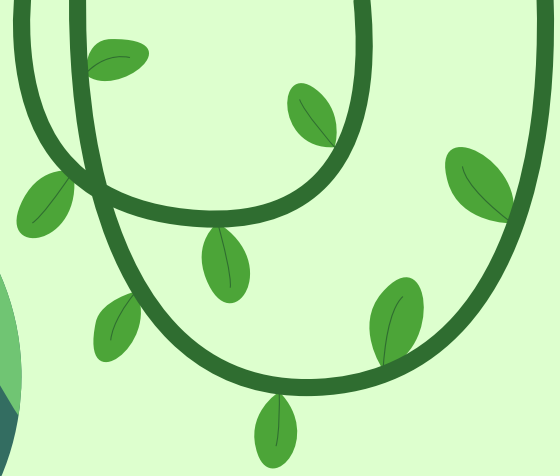
Moreover, climate change presents the single gravest threat to development, boring unprecedented burden to the poorest and most vulnerable sectors of the society, such as human health, land management, food security, water scarcity and biodiversity. Apart from the natural disasters, manmade disasters like war also impact the development of SDGs. The destruction of urban infrastructure disrupts communities and hampers the persistent efforts to create sustainable cities, educational institutions, denying quality education to children and causing major health and economic crisis. For deterring such complexities, certain agencies come together to bringing diverse perspectives, skill and technologies for greater development. Surpassing the ongoing challenges, Sustainable Development continues to achieve social and economic progress in ways which will not exhaust the Earth's finite natural resources. It recognizes eradicating poverty in all its forms and dimensions, combating inequality within the countries and creating a sustained, inclusive and sustainable economic growth which fosters social inclusion and independence among nations.

SUSTAINABLE DEVELOPMENT : DRAWBACKS, CHALLENGES, AND THE STANCE OF INDIA

Mahaditya Roy

In the 21st century, India is emerging as a superpower, with extraordinary growth in its GDP, agriculture, connectivity, defence and overall development in country, but still a question remains pre-eminent, which is as to How Indian as a developing country handle it's development sustainably.

Firstly, we need to understand the essence of sustainable development. United Nations gave the definition as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

From the detailed analysis of the statistics across the world, it has been observed that the nations have striven to ensure sustainable development, but has been met with a number of obstacles. The main challenges for achieving sustainable development in the 21st century include environmental degradation, limited resources, increasing population, poverty, climate change, and the need for inclusive development.

With the new census data showing, India has secured its 1st place in terms of population, while being the only country in the world to have the biggest young population which can help in nation building. However, the increasing population has led to rise in the problems of waste management, increasing private vehicles will mean more air pollution and traffic in big cities.

Another challenge for India is its dependency on the non-renewable energy like coal and petroleum. India uses coal to attain around 60% of its energy requirements. In the long run, where sustainable development is becoming necessity, attention needs to be given use of alternative conventional sustainable sources of energy.

With the increase in number of industries, rapid urbanization, decreasing forest cover has become a major concern for our country. Further, many of these industries also produce harmful waste materials, they are also responsible for water, soil and air pollution in many areas. Also, industrial disaster management will be another key challenge for India.

Waste management is again a vital issue for the country and in the near future the scenario may become even more crucial. The management of solid waste and their disposal is already a big issue especially in
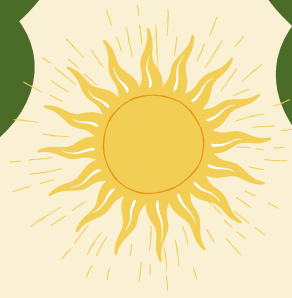
the big cities.

To combat with the circumstances, the government has taken a number of steps. India along with the other nations adopted the Paris agreement in 21st conference of parties under United Nations framework Convention on Climate change. The State Action Plans on Climate Change (SAPCC) aim to create institutional capacities and implement sectoral activities to address climate change. These plans are focused on adaptation with mitigation as co-benefit in sectors such as water, agriculture, tourism, forestry, transport, habitat and energy. Indian government has established National Adaptation Fund for Climate Change with the aim to support the communities suffering adverse effects of climate change. India has taken initiative through the following plans and

projects :-

Sashakt Bharat - Sabal Bharat: India has successfully lifted more than 271 million people out of multidimensional poverty through economic growth and empowerment. Enhanced access to nutrition, child health, education, sanitation, drinking water, electricity and housing, has led to reduced inequalities especially among people in vulnerable situations.

Swachh Bharat - Swasth Bharat: India attained 100% rural sanitation, a significant decrease in stunting, and low rates of infant and maternal mortality through a national programme sparked by the Clean India Campaign and the National Nutrition Mission. Ayushmaan Bharat, the world's largest health insurance system, has institutionalised

universal health coverage by providing an annual benefit of USD 7,000 to 100 million households, or roughly 500 million individuals.

Inference can be drawn by asserting that the road to the sustainable development is filled with vicissitudes and hardships, yet with the adoption of right policies and strong mind we can achieve an optimistic future.

ROLE OF INTELLECTUAL PROPERTY RIGHTS IN ACHIEVING SUSTAINABLE DEVELOPMENT GOALS

Joysri Mondal

In 2015 the United Nations set up a collection of 17 goals which are known as Sustainable Development Goals (SDGs). These goals are the to-do list for the world covering everything from poverty and hunger to health, education, and environment. These goals help us to build a better future without compromising the present needs.

In today's fast-changing world, the importance of Intellectual Property Rights (IPR) cannot be ignored in achieving SDGs. IPR creates an environment that promotes innovation by inspiring inventors to come up with solutions that are aligned with SDGs. Things like patents, registered designs, and utility models safeguard inventions and those innovations contribute to areas connected to the SDGs like healthcare, agriculture, and renewable energy. In the realm of sustainable development, IPR is a key factor that paves the way for a more innovative world. By giving exclusive rights to the inventors for their creations they invest in research and contribute to global sustainable development.

Now let us explore the role of IPR to achieve SDGs. In the field of healthcare and well-being (SDG 3) patent and IP rights bring transformative benefits by developing pharmaceutical and medical technologies which contributes to the goal of promoting good health and well-being to our global health. In the context of Agriculture and Sustainable Food Production (SDG 2 and 12) patent and IP rights encourage the innovators to find a better solution to invent new farming tools and improve crop production which results in producing more foods and distributing better foods. In the field of Clean Water and Sanitation (SDG 6) innovative technologies like eco-friendly sewage treatment and waterless sanitation systems play a pivotal role in developing sustainable sanitation practices.

As per UNESCO reports in 2023 nearly 2 billion people struggled daily to access clean water and 3.6 million people lacked access to safe sanitation facilities. Hence by implementing smart water metering and greywater recycling systems at both residential and industry levels the goal of promoting clean water and sanitation can be achieved. SDG 7, focusing on affordable and clean energy witnesses an important role of IP. Especially Patents bring transformative benefits in developing technologies such as solar energy innovation, wind energy innovation, grid integration, or tidal energy. Thus safeguarding these innovations and their patents is crucial for providing affordable, sustainable, and reliable energy for all, fulfilling the object of SDG. The connection between IP and Climate Action (SDG 13) is growing stronger. The IP industry promotes the development of green technologies and environmentally friendly innovations which contribute significantly to combatting climate change globally.

However, the path towards achieving sustainable development goals is challenging but the same can be achieved with the help of IPR. By recognizing and safeguarding the rights of inventors we can pave the way for a more prosperous and sustainable future for all, unlocking the potential to build a world where every person has the opportunity to contribute to positive global change.

POPULATION EXPLOSION: A THREAT TO THE ACHIEVEMENT OF SUSTAINABLE DEVELOPMENT GOALS

Anupurba Dutta

The contemporary world views Sustainable development as a means of integrating social, environmental and economic growth so that the needs of the present generations can be met without jeopardising the possibility of the future generations from meeting their own needs. The concept exemplifies the progression towards a new world order. In September, 2015, United Nations adopted the 2030 Agenda for Sustainable Development and provided a blueprint of 17 Sustainable Development Goals for the eradication of poverty, improvement of health and education, to reduce inequality and spur economic growth and many more. The formulation of the goals was a co-creative process allowing multiple voices to participate in the sustainable development, fostering a collective sense of ownership on a broad scale. They are universally applicable to the developed and developing countries. These goals encounter obstacles like climate change, economic downturns, pandemics, conflict, etc., which impede progress towards sustainable development. But one major obstacle to attainment of such goals is population explosion which, not only inhibits sustainable development but also has a huge contribution in forming most of the deterrents of sustainable development. As per the report of United Nations, the global human population reached 8 billion in mid-November 2022 and it is expected to reach 9.7 billion by the end of 2030. If the population continues to increase in this immense rate, soon the world may face scarcity of resources. Scientific evidence worldwide demonstrates the changing climate, environmental toxification, habitat

destruction, and rising global extinction rates, proving that we are demanding too much from our finite planet. Seven out of seventeen sustainable development goals directly relate to preserving the environment but with the striking rise in populations, responsible consumption and production are difficult to achieve. Population explosion inevitably leads to deforestation, reduced biodiversity, and spikes in pollution and emissions which exacerbates climate change. Uneven population growth in developing countries leads to an increase in unemployment, higher poverty rates, overburdened schools and hospitals, and strained infrastructure. It not only leads to poverty, ecological degradation, and economic crises but also creates obstacles to accessing better education and healthcare facilities. Apart from this, population growth also leads to increase in strife. The sixteenth sustainable development goal aims to promote peaceful and inclusive societies for sustainable development. However, the scarcity resulting from economic stagnation and environmental degradation often triggers violence and political unrest. Countries with high fertility rates typically experience high childbirth rates, leading to strained healthcare systems, women giving birth repeatedly without adequate recovery time, and low levels of female empowerment and education, all contributing to high maternal mortality rates. For example, Sub-Saharan Africa which has the world's

highest fertility rates, accounted for roughly two-thirds of maternal deaths in 2017, according to the World Health Organization. From the above discussion, it can be concluded that population explosion impacts nearly all of the 17 sustainable development goals. It is crucial to formally recognize the effects of global population growth on sustainability before it becomes unmanageable. Ample evidences portray that spreading awareness about family planning methods and the economic benefits of having smaller families can change reproductive behaviour and decrease fertility rates. No coercive methods of population control are necessary. Though the use of contraceptive pills has increased among the women of urban areas, women of rural and remote areas are still hesitant to the use of birth control methods. In order to witness remarkable progress in population control the legislature must take some effective steps as quickly as possible. They may begin with giving free health services and free contraceptive pills combined with campaigning about family planning methods and the benefit of having smaller families mostly in rural and remote areas. The coordinated and effective efforts of disseminating knowledge about family planning, enhancing access to birth control and healthcare, and dispelling prevalent myths about contraception can significantly alter the trajectory of the global population, paving the way for a more sustainable world.

CHALLENGES IN ACHIEVING SUSTAINABLE DEVELOPMENT GOALS

Dhrubjoty Dawn

Sustainable development is the development that meets the needs of the present without compromising the ability of future generations to meet their own needs. While interpretations may vary, its fundamental essence lies in achieving a balanced approach to development, integrating societal progress, economic and social growth, and environmental awareness and protection. This approach seeks to address current needs while safeguarding the well-being of future generations. However, in practice, the pragmatic approach unveils numerous challenges that demand attention and resolution.

One of the central impediments to sustainable development is the conflict between the rapid economic growth and lasting environmental preservation, wherein financial gain frequently outweighs the importance of environmental safeguard. Businesses prioritize short-term profits over the long-term preservation of natural resources in this emerging economy. This myopic approach results in the exploitation of limited resources, environmental contamination and destruction of habitats, that ultimately jeopardize the core principles of sustainability.

Additionally, the attainment of sustainable development demands a nuanced equilibrium between the requirements of the present-day with the ability of the future generations to satisfy their own needs, as eloquently expressed in the Brundtland Report. However, this balance is often disrupted by competing resource needs, particularly in regions grappling with poverty, famine, and underdevelopment. In such circumstances, the urgency to alleviate immediate distress can overshadow contemplations of long-range sustainability, perpetuating a cycle of environmental decline and social inequality.

Moreover, the endeavor towards sustainable development faces obstacles from systemic disparities, that marginalize specific communities and worsen environmental injustices. Marginalized groups, such as indigenous communities, women, low incomes communities endure the greatest burdens of environmental deterioration including extensive exposure to pollution, climate changes and resource exhaustion. Addressing these disparities is crucial

for achieving authentic sustainable development, but it requires challenging entrenched power structures and reimagining governance and decision-making frameworks. Another crucial challenge towards the attainment of sustainable development is the rising inclination to favor technological fixes over systemic overhaul. Although technological advancements undeniably aid in curbing environmental decline and enhancing resource efficacy, they must be accompanied by wider socio economic shifts. Simply replacing unsustainable methods with "eco-friendly" technologies, without tackling fundamental consumption trends and socio-economic disparities, risks prolonging unsustainable developmental paths.

In countries like India, achieving sustainable development often seems utopian because it necessitates ideas that are not only administratively feasible, technologically viable, and politically acceptable but also environmentally sustainable and financially viable. These parameters need to be fulfilled by a democratic country in order to achieve the goal of sustainability. In India, at present, achieving technological feasibility remains a challenge due to insufficient energy storage capabilities. The country is not adequately equipped with the necessary technology to address sustainability issues effectively.
Hence, it can be concluded that the path towards sustainable development is rife with challenges and stumbling blocks that necessitate multifaceted

and systemic resolutions. Surmounting these challenges requires a comprehensive approach that merges environmental preservation, social fairness, and economic well-being. It mandates transformative alterations in policies, methodologies, and attitudes at local, national, and global echelons. Despite the formidable nature of the journey ahead, the imperative to forge a sustainable future for succeeding generations necessitates our unwavering commitment to confront and overcome these challenges. Through concerted collective effort and unwavering dedication alone can the intricate terrain of sustainable development be navigated, thus unlocking its potential to foster a world characterized by justice and resilience.
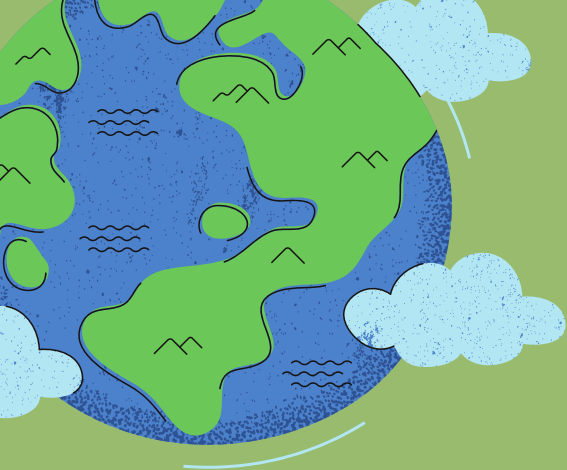
SUSTAINABLE DEVELOPMENT : CHALLENGES TO OVERCOME
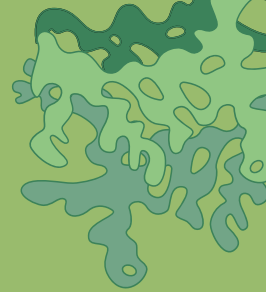
Sourashmi Dam

The Sustainable Development Goals (SDGs) have been a major focus of global efforts to tackle various socio-economic and environmental challenges. These goals, established by the United Nations in 2015, aim to create a more sustainable, fair, and prosperous world by 2030. However, achieving these goals is no walk in the park. There are plenty of obstacles and challenges along the way.

Success Rate of the SDGs at National and International Levels The success rate of the SDGs varies greatly from country to country and region to region. On the international stage, progress has been a bit all over the place. Some goals have made significant strides, like reducing poverty and improving education. But when it comes to climate action and biodiversity conservation, things have been moving at a slower pace. Nationally, countries with strong economies and stable governance tend to do better at implementing the SDGs compared to those dealing with economic instability and political unrest.

Having solid legal frameworks is crucial to protecting the environment and achieving sustainable development. Various international agreements, like the Paris Agreement, aim to combat climate change and its impacts. At the national level, many countries have passed laws to regulate pollution, protect natural habitats, and promote renewable energy. But, the picture of the reality reflects that the effectiveness of these legal safeguards often depends on how well they are enforced and the political will behind them. In many cases, weak enforcement and corruption undermine efforts to protect the environment.

The SDGs are absolutely vital for human survival. They address some of the most basic and fundamental issues we face, like access to clean water and sanitation, food security, and health. These goals are all intertwined, and progress in one area can have a positive ripple effect on the others. For example, when we ensure access to clean water, it not only improves our health but also opens up educational and economic opportunities, especially for women and children. If we don't make a concerted effort to achieve these goals, we risk worsening existing inequalities and facing severe environmental damage. There are plenty of complications that come up. Financial constraints, lack of political will, and insufficient data for monitoring progress are just a few of the hurdles we face. On top of that, the global nature of the SDGs requires coordinated efforts across multiple sectors and levels of government, which can be a real challenges. The COVID-19 pandemic has thrown another wrench into the works by straining resources and shifting priorities away from long-term sustainable development goals.

When it comes to awareness and implementation of the SDGs, there's a big difference between rural and urban areas. Urban areas generally have better access to information and resources, which makes it easier for them to adopt sustainable practices. On the flip side, rural areas face their own set of challenges, like limited access to education and healthcare, which can make it harder for them to achieve the SDG targets. To bridge this gap, we need targeted efforts to increase awareness and provide the necessary infrastructure and support to rural communities.

COMPOST ONLY

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TOWARDS A SUSTAINABLE FUTURE

Rifaa Jahan

Sustainable Development is a strategic plan designed to achieve sustainability in activities that utilize resources, ensuring that they meet the needs of the present without compromising the ability of future generations to meet their own needs. In other words, it is the sole option of smooth progress for the "unborn eyes" or the future generation to survive in this limited world. With the scarcity of resources, it is the development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Mr. Lester R. Brown once said—

"We have not inherited this Earth from our forefathers, we have borrowed it from our children." The idea of Sustainable Development is crucial and beneficial for us but its implementation is a difficult task. As economies grow and the demand and desire for more resources intensify, the doctrine of Sustainable Development emerges as the most pertinent principle in today's world. Sustainable Development has the potential to benefit the entire global population and ensure resource security for future generations, but it faces significant challenges. Some of these key challenges include the following issues—

- War and Instability –It is a daunting task to maintain a civil society and the well-being of people when there is war or the threat of conflict over a country. In these cases, sustainable development goals cannot be easily met.
- Governmental Issues— Most governments typically commit to addressing global warming and other climate issues, though there are exceptions, who are silent spectators of the world issues.
- Poverty and Unemployment and Social Disparity—One of the goals of sustainable development is to end poverty but this is no easy task and cannot be done without addressing a number of other issues that contribute to poverty. Poverty and inequality pose significant barriers to sustainable development endeavors. This deprivation extends beyond material wealth, stifling opportunities for personal and economic advancements.

- Overutilization of resources and Environmental Decline— Unsustainable consumption and production practices place strain on the environment, resulting in deforestation, habitat loss, pollution, and resource exhaustion.
- Inadequate Access to Fundamental Human Needs—It poses a significant hurdle to sustainable development. Millions worldwide lack access to essentials such as clean water, sanitation, healthcare, and education, impeding both their quality of life and societal contribution potential. Addressing these basic needs is fundamental to sustainable development, fostering social equity, well-being, and fairness.
- Climate Change and its Ramification—Climate Change presents substantial risks to ecosystems, communities, and economies, manifesting in elevated temperatures, extreme weather phenomena, sea-level rise, and ecosystem disruption. Global warming also causes significant economic costs.
- Population Growth and Urbanization—The global population continues to expand, accompanied by rapid urbanization in many areas. This trend burdens infrastructure, services and resources, leading to challenges such as inadequate housing, congestion, strained transportation networks, and heightened energy demands. Therefore, prioritizing sustainable urban planning and inclusive development is imperative to address these issues and foster the creation of livable and resilient cities.

In simple words, the principle of Sustainable Development attempts to maintain a balance between development and the environment. It promotes inter-generational equity, fostering better quality of life for present and future generations. In the words of Mahatma Gandhi — "Earth provides enough to satisfy every man's needs, but not every man's greed."

THE EVOLUTION OF COMMERCE: ACHIEVING SUSTAINABLE DEVELOPMENT FOR A PROSPEROUS FUTURE

Arijit Kundu

Celebrated poet William Shakespeare once wrote "And this our life, exempt from public haunt, finds tongues in trees, books in the running brooks, sermons in stones, and good in everything". The principle of sustainable development can be traced back to the post-World War II era. President Harry S. Truman was one of the pioneers of the Sustainable Development Goals, and his Programme for Peace and Freedom (1949) emphasized on four main initiatives. The fourth initiative aimed to promote scientific progress and industrial growth in underprivileged areas through cooperation. The Industrial Revolution in the 19th century brought about substantial economic growth, but at the cost of environmental degradation, which had long-lasting consequences for the planet. It was not until years later that the consequences of industrialization, such as the depletion of the ozone layer, degradation of the layers of atmosphere, were discovered by scientists, in the 1980s.

Evolution towards Sustainability:

In 2004, United Nations Secretary-General, Kofi Annan proposed the idea of Environmental Social Governance (ESG) to improve the sustainability of the market while maintaining economic growth. Recent research has shown that ESG dimensions like environmental governance, social governance, and corporate governance show a positive linkage between attaining sustainable development goals and economic growth in ASEAN countries. It has been observed in ASEAN countries that poverty has reduced from 17.5% in 2016 to 15.5% in 2018, along with an increase in employment from 11.6% in 2016 to 13.6% in 2018. In 2015, United Nations Member States formulated the Agenda for Sustainable Development 2030 for peace and prosperity for the people for now and in the future. The core of the agenda is 17 sustainable development goals for comprehensive development through partnerships among stakeholders. Considering the current paradigm shift, businesses worldwide are adopting Green Marketing strategies. Green Marketing can be viewed both as a type of marketing and as a marketing philosophy. As a type of marketing, it is like industrial or service marketing and is concerned with the marketing of green products and positioning them as green brands with the view of balancing consumer satisfaction and environmental protection. The concept of green marketing emerges from social marketing and is part of Corporate Social Responsibility (CSR). By practising the philosophy of green marketing, industries can contribute to economic growth, social prosperity, and environmental protection. The current market size for global green technology and sustainability is valued at USD 16.48 billion in 2023 and is projected to grow exponentially. The advancement of sustainable practices has also been observed in the e-commerce sector. This is particularly evident in the labour market, as the number of internet-based companies continue to grow, resulting in an increase in job opportunities. E-commerce enables access to educational and health services from anywhere in the world. Additionally, these services are often more affordable. Furthermore, many companies have achieved zero carbon emissions through the use of electric vehicles and bicycles. Despite these advancements, our vision of achieving sustainability goals remains elusive. To truly benefit from the concept of sustainability, the world must embrace the philosophy of **"Vasudhaiva Kutumbakam"** and work together to create a better world for all of humanity.
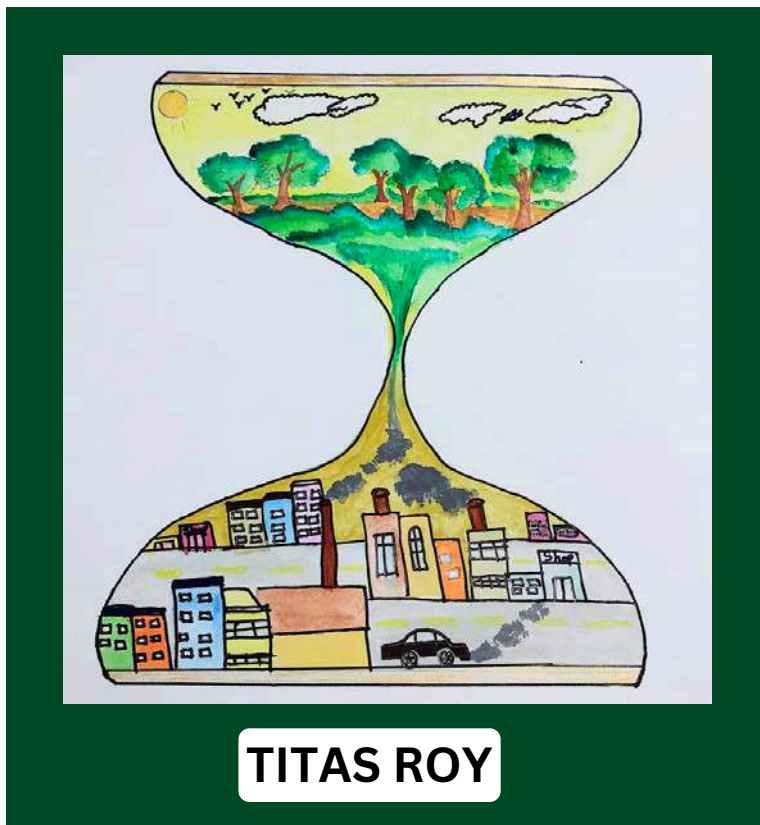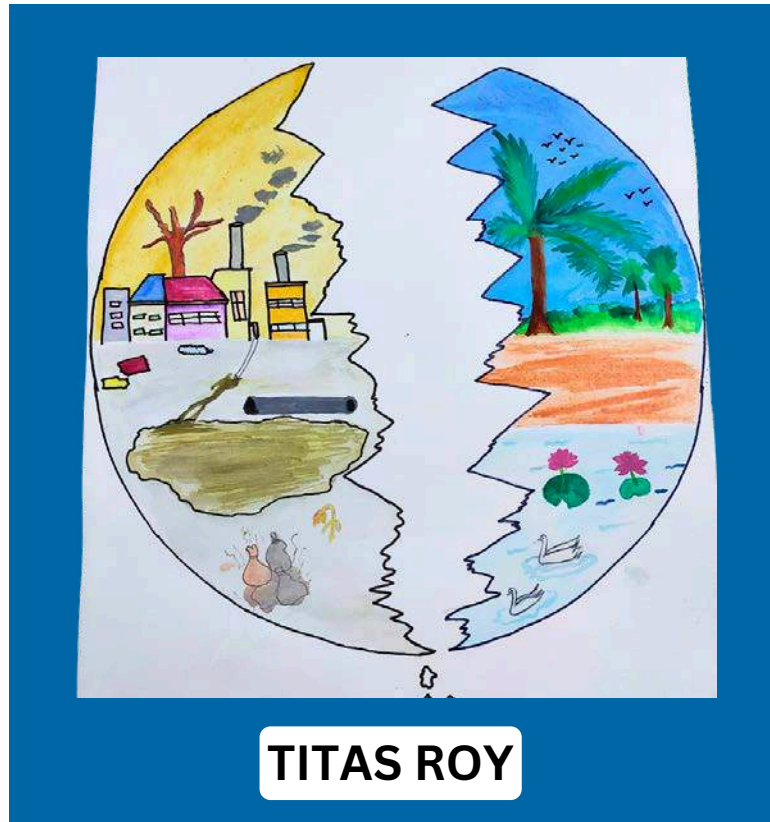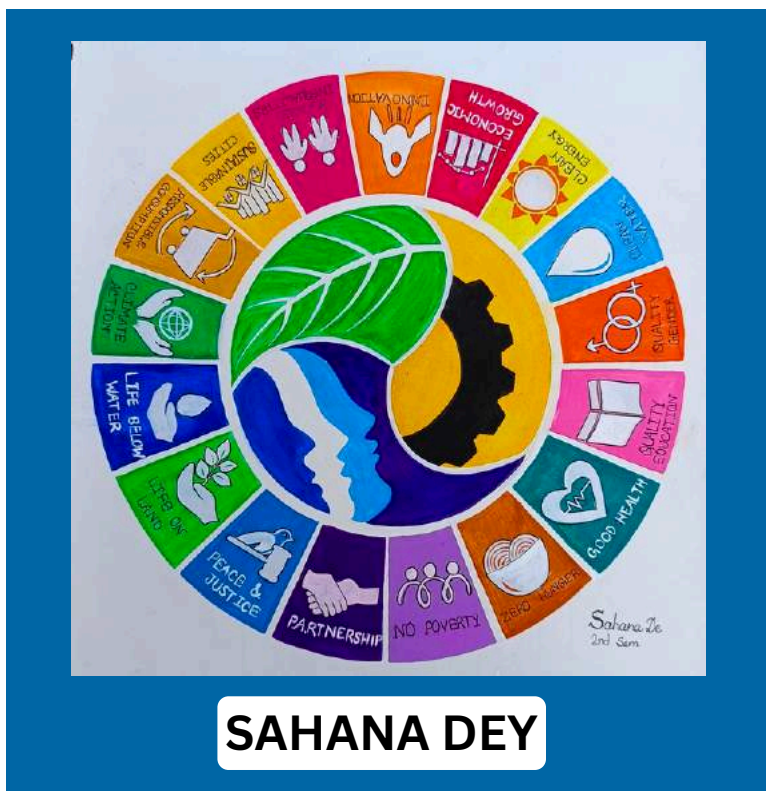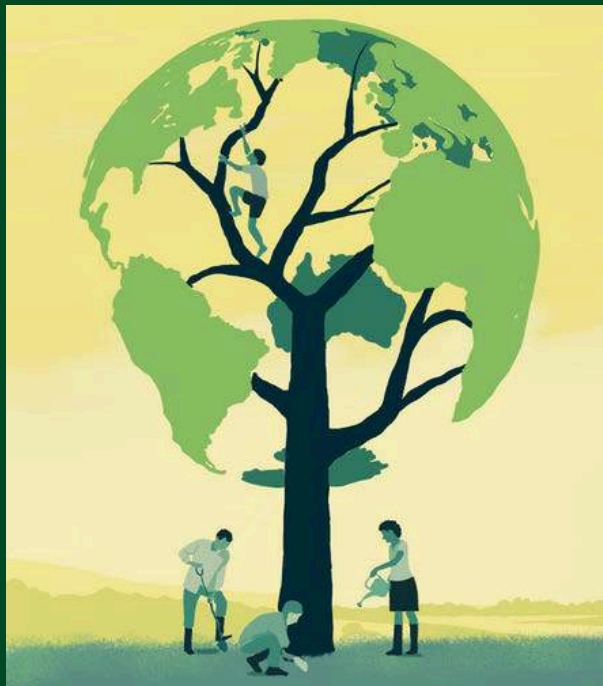
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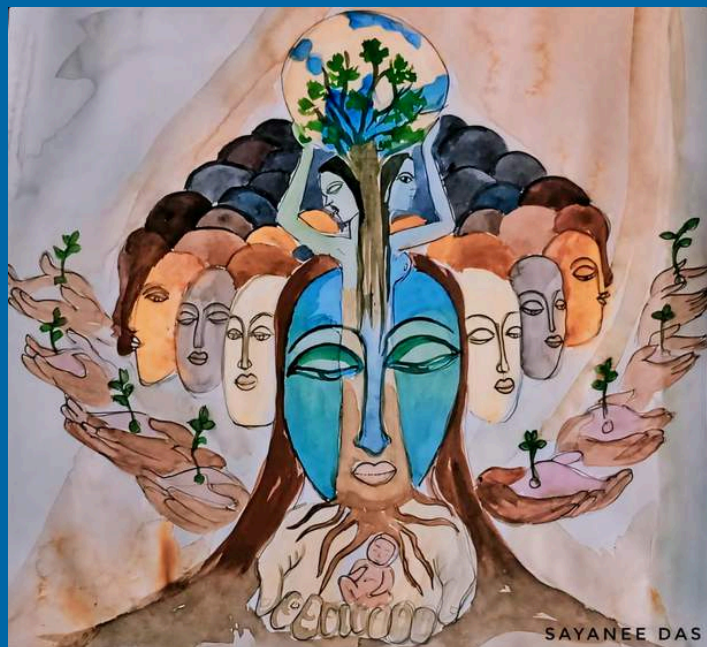
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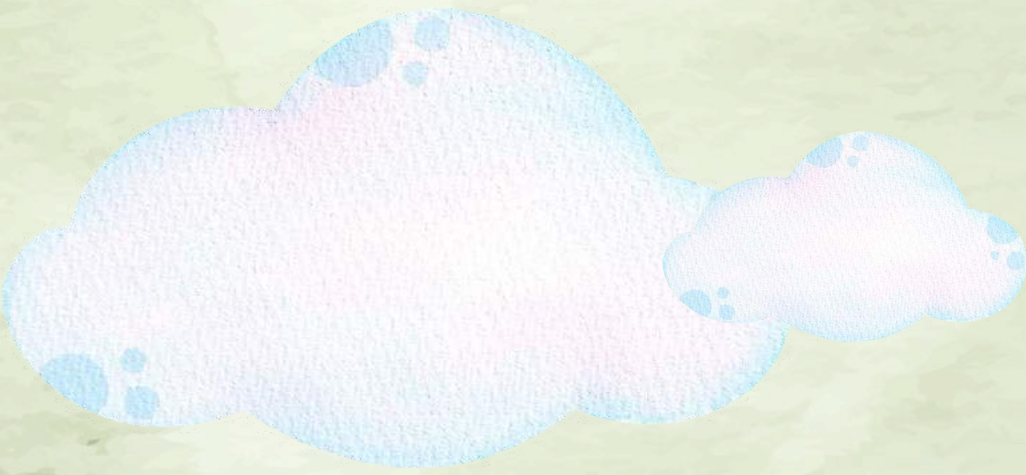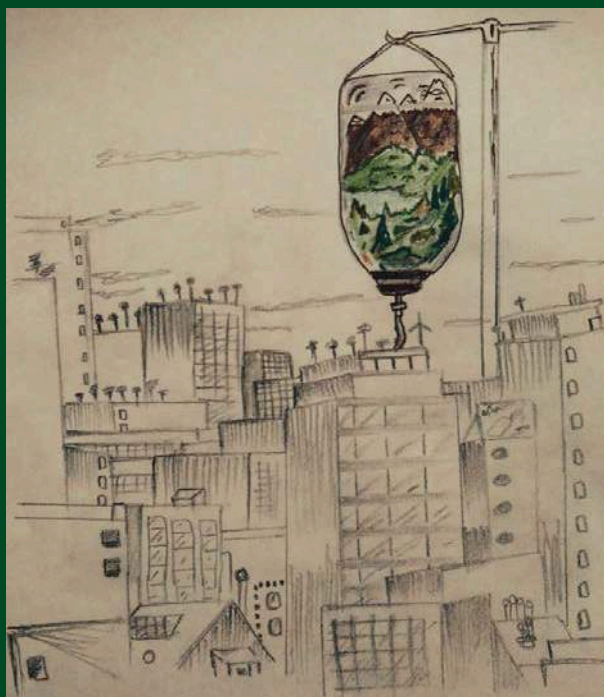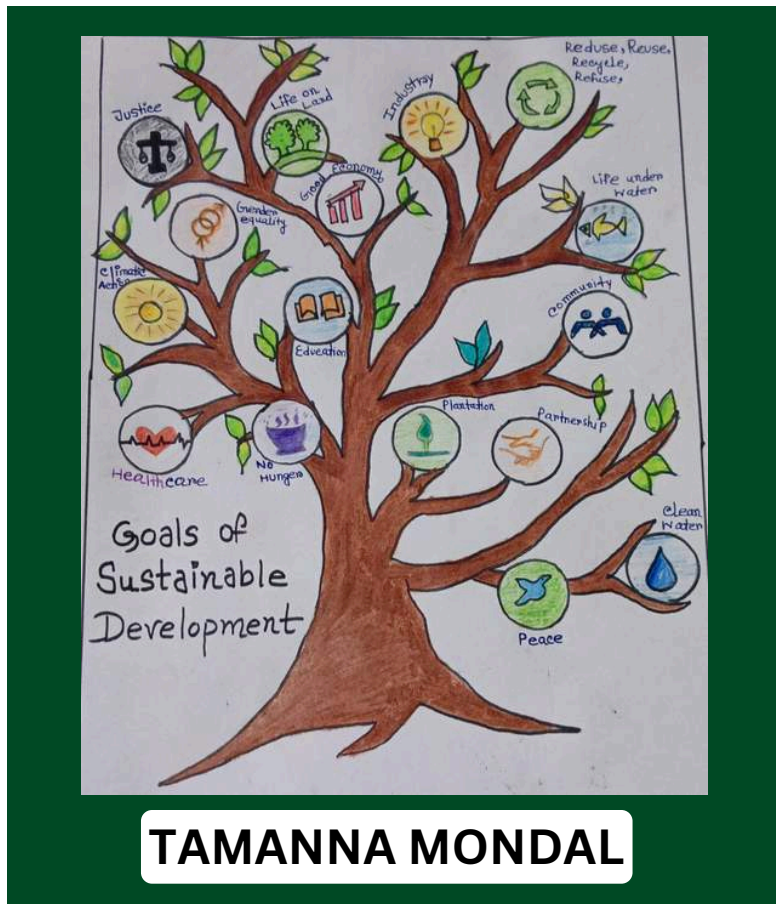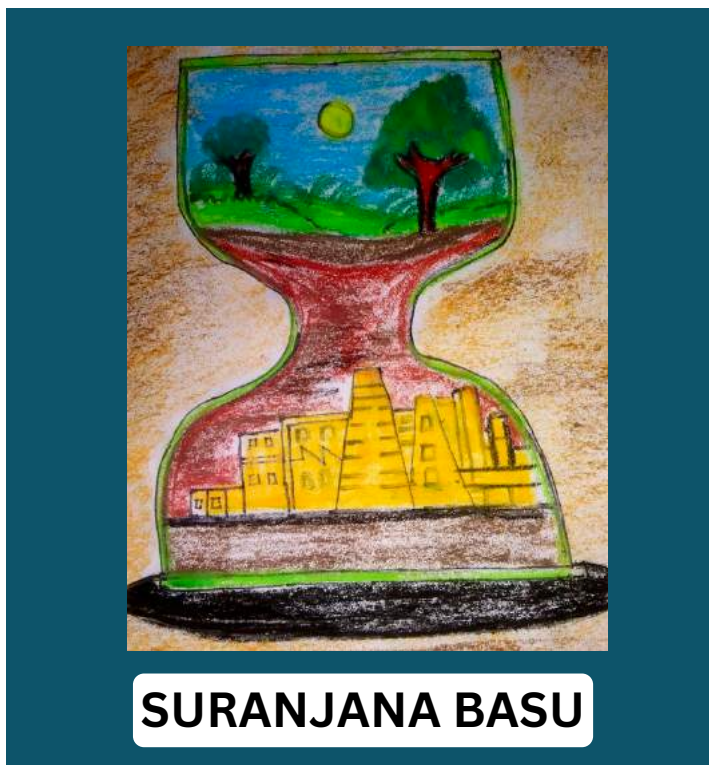
MEDHA DEY

SAYANEE DAS

BRISTEE BISWAS

ADDAYA GHOSH

TAMANNA MONDAL

SURANJANA BASU

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ADDAYA GHOSH

DEBABRATI ROY CHOWDHURY

"The earth is what we all have in common."
- Wendell Berry

"In every walk with nature one receives far more than he seeks."
- John Muir

"No water, no life. No blue, no green."
- Sylvia Earle

"Conservation is a state of harmony between men and land."
- Aldo Leopold

"The greatest threat to our planet is the belief that someone else will save it."
- Robert Swan

"Look deep into nature, and then you will understand everything better."
- Albert Einstein

DEBABRATI ROY CHOWDHURY

"Sustainable development is a fundamental break that's going to reshuffle the entire deck. There are companies today that are going to dominate in the future simply because they understand that"
- Francois-Henri Pinault

"The world is reaching the tipping point beyond which climate change may become irreversible. If this happens, we risk denying present and future generations the right to a healthy and sustainable planet – the whole of humanity stands to lose"
- Kofi Annan

"Each one of us matters, has a role to play, and makes a difference. Each one of us must take responsibility for our own lives, and above all, show respect and love for living things around us, especially each other".
- Jane Goodall

"The greatest shortcoming of the human race is our inability to understand the exponential function"
- Albert A. Bartlett

"We are, quite literally, gambling with the future of our planet – for the sake of hamburgers"
- Peter Singer

DEBABRATI ROY CHOWDHURY

NARMADA BACHAO

MEDHA PATKAR

नर्मदा बचाओ
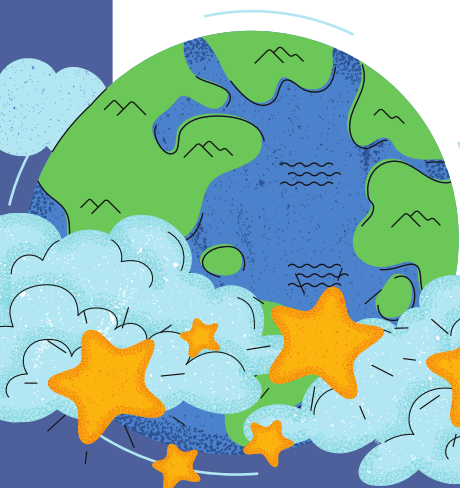
SAVE NARMADA
SAVE THE PEOPLE

ABHISHIKTA PURKAYASTHA

SUNDARLAL BAHUGUNA

PIONEER OF CHIPKO MOVEMENT

ABHISHIKTA PURKAYASTHA

EMERGENCE OF ENVIRONMENTAL LEGISLATION IN INDIA

The Stockholm Conference on the the global environment, held from June 5 to 16, 1972, marked a significant global acknowledgment of environmental threats, prompting collective governmental and industrial efforts for environmental preservation. This conference highlighted the oversight by developed countries regarding environmental impacts during their rapid development, leading to the formation of the United Nations Environment Programme (UNEP). India, as a UNEP member, subsequently undertook various environmental protection measures.

Water (Prevention and Control of Pollution) Act, 1974

One of the initial legislative responses following the UN Conference was the Water (Prevention and Control of Pollution) Act, 1974. This Act aimed to prevent and control water pollution and to maintain or restore water quality. It established boards with the authority to carry out these functions.

Water (Prevention and Control of Pollution) Cess Act, 1977

This Act, introduced in 1977, levied a cess on water consumed by certain industries and local authorities to augment the resources of the Central and State Boards for water pollution prevention. The 2003 amendment expanded its scope to include any industry or process consuming water or generating effluents.

Constitutional Amendments

The Forty-Second Constitution Amendment Act, 1976, introduced Article 48A and Article 51A(g). Article 48A mandates the state to protect and improve the environment and safeguard forests and wildlife. Article 51A(g) establishes it as a fundamental duty of every citizen to protect the natural environment, including forests, lakes, rivers, and wildlife, and to have compassion for living creatures.

Air (Prevention and Control of Pollution) Act, 1981

Enacted in 1981, this Act aimed to prevent, control, and abate air pollution, with a focus on industrial and automobile emissions. The existing boards under the Water (Prevention and Control of Pollution) Act, 1974, were tasked with implementing this Act. The related rules were introduced in 1982 and 1983 for Union Territories.

Environment (Protection) Act, 1986

The Environment (Protection) Act, 1986, was enacted to protect and improve the environment and prevent hazards to human beings and other living entities. This comprehensive Act provided for nationwide coordination of pollution control efforts, established environmental quality standards, restricted industrial activity in certain areas, and outlined procedures for handling hazardous substances. Civil court jurisdiction was barred regarding actions taken under the Central Government's directions. The Act was amended in 1991.

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Environment (Protection) Rules, 1986

The Environment (Protection) Rules, 1986, were established under the 1986 Act and subsequently amended several times (1998, 1999, 2001, 2002, 2003, 2004, and 2006). These amendments addressed various issues such as setting industrial standards, guidelines for waste disposal, and standards for specific industries like pulp and paper and ginning mills. The amendments reflected the growing need for updated regulations in response to increasing human activities in scientific and technological fields.

FUNDAMENTAL PRINCIPLES BEHIND DOCTRINES OF ENVIRONMENTAL PROTECTION

Rural Litigation and Entitlement Kendra, Dehradun v. State of U.P., AIR 1987 SC 359 (popularly known as Dehradun Quarring case) was the first case in India involving issues relating to environment and development. The decision of the Court in this case reaffirming and reiterated that development is not antithetical to environment. The Court observed that "we are not oblivious of the fact that natural resources have got to be tapped for the purposes of the social development but one forget at the same time that tapping of resources have to be done with the requisite attention and care so that ecology and environment may not be affected in any serious way, there may not be depletion of water resources and long term planning must be undertaken to keep up the national wealth. It is always to be remembered that these are permanent assets of man kind and/or not intended to be exhausted in one generation."

In M.C. Mehta v. UOI, AIR 2004 SCW 4033 the Supreme Court held that the development and the protection of environment are not enemies. If without degrading the environment or minimizing adverse effects thereupon by applying stringent safeguards, it is possible to carry on development activity applying the principles of sustainable development, in that eventuality, the development has to go on because one cannot lose sight of the need for development of industries, projects, etc. including the need to improve employment opportunities and the generation of revenue. Thus a balance has to be struck.

In Kinkari Devi v. State of H.P., AIR 1988 HP 4 replying on Dehradun Quarrying case the Himachal Pradesh High Court observed that if industrial growth sought to be achieved by reckless mining resulting to loss of life, loss of property, loss of amenities like water supply and creating of ecological imbalance then there may ultimately be no real economic growth and no real development.

In Indian Council for Enviro-Legal Action v. Union of India, AIR 1996 SC 1446 (popularly known as Coastal Zone Protection case) the Supreme Court emphasised the importance of the Doctrine of Sustainable Development in the following words:- "While economic development should not be allowed to take place at the cost of ecology or by causing wide spread environment destruction and violation; at the same time, the necessity to preserve ecology and environment should not hamper economic and other developments. Both development and environment must go hand in hand, in other words, there should not be development at the cost of environment and vice versa, but there should be development while taking due care and ensuring the protection of environment".

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In Vellore Citizen's Welfare Forum v. Union of India, AIR 1996 SC 2715, the Supreme Court of India recognised the Principle of sustainable development as a basis of balancing ecological imperatives with developmental goods. Rejecting the old notion that development and environment cannot go together, the Supreme Court observed that though the leather industries is of vital importance to the country as it generates foreign exchange and provides employment avenues, it has no right (i) destroy the ecology (ii) degrade the environment and (iii) pose a health hazard. It cannot be permitted to expand or even to continue with the present production unless it tackles by itself the problem of pollution created by the said industry". The Court further pointed out that "the traditional concept that development and ecology are opposed to each other is no longer acceptance". The Supreme Court further observed that sustainable development has come to be accepted as a viable concept to eradicate poverty and improve the quality of human life while living within the carrying capacity of the supporting eco-system.

In A.P. Pollution Control Board v. M.V. Nayudu, AIR 1999 SC 812 Supreme Court held that in order to ensure that there is neither damage to the environment nor to the ecology and, at the same time ensuring sustainable development it can refer scientific and technical aspects for investigation and opinions to statutory expert bodies having combination of both judicial and technical expertise in such matter.

In K.M. Chinnappa v. Union of India, AIR 2003 SC 724, the Supreme Court held that "Sustainable development is essentially a policy and strategy for continued economic and social development without detriment to the environment and natural resources on the quality of which continued activity and further development depend. Therefore, while thinking of the developmental measures the needs of the present and the ability of the future to meet its own needs and requirements have to be kept in view. While thinking of the present, the future should not be forgotten. We owe a duty to future generations and for a bright today, bleak tomorrow cannot be countenanced. We must learn from our experiences of past to make both the present and the future brighter. We learn from our experiences, mistakes from the past, so that they can be rectified for a better present and the future. It cannot be lost sight of that while today is yesterday's tomorrow, it is tomorrow's yesterday."

In People United for Better Living in Calcutta v. State of W.B., AIR 1993 Cal 215 the Calcutta High Court observed that it is true that in a developing country there shall have to be developments, but that developments must be in harmony with the environment. There has to be a proper balance between the economic growth and environment. So that both can exist without affecting each other.

Compiled by
Arghajyoti Bagchi

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Mapping the Progress : A Case Study on Sustainable Development Goals (SDGs)

ZERO HUNGER : SDG 2

The number of people facing hunger and food insecurity has been increasing, worsened by the pandemic, conflict, climate change, and growing inequalities. Urgent action is needed to achieve the 2030 nutrition targets. To achieve zero hunger by 2030, coordinated action and policy solutions are necessary, including transforming food systems, investing in sustainable agriculture, and addressing the impact of conflict and the pandemic on global nutrition and food security.

India has implemented programs such as the public distribution system and maternal cash transfer programs to provide subsidized food and meet the nutritional needs of those below the poverty line and vulnerable populations. However, high rates of malnutrition still persist despite existing programs.

The Indian government has enacted various legislations to ensure zero hunger. The National Food Security Act, 2013, for example, legally entitles a significant portion of the population to receive subsidized food grains. Special provisions have also been made for pregnant women, lactating mothers, and children through programs like the Integrated Child Development Services and the Mid-Day Meal Scheme.

Several landmark decisions by the Indian judicial system have worked towards ensuring zero hunger. In the People's Union for Civil Liberties case, the Supreme Court established a constitutional human right to food and determined a basic nutritional floor for India's impoverished population.

DECENT WORK AND ECONOMIC GROWTH : SDG 8

The International Trade Union Confederation recognizes the importance of Goal 8 and has set up the Global Monitor on SDG 8 to assess its status worldwide. India, with its large youth population, is focused on programs like Make in India, Startup India, Skill India, and Digital India to create employment opportunities and promote economic growth.

Promotive legislations in India include the Code on Wages Bill, 2019, which introduces minimum wages and prohibits gender discrimination in wages. The Occupational Safety, Health and Working Condition Code improves working conditions and safety, allowing women to work beyond certain hours subject to safety regulations. The Payment of Wages Act, 1936 ensures timely payment of wages to workers.

The Indian judicial system has also played a role in promoting decent work and economic growth. In various cases, the court has considered the principle of equal pay for equal work and recognized it as a substance rather than an abstract doctrine.

QUALITY EDUCATION: SDG 4

OVERVIEW: Quality education is one that focuses on the whole child— the social, emotional, mental, physical, and cognitive development of each student. It refers to a learning environment that fosters optimal learning outcome, it promotes critical thinking, problem-solving skills, creativity, and prepares individuals for future success in a rapidly changing world. Quality education not only focuses on academic knowledge but also encompasses holistic development, including social, emotional, and ethical growth. It is inclusive, equitable, accessible, and tailored to meet the diverse needs of learners.

GLOBAL RESPONSE: According to studies of the United Nations, progress towards quality education was already slower than required before the COVIID-19 pandemic, but the pandemic has had devastating impacts on education, causing learning losses in 4 out of 5 of the 104 countries studied. Without additional measures, an estimated 84 million children and young people will stay out of school by 2030 and approximately 300 million students will lack the basic numeracy and literacy skills necessary for success in life. In addition to free primary and secondary schooling for all boys and girls by 2030, the aim is to provide equal access to affordable vocational training, eliminate gender and wealth disparities, and achieve universal access to quality higher education.

INDIA TOWARDS QUALITY EDUCATION: In India, progress in education has been widespread in terms of massive enrolment, and expansion of school infrastructure, the narrowing of gender gaps in literacy and the overall literacy rate.

CONSTITUTIONAL PROVISIONS: In India, constitutionally several key programmes and policies have been initiated to provide free and compulsory education to all children in the age group of six to fourteen years as a Fundamental Right. An initiative like the Right of Children to Free and Compulsory Education (RTE) provides for inclusive elementary education for all and reserved 25% quotas in private schools for children from economically weaker sections (EWS) of the society. Education for inclusion specifically intended to give equal opportunities for all sections of society that includes gender, SC/ST, minorities, migrants, out of school children and children with special needs, require strong government intervention.

GENDER EQUALITY: SDG 5

GENDER EQUALITY IN INDIA: India has made strides in gender equality, yet disparities persist. In the 2019 general elections, female representation in the Lok Sabha reached a record 14.4% with 78 women elected. Despite progress, women still earn about 19% less than men. Female literacy improved to 70.3% in 2011 from 53.7% in 2001, but this hasn't translated into economic participation, with female labor force participation remaining low at around 23%.

INTERNATIONAL IMPACT OF SDG 5: SDG 5's focus on gender equality globally shapes development agendas, boosting productivity and GDP by closing gender gaps. Gender equality enhances social development, health, education, and peace. Successes include Rwanda's 61% female parliamentary representation, Iceland's 1% gender wage gap, Bangladesh's 98% girls' enrollment in primary education, and Sweden's 82% employment rate for women aged 20-64.

INDIA'S LEGISLATIVE AND POLICY INITIATIVES: India has enacted several measures to promote gender equality in line with SDG 5. The Protection of Women from Domestic Violence Act, 2005, and the Sexual Harassment of Women at Workplace Act, 2013, provide legal protections for women. The Right to Education Act, 2009, ensures free education for children aged 6 to 14, promoting girls' education. The Beti Bachao Beti Padhao Scheme promotes girls' education and empowerment. The Maternity Benefit (Amendment) Act, 2017, extends paid maternity leave and mandates crèche facilities. The Pradhan Mantri Mudra Yojana (PMMY) supports women entrepreneurs. The 73rd and 74th Constitutional Amendments ensure one-third reservation for women in local governance, enhancing political representation.

IMPACT AND CHALLENGES: Despite progressive laws and policies, India faces challenges in achieving gender equality due to implementation gaps, cultural norms, and economic barriers. Socio-cultural restrictions and economic limitations hinder women's participation and access to resources. Addressing these issues requires effective strategies, improved implementation, and equal economic opportunities for women. Strengthening law enforcement, raising awareness, and ensuring accountability are crucial. Continued efforts in education, economic participation, and political representation are essential to realize SDG 5. India's commitment is evident, but overcoming social and economic barriers needs sustained efforts and targeted strategies to make gender equality a reality.

REDUCED INEQUALITIES : SDG 10

IMPACT OF SDG 10 IN INDIA: India's pursuit of Sustainable Development Goal (SDG) 10, aimed at reducing inequality, highlights significant economic and social disparities. The nation's economic growth has largely benefited the top 1%, who own 42.5% of the wealth, while the bottom 50% possess only 2.8%. Persistent social inequalities based on caste, gender, and religion severely limit opportunities for Dalits, Adivasis, and women. While reservation systems for Scheduled Castes (SCs), Scheduled Tribes (STs), and Other Backward Classes (OBCs) have improved political participation and representation, efforts like the National Food Security Act are hampered by corruption and inefficiency. Marginalized communities and rural areas continue to struggle with inadequate access to clean water, sanitation, and housing.

INTERNATIONAL IMPACT OF SDG 10: Globally, SDG 10 is crucial for promoting fair economic practices and reducing wealth gaps. India's strategies for equitable growth can influence global trade and migration trends. Examples of international cooperation include Latin America's Conditional Cash Transfer Programs, which link financial aid to conditions like school attendance, and the European Union's social protection measures, such as unemployment benefits and healthcare. Rwanda's economic empowerment programs for women and Canada's inclusive immigration policies have also been effective in mitigating social disparities.

INTERNATIONAL COOPERATION AND MULTILATERAL EFFORTS: Multilateral initiatives like the Global Initiative for Fiscal Transparency (GIFT) involve countries such as the United States, Brazil, and the Philippines in promoting transparency and accountability in public financial management, reducing corruption, and ensuring efficient resource allocation. The International Labour Organization (ILO) sets global labor standards on issues like minimum wage, working hours, and non-discrimination. By promoting fair labor practices and decent work conditions, the ILO has contributed to improved working conditions, higher wages, and reduced income disparities worldwide.

LEGISLATIVE MEASURES IN INDIA: India has implemented several laws to combat inequality. The National Rural Employment Guarantee Act (NREGA) provides a legal guarantee of at least 100 days of wage employment for every rural household. The Direct Benefit Transfer (DBT) system seeks to ensure subsidies and financial aid reach intended beneficiaries. The Right to Education Act (RTE) mandates free and compulsory education for children aged 6 to 14 years. The Equal Remuneration Act, 1976 mandates equal pay for equal work for men and women. The Scheduled Castes and Tribes (Prevention of Atrocities) Act, 1989 and the Transgender Persons (Protection of Rights) Act, 2019 protect marginalized communities from discrimination and ensure their welfare.

CHALLENGES IN COMPLIANCE: Despite progressive legislation, India faces significant challenges in achieving SDG 10. Corruption, bureaucratic inefficiencies, and lack of accountability hinder effective implementation. Deep-rooted social norms and prejudices perpetuate inequality, and inadequate resource allocation for social welfare programs further constrains efforts to reduce disparity.

CLIMATE ACTION : SDG 13

OVERVIEW: Climate change is a real and undeniable threat to our entire civilization. People are experiencing the significant impacts of climate change, which include changing weather patterns, rising sea level, and more extreme weather events. The greenhouse gas emissions from human activities are driving climate change and continue to rise.

GLOBAL RESPONSE: The world has already made progress toward avoiding some of the most dire climate projections by adopting policies to reduce greenhouse gas emissions.

INDIA TOWARDS CLIMATE ACTION: India has developed its policy response through missions and programmes to reduce its climate vulnerability. On 30th June 2008, the National Action Plan on Climate Change (NAPCC)v was released. It is a national strategy of 8 sub-missions to help adapt and magnify ecological sustainability in India's development path. These are National Solar Mission (NSM), National Mission for Enhanced Energy Efficiency (NMEEE), National Mission on Sustainable Habitat (NMSH), National Water Mission (NWM), National Mission for Sustaining the Himalayan Ecosystem (NMSHE), National Mission on Strategic Knowledge for Climate Change (NMSKCC), National Mission for a Green India (GIM), and National Mission for Sustainable Agriculture (NMSA).

PROMOTIVE LEGISLATIONS: Apart from the constitutional mandate to protect and improve the environmental conditions, there are a series of legislations are available on the subject but more relevant legislations for our purpose are the Forest [Conservation] Act, 1980; the Water [Prevention and Control of Pollution] Act, 1974; the Wildlife [Protection] Act, 1972; the Environment [Protection] Act, 1986; the Air[Prevention and Control of Pollution] Act, 1981; the National Environment Tribunal Act, 1995; the National Green Tribunal Act, 2010; the Biological Diversity Act, 2002 and the Hazardous Wastes [Management and Handling] Amendment Rules, 2003 etc.

Priyadarshine Law
Anushka Saha
Abhishikta Purkayastha

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Did you Know?

Seaweed could be the future's food. Seaweed farming is getting increasingly popular. It is a diverse and nutritious crop that proliferates compared to land crops. Some seaweeds can be collected in as little as six weeks. With the world's population rising, seaweed, with additional examples of green technology (such as hydroponics), could be the ideal solution to food shortages.

Packed into standard shipping containers and placed end-to-end, municipal solid waste generated in one year would wrap around the globe 25 times. Without urgent action, municipal solid waste generation will balloon to 3.8 billion annually by 2050.

The phenomenon known as "zombie ice" will eventually raise global sea level by at least 10.6 inches (27 centimetres), according to a new study. The term zombie ice refers to doomed ice that is no longer getting replenished by parent glaciers as they are now receiving less snow. Consequently, the doomed ice is rapidly melting from climate change and will eventually and inevitably raise global sea levels.

Denmark is one of the world's smallest countries but is highly developed and environmental friendly. It is regarded as the most eco-friendly country in the world, followed by Luxembourg, Switzerland, and the United Kingdom. Denmark's culture promotes sustainability, which has been a part of their culture for generations. They also boast of the world's largest green energy networks.

Researchers are trying to develop concrete that can absorb carbon dioxide. Known as carbon-sequestering concrete, this material has the potential to reduce the carbon footprint of construction projects significantly.

A group of researchers have discovered enzymes that can break down certain types of plastic waste. These enzymes offer a potential solution for recycling plastics that are difficult to process with conventional methods.
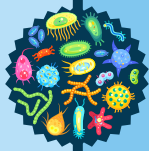
Scientists are in the process of developing microbial fuel cells that use bacteria to generate electricity from waste materials. This innovative technology has the potential to produce renewable energy while treating wastewater.

Wind power is the fastest growing form of electricity. It's a tale as old as time, or since 2000 B.C. at least, that wind power is versatile in powering sail boats, water pumps, and farm activities. The electricity production source is projected to cater for one third of the planet's energy needs by 2050
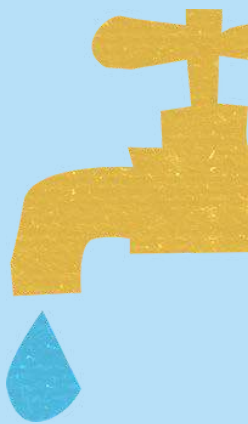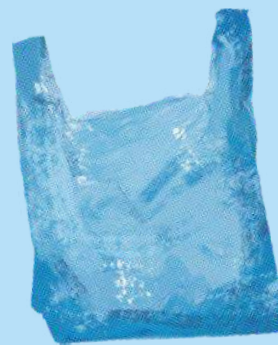
Around 759 million people still lack access to electricity. However, the deployment of renewable energy technologies could provide affordable and sustainable energy to these populations, driving economic growth and improving living standards

Sustainable practices can lead to significant economic benefits. For instance, a global shift to sustainable energy sources could save the world up to $160 trillion by 2050 due to reduced health and environmental costs associated with fossil fuels.

Approximately one-third of all food produced globally is wasted. This waste contributes significantly to greenhouse gas emissions. Reducing food waste could play a critical role in combating climate change and ensuring food security for the growing global population.

Based on Research by
Soupama Sen
Tiyasha Hazra
Addaya Ghosh
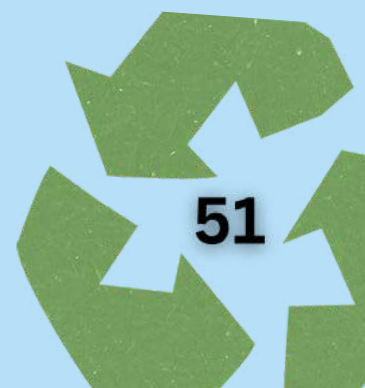
Event

Gallery

LEGAL AID CAMP (12.04.2024)

JADAVPUR UNIVERSITY MUN WORKSHOP (16.04.2024)

2ND INTER-COLLEGE MOOT COURT
COMPETITION (10.05.2024)

"पृथिव्यां तिष्ठन् सुखमस्य लोके। सर्वेषां प्रियं भवति स्थानम्॥ अन्यस्यां वृत्तिर्न भवेत् सुखाय। एषा नः प्रिया देववर्चसः॥"

"Man's paradise is on earth; This living world is the beloved place of all; It has the blessings of Nature's bounties; Live in a lovely place"
                                                              – Atharva Veda (5.30.6)