

Theme: TRANSFORMING OUR - WORLD: THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT

World in 2030

Partially or
Completely
fulfilled
Goals



Today's World Scenario

World in the phase
of transformation

Unfulfilled or
Partially fulfilled
Goals



Step Wise Transformation

Barriers

- Population Pressure
- Improper Policies
- Poor Governance
- Poor mindset
- Lack of fund
- etc.

Staff

Standing left to right: Dr. Krishna Kumar, Mr. Santosh Maurya, Dr. Anupama Verma, Dr. L. Mirana Devi, Dr. Gaurav Nain, Dr. Dilip Kumar, Miss Tanya, Dr. Suman Das

Sitting from left to right: Dr. Dr. Vaneeta Chandna, Dr. V.S. Negi, Dr. Ravi Shekhar, Dr. S.K. Sinha, Dr. S.K. Bandooni, Dr. Anupama M. Hasija





Message from Principal's Desk



The world is in crisis. If the present trend of development continues at the same pace, very soon the Earth would become uninhabitable. There is a growing concern among world leaders specially since the last five decades that current practices are unsustainable and would endanger the species called Homo Sapiens. An early warning came from the report of Club of Rome titled “Limits to Growth”. World population is exploding at an alarming rate. From about 1 billion in 1800A.D., it has reached 7 billion and is still increasing. The materialistic developmental paradigm has increased manifold the per capita resource consumption and is causing a huge gap between developed and developing countries. People living in developed countries are extravagant and wasteful consumers. A single child born in a developed country consumes more than 12 children in a developing country. To cater to the needs of present global population at the consumption level of developed world, resources of four more Earth like planets would be needed; but we have only one Earth! All this has led to a state where the world is facing the problem of “people overpopulation” & “consumption overpopulation”. Non-renewable resources are getting exhausted quickly, renewable resources are under stress, pollution is threatening the production and life support system, problem of disposal of waste and inequality is posing a grave threat to the existing world political and economic order. Day by day, the world is becoming unsustainable. Human existence on the planet Earth is in danger. The only alternative to change this scenario is to move on the path of Sustainable Development. For this, there is a need to change the present path of materialistic economic development. An integrated model encompassing environment, growth, and social equality with a fine blend of materialism and spiritualism needs to be vigorously pursued. We must act today; tomorrow may be too late.

The theme of Sustainable Development selected by Department of Geography for its annual festival “SHRISTI- 2020” and 16th volume of Departmental Magazine “ANKUR” is especially commendable in the present context. I congratulate and extend my best wishes to faculty members and students of Department of Geography for their efforts for Sustainable Development.

Dr. S.K. Sinha
(Principal)



Prof. R.B. Singh
Head
Department of Geography
Delhi School of Economics
University of Delhi

MESSAGE

I am glad to know that The Department of Geography, Shaheed Bhagat Singh Evening College is releasing 16th issue of its annual magazine ‘ANKUR’ of the academic year 2019-2020. The focal theme of this magazine is ‘*Transforming Our World: The 2030 Age for Sustainable Development*’ which is very much relevant in the contemporary scenario world-wide. In 2015, United Nations has adopted ‘*Sustainable Development Goals 2030 (SDGs 2030)*’ with 17 Goals to eradicate the challenges of poverty, inequality, climate change, environmental degradation, peace and justice in an integrated manner in order ‘*to leave no one behind*’. I congratulate the students and faculty members of this department for choosing this United Nations global issue at college and university level, that shows the awareness about the sustainable development among young geographers and teachers. I also congratulate all the students who have contributed their perceptions and creativity in this master piece.

Again, I congratulate the entire team, especially editorial team, of The Department of Geography under the guidance of Teacher-In-Charge, Dr. Anupama M. Hasija and Principal of the College Dr. S. K. Sinha for bringing this emerging issue in the form of ANKUR volume 16.

Dr. R. B. Singh

Professor and Head, Department of Geography, University of Delhi;
Secretary General and Treasurer (International Geographical Union 2018-22);
Chair, Research Council, CSIR-Central Food Technological Research Institute,
Government of India, Mysore;
Member-Research Council – CSIR-Central Institute of Medicinal and Aromatic Plants, Lucknow;
Member of International Council of Science (ICSU),
Paris- Prestigious Scientific Committee-Health and Wellbeing
in Changing Urban Environment-System Analysis Approach.



MESSAGE FROM TEACHER-IN-CHARGE

It gives me immense Pleasure and satisfaction to come up with yet another issue of ANKUR 2019-2020 based on theme: **TRANSFORMING OUR WORLD: THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT.**

The sustainable Development Goals are a collection of 17 global goals designed to be a “blueprint to achieve a better and more sustainable future for all”. The SDGs, set in 2015 by the UN General assembly and intended to be achieved by the year 2030.

It’s a matter of pride for the department of Geography Shaheed Bhagat Singh Evening College that this issue is entirely penned by students of Geography departments of our as well as other colleges. Such endeavors make students anxious to work on pertinent issues like sustainable Development. They are the future of any country and hence they need to sync their thoughts and activities work towards achieving Sustainable Development goals.

The Editorial team has to be congratulated for the task done professionally and timely.

BEST WISHES to the entire team of active students and Department colleagues.

DR. ANUPAMA M.HASIJA

*Teacher in Charge
Department of Geography*

From The Editors.....

On 25th September, the UN General Assembly unanimously adopted the resolution 70/1, TRANSFORMING OUR WORLD: THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT. We are committed in achieving Sustainable developments across three dimensions- ECONOMIC, SOCIAL and ENVIRONMENTAL in a balanced and integrated manner.

This agenda is a plan of action for People, Planet and Prosperity. It also seeks to strengthen universal peace in larger freedom. All countries and all stakeholders, acting in collaborative partnership, will implement this plan. The 17 SDG's and 169 targets which are to be achieved demonstrate the scale and ambition of this new universal agenda. They seek to build on Millenium Development Goals. They seek to realize the human rights of all and to achieve gender equality and the empowerment of all women and girls.

Lets hope that the SDG's agenda for ending Poverty and Hunger is achieved by 2030. Its determination to protect the planet from degradation and exploitation is attained. The people of this Universe can live in harmony with nature and prosper economically, socially and technologically. There is Peace everywhere wherein Global partnership becomes a tool for sustainable Development.

This edition is a humble effort to bring about the views of young minds about SDG agenda 2030. The future torch bearers of Sustainable Development have voiced their thoughts in this issue of ANKUR 2019-2020.

Lets all pitch in this noble cause of Sustainable Development by whichever way we can....

WISHING YOU ALL A HAPPY READING THROUGH THIS BULLETIN....

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Student Members



Name: Anjali Prabha, Sakshi Gangwar, Animesh Kumar, Subhash Kumar, Avantika Das, Shamistha Singh, Satyam Kumar, Manya, Arka Prabha, Ankita, Avantika, Taushif

ANNUAL REPORT 2019-2020

The radiance of any college comes from its respective departments, its faculties, and the achievements its students accomplish. During the academic year of 2019-20, the Department of Geography, Shaheed Bhagat Singh (Eve) College, University of Delhi had many remarkable feats. The Department of Geography staff and students undertook multiple activities and achieved great success and recognition-not only within the college but at the university as well.

Highlights of the annual achievements are addressed in this report:

- 1. Orientation Programme:** As always, this academic session, too, started with a well-prepared orientation programme on 19th July 2019 for the newcomers, and they were notified about college's antiquity, its feats, and many more things. Since the beginning, involvement and advancement of students both in academic and extracurricular activities had always been given the absolute priority within the college and the Geography Department.
- 2. World Environment Day:** On 5th June 2019, the department extolled the World Environment Day. As Geography is all about nature, climate and the earth, every Geographer not only has to commit to nature but has to be a foremost knight as well. The concerned students took an oath to preserve nature, forbid the plastic and be a welcoming host to sustainable development.
- 3. Student Association:** On 12th August 2019, the student association was formed to undertake its duty. Having accountable members in association helps in the steady flow of events and keeping the department's unity and functioning intact.
- 4. Freshers Welcome:** The fresher, 'Dudes and Divas' befell on 31st August 2019 with a clear cut motive to give novices a loving environment, putting the seed of unity inside them, fostering teamwork and responsibilities of being a geography undergraduate. The party was a success as not only it improved newcomers academically but also encouraged them in extracurricular activities like ramp show, speech-making, singing, etc.
- 5. Visit from Taiwan University:** Taiwanese delegate visited the college on 16th September 2019, giving directions about different disciplines on the proposition in Taiwan, how to apply for them and the scholarships on offer. Students were highly enriched by this seminar especially those who were enthusiastic to pursue studies abroad.
- 6. Disaster Management Seminar:** Due to pollution and human intervention, the number of disasters are increasing rapidly. This promising seminar took place with a collaboration between the N.S.S. and Dept. of Geography on 23rd September 2019. It heightened students' knowledge regarding how to protect, act and rescue when a disaster knocks. Not

only it taught us about the natural disaster, moreover, also about how to fight fatal human ailments like heart attack, road accidents, etc.

7. **Shristi-2018-19:** Shristi is the propitious fest of the Geography department. Likewise every year, this year, too, it was honored on two distinctive dates, 8th and 9th March, respectively. The annual magazine, Ankur, was launched. Events like poster making, geo-explorer, Treasure hunt, Slogan writing, etc occurred. The winners were prized and left behind accepted the words of appreciation from the host.
8. **Farewell to outgoing batch 2018-19:** The farewell was bid on 27th April 2019 to third-year students from the department students, staff and faculty members. The party commenced on a light note but afterward, some of the speeches were so heartfelt and touching that even teachers couldn't control and ultimately shed tears, explicating the divine teacher-student relationship. Different titles were given to different students as per their personalities. In the end, it all became content with DJ's tuning in, seniors and juniors dancing together and the students taking selfies and pictures with the faculty members.
9. **Educational Trip (Semester VI):** For disaster management studies, two distinct groups were formed, consisting of fifty students, collectively. The first group toured Kerala, dated 7th January to 20th January, while the following group visited Tamil Nadu, dated 26th January to 7th February, with the concerned disaster subject being the flood and cyclone, respectively.
10. **IMD Visit:-** An academic visit to the "Indian Meteorological Department", was arranged by the Geography department of the college on three distinctive dates for three respective years: the first year on 31st January, the second year on 10th February and the third year on 11th February 2020 respectively. 136 students alongside 9 Department of Geography's professors and the respectable Principal sir of the college visited the IMD to interact with the scientists to understand meteorological events like earthquake, cyclone, radar, etc.

ACHIEVEMENTS

ACADEMIC ACHIEVEMENT

FIRST YEAR

- | | |
|------------------------------------|------|
| 1. Anurag Pratap Singh | 8.45 |
| 2. Shivani Chauhan | 8.27 |
| 3. Shubhi Dwivedi & Abhishek Mahto | 8.23 |

SECOND YEAR

- | | |
|------------------|------|
| 1. Deeksha Singh | 9.04 |
| 2. Anjali Prabha | 8.96 |
| 3. Mayank Singh | 8.75 |

THIRD YEAR

- | | |
|---|------|
| 1. Vinit, Anushka Ghildiyal, Vipul Kumar | 8.38 |
| 2. Deepak Kumar, Aman Tiwari, Gyan Prakash Gautam | 8.25 |
| 3. Linus Ratan, Shruti Bahukhandi | 8.18 |

Elected Candidates in College Student Union

Anoop Singh Gujjar elected as the College Student's Union Secretary 2019-2020.

Divya Elected as Joint Secretary, College Student Union 2019-2020.

Participation in NCC

- **Astik Pratap**

Participated in Prime minister's (PM) Rally on 28th January 2020 at the Cariappa Ground, New Delhi. Performed para slithering in helicopter MI-17.

Participated in All India boys Shivalik hills trekking expedition organized by NCC U.P. Directorate.

Participated in Annual Training Camp (ATC) organized by NCC Delhi Directorate.

Achieved the rank of Corporal (CPL) in NCC during the session 2019-20.

- **Yogesh Bhardwaj**

Participated in Annual training camp org. by NCC DELHI Directorate.

- **Anil kumar singh**

Participated in army attachment camp with Raj Rif held in Meerut, U.P.

Participation in NSS

- **Shivam Gangwar** FIRST ever NSS volunteer in SBSEC's history to be selected for Pre-Republic Day Camp.
- **Subhash Kumar** attended national youth festival 2020.
- **Swatch Bharat** internship 0.2 under the ministry of youth affairs and sports: **Shivam Gangwar, Shivam Trivedi, Subhash kumar, Sourav Samanta, Saroj Salil, Abhishek Mahto, Aishwarya, Yogesh.**

Debate competition

- **Vinay Shrivastava**

Secured 1st position in Debate competition organized by NUKE—the Debating society in SBSEC.

Secured 3rd position in International Debate held at International Guest House under the republic of Slovakia, University of Delhi organized by National Task Force for DISASTER MANAGEMENT.

- **Rohit Srivastava** secured 1st position in international debate on Disaster management.

Dance

- **Avanttika Das** Performed folk dance at the All India National Geographers conference held in Delhi School of Economics, New Delhi.
- **Vinay Gaurav** secured 2nd position in solo dance competition organized by B.A. Programme Association at SBSEC.

Extra Curricular Activities

- **Arkaprabha Haldar** participated in Youth Climate Conclave at World Sustainable Development Summit 2020.
- **Shivam Trivedi** and **Shivam Gangwar** secured 3rd prize in the success story of Vimarsh 2019.

Abhishek Mahto

1. 1st position- Atma Ram Snatandharam college (anti drug abuse and illicit trafficking).
2. 2nd position “Nakab” face painting SBSC
3. 1st position in CVS poster making karvan

4. 1st position in cartoon making political science department SBSEC
5. Poster making 1st position SBSEC
6. 1st position in KNC poster making
7. 1st position KMC, (sculpteria) sculptures
8. 2nd position in IIT Delhi “constellation hunt”
9. Hindu college 1st position in (sculpt it out)
10. 1st position Miranda House creative writing
11. 1st position NSS poster making.
 - **Devendra Singh Pawar** secured 1st position in “GEO-EXPLORER” competition in SHRISTI-2019 (geo-fest) by Department of Geography at SBSEC.

Anjali Prabha

1. 3rd position in Slogan writing competition organized by Department of Geography, SBSEC.
2. 1st position in Rangoli competition organized by Commerce Association, SBSEC.
3. In poster making competition, got appreciation certificate organized by Department of Geography at Miranda House.

Smriti Kona Mondal secured 3rd position in Writing Competition in Kalindi College.

Consolation prize in National Geographers Youth conclave 2020 presented by **Abhishek Mahto, Nandini Singh Tomar, Shubhi, Anjali Prabha** .

Mahima Mishra received a certificate from the guest of honour Ms Gayatri Raghwa UN Environment education consultant, India and respected Principal sir Dr. Anil Sardana for participating as a Delegate of UN for Model United Nations Environment Assembly organized by Harithkram, Shaheed Bhagat Singh college, University of Delhi, held on September 20 & 21, 2019.

Sourav

1. Successfully completed the tide turners plastic challenge. Under WWF and United Nations environment programme.
2. Exhibited in Paryatan Parv 2k19 organized by Ministry Of Road Transport And Highways
3. Exhibited in Bharat Parv 2k20 organized by Ministry Of Road Transport And Highways and Ministry Of Tourism.
4. Exhibited in Nugen Mobility Summit 2019 under * Ministry Of Road Transport and Highways.

Shamistha Singh Baghel received gold medal from Human Development Minister Sri Ramesh Pokriyal .

Ankita Kurmi received 1st prize for Meritorious Performance in the 31st National Youth Parliament Competition .

Dramatics

Ashu Sharma – Presently being a member of “SANGHARSH DRAMATIC SOCIETY”.

- 1st position (mime) – IIT Kanpur
- 1st position (stage) – Bharti College
- 1st position (street) - “Rangroot” event (NGO).
- 1st position (street) –Department Fest of Pol. Science in SBSC.
- 2nd position (stage) –PG DAV morning.
- 1st position (stage) - Vandiville,hosted by Ariel`s, Miranda House.
- 1st position (stage) - DTU.
- 2nd position (stage) - Medina,HinduCollege.
- 3rd position (stage) – Noida Rang Mahotsav, “Bestlights” and “Setdesign” at Noida Rang Mahotsav.
- “Best Scenography” at SGTB Khalsa College.

Sports

Abhishek Das

1. Played as the captain of the winning team of gully Cricket organized by NSS
2. Played as the captain of the winning team of gully Cricket organized by ABVP

Ashutosh Kumar secured 3rd position in college relay race

Nizamuddin Shiddik winner of North-East society Delhi University Volleyball tournament held in March 2019.

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Why world leaders don't care about climate change?

Animesh Kumar

*B.A. (Hons.) Geography, VI semester
Shaheed Bhagat Singh Evening College
University of Delhi*

Maggie Stiefvater, the #1 New York Times Bestselling series *The Raven Cycle* and *the Wolves of Mercy Falls* once remarked, **“If I were a tree, I would have no reason to love a human.”** To paraphrase her vividly, more pervasively, “If I were the nature, I would have no reason to love a human, in fact, I would have hated them.”

Since the beginning, as much as I'm aware of trends and culture, our society tilted towards protecting nature, sheltering the animals, worshipping the venomous and respecting the natural order of the world. We knew that we are because they're, not otherwise. But something's changed for worst. They chop the tree, they erase the forests, they kill the animals, they burn the bloomed flowers and they, by their catastrophic practices, imitate a squalid reckless species, yet considering themselves to be the most intelligent species ever, nothing could be further from the truth.

Through the last few generations, the world's changing; science has been on a surge, humans have been sent to the moon, humans began adventuring the universe, and amongst it all, humans somewhere forgot the need to maintain the invincible factor—nature—that nourished them to achieve the glory they've achieved so far. Anxiously, humans have always strived for what they don't have, ignoring what they have, however, despite all the tendencies and inclinations, they can't snub the importance of nature.

When more recently, a Swedish girl, Greta Thunberg lectured the world leader's about the importance of nature and the ill-effects of climate change, it was certain something's wrong with the leaders. They need a 16-year-old kid schooling them about the importance of nature and climate, I mean seriously, umm...?

Yes, they do. When elders forget, younger do have to address. She took on world leaders saying, “I shouldn't be up here. I should be back in school on the other side of the ocean. Yet, you all come to us young people for hope. How dare you? You have stolen my dreams and my childhood with your empty words. Yet, I am one of the lucky ones. People are suffering.”

What are some of the reasons behind the world leader's lack of motivation towards addressing climate change?

If people are motivated to avoid threats to their existence, why is it so hard to get people to act on climate change? There can't be one answer to such a consequential tragedy, but human's instinct to take accessible things for granted might very well be the first and foremost reason causing the leader's lack of interest regarding climate change. Unfortunately, climate change involves a combination of factors that make it hard for people to get motivated, according to Harvard Business Review, which are given below:

Firstly, acting on climate change represents a trade-off between short-term and long-term benefits, which is the hardest trade-off for people to make. We overvalue benefits in the short term relative to benefits in the long term. Thus, unknowingly we underlay the harms which climate change may cause in the future.

1. Climate change is a nonlinear problem and because of it, leaders don't exactly know how much to spend. Climate change cannot be understood in a pattern, its effects might vary from places to places and since it's an ongoing process, leaders care more about on hand issues, like, eradicating poverty, educating the youth, etc.
2. Many effects of climate change are distant from most people. When there are weather disasters that are probably a reflection of climate change (like wildfires or extreme storms), they tend to happen far away from where most people live. As a result, most people are not forced to grapple with the specifics of climate change, but rather can treat it as an abstract concept. And abstract concepts simply don't motivate people to act as forcefully as specific ones do. People conceptualize things that are psychologically distant from them (in time, space, or social distance) more abstractly than things that are psychologically close.
3. Lastly, the future is always more uncertain than the present. That is one reason people value the present so much more strongly. In the case of climate change, some skeptics argue that it is not certain that the influence of human activity on climate will have the dire consequences that some experts have projected.

Mr. M.K. Gandhi, THE BAPU, quoted, "*We have enough for everybody's need, but not for greed.*"—that in my view is the biggest, most prominent reason behind leader's idiotic silence. And, it is not a mystery that nature doesn't pay in cash and politicians solemnly listen without bribery. Many leaders are still in denial mode as if Australia's not burning, many flora and fauna's not extinct, world's temperature not rising, carbon dioxide's emission not expanding, pollution not killing people. If I were to begin, the list shall go on forever, but that's not enough for our world leaders, they need a concrete proof, may be like extinction of human, for the starters. Just because we close our eyes to the problems, they don't eradicate themselves. As Ban Ki-Moon in one of his lectures stated, "We are the first generation to be able to end poverty, and the last generation that can take steps to avoid the worst impacts of climate change. Future generations will judge us harshly if we fail to uphold our moral and historical responsibilities."

Leaders shall have to think because "***THERE IS NO PLANET B***".

TRANSFORMING OUR WORLD: The 2030 Agenda for Sustainable Development

Salam Rakesh Singh

*B.A. (Hons.) Geography, III semester
Shaheed Bhagat Singh Evening College
University of Delhi*

Introduction

Talking as a responsible person we need to make some plan for people, planet and prosperity. This agenda will seek to strengthen universal peace in large freedom.

Causes

The global agenda of local and regional government for the 21st century set out the vision and aspiration of sub-national government and explain the contribution we can make to ensure sustainable development in a rapidly changing world

Recommendation include the Paris agreement on climate change and the new urban agenda adopted at Habitat III

Disadvantages:

1. There are not any mandatory rules package to solve the possible illegal policy resistance.
2. There is governance weakness regarding satisfying miscellaneous stakeholders with conflicts of interest
3. There need to integrated with the systematic approach, otherwise each goal, proposed sub-optional solution would not necessarily lead to an optional solution for the whole system.

Advantages:

Among the pros of sustainable development, obviously its objective perhaps utopian , but at the same time necessary to save the planet from a major crisis must be cited. To do this, it proposes a feasibility solution by harmonizing the economic, social and environmental aspect. Taking care of environment, its resources without renouncing social and economic progress is synonymous with sustainability and avoid a disastrous outcome.

In an environment that tends to sustainability, government must be responsible and citizens are more aware and should ask important questions in their role as consumers.

Conclusion with steps, message, methods

One of the main obstacle that the application of sustainable policies find itself is the duality that exist between the need for solutions and strategies that transcend border, since it is a co-operation that today is not being produced , much less there are vision of a hopeful future.

Currently unfortunately, global pattern of production and consumption go in the opposite direction to that required by a sustainability policy. However, everything that glitters is not gold and there are numerous negative elements in sustainable policies. Government itself has to face a constant uncertainty, because there are many aspects that must be married to achieved a result that achieves that desired sustainability. And in the same way, even the tools considered more sustainable, such as organic farming or renewable energy sources have lots of drawback that need to be tackle intelligently in order to really help that sustainability. Thus, although sustainable development can help to end poverty in the world and adjust social inequalities, addressing human needs in a fairer way and reorienting technology to respect the planet and ensure its long-term viability.

A decade from today!

Avanttika Das

B.A. (Hons.) Geography, IV semester

Shaheed Bhagat Singh Evening College

University of Delhi

I see a nation where peace prevails,
I see a 'morrow of hope and happiness,
Oh, nature! What a beautiful creation you, indeed are!
Where the earth transforms again into a safer zone,
Where humanity shines irrespective of its gloominess.
Beyond the boundaries, and within the choices,
Let us make a better tomorrow;
Where we have ample resources
-To serve ourselves and reuse it all over again,
Oh, nature! What a beautiful creation you, indeed, are!

Let no one starve! Let no one cry!
Oh, mother nature! Keep blessing us till we die;
Where employment is enough with ample food in hand,
Where faces are blooming with caresses in their hearts.
I wish we re-gain the earth of optimistic ambiance.

A decade from today, let us witness a dream,
Likewise, our leader's envisioned of, in New York;
Where we accomplish our goals for a better tomorrow;
Where we still sustain the sustainable development goals
-To attain a sustainable future.

Transforming our world: The 2030 Agenda for Sustainable Development

“TREAT ME AS A HUMAN”

Adhya Burman

*B.A. (Hons.) Geography, IV semester
Dyal Singh College
University of Delhi*

“Poverty is the worst form of violence.” - Mahatma Gandhi

For years together traveling in a car, I recall my mother looking away when a homeless man or woman begged for money. Today, I did something similar. The homeless man on the footpath waved and I looked away. I did not know his story. If I am honest, I did not even think about the fact that he had a story. Now that I try to recall his face, it does not come back to me. At that time, I might have involuntarily noticed that there was a person there, but I did not appreciate his humanity. Would anyone like to feel what the homeless man felt today?

Name, faces, stories, fears, doubts, and questions are attached to each person be it poor or not. They are as human as anyone else.

Poverty is a pandemic condition where individuals do not have monetary means to meet the most basic standards of life that is justifiable by society. The rate of poverty is increasing because of the increase in the demographic population. The migration of rural population to cities takes place in search of better employment. Most of these people find an underpaid job or an activity that pays only for their food. Many of the urban population is below the poverty line or are on the border. On that account, a huge number of illiterate people live in slums.

More population needs more food, houses and money and in the lack of these facilities the poverty grows very quickly. In addition, being very poor and very rich also widens the gap between the rich and poor. Therefore, the rich are growing richer and the poor are getting poorer creating an economic gap that is difficult to fill up. Poverty is not the problem of a person but of the whole nation. Also, it should be dealt on with an urgent basis by the implementation of effective measures. In addition, eradication of poverty has become necessary for the sustainable and inclusive growth of people, society, country, and economy which is why the 2030 Agenda for Sustainable Development is a plan of action for people, planet and prosperity.

Gender equality: Not merely a sustainable development goal

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Introduction

Gender equality, also known as sexual equality or equality of the sexes, is the state of equal ease of access to resources and opportunities regardless of gender, including economic participation and decision-making; and the state of valuing different behaviours, aspirations and needs equally, regardless of gender.

UNICEF says gender equality “means that women and men, and girls and boys, enjoy the same rights, resources, opportunities and protections. It doesn’t require that girls and boys, or women and men, be the same, or that they be treated exactly alike.

Why is this important?

Gender equality is not only a sustainable development goal rather it’s a fundamental right of every human beings and that should be ensured to all. From ancient period, women were not given equal rights and opportunities in different aspects of the life and they kept out of mainstream of life. They were deprived from their basic rights. By incorporating gender equality in sustainable development goal, we can facilitate equal movement of resources and opportunities to all human beings regardless of any gender.

Gender equality is a necessary foundation for a peaceful and sustainable world. Gender inequality is seen among women at different level. The exclusion of women places half of the world’s population outside the realm of opportunity to partner in building prosperous societies and economies. Equal access to education, decent work, and representation in political and economic decision making processes are not only rights women should have, they benefit humanity at large, By investing in the empowerment of women, we not only make progress on GOAL 5 of the sustainable development goals, we also make gains on the alleviation of poverty and fuel sustainable economic growth.

Gender equality and India

India is well known country for experiencing gender inequality on a large. It has ancient records of oppression against women, violation of basic rights of women, sati pratha like custom, patriarchy etc which proves that a major section of a society was in danger and deprived from basic human right, achieving gender equality in India is a big deal. People of India are of patriarchy mindset. Moreover, we have experienced some positive targets of gender equality up to some extent but need to achieve more.

Although India achieved gender parity at the primary education level and is on track to achieve parity at all education levels, as of June 2019, the proportion of seats in the Lok Sabha held by women had only reached 11% but 46% in the Panchayat Raj institutions. India is also confronting challenge of violence against women. As an example, a baseline study revealed that in New Delhi, 92% of women had experienced some form of sexual violence in public space during their lifetime. In 2016, close to a third of total crimes reported against women in India was cruelty or physical violence by her husband or his relative. The government of India has identified ending violence against women as a key national priority, which resonates with the sustainable development targets of the United Nation Gender Equality. The prime minister's **Beti Bachao Beti Padhao** initiative aims at equal opportunity and education for girls in India. In addition, specific interventions on female employment, programmes in the empowerment of adolescent girls, the Sukanya Samridhi yojana on girl prosperity and Janani Suraksha yojana for mothers promote India's commitment to gender equality, and the targets of SDGs4.

Myths that provoke gender inequality in India

- *Women are responsible for birth of a girl child.*

But it is scientifically proven that both sexes are responsible for the gender of offspring. This is all because of combination of chromosomes which is not controlled by any woman.

- *During any feast, women are told to eat after the man.*

Women are also born with a belly and hunger strike them too. Sowhy this injustice at feast or any other occasion?

- *During cremation in Hinduism, women are not permitted to light the funeral pure.*

It is assumed that they are not mentally as strong as man to handle sadness bit is all myth.

- *During animal sacrifice to goddess in Hinduism, sons are given preference over daughters.*

Girls are considered as weak but they are not.

- *Investment on boys is worthier than girls.*

But it is proved that girls are no less than boys.

How we can eliminate the gender inequality?

Since gender inequality constitutes one of the history's most persistent and widespread forms of injustice, eliminating it will call for one of history's biggest movement for change. Women and girls continue to suffer discrimination and violence in every part of the world. Gaps in gender equality exist in every sector. And in India this gap is much wide due to its diversity.

- Since SDGs 5 aims to eliminate all forms of discrimination and violence against women in the public and private spheres and to undertake reforms to give women equal rights to economic resources and access to ownership of property, it is our responsibility to facilitate this move effectively.

- Diversion and broadening of mindset regarding women welfare are important to fulfill the desired goal.
- Establishing equal right to girls in property is an effective move in this regard but still it is less operational. Indian males still don't want to share property with females. They try to maintain supremacy over the women.

So, here psychological diversion is an important tool to establish gender equality.

- Women should be given equal status in the society. Although we have seen many instances which show some positive response towards gender equality but still, we have a lot to achieve.
- Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision making in political, economic and public life.
- Ending all forms of discrimination against all women and girls everywhere should be our responsibility. Also, we should prevent violence against all women and girls everywhere.
- We should not underestimate the intelligence and power of women and they should be given cord of business and other opportunities.

Although these are some effective targets which we have to achieve to fulfill SDGs 5 of sustainable development but it can't be achieved without behavioral change in general public. Apart from these targets there are many more which focus on women empowerment and gender equality that should be followed along with these targets. This way we could establish gender equality everywhere.

The 2030 Agenda for Sustainable Development

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By endorsing the 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs) in 2015, the world community reaffirmed its commitment to Sustainable Development. Through this Agenda, 193 member states pledged to ensure sustained and inclusive economic growth, social inclusion, and environmental protection, fostering peaceful, just, and inclusive societies through a new global partnership.

The 2030 Agenda is universal, transformative, and rights-based. It is an ambitious plan of action for countries, the UN system, and all other actors. The Agenda is the most comprehensive blueprint to date for eliminating extreme poverty, reducing inequality, and protecting the planet. The Agenda goes beyond rhetoric and lays down a concrete call to action for people, planet, and prosperity. It encourages us to take bold and transformative steps which are urgently needed to shift the world onto a sustainable and resilient path.

How did we get here?

Gaining momentum since the 1972 UN Conference on Human Environment all the way to the 2015 UN Sustainable Development Summit, the 2030 Agenda is a culmination of more than four decades of multilateral dialogue and debate on tackling environmental, social, and economic challenges faced by the world community. Adopted as a result of extensive negotiations among member states, the accountability for the implementation of the Agenda primarily rests with national governments.

Core Principles Underpinning the Agenda

The 2030 Agenda embodies the following core principles:

- **Universality:** The 2030 Agenda is universal in scope and commits all countries, irrespective of their income levels and development status, to contribute towards a comprehensive effort towards sustainable development. The Agenda is applicable in all countries, in all contexts, and at all times.
- **Leaving no one behind:** The 2030 Agenda seeks to benefit all people and commits to leave no one behind by reaching out to all people in need and deprivation, wherever they are, in a manner which targets their specific challenges and vulnerabilities. This generates an unprecedented demand for local and disaggregated data to analyse outcomes and track progress.
- **Interconnectedness and Indivisibility:** The 2030 Agenda rests on the interconnected and indivisible nature of its 17 SDGs. It is crucial that all entities responsible for the implementation of SDGs treat them in their entirety instead of approaching them as a menu list of individual goals from which they pick and choose.
- **Inclusiveness:** The 2030 Agenda calls for the participation of all segments of society-irrespective of their race, gender, ethnicity, and identity-to contribute to its implementation.
- **Multi-Stakeholder Partnerships:** The 2030 Agenda calls for establishing multi-stakeholder partnerships for mobilising and sharing knowledge, expertise, technology and financial resources, to support the achievement of SDGs in all countries.

Dimensions of the New Agenda

At the heart of the 2030 Agenda are five critical dimensions: **People, Prosperity, Planet, Partnership and Peace**, also known as the 5P's. Traditionally viewed through the lens of three core elements- *social inclusion, economic growth, and environmental protection*. The concept of sustainable development has taken on a richer meaning with the adoption of the 2030 Agenda, which builds upon this traditional approach by adding two critical components: partnership and peace. Genuine sustainability sits at the core of these five dimensions.

The five dimensions inform development policy decisions. This means that for a development intervention to be sustainable, it must take into account **the social, economic, and environmental consequences it generates, and lead to conscious choices in terms of the trade-offs, synergies,**

and spin offs it creates. Additionally, policy makers need to ensure that any intervention is developed, owned, and carried forward with the relevant partnerships and leverages the appropriate means of implementation. In this way, the 2030 Agenda and the SDGs together represent a holistic approach to understanding and tackling problems, by guiding us to ask the right questions at the right time.

The Sustainable Development Goals

Contrary to what many believe, the SDGs do not represent the Agenda in its entirety. They are not a summary of the Agenda, but rather focus areas necessary to achieve sustainable development. The 17 goals should be seen as indispensable pieces in a big and complex puzzle. In order to truly understand the Agenda, one needs to look at the puzzle as a whole, but at the same time, it is impossible to complete the puzzle without those pieces. SDGs are the pressure points that have the capability to affect the wellbeing of the entire planet and the people who live on it. Because the SDGs are the result of extensive political negotiations and individual consultations, they are not perfect, but inarguably represent some of the most urgent and universal needs of the world today. The SDGs help translate the core values and principles underlying the Agenda into concrete and measurable results not all goals have the same standing. While some goals appear more overarching or ‘final’ in nature, others can be seen as ‘means’ to those final goals. For example, we do not only pursue the water and energy goals (SDGs 6 and 7) for their own sake, but because clean water and energy are means to the true goal of health and wellbeing. However, clean energy and water are such crucial issues that they demand specific focus. Looking at some SDGs as means to others can help us appreciate the interlinkages of the SDGs.

Conclusion

The 2030 Agenda inspires us to think creatively by leveraging innovative approaches and critically rethinking the way we approach the development challenges of today. Advocacy and awareness raising efforts for the goals, which are actionable and achievable, are crucial to mobilize support for the Agenda. However, in order to create long-lasting change, awareness raising and advocacy are not enough.

Substantive knowledge about the Agenda in its breadth and depth will be key to realizing the Sustainable Development Goals. By adopting the Agenda, the UN member states committed to an ambitious plan of action which requires the concerted efforts of all segments of society including civil society, development practitioners, the private sector, and academia. Each one of us, in our personal capacities, also needs to take concrete steps towards sustainable life choices. A commitment to life-long learning is required to advance the transformational agenda that lies ahead of us.

Individual impact on environment: Every Day Every Action

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Water

- A hot water faucet that leaks one drop per second can add up to 165 gallons a month. That's more than one person uses in two weeks.
- An energy-smart clothes washer can save more water in one year than one person drinks in an entire lifetime.
- An automatic dishwasher uses less hot water than doing dishes by hand -- an average of six gallons less, or more than 2,000 gallons per year.
- An American family of four uses up to 260 gallons of water in the home per day.
- Running tap water for two minutes is equal to 3-5 gallons of water.
- A 5-minute shower is equal to 20-35 gallons of water.
- A full bath is equal to approximately 60 gallons of water.
- Water efficient fixtures can cut water use by 30 percent.
- More than **1 billion** people still do **not** have access.

Energy

- Although accounting for only 5 percent of the world's population, Americans consume 26 percent of the world's energy.
- America uses about 15 times more energy per person than the typical developing country.
- A heavy coat of dust on a light bulb can block up to half of the light.
- When you turn on an incandescent light bulb, only 10% of the electricity used is turned into light. The other 90% is wasted as heat.
- If people worldwide switched to energy efficient lightbulbs the world would save US\$120 billion annually.
- A compact fluorescent light bulb uses 75 percent less energy than a regular bulb and it can last up to four years.
- A crack as small as 1/16th of an inch around a window frame can let in as much cold air as leaving the window open three inches.

- Some new refrigerators are so energy-smart they use less electricity than a light bulb.
- Every time you open the refrigerator door, up to 30 percent of the cold air can escape.
- Every year, more than \$13 billion worth of energy leaks from houses through small holes and cracks. That's more than \$150 per family.
- Office buildings use approximately 19 percent of all energy consumed in the United States.
- Heating, ventilating and air conditioning systems account for 40-60 percent of total energy use in the commercial sector.

Waste Materials

- A single-sided, 10-page letter costs \$.55 to mail. If copied on both sides, the letter uses only five sheets and costs only \$.34 to mail.
- One ton of 100 percent recycled paper saves the equivalent of 4,100 kWh of energy, 7,000 gallons of water, 60 pounds of air emissions and three cubic yards of landfill space.
- In the United States, more than 40 percent of municipal solid waste is paper - about 71.8 tons a year.

Sustainable Development: An Understanding

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Sustainable development refers to a model of human development in which resource use aims to meet human needs while preserving the environment so that these needs can be met not only in the present, but also for generations to come.

The term 'sustainable development' was used by the Brundtland Commission (1987) which coined what has become the most often-quoted definition of sustainable development, development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Sustainable development does not focus solely on environmental issues. The United Nations 2005 World Summit Outcome Document refers to the four 'interdependent and mutually reinforcing pillars' of sustainable development as including: economic development, social development and environmental protection. The fourth pillar is indigenous people and culture.

Proponents of Sustainable Development argue that it provides a context in which overall sustainability is improved where cutting edge Green development is unattainable. For example, a cutting edge treatment plant with extremely high maintenance costs may not be sustainable in regions of the world with fewer financial resources. An environmentally ideal plant that is shut down

due to bankruptcy is obviously less sustainable than one that is maintainable by the community, even if it is somewhat less effective from an environmental standpoint.

During the last ten years, different organizations have tried to measure and monitor the proximity to what they consider sustainability by implementing what has been called sustainability metric and indices. Sustainable development is said to set limits on the developing world. While current developed countries pollute significantly during their development, the same countries encourage developing countries to reduce pollution, which sometimes impedes growth. Environmental sustainability is the process of making sure that the current processes of interaction with environment is pursued with the idea of keeping the environment as pristine as naturally possible based on ideal-seeking behavior. An ‘unsustainable situation’ occurs when natural capital (the sum total of nature’s resources) is used up faster than it can be replenished.

Sustainability requires that human activity only use nature’s resources at a rate, which they can be replenished naturally. Inherently, the concept of sustainable development is intertwined with the concept of carrying capacity. Theoretically, the long-term result of environmental degradation is the inability to sustain human life. Such degradation on a global scale could imply extinction for humanity.

What is Sustainable Development?

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Introduction

Sustainable development refers to a model of human development in which resource use aims to meet human needs while preserving the environment so that these needs can be met not only in the present but also for the next generation. The term ‘sustainable development’ was used by the Brundtland’s commission (1987) which coined what has become the most often quoted definition of Sustainable Development.

“Development that meets the needs of the present without compromising the ability of future generations to meet their own needs”.

Everyone wants a better place to live. Some people want better homes and housing, while others people want better schools, more jobs etc. Other may want all these things. Whatever the problems in any neighborhood they can usually be grouped into three issues.

- 1. A better environment:** That means green spaces, play areas, no litter, nice garden, decent house, less noise and pollution. The resources used should renew over generations.

2. **A better economy:** That means generation of more and more jobs, reasonable price for daily need commodities, no loan sharks.
3. **A better social condition:** That means good leisure facilities, lots of community groups offering sports and arts friendly neighbours.

The NITI Aayog recently released the baseline report of the sustainable development goals India index, which comprehensively documents the progress made by India states and Union territories towards implementing the 2030 SDG targets. The SDG India index was developed in collaboration with the ministry of statistics and programme implementation (MOSPI), global green growth institute and United nations in India.

The sustainable development goals were adopted in September 2015 as a part of the resolution, transforming our world the 2030 agenda for sustainable development India is committed to achieve the 17 SDG and the 169 associated targets, which comprehensively cover social, economic and environmental dimensions of development and focus on ending poverty in all its forms and dimensions. At the central government level NITI Aayog has been assigned the role of overseeing the implementation OF SDG in the country.

Sabkasaath, Sabkavikas

NITI Aayog has the twin mandate to oversee the implementation of SDG in the country and also promote competitive and cooperative federalism among states and UTs. The SDG India index act as a bridge between these mandate, aligning the SDG with the prime minister clarion call of *Sabkasaath, Sabkavikas*, which embodies the five Ps of the global SDG movement – people, planet, prosperity, partnership and peace.

SDGs and India

The SDG are ambitious global development goals that address key aspects of universal wellbeing across different socio-economic, cultural, geographical divisions and integrate the economic, social and environmental dimensions of development. India national development Agenda is mirrored in the SDG. India's progress in SDG in crucial for the world as the country is home to about 17% of the world population. The SDG India index tracks progress of all states and UTs on 62 priority indicators selected by NITI Aayog, which in turn is guided by MOSPI national indicator framework comprising 306 indicator and based on multiple-round consultations with Union ministrie/departments and states /UTs.

Significance

The SDG India index will also help highlight crucial gaps related to tracking SDG and the needs for India to develop its statistical systems at national and state /UTs levels. This shall lead to the index evolving and becoming more comprehensive over the coming years. The indicators shall be further refined and additional indicators will be added with improvement in data collection, reporting process and methodology. NITI Aayog is also exploring potential for disaggregation data and developing capacity for real time monitoring and measuring incremental progress.

Overall Findings

Himachal Pradesh ranks high on providing clean water and sanitation in reducing inequalities and preserving mountain ecosystem. Kerala top rank is attributed to its superior performance in providing good health, reducing hunger, achieving gender equality and providing quality education. Chandigarh leads because of its exemplary performance in providing clean water and sanitation, affordable and clean energy, generating decent work and economic growth and providing quality education.

Australian Bushfires –A Question mark on world’s Sustainability Strategy

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Since June 2019, there have been many large bushfires burning across Australia, especially in the south east where a state of emergency was declared in New South Wales. As of 14 January 2020, fires this season have burnt an estimated 18.6 million hectares (46 million acres; 186,000 square kilometers; 72,000 square miles), destroyed over 5,900 buildings (including approximately 2,683 homes) and killed at least 33 people. An estimated one billion animals were also killed and some endangered species may be driven to extinction.

10 impacts of this bushfire crisis are enlisted below which will surely make you think that “whether the world powers and different nation states really concerned about the limited and scarce resources and the global need of sustainable development?”

- 1. Physical, direct impacts:** Over 18 million hectares have burned in the Australian bushfire season 2019–2020 as of mid-January according to media reports, destroying over 5,900 buildings including over 2,800 homes. In addition to human fatalities, many millions of animals are reported to have been killed.
- 2. Ongoing ecological and biodiversity impacts:** After initial devastation of the fires, impacts are ongoing. An estimated billion animals, and many more bats and insects, are likely to die in total over the coming weeks and months as a result of lost habitat and food sources. This loss is part of a much bigger picture of a world where biodiversity is in steep decline. We are losing wildlife at an ever-increasing scale across the planet, with impacts to ecosystems vital for our own global food production. The world’s terrestrial biodiversity is concentrated in forests: they are home to more than 80 per cent of all terrestrial species of animals, plants and insects. So, when forests burn, the biodiversity on which humans depend for their long-term survival also disappears in the inferno. With over 1 million

species currently facing extinction if we continue with business as usual, extreme weather events, such “megafires” become an increasing matter of concern for species survival.

3. **Public health:** As a result of intense smoke and air pollution stemming from the fires, in January 2020 reports indicated that Canberra measured the worst air quality index of any major city in the world. Wildfires produce harmful smoke which can cause fatalities. Wildfires produce fine particle air pollution, which directly threatens human health even during relatively short exposures. Close to the fires, smoke is a health risk because it contains a mixture of hazardous gases and particles that can irritate the eyes and the respiratory system. The effects of smoke exposure and inhalation range from eye and respiratory tract irritation to more serious disorders, including reduced lung function, bronchitis, exacerbated asthma and premature death. Exposure to particulate matter is the main public health threat from short-term exposure to wildfire smoke. According to the World Health Organization, older people, people with cardiorespiratory diseases or chronic illnesses, children, and people who work outdoors are particularly vulnerable.
4. **The impacts of the fires crosses borders:** Smoke from wildfires can travel great distances. It is often pushed into the stratosphere by the heat from fires. Smoke from bushfires in Australia has drifted across the Pacific and may have reached the Antarctic, according to the World Meteorological Organization. This has led to hazardous air quality in major cities throughout Australia, and affected New Zealand and cities in South America after smoke reached both Argentina and Chile.
5. **Mental health costs:** Fires do not only cause physical harm; many people experience mental trauma from the experience of emergency evacuation and losing homes, pets, belongings, livestock or other sources of livelihoods. Some communities found themselves unable to evacuate quickly when lost electricity meant fuel stations weren't operational or blocked roads kept people trapped in high risk areas. Some were forced to seek safety on beaches and on boats, sheltering children overnight while witnessing unprecedented firestorms. Such experiences can have lasting mental health impacts across affected communities.
6. **Economic costs:** The price tag to the Australian economy is still being analyzed, but it's clear that infrastructure has been damaged and that impacts extend to industries such as farming and tourism. Some businesses and institutions have been forced to close their doors during periods of excessive levels of air pollution.
7. **Climate feedback loops:** The bushfires have not only been made more likely and intense by climate change, they also add to it. Until the 2019–2020 Australian bushfire season, the forests in Australia were thought to reabsorb all the carbon released in bushfires across the country. This would mean the forests achieved net zero emissions. However, global warming is making bushfires burn more intensely and frequently and the 2019–2020 bushfires have already emitted 400 megatonnes of carbon dioxide into the atmosphere, according to the Copernicus monitoring programme. This is as much as Australia's average annual carbon dioxide emissions in just the past three months. These will increase Australia's annual greenhouse gas emissions, contributing to global warming, and heighten the likelihood

of recurring megafires that will release yet more emissions. This is a deeply concerning climate feedback loop.

- 8. Environmental costs: Pollution:** Ash from the fires has landed in school playgrounds, backyards, and is being washed up on Australia's beaches and into freshwater stores and water catchments. Drinking water catchments are typically forested areas, and so are vulnerable to bushfire pollution. Bushfire ash contains nutrients, such as nitrogen and phosphorous. Increased nutrient concentrations can stimulate the growth of cyanobacteria, commonly known as blue-green algae. Cyanobacteria produce chemicals which may cause a range of water quality problems, including poor taste and odour, and sometimes toxic chemicals. During a blaze, plumes of smoke, ash and other debris catch on the wind and scatter across the landscape. Sometimes they blow over the ocean, where they add nutrients. When burned soils flow into streams and rivers, they fertilize water plants and algae. The extra nutrients can have benefits in moderation but too much can over-fertilize and cause excess algal growth. Algae absorb oxygen in the water in order to grow, and deplete dissolved oxygen when they die and decompose, which can asphyxiate fish and other marine life, with localized impacts to biodiversity. The same can be true in ocean environments, where smoke has shown to have a negative impact on marine ecosystems in several past incidents: haze from record wildfires in Indonesia killed coral reefs in the late 1990s, according to a study in *Science*, as iron-rich smoke billowed out over the coast and fertilized the water, causing a huge plankton bloom. The resulting so-called red tide asphyxiated coral reefs around the Mentawai Islands, off southwest Sumatra.
- 9. Agricultural impacts:** The bushfires have scorched pasture, destroyed livestock and razed vineyards, with regrowth and recovery likely to stretch water resources already challenged by drought. Reports indicate that the country's dairy supply will likely be hit hardest, with Victoria and New South Wales—Australia's key milk-producing states—suffering the greatest loss of farmland and infrastructure damage. Meat, wool, and honey output may also be impacted. About 13 per cent of the national sheep flock is in regions that have been significantly impacted and a further 17 per cent in regions partially impacted, according to Meat & Livestock Australia. The Intergovernmental Panel on Climate Change (IPCC) in their 2019 report on Climate Change and Land found that climate change has already affected food security and the agriculture industry due to warming, changing precipitation patterns, and greater frequency of some extreme events (high confidence). In some dryland areas, increased land surface air temperature and evapotranspiration and decreased precipitation amount, in interaction with climate variability and human activities, have contributed to desertification. These areas include Australia.
- 10. Public attitudes are changing:** While Australians are reported to have been subject to misinformed campaigns and targeted attempts to undermine the link between climate change and more intense bushfires, this bushfire season has given Australians, and the watching world, an insight into the humanitarian, ecological and economic catastrophes of a changing and warming climate.

Thus, Long term environmental sustainability, such as planning for a world with zero net emissions, must be prioritized over short term economic growth. The Australian bushfires serve as a dire warning that this needs to be done, as the quality of life for future generations is drastically at stake.

Journey of the word ‘Sustainable Development’

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“The world has enough for man’s need but not enough for man’s greed!” quoted by Gandhi is true in today’s world.

In 1972, UN Conference on the Human Environment took place in Stockholm, Sweden which for the first time explored ecological issues of global concern. It concluded with the aim to fight pollution.

In 1987, Work of the World Commission on Environment and Development produced a report ‘Our Common Future’ also known as Brundtland Report. Concluded with the aim to propose long term strategies for achieving Sustainable Development by the year 2000 and beyond.

In 1992, the Earth Summit held at Rio De Janeiro, Brazil also popularly known as UNCED proposed an action plan called ‘Agenda 21’ for Sustainable Development.

In 2000, Millennium Summit, which proposed Millennium Development Goals (MDGs) proposed Eight International Development goals for the year 2015. Ambitious action plans for people, prosperity and the planet were accepted in 2015 to achieve the agenda for Sustainable Development by 2030s. It proposed 17 Sustainable Development goals or better known as SDGs.

So, we have been hearing the word ‘Sustainable Development’ in almost every paragraph. And a very interesting thing to notice here is with the passage of time the word Sustainable Development become more frequent and so the goals, targets or to say aim to achieve it. In 1972, a single goal was proposed which increased to 17 by the end of the year 2015 to be achieved by 2030s. So why the word Sustainable development was given by the way?

Man was not able to create must impact on Nature when he was in the primitive age. But due to Agricultural Revolution, man and nature counterposed. And with Industrial Revolution, so man was taught to control nature and ultimately use it to improve his material well being. The new consumerist culture has taken deep roots. So, Forest become timber, Animal become game and insects target of insecticides and pesticides. The bug of rapid economic growth, unmindful of what happens to the environment and human values, has infested all spheres of human. New world view

centered on material avarice and greed may throw overboard the values which endangered love, fellow feeling, concern about others both living and non-living. The rape of the Earth was some of the major causes of the downfall of some of the great civilization of the past.

By definition, 'Sustainable Development' connoted a commitment to raise material well being while fostering a society, that is equitable and fair (now often termed 'inclusive') and the health and productivity of nature ('green') or so many different things to different interests. It's not about living or going in the primitive age where the life forces in human beings ran parallel to those in the natural environment. But rather, we need to blend the environment knowledge of the past with scientific knowledge of the present not only to create a new knowledge but also and more importantly a new wisdom. And Sustainable Development doesn't attack the root cause of the problem that is our materialistic world view. It is not to abstain from material development but rather aims at limiting or reorienting it to sustainability. Emphasis is on continuing development with lesser use of natural resources and lesser pollution.

Sustainable Development in India

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Sustainable development is a common agenda for global concern, which everybody agrees upon, but bringing this global concern into public policies is a difficult task. The most accepted definition of sustainable development according to the Brundtland's report is, *"To meet the needs of present without compromising the ability of future generations to meet their own needs"*. It advocated the idea of *"sustainable growth"*. According to *The World Conservation Strategy* report (1980), by the International Union for the Conservation of Nature and Natural Resources (IUCN), for development to be sustainable it must *take into account the social and economic factors as well as the ecological ones*.

India is presently emerging as an economic superpower, but in contrast, there is another profile of India. We constitute around 17% of the world's population, but account for about 35% of the poor and 40% of the illiterates in the world. Experiences from the economic reform indicate that while there have been improvements in economic growth, foreign exchange, IT revolution, export growth, and so on, inequality in income distribution has been growing simultaneously (ratio of urban to rural income is 4.5). Exclusion from benefits of economic revolution has been continued in terms of low agricultural growth (agriculture's share in GDP has been reduced to half, with no decrease in dependent population in the agricultural sector), low quality employment growth, concentration of poverty in certain groups (SC / ST), occupation (agricultural and casual labor), and region; and inadequate development of women and children. Our sex ratio continues to remain favorable to men. Studies based on hospital statistics in South Delhi indicate that sex-ratio at birth is as low as 500 females per 1000 males, All the above factors have resulted in the widening of

economic and social disparity, which is a threat to sustainable development. The present economic growth helps to create more opportunities for the more educated section of the upper and middle class, with a ‘trickle-down’ effect on a section of the poor.

In India around 700 million people in the rural area are directly dependent on climate-sensitive sectors (agriculture, forests, and fisheries) and natural resources (such as water, biodiversity, mangroves, coastal zones, grasslands) for their subsistence and livelihoods. Climate change and its effects will further reduce the adaptive capacity of dry land farmers, forest dwellers, fisherfolk, and nomadic shepherds, which is already very low. Water, soil, and air, which are the vital environmental sources for maintaining life have been shrinking alarmingly. Annual per capita availability of renewable freshwater has been decreasing from 5,277 m³ in 1955 to 1,820 m³ in 2001. The main reasons for the water crisis are increasing demand, zonal disparity in distribution, lack of ethical framework for use, inadequate knowledge and resources, major land-use changes, long-term water level decline, and increase in salinity and pollution. India, with a large percentage of its land under agriculture, is also prone to the vagaries of weather conditions and climate change. About 228 Mha of its geographical area (nearly 69%) falls within the dry land (arid, semi-arid, and dry sub-humid) region and 142 Mha (68% of the total cultivated area) in the country is rain fed.

To meet the challenging situation of widening economic and social disparity, inclusive growth is the best tool, but it is a dream without improvement in agricultural growth, employment generation, poverty reduction, and involvement of the social sector (health, education, and women empowerment). We must learn from China in this regard. Elements of the successful experience of the Chinese such as, high and labor-releasing agricultural growth, favorable income distribution through broad-based agricultural growth, availability of infrastructure, higher levels of literacy and skills, inducements for the location of enterprises in rural areas, and easy access to credit and inputs for the poor section of society, are extremely relevant for developing countries. Women empowerment through replacing the “Life-Cycle Approach” of the girl child, which has a prime objective of marriage and motherhood by a “Capability Approach” – as propagated by Amartya Sen, where the girl child’s contributions both in economic and social terms are given due recognition. All Acts and Schemes related to the girl child, therefore, need to be thoroughly reviewed to raise the status of the girl child as an asset rather than burden, for example, conditional cash and non-cash transfer scheme, and so on.

Concerted and sustained efforts are required to meet the challenges resulting from climate change and its effects. Ground water conservation practices like construction of khadin (popular in Maharashtra, Andhra Pradesh, Madhya Pradesh, Tamil Nadu, Karnataka, and Gujarat), check dams, farm ponds, recharge shafts, injection wells (in coastal region and to combat problems of heavily pumped out aquifers), and contour trenching, to arrest surface run-off at elevations, and similarly surface water conservation techniques, like construction of ooranies (surface water collection ponds with improved catchments, commonly found in Tamil Nadu), are important measures to tackle problems of water scarcity and the decreasing ground water table. Generation of awareness and training among the masses for water conservation via roof top rain water harvesting and threshing floors can also be implemented. Involvement of the Gram Panchayat / Village Health and Sanitation Committee for operation, maintenance, and surveillance of water quality, as in the National Rural

Drinking Water Quality Monitoring and Surveillance Project, can have a major impact. Other measures like recycling and reuse of water, using water-efficient household equipment such as low volume flushing cisterns, proper metering of water, rational tariff, and the concept of a water-efficient home, would reduce water demand and encourage conservation.

Integrated development of drought-prone areas can be done by long-term preventive measures like afforestation, pasture development, and livestock management, (by growing better top feed species, which can survive annual droughts and provide rich fodder). Contingency crop planning can be implemented by growing various combinations of crops, fruits, trees, and grasses, to minimize the risk of crop failure and to provide stability to farm income. Efficient land management and irrigation technologies like sprinklers and drip systems should be popularized, which aim at maximizing the production per unit of irrigation water. Other measures like human and livestock population management and generation of alternate ways of non-farm employment can go long way. A study titled, "Comprehensive Assessment of Watershed Programmes in India" by the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Hyderabad, has identified the reduction of wastelands by about 8.58 Mha during 2000 and 2005, by using various techniques of integrated development of the drought prone area. The *National Rural Employment Guarantee Act* (NREGA) is presently one of the most credible programs that deals with chronic poverty and improving sustainable development in rural areas. Under NREGA, up to two-third of the activities are for water conservation (52%) and land development (14%), a step toward sustainable development.

For improving the present ecological conditions, India has taken a number of stringent steps, such as, registration of the largest number of Clean Development Mechanism (CDM) projects (31%) in the world.(8) CDM or carbon credits is a mechanism devised under the Kyoto Protocol to award encashable points to eco-friendly projects, on the basis of carbon emissions they control. A Mumbai start-up, Sustainable Technologies and Environmental Projects Ltd (STEPS), has discovered a way to convert plastic, organic, and electronic waste into petroleum without the usual harmful residue. Such plants, which cost US\$ 2 - 3 million each, can produce up to 25,000 liters of petroleum a day, at an operating cost of Rs. 12 per liter (excluding cost of raw materials). India is also trying to replace 10% of its transport fuels with environment friendly biofuels (mixing ethanol, doping diesel, and nonedible oil) in the next 10 years, to cut carbon emissions. A new initiative of the US Green Building Council-Leadership in Energy and Environmental Design (USGBC-LEED) - an organization that uses the 69-point criteria to award certificate at the platinum, gold, and other levels to buildings. Today, our country has over 25 million square feet of registered green building expanse, which is all set to touch 100 million square feet by 2010-12. ITC Green Center in Gurgaon, is the world's largest green building, with a space of 170,000 square feet, and the first non-commercial complex in our country to be awarded a platinum rating by USGBC-LEED. People participation in the form of Corporate Social Responsibility (CSR), as a means of reducing the social and economic disparity and improving ecological conditions through various activities via the corporate sector like health, education, natural resource management, infrastructure development, community support, non-farm and farm-based livelihood development. We have a path for sustainable development, but unless all our methods are directed toward it, we cannot achieve sustainable development.

TRANSFORMATION IS DOING MORE WITH LESS: Wise Food Consumption and Production can eradicate the inequality

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The Sustainable Development Goals (SDGs) adopted by United Nations Member States in 2015 provide 17 SDGs goals in broad manner, in which integrated approach of balance between social, economic and environmental sustainability is discussed.

Aims Global Target - By 2030, Halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains including postharvest losses where past statistic present different picture, According to UNDP – 1.3 billion tonnes of food is wasted every year, while almost 2 billion people go hungry or undernourished. Globally 2 billion people are overweight or obese and worth around \$ 1 Trillion ends up rotting in the bins of due to poor transportation and harvesting practices. The food sector accounts for 30 percent of worlds total energy consumption and accounts for around 22 percent of total greenhouse gas emissions. Global quantitative food losses and waste per year are roughly 30% for cereals, 40% for root crops, fruits and vegetables, 20% for oil seeds, meat and dairy plus 35%for fish. Meanwhile fruits and vegetables plus roots and tubers have highest wastage rates. The per capita waste by consumer is between 95-115 kg in Europe and North America, while consumer in Sub-Saharan Africa, South and South eastern Asia each, throw away only 6-11kg per year.

Food wastage in India

India Waste as much food as the whole of United Kingdom consumes. Still food wastage is alarming issue in India and our garbage collection proves it. According to UNDP India waste 40% of the food produced, in which about 21 million tonnes of wheat are wasted in India and INR 50,000 Crore worth food produced is wasted every year. According to data 25% of fresh water used to produce food is wasted and 300 million barrels of oil are used to produce food that is ultimately wasted. The number of hungry people in India has increased by 65 million which is more than the population of France and in the year 2013, 20 Crore Indians sleep hungry given night, about 7 million children died in 2012 because of hunger/malnutrition. The minister of food processing Harsimrit Kaur Badal talks to prevent food by having controllers to check food spoilage in restaurants and An online tracking system for movement of food grains and depot management was launched in march 2016 provide data of position, movement, quality and quantity online, but the real question arises is will this will reduce food wastage in India?

- **What India can learn, Do and Action at personal actions:** In India food waste and losses occur mainly at early stages of the food value chain and can be traced back to financial,

managerial and technical constraints in harvesting techniques as well as storage (Buffer Stock) and cooling facilities. Strengthening the supply chain through the direct support of farmers and investments in infrastructure, transportation, as well as in an expansion of the food and packaging industry could help to reduce the amount of food loss and waste. In India NGOs like ROBIN HOOD ARMY provide surplus restaurant food to needy people by re-packaging it and MINU PAULINE of Kochi installed 420 liters fridge outside her restaurant so that passersby can donate food for needy. Wrap body of United Kingdom launched awareness campaign with help from local NGOs, Educational programs in schools and local skits in region, Refrigerator that can track when food is about to go bad. In China, Zhang Qinyu has set up an online firm that helps connect rural farmers with hungry consumers in urban China. His online company, the Shaanxi Yihong Agricultural Technology Company, links the farmers directly to customers via Weibo, China's answer to Twitter, making it easier for farmers to sell their fruit and vegetables so less goes to waste. Japan is one of the countries on the top-three list of the world's largest contributors to food waste. In 2001 the issue worked its way onto the nation's political agenda and the country enacted a 'Food Wastage Law.'

In ground level one can - (1) Plan out his meal and make his shopping list to determine what he/she actually need for the week (2) Buy in quantities you can realistically use (3) Avoid impulse buys (4) Reuse the refrigerated left-overs (if any) for the very next meal (5) Even if food gets spoilt then compost it (6) If you host a family get together either at home, a marriage hall or a party at a hotel, make sure you plan for the food to be transported to a place like an orphanage or an old age shelter. (7) Make finishing your plate a habit. (8) On holidays provide education about food wastage to children's, local people, etc.

With all actions taken we can change the future and can complete SDGs (12) by 2030.

Is sustainable development really transforming our world?

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“**SUSTAINABLE DEVELOPMENT**” is a development that meets the needs of present generation without compromising the ability of future generations to meet their own needs. This very optimistic definition was given by Brundtland's Commission, but is this magnificent approach really working in our economic world?

Recently, united states of America has taken their step back from Paris Convention ,2015 in which a important key provision was to hold temperature increase to below **2 degree centigrade** of pre industrial level and member nations have reduce co2 emission significantly and it is also a fact that is according to CDIAC, Global Green Project Data that the major co2 emitter nations are

no one else but are U.S.A ,CANADA,SAUDI ARABIA, AUSTRALIA etc i.e. maximum developed nations and which contribute to nearly 40% of world's co2 volume .These nations are only pursuing their economic objective to raise their G.D.P level, while forgetting about social and environmental objective which thus result adverse to human beings in near future ,these all countries are achieving high economic growth at the cost of rising inequalities of income and umpteen damage to natural environment.

Albeit, some countries are also there in our world which are following **Sustainable development very firmly** or in very determined way , Few are Finland, Denmark, New Zealand, India and many more which are paying great attention towards sustainable development , **Like in New Zealand** government put climate change at it's heart in every public policy , committed to plant **1 billion** trees by 2028 and reduce maximum harmful emissions by 2050. Another very great example is that of **INDIA** which is it's demographic dividend stage has taken many innovative and effective ways to combat climate change belike it be **Increase in forest cover** [which is recently increased to 24.9% in government report ,Indian state of forest report, earlier which was 23%] **increase in gender equality ,poverty reduction ,financial Inclusion** etc. In many of S.D.G's India is leaving a mark in every field which will be very helpful for **India's social , economic and envirnontal progress**

Lastbut it is not the least, all countries of our world should strictly follow sustainable development path so as to make our planet Earth sustain life longer and better

Sustainability of Indira Gandhi Canal Zone

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Indira Gandhi Canal, previously known as Rajasthan Canal, is one of the largest canal systems in India. Conceived by Kanwar Saini in 1948, the canal project was launched on 31 March, 1958. The canal originates at Harike barrage in Punjab and runs parallel to Pakistan border at an average distance of 40 km in Thar Desert (Marusthali) of Rajasthan. The total planned length of the system is 9,060 km catering to the irrigation needs of a total culturable command area of 19.63 lakh hectares. Out of the total command area, about 70 per cent was envisaged to be irrigated by flow system and the rest by lift system. The construction work of the canal system has been carried out through two stages. The command area of Stage-I lies in Ganganagar, Hanumangarh and northern part of Bikaner districts. It has a gently undulating topography and its culturable command area is 5.53 lakh hectares. The command area of Stage-II is spread over Bikaner, Jaisalmer, Barmer, Jodhpur, Nagaur and Churu districts covering culturable command area of 14.10 lakh hectares. It comprises desert land dotted with shifting sand dunes and temperature soaring to 50°C in summers. In the lift canal, the water is lifted up to make it to flow against the slope of the land. All the lift canals of Indira Gandhi Canal system originate at the left bank of main canal while all the canals on the right bank of main canal are flow channels.

Irrigation in Stage-I command area of the canal was introduced in early 1960s, whereas, the command area of Stage-II began receiving irrigation in mid-1980s. The introduction of canal irrigation in this dry land has transformed its ecology, economy and society. It has influenced the environmental conditions of the region both positively as well as negatively. The availability of soil moisture for a longer period of time and various afforestation and pasture development programmes under CAD have resulted in greening the land. This has also helped in reducing wind erosion and siltation of canal systems. But the intensive irrigation and excessive use of water has led to the emergence of twin environmental problems of water logging and soil salinity.

Introduction of canal irrigation has brought about a perceptible transformation in the agricultural economy of the region.

Soil moisture has been a limiting factor in successful growing of crops in this area. Spread of canal irrigation has led to increase in cultivated area and intensity of cropping. The traditional crops sown in the area, gram, bajra and jowar have been replaced by wheat, cotton, groundnut and rice. This is the result of intensive irrigation. This intensive irrigation, no doubt, initially has led to tremendous increase in agricultural and livestock productivity. This has also caused water logging and soil salinity, and thus, in the long run, it hampers the sustainability of agriculture.



Measures for Promotion of Sustainable Development

The ecological sustainability of Indira Gandhi Canal Project has been questioned by various scholars. Their point of view has also largely been validated by the course of development this region has taken during the last four decades, which has resulted in degradation of physical environment. It is a hard fact that attaining sustainable development in the command area requires major thrust upon the measures to achieve ecological sustainability. Hence, five of the seven measures proposed to promote sustainable development in the command area are meant to restore ecological balance.

- I. The first requirement is strict implementation of water management policy. The canal project envisages protective irrigation in Stage-I and extensive irrigation of crops and pasture development in Stage-II.
- II. In general, the cropping pattern shall not include water intensive crops. It shall be adhered to and people shall be encouraged to grow plantation crops such as citrus fruits.
- III. The CAD programmes such as lining of water courses, land development and levelling and warabandi system (equal distribution of canal water in the command area of outlet) shall be effectively implemented to reduce the conveyance loss of water.
- IV. The areas affected by water logging and soil salinity shall be reclaimed.
- V. The eco-development through afforestation, shelterbelt plantation and pasture development is necessary particularly in the fragile environment of Stage-II.
- VI. The social sustainability in the region can be achieved only if the land allottees having poor economic background are provided adequate financial and institutional support for cultivation of land.
- VII. The economic sustainability in the region cannot be attained only through development of agriculture and animal husbandry. The agricultural and allied activities have to develop along with other sectors of economy. This shall lead to diversification of economic base and establishment of functional linkages between basic villages, agro-service centres and market centres.

Sustainability and Sustainable development

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Sustainable development is the need of the present time not only for the survival of mankind but also for its future protection. The term “sustainable development” first appeared in the WCED’s report “Our Common Future” (also known as the Brundtland Report) in 1987 as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. Unlike the other great revolutions in human history the Green Revolution and the

Industrial Revolution the ‘sustainable revolution’ will have to take place rapidly, consciously and on many different levels and in many different spheres, simultaneously.

On the technical level, for example, it will involve the sustainable technologies based upon the use of non-renewable, fossil fuels for technologies that take advantage of renewable energies like the sun, wind and biomass, the adoption of conservation and recycling practices on a wider scale, and the transfer of cleaner and more energy efficient technologies to countries in the developing world. On the political and economic levels, it will involve, among other things, the overhauling of development and trade practices which tend to destroy the environment, and the improvement of indigenous peoples, a fairer distribution of wealth and resources within and between nations, the charging of true cost for products which exploit or pollute the environment, and the encouragement of sustainable practices through fiscal and legal controls and incentives.

On the social plane, it will involve a renewed thrust towards universal primary education and health care, with particular emphasis on the education and social liberation of women. On the environmental level, we are talking about massive afforestation projects, renewed research into and assistance for organic farming practices and bio-pest control, and the vigorous protection of biodiversity. On the informational level, the need is for data that will allow the development of accurate social and environmental accountancy systems. Sustainable development is the buzzword amongst environmentalists, politicians and economists, in media and among elite masses. It is a process of developing (land, cities, natural resources, business, communities, etc.). It is widely used in speeches on environmental issues whenever needed.

The aim of ecologically sustainable development is to maximize human well-being or quality of life without jeopardizing the life support system. The measures for sustainable development may be different in developed and developing countries according to their level of technological and economic development. Sustainable agriculture consists of environment friendly methods of farming that allow the production of crops or livestock without damage to human or natural systems. It involves preventing adverse effects to soil, water, biodiversity, surrounding or downstream resources—as well as to those working or living on the farm or in neighbouring areas. The concept of sustainable agriculture extends inter-generationally, passing on a conserved or improved natural resource, biotic, and economic base rather than one which has been depleted or polluted. Elements of sustainable agriculture include permaculture, agroforestry, mixed farming, multiple cropping, and crop rotation. It involves agricultural methods that do not undermine the environment, smart farming technologies that enhance a quality environment for humans to thrive and reclaiming and transforming deserts into farmlands (Herman Daly, 2017).

The pursuit of sustainability demands choices about the distribution of costs and benefits in space and time. There is also need to take advantage of the ‘traditional ecological knowledge’ (TEK), which encompasses all issues related to ecology and natural resource management, both at local and regional levels. Along with political dimensions of environment-society relations, the TEK can be used for both eco-restoration and sustainable development.

History of sustainable development

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It is the idea that human Society must live and meet their needs without compromising the ability of future generations to meet their own needs .the official definition of sustainable development was developed for the first time in the **BRUNDTLAND** Report in 1987.

How did the idea of sustainable development get relevant?

The industrial revolution is connected to the rise of the idea of sustainable development from the second half of 19th century, western societies started to discover that their economic and industrial activities had a significant impact on the envelope and the social balance. Several ecological and social crises took place in the world and rose awareness that a more sustainable model was needed.

Here are some examples of the economic and social crises that shook the world in the twentieth century:

- **Δ1907:** The American banking crisis
- **Δ1923:** The crisis of American hyperinflation
- **Δ 1929:** The financial crisis of the 1930s begins
- **Δ1968:** The world wide protests against bureaucratic elites
- **Δ1973 and 1979:** Oils shocks
- **Δ1982:** The debt shock of developing countries

The tragedy of commons and sustainable development (1968)

In 1968 the ecologist and philosopher garret Hardin wrote an essay entitled the tragedy of the commons. He arguement that if individuals act independently, rationally and focused on pursuing their individual interests , they'd end up going against the common interests of their communities and exhaust the planet's natural resources. In this way, human's free access and unlimited consumption of finite resources would extinguish these same resources. Hardin believed that since man in compelled to procreated unlimitedly the earth resources would eventually get overexploited to his eyes, mankind needed to radically change its way of using common resources to avoid a disaster in the future - this would be the way to keep on a sustainable development track.

Limits to growth and sustainable development (1972)

A few years that hardins essay In 1972, meadows et, al., Commission by the club of Rome, ran a computer simulations that aimed to predict the concequences of what could happen in a planet

with limited resources. The interactions between 5 different dimensions - world population growth, industrialization, population generation, food production, and non-renewable resource depletion - were analysed, considering a scenario where these variables grew exponentially and technology's ability to increase resources was linear. The strongest ending scenario was that an economic and social collapse would happen by the end of the 21st century if man imposes no limits to growth. After more than 4 decades, these predictions seem to be right when it comes to pollution and its consequences - threatening sustainable development.

Report on Sustainable Development

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In 2015, the United Nations General Assembly adopted the 2030 Agenda for Sustainable Development. 193 member countries, including India, got committed to the 17 Sustainable Development Goals that require efforts to end all forms of poverty, fight inequalities and tackle climate change while ensuring that no one was left behind. India played a significant role in making the declaration and its progress in achieving these goals are crucial for the world as it is home to about 17% of the world population. The SDG India index, released by the NITI Aayog and the United Nations, shows that the nation has a score of 58, a little beyond halfway mark in meeting the target set for 2030.

What are SDG goals?

- The Sustainable Development Goals (SDGs) were born at the United Nations Conference on Sustainable Development in Rio de Janeiro in 2012.
- The objective was to produce a set of universal goals that meet the urgent environmental, political and economic challenges facing the world.
- The SDGs are a bold commitment to finish what the Millennium Development Goals (MDGs) started, and tackle some of the more pressing challenges.
- All 17 Goals interconnect, success in one-goal motivates for the success of others.
- For example, dealing with the threat of climate change impacts how we manage our fragile natural resources, achieving gender equality or better health helps eradicate poverty, and fostering peace and inclusive societies will reduce inequalities and help economies prosper.

Why focus on Sustainable Development?

- “Sustainable development is the development that meets the needs of the present, without compromising the ability of future generations to meet their own needs”.
- The focus of sustainable development is far broader than just the environment. It’s also about ensuring a strong, healthy and just society.
- This means meeting the diverse needs of all people in existing and future communities, promoting personal wellbeing, social cohesion, and inclusion, and creating equal opportunity.
- The rampant growth of industry had adversely affected the environment and is also against the ethos of sustainable development.
- In 2018 itself we are 1.1 degrees above the pre-industrial temperature already. And if the greenhouse emissions are not drastically cut then by the end of the century the rise of the temperature could be 3—3.5 degree. Such an increase would have an irreversible and catastrophic impact across the world.

SDG India Index - Baseline Report 2018

- NITI Aayog undertook the extensive exercise of measuring India and its States’ progress towards the SDGs for 2030, culminating in the development of the first SDG India Index - Baseline Report 2018.
- The SDG India Index is intended to provide a holistic view of the social, economic and environmental status of the country and its States and UTs.
- It has been designed to provide an aggregate assessment of the performance of all Indian States and UTs and to help leaders and change makers evaluate their performance on social, economic and environmental parameters.
- The Index has been constructed spanning across 13 out of 17 SDGs (leaving out Goals 12, 13, 14 and 17).
- It tracks the progress of all the States and Union Territories (UTs) on a set of 62 National Indicators, measuring their progress on the outcomes of interventions and schemes of the Government of India.
- The SDG Index Score for Sustainable Development Goals 2030 ranges between 42 and 69 for States and between 57 and 68 for UTs.

Performance of States

- Among the States, Kerala and Himachal Pradesh are the front runners with an SDG India Index score of 69. Among the UTs, Chandigarh is a front-runner with a score of 68.
- Kerala’s top rank is attributed to its superior performance in providing good health, reducing hunger, achieving gender equality and providing quality education.

- Himachal Pradesh ranks high in providing clean water and sanitation, in reducing inequalities and preserving mountain ecosystem.
- Among the UTs, Chandigarh takes the lead because of its exemplary performance in providing clean water and sanitation to its people.
- On the other hand states like Assam, Bihar and UP have featured badly in the index as their score was below 49.
- The Index can be useful to States/UTs in assessing their starting point on the SDGs in the following ways, by
- Supporting States/UTs to benchmark their progress against national targets and performance of their peers to understand the reasons for differential performance and devise better strategies to achieve the SDGs by 2030
- Supporting States/UTs to identify priority areas in which they need to invest and improve by enabling them to measure incremental progress.
- Highlighting data gaps related across SDGs for India to develop its statistical systems at the national and State levels.

Sustainable Development: A close look

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Main theme of the sustainable development is 'live and let live'. In simple words, it refers to wise development strategies which meet the needs of present generation without any compromises for the future generation. But this definition looks formality; we are not implementing this concept in our daily life. We think mother earth like a 'resource' and man as agent who reduce the resource being exploiter. It is the lacuna of our young society. We are unable to establish mutual understanding between man and nature. Nature is mother who is responsible for creation of the earth and we are exploiting our mother.

The word 'sustainability' is derived from the Latin word, 'sustinesere' which means 'to hold up', 'to endure'.

Brundtland Report- 'The development that rises the needs of present without compromising the ability of future generations to meet their own needs.'

According to M.S. Swaminathan, a prominent environmentalist and father of Indian Green Revolution- He has written in his book, 'Focus-Sustainable Growth', 'Survey of the environment' that sustainable development implies a future in which standard of life is improved would wise through economic development where local environment and biosphere are protected and science mobilised to create new opportunities for human progress.

The environmental dimension of sustainable development is covered in the goals on oceans and marine resources and on ecosystems and biodiversity, bringing core issues into the goal and target framework.

The means of implementation outlined in the outcome document match its ambitious goals and focus on finance, technology and capacity development. In addition to a stand-alone goal on the means of implementation for the new agenda, specific means are tailored to each of the sustainable development goals.

Achieving SDG 6 in India

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Sustainable Development Goal 6, abbreviated as SDG 6, insures availability and sustainable management of water and sanitation for all. It is one of the 17 goals set by the United Nations to ensure and achieve a sustainable future within a time period of 15 years, i.e., by 2030. While many countries are still behind in achieving this goal, India has been quite successful in achieving some of its targets, but it still has miles to go before finishing off all the targets by 2030. The 8 targets of SDG 6 are as follows:

1. By 2030, achieve universal and equitable access to safe and affordable drinking water for all.
2. By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations.
3. By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.
4. By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.
5. By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate.
6. By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes.
7. By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water

harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies.

8. Support and strengthen the participation of local communities in improving water and sanitation management.

There is a link between the SDG 6 and India's past. Throughout the freedom struggle, Mahatma Gandhi had a vision of removing the two evils- Untouchability and Insanitation, which acted as an obstacle to development and progress among the Indians. While he was able to remove untouchability, but seeing India clean and healthy became his dying wish. Achieving SDG 6 has therefore become one of the primary objective of the Indian government, to fulfill what Gandhiji wanted to see in India 70 years ago. The first initiative towards insanitation was Swachh Bharat Mission (SBM), launched by honorable Prime Minister Narendra Modi in 2014, with an aim to accelerate sanitation coverage and achieve "Open Defecation Free" (ODF) and clean India by October 2, 2019. In the beginning, the challenge seemed difficult, because only 38.7% of the rural population had toilets. But, with Modiji's vision and determination, India had covered a 100% sanitation coverage and the nation was declared "Open Defecation Free" on 2nd October 2019, thus paying a befitting tribute to Bapu on his 150th birth anniversary. It is heartening to note that since the launch of the SBM, the government has built 1007.98 lakh toilets in the rural areas, thereby enhancing percentage of individual household with latrine (IHHL) coverage to 100%- a whopping jump 61.3% between 2014 and 2019. During the same period, as many as 699 districts, 258657 gram panchayats and 599963 villages self declared themselves as ODF. As far as urban areas are concerned, between 2014 and 2019, 6 lakh households and 5.5 lakh public and community toilets were constructed and 79000 wards (86%) with 100% door to door collection of municipal solid waste were ensured, while 60% of them practice source segregation. This is a tremendous achievement, given the fact that only 41% what practicing source segregation in source segregation in 2014. While 2014 to 2019, the focus was mainly on installing toilets, the second term from 2019 to 2024, the government aims to provide tapped water and good quality water for all households and ensure garbage disposal to upscale the sanitation. In the Independence Day speech, the Prime Minister announced that the government will launch the "Jal Jeevan Mission" to provide piped water supply to all households by 2024. A new ministry called Jal Shakti ministry was created on this regard which would handle the mission and monitor its progress. Like Swachh Bharat Mission, the Jal Jeevan Mission is also ambitious because at present, out of 18 crore rural households, only 3 Crore household has piped water supply. This mission will also generate new employment in the country. Apart from these achievements, there are few challenges that the government must overcome. The government has a mammoth task set out for itself. Water pollution is a common concern in India. River Ganga is one of the most polluted rivers in India. It provides water to over 40% of India's population in 11 States, while simultaneously receiving 2900 million litres of sewage daily. Ganga Action Plan, which aims to make the waters of river Ganga cleaner and control water pollution is a major failure. It is not only the states that need attention. The water bodies of Gujarat are extremely polluted due to industrial development in Gujarat, particularly South Gujarat. The golden corridor has gained International fame for land and water pollution, affecting millions of people living there. Canals, rivers and lakes often serve as dumping ground for sewage,

solid and liquid waste. Water pollution not only affects aquatic plants and animals, but also human beings and ecosystems. Steps must be taken to improve the water quality which includes cleaning of water bodies and reversing the damage already done, preventing pollution through domestic wastes, industrial waste, solid waste management, etc. Also, the government must see to it that progress of the scheme that it is bringing up is regularly monitored and effectively implemented. Pollution of rivers from Industries should also be prevented by treatment of such waste. Indian norms already required Industries to treat the hazardous waste before releasing them. In fact, there are many private sector initiatives in India that undertake waste management for industries. The government only requires to incentivize more of such industries.

Understanding Sustainable Development

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Main theme of the sustainable development is 'live and let live'. In simple words, it refers to wise development strategies which meets the needs of present generation without any compromises for the future generation. But this definition looks formality, we are not implementing this concept in our daily life. We think mother earth like a 'resource' and man as agent who reduce the resource being exploiter. It is the lacuna of our young society. We are unable to establish mutual understanding between man and nature. Nature is mother who is responsible for creation of the earth and we are exploiting our mother. The word 'sustainability' is derived from the Latin word, 'sustinese' which means 'to hold up', 'to endure'. Brundtland Report- 'The development that rises the needs of present without compromising the ability of future generations to meet their own needs.'

According to M.S. Swaminathan, a prominent environmentalist and father of Indian Green Revolution- He has written in his book, 'Focus-Sustainable Growth', 'Survey of the environment' that sustainable development implies a future in which standard of life is improved would wise through economic development where local environment and biosphere are protected and science mobilised to create new opportunities for human progress.

Sustainable Development: A view

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Sustainable is a word related to environment and natural resources. Sustainable development refers to a model of human development in which resource use aims to meet human needs while preserving the environment so that these needs can be met not only in the present but also for generation to come.

The term sustainable development was used by Brundtland commission 1987 which coined what has become the most often quoted definition of sustainable development. "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

Sustainable development does not focus solely on environment issue. The United nations 2005 world summit outcome document refers to the four 'independent and mutually enforcing pillars' of sustainable development as including: economic development, social development and environmental protection. The fourth pillar is indigenous people and culture. Proponents of sustainable development argue that it provides a context in which overall sustainability is improved where cutting is green development is on unattainable. For example, are cutting edge treatment plant with extremely high maintenance cost may not be sustainable in regions of the world with fewer financial resources.

An environmentally ideal plant that is shut down due to bankruptcy is obviously less sustainable than one that is maintainable by the community, even if it is somewhat less effective from an environmental standpoint.

During the last 10 years different organisations have tried to measure and monitor the proximity to what they considered sustainability by implementing what has been called sustainability metric and induces. Sustainable development is said to set limits on the developing world while current developed countries pollute significantly during their development, the some countries encourage developing countries to reduce pollution which sometimes impedes growth. The notion of sustainability also integrates issue of ecological conservation with those of livelihood, particularly in the developing countries of the world. Indeed, the sustainable growth and development is characterised by a great divide between the developed and the developing countries. The primary concern of the developed world is economic and technological aspects of development. The developing countries face their greatest problem in poverty and in the fulfillment of the basic needs of the poor.

Nevertheless, both the developed and the developing Nations have a common belief in the role of science and technology in the solution of the emerging problems related to development, urbanisation and industrialisation.

Sustainable Textile: Gooddesign Is A Sustainable Design

Sehar jain

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Fashion industry is the 2nd most polluting industry after oil.

Every stage in a garment's life threatens our planet and its resources. It can take more than 20,000 litres of water to produce 1kg of cotton, equivalent to a single t-shirt and pair of jeans.

Sustainable fashion is thus partly about producing clothes, shoes and accessories in environmentally and socio- economically sustainable manners, but also about more sustainable patterns of consumption and use, which necessitate shifts in individual attitudes and behaviour.

The Moto should be Ethics+Aesthetics=Fashion.

Fashion is not eternal but Your Style is, to have a style that creates a impression you need a good fabric and a good fabric a Sustainable Fabric



Sustainable Development

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Substantive contribution to the debate in the UNCSD in 2012, which takes stock of the changes having occurred since the Earth Summit in 1992 and provide a clear vision and way forward for the international community, national governments, partnerships and other stakeholders in implementing the sustainable development agenda in an integrated manner. Construct a coherent vision on sustainable development in the 21st century and analyse feasible pathways to sustainability. Synthesize analytical and applied policy work regarding menus of policy options for a more sustainable, green growth that consider the specific economic, social, environmental and institutional context of countries in different stages of economic development.

The United Nations Conference on Sustainable Development (UNCSD), which will gather UN member states and other stakeholders in Brazil in 2012, is a key occasion to take stock of 20 years of action at all levels to promote sustainable development, and to provide a clear vision and way forward for the international community, national governments, partnerships and other stakeholders in implementing the sustainable development agenda in an integrated manner. Knowledge must inform action - knowledge of what has and has not worked for sustainable development in the past 20 years, knowledge as well of important changes and new challenges that have emerged in the past generation. Only on this basis can we develop a clear vision of sustainable development for the 21st century. That vision needs to incorporate and build upon the rich output of various global assessments - including climate change, water, energy, and ecosystems - as well as the policy lessons from experience, respond to the evolving nature of the challenges, and draw upon the latest research on integrating sustainability and development into a common agenda. It also needs to recognize and motivate the contribution of all inhabitants of planet earth. The SD21 project is built around a series of studies that will inform a synthesis report, "Sustainable development in the 21st century" (SD21). The SD21 body of studies is expected to become an important analytical and political contribution in its own right. Studies under the SD21 project will cover the following topics: assessment of progress since the Earth Summit; emerging issues ; long-term sustainable development scenarios; tools for managing sustainable economies; national and international institutions for sustainable development; and sector assessments.

Project approach

The approach to SD21 was based on the idea that for sustainable development to progress, its political nature has to be recognized. SD21 reports expose different views regarding how sustainable development should be pursued and how specific issues should be addressed. The aim is to forge a better understanding and help overcome the current gridlock on the most divisive issues. SD21 provides an empirical basis and a frame of analysis to better understand much of today's work on the key issues of sustainability. SD21 Summary for policymakers available on top right side.

What is Sustainable Development?

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In layman language sustainable development can be defined as “our common future”.

The development that meets the needs of the present without compromising the ability of future generation to meet their own needs. **It has three main pillars**

1. Economic
2. Environmental
3. Social

And these pillars informally referred to as: people, planet, and profits.

The environmental pillars often get the most attention. Everyone wants a better place to live.

- A better environment that means green spaces, play area, nice gardens, decent houses, less noise and pollution tree areas.

The resources used should renew over generation

- A better economy that means jobs, reasonable prices, cheaper heat and light.
- Better social condition – that means good leisure facilities lots of community group offering sports and arts, friendly neighbours.

As the environmental pillars gets the most attention because it plays a great role in sustainable development over the generations. We are noticing that environmentalist and government is also focusing on the issue regarding environment as we somehow deteriorating the present environment by polluting and overuse of resources and many programmes have been also to save this planet for our future generation

- **Sustainable development can be achieved through following effective ways:**

1. In present context the use of natural resources is excessive so we must take a step to minimize the excessive use of natural resources which are non renewable in order to preserve it from getting extinct forever.
2. It is must to conserve the nationals, cultural and traditional heritage for its self dignity.
3. There must be an effective and strict governing system for smooth development and administration.
4. There must be almost zero corruption governing bodies for sustainable development.
5. Awareness programs must be conducted for the importance of sustainable development.

6. Providing formal as well as informal education to illiterate people for better knowledge on sustainable development.
 - It's a major concern so globally governments of every country dealing together and the members states of all united nations in 2015 took a universal call and set up the goal the sustainable development goals (SDGs) , also known as the global goals to end poverty, **protect the planet and ensure all people enjoy peace and prosperity by 2030.**

The 17 SDGs are integrated – that is they recognize that action in one area will affect outcomes in others and that development must balance social, economic and environmental sustainability.

That is why the SDGs are designed to bring the world to several life – changing ‘zeros’ including zero poverty, hunger, and discrimination against women and girls.

- At last but not the least being a responsible citizen of the country every person should in their own way support to this programmes and resources should be used in such a way that it should not affect our future generation.

Sustainable Development

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Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Sustainable development has continued to evolve as that of protecting the world's resources while its true agenda is to control the world's resources. Environmentally sustainable economic growth refers to economic development that meets the needs of all without leaving future generations with fewer natural resources than those we enjoy today.

The essence of this form of development is a stable relationship between human activities and the natural world, which does not diminish the prospects for future generations to enjoy a quality of life at least as good as our own.

The idea of environmentally sustainable economic growth is not new. Many cultures over the course of human history have recognized the need for harmony between the environment, society and economy. The ‘environmentally sustainable economic growth’ is synonym to the prevalent concept of ‘Sustainable Development’. The goal of which is to achieve balance/harmony between environment sustainability, economic sustainability and socio-political sustainability.

However, one problem faced by environmental managers is that the goal of sustainable development is not fully formed and its fundamental concepts are still debated. Sustainable development, like environmental management, is not easily defined.

According to other definitions, Sustainable developments are:

- (i) Environmental care ‘married’ to development.
- (ii) Improving the quality of human life while living within the carrying capacity of supporting ecosystems.
- (iii) Development based on the principle of inter-generational (i.e. bequeathing the same or improved resource endowment to the future that has been inherited), inter-species and inter-group equity.
- (iv) Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.
- (v) An environmental ‘handrail’ to guide development.
- (vi) A change in consumption patterns towards more benign products, and a shift in investment patterns towards augmenting environmental capital.
- (vii) A process that seeks to make manifest a higher standard of living (however interpreted) for human beings that recognizes this cannot be achieved at the expense of environmental integrity.

The concept of sustainable development, although had appeared in the 1970s, was widely disseminated in the early 1980s by the ‘World Conservation Strategy’ (IUCN, UNEP and WWF, 1980), which called for the maintenance of essential ecological processes; the preservation of biodiversity; and sustainable use of species and ecosystems.

The Brundtland Report, *Our Common Future* (World Commission on Environment and Development, 1987), placed it on the world’s political agenda and helped re-ignite public interest in the environment. It also spread the message that global environmental management was needed; and that without a reduction of poverty, ecosystem damage would be difficult to counter. Twenty years after the ‘World Conservation Strategy’ the same three bodies published ‘Caring for the Earth’ (IUCN, UNEP and WWF, 1991), which proposed principles intended to help move from theory to practice.

The concept of sustainable development was introduced in early 1980’s (in particular through the publication of the World Conservation Strategy by IUCN, UNEP and WWF, 1980), in order to reconcile conservation and development objectives. Since then, it has evoked much discussion.

The aim of sustainable development is to balance our economic, environmental and social needs, allowing prosperity for now and future generations. Sustainable development consists of a long-term, integrated approach to developing and achieving a healthy community by jointly addressing economic, environmental, and social issues, whilst avoiding the over consumption of key natural resources.

Sustainable development encourages us to conserve and enhance our resource base, by gradually changing the ways in which we develop and use technologies. Countries must be allowed to meet their basic needs of employment, food, energy, water and sanitation.

If this is to be done in a sustainable manner, then there is a definite need for a sustainable level of population. Economic growth should be supported and developing nations should be allowed a growth of equal quality to the developed nations. There are four objectives of sustainable development:

These include social progress and equality, environmental protection, conservation of natural resources and stable economic growth. Everybody has the right to a healthy, clean and safe environment. Everybody has the right to a healthy, clean and safe environment.

This can be achieved by reducing pollution, poverty, poor housing and unemployment. No one, in this age, or in the future should be treated unfairly. Global environmental threats, such as climate change and poor air quality must be reduced to protect human and environmental health. The use of non-renewable resources such as fossil fuels should not be stopped overnight, but they must be used efficiently.

IMD VISIT REPORT

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An academic visit to “Indian Meteorological Department”, Old Prem Nagar, Lodhi Road Quarters, Lodi Colony, New Delhi, Delhi- 110003 was organised by the Geography department of the college on three distinctive dates for three respective years: the first year on 31st January, the second year on 10th February and the third year on 11th February 2020 respectively. 136 students alongside 9 department professors and the respectable principal sir visited the **IMD** to interact with the scientists to understand current weather scenarios, evolution in meteorological technology, reasons for untimely disasters & how to prevent them and criteria for the selection, etc. In this visit, we, the students and even teachers-at some length, were very eagerly waiting for listening to the experts.

The visit started around 11 am on each day. Firstly, the respective teachers steered us to the **National Satellite Meteorological Centre**, the first block where we regarded the display system including the live imagery of Earth through satellite. At the **National Satellite Meteorological Centre**, we engaged with **Mr. Vikram Parashar** who acquainted us with his familiarity with the workings and operations as he had been working there for the last seven years, moreover, he concerned domain as data reception and data processing.

The processed data then gets transferred to the **Mausam Bhavan** for detailed forecasting of the weather. The Indian Meteorological Department uses two satellites for data reception: INSAT 3D and INSAT 3R, which are geostationary satellites orbiting the Earth at an altitude of 36,000 km. These satellites scan the electromagnetic radiations reflected from the Earth’s surface and convey it to a supercomputer inside the building. The supercomputer, afterward, records the data in binary codes which is converted into an HDF Data File with .H5 extension. This data file gets established

into mathematical models, which are algorithms created by coding (IMD uses two mathematical models: NWP model and Nowcasting model), which converts the HDF Data File into a readable file format. The distinct file is forwarded for Data Processing, where the readable data file is processed into a proper real-time satellite image using an image processing tool, GRADS or IDB.

Mr. Vikram, later, disclosed about the satellite scanners. The satellites used for weather forecasting in Indian Meteorological Department have two types of scanners: Optical Radiometer - with a resolution of 1km and VHRR and with a resolution of 4km. The scanners receive 6 types of data from electromagnetic radiations, namely, Thermal IR 1, IR 2, water vapour, visible, SWR and MR. These data are shown at an interval of 0.25 degrees latitudes and longitudes. The scientists are working towards developing a more eminent resolution scanner with a resolution of 500 meters so that it can be used for even accurate weather forecasting in India soon.

Aside from the technical part of the workings in the building, he also emphasized on the monitor the key elements by which satellite imagery are identified, and it comprised: -

- Distinguishing between clouds and ice-capped mountains,
- Cataloging between a cloud and a fog in the satellite image,
- Determining the cumulonimbus and cirrus clouds,
- Identifying the ITCZ through a chain of heavy clouds near the equator,
- Spotting the location of western disturbances through the real-time satellite image which he showed to us on the monitor.

The data acclimatized by the department are furthered to various institutions like the police stations, commercial aircraft, military aircraft, ships, coastal areas, Kisan Call Centres for agricultural purposes, etc. The last part of this session presented us with an opportunity to ask any kind of doubts related to image reception and image processing. IMD also conducts a **summer internship** every year free of cost, and four students from any college with either science or geographical domain can take the benefit of this internship.

After a short recess, we went to the **Mausam Bhavan**, inside which we were guided to **Weather Forecasting Centre**, where the weather is predicted. This center releases bulletin every three hours, giving an update of weather and in case of an abrupt shift, a **Special Report** can also be published.

The **Seismology Department** was the next stop, where we learned furthermore about the seismic waves, their generation, focal point, epicentre, intensity, how it is measured on the Richter scale, how to subdue its aftereffects, etc. There are around 115 earthquake measuring stations in India.

The **RADAR Room** was the last destination, hosted by **Dr. V.P. Singh**, where we gripped these useful pieces of information about radars:-

- The use of RADARs for weather prediction is as useful as the use of satellites because satellites provide a bird-eye observation whereas RADARs give us the frontal observation of the Earth's surface.

- Unlike satellite, which provides data every 30 minutes, RADARs deliver us data every 15 minutes.
- Weather RADARs (Radio Detection and Ranging), transmits radio signals frontally covering an area of 250 km radius. It uses C Band to send radio waves, which strikes different atmospheric obstacles like clouds and get scattered. Some of the waves return to the RADAR, and their intensities are recorded and used to detect different calamities like approaching thunderstorms, cyclones, etc.
- The RADAR follows the principle of the Doppler effect, that is why the RADARs are also called Doppler Nowcast Weather RADARs. The intensity detected is then processed into raw data and the processed data is then sent to the main server for observations.
- A wide range of data products, like rainfall, pressure levels, wind direction, surface rainfall intensity are recorded at different levels of the atmosphere up to the tropopause, and their intensities are represented in color-coding from blue to red, which tells us the magnitude of the different data products.
- There are also false signals, which are false radio signals detected by the RADAR due to the presence of a strong wave emitting device in its range.
- The session was concluded by showing us GIF images of cyclone *Fani*.

The visit to IMD has provided a more complete understanding of the meteorological department, weather pattern, RADAR system and determinants of climate change. It is noteworthy how well all the departments co-ordinate not only inside the campus but all over its stations across the nation. The innovations are on a surge, technologies are evolving by every passing day, and thus, giving us near-perfect information.

It's the great work of these 'behind the curtains', 'away from the limelight' humans; scientists, who are predicting weather phenomena so as to avoid or minimize disaster and their impacts. Making our nation less prone to disasters. Although, some disasters can't be perceived in advance like an earthquake or volcanic eruption, however, the cyclone, rainfall, etc. are being forecasted more comprehensively and accurately saving numerous lives, loss of properties and animals. Last but not the least, all thanks to their team, who work seamlessly twenty-four-seven to proffer us a five-day-weather-prediction beforehand in just a few clicks on our smartphones.

In the end, we the students of Department of Geography are thankful to our teachers and Principal sir who made this visit viable & we came out learned & more informed about METEOROLOGY.

Disaster Management Study Tour

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“The world is a book and those who do not travel read only a page.”

–Saint Augustine

Geography is the study of earth as the home of the people, and one can't discern much about people's enigmas before visiting them; seeing how they endure, what they do, food which grows around them, rainfall that they receive, kind of landforms they subsist in, etc.

For disaster management studies, two groups were made, consisting of 50 students. The first group visited Kerala while the latter visited Tamil Nadu, the concerned subject being the flood and cyclone respectively. The first group's tour commenced from the 7th – 20th of January 2020, consisting of 26 students. They visited Ernakulam, surveying two villages - North Paravour & Karamuller, then move to Munnar, visiting its tea garden and the lake. The Ooty, hill station in Tamil Nadu, was their next stop, where they got the precious opportunity to visit places like Ooty lake, library, botanical garden, benchmark tea, and the chocolate factory. The southernmost tip, Kanyakumari, was their next stop, where they espoused themselves to Vivekananda Memorial, Thiruvalluvar's statue- a prestigious Tamil poet, Kanyakumari's temple, sunset and sunrise point, etc. Lastly, Varkala was their finishing junction via Trivandrum, where they got the blessing of Padmanabhaswamy and returned back to Delhi with lots of information.

The next group, consisted of 24 students along with teachers. This disaster management trip began on the Republic Day, 26th January 2020, and after the journey of two days, they reached Puducherry, where they visited to Auroville beach on the very first day, deposing the sun coming out of the sea, the first-hand adventure for most of the disciples, which was followed by visit to Paradise Beach, Aurobindo Ashram, Auroville Temple, Seaside Promenade, Basilica of the sacred heart of Jesus, Puducherry Museum, etc. in the subsequent few days alongside visiting few cyclone-affected villages. The trip, later on, moved to Rameshwaram, a city where Lord Rama worshipped the Almighty Shiva, still having the same shivalinga, according to legends, crossing the scary Pamban bridge over the sea. Trip members firstly did Agnitheertham- bathing in the Indian ocean, later on marching for 22 different theertham, and ultimately going inside the temple of the lord of spirits, Shiva, idolizing the same linga Rama once implored. Other than the temple, everybody visited Kalam house, which is a museum now, the Five-Faced Hanuman Temple, Vibhisana temple, etc. Dhanushkodi was one of the most affected places in the cyclone of 1964 and likewise the first group, this group, too, visited Kanyakumari and back to Delhi.

Like *Marcel Proust* said, “The real voyage of discovery consists not in seeking new landscapes, but in having new eyes.”

These trips were an eye-opening for all the students, going in the non-Hindi speaking belt, observing their culture & architecture being totally different from us. Even the God they worshipped was almost different, except for a few. Their pride in their culture was gigantic, never being hesitant of either their languages or perceptions, like North Indians. South India seemed like a place where they endeavor who they are, extol their pride and firm conviction in the Dravidian theory.

It's when humans visit places like Tamil Nadu and Kerala that they realize modernity can be attained without forfeiting own existence. Despite all the oceanic beauty, it has disaster shortcomings as well, like cyclones, floods, etc. but they stick with one another in time of afflictions as our progenitors did. Finally, when we left we were in awe of those beautiful mountains, seas, and cities. And we did exactly what the sagas have told,

“Take only memories, leave only footprints”



कभी दिखता था वो घर

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कभी दिखता था वो घर,
जहा आंगनो मे गुल्दस्ते खिलते थे,
अभी दिखता ह वो घर,
जहा आंगन ही महज एक दरखास्त है।
कभी दिखता था वो घर,
जहा गाड़िया तो मानो एक तोहर सा था-
जो लोगो की गपशप मे ढल जाता था,
अभी वो हर्बरहत खो जाने लगी ह।
कभी दिखता था वो घर,
जहाँ चिड़ियो की चहचाहट से गुंजिती थी वो घर,
अभी तो जैसे दूर जाने लगी है वो आवाज।
कभी उस गली से मरिजे नही ,
मेहमानो की दावत-ए-खस की फार्मईशे सुनते थे,
अभी तो जैसे दावत भी काफी पुराना शब्द लगता है।
कभी उस गली में औरतो की गपशप और लडकियो की चहल-पहल थी,
अभी तो मोहोल्ला फौफ से उभर रहा है।
कभी उस घर के बुजुर्ग अपने खाली समय में-
बच्चो के हाथो मे स्लेट पेंचिल से उनको रुबरु करवाते थे,
अभी तो सारे बच्चे शिक्षा के लिए तरस रहे हैं ।
उस गली के बाहर मेहर्ज एक ही चापाकल थी,

फिर भी प्यास सबकी बूझती थी,
आज तो घर घर पनी की सुविधा है,
फिर भी लोगो मे आक्रोश ह।

क्या करोगे नये घर का?
जब पुराना नही सम्हल रहा??
बाहर झाकके देखो जरा,
कही तुम्हारा घर तो नही??
जो उजर रहा।

धरती मां करे ये पुकार

समृता कुमारी

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धरती मां करे ये पुकार।
रो रो कर कहती वो आज।
मुझे बचा लो प्रदूषण से, करो कोई उपाय आज।
वर्षा न होने के कारण।
जल का स्तर नीचे जाता, बूंद - बूंद को तरस रहे हैं।
जल है तो जीवन है।
बात को न ये समझ रहे हैं।

पशु- पक्षी हो या मानव, प्यास से ये सब तड़प रहे हैं।

अगर बचाना है पानी को, करो उपाय कोई आज।

धरती मां ये करें पुकार।।

हरियाली भी खत्म हो गयी, हरे -भरे वन सूख रहे हैं।

नये पेड़ न कोई लगाये, बचे पेड़ भी काट रहे हैं।।

पशु पक्षी हो या मानव, स्वच्छ हवा को तड़प रहे हैं।

धरती मां ये करें पुकार, रो रो कर कहती वो आज।
अगर बचाना है पेड़ों को, करो कोई उपाय आज।
उधोगों को बढ़ा बढ़ा कर, प्रदूषण को बढ़ा रहे हैं।
बढ़ते प्रदूषण के कारण, रोग हजारों फैल रहे हैं।
इन लोगों से लड़ते, कितने ही दम तोड़ रहे हैं।
पशु, पक्षी हो या मानव, बीमारी से जूझ रहे हैं।
धरती मां ये करे पुकार, रो रो कर कहती वो आज।
अगर बचाना है जीवन को, करो उपाय कोई आज।
अगर बचाना है जीवन को, करो उपाय कोई आज।

सतत विकास

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परिभाषा: सतत विकास से हमारा अभिप्राय ऐसे विकास से है, जो हमारी भावी पीढ़ियों को अपनी जरूरतें पूरी करने की योग्यता को प्रमाणित किए बिना वर्तमान समय की आवश्यकता पूरी करें,

भारतीयों के लिए पर्यावरण संरक्षण जो सतत विकास का अभिन्न अंग है कोई अवधारणा नहीं है।

भारत में प्रकृति और वन्य जीव विकास संरक्षण अगाध आस्था की बात है जो हमारे दैनिक जीवन में प्रतिबिंबित होता है और पौराणिक कथाओं लोक कथाओं धर्मों कलाओं और संस्कृति में वर्णित है।

“ट्रांसफॉर्मिंग अवर वर्ल्ड द 2030 एजेंडा फॉर सस्टेनेबल डेवलपमेंट” के संकल्प को जैसे सतत विकास लक्ष्यों के नाम से जाना जाता है।

भारत सहित 193 देशों ने सितंबर 2015 में संयुक्त राष्ट्र महासभा की उच्च स्तरीय पूर्ण बैठक में स्वीकार किया गया, और इसी जनवरी 2016 को लागू किया गया।

सतत विकास लक्ष्यों का उद्देश्य के लिए सम्मान न्याय संगत सुरक्षित शांतिपूर्ण समृद्ध और रहने योग्य विश्व की निर्माण करना और विकास के तीनों पहलू अर्थात सामाजिक समावेश आर्थिक विकास और पर्यावरण संरक्षण की व्यापक रूप से समाविष्ट करता है।

शताब्दी विकास लक्ष्य के बाद 2000 से 2015 तक लिए निर्धारित किए गए थे विकसित इन नए लक्ष्यों का उद्देश्य विकास के अधूरे कार्य को पूरा करना और ऐसे विश्व की संकल्पना को मूर्त रूप देना है जिसमें कम चुनौतियां और अधिक आशाएं हो।

हम पृथ्वी को माता मानते हैं और सतत विकास सदैव हमारे दर्शन और विचारधारा का मूल सिद्धांत रहा है सतत विकास लक्ष्यों को प्राप्त करने के लिए अनेक मोर्चों पर कार्य करते हुए हमें महात्मा गांधी की याद आती है।

‘जिन्होंने हमें चेतावनी दी थी कि धरती प्रत्येक व्यक्ति की आवश्यकताओं को पूरा कर सकता है पर प्रत्येक व्यक्ति के लालच को नहीं’

भारत लंबे अरसे से सतत विकास के पथ पर आगे बढ़ता का प्रयास कर रहा है और इसके मूलभूत सिद्धांतों को अपनी विभिन्न विकास नीतियों से शामिल करता आ रहा है। पंडित दीनदयाल उपाध्याय ने सबसे निर्धन वर्ग के कल्याण को प्रमुखता दी इसलिए 2030 के हमारे सतत विकास एजेंडे में निर्धनता को पूर्णता समाप्त करने का लक्ष्य न केवल हमारा नैतिक दायित्व है बल्कि शांति पूर्ण न्याय पूर्ण और चिरस्थायी विश्व की सुनिश्चित करने के लिए जरूरी भी है।

भारत के विकास संबंधी अनेक लक्ष्यों को सतत विकास में शामिल किया गया है हमारी सरकार द्वारा कार्य वित्त किए जा रहे हैं अनेक कार्यक्रम सतत विकास लक्ष्यों के अनुरूप हैं जिसमें -मेक इन इंडिया

- स्वच्छ भारत अभियान
- बेटी बचाओ बेटी पढ़ाओ
- ग्रामीण पेयजल कार्यक्रम
- राष्ट्रीय स्वास्थ्य मिशन
- प्रधानमंत्री आवास योजना ग्रामीण और शहरी दोनों प्रधानमंत्री ग्रामीण सड़क योजना
- डिजिटल इंडिया
- दीनदयाल उपाध्याय ग्राम ज्योति योजना
- स्किल इंडिया और प्रधानमंत्री कृषि सिंचाई योजना शामिल है।

इसके अलावा अधिक बजट आवंटन उसे बुनियादी सुविधाओं के विकास और गरीबी समाप्त करने से जुड़े कार्यक्रमों को बढ़ावा दिया जा रहा है।

सतत विकास लक्ष्यों को विकास नीतियों में शामिल करने के लिए हम अनेक मोर्चों पर काम कर रहे हैं ताकि पर्यावरण और हमारी पृथ्वी के अनुकूल एक बेहतर जीवन जीने की हमारी देशवासियों की वैदिक इच्छाओं को पूरा किया जा सके ।

हमारे संघीय ढांचे में सतत विकास लक्ष्यों की संपूर्ण सफलता में राज्यों को भूमिका बहुत महत्वपूर्ण राज्यों में विभिन्न राज्य स्तरीय विकास योजनाएं कार्यान्वित जा रही हैं इन योजनाओं को सतत विकास लक्ष्यों के कार्यक्रम में आने वाले विभिन्न चुनौतियों का मुकाबला करने के लिए मिलकर काम करने की आवश्यकता है।

सतत विकास लक्ष्यों के कार्यान्वयन को सुविधाजनक बनाने के लिए भारतीय संसद विभिन्न हित कारणों के साथ गहन विचार-विमर्श कर रही है जैसे अध्यक्ष शोध कदम (S-R-I-) जो हाल में स्थापित किया गया एक मंच से सतत विकास लक्ष्यों से संबंधित विभिन्न मुद्दों पर हमारे सांसदों द्वारा क्षेत्र के विशेष को साथ विचार-विमर्श को सुविधाजनक बनाता है अलावा नीति आयोग ने अन्य संगठनों के सहयोग से विशेष सतत विकास लक्ष्यों पर राष्ट्रीय

और क्षेत्रीय स्तर पर परामर्श सत्र आयोजित की हैं ताकि विषय में विद्वानों संस्थाओं सिविल सोसायटी ओं अंतर्राष्ट्रीय संगठनों और केंद्रीय मंत्रालय सहित राज्यों और हित कारों के साथ गहने विचार विमर्श किया जा सके।

भारत सरकार द्वारा न्यूयॉर्क में जुलाई 2017 में आयोजित होने वाले उच्च स्तरीय राष्ट्रीय मंच एच एल पी एफ) अपनी पहली स्वैच्छिक राष्ट्रीय समीक्षा वीएनआर प्रस्तुत करने हेतु लिया गया निर्णय इसका उदाहरण है कि भारत सतत विकास लक्ष्यों के सफल कार्यान्वयन को कितना महत्व दे रहा है पर्यावरण को सुरक्षित रखते हुए संपूर्ण विकास हेतु लोगों की आकांक्षाएं पूरी करने के लिए राष्ट्रीय और राज्य तथा स्थान इस तरह प्रत्येक व्यक्ति और संस्था द्वारा अधिक प्रयास करने की आवश्यकता है।

(हम वो खेल नहीं खेलते जिसमें जितना फिक्स हो जीतने का मजा तो उसमें है जिसमें हारने का रिस्क हो)

सभी 17 सतत विकास लक्ष्यों (SDGs) की सूची

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जैसा कि हमें पता है कि सहस्राब्दि विकास लक्ष्य (Millennium Development Goals) 2015 में समाप्त हो गए थे इसलिए इन विकास लक्ष्यों के स्थान पर सतत विकास लक्ष्यों (Sustainable Development Goals) को प्राप्त करने का फैसला संयुक्त राष्ट्र शिखर सम्मेलन में लिया गया था।

इस सम्बन्ध में महासभा की बैठक न्यूयॉर्क में 25 से 27 सितंबर 2015 में आयोजित की गयी थी। इसी बैठक में अगले 15 साल के लिए 17 'लक्ष्य तय किये गये थे जिनको 2016 से 2030 की अवधि में हासिल करने का निर्णय लिया गया था। इस बैठक में 193 देशों ने भाग लिया था। इस संयुक्त राष्ट्र शिखर सम्मेलन की थीम "Transforming our world: The 2030 Agenda for Sustainable Development" थी।

सतत विकास लक्ष्य (एसडीजी) के वैश्विक लक्ष्यों में गरीबी खत्म करना, पर्यावरण की रक्षा, आर्थिक असमानता को कम करना और सभी के लिए शांति और न्याय सुनिश्चित शामिल है।

इसमें जलवायु परिवर्तन, आर्थिक असमानता, नवाचार, टिकाऊ उपभोग, शांति और न्याय जैसे नए विषय जोड़े गये हैं। सहस्राब्दि विकास लक्ष्यों के विपरीत सतत विकास लक्ष्यों में "विकसित" और "विकासशील" देशों के बीच कोई अंतर नहीं है और ये लक्ष्य सभी देशों को प्राप्त करने होंगे। इन लक्ष्यों में कई आपस में एक दूसरे से जुड़े हुए हैं और "पीछे कोई नहीं छोटे" के सिद्धांत पर आधारित हैं।

इस लेख में हम 17 सतत विकास लक्ष्यों (एसडीजी) और उनके मुख्य उद्देश्यों की सूची प्रकाशित कर रहे हैं।

1. लक्ष्य
2. उद्देश्य
3. विवरण

ये 17 लक्ष्य इस प्रकार हैं:-

लक्ष्य -1: गरीबी की पूर्णतः समाप्ति

दुनिया के हर देश में सभी लोगों की अत्यधिक गरीबी को समाप्त करना। अभी उन लोगों अत्यधिक गरीब माना जाता है जो कि प्रतिदिन + 1.25 से कम में जिंदगी गुजारते हैं।

लक्ष्य -2: भुखमरी की समाप्ति

भुखमरी की समाप्ति, खाद्य सुरक्षा और बेहतर पोषण और टिकाऊ कृषि को बढ़ावा

लक्ष्य -3: अच्छा स्वास्थ्य और जीवनस्तर

सभी को स्वस्थ जीवन देना और सभी के जीवनस्तर में सुधार लाना।

लक्ष्य -4: गुणवत्तापूर्ण शिक्षा

समावेशी और न्यायसंगत, गुणवत्तापूर्ण शिक्षा सुनिश्चित करना और सभी के लिए आजीवन सीखने के अवसरों को बढ़ावा देना।

लक्ष्य -5: लैंगिक समानता

लैंगिक समानता प्राप्त करना और सभी महिलाओं और लड़कियों को सशक्त बनाने के लिए प्रयास करना।

लक्ष्य -6: साफ पानी और स्वच्छता

सभी के लिए स्वच्छ पानी और स्वच्छता की उपलब्धता और उसका टिकाऊ प्रबंधन सुनिश्चित करना

लक्ष्य -7: सस्ती और स्वच्छ ऊर्जा

सभी के लिए सस्ती, भरोसेमंद, टिकाऊ और आधुनिक ऊर्जा की पहुंच सुनिश्चित करना

लक्ष्य -8: अच्छा काम और आर्थिक विकास

निरंतर, समावेशी और टिकाऊ आर्थिक विकास को बढ़ावा देने के साथ साथ, उत्पादक रोजगार और सभी के लिए सभ्य कार्य को बढ़ावा देना

लक्ष्य -9: उद्योग, नवाचार और बुनियादी ढांचा का विकास

मजबूत बुनियादी ढांचा बनाना, समावेशी और टिकाऊ औद्योगिकीकरण को प्रोत्साहित करना और नवाचार को बढ़ावा देना।

लक्ष्य -10: असमानता में कमी

देशों के भीतर और देशों के बीच असमानता कम करना

लक्ष्य -11: टिकाऊ शहरी और सामुदायिक विकास

शहरों और मानव बस्तियों को समावेशी, सुरक्षित, लचीला और टिकाऊ बनाना

लक्ष्य -12: जिम्मेदारी के साथ उपभोग और उत्पादन

उत्पादन और उपभोग पैटर्न को टिकाऊ बनाना

लक्ष्य -13: जलवायु परिवर्तन

जलवायु परिवर्तन और उसके प्रभावों से निपटने के लिए तत्काल कार्रवाई सुनिश्चित करना

लक्ष्य -14: पानी में जीवन

टिकाऊ विकास के लिए महासागरों, समुद्रों और समुद्री संसाधनों का संरक्षण और उनका ठीक से उपयोग सुनिश्चित करना

लक्ष्य -15: भूमि पर जीवन

सतत उपयोग को बढ़ावा देने वाले स्थलीय पारिस्थितिकीय प्रणालियों, सुरक्षित जंगलों, भूमि क्षरण और जैव विविधता के बढ़ते नुकसान को रोकने का प्रयास करना

लक्ष्य -16: शांति और न्याय के लिए संस्थान

टिकाऊ विकास के लिए शांतिपूर्ण और समावेशी समाजों को बढ़ावा देना और सभी के लिए न्याय तक पहुंच सुनिश्चित करना

लक्ष्य -17: लक्ष्य प्राप्ति में सामूहिक साझेदारी

सतत विकास के लिए वैश्विक भागीदारी को पुनर्जीवित करना और कार्यान्वयन के साधनों को मजबूत बनाना।

उपर्युक्त टिकाऊ विकास लक्ष्य (एसडीजी) मानव जीवन के लगभग हर पहलू को कवर कर रहे हैं। यदि ये लक्ष्य निर्धारित समय के भीतर हासिल किए जाते हैं, तो यह सुनिश्चित है कि दुनिया भर में गरीबों का जीवन आसान होगा और उन्हें जीने के बेहतर विकल्प उपलब्ध होंगे।

सतत विकास

विनय श्रीवास्तव

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विश्व के सभी देशों में आज विकास के पथ पर एक-दूसरे से आगे निकल जाने की होड़-सी मची है और इसके लिए औद्योगीकरण से लेकर प्राकृतिक संसाधनों के दोहन तक के हर सम्भव उपाय किए जा रहे हैं। विकास की इस होड़ में हम यह भूल गए हैं कि हम इसे किस मूल्य पर हासिल करना चाहते हैं। इसमें दोराय नहीं है कि विकास के लिए हम पूर्णतः प्रकृति पर निर्भर हैं, क्योंकि इसके लिए आवश्यक तेल से लेकर कोयला एवं जल भी हमें प्रकृति से ही प्राप्त होता है और ये सभी प्राकृतिक संसाधन पृथ्वी पर सीमित मात्रा में विद्यमान हैं। जिस तरह से विश्व की जनसंख्या बढ़ रही है, उससे यह अनुमान लगाया जा रहा है कि वर्ष तक यह बढ़कर 8 अरब से भी

अधिक हो जाएगी और जिस तरह से प्राकृतिक संसाधनों का उपयोग किया जा रहा है, उसका दुष्परिणाम यह होगा कि आने वाली मानव पीढ़ियों आवश्यक प्राकृतिक संसाधन पृथ्वी पर उपलब्ध ही नहीं होंगे ।

हमारे पूर्व राष्ट्रपति डॉ. एपीजे अब्दुल कलाम ने कहा है- हमें विज्ञान और प्रौद्योगिकी के अनुप्रयोग के माध्यम से पानी, ऊर्जा, निवास स्थान, कचरा प्रबन्धन एवं पर्यावरण के क्षेत्रों में पृथ्वी द्वारा झेली जाने वाली समस्याओं को दूर करने के लिए कार्य करना होगा। अर्थशास्त्रियों, पर्यावरणविदों एवं वैज्ञानिकों ने इस समस्या का हल यह बताया है कि हम अपने विकास के लिए उपलब्ध प्राकृतिक संसाधनों का उपयोग करते समय इस बात का भी ध्यान रखे कि आने वाली पीढ़ियों के लिए भी ये संसाधन बचे रहें। भावी पीढ़ी के लिए संसाधनों के बचाव के मद्देनजर ही सतत विकास (सस्टेनेबल डेवलपमेण्ट) की अवधारणा का बिकास हुआ। हमारे रिजर्व बैंक के गवर्नर श्री रघुराम राजन का कहना है- हमें यह निश्चित करके चलना चाहिए कि पूरे विश्व में वृद्धि के वास्तविक एवं सतत स्रोत हो। सतत बिकास एक ऐसी प्रक्रिया है, जिसमें वर्तमान आवश्यकताओं को पूरा करने के लिए उपलब्ध संसाधनों का उपयोग करते समय इस बात का ध्यान रखा जाता है कि भावी पीढ़ी की आवश्यकताओं में भी कटौती न हो।

यही कारण है कि सतत विकास अपने शाब्दिक अर्थ के अनुरूप निरन्तर चलता रहता है सतत विकास में सामाजिक एवं आर्थिक विकास के साथ-साथ इस बात का ध्यान रखा जाता है कि पर्यावरण भी सुरक्षित रहे। हमारे पूर्व प्रधानमंत्री श्री लालबहादुर शास्त्री का कहना था- हमें देश के संसाधनों का प्रयोग मानवता के लाभ के लिए करना चाहिए।

सतत विकास की आवश्यकता निम्नलिखित बातों से स्पष्ट हो जाती है-

1. औद्योगीकरण के कारण वैश्विक स्तर पर तापमान में वृद्धि हुई है, फलस्वरूप विश्व की जलवायु में प्रतिकूल परिवर्तन हुआ है, साथ ही समुद्र का जल स्तर बढ़ जाने के कारण आने वाले वर्षों में कई देशों एवं शहरों के समुद्र में जलमग्न हो जाने की आशंका है।

2. जल प्रदूषण, वायु प्रदूषण, भूमि प्रदूषण एवं ध्वनि प्रदूषण में भी निरन्तर वृद्धि हो रही है। यदि इन्हें नियन्त्रित नहीं किया गया, तो परिणाम अत्यन्त मयकर होंगे।

3. इनवायरन्मेण्टल डाटा सर्विसेज की रिपोर्ट के अनुसार, लोगों एवं राष्ट्रों की सुरक्षा, भोजन ऊर्जा, पानी एवं जलवायु, इन चार स्तम्भों पर निर्भर है। ये चारों एक-दूसरे से घनिष्ठ रूप से सम्बन्धित हैं और ये सभी खतरे की सीमा को पार करने की कगार पर हैं।

4. अपने आर्थिक एवं सामाजिक विकास के लिए मानव विश्व के संसाधनों का इतनी तीव्रता से दोहन कर रहा है कि पृथ्वी की जीवन को पोषित करने की क्षमता तेजी से कम हो रही है।

5. वर्ष 2030 तक विश्व की जनसंख्या के 8.3 अरब से अधिक हो जाने का अनुमान है, जिसके कारण उस समय भोजन एवं ऊर्जा की माँग 50% अधिक तथा स्वच्छ जल की माँग 30% अधिक हो जाएगी। भोजन, ऊर्जा एवं जल की इस बड़ी हुई माँग के फलस्वरूप उत्पन्न सकट के दुष्परिणाम भयंकर हो सकते हैं।

विश्व में आई औद्योगिक क्रान्ति के बाद से ही प्राकृतिक संसाधनों का दोहन शुरू हो गया था, जो उन्नीसवीं एवं बीसवीं शताब्दी में अपनी चरम सीमा को पार कर गया। दुष्परिणामस्वरूप विश्व की जलवायु पर प्रतिकूल प्रभाव पड़ा एवं प्रदूषण का स्तर इतना अधिक बढ़ गया कि यह अनेक जानलेवा बीमारियों का कारक बन गया, इसलिए बीसवीं शताब्दी में संयुक्त राष्ट्र एवं अन्य वैश्विक संगठनों ने पर्यावरण की सुरक्षा पर बल देना शुरू किया, साथ

ही ओजोन परत के संरक्षण के लिए वर्ष 1985 में वियना सम्मेलन हुआ एवं इसकी नीतियों को विश्व के अधिकतर देशों ने वर्ष 1988 में लागू भी किया। वर्ष 1987 में ओजोन परत मॉणिट्रियल समझौता हुआ। आज विश्व के 197 राष्ट्रों के साथ-साथ भारत भी इस समझौते को ईमानदारीपूर्वक निभा रहा है। अन्तर्राष्ट्रीय समझौते का पूर्णरूपेण पालन किए जाने पर वर्ष 2060 तक ओजोन परत के ठीक हो जाने की सम्भावना जताई जा रही है। इस विषय से सम्बन्धित कई और समझौते एवं सम्मेलन विश्व के कई अन्य शहरों में भी किए गए।

वर्ष 1997 में जापान में क्योटो प्रोटोकॉल में तय किया गया कि विकसित देश पृथ्वी के बढ़ते तापमान से दुनिया को बचाने के लिए अपने यहाँ ग्रीन हाउस गैसों के उत्सर्जन में कमी लाएंगे। दिसम्बर, 2009 में सम्पन्न कोपेनहेगन सम्मेलन का उद्देश्य भी पर्यावरण की सुरक्षा ही था।

वर्ष 2014 में संयुक्त राष्ट्र पर्यावरण कार्यक्रम (यूएनईपी) द्वारा जारी की गई रिपोर्ट के अनुसार, परिवहन, इमारत एवं औद्योगिक क्षेत्रों में ऊर्जा दक्षता के उपाय अपनाकर प्रतिवर्ष भारत सहित अमेरिका, चीन, ब्राजील, यूरोपीय सब एवं मैक्सिको में वायु प्रदूषण से होने वाली एक लाख मौतों पर वर्ष 2030 तक रोक लगाई जा सकती है। संयुक्त राष्ट्र के जनरल असेम्बली के 69वें सत्र (2014) में गुणवत्तापूर्ण शिक्षा को सतत विकास की पूंजी कहा गया।

संयुक्त राष्ट्र के महासचिव बान की-मून ने इस सत्र में कहा था- शिक्षा मौलिक अधिकार होने के साथ-साथ प्रत्येक राष्ट्र की समृद्धि का आधार है। माता-पिता को स्वास्थ्य एवं आहार के बारे में जानकारी होनी चाहिए यदि वे चाहते हैं कि उनके बच्चे एक अच्छी शुरुआत करें, जिसके वे अधिकारी है। उन्नत राष्ट्र कुशल एवं शिक्षित कर्मचारियों पर निर्भर रहता है। गरीबी दूर करने की चुनौतियाँ स्वीकारने एवं जलवायु परिवर्तन को रोकने तथा आने वाले दशकों में उचित सतत विकास हेतु हमें मिल-जुलकर काम करना होगा।

भारत सरकार द्वारा भी इस दिशा में कई महत्वपूर्ण कदम उठाए गए हैं, जिनमें वनारोपण एवं सामाजिक वानिकी, मृदा संरक्षण, परती भूमि विकास, वाटर शेड प्रबन्धन, शुष्क कृषि विकास की अवधारणाएँ प्रमुख हैं

1. इसके लिए सबसे पहले तो हमें जनसंख्या को स्थिर बनाए रखने की आवश्यकता है, क्योंकि जनसंख्या में वृद्धि होने से स्वाभाविक रूप से जीवन के लिए अधिक प्राकृतिक संसाधनों की आवश्यकता पड़ती है।
2. शिक्षा प्रणाली में सुधार एवं विकास किए बिना हम सतत विकास की अवधारणा से लोगों को न तो अवगत करा सकते हैं और न ही इसे लागू कर सकते हैं।
3. यदि हम चाहते हैं कि प्रदूषण कम हो एवं पर्यावरण की सुरक्षा के साथ-साथ सन्तुलित विकास भी हो, तो इसके लिए हमें नवीन प्रौद्योगिकी का प्रयोग करना होगा।
4. प्राकृतिक संसाधनों की सुरक्षा तब ही सम्भव है, जब हम इनका उपयुक्त प्रयोग करें।
5. उपभोक्तावादी संस्कृति पर नियन्त्रण किए बिना हम सतत विकास की अवधारणा के अनुरूप कार्य नहीं कर सकते।
6. हमें प्रत्येक कार्य करते समय प्रदूषण नियन्त्रण की बात को नहीं भूलना चाहिए।
7. हमें आम लोगों की प्रवृत्ति में परिवहन लाते हुए उन्हें समझाना होगा कि जब आवश्यक हो तब ही बिजली खर्च करें तथा ऊर्जा के अन्य संसाधनों का दुरुपयोग न करें।

बिकास एवं पर्यावरण एक-दूसरे के विरोधी नहीं है, अपितु एक-दूसरे के पूरक है। सन्तुलित एवं शुद्ध पर्यावरण के बिना मानव का जीवन कष्टमय हो जाएगा। हमारा अस्तित्व एवं जीवविकास हमारे लिए आवश्यक है और इसके लिए प्राकृतिक संसाधनों का उपयोग करना भी आवश्यक है, किन्तु ऐसा करते समय हमें सतत बिकास की अवधारणा को अपनाने पर जोर देना चाहिए।

भारत में सतत बिकास के लिए कृत-संकल्प अन्तर्राष्ट्रीय ख्याति प्राप्त संस्थान 'द एनर्जी एण्ड रिसोर्स इंस्टीट्यूट' द्वारा आयोजित 'दिल्ली सस्टेनेबल डेबलपमेण्ट समिट' (DSDS) की विश्व स्तर पर पहचान बन चुकी है। फरवरी, 2011 में आयोजित दिल्ली सतत बिकास सम्मेलन (डीएसडीएस) की विषय-वस्तु 'टैपिंग लोकल इनीशिएटिव्स एण्ड टैकलिंग इनर्शिया' थी।

इस विश्वस्तरीय सम्मेलन में भाग लेने हेतु कोलम्बिया विश्वविद्यालय के प्रोफेसर एवं नोबल पुरस्कार विजेता जोसेफ स्टिग्लिट्ज व विश्व के अन्य जाने-माने बिद्वानों के अलावा अफगानिस्तान के राष्ट्रपति हामिद करजई, डॉमिनिकन के राष्ट्रपति लियोनेल फर्नांडीज रेना और सेशलस के राष्ट्रपति री जेम्स एलिक्स माइकल ने भाग लिया।

इस सम्मेलन का उद्घाटन हमारे पूर्व प्रधानमन्त्री श्री मनमोहन सिंह ने किया था। वर्ष 2012 में इस सम्मेलन की विषय-वस्तु ग्रोटैकिंग द ग्लोबल कॉमंस : 20 इयर्स पोस्ट रियो थी। नई दिल्ली में आयोजित इस सम्मेलन में भी राष्ट्राध्यक्षों, मन्त्रियों सहित विश्वस्तरीय शिक्षाविद् शामिल हुए थे।

टेरी द्वारा आयोजित वर्ष 2014 सम्मेलन की विषय-वस्तु थी- सबको भोजन, पानी व ऊर्जा, सुरक्षा उपलब्ध कराना। नई दिल्ली में 6 से 8 फरवरी तक चले इस सम्मेलन में संयुक्त राष्ट्र के पूर्व महासचिव के अन्नान, सेशलस के राष्ट्रपति जेए माइकल, गुयाना के पूर्व राष्ट्रपति भारत जगदेव आदि अन्य विशिष्ट लोगों ने भाग लिया।

सतत बिकास में आर्थिक समानता, लैंगिक समानता एवं सामाजिक समानता के साथ-साथ पर्यावरण सन्तुलन भी निहित है, इसलिए कहा जाता है कि मानव का वास्तविक कल्याण सतत बिकास द्वारा ही सम्भव है। महात्मा गाँधी ने कहा था- हमारे उद्योग मानव प्रधान होने चाहिए न कि मशीन प्रधान। सतत बिकास के सन्दर्भ में उनकी यह बात हमें बहुत कुछ सिखाती है।



World Environmental Day



Fresher's Welcome



Departmental Seminar Higher Studies Opportunities in Taiwan



Seminar on Disaster Management



Students B.A. Hons. Geography 3rd Year



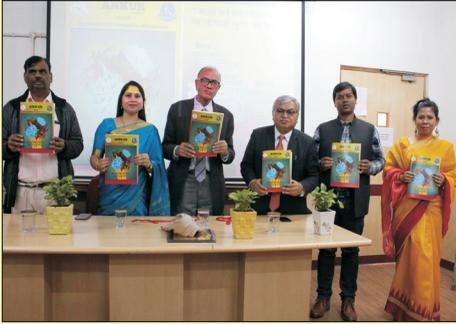
Students B.A. Hons. Geography 2nd Year



Students B.A. Hons. Geography 1st Year



Srishti 2019



Farewell 2019



IMD Visit



Teacher's Day 2019



Student's Activity



Art Gallery



DISASTER MANAGEMENT BASED FIELD EXCURSION (9 JAN-18 JAN, 2020)
B.A. GEOGRAPHY HONS. (2017-20)
ERNAKULUM, FORT KOCHI, MUNNAR, KANYAKUMARI, VARAKALA



DISASTER MANAGEMENT BASED FIELD EXCURSION (27 JAN - 7 FEB, 2020)
B.A. HONS. GEOGRAPHY (2017-20)
PUDUCHERRY, RAMESHWARAM AND KANYAKUMARI



TEAM IN ACTION DURING SURVEY

