



**INTERNATIONAL**  
**STUDENT LED CONFERENCE (2 ND EDITION )**  
ON SUSTAINABLE DEVELOPMENT GOALS

AS PART OF  
**8<sup>TH</sup> CHAIRMAN'S CHAMPIONSHIP**  
(AN INITIATIVE OF JGI)

Date : 12th November 2022  
Saturday

Time : 10:30am to 1:00pm



**Presided By**

**Dr. Chandrashekar DP**  
CEO-JGI PRESIDENT - ACADEMIC COUNCIL

**Dr. Mona Mehdi**  
SECRETARY - ACADEMIC COUNCIL

**Mrs. Lalitha Kosaraju**  
JT - SECRETARY - ACADEMIC COUNCIL

**Distinguished Guests (Jury)**

**Dr. Sanobar Hussaini**  
Mumbai

**Dr. Uma Shankar. M**  
Bangalore

**Dr. Tajwar**  
Dubai

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## Message by Dr Chandrashekhar DP



The key to sustainable development has 2 important words associated with it – discretion and decision-making. Simply put when you have discretion your decision-making becomes much sharper and better. Most of us here are from privileged backgrounds and with that privilege comes the responsibility of exercising discretion in our lives, consuming responsibly with a clear understanding of what is essential and what is excess consumption. All the young researchers have made one thing very clear that the time to act is NOW. Nations, societies, communities and schools have to come together and take action. It is very clear from the research done by young scholars that whatever actions we are taking are not enough and a lot more is needed for sustainable development. The young researchers have provided valuable insights, key action points that we should take forward. Let us all work together and this success will be our success and can happen when we all are connected together on our global village, this planet earth.

**Dr Chandrashekhar DP**

**President Academic Council and CEO of JGI Group**

## Message by Dr Mona Mehdi



The Chairman's Championship has been an important event in the JGI calendar and initially, the purpose of this event was to bring all the schools of JGI Hyderabad cluster together and create a healthy competition amongst the branches and of course learning through experience. It started with the sports events and then it included the Edufest and moved to the model youth parliament and now we are with the International Student-Led Conference on Sustainable Development Global Goals, involving schools not only from JGI or India but also from other countries like Dubai, Malaysia and UAE. We as a school would like to give exposure to the students on global issues to work hard towards combatting it through research work and presentation of thoughts, with the exchange of thoughts. A lot of research work has been done in preparing for this conference. It was a great experience for all to see these young minds working on the global goals through extensive research and paper presentation. It has been an experience for the jury members too while evaluating the abstracts, research articles and attending the Oral Presentation despite being placed in different parts of the world. We wish that the students continue to collaborate and work towards these social issues in making this world a better place to live.

**Dr Mona Mehdi**

**Secretary, Academic Council**

**JGI Schools**

## Message by Dr. Sanobar Hussaini



The topic for the conference is extremely meaningful and relevant in today's times. A recognition that the universal and transformative agenda for sustainable development is not merely an additional plan for the world but a shared vision of the world. In this regard students' voices matter as we consider the challenges, we face as a global society. An opportunity like this provides students to develop their awareness and thinking on key global issues and to articulate their perspectives and critical thinking in a creative and thoughtful manner. As a jury member, I am very impressed by the quality of the research papers and presentations. It has been a very enriching and insightful experience.

**Dr Sanobar Hussaini**  
**Assistant Professor**  
**Mithibhai College**  
**University of Mumbai**

## Message by Dr Uma Shankar



It was a great pleasure to be a member of the jury. While going through the research articles and abstracts that were sent to me, I realized that we are giving a good environment to the students. As a responsible person, I am highly confident that in future not only in India but in the entire world we will create a good environment of learning for future generations. We are working on this on two fronts - one is the research and another is the initiative like Sustainable Development Goals (SDG). The research is essential and it is virtuous that the students of JGI have started to find solutions to the problems at a very young age. This is a pioneering effort put in by the students. My hearty congratulations to all the stakeholders especially the Academic Council for such an innovative conference led by the student.

**Dr Uma Shankar**

**Associate Professor**

**Department of Management Studies**

**Bangalore**

## Message by Dr Tajwar



I'm very pleased and honoured to be a part of this International Student-Led Conference organized by the JGI group of schools. The organizing team has taken up a great initiative to bring us all together on this platform and allow students to be a part of the journey towards knowledge. JGI Schools has provided healthy competition to all the participating teams. The teams have been provided great exposure and learning which is beyond comprehension. The teams have presented very well-researched articles backed by a lot of enriching data and information. I would like to wish and encourage all the participants to continue to be on this path of enriching knowledge. The hard work put in shows their commitment and the kind of knowledge that is reflected in the research is what is needed to make them a successful person. Participation in such an event itself is an achievement!

**Dr Tajwar**

**Assistant Professor**

**UK College of Business and Computing- Dubai Campus**

## **LIST OF PARTICIPATING TEAMS**

### **Team -I**

Ananya Pramod, Archana Suraj, Diya Mohan

School - Cambridge International School, Dubai

**Topic** – Zero Hunger

### **Team- II**

Gowri Hari Prasad, Karthika Ratheesh Panicker, Diya Pratish Parikh

School - DPS Modern Indian School, Doha, Qatar

**Topic** - Life on Land

### **Team- III**

Zainab Riza, Tanaya Sharma, Anahad Kaur Hanspal

School - Delhi Private School, Sharja

**Topic** – Industry, Innovation and Infrastructure

### **Team -IV**

Ancy Siya, Aarya Rajput, Ananya Nair

School- Jain Heritage A Cambridge School, Kondapur

**Topic-** Responsible Consumption and Production

### **Team -V**

Srishti Subahar, Mohammed Rayyan Younus, Nathania Moncy John

School- The Indian High School, Dubai

**Topic** – Partnerships to achieve the Goal



**Team - VI**

Yashraj Mahesh Jogdand, Yashwardhan Asthana, Renuka Ganesh Sonawane

School - The Jain International School – Aurangabad

**Topic** - Climate Action

**Team - VII**

Yashika Bhujade, Dhairya Burbure, Tehreem Hussain

School - Jain Heritage A Cambridge School – Nagpur

**Topic** - Sustainable Cities and Communities

**Team - VIII**

BNVK Srija, P Sakshith, V Keerthan

School - Jain Heritage A Cambridge School - Shamirpet

**Topic** - Clean Water and Sanitation

**Team - IX**

Chew Man Zhee, Dhahroonah Shree Ghaneshan, Tan Li Ying

School - Sri Kdu International School ( KLANG)

**Topic** - Quality Education

**Team - X**

Aggy Dominic, Chirag Lulla, Keya Nandi

School - GEMS Modern Academy – Dubai

**Topic** - Decent Work & Economic Growth

# **TEAM -1**

**Ananya Pramod, Archana Suraj, Diya Mohan**

**School - Cambridge International School,**

**Dubai**

**Topic - Zero Hunger**

## **ABSTRACT**

Hunger; it is a global issue that's prevalent in the past and still continues to be in the future. Hunger roots mainly from poverty, unequal distribution and poorly accessible resources across land, overpopulation, and climate change. It is depriving people of one of their essential needs to survive and yet more than 8.9% of our total population continues to starve even today. These said numbers have also increased drastically after the global pandemic and with the current state of affairs, it is likely that people suffering from this issue will continue to increase and is said to encompass 9.8% of the world's total population by 2030. Goal 2: Zero Hunger aims to overcome and address the structural issues that hunger arises from, especially in underprivileged areas, along with several intersectional causes such as the impacts of violent conflicts and natural disasters by 2030.

Its drastic effect on the poor population, namely, malnourished children, women and adolescents, is what we'll be discussing in this paper.

**Key Words:** Malnutrition; Hunger; Poverty.

## **RESEARCH ARTICLE**

### **INTRODUCTION**

Global hunger isn't something that has never been heard of before. The matter in question is something that is still being looked into but despite much being done to eradicate hunger from the world, it still seems to have much prevalence in the rural areas of the world. It has several root causes, and this paper will discuss how much it affects different parts of the world, what Zero Hunger is and the steps to be taken to fulfil the goal of Zero Hunger. Even with many rural areas turning into urban cities and towns, several rural areas still suffer greatly from the gap in development from the urban cities. The great economical gap between the wealthy and poor is one of the main factors in addition to these. Whether being a developed or undeveloped country, the differentiation between the poor and rich is evident and if anything, keeps growing apart further. Another factor that plays into this is how most of these rural areas are located far from basic factors such as transportation, medical services, schools and colleges, and markets. Because of this lack of connectivity to the world, many people aren't well educated or don't get access to good education, leading them to find it difficult to adapt to urbanization in rural areas. As of now, our globe consists of 7.837 billion people, and every day our population rises in numbers.

This rise in the need for resources and supplies is derived from the rise in population. This not only leads to the exhaustion of not only our current resources such as fuels and diesel needed to supply our machinery but also our ability to cater to everyone's basic needs such as food, water, and basic shelter. In addition to this, wars, natural disasters, and any sort of human conflict is also

the pivotal reason for the destruction of land and property which leads to the lack of resources that we can provide for people. Due to these conflicts being more recent in our current day as well, it not only affects the wealthy but also the poor significantly. Political instability can also factor into this scarcity of supplies. We all know Poverty is one of the root causes of hunger yet since both go hand in hand when more people go hungry, more people that suffer in poverty.

This endless cycle of playing into each other is why it has become such a worldwide issue even today. Hunger is not only part of the main issue, but nutrition also matters. Poor households lack nutrition in the food they consume, missing out on many vital vitamins and minerals that the body needs to function and thrive. This is mainly linked to poorly distributed resources and poor quality of resources or how these resources are being handled. The National Federation of State High School Associations constitutes the percentage of stunted, wasted, and underweight children are 36 per cent, 19 per cent, and 32 per cent respectively. Hunger may be relatively easier to tend to than nutrition. This is because nutrition varies from person to person, depending on who needs what and in what quantity, which is why implementing nutritional practices in poverty is harder. Tackling malnutrition also requires people to be educated well enough to be able to provide basic healthcare and education services.

Since 1975, many initiatives have been launched to cater to the poor population which includes pregnant mothers, children of all ages, and infants. South Asia and parts of Sub-Saharan Africa had the highest-ranking hungry population according to the Global Hunger Index in 2003 and although the percentage of the hungry population decreased by 4 per cent, there was little to no attention to the issue of malnutrition in children, adolescents, and adults. Not only that but the improper implementation of feeding practices in South Asian children plays a major role in malnutrition of children. This led to many children being underweight and vulnerable to diseases and many other health issues.

### **ZERO HUNGER: GEOGRAPHICAL TRENDS**

The UN Secretary-General believes that technology is essential to sustainable development and is encouraging the technology industry to assist in closing the digital divide. Accessible and reliable information is critical for accountability and the development of countries. The SDGs call for a data revolution that brings new technologies and innovation in data and data collection to supplement traditional statistics.

Mobile technology has already changed societies all over the world, including the poorest communities and countries. It is empowering women, increasing employment, helping to promote financial freedom, improving infrastructure, increasing agriculture productivity, and promoting improved health in many

cases. The mobile industry is now uniquely positioned to assist national governments in successfully achieving the SDGs through big data collection and analysis. The UN's Global Pulse initiative has shown how data generated by mobile phones can be used to map and control the spread of disease and hunger and disease. The technology industry can significantly aid in the implementation of the 2030 Agenda by collaborating with governments and the international community to increase connectivity, lower barriers to access, and ensure that devices and software are designed with vulnerable communities in mind. This can be accomplished by using data responsibly for humanitarian and development purposes while protecting privacy rights.

The developing world had a population of 4.36 billion people in 1990, with 1.25 billion living on less than \$1 per day. East Asia, the Pacific, and South Asia each had nearly two-fifths of the world's dollar-a-day poor, while Sub-Saharan Africa had about one-fifth. Between 1990 and 2004, the number of people in developing countries increased by one billion, while the number of people living on less than \$1 per day decreased. In 2004, 969 million of the developing world's 5.36 billion people lived on less than \$1 per day. Over the 14-year period, the regional proportion of the developing world's poor also altered. East Asia and the Pacific's share of the world's poor has shrunk by more than half, falling to 45%.

East Asia and the Pacific's share of the world's poor fell by more than half to 17%, while South Asia's provides increased to nearly 50% and Sub-Saharan Africa's proportion continued to increase to 31%. Again, the dividing line between the East and Pacific regions and the South Asia region is striking. While both regions had roughly the same number of poor people in 1990, East Asia and the Pacific had 277 million fewer poor people in 2004 than South Asia. This also shows that East Asia and the Pacific are the only regions that have seen a significant decline in the number of people living with less than \$1 a day has decreased significantly (from 476 million to 169 million) between 1990 and 2004. The poor decreased by a modest 33 million in South Asia but increased by approximately 58 million in Sub-Saharan Africa. Vargas, R. (2007) *The world's most deprived: Characteristics and causes of extreme poverty and hunger*, Google Books.

While the Indicators characterize the extreme poor as those earning less than \$1 per day, we divide those earning less than \$1 per day into three groups based on their location below the dollar-a-day poverty line:

'Subjacent poor: those earning between \$0.75 and \$1 per day; Medial poor: those earning between \$0.50 and \$0.75 per day; Ultra poor: those earning less than \$0.50 per day these points were selected to divide the distribution into substantively sized groups while also allowing for the use of simple, uniformly spaced units. We can look below the dollar-a-day line to see where the poor are by disaggregating the number of poor in this way.

We can look below the dollar-a-day line to determine where those in each group live and how each group has performed consistently over time by differentiating the number of poor in this way. This is done first for major developing regions, then for specific countries. Subjacent, Medial, and Ultra-Poverty Locations and Trends In 2004, half of the 969 million people who lived on less than \$1 per day seem to have been subjacent poor, yet another one-third were medial poor, and about 17 per cent were ultra-poor. While South Asia is home to the majority of the developing world's subjacent (53%) and medial (51%), Sub-Saharan Africa is home to the majority of the world's poor.

While South Asia reports for the majority of the emerging world's subjacent (53%) and medial (51%), Sub-Saharan Africa accounts for three-quarters (76%) of all ultra-poor; in 2004, 121 million Sub-Saharan Africans lived on much less than \$0.50 per day. Although Latin America and the Caribbean account for a small proportion of global dollar-a-day poverty, its proportion tends to increase with poverty depth: it accounts for 4% of those in subjacent poverty, 5% of those in medial poverty, and 7% of those in ultra-poverty. Hunger, the second component of the first Millennium Development Goal. Hunger manifests itself in a variety of ways, including fatigue, apathy, the potential for increased disease, poor nutrition, impairment, and early mortality. The Global Hunger Index was created to capture three dimensions of hunger: lack of financial access to food, deficits in children's nutrient intake, and childhood mortality, which is largely due to malnutrition (Wiesmann 2006). As a result, the indicator involves 3 equally balanced metrics: the number of individuals who are vulnerable to food insecurity as approximated by the Food and Agriculture Organization of the United Nations (FAO), the preponderance of underweight children below the age of five as predicted by the World Health Organization, the under-five mortality rate.

In contrast to other regions, overall growth in Sub-Saharan Africa from 1992 to 2003 was relatively slow the proportion of people who are food-energy insufficient fell by about 4%, but there was minimal advancement in the pervasiveness of childhood underweight and the under-five mortality rate (a decline of less than 1 percentage point). In the 1990s, South Asia made significant progress in combating hunger. South Asia's CHI score was five points higher than Sub-Saharan Africa's in 1992, but by 2003, South Asia's regional score had swept up. The GHI fell by seven points, with the prevalence of childhood underweight falling from 58 per cent to 44 per cent contributing the greatest amount to this declining trend. Despite significant improvements in child nutrition in South Asia, the region still has the world's highest prevalence of underweight children. From a much lower Global hunger index score of about 15, East Asia and the Pacific saw only a four-point reduction in the GHI from 1992 to 2003. However, the lower starting point of the GHI suggests that in the early 1990s, a larger proportion of the population in this region already was able

to meet the most basic dietary and nutritional needs than that in Sub-Saharan Africa and South Asia.

The GHI results for this year demonstrate that emerging economies have made significant advancements in the fight against hunger and malnutrition. At the same time, this report identifies various points of vulnerability that need to be acknowledged, as well as inaccurate data, such as at the sub-national level, to guarantee that nobody falls behind in the race to accomplish Zero Hunger by 2030. Every time a region tends to lag behind the remainder of the world, a country falls behind its neighbours, a nation in crisis for which data are grossly inadequate, or a population is vastly disadvantaged within a single country, we must recognize these areas of vulnerability and ensure they are addressed.

### **ROLE OF SDG 3: ZERO HUNGER**

The reason Agenda 2030 stands out from previous goals like Millennium Development Goals (MDGs) (which were seen to only be applied to developing countries) is that it tackles the issue as something that affects all countries, regardless of how developed they are perceived as or their economic and sociopolitical stance globally. The agenda aims to address the issues in a way in which all countries are seen as countries that need further development as it considers the impact of a country's policies and actions as something that affects the world as a whole and is not just bound to national borders.

The agenda is centered around people, for example, it focuses on the impact of violent conflict as a cause of hunger and seeks to bring people who are difficult to reach and unable to gain the benefits of development activities to the forefront. SDG 2 focuses on using agricultural advancements, reduction of trade restrictions, climate change adaptation, and promoting public health in order to solve the issue. SDG 2 also addresses how hunger affects women and girls, for example by 2030, the goal is to double the agricultural produce and the incomes of people who participate in agricultural activities specifically focusing on women, and other marginalized communities by increasing accessibility of land and other resources.

The MDGs target of reducing the number of people suffering from hunger by half was met by 73 countries out of 129, and there was a fall of 210 million in the population of the chronically hungry. However, even with this decrease, 800 million people are still unable to be able to get access to adequate food and resources for living. Through the goal "Zero Hunger" Agenda 2030 strives to help those who were left behind. The agenda commits to ending malnutrition and hunger for everyone by 2030. The accomplishment of this goal can only occur when simultaneously striving to put a lasting stop to both undernutrition and hunger as one or the other cannot be solved in isolation. Without the empowerment of women, stopping rural poverty, creating agricultural advancements, while not excluding smaller-scale workers in the sector, and

improving food systems it is impossible to achieve this goal. Most people who are facing food crises are those living in areas with recurring natural disasters and conflicts. People who live in areas in protracted crises encompass over 130 million of the hungry population. Acknowledging what exactly SDG 2 aims to overcome is a starting point in achieving these goals. However, there also must be a discussion on what must be done and implemented in order for the goal to be met. An example of such a step taken is the Zero Hunger Challenge which was launched by UN Secretary-General Ban Ki-moon at the United Nations Conference on Sustainable Development. 5 objectives of this challenge were; to create a world where everyone had adequate access to nutrition require throughout the year; to end malnutrition during pregnancy and in the early stages of life in order to put a stop to child stunting; to create sustainable food systems; to produce more opportunities for smallholder farmers, especially women, in order to improve their productivity and income by increasing it to twice as much as it was before; to reduce the loss of resources and food by responsible consumption. Another example of a platform that helps in progressing towards the accomplishment of SD2 is Compact2025, which the International Food Policy Research leads. Compact2025 assists countries by helping them to create effective methods of action by bringing together a group of policymakers and researchers who can identify issues and then help in the implementation of strategies at both national and subnational levels in order to address the same. Examples such as Brazil being able to drastically reduce poverty, hunger, and malnutrition by improving existing nutritional interventions and social protection programs and China implementing smallholder-led strategies which have helped in increasing the revenue of the rural population are effective implementations and strategies which help to provide a model that can be used by other countries in order to grow. This is something Compact2025 is set to achieve as it aims to increase the accumulation of knowledge across different countries in order to effectively progress to a more harmonious future for the entire world.

## **CONCLUSION:**

In conclusion, in order to achieve SDG 2: Zero Hunger there is a need to make significant enhancements to climate-compatible agriculture along with the reinvention of strategies on how to effectively respond to crisis situations like natural disasters and violent conflicts. With progress in technology, the effective utilization of these advancements must be efficiently put in place in order to introduce innovative methods to solve the issue. As hunger is a multifaceted issue, each of the causes must be investigated and dealt with in appropriate ways.



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## POWERPOINT

Cambridge International School, Dubai

# SDG 3: Zero Hunger

By Ananya Pramod, Archana Suraj and Diya Mohan

## 01: Causes of Hunger

Hunger is caused by many factors, in this section we will be discussing some of the root causes.

- The great economical gap between the wealthy and poor is one of the main factors in addition to these.
- Rural areas are located far from basic factors such as transportation, medical services, schools and colleges, and markets. This lack of connectivity leads to poor education and rural habitants find it difficult to adapt to urbanization in rural areas.
- Overpopulation leads to the exhaustion of our resources such as fuels and diesel as well as reducing our ability to cater to everyone's basic needs such as food, water, and basic shelter.
- Wars, natural disasters and any sort of human conflict is also a pivotal reason for the destruction of land and property which leads to the lack of resources that we can provide for people.
- Political instability can also factor into this scarcity of supplies.
- Poverty is one of the root causes of hunger since both go hand in hand. This endless cycle of playing into each other is why it has become such a worldwide issue even today.

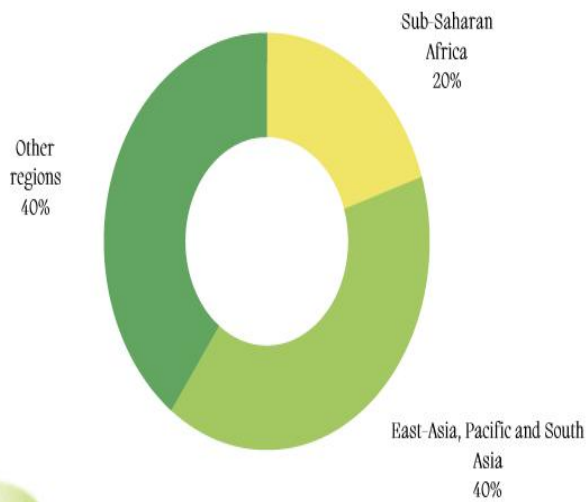
## 02: What SDG 2: Zero Hunger Tackles

Hunger is not the only element addressed by SDG 2: Zero Hunger. In this section we will discuss what issues SDG 2: Zero Hunger tackles.

- Hunger is not only part of the main issue, it is also nutrition that matters.
- Poor households lack nutrition in the food they consume, missing out on many vital vitamins and minerals that the body needs to function and thrive. This is due to poorly distributed resources and poor quality of resources or how these resources are being handled.
- The National Federation Of State High School Associations constitutes the percentage of stunted, wasted, and underweight children are 36 percent, 19 percent, and 32 percent respectively.
- Hunger is relatively easier to tend to than nutrition. This is because nutrition varies from person to person, depending on who needs what and in what quantity, which is why implementing nutritional practices in poverty is harder. Tackling malnutrition also requires people to be educated well enough to be able to provide basic healthcare and education services.
- South Asia and parts of Sub-Saharan Africa had the highest-ranking hungry population according to the Global Hunger Index in 2003 and although the percentage of the hungry population decreased by 4 percent, there was little to no attention to the issue of malnutrition in children, adolescents, and adults.

## 03: Geographical Trends

In this section we will be discussing the statistical patterns affecting Zero Hunger in different regions.



- Total global population in 1990 – 4.36 billion people
- Out of which 1.25 billion people living on less than \$1 a day
- East Asia, the Pacific, and South Asia each had nearly two-fifths of the world's dollar-a-day poor, while Sub-Saharan Africa had about one-fifth. – pie chart
- In 2004, 969 million of the developing world's 5.36 billion people lived on less than \$1 per day
- East Asia and the Pacific's share of the world's poor fell by more than half to 17%, while South Asia's provides increased to nearly 50% and Sub-Saharan Africa's proportion continued to increase to 31%.

1. Subjacent poor: those earning between \$0.75 and \$1 per day;
2. Medial poor: those earning between \$0.50 and \$0.75 per day;
3. Ultra poor: those earning less than \$0.50 per day

- The Global Hunger Index was created to capture three dimensions of hunger: lack of financial access to food, deficits in children's nutrient intake, and childhood mortality, which is largely due to malnutrition
- Indicator involves 3 equally balanced metrics: the number of individuals who are vulnerable to food insecurity as approximated by the Food and Agriculture Organization of the United Nations (FAO), the preponderance of underweight children below the age of five as predicted by the World Health Organization, the under-five mortality rate.
- The GHI results for this year demonstrate that emerging economies have made significant advancements in the fight against hunger and malnutrition.

# 04: What makes Agenda 2030 different from previous goals?

In this section we will be discussing how Agenda 2030 stands out from previous goals and how this makes it more affective,

- Agenda 2030 stands out from previous goals like Millenium Development Goals (MDGs) as it tackles Hunger as something that affects all countries, regardless of how developed they are perceived as or their economic and sociopolitical stance globally.
- The Agenda focuses on the impact of violent conflict as a cause of hunger and seeks to bring together people who are difficult to reach and unable to gain the benefits of development as well as address how hunger affects women and girls. SDG 2 uses agricultural advancements, reduction of trade restrictions, climate change adaptation, and promoting public health in order to solve the issue.
- For example, the MDGs target of reducing the people suffering from hunger by half was met by 73 countries out of 129, and there was a fall of 210 million in the population of the chronically hungry. However, even with this decrease 800 million people are still unable to be able to get access to adequate food and resources for living. Agenda 2030 aims to bring the people left behind to the forefront.

## 05: What are some examples of initiatives taken to achieve SDG 2: Zero Hunger?

In this section we will be discussing more about what SDG 2: Zero Hunger seeks to achieve and about some of the initiatives taken to do this.

- An example of such a step taken is the Zero Hunger Challenge which was launched by UN Secretary-General Ban Ki-moon at the United Nations Conference on Sustainable Development.



- Another example of a platform that helps in progressing towards the accomplishment of SD2 is Compact2025, which the International Food Policy Research leads. Compact2025 aims to increase the accumulation of knowledge across different countries in order to effectively progress a more harmonious future for the entire world.



Cambridge International School, Dubai

# Conclusion

By Ananya Pramod, Archana Suraj and Diya Mohan

Thank you!



# **TEAM - II**

**Gowri Hari Prasad,**

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**Topic - Life on Land**

## **ABSTRACT**

The survival of each ecosystem on Earth constantly depends on the other. We fail to notice the fact that several species are vulnerable to extinction. Human activities threaten Earth's magnificent biodiversity. An increase in Globalisation has led to the clearance of large patches of forests. Research shows that around 1.6 billion people in the entire world depend on forests for their livelihoods. With ever-increasing reliance on forests, our world is losing trees rapidly, consequently leading to an increase in global warming at a high pace. Sadly, arable land is disappearing with deserts replacing them rapidly, leading to desertification of land. As a result, animals are also disappearing as scanty food is available. The health of our planet must be a top priority for us human beings to ensure the continuity of life on our mother planet.

Keywords: Globalisation; Arable land; Desertification

## **RESEARCH ARTICLE**

### **Introduction**

Life on land is under siege, and safeguarding terrestrial ecosystems and biodiversity is crucial. Excessive human dependence on the environment causes severe damage to it resulting in issues like land degradation, deforestation, loss of biodiversity, etc. The land covers about 29% of Earth's surface out of which 30% is covered by forests and 15% of the land is protected. However, biodiversity is still at substantial risk. Poaching and trafficking of endangered species have led to widespread damage to terrestrial ecosystems and the extinction of species. Two billion hectares of Earth's degraded land affect some 3.2 billion people intensifying climate change. Additionally, Industrialisation is another major driving force behind deforestation. Each of the above problems pose a threat not only to flora, fauna and the environment but also, the economic assets and livelihood opportunities of more than a billion people.

### **3. Review of the Issue:**

About 1.6 billion people in the entire world depend on forests for their livelihoods. Sadly, the number of forests is decreasing at a surprising rate. A range of industries lie in forests and rangelands generating jobs as well as acting as a source of food, medicine and fuel for more than half the population. We are unable to meet the 2020 targets of SDG 15 because land degradation continues, biodiversity is declining, invasive species invade, and illegal hunting and trafficking of fauna continue to ruin efforts to protect and restore ecosystems and species. Therefore, reducing and sustainably using the resources available is of crucial importance.

#### **3.1. Land degradation:**

Land degradation leads to a decline in the number of arable lands, resulting in a substantial reduction in the efficiency of croplands and rangelands all over the world. This leads to food insecurity, soaring food prices, ecological risk and loss of biodiversity and ecosystem services. According to the report by United Nations development programme, arid regions are at a higher risk of facing land degradation. Climate change worsens yields and income from agriculture, posing a threat to the flexibility of agrarian ecosystems and the security of food production systems.

#### **3.2. Biodiversity Loss:**

The disappearance of biodiversity has drastically affected the diverse species of flora and fauna present on earth. According to scientists, there are more than 13 million species on the planet, with estimates ranging from three to 100 million. However, Earth's magnificent biodiversity is in a jeopardy due to human interference. Moreover, the depletion of nutrients and minerals in soil due to the overuse of artificial fertilizers stagnates the growth of flora around us. An increase in temperature due to global warming drastically affects life on earth.

##### **3.2.1 Poaching:**

Poaching is still done illegally for collecting various parts of animals and plants like sandalwood, teak, etc. from plants and skin, selling them locally or globally, etc. Although many laws such as the Indian Code: Prevention of Cruelty to Animals Act (1960), India Code, The Forest (Conservation) Act (1980), etc. are in place, there are still cases of poaching in various countries. Sustainable Development Goal 15 largely focuses on this issue.

### **3.3 Desertification:**

Desertification is the gradual process in which vegetation in dry lands or semi-arid lands slowly starts to fade away due to many factors like deforestation, fewer amounts of rainfall, etc. This in turn causes the lands to dry up turning them into drought lands. This heart-breaking issue is most prevalent in the hot equatorial regions of the Kalahari Desert, the Sahara Desert and the grasslands of East Africa etc. This issue can be controlled by using efficient water-management methods like such as rainwater harvesting, building small check dams to prevent a major run-off of our precious rainwater etc.

### **3.4 Industrialization:**

Industrialization is essential for a country's progress; yet, it has led to several problems in the environment. Several problems such as global warming, reduction in biodiversity and loss of habitat have been caused due to rapid industrialisation. Moreover, this is leading to the loss of natural habitats, which in turn leads to wildlife extinction. Adding to this, are industrial accidents, which include forest fires and leakage of radioactive materials, causing intense damage to the wildlife around.

### **3.5 Deforestation:**

Industrialization has led humankind to clear off the land for expansion of area. This land was initially obtained by cutting off trees in large forests thereby causing deforestation. This has led to several ecological issues like soil erosion, climate change, global warming, less precipitation, loss of vegetation cover, etc. This has in turn affected plant, animal & human life living in these areas.

### **3.6 Climate Change-Sensitive factors:**

The doubling of atmospheric CO<sub>2</sub> concentration is usually used to figure out the climate sensitivity of a climate change event. Some of the factors that influence climate-change globally are:

- A spike in global warming rates or an increase in greenhouse gas emissions.
- Slight variations in solar activity.
- Pollution (Air, Water etc.) causing acid rain.
- Amount of the Sun's energy the Earth absorbs and reflects.
- Volcanic Activity can disrupt the equilibrium of the environment with a sudden release of smoke, stones, lava etc. Thus, causing widespread pollution and devastation.

Fun fact: Arctic regions of our earth are the most sensitive regions to the climatic changes that take place.

### **3.7 Action taken by Countries**

- In India Prevention of Cruelty to Animals Act (1960) ensures rigorous imprisonment which consists of a fine or imprisonment of 5 years or both.
- The Forest (Conservation) Act (1980) in India ensures a higher level of protection to all forests for non-forestry purposes.

- In Africa, many policies have been made to preserve the natural forests and wildlife present there. Some of these policies are regulating the logging industry, developing forest protection schemes, and addressing human activities that promote deforestation.

- As part of the UN SDG 15 on protecting, restoring, and promoting sustainable use of terrestrial ecosystems, sustainable forests, combating desertification, reversing and halting land degradation, and biodiversity loss, countries work with the IAEA and its partners, such as the Food and Agriculture Organization of the United Nations (FAO), to protect and sustainably use world's natural resources.

- A Glasgow Leaders' Declaration on Forests and Land Use was adopted by 142 countries at the UN Climate Change Conference last year (UNFCCC COP 26). They pledged to conserve forests and accelerate their restoration. A significant increase in public and private investment will be made to aid sustainable agriculture, forest management (SFM), forest conservation, and local community support.

### **3.8 Influencers:**

YouTubers like Mr Beast and Mark Rober raised about 20 million US dollars to plant 20 million trees. Jimmy Donaldson also known as Mr Beast has been a co-creator of the Team Trees initiative. Both initiatives taken by him have positively affected the ecosystem around us. The donations made are given to the Arbor Day Foundation. It is a tree-planting organization that pledges to plant one tree for every U.S. dollar donated. Approximately 180 square kilometres (69 square miles) of land could be covered with 20 million trees and carbon dioxide absorbed by around 1.6 million tons, while 116 thousand tons of chemical air pollution could be removed. They planned to begin this initiative of planting trees in January 2020 and end "no later than December 2022". Millions of people around the world joined hands together to play their roles in this process.

Joshua Kwaku Asiedu is an influencer who lives in a self-built village. He believes in organic food and handmade food processing. He has launched several self-

sustainability workshops of which some of which are herbal medicine workshops, say no to plastic, etc.

### **3.9 Sustainability using AI:**

Artificial intelligence can assist in deforestation monitoring, energy emission reduction, CO2 removal, developing greener transportation networks, and predicting extreme weather conditions. Artificial intelligence can detect changes in land use, vegetation, forest cover, and natural disasters when combined with satellite imagery.

**4. Methods:** The method of collecting data was mainly through secondary sources. Data was collected from the official website of United Nations – SDGs & also from the results of a survey put forward under the topic “Survey - Life on Land” (Link attached in bibliography).

According to the survey many are acting in small steps by choosing not to use products made from animal parts however most do not believe that the government is responding appropriately in controlling this issue. About 74% of the total respondents agree that animal life is endangered due to human activities, loss of habitats, poaching, polluted water, etc.

- Awareness on the Protection of Flora and Fauna.
- More activities need to be conducted among children such as plantation drives. to accelerate the greenery around our surroundings.
- More laws should be placed by the government in protecting animals.
- Wildlife should be preserved in the natural habitat.
- Scientific practices to be followed when breeding animals.

**5. Conclusion:** As we can see this report mainly aims on the issues and solutions to having a sustainable life on land that is abided by the SDG-15. This significant SDG emphasizes on the importance of the severity of land degradation and biodiversity loss, both on local and global scale. As we increase the conservation of our natural habitats we also contribute to the economic development of different communities around the world and thus be a helping hand to improve the quality of life for the global community.

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### POWERPOINT







# What is SDG:15- Life on Land??



“

*Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss*

”



## Review of the Issue



- *About 1.6 billion people in the entire world depend on forests for their livelihoods.*
- *The number of forests is decreasing at a surprising rate.*
- *We are unable to meet the 2020 targets of SDG 15 because land degradation continues, biodiversity is declining, invasive species invade, and illegal hunting and trafficking of fauna continue to ruin efforts to protect and restore ecosystems and species.*
- *Therefore it is of utmost importance to bring sustainably use the available resources.*

## Factors Causing Damage to SDG 15

- *Land degradation*
- *Poaching*
- *Desertification*
- *Industrialization*
- *Deforestation*
- *Climate Change-Sensitive factors*



## Country Efforts

- *Prevention of Cruelty to Animals Act (1960) - India*
- *The Forest (Conservation) Act (1980) - India*
- *Regulating the logging industry, Developing forest protection schemes, and Addressing forest activities that promote forests - Africa*
- *Countries work with the IAEA and its partners, such as the Food and Agriculture Organization of the United Nations (FAO), to protect and sustainably use the world's natural resources.*
- *A Glasgow Leaders' Declaration on Forests and Land Use was adopted by 142 countries at the UN Climate Change Conference last year (UNFCCC COP 26).*

## Some Individual Efforts recognised around the Globe



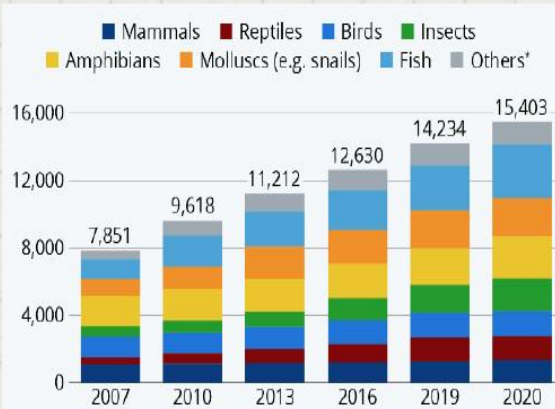
- *Suzan Murray works on issues relating to animal health and survival with the Smithsonian Conservation Biology Institute's Global Health Program (GHP). Some of the animals they help include rhinoceros, cheetahs, lions, apes, elephants, and bats.*
- *Another notable step was taken by Jimmy Donaldson and Mark rober who started the #TeamTrees initiative.*

## Methods Adopted to Improve Life on Land

- *Awareness on the Protection of Flora and Fauna*
- *More activities need to be conducted among children such as plantation drives to accelerate the greenery around our surroundings*
- *More laws should be placed by the government in protecting animals*
- *Wildlife should be preserved in the natural habitat*
- *Scientific practices to be followed when breeding animals*



## Conclusion



- *The loss of habitat on Earth is gradually increasing.*
- *If we do not control our excessive desires, soon they will perish.*
- *Effective laws must be put in place to ensure that life continues on Earth.*
- *If we put our hands together we will be able to bring a gradual change in the world during the next 10 years.*



“

*Let's join hands and make  
life on land our first  
priority!*

”

# **TEAM - III**

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**Topic – Industry, Innovation and Infrastructure**

## **ABSTRACT**

Despite the rapid economic progress and improvement over past decades, many nations still lack key infrastructures. In accordance, industries and infrastructures need to be modified to face future challenges. To do so, sustainable, and innovative technologies must be supported, and equal access to information and financial markets must be guaranteed. With sustainable innovation and industries, dynamic and competitive economic forces can be unleashed, which could generate employment and income on a larger scale.

The Economic and Social Survey of Asia and the Pacific estimates that an additional \$434 billion in annual expenditure will be needed to make infrastructure robust to calamities and climate change. In other subregions, such as the Pacific small island developing states, the cost may be significantly higher. To establish resilient infrastructure, enhance sustainable industrialization, and foster innovation, it will be critical to overcome resource limits, expand and improve developing nations' capacities, and look for novel methods to address sustainable development issues by 2030.

The objective of this research is to understand and analyse the notion, reasoning, and visions conceptualised with respect to the goal.

Keywords- Industry; Innovation; Infrastructure; Inclusivity; Sustainability.

## **RESEARCH ARTICLE**

Despite the rapid economic progress and improvement over past decades, many nations still lack key infrastructures. In accordance, industries and infrastructures need to be modified to face future challenges. To do so, sustainable, and innovative technologies must be supported, and equal access to information and financial markets must be guaranteed. With sustainable innovation and industries, dynamic and competitive economic forces can be unleashed, which could generate employment and income on a larger scale.

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The objective of this research is to understand and analyze the notion, reasoning, and visions conceptualized with respect to the goal.

Keywords: Industry; Innovation; Infrastructure; Inclusivity; Sustainability.

## **2. Introduction**

The motive of SDGS is to advance societal development, environmental conservation, and economic progress. These objectives significantly rely on infrastructure investment, steady industrial growth, and technological advancement. Industrialization is necessary for continued growth because of the dynamic nature of the global economy. Infrastructure that is durable and innovative helps provide quality opportunities to everyone. SDG 9 acknowledges that solving the numerous interconnected economic, social, and environmental concerns will depend on humanity's capacity to connect, communicate efficiently, and advance our knowledge of industry and technology. This, along with inclusive and sustainable industrialization, can unleash competitive and dynamic economic forces that could create employment and income. They are key to the introduction and promotion of modern technology, in facilitating world commerce, and in enabling resource efficiency. To fully realize this potential, the world still has lengths to go. If they are to reach the 2030 target, developing nations must step up the growth of their manufacturing sector and increase their investment in scientific research and innovation.

As stated by the UN, infrastructure investments are essential to ensuring sustainable development and empowering communities in many nations. This includes investments in transportation, irrigation, electricity, and information and communication technologies. Infrastructure investment is known to be necessary for productivity and income development, as well as for improvements in health and educational results.

## **3. Review of the Issue**

### **3.1. Effect of the Covid-19 pandemic**

Manufacturing saw a greater impact from the pandemic than from the global financial crisis of 2007–2009, which led to a 6.8% decrease in production in 2020. From 2019 to 2020, the manufacturing value added (MVA) share of the global GDP decreased from 16.6% to 16.0%. In the second and third quarters of 2020, manufacturing employment decreased on average by 5.6% and 2.5%, respectively, compared to the corresponding periods in 2019, according to statistics from 49 nations. Even more significant reductions in working hours occurred, totaling 11.9% in the second quarter of 2020 and 4.4% in the third.



**Growth of manufacturing value added, 2006–2020 (percentage)**



The predicted growth in manufacturing in LDCs is quite small, a mere 1.9 percent in 2020 as opposed to 8.7 percent in 2019. A portion of the total GDP of these nations increased by MVA from 10.1% in 2010 to 12.8% in 2020 far too slowly to reach the aim of doubling that share by 2030. MVA in LDCs in 2020 was barely \$136 per person, compared to \$4,296 in Europe and North America.

### 3.2.Targets

According to the UN, “Everyone can contribute to making sure that we achieve the global goals.” To achieve this SDG, the initiative is divided into 8 distinct goals. The first five goals are referred to as "outcome goals" (9.1-9.5), while the latter three are known as "means of accomplishing goals" (9.a-9.c).

Outcome targets have defined intended results that help to accomplish the aim of the SDG goal. Building resilient infrastructure is one of them, along with promoting equitable and sustainable industrialization, expanding access to small businesses, modernizing already-existing infrastructure, and advancing scientific research.

Each goal includes one or more indicators to track the progress made.

#### 3.2.1. Outcome Goals

(1). Develop Sustainable, resilient, and inclusive infrastructures. To build robust, dependable, high-quality infrastructure, including regional and global infrastructure, while ensuring everyone has access to it at a fair price.

(2). Promote Inclusive and Sustainable Industrialization. To encourage sustainable and inclusive industrialization. This can be done by increasing the industry's employment and GDP contributions considerably by 2030, considering local conditions, and doubling its contribution to the least developed nations.

(3). Increase Access to Financial Services and Markets.

To increase the availability of financial services to small-scale industrial and other businesses, including affordable loans, and make it easier for them to integrate into value chains and markets, particularly in emerging economies.

(4). Upgrade All Industries and Infrastructures for Sustainability.

By 2030, all nations must try to ensure that they take measures in accordance with their own capacities to improve infrastructure, remodel industries, and clinch for higher resource efficiency and the adoption of clean, environmentally sound technology and industrial processes.

(5). Enhance Research and Upgrade Industrial Technologies.

By 2030, it must be ensured that every country is taking steps to upgrade its infrastructure, restructure their industries, and push for greater resource efficiency as well as the adoption of clean, environmentally friendly technologies and industrial processes.

### **3.2.2. Means of Accomplishing goals**

(a) Facilitate Sustainable Infrastructure Development for Developing Countries. Improved financial, technological, and technical assistance to African nations, least developed nations, landlocked developing nations, and small island developing states will facilitate the construction of robust, and sustainable infrastructure in emerging nations.

(b) Support Domestic Technology Development and Industrial Diversification Support national technological advancement, research, and innovation in emerging economies, by establishing favorable policy conditions for, amongst other things, industrial diversification, and the value addition to commodities.

(c) Universal Access to Information and Communications Technology. Strive to provide universal and affordable Internet connectivity in least developed countries by 2020. Significantly increase access to information and communications technology.

### **3.3. Progress**

In 2021, the industrial sector showed signs of recovery after the epidemic, although the return has been unequal among nations, with stagnation in the least developed countries. In the manufacturing sector, the pandemic had a detrimental impact on about one in three employments. Higher-technology industries performed better and recovered more quickly, demonstrating the significance of technical innovation in reaching Sustainable Development Goal 9.

Nearly one-third of industrial supply chain employment experienced termination, a decrease in salary or working hours, or other worsening

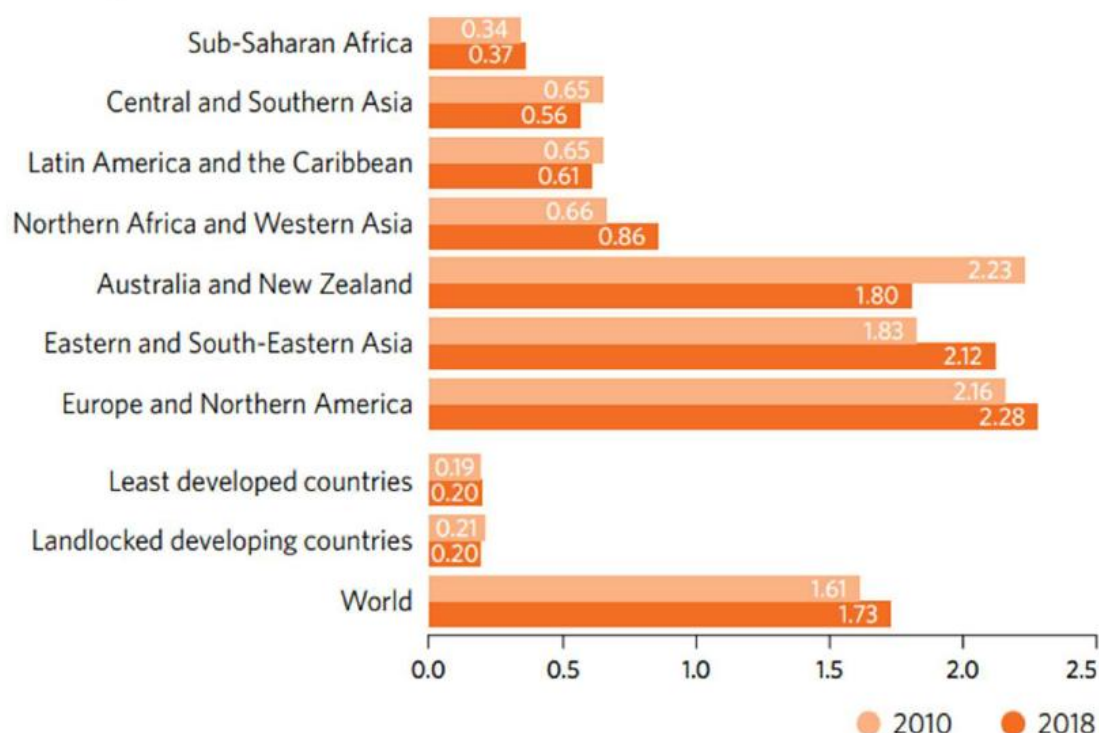
conditions due to the pandemic. Thus, manufacturing employment as a percentage of overall employment declined dramatically from 13.7% in 2019 to 13.1% in 2020. Apart from automobiles and other forms of transportation equipment, the majority of medium and high-tech sectors have reached pre-pandemic levels. Due to disruptions in the supply chain for materials and intermediate products, the manufacture of motor vehicles is currently confronted with more obstacles on a global scale. However, in sub-Saharan Africa and the least developed nations, the proportion of medium- and high-technology manufacturing in overall manufacturing was just 21.4% and 10.5%, respectively, in 2019, compared to 47.7% in Europe and North America.

#### 4. Methods

1) Policy commitments towards financing for R&D, especially in developing economies, need to continue and be strengthened. The quick advancement of COVID-19 vaccinations serves as an example of the vital importance of innovation in unanticipated catastrophes. Global R&D spending increased from \$1.4 trillion in 2010 to \$2.2 trillion in 2018. As a result, the proportion of global GDP invested in R&D increased from 1.61 per cent in 2010 to 1.73 per cent in 2018.

Globally, the number of researchers per million people increased from 1,022 in 2010 to 1,235 in 2018. The pandemic is not the only cataclysm the world is facing, and it will not be the last.

**Research and development expenditure as a proportion of GDP, 2010 and 2018 (percentage)**



2) There is a need to support sustainable supply chains so that developing country producers get a fair deal and scarce resources are preserved. This means setting global environmental and social standards, alongside knowledge and technology transfer to improve quality and add value. Supply chains are essential to trade, and trade is essential to job creation.

3) There must be large scale implementation of ISID. Inclusive and sustainable industrial development (ISID) is the primary source of income generation, allows for rapid and sustained increases in living standards for all people, and provides the technological solutions to environmentally sound industrialization.

## **5. Results**

### **5.1. Links with other Sustainable development goals**

The Global Goals are inherently linked to one another. The accomplishment of one Goal would help or hinder the accomplishment of others. By recognizing and resolving these links, businesses can develop comprehensive and systemic solutions that accelerate advancement and reduce negative effects. Like every other SDG, SDG 9- "Industries, Innovation, & Infrastructure" has a direct impact on the other 16 SDGs.

1) The achievement of SDG 9 can contribute to SDG 8- decent work, and economic growth.

2) SDG Goals 11(Sustainable Cities and Communities) and 9 can be pursued together as sustainable infrastructure is essential to the creation of sustainable cities.

3) Developing more sustainable industrial processes and products through R & D investments will further enhance efforts to improve sustainability in the production of goods and services (SDG Goal 12- Responsible Consumption and Production).

4) Sustainable infrastructure can support more productive agricultural practices, greater access to WASH (Water, Sanitation and Hygiene), and clean energy. (Goal 2- Zero Hunger, Goal 6- Clean Water and Sanitation, and Goal 7- Affordable and Clean Energy).

5) Vulnerable populations' ability to adapt to climate change is increased by resilient infrastructure (Goal 13- Climate Action)

6) To reduce hunger by helping businesses from farm to fork. This means sharing knowledge and technology to help reduce post-harvest losses and increase food security. Agribusiness can generate job opportunities for young people. (Goal 2- Zero Hunger and Goal 8- Decent Work and Economic Growth).

7) These partnerships and tools are indicative of the importance that organizations and governments are placing on innovation and digital connectivity, and on advancing the SDGs, particularly SDG 9. (Goal 17- Partnership for the Goals)

## **6. Conclusion**

Sustainable industrialization, resilient infrastructure and innovation are the necessary foundations for a prosperous and tenable economy and world. There has been significant improvement in technology and innovation. The development and production of vaccines against COVID- 19 in record time is an example of the progress in technologies and innovation. Despite the rapid economic progress and improvement over past decades, many nations still lack key infrastructures. The world right now is faced with an array of challenges, such as the economic crisis, and climate catastrophe. In accordance, industries and infrastructures need to be modified to face future challenges. This can be done through the implementation of ISID, modifying and developing policies, supporting sustainable supply chains, etc.

Without technology and innovation, industrialization will not happen, and without industrialization, development will not happen. Hence, they are the key to finding lasting solutions to both economic and environmental challenges, such as increased resource and energy-efficiency.

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POWERPOINT



## Authors



Anahad Kaur Hanspal



Tanaya Sharma



Zainab Riza

## About Sustainable Development Goal (SDG) 9

- Established in 2015, it aspires to advance sustainable industrialization, provide a resilient infrastructure, and encourage innovation.
- Economic growth, social development, climate action and the global standard of living are all dependent, either directly or indirectly, on the achievement of Goal 9.

**Hence, SDG 9 is integral to all dimensions of inclusive and sustainable development.**

# REVIEW OF THE ISSUE

## Effect due to Covid 19 pandemic

Effect of COVID- 19 Pandemic on manufacturing industries.

## Means of Accomplishing Goals

Methods through which goals are accomplished

01

02

03

04

## Outcome Goals

Targets which have defined intended results to help accomplish aims of the SDG goal

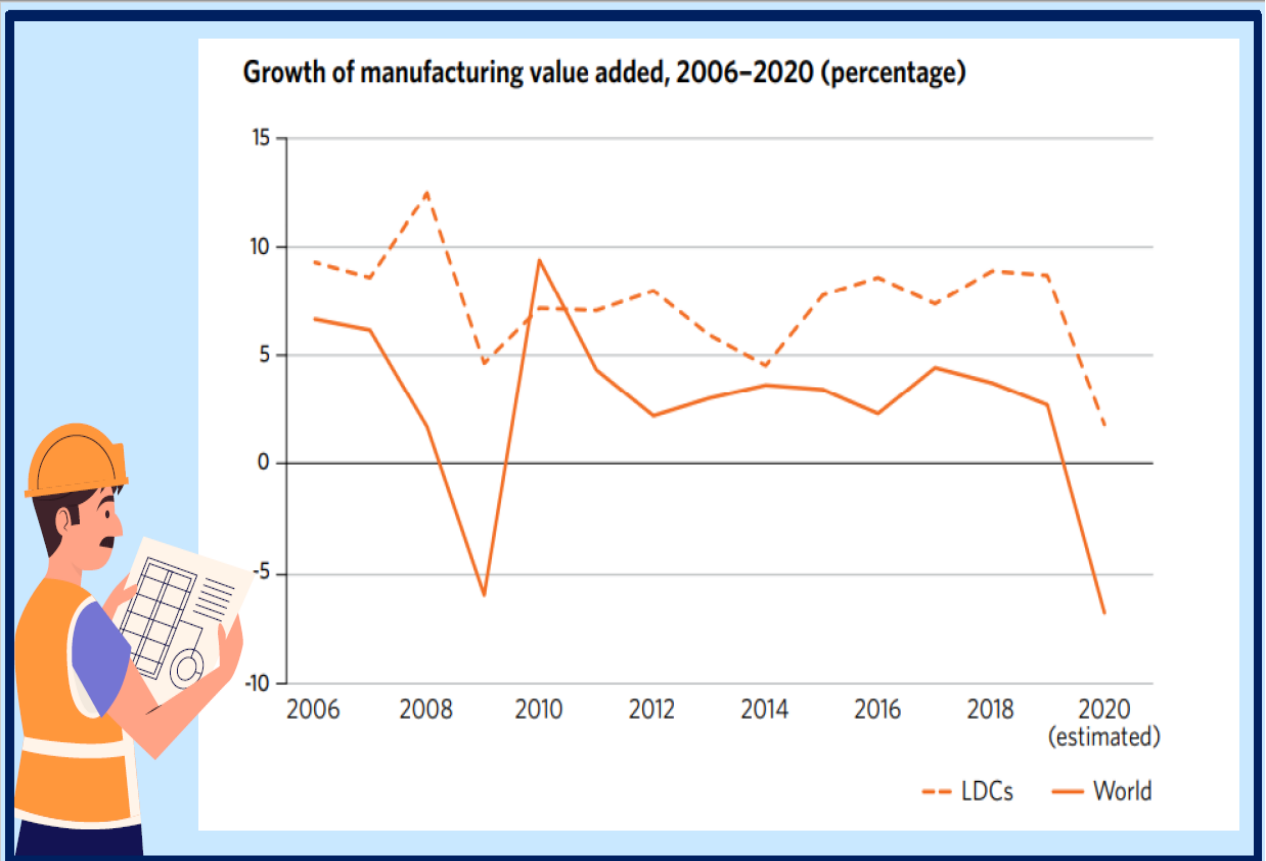
## Progress

Progress in SDG 9 throughout recent years

01

Effect of the Covid-19 Pandemic





# 02

## Outcome goals

# Outcome goals



9.1

DEVELOP SUSTAINABLE, RESILIENT AND INCLUSIVE INFRASTRUCTURES



9.2

PROMOTE INCLUSIVE AND SUSTAINABLE INDUSTRIALIZATION



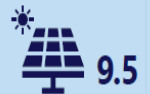
9.4

UPGRADE ALL INDUSTRIES AND INFRASTRUCTURES FOR SUSTAINABILITY



9.3

INCREASE ACCESS FINANCIAL SERVICES AND MARKETS



9.5

ENHANCE RESEARCH AND UPGRADE INDUSTRIAL TECHNOLOGIES

# 03

## Means of Accomplishing Goals

## Means of accomplishing goals



9.A

FACILITATE SUSTAINABLE  
INFRASTRUCTURE  
DEVELOPMENT FOR  
DEVELOPING COUNTRIES



9.B

SUPPORT DOMESTIC  
TECHNOLOGY  
DEVELOPMENT AND  
INDUSTRIAL  
DIVERSIFICATION

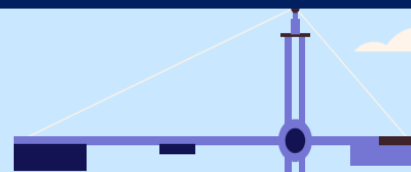


9.C

UNIVERSAL ACCESS TO  
INFORMATION AND  
COMMUNICATIONS  
TECHNOLOGY

04

Progress

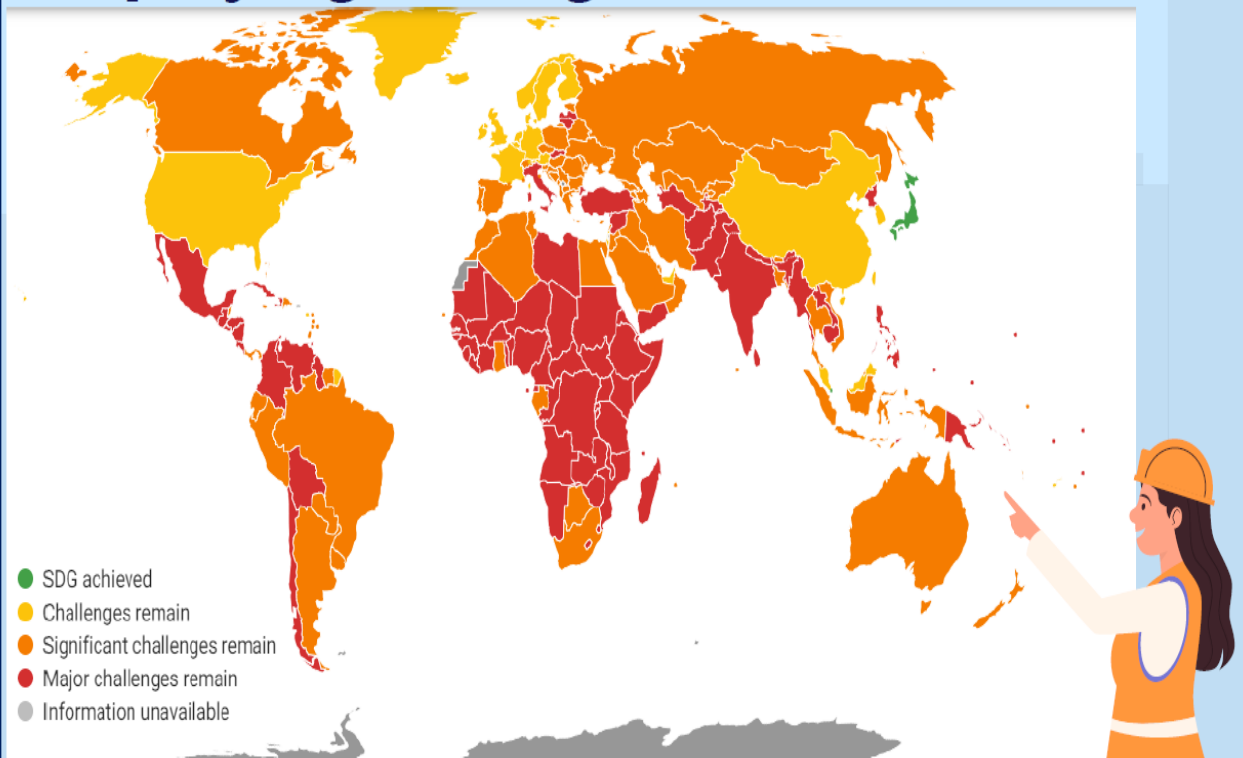


# Progress

- In 2021, the industrial sector showed signs of recovery after the pandemic, although the return has been unequal among nations, with stagnation in the least developed states.
- In the manufacturing sector, the pandemic had a detrimental impact on about one in three employment. Higher-technology industries performed better and recovered quicker, demonstrating the significance of technological innovation in achieving Sustainable Development Goal 9.
- Investment in research and development globally – as well as financing for economic infrastructure in developing countries has increased.
- An impressive progress has been made in mobile connectivity with almost the entire world population (97%) living within reach of a mobile cellular signal. Between 2015 and 2021, 4G network coverage doubled to reach 88% of the world's population.

# Displaying Ratings

Ratings provide a visual representation of each country's performance on the SDG-9.



# COUNTRY EFFORTS

## FINLAND

Population using the internet (%)	96.5	2020	● ↑
Mobile broadband subscriptions (per 100 population)	138.0	2019	● ↑
Logistics Performance Index: Quality of trade and transport-related infrastructure (worst 1–5 best)	4.0	2018	● ↑
The Times Higher Education Universities Ranking: Average score of top 3 universities (worst 0–100 best)	59.7	2022	● ●
Articles published in academic journals (per 1,000 population)	5.2	2020	● ↑
Expenditure on research and development (% of GDP)	3.0	2018	● ↑
Researchers (per 1,000 employed population)	14.9	2019	● ↑
Triadic patent families filed (per million population)	56.1	2019	● ↑
Gap in internet access by income (percentage points)	9.8	2020	● ↑
Female share of graduates from STEM fields at the tertiary level (%)	34.2	2017	● ↑

## SWEDEN

Population using the internet (%)	94.5	2020	● ↑
Mobile broadband subscriptions (per 100 population)	128.8	2019	● ↑
Logistics Performance Index: Quality of trade and transport-related infrastructure (worst 1–5 best)	4.2	2018	● ↑
The Times Higher Education Universities Ranking: Average score of top 3 universities (worst 0–100 best)	64.7	2022	● ●
Articles published in academic journals (per 1,000 population)	4.3	2020	● ↑
Expenditure on research and development (% of GDP)	3.3	2018	● ↑
Researchers (per 1,000 employed population)	15.1	2019	● ↑
Triadic patent families filed (per million population)	84.9	2019	● ↑
Gap in internet access by income (percentage points)	15.1	2020	● ↓
Female share of graduates from STEM fields at the tertiary level (%)	35.5	2017	● ↑

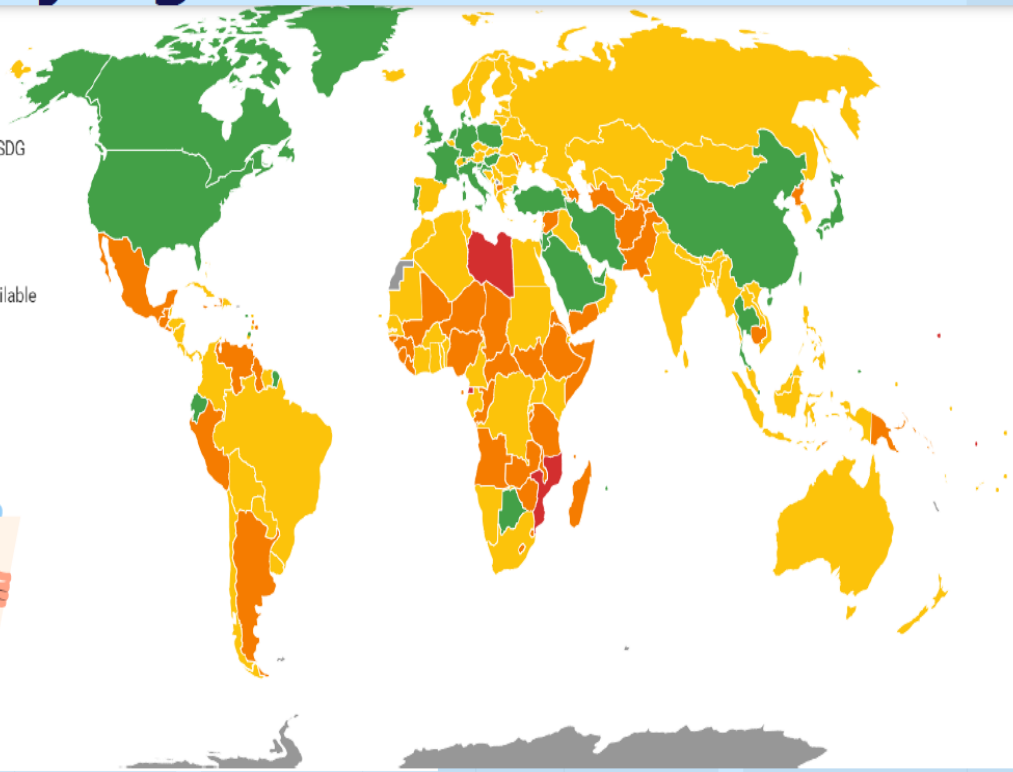
## DENMARK

Population using the internet (%)	96.5	2020	● ↑
Mobile broadband subscriptions (per 100 population)	138.0	2019	● ↑
Logistics Performance Index: Quality of trade and transport-related infrastructure (worst 1–5 best)	4.0	2018	● ↑
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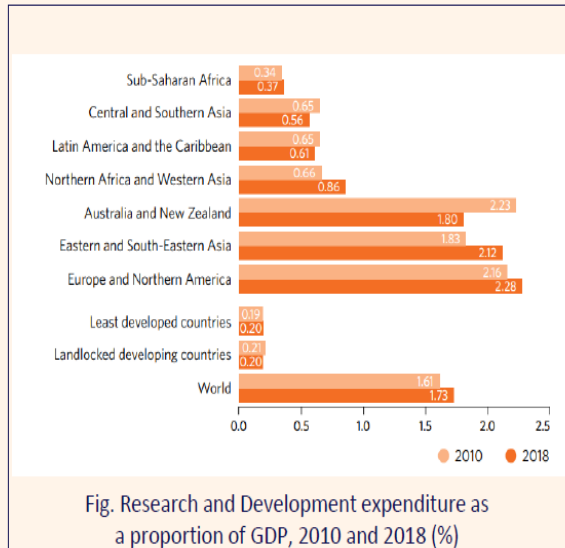
# Displaying Trends

Trends indicate whether a country is on track to achieve the SDG-9 by 2030.

- On track or maintaining SDG achievement
- Moderately improving
- Stagnating
- Decreasing
- Trend information unavailable



# Methods of implementing SDG 9



1. Policy commitments towards financing for R&D need to continue and be strengthened.
2. Need to support sustainable supply chains so that developing country producers get a fair deal and scarce resources are preserved.
3. There must be large scale implementation of ISID.

## Links with other Sustainable development goals

The global sustainable goals are inherently linked to one another. The accomplishment of one goal would help or hinder the accomplishment of others. Like every other SDG, SDG 9- "industries, innovation, & infrastructure" has a direct impact on the other 16 SDGs, especially the following:

- **SDG-2-** zero hunger
- **SDG-6-** clean water and sanitation
- **SDG- 7-** affordable and clean energy
- **SDG-8-** decent work and economic growth
- **SDG- 11-** sustainable cities and communities
- **SDG-12-** responsible consumption and production
- **SDG-13-** climate action
- **SDG 17-** partnership for the goals



# **TEAM -IV**

**Ancy Siya, Aarya Rajput, Ananya Nair**

**School- Jain Heritage A Cambridge School, Kondapur**

**Topic- Responsible Consumption and Production**



## **ABSTRACT**

For centuries, building a dynamic economic foundation seemed like a paradoxical idea. Progressively it became achievable, and invincible. Blinded by conquest, the world crippled to a virulent contagion - consumerism. Subjugated by the plague, hyper-inflation and famines – befell humanity. If we persisted through our current route, it seemed inevitable that we would eventually need the resources of three planets to sustain life. The prevalence of inhumane shams and extortion of resources ultimately led to a ticking time bomb chained to our planet, implanted by us. Well educated with its eradication - by effectuating an imminent prudent caliber to invest, prioritize, and embrace sustainable-ingenious change; we remain stagnant as armaments pierce through life. Nevertheless, the true beauty of humanity is the fact that we can always right our wrongs before the clock ticks out. Though meeting the 2030 goal may seem onerous, if we were to accomplish our sustainable potential, we would surmount.

Keywords: Paradoxical; Virulent; Consumerism; Armaments

## **RESEARCH ARTICLE**

### **Introduction:**

Sustainable development is essentially an initiative that facilitates us to attain sustainability in any resource-using activity. Furthermore, it necessitates both immediate and intergenerational repetition. The Sustainable Development Goals, also known as the Global Goals, are a sequence of 17 interconnected international objectives that are designed to act as a "universal framework for peace and prosperity for people and the planet, now and into the future." The SDGs are an urgent call to action for industrialized and developing nations to join forces in a global partnership. Among these SDG's, the topic of focus is Goal 12 i.e., Responsible Consumption And Production (Sustainable Consumption and Production). One of the three primary objectives of and prerequisites for sustainable development, along with eradicating poverty and administering natural resources to promote economic and social growth, was defined as sustainable consumption and production. The objective encourages participation from all parties, especially the commercial sector, in sustainable development. Noteworthy advances have been made in raising awareness on various platforms, fund provisions, stricter laws and regulation in maintenance of ethical production and consumption and many such issues on a global scale, as we describe in this research article.

This aim is one that holds a massive amount of weight as we're not primarily talking about the reduction of the impact of imprudent production and consumption methodologies on the environment but also on various other aspects like political, social, technological and legal features of the society. This research article, to a large extent, tries to explain the concept of consumerism and its drastic, virulent effects on the community from the above mentioned regard.

## **THE ENVIRONMENTAL, SOCIAL AND LEGAL ASPECTS OF GOAL 12:**

The depletion of natural resources is the most devastating drawback of consumerism. Naturally, when demand rises, so does production, which results in expanded land use, forest destruction, and pollution release. In other words, over-consumption affects the environment explicitly. Rather than ceasing consumption altogether, we must use resources in moderation. We are also experiencing devastating effects on the planet's water supplies, as more and more water stores are used up or diverted as a part of intensive farming procedures. Superfluous and exorbitant usage of resources only contributes to the death of the home we call earth. Approximately 3.5 billion people belong to the consumer class of today, as in, the set of people who view accumulation of unnecessary items as the highest luxury in life. These 3.5 billion indirectly contribute to the 12 million tons of garbage entering the ocean each year, turning our water bodies into gigantic landfills. Most of the aggravated consumption of resources is performed by the rich, fully-developed countries of the world. Countries such as the USA and Germany consume articles ranging from food to clothing in excessive amounts and the brunt of this overindulgent consumption is faced by the developing countries of today. The clothing donated by charities in developed countries are often not completely sold out and due to this particular reason they are sold to third-world countries where 87% of that clothing is either incinerated or dumped in a toxic landfill.

## **THE PROBLEM WITH CONSUMERISM:**

Happiness = Material goods. Consumption is variable in different countries. It is higher in primarily developed countries, but it doesn't necessarily provide happiness. We are led to believe that growing the economy (buying more for individuals - green tech, sustainable clothing) is how we stop climate change but this completely counteracts the work being done to reduce emissions. Growth may lead to expansion of new sustainable innovations but it also leads to the expansion of fossil fuel-intensive industries. 1% growth in GDP leads to a 0.5% - 0.8% increase in carbon emissions. If we continue to grow by 3% per year, by 2043, the global economy will be twice as large as it is now.

## **FAST FASHION PROBLEM?**

Fast fashion is a prime factor in consumerism and its after effects. Companies such as Zara and Forever21 are examples of famous fast fashion establishments. The method they use to process clothing is mass-production which not only exploits its workers but also the ecosystem. The industries they are affiliated with poison nature with their lethal outputs. One such example is that of the Citarum river in Indonesia, also known as the most polluted river in the world. Villagers living in and around the area are highly dependent on the river for water, not only for the washing of domestic materials, but also for human

consumption. Due to the river being highly malignant, children and adults are getting diagnosed with symptoms of diseases in increasing numbers. In this way, multiple corporations are defiling the surface of our planet. The depletion of ecological resources is painstakingly obvious yet is often ignored due to multinational corporations only forcing special emphasis upon 'the individual's mistakes'. By turning the attention away from their own extortions and collusion in fossil fuel-intensive activities and pushing the population to feel guilty and covertly coercing them into buying overpriced 'sustainable goods' in order to reduce 'personal carbon footprint'. Although reducing carbon footprint is essential for further development, diverting the people from the discreet crimes committed by the previously mentioned mnc's is a crime against humanity itself. An example of such an incident, would be of the oil giant - British Petroleum. By starting the trend of focusing on 'personal carbon footprint' they hid their own involvement in climate change. Hurting the sentiments of the people as well as mother nature herself, establishments such as these have committed atrocious felonies.

#### **THE POLITICAL ASPECT OF GOAL 12:**

Political consumerism, or the use of one's purchasing power to express political views and affect change in the marketplace. As political consumers, people can boycott products, companies, or services for undesirable practices. They can also utilize labeling schemes and shopping guides to deliberately purchase products or services that are consistent with their views. A very fitting example: Crude oil is the most valuable commodity by trading turnover and one of the most widely used. In a world with many consumers and producers, a single country or organization can no longer "control" crude oil prices set in highly liquid global markets. But that wasn't always the case. The Organization of the Petroleum Exporting Countries (OPEC) was created to protect the interests of Mideast crude exporters in a market - dominated and fixed - by the U.S.A, the world's largest consumer and producer at the time . Arab members of OPEC would demonstrate oil exporters' growing power in 1973 with a damaging oil embargo targeting the U.S. and other supporters of Israel in the West. The fortunes of OPEC and the U.S. have continued to fluctuate in the years since with oil booms and busts, and the resurgence of domestic U.S. output based on advances in hydraulic fracturing. The development of new energy production in the North Sea, Canadian oil sands and off the coasts of Africa, Australia and the Americas has limited the global sway of OPEC and U.S. producers alike, amid rapid consumption growth in China, India and other developing countries. The price fluctuations in market, directly led to irresponsible handling of extraction of crude oil. When OPEC's prices went low, they would sell more and thus would produce more. And the U.S. prices still being high, the barrels would not sell, leaving them with a surplus of crude oil stock in hand. When the market turned,

and the U.S sold for lower costs, they extracted more and had excessive buyers. And OPEC would be left with overabundant produce and no buyers, leading to sustainability and resource extortion of crude oil. As every factor has its own pros and cons, the pros of political consumerism can stand as a feature to achieving absolute sustainability if used suitably.

### **THE TECHNOLOGICAL ASPECT OF GOAL 12:**

Meeting sustainable development goals will require action on a number of fronts, including harnessing and maximizing the potential of technological innovation. Examples of such technologies include carbon capture and storage systems, more efficient irrigation methods, essential medicines, household water purification devices, and manufacturing processes that minimize waste and pollution. While some needed innovations can be fostered through existing public and private mechanisms at the national level, such efforts have proven inadequate to meet global sustainability goals, particularly with regard to meeting the needs of the world's poorest, most vulnerable or marginalized in current and future generations. Too often, technologies are either not developed at all for lack of a sufficiently profitable market, or if developed, are not accessible or well-adapted to end-user needs. We need to realize the potential of science and technology to meet the most pressing sustainable development challenges.

### **SURVEY - WE WANT CHANGE:**

As a part of an initiative for the research article, as well as inquisitive curiosity, we conducted a survey on the very topic, 'Responsible consumption and production' (the link to the survey form is attached to the 'Survey link' section of this paper for reference and verification purposes). Our aim of the survey was to find out about:

- How many people were aware of the term 'Responsible Consumption';
- Where they first heard about it;
- Where they would like to learn more about it;
- What would be the actions/responses of the population to certain given circumstances;
- How likely they were to go with sustainable purchases;
- And, their opinions on the efforts that should be put in by the authorities.

This survey was conducted amongst various levels: Grade VII, Grade VIII, Grade IX, and Grade X students and the teachers of Jain Heritage A Cambridge School, Kondapur; Our findings from the survey were quite interesting. The different levels of participants had circumstantial and diverse answers.

❖ Awareness of 'Responsible Consumption': Of all the responses collected, 73.8% were well aware of the term, whereas, 23% were not aware of the term, and 3.2% were not sure. The majority of the students surveyed in Grade VII and VIII, were not familiar with the term 'Responsible Consumption' and most had heard it for the first time. Grade IX and X as well as the teachers had a positive response to the knowledge of the term.

❖ Awareness platform: Of 73.8% participants who had heard of the term, 18.2% had first come across it at school, 9.1% on the television, 27.3% through newspapers, 6% through friends/family/relatives, 43.6% via the internet, and 1.8% through some other source.

❖ Preferred Awareness platform: Of all the participants, 55% were interested to learn more about the topic at school, 0.4% on the television, 0% through the newspapers, 5.7% through friends/family/relatives, and 38.9% via the internet.

❖ Situational responses on stand of sustainability while shopping: Of all the situations given, the participants were asked to rate their course of action ranging from always following the principle to never following it (options given: always, often, sometimes, rarely, and never). Considering all the principal situations given (e.g 'Do you avoid discarding things that can be repaired', etc...) The majority of the participants (59%) went with the options 'often' and 'sometimes'. There was a minority of about 1.7% who 'always' followed the principle/idea. 39.3% of the responses were 'rarely', and 'never'.

❖ Opinion based reviews: When asked what the participants believed were the main causes of water wastage in our city, 44.7% answered poor infrastructure, 7.3% answered bad irrigation, 0% answered flooding, and 48% answered excessive showering. When asked what about the food item the surveyed participant as an individual wastes the most, 66.7% answered 'fruits and vegetables', 5% answered 'dairy products', 16.7% answered 'sweets', and 11.6% answered 'herbs and spices'.

Based on all the observations, we could conclude that:

→ Awareness amongst youngsters - the next generation - on the topic of 'Responsible consumption' has to be taken as a serious initiative. And their knowledge and contribution to the cause of sustainability is crucial.

→ The initiative of bringing up awareness can be done in schools, or via the internet as the two sources are the most preferred amongst the surveyed participants.

→ Once there is awareness in the people, there will be an apprehensive attitude in buyers towards the environment, thus making them ethical consumers.

Some of the major suggestions given by the participants:

→ Major platforms for donation centers can be provided in every district and be made more open for the public use.

→ The concept of renting items should be brought back to trend to reduce product wastes.

→ Responsible consumption can be fostered in our day to day lives by small efforts that make a big change.

Such efforts are sure to drive our society forward in becoming self sustainable. If such schemes and maneuvers are strictly inculcated to our community then to attain our 2030 and 2050 goal is achievable. (The survey was conducted offline for students, and the data collection and calculation was done manually - chances of errors by point calculations.)

Survey Link:

Survey form link: <https://forms.gle/bwjDtkJMDh2bfXGX9>

Survey data link (Teacher responses)

[https://docs.google.com/spreadsheets/d/1wCh8n-gpkiEKZaWbfOxA9d5\\_cQCcD6eptXdvljo9zs/edit?usp=sharing](https://docs.google.com/spreadsheets/d/1wCh8n-gpkiEKZaWbfOxA9d5_cQCcD6eptXdvljo9zs/edit?usp=sharing)

### **CONCLUSION:**

Consumerism dictates societal demands, which boosts industrial production, consequently strengthening the economy and increasing job opportunities. The report will be released in 2023, when the globe approaches the halfway point of the 2030 Agenda and tries to rebuild in the aftermath of the Covid-19 pandemic. Practical solutions that can expedite progress on the SDGs will be desperately needed in this setting. The emphasis will be on driving transformation through key entry points while also enabling signs to support this acceleration. The transition to sustainable consumption and production patterns has already begun in many parts of the world, but it urgently needs to be expedited and scaled up through and other large-scale and long-term efforts and policies. The real beauty of humanity is that we can always make amends before the clock strikes twelve. Though attaining the 2030 objective may appear daunting, if we achieve our sustainable potential, we will triumph.

## **COPYWRITER CONSENT :**

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(<https://www.nationalgeographic.com/environment/article/consumerism-earth-suffer>)

Energy and Environment: Challenges and Opportunities - OPEC

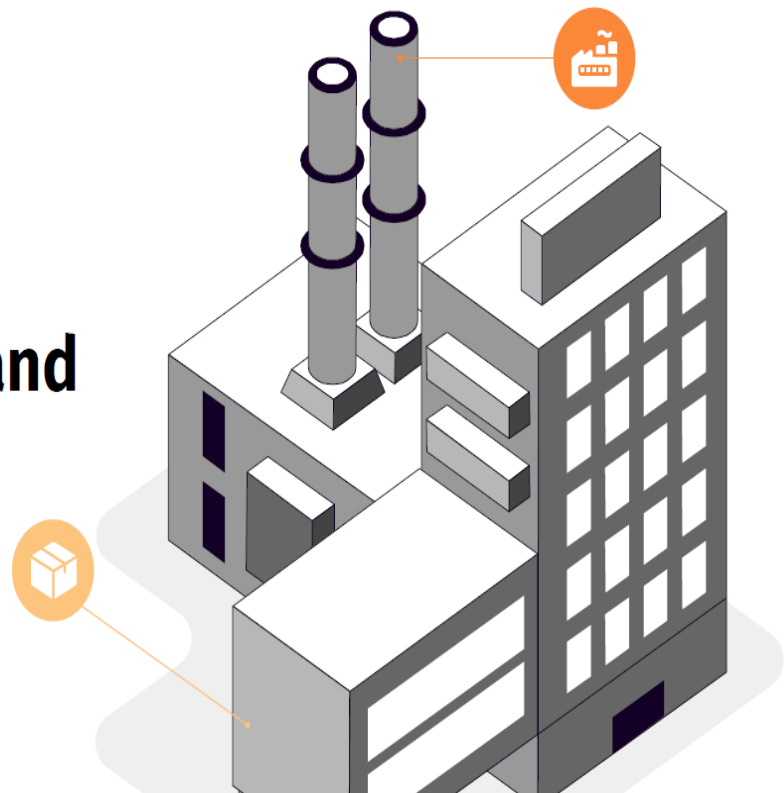
([https://www.opec.org/opec\\_web/en/967.htm](https://www.opec.org/opec_web/en/967.htm))

Oil producing country: An overview

(<https://www.sciencedirect.com/topics/engineering/oil-producing-country>)

POWERPOINT

## **Goal 12 - Responsible consumption and production**



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Change

08

Conclusion



# INTRODUCTION

01

Sustainable development is essentially an initiative that facilitates us to attain sustainability in any resource - using activity.

02

The Sustainable Development Goals, are a sequence of 17 interconnected international objectives designed to aid in a sustainable world.

03

One of the three primary objectives of and prerequisites for sustainable development, along with eradicating poverty and administering natural resources to promote economic and social growth, was defined as sustainable consumption and production.

04

The objective encourages participation from all parties, especially the commercial sector, in sustainable development.



# THE ENVIRONMENTAL ASPECT



## POLLUTION

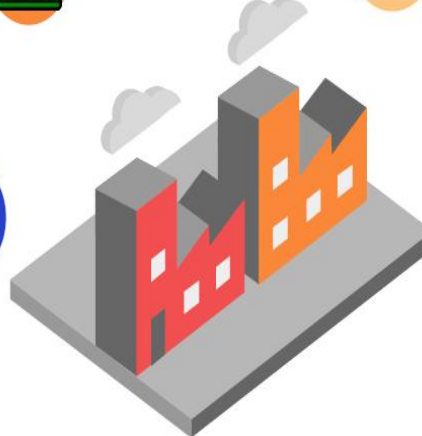


EXPANDED LAND USAGE

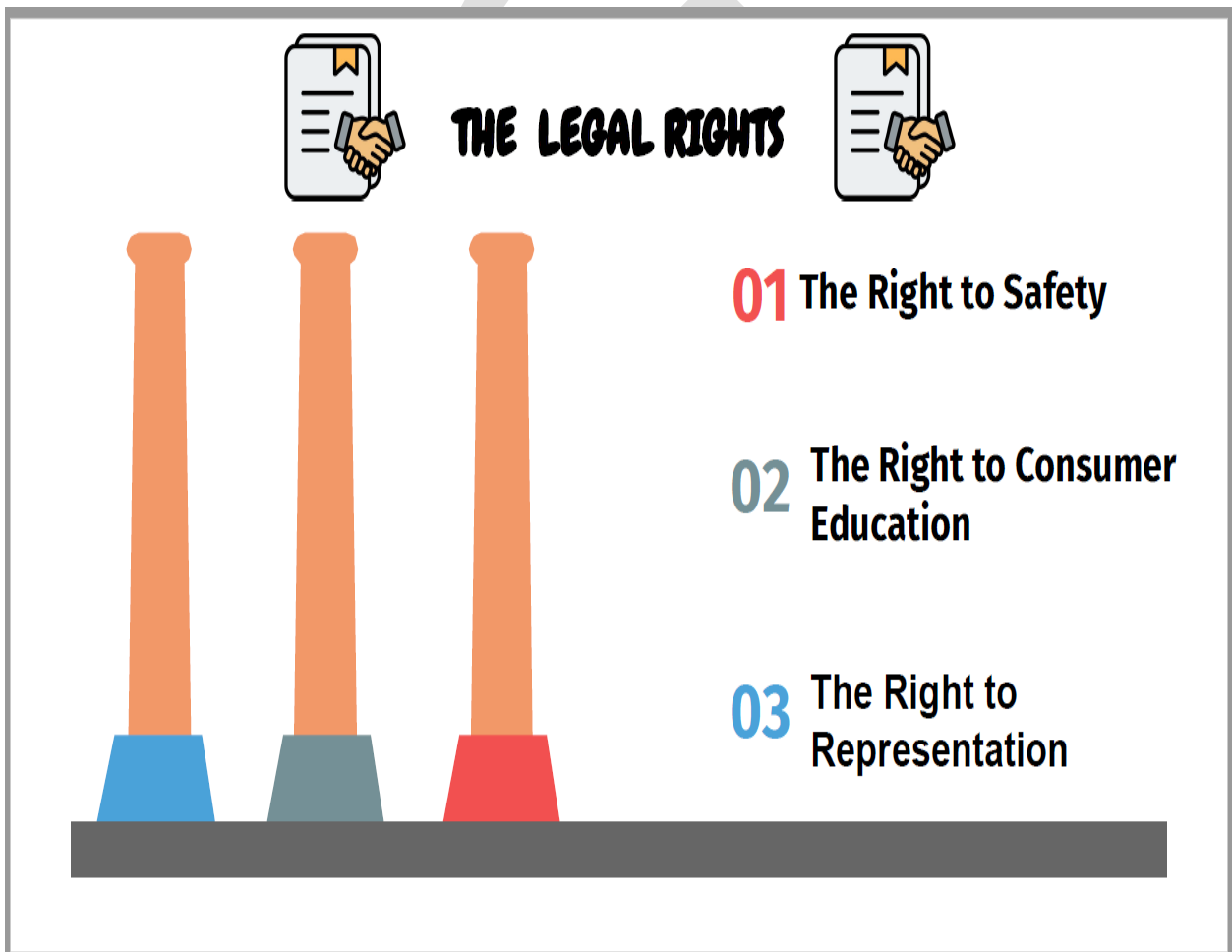
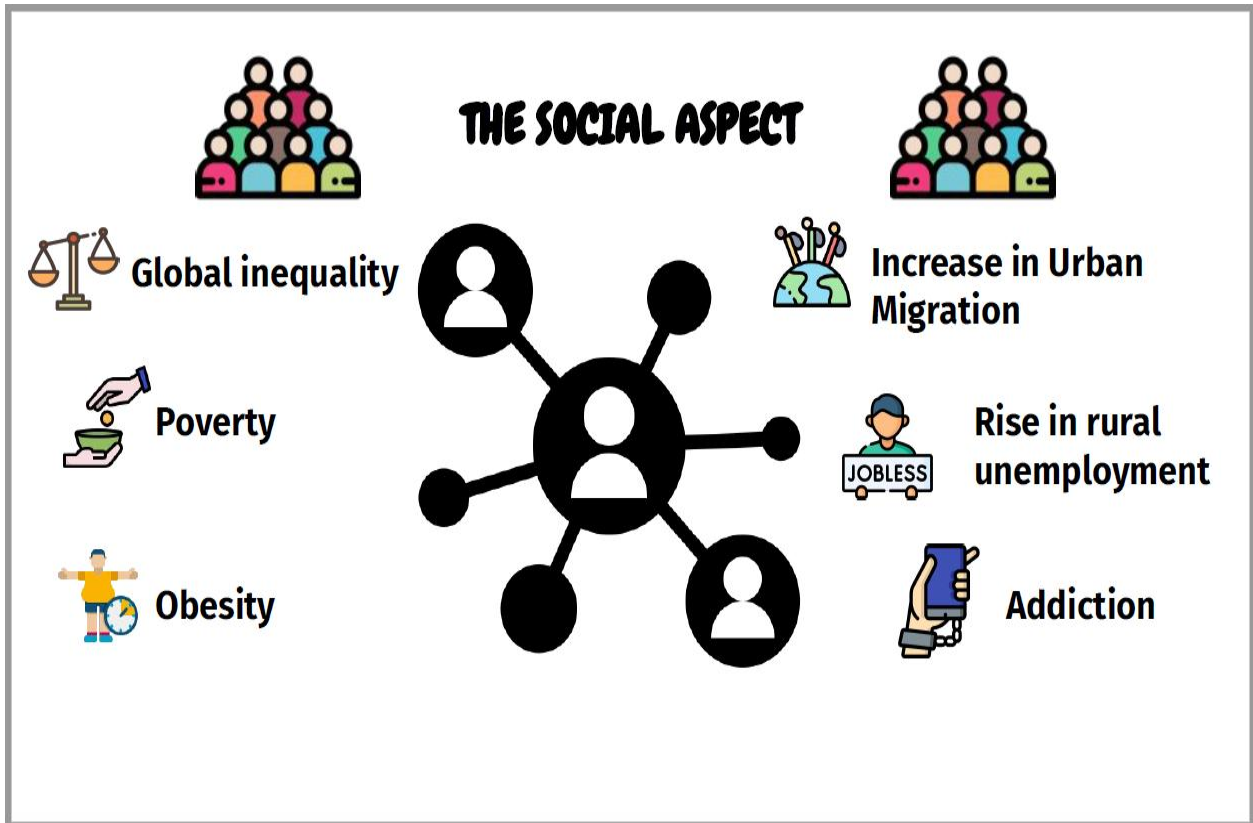


FAMINES

DEFORESTATION



CLIMATE CHANGE





## PROBLEMS WITH CONSUMERISM



Happiness = Material goods.



Consumption is variable in different countries. It is higher in primarily developed countries, but it doesn't necessarily provide happiness.



We are led to believe that buying 'sustainable goods' is how we stop climate change



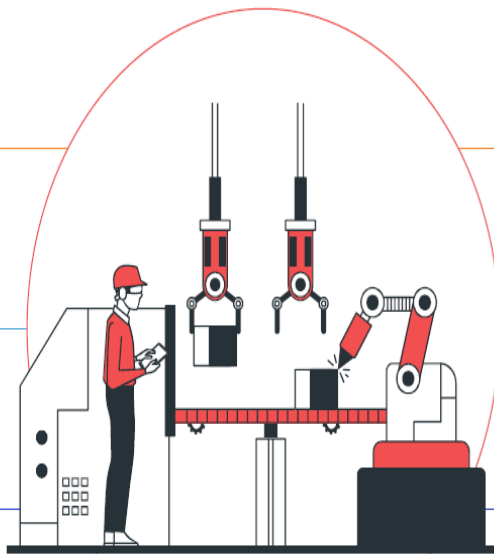
Growth may lead to expansion of new sustainable innovations but it also leads to the expansion of fossil fuel-intensive industries.



If we continue to grow by 3% per year, by 2043, the global economy will be twice as large as it is now.



## FAST FASHION PROBLEM?



01

Fast fashion is a prime factor in consumerism and its after effects. Companies such as Zara and Forever21 are examples of famous fast fashion establishments.

02

The method they use to process clothing is mass-production which not only exploits its workers but also the ecosystem. The industries they are affiliated with poison nature with their lethal outputs.

03

The depletion of ecological resources is painstakingly obvious yet is often ignored due to multinational corporations only forcing special emphasis upon 'the individual's mistakes'



## THE POLITICAL ASPECT



### Assembly

Political consumerism, or the use of one's purchasing power to express political views and affect change in the marketplace.



### Customizing

As every factor has its own pros and cons, the pros of political consumerism can stand as a feature to achieving absolute sustainability if used suitably.



### Production

As political consumers, people can boycott products, companies, or services for undesirable practices.



### Quality

The development of new energy production in various places has limited the global sway of OPEC and U.S. producers alike, amid rapid consumption growth in China, India and other developing countries.



## THE TECHNOLOGICAL ASPECT



01

Meeting sustainable development goals will require action on a number of fronts, including harnessing and maximizing the potential of technological innovation.

02

We need to realize the potential of science and technology to meet the most pressing sustainable development challenges.

## Our Survey



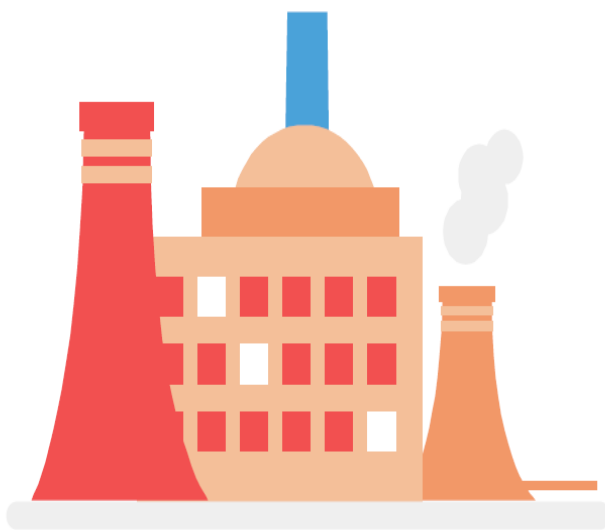
 **Our Aim**

 **Observation**

 **Conclusion**

## Our Aim

To find out:



**01**

How many people were aware of the term 'Responsible Consumption'?



**02**

Their course of action/response under certain circumstances



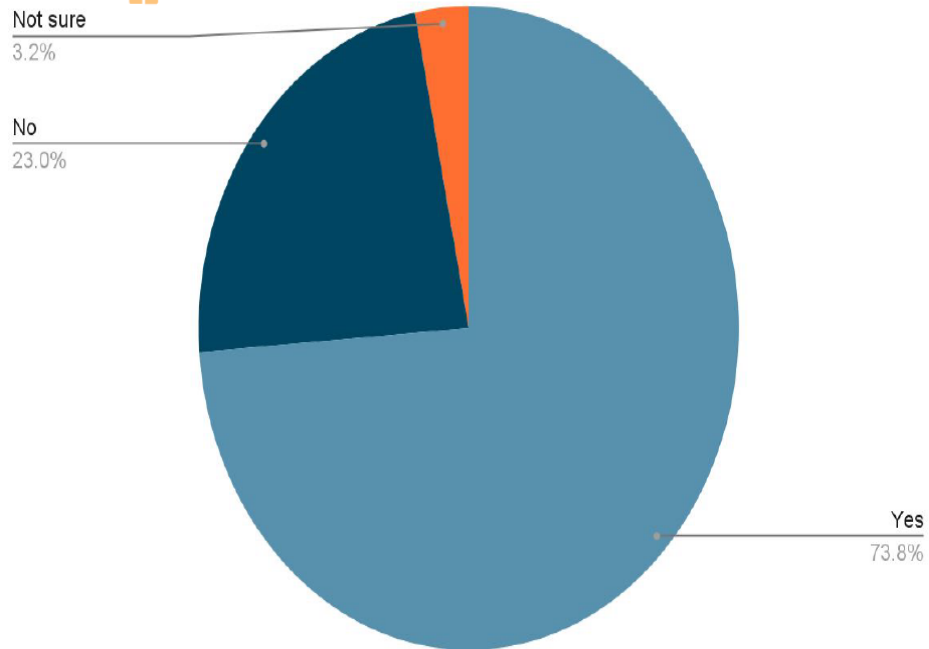
**03**

Their opinions on certain efforts that should be put in by the authorities.

# Observations



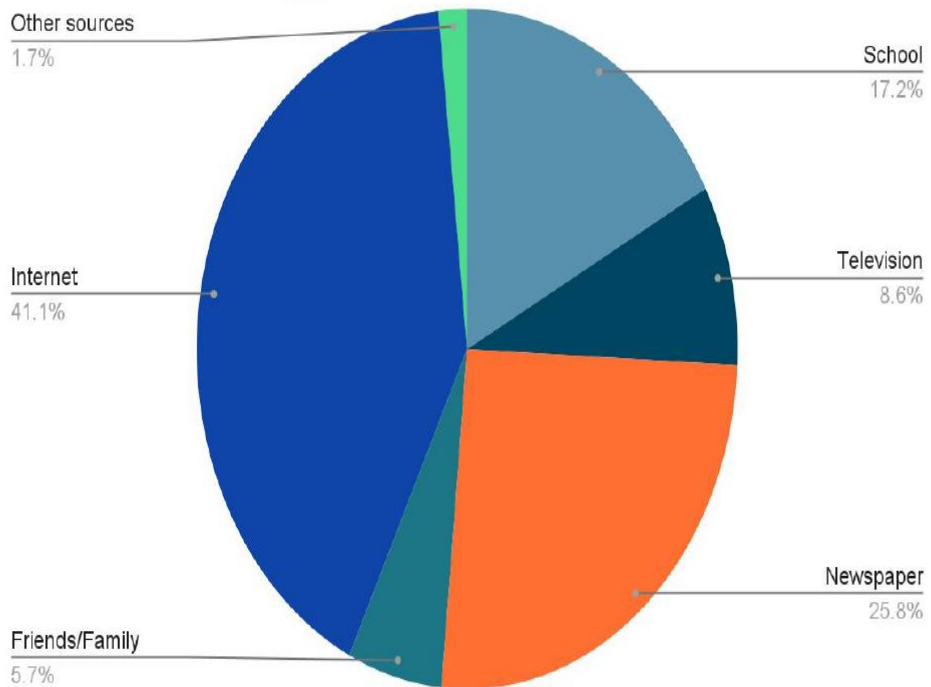
## Awareness of 'Responsible consumption'



# Observations

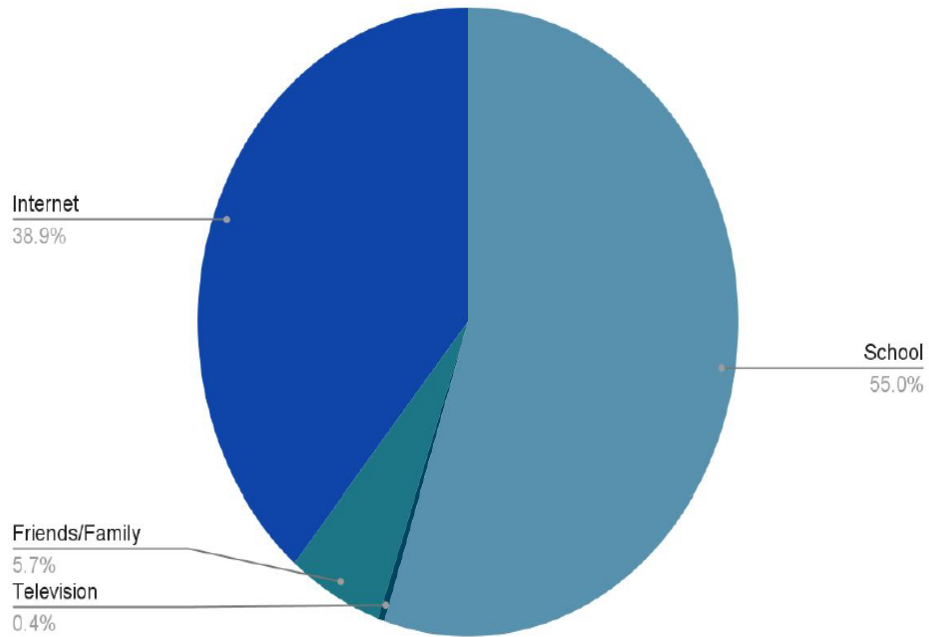


## Awareness platforms



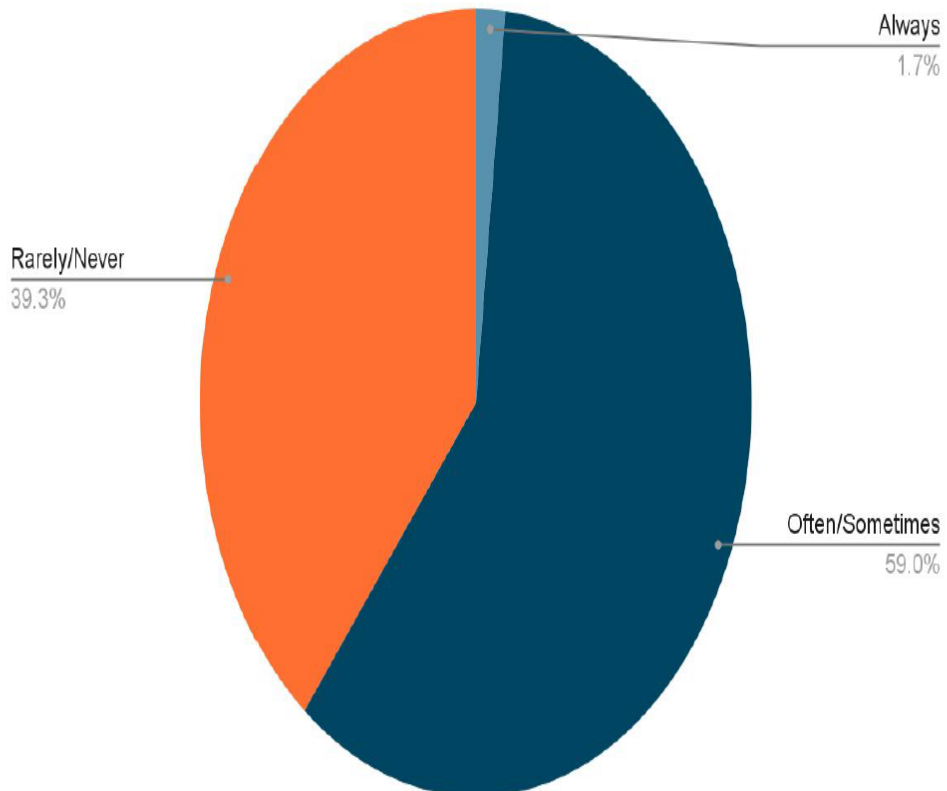
# Observations

## Preferred awareness platforms



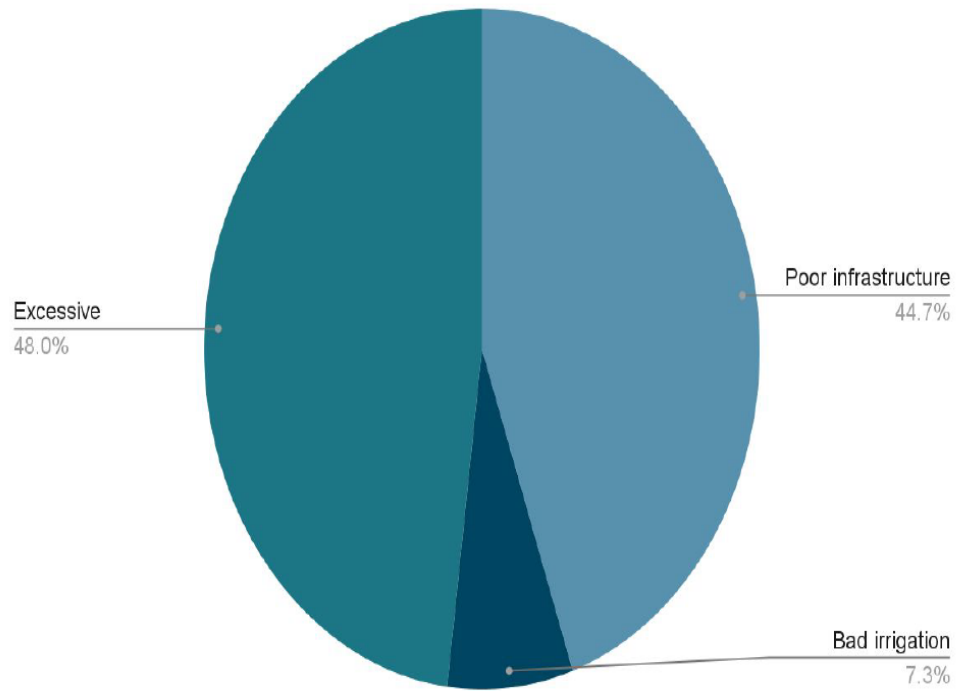
# Observations

## Situational responses



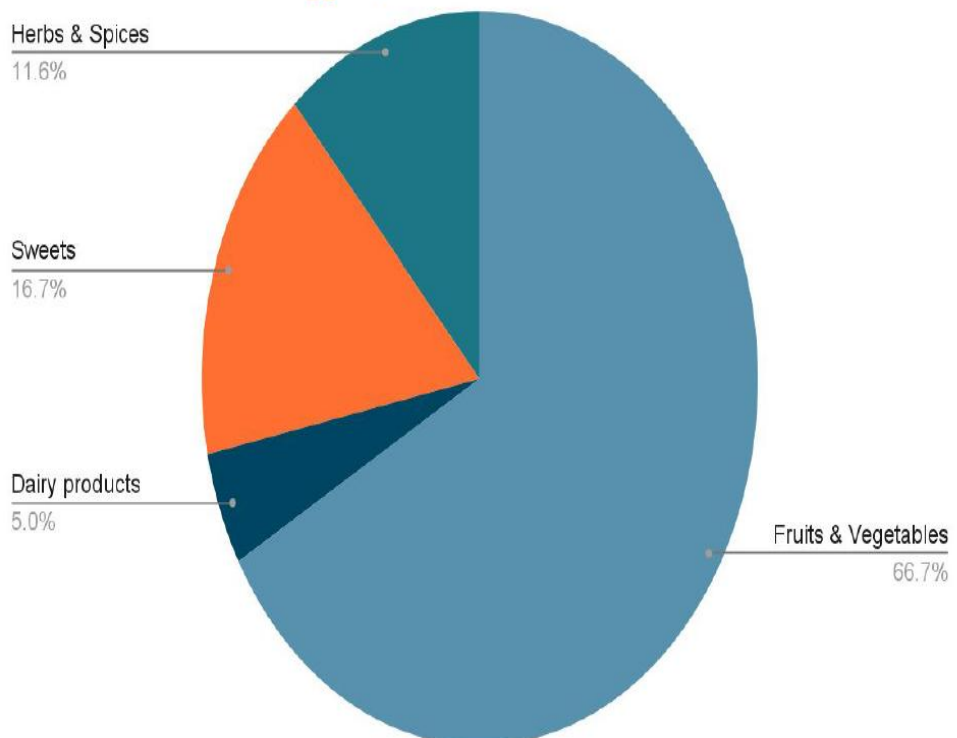
# Observations

 Opinion based reviews



# Observations

 Opinion based reviews





## Conclusions made on observations

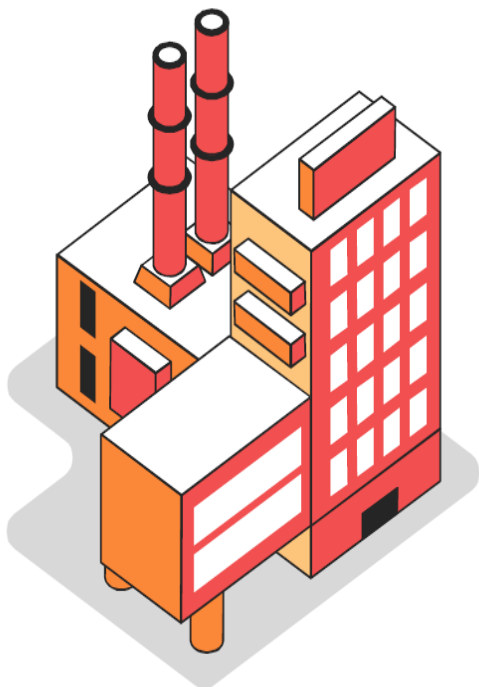


Awareness amongst youngsters - the next generation - on the topic of 'Responsible consumption' has to be taken as a serious initiative. And their knowledge and contribution to the cause of sustainability is crucial.

The initiative of bringing up awareness can be done in schools, or via the internet as the two sources are the most preferred amongst the surveyed participants.



Once there is awareness in the people, there will be an apprehensive attitude in buyers towards the environment, thus making them ethical consumers.



# THANK YOU

- The research trio

# **TEAM V**

**Shresti Subahar, Mohammed Rayyan Younus, Nathania**

**Moncy John**

**School- The Indian High School, Dubai**

**Topic – 'Leave No One Behind', with Partnership for Goals**

## **ABSTRACT**

We live in the age of globalisation and technology, sharing ideas and fostering innovation. Forming effective partnerships to help developing countries is vital to achieve sustainable growth and development. Achieving the ambitious targets of the 2030 Agenda requires a strengthened and enhanced global partnership that brings together people, mobilising all available resources. Sustainable Development Goal 17 is "partnerships for the goals." One of 17 Goals established by the United Nations in 2015, the official wording is: "Strengthen the means of implementation and revitalise the global partnership for sustainable development". A successful development agenda is built on inclusive partnerships — at the global, regional, national and local levels and a shared vision. But with challenges such as coping with the covid pandemic and partnership with private finance, implementing this will be arduous. Yet, stronger partnerships will contribute to environmental protection and sustainable development by mobilising resources and sharing knowledge

Keywords : Partnerships; revitalise; globalisation

## **RESEARCH ARTICLE**

### **INTRODUCTION**

Coming together is a beginning, keeping together is progress and working together is success. – Henry Ford

Partnership for the goals is built upon collaboration. The Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted by the United Nations to ensure that by 2030 all people enjoy peace and prosperity. When we work together towards achieving goals, we have the power of making a dream into reality. Contributing towards the same goal means sharing a vision. Together when people, communities and countries bind together, we unite the vision of achieving 2030 Agenda. By taking an action, partnership for goals can be achieved. This is the speciality of Goal 17. It connects all the goals together. Ending poverty, embracing education, reducing inequalities and developing sustainable communities are the ambitions we all work to and strive for. Without collaboration, togetherness and cooperation, achieving ambitions of the goals is impossible.

Consequences of COVID-19 pandemic and financial debts are the major concerns to be looked into. By increasing the exports of developing countries and removing trade barriers for least developed countries, we can strive to make a difference in our societies

## Review of the Issue

There is now a need to analyze the extent of the impact of the pandemic on each Sustainable Development Goal more than ever. The impact of the pandemic can be seen in two ways: One approach is how different organizations from all over the world, governments etc. came together to fight against the pandemic. Despite the positive effects of the pandemic, it is still important to note that the global trade and foreign direct investment sectors have started to deteriorate. This is due to the various factors that have affected the sustainable development. Other factors such as the increasing digital divide and the lack of confidence in the private investment flows are also not very sustainable. Affairs predict that the remittances from the middle and low-income countries will decrease by around 19.7 percent.



Though many partnerships are in place low income countries still face a huge problem and many challenges. If these challenges are not taken care of properly, SDG 17 would not make any sense towards sustainability even though several partnerships exist.

## Methods

SDGs have a complex relationship with each other, and each goal's progress is interlinked with each other. There are various methods as well as indicators to measure these goals, but the research paper brings to new something new, using mathematics to track a goal's progress. Let us take a close look of one of these inventive methods below:

Degree of Randomness:

By assessing this parameter, one can easily know which goal can progress as planned. Each depending factor is checked for uncertainties in the possible effectiveness to provide prominent progress. The equation to measure the degree of randomness is given as:

$$ax + b(n - x) = 1 - \frac{(n - x)}{2n}$$

$$a = 2b$$

Where,

x= number of sensitivity factors a goal possesses

n= number of depending factors

(n-x)=non-sensitive dependency factors

The Dynamic of SDGs

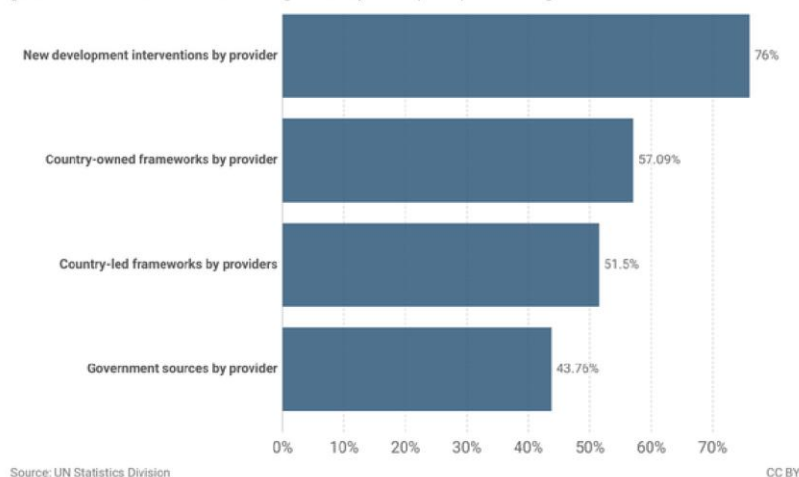
Understanding the dynamic between SDGs and the pandemic would help us understand the gravity of the pandemic acting on SDG. While analyzing the interdependence of SDG goals, one goal can have more influence than other & degree of randomness would help us analyze the degree of influence. Using this way to understand the dynamic is the easiest way to achieve the SDGs.

## Results

Official development assistance has reached a new height, largely due to COVID. In 2021, net ODA flows by member countries of the Organisation for Economic Co-operation and Development's (OECD) Development Assistance Committee (DAC) amounted to \$177.6 billion, an increase of 3.3 per cent in real terms from 2020. This level of ODA represented 0.33 per cent of donors' combined gross national income (GNI), reaching a new peak. The ongoing war in Ukraine is having a direct impact on ODA in 2022, due to increased spending on refugees. Military assistance to Ukraine and rising military spending by European nations is not considered ODA. Since the emergence of COVID-19, the Internet has become vital for working, learning, accessing basic services and keeping in touch. The latest data show that uptake of the Internet has accelerated during the pandemic. The number of users surged by 782 million to reach 4.9 billion people in 2021, or 63 per cent of the global population. Remittance flowing to poorer countries is supported by strong economic activity and employment levels in many host countries. Timely and high-quality data have proven to be important in guiding developments, particularly during the pandemic. In 2021, 150 countries and territories announced that an implementation of a national statistical plan, up from 132 in 2020, with 84 of those fully funded. To create a better world, we need to be supportive, inventive, passionate and above all cooperative. Global Goals can be met only if we support everyone. Partnership for goals is built in collaboration. To overcome the challenges of the goal, we should involve the investment of least developed countries, encouraging effective partnerships, mobilizing financial resources for developing countries and enhancing availability of reliable data.

To support, work/volunteer in charities to make a difference. Any donation, small or big, it can bring a change! Agenda cannot be reached only with sole action but asks for the creation and fostering of multi-stakeholder SDG-related partnerships. Diversity of perspectives to develop new solutions will be brought along with collaboration, acting as a game changer. Official development assistance has reached a new height, largely due to COVID. In 2021, net ODA flows by member countries of the Organisation for Economic Co-operation and Development's (OECD) Development Assistance Committee (DAC) amounted to \$177.6 billion, an increase of 3.3 per cent in real terms from 2020. This level of ODA represented 0.33 per cent of donors' combined gross national income (GNI), reaching a new peak. The ongoing war in Ukraine is having a direct impact on ODA in 2022, due to increased spending on refugees. Military assistance to Ukraine and rising military spending by European nations is not considered ODA.

Proportion of results, indicators and new interventions drawn from..., Wo   
The indicator assesses the degree to which providers of development cooperation (i.e. development partners) design their interventions by relying on objectives and results indicators that are drawn from developing country government-led results frameworks reflecting the country's development priorities and goals.



Since the emergence of COVID-19, the Internet has become vital for working, learning, accessing basic services and keeping in touch. The latest data show that uptake of the Internet has accelerated during the pandemic. The number of users surged by 782 million to reach 4.9 billion people in 2021, or 63 per cent of the global population. Partnerships make human empowerment possible.

## Conclusion

To create a better world, we need to be supportive, inventive, passionate and above all cooperative. Global Goals can be met only if we support everyone. Partnership for goals is built in collaboration. To overcome the challenges of the goal, we should involve the investment of least developed countries, encouraging effective partnerships, mobilizing financial resources for

developing countries and enhancing availability of reliable data. To support, work/volunteer in charities to make a difference. Any donation, small or big, it can bring a change! Agenda cannot be reached only with sole action but asks for the creation and fostering of multi-stakeholder SDG-related partnerships. Diversity of perspectives to develop new solutions will be brought along with collaboration, acting as a game changer. Partnerships make human empowerment possible.

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## POWERPOINT



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Coming together is a  
beginning, keeping  
together is progress and  
working  
together is success. –  
Henry Ford



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17 PARTNERSHIPS  
FOR THE GOALS



# PARTNERSHIPS FOR GOALS

TEAM 5

BY NATHANIA MONCY JOHN  
MOHAMMED RAYYAN YOUNUS  
SHRESTI SUBAHAR





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# INTRODUCTION



Coming together is a beginning, keeping together is progress and working together is success. – *Henry Ford*



The Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted by the *United Nations* to ensure that by 2030 all people enjoy peace and prosperity. By taking an action, partnership for goals can be achieved. This is the specialty of Goal 17. It connects all the goals together. Ending poverty, embracing education, reducing inequalities and developing sustainable communities are the ambitions we all work to and strive for. Without collaboration, togetherness and cooperation, achieving ambitions of the goals is impossible. Consequences of COVID-19 pandemic and financial debts are the major concerns to be looked into. By increasing the exports of developing countries and removing trade barriers for least developed countries, we can strive to make a *difference* in our societies. Countries all over the world have been working towards achieving the goal of global development. If countries want to meet this goal then they all would have to be on the same page when it comes to the advancement of technology.



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# TARGETS

Target 17.7: Promote sustainable technologies to developing countries

Target 17.8: Strengthen the science, technology and innovation capacity for least-developed countries

SDG INDICATOR 17.8. - Individuals using the Internet

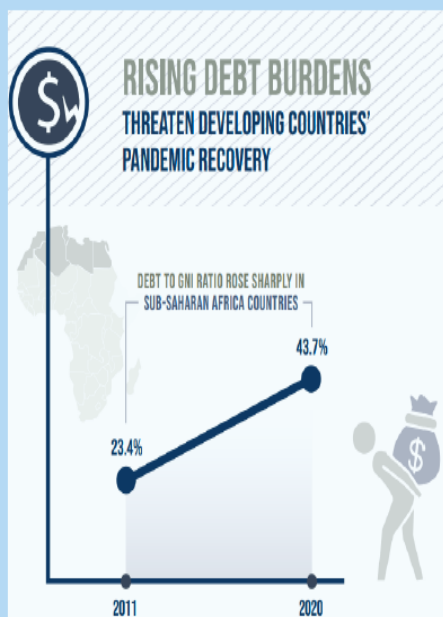
Target 17.11: Increase the exports of developing countries



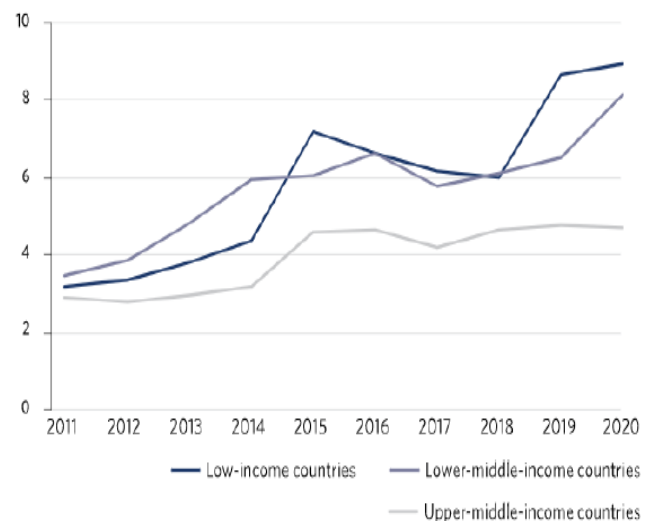


# COVID 19 AND THE SDGS

- The Sustainable Development Goals Report 2022 paints a worrying picture of progress of the SDGs. It says that “cascading and interlinked crises are putting the 2030 Agenda for Sustainable Development in grave danger, along with humanity’s very own survival”.
- The COVID-19 pandemic is **threatening our past achievements**, with trade, foreign direct investment and remittances all declining.
- A growing share of the global population now has access to the Internet, yet the digital divide persists



Debt service to export ratio by income group, 2011-2020 (percentage)



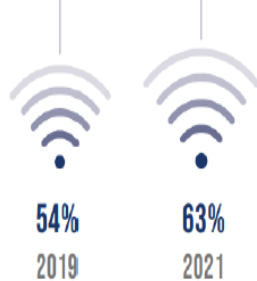
Countries in sub-Saharan Africa have seen the most pronounced deterioration in debt indicators



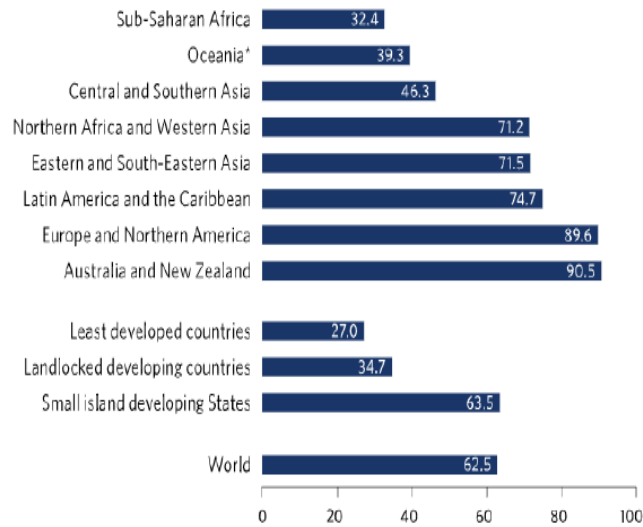
## INTERNET

UPTAKE ACCELERATED  
DURING THE PANDEMIC

% OF INDIVIDUALS USING  
THE INTERNET



### Proportion of individuals using the Internet, 2021 (percentage)



In 2020, the first year of the pandemic, the number of Internet users grew by 10.2 per cent. The number of users surged by 782 million to reach 4.9 billion people in 2021, or 63 per cent of the global population.



## ISSUES AND CHALLENGES

- Prolonged trade disputes and wide-ranging policy uncertainties, the **world economy** has seen a significant and **broad-based deterioration** over the past few years.
- **Trade policy uncertainty** has taken a toll on global investment and exports.
- **Trade tensions** have become intertwined with financial fragilities.
- Risks remain strongly tilted to the **downside**





- The main **dilemma** right now is that some partners are looking for financial profit from partnerships, and thus lack motivation to engage in vulnerable settings where resources are most needed.
- There is now a **need to have better knowledge** on the types of partnerships that is needed to achieve these goals.
- **Well-designed, nurtured and transparent partnerships** “do not come out of thin air” but require skills in partnership design and partnership building.



## What exactly is a 'good' partnership?

- Focuses on **accountability**
- Creating **value**
- Weighing the **costs**
- **Networking** and connecting
- Collective **learning**

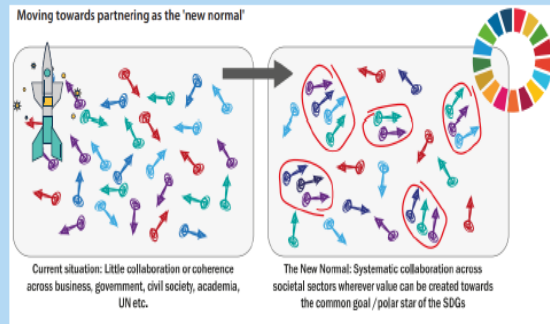




# METHODS

- **We need to start treating partnerships as the new normal.**

All of the goals require some level of collaboration across all societal sectors.



- **Understanding business incentives.**

These can be mapped on a spectrum from indirect, non-core business incentives through to core business incentives



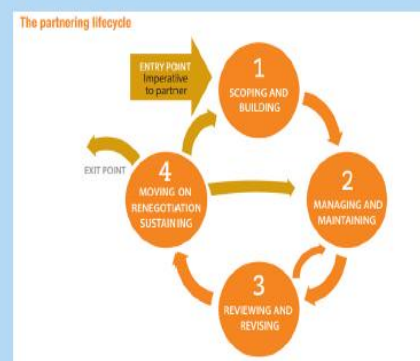
- **Defining and categorising partnerships.**

Progress can only occur when there is a clear alignment of interests, which we can figure out by categorising partnerships



- **Designing and implementing a partnership.**

Effective partnership is build up across the lifecycle of the partnership in order for it to deliver as effectively as possible





## DRASTIC DIFFERENCES BETWEEN DEVELOPED AND UNDER DEVELOPED COUNTRIES

All countries rich or poor, must adapt to climate change. But the differences are astonishing.



Daunting cost, many countries face daunting costs.



As per report of EU, overall financial flows from underdeveloped countries to developed ones has decreased.



## WITH INCLUSION OF PARTNERSHIPS FOR GOALS

1. EU helps country-led development through a range of financial support mechanisms



The Addis Ababa Action Agenda



FINANCING FOR  
DEVELOPMENT  
15-16 JULY 2015 - ADDIS ABABA - ETHIOPIA

Addis Ababa Action Agenda  
of the Third International Conference on  
Financing for Development  
(Addis Ababa Action Agenda)





## 2. EU's imports from developing countries

- Between 2006 and 2021, EU imports from developing countries almost doubled



## 3. Access to technology

- Data collected by European Commission service for key dimensions of European information societies shows that in EU the uptake of high internet speed coverage. At member state level, countries like Luxembourg, Spain and Denmark have already achieved 95% of internet coverage. By 2030, EU will reach the maximum coverage of 100%



## 4. The home away from home, our country of skyscrapers, UAE has established partnerships too

Van Oord is a part of the newly formed Dutch Sustainable Group (DSG). The group signed a Memorandum of Understanding to jointly help United Arab Emirates achieved Sustainable Development Goals





# SOLUTIONS

## CASE STUDY:

The Roll Back Malaria global partnership

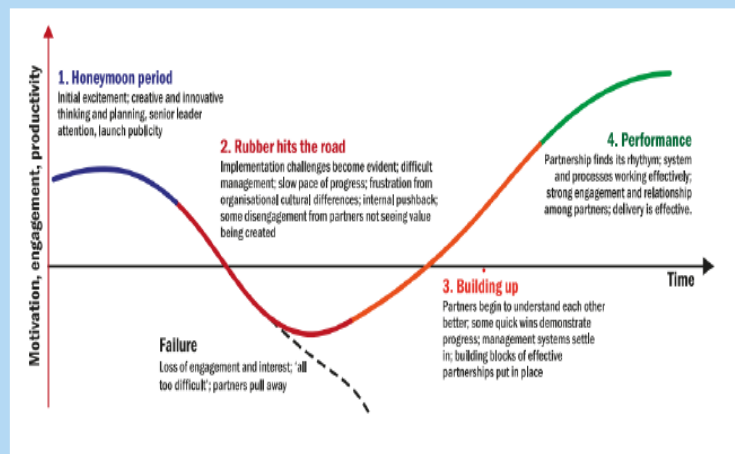


A group of public health professionals sat together and agreed half a dozen ideas about what needed to happen in the world in order to reverse the rise of malaria. They developed a really clear problem statement. They faxed these points to about twenty of the world's leading scientists and asked if the list looked about right. That was the basis of one of the world's most successful and enduring partnerships.



## But what made it so successful?

- Instead of starting with the thought they started with the problem, and then worked on what needs to be done about it.
- All partners were aware of the ups and downs of partnering!
- It is entirely typical in partnerships for there to be moments of tensions among the partners, but if handled properly working together in sensitive situations together as one would make the partnerships stronger.







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# CONCLUSION

Global Goals can be met only  
if we support everyone.

To overcome the challenges of the goal, we should involve the investment of least developed countries, encouraging effective partnerships, mobilizing financial resources for developing countries Partnerships have the potential to grow by leaps and bounds and can steer the world in many different directions and enhancing availability of reliable data.

Increasing support to developing countries, in particular the least developed countries, is fundamental to equitable progress for all.

To support, work/volunteer in charities to make a difference. Any donation, small or big, it can bring a change!

Partnerships make human empowerment possible.



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# CAN WE MAKE THE DIFFERENCE?



THANK YOU

# **TEAM VI**

**Yashraj Mahesh Jogdand, Yashwardhan Asthana, Renuka  
Ganesh Sonawane School- The Jain International School –  
Aurangabad**

**Topic – Climate Action**

## **ABSTRACT**

Of lately, erratic climate changes are a regular phenomenon impacting adversely on biotic and abiotic factors. Considering the present and future adverse effects, UN's SDG 13 gives regulations for taking action to combat climatic change viz. strengthen resilience to natural hazards; implement disaster risk reduction strategies in line with UNDRR 2015–2030; integrate climate change measures into national policies, etc. among nationally determined contributions, adaptation plans and calculating greenhouse gas emissions; awareness on climate change etc , implement the commitment undertaken by developed-countries with UNFCCC and promote mechanisms for effective climate change-related planning in under-privileged countries. SDG 13 promotes mitigation; adaptation; impact reduction and early warning. This research paper deals with the petrifying effects of climate action suggesting corrective measures which will prove to be instrumental in future.

The keywords are mitigation, impact reduction & early warning.

## **RESEARCH ARTICLE**

### **INTRODUCTION**

Climate change is not something people get to choose to believe or not it is happening.

- Matt Gaetz Increasing temperatures, rising sea levels, aggravating heavy precipitation, warmer climate, innumerable public health challenges, rising greenhouse gas emissions and decreased access to safe water and food. These are some of the issues that the world is facing right now due to climate action. It is a well-known fact that climate affects our lives at every level right from our food to our infrastructure to the clothes we are wearing to even the holidays where we are going. In short, it acts as the lifeline on our livelihoods, health and future. However, of lately, due to factors like global warming, variations in earth's orbit, increased levels of carbon dioxide and most importantly human factors like urbanization and industrialization, climate change has become erratic and rampant.

Why do we need SDG 13?

> From the past 100 years, Global temperature has increased by 0.85°C. This change might appear minute but due to this change every year 2 lakh, km<sup>2</sup> of ice is lost.

> The Global sea level has increased by 20% with a probable rise of 30-60 cm by 2100.

> In the last 5 years, Greenhouse Gas emission has increased by more than 50 %. Energy related CO<sub>2</sub> emissions increased by 6% in 2021 reaching highest level ever.

> In the last 30 years, number of natural disasters has increased 5 times.

- > Crop yield has decreased by 5% with every 1 % change in temperature and this change is further speeding up, according to experts.
- > Drought estimated to displace 700 million people by 2030.
- > Medium to large scale disasters will increase by 40% from 2015 to 2030.
- > The increases in heatwaves, droughts and floods caused by climate change are destroying the planet and affecting billions of lives worldwide.

These are some of the changes that create a need for goal 13 Climate action. UN has defined 5 Targets and 8 indicators for SDG13. These targets are the goals of SDG 13 which the world aims to track whether or not these Targets are achieved which are:

13.1 - Its first target is to strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.

13.2 - It aims at Integrating climate change measures into national policies, strategies and planning

13.3 - Its main motive is to Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.

13.a - These targets deal with implementing the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilizing jointly \$100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible.

13.b - It promotes mechanism for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities

### **Review of the issue**

Due to the dramatic consequences of climate change, many countries are getting extensively affected by it. Here, are the case studies of two countries viz. Greece and Ghana are worth noting. The effect of climate action on Greece is quite discernible mentioned in the 2017 report:

#### Greece

Increase in annual temperature. Due to increasing greenhouse gas emissions, the increase in the mean maximum temperature is in the order of 7-8<sup>o</sup> C in the south, while in central and northern Greece the increase is higher.

### Agricultural sector

Agriculture and livestock farming are badly impacted by extreme weather phenomena, drought, soil erosion, dry spell, and flooding. One positive outcome can be that there will be an extension of the growing season benefitting the cultivation of some crops but in all scenarios, there is reduced rainfall, decreased soil moisture and droughts, and more days with higher temperatures. The productivity of vineyards will be affected, altering the taste and quality of the wine. Fodder crop cultivation will also experience reduced performance.

### Day-to-day life in cities

The phenomenon 'Urban Heat Islands' (higher temperatures area due to urban density, natural ventilation, human activities, and total available green space) applies in Greece as there will be days with the temperature exceeding 37°C. The same is true for 'tropical nights' (temperatures not falling below 20 °C at night) when buildings do not have time to cool down. This is vital as the index is linked to rising rates of mortality, and heart, cardiovascular, and respiratory conditions.

### Economy

Before the pandemic, tourism accounted for about one-fifth of Greece's economy and a similar proportion of jobs earning revenue of 18 billion euros in 2019. Economists warn that climate challenges could pose a significant drag on growth potential. With a public debt of 196.6% of GDP, Greece is the most indebted economy in the eurozone. Interest payments on its mountain of debt - most of it refinanced at low rates of 1.5% - translate to less than 3% of national output.

### Decreasing coastlines

Scientists warn that sea levels could rise by 20 -50 cm which could render Greece's 16,000-km coastline vulnerable as 30% population lives at a distance of up to 2 km from the coast and 90% country's tourism infrastructure sits on coastal areas. On July 11, 2019 night, at least 7 people were killed and more than 100 hurt from a violent, short-lived "supercell" storm that lashed the area. Accelerating coastal erosion poses an existential threat to the three-pronged peninsula of lush forests in northern Greece. Popular Greek beaches are in danger of disappearing.

### Biodiversity

Greece has a total area of 131.957 km<sup>2</sup> and occupies the southmost extension of the Balkan Peninsula. Along with climate change, human impacts like expanding human population and economic activity affect ecosystems. A 3.6°C global warming leads to a loss of over 50% of plant species, while species loss

might exceed 80%. In arid and semi-arid parts, the biggest danger is the expected decrease in water inputs in lakes due to increased evaporation and decreasing precipitation leading to the conversion of freshwater to saltwater.

## Tourism

Climate change could have a positive impact on tourism in Greece, as the tourist season might get extended however, as heatwaves are becoming frequent, they will degrade the experience of millions of tourists visiting Greece in the summer.

Expected effects in the coming years

1. The temperature is expected to rise by 2.50 C on average. Regionally, the increase may reach up to 3.8 degrees during summer, and heat wave days are also expected to increase.
2. The days with night frost will decrease significantly, especially in Northern Greece.
3. Rainfall will decrease by 12% on average (20-30% decrease in summer and 10% in winter).
4. Sea levels will rise by 20 to 59 centimeters.
5. Extreme weather events will be much more frequent.
6. Agricultural production and tourism will be severely affected.

## Corrective measures

1. Transitioning to a low-carbon economy by 2050 means achieving gradual independence from fossil fuels in favor of renewable energy sources and emphasizing energy-saving actions in transport and housing by reducing the use of primary energy by 27% through energy efficiency.
  2. Amendment of the country's institutional framework so that all relative government programs and plans will incorporate the reality of climate change.
  3. Preparation of special plans for the areas and sectors mostly affected by climate change
  4. Gradual improvement of the environment in the cities, prioritizing the heat-stressed areas.
  5. Amendment of the institutional framework on private investments to support local productive activities that assist in adapting to climate change like improvement of port infrastructure, renewable energy sources, construction materials, etc.
  6. Adaptation of the National Health System to new challenges of worsening temperature conditions and the demographic composition of the population.
- All proposed measures aim to limit the damage from the future impact of climate change, and on the other to capitalize on the possible benefits that may exist in each case to accommodate the well-studied, widely accepted, and practically unavoidable realities of our near future.

## GHANA

Ghana is a leading country in western Africa, situated on the coast of the Gulf of Guinea having a considerable natural wealth. Climate change in Ghana is impacting Ghana in many ways as the country sits at the intersection of three hydro-climatic zones. Some of the effects are:

### Temperature and weather changes

Climate change in Ghana is beginning to manifest with the fact that temperatures in all the ecological zones are rising, Rainfall levels are reducing, and patterns have become erratic. The drier northern areas have warmed at a rapid rate and overall, Ghana has experienced a 1.0 °C. increase in temperature since 1960. Northern Ghana has only one rainy season, while southern Ghana has two. This has also led to an ecological imbalance.

### Water resources

There has been a rise in sea level of 2.1 mm annually in the last 30 years, indicating a rise of 5.8 cm by 2020. While a decrease in water in the main river basins providing fresh water increases challenges in getting access to clean drinking water. Drought and flooding have become an annual worry.

### Agriculture

45% workforce in Ghana depends on small-holder rain-fed agriculture. Staple crops like Maize, Cassava, and Cocoa are seeing decreased production. Shifts in agroecological zones are too rapid for trees and farming systems to adapt to. There is also a loss of cropland from erosion and desertification and increased demand for irrigation. In southern Ghana, there is coastal erosion and the destruction of valuable coastal agricultural land.

### Fisheries

Seafood makes up 40-60 % of protein intake in Ghana, but key species are having the worse reproduction cycles. Reduction in fisheries production has stimulated the import of more than \$200 million per year worth of seafood.

### Hydropower

Since 54% of the national generation capacity is hydropower, unpredictable rainfall is likely to add uncertainty to a power grid already experiencing frequent outages called Dumser. Ghana had a reduction in GDP between 2012 and 2015 due to a deficient supply of power.

### Health impacts

An increase in diseases like cholera and malaria is projected due to changes in water conditions. Diseases like cerebrospinal meningitis are quite common in the Northern Region of Ghana.

### Education and Employment

According to the 2007 National Disaster Management Organization's (NADMO) report, severe weather conditions collapsed school buildings. 210 schools were affected by the flood and 199 classrooms have collapsed. Similarly, an increase in temperature, a decrease in rainfall, and its unpredictability are jeopardizing the employment of about 60% of the active population, the majority of whom are small-scale, rural farmers, resulting in unsustainable livelihoods.

### Probable effects in future

1. Rising sea levels threaten rapidly urbanizing coastal areas, rising vulnerability to floods and waterborne diseases.
2. Drought and reduced rainfall are resulting in a low operating water level of the only hydro-generating dam in the country that produces 80% of the national electricity supply.
3. Lack of capacity to undertake adaptive measures to address environmental problems and socio-economic costs of climate change.
4. Road networks easily get damaged due to erosion or flooding or extreme heat.
5. Tourism getting more costly resulting in increased infrastructural damage.

### Corrective steps:

1. The Government of Ghana has launched the process to develop a National Adaptation Plan (NAP) to build nationwide resilience to climate change impacts addressing four areas of concern to climate change and variability
2. Ghana has integrated the Ghana Climate Change Policy which provides a clear pathway for dealing with the challenges of climate change.
3. The NAP process is to develop temperature and rainfall scenarios for up to 60 years so that the country can take timely action to reduce exposure and sensitivity to climate risks.
4. The process also serves as a vehicle to strategically plan for extreme weather events protecting agricultural livelihoods and economic growth from climate shocks.
5. Climate change issues are immense, and Ghana is vulnerable due to a lack of capacity to undertake adaptive measures but taking concrete measures can help to overcome this issue.



## **Methods:**

Most of the times, it is the government and the people who are in power, are blamed the most for any type of disaster, but being the responsible citizens of the country, it is our duty as well to adopt certain corrective measures to fight with the climate action from our end. Some of these methods are:

1. One of the major causes of climate action is the extensive use of energy which can be controlled by adopting simple measures like saving energy at homes, taking public transports, switching to walking or cycling or pooling.
2. Food is another prime factor which is becoming a major concern due to its decreasing quality. Thus, special care should be taken to give more stress to natural farming with zero usage of chemicals, avoidance of wastage of food and more stress to urban agriculture.
3. Another important factor is the burning of fossil fuels which must be reduced at every level.
4. Though, urbanization and industrialization are the need of the hour, there should also be equal stress on growing trees and maintaining the cleanliness of the environment.
5. In the current scenario, increasing usage of renewable energy and nurturing of the available nature resources primarily forest landscapes have become imperative for our survival.

## **Results**

1. By saving energy, global warming can be reduced which will result eventually into less melting of ice. Thus, many coastal regions will be saved from going underwater in the coming years. It will also help in stabilizing the weather thus saving us from unwanted droughts and floods.
2. Food wastage is indeed a serious problem in the modern times as 6- 8 % of the human caused green house gas emissions is due to wastage of food. In the U.S. alone, the wasted food alone generates the green house gas emissions which is equal to 32.6 million cars. Thus, it can be said that green house gas emissions are directly linked to food wastage. While, maintenance of food security will save people from many diseases such as cholera. Promoting the urban farming culture will give way to biodiversity and a risk reduction of extreme situations faced by cities in the form of floods.
3. As mentioned earlier, already the average global temperature has increased by 10 C. When fossil fuels are burnt, they release an extensive amount of carbon dioxide not only increasing the air pollution but also causing a grave effect on the temperature. Thus, using less fossil fuels will decrease the increasing percentage of carbon dioxide in the atmosphere, reducing the pollution and maintaining the temperature.

4. It is already a well-established fact that urbanization and industrialization have caused major impacts on climate action in general. Since, they both are imperative for development, there has to be some preventive measure taken along with them in the form of growing trees and maintaining the quality of the environment as we already know that trees absorb all the harmful pollutants and emissions thus keeping the temperature at optimum.

5. Use of renewable energy is not only beneficial on our pockets but it also plays an important role in minimizing carbon pollution and has the least impact on environment. Also, methods like afforestation and preserving rivers should be practiced on priority.

### **Conclusion**

Climate action has become the most disturbing thing in the present time as the probabilities of a dark future is clearly visible. Thus, it becomes important to take some concrete steps by rising awareness in the people through various ways. If human beings contribute to control global warming, this world would be a much cooler place in every sense. If everybody as one takes stand and try to combat climate action in his or her own small way, this world would indeed be a safer place to live on.

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<https://sdgs.un.org/goals/goal13>

<https://www.un.org/sustainabledevelopment/sustainable-development-goals/>

<https://ghana.un.org/en/sdgs/13>

### **DISCLAIMER**

This research paper contains the targets and indicators of SDG 13 as they are without making any changes. Apart from that, this paper represents the opinions of the authors based on certain reports referred by them. Any resemblance of any text or any suggestion is merely by co-incidence and has not been done deliberately for the aim of plagiarism.

## POWERPOINT

# Chairman's Championship

## A Student Led Conference

# Goal 13: Climate Action

Team 6

Presenter: Yashraj Jogdand, Yashwardhan Astana,  
Renuka Sonavane

## Table of contents:

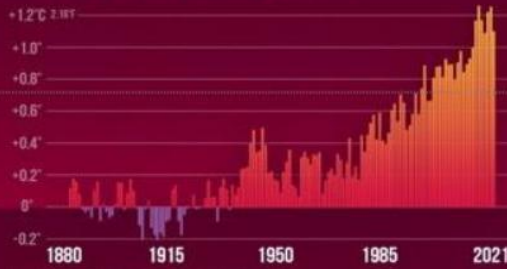
- Why do we need this goal?
- What is goal 13 Climate Action?
- Targets of Goal 13.
- Measures taken by countries.
- Some important events.
- Steps that we can take.
- Global business solutions.
- On achieving goal 13.



# Why do we need Goal 13?



## GLOBAL TEMPERATURE DEPARTURE FROM 1881-1910 AVERAGE



Source: NASA GISS & NOAA (NCDC) global temperature anomalies averaged and adjusted to early industrial baseline (1850-1910). Data as of 11/13/2022. CLIMATE CENTRAL

## SEA LEVEL RISE BY CENTURY



## Global warming endangers plant growth, studies reveal

By John Dosey  
UC Wire

LIVERMORE — One of the least known but most devastating impacts of the atmospheric “greenhouse effect” is the crippling of natural photosynthesis processes in perennial plants, according to an environmental scientist at the Lawrence Livermore National Laboratory.

After conducting experiments over the past three years with alfalfa and perennial pine trees, lab scientist Joe Shine and his staff have found that increased levels of carbon dioxide drastically alter the rate at which these plants photosynthesize and produce.

During photosynthesis, plants use carbon dioxide and water to produce glucose and oxygen.

“When the process is sped up, Shine said, “What happens is that these plants develop a form of ‘indigestion.’ They produce more sugar than they can

remove from their sugar-producing cells. Under a microscope, you can see that there are large starch crystals in the cells.”

Shine equated this starch build-up in plants to cholesterol blocking arteries in humans. In the experiment, the perennial and alfalfa exposed to high levels of carbon dioxide displayed a decreased ability to reach maximum photosynthesis levels, decreased yields and other symptoms of sickness which eventually result in the plant’s death.

“As if matters weren’t bad enough already with other negative effects of the greenhouse effect, now we have discovered this pathological problem too,” Shine said.

The well-known greenhouse effect danger is that increased levels of carbon dioxide cause the oceans to warm, which in turn expands water molecules and causes sea levels to rise, which may be the fastest endanger coastal cities.

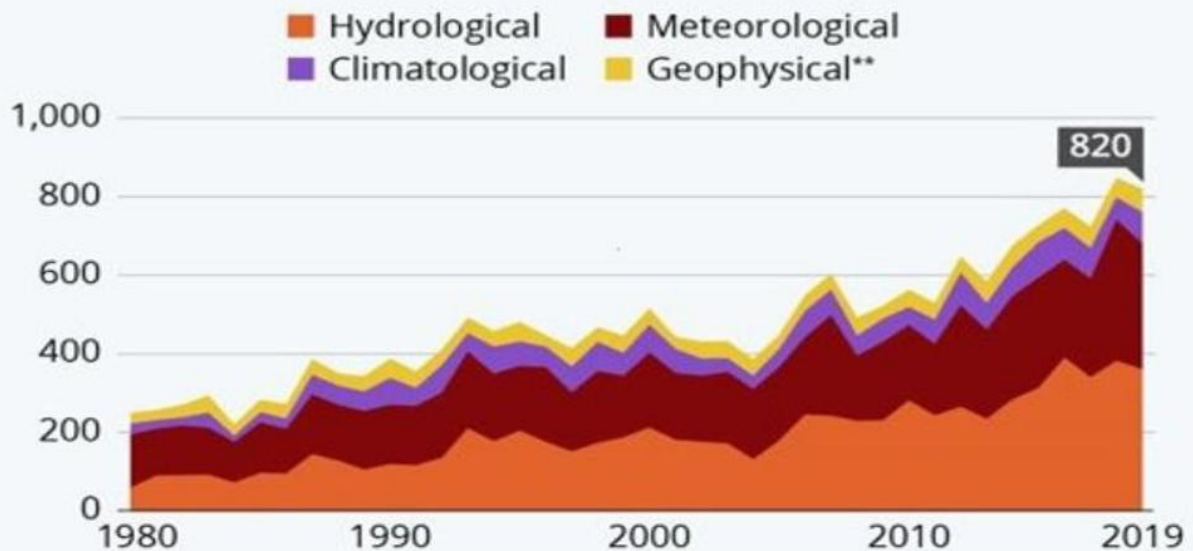
See GREENHOUSE, Page 19



Help me...

# Natural Disasters on the Rise Around the Globe

Number of natural disasters\* by type of event (1980-2019)



\* Registered as relevant loss events by MunichRe

\*\* Volcanic/tectonic activity

Source: MunichRe

## WHAT IS SDG 13?

Take urgent action to combat climate change and its effects.

Climate change is having profound consequences on the biodiversity of our planet and also on people's lives.





**SUSTAINABLE  
DEVELOPMENT  
GOALS**

Join the conversation.  
**#action2015**

# 13

## CLIMATE ACTION



Strengthen resilience  
and adaptive capacity to  
climate-related hazards  
and natural disasters  
in all countries

**SDG Target 13.2** “Integrate climate change measures into national policies, strategies and planning”

**Integrated Climate Change Strategies**

Assisting governments to develop and strengthen policies, institutions, capacities and knowledge for integrated green, carbon, climate resilient development, including financing mechanisms

**NDCs**  
UNDP supported development of 43 INDCs in developing countries and supports capacities to implement them to achieve goals of the Paris Climate Agreement

**Climate Adaptation Plans**  
Climate change adaptation measures and finance options integrated into national adaptation plans focused on build resilience of development sectors to climate risk

**Sustainable Energy Strategies**  
Elaboration of national sustainable energy policies and strategies that support expansion of renewable energy and energy efficiency actions and results

**National Development Plans and SDG strategies**  
Low-carbon, climate resilient approaches integrated into national planning as a basis for putting countries on green development pathways and achieve both the SDGs and the new Paris Climate Agreement



**TARGET 13-3**

**13** CLIMATE ACTION



**BUILD KNOWLEDGE AND CAPACITY  
TO MEET CLIMATE CHANGE**

**TARGET 13-A**

**13** CLIMATE ACTION



**UNFCCC**

**IMPLEMENT THE UN FRAMEWORK  
CONVENTION ON CLIMATE CHANGE**

**TARGET 13-B**

**13** CLIMATE ACTION



**PROMOTE MECHANISMS TO RAISE CAPACITY  
FOR CLIMATE PLANNING AND MANAGEMENT**



## Measures taken by countries



## Greece

- One-off grant to vulnerable groups
- Greece is taking effective measures to reduce power bills.
- Shift away from fossil fuels in a front-loaded and fast way.





# Ghana

- **Paris Agreement**
- **Climate adaptation in several priority sectors under its Nationally Determined Contribution (NDC)**

13



# China

- **Invested heavily in the development and rollout of electric vehicles.**
- **Significant subsidies and incentives to the sector.**
- **Decarbonization efforts.**
- **More vigorous policies and measures.**

11/8/2022

14

# Some Important Events

- Adoption of national disaster risk reduction strategies.
- Nationally determined contribution under the United Nations Framework Convention on Climate Change.
- Prioritizing formulation and implementation of national adaptation plans in their adaptation efforts.

11/8/2022

15

## Steps we can take towards Goal 13



**Save energy at home**



**Walk, bike, or take public transport**



**Eat more vegetables**



**Consider your travel**



**Throw away less food**



**Reduce, reuse, repair, recycle**



**Change your home's source of energy**



**Switch to an electric vehicle**



**Make your money count**



**Speak up**



## Global business solutions

- Fund raise or donate money
- Participate in programs
- Carry out audit of your supply chain



## On Achieving the Goal

- Increase and accelerate forestation.
- Decrease death rates due to natural disasters.
- Combat natural disasters.
- Biggest problem of climate change will be solved.
- We could make this world a better, sustainable and more adaptable place to live.





# GOAL 13: CLIMATE ACTION

BY: MARGREET DE HEER

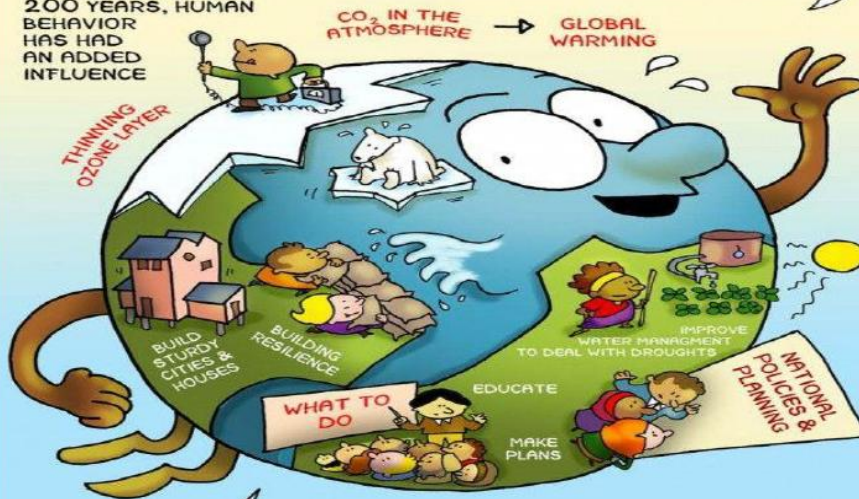
13 CLIMATE ACTION



## THE CLIMATE IS CHANGING!

THE CLIMATE IS ALWAYS CHANGING NATURALLY, BUT IN THE LAST 200 YEARS, HUMAN BEHAVIOR HAS HAD AN ADDED INFLUENCE

EVEN WITH ALL THE MEASURES TAKEN, IT WILL TAKE DECADES TO REVERSE GLOBAL WARMING - SO WE MUST BE **PREPARED** TO MANAGE EXTREME WEATHER AND NATURAL DISASTERS!



ALL NATIONS MUST **WORK TOGETHER** TO HELP MITIGATE AND ADAPT TO CLIMATE CHANGE AND ITS IMPACTS FOR THE BENEFIT OF PEOPLE EVERYWHERE.



# Thank you

EACH ONE OF US CAN MAKE A DIFFERENCE BUT TOGETHER WE CAN BRING A CHANGE.



# **TEAM VII**

**Yashika Bhujade, Dhairya Burbure, Tehreem Hussain**

**School- Jain Heritage A Cambridge School – Nagpur**

**Topic – Sustainable Cities and Communities**

## **ABSTRACT**

The idea of sustainable cities and communities is very fascinating and challenging but at the same time it is leading global paradigm of urbanism. Sustainable development since its inception from early 1990s, has influenced city planning and development. This relates to the immense opportunities that have been explored and the enormous benefits that have been realized in relation to sustainable urban forms, especially compact cities and eco-cities. However, such forms are still associated with several problems, issues, and challenges. This mainly involves the question of how they should be monitored, understood, analyzed, and planned to improve, advance, and maintain their contribution to sustainability. Global warming is already sending alarming signals all over the world, its impact is quite apparent in climate. Hence, the focus is on leaving minimum carbon footprint. In this paper, we have focused on commutation in a sustainable way as well as creating awareness in people about usage of public spaces.

Keywords: smart cities, commutation, public spaces, future vision, sustainable cities.

## **RESEARCH ARTICLE**

### **INTRODUCTION**

Sustainable Development Goals established by the United Nations General Assembly in 2015. The official mission of SDG 11 is to "Make cities inclusive, safe, resilient and sustainable".

Sustainable Development Goal 11 is divided into 10 targets and 14 indicators at the global level. The seven "outcome targets" are "Adequate, safe, and affordable housing and basic services and upgrade slums" "Safe, Affordable, Accessible, and Sustainable transport systems" "Enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries" "Strengthen efforts to protect and safeguard the world's cultural and natural heritage" "Reduce the number of deaths and the number of people affected by disasters and decrease the direct economic losses relative to global gross domestic product caused by disasters Reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management" "Provide universal access to safe, inclusive and accessible, green and public spaces"

The three "means of achieving" targets are:

"Support positive economic, Social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning"

## Review of the Issue:

“Increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the sendai framework for disaster risk reduction 2015–2030, holistic disaster risk managements at all levels” “Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials”

- 11 have 10 targets to be achieved, and this is being measured with 15 indicators.
- Safe and affordable housing, Affordable and sustainable transport systems
- Inclusive and sustainable urbanization, protection of the world’s cultural and natural heritage
- Reduction of the adverse effects of natural disasters,
- Reduction of the environmental impacts of cities and to provide access to safe and inclusive green and public spaces.

### 3. Means of achieving” targets include

- National and regional development planning, implementing policies for inclusion
- Resource efficiency,
- Disaster risk reduction in supporting the least developed countries in sustainable and resilient building

4. SDG 11 represents a shift in international development cooperation from a focus on poverty as a rural phenomenon to recognizing that cities, especially in the global south, are facing major challenges with extreme poverty, environmental degradation and risks due to climate change and natural disasters.

Despite its ambiguous targets and goals, is still an important tool for addressing urban challenges and calls for actors to develop realistic, locally defined indicators and outputs to fit the urban context of specific cities to promote more sustainable, inclusive and equal cities.

## Energy requirement

- > Multipurpose projects to be introduced without evacuation of small scale farmers
- > The know how to use Potential resources needs to be focused on to minimize excessive use of other resources
- > Efficiency of the upcoming resource with less harm or destruction to other ecosystems

## **AIM: TO MAKE SELF EFFICIENT AND SELF SUSTAINABLE CITIES**

### **Methods:**

Extensive web research was conducted on the issue and relevant information collected. Many websites related to the United Nations and the related agencies were studied in detail. Scholarly articles related to the Sustainable cities and communities were also explored online. Credits have been mentioned whenever applicable. Development in the remote areas

- > Remote areas or the villages need to be surveyed
- > Promoting small scale businesses and bringing them into urban areas
- > Old and traditional ways as such of the rural areas to be adopted in urban areas to conserve resources
- > Introducing urban farming and campaigns introduced by government to bring awareness and generate employment

### **Results:**

The Web research resulted in a clear understanding of the importance Sustainable cities and communities and the United Nation's efforts toward achieving the same the disparities and obstacles were clearly listed. A clear understanding of these issues resulted in exploring solutions to overcome the same.

Promoting small scale business which will lead to a drastic change in the economy of the country leading to decrease in poverty Criminal outcomes will decrease ultimately if more employment is provided to the people

### **Conclusion:**

Smart cities and communities is not just the idea of developing the nation with the use of technology but to minimize the effect caused on the nation. However, the focus of the world organisation has shifted to preventive care in a big way since the last few decades. Base on the principle, United Nation's has framed SDG for Achievement of Sustainable Development Goal 11, which aims at promoting Sustainable cities and communities for all people. With judicious measure to tackle the challenges, some lost ground may be regained and the journey towards SDG 11 2030 can be placed back on track and as much progress as possible may achieved.

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**POWERPOINT**



**SUSTAINABLE CITIES AND COMMUNITIES**

## What is SDG 11 about?

- ❑ One of 17 Sustainable Goals
- ❑ Target to be achieved by 2030
- ❑ It is about:
  - ▶ Payable housing
  - ▶ Promotion of public transport
  - ▶ World Culture Continue Protect
  - ▶ Reduce the environmental impact of cities



## Why is SDG 11 so important to achieve?

- ▶ Vision for cities never been more important than it is today.
- ▶ To go a step in a good future
- ▶ To become the best out of the city.



## Activities in our region that are in accordance with SDG 11

- ▶ Bikes in big Cities
- ▶ E-Scooter in big Cities
- ▶ Improving public transport



## Activities that are against reaching SDG 11

- ▶ Rental prices are almost unaffordable
- ▶ People who drive with the car instead of public transport.
- ▶ Rental prices at the public transport



## Why are cities important

- ▶ Density and network that make us more productive and creative.
- ▶ Key social and economic organizing units of our



## How can we improve cities

- ▶ Providing exist public resource and green space
- ▶ Improve water conservation
- ▶ Improve waste Management
- ▶ Support urban farming



## What can young people do to help reaching SDG 11?

- ▶ Use the public transport
- ▶ Improve Water Conservation and **Waste** Management
- ▶ Proposing innovative solutions
- ▶ Inspiring political change



## SDG 11 and it's role in City planning

- ▶ Cities required monitor system to : support urban visioning and
- ▶ Long – term plans, track progress for informed and sustainable development

Outcome – oriented	Process- oriented
11.1 housing and slum	11.A Urban-rural linkages
11.2 Sustainable transport	11.B Risk reduction
11.3 participatory planning	11.C Sustainable building
11.4 cultural heritage	
11.5 Disaster Reduction	
11.6 Air Quality and Waste Management	
11.7 Public spaces	

# Partnerships for SDGs

For the goals to be reached, everyone needs to do their part



# **TEAM VIII**

**BN VK Srija, P Sakshith, V Keerthan**

**School- Jain Heritage A Cambridge School - Shamirpet**

**Topic – Clean Water and Sanitation**

## **ABSTRACT**

Out of all the sustainable development goals, clean water and sanitation stay to be prominent concerns in many parts of the world. Compared to Urban areas, Rural areas seem to be distressed by this emanate. They still lack basic prerequisite elements like a hand wash to wash their hands. Every one out of three people are still under the dearth of access to safe drinking water. And 673 million people around the world still ape conventions of open defecation. Performing deeds like providing safe and affordable drinking water, improve in water quality, affordable access to sanitation etc., can aid us to shrug off this contingency.

Keywords: emanate; prerequisite; dearth; ape conventions; contingency

## **RESEARCH ARTICLE**

### **INTRODUCTION**

Cleanliness and sanitation are a must for all. According to a survey conducted, over 10% of children suffer from diseases like cholera and diarrhea because of sanitation issues. Even today, in some parts of the world, we can see women carrying river water to their homes, which is now polluted, leaving them with no resources. We can together come over this issue, but it is often overlooked and we don't understand the importance of asepsis. In 2015, the United Nations General Assembly established this goal to ensure that everyone around the world does not face issues regarding good hygiene.

### **3. Review of the Issue**

Nearly half the world doesn't have access to safe sanitation. In 2020, only 54% of the population had access to it, and it's shocking to know that 6% don't even have access to facilities of pure drinking water, and sanitation.

They still depend on open defecation. In 2015, 47% of the world was facing this issue, and the 7% increase, alarms us to take precautions to protect our Earth. Today, 18.85% of the world practices open defecation. And if we go at this speed, it's hard for us to tell that we will reach our goal by 2030. The increase in this issue is mostly due to low income and low development, which result in low productivity. In India, the water supply and sanitation level were 41.90%, which gradually increased in the year 2020 to reach 45.91%.

#### **3.1 Unsafe water**

The main cause of unsafe water is water pollution. The excessive nutrients of phosphorus and nitrogen result in the hard growth of algae, and pollution of underground water. Water is also a resource for many people for drinking and because of its pollution the cleanliness is not maintained and the sanitation is not perfect. It also increases the toxicity of water which culminates in ammonia. The illness in infants and blue baby syndrome is mostly seen in these conditions.



### 3.2 Inadequate sanitation

This is a major problem that is interlinked with unsafe water. The water gets polluted in areas where people use it a lot to fulfill their basic needs and this water soon turns polluted and cannot be used anymore. Sanitation plays a key role as drinking this water or bathing in this kind of surroundings affects the health of the person. This problem was majorly seen in the years 2019 and 2020 due to the pandemic situation. The usage of sanitizers and hand soaps was highly prioritized and the markets increased their rates of them which lead to less sanitation or personal hygiene and inadequate sanitation.

### 3.3 Insufficient hygiene

1.7 billion People do not have basic sanitation provisions like toilets and bathrooms. Due to this, they still practice open defecation. And it results in low maintenance of the surroundings and insufficient hygiene. Many diseases can be observed because of this complication. Out of all diarrhea stays to be the prominent disease to be seen in them. Mostly children aged 5 and more get highly affected and the chances of losing some lives are high at this rate.

### 3.4 Dumping of chemicals and wastes into the water

Rural areas around industries face this concern. Because their only source of water is their river and polluting this makes it hard for them to collect drinking water and provide their children with the necessities. The waste which we produce at home is directly dumped into water resources along with the excessive fertilizers from the agricultural fields and industrial waste. 263 million people spend 30 minutes from a round trip to collect water; 844 million do not have access to drinking water services and 159 million people depend on lakes and rivers to fulfill their necessities.

### 3.5 Lack of sanitary facilities

In 2015, 2.5% of the people lacked sanitary facilities. At least 10% of the world's population is thought to consume food irrigated by wastewater. After the survey conducted by WHO on the availability of water and sanitation in the areas, 8,29,000 people die because of inadequate water, hygiene, and sanitation. And 80% of deaths are observed every year in a consequence of this issue. In this 4,32,000 deaths were because of neglecting this fact. 4. Methods To prevent the major catastrophe the UN general assembly recognized safe drinking water as a basic human right in 2010. In 2013, the UN security general issued a call to action for sanitation and cleanliness. This includes that they aimed to eliminate the process of open defecation by 2025 and if not by 2025, then by 2030 and became an essential goal among the 17 sustainable development goals. WHO also supports collaboration between

WASH and health programs such as neglected tropical diseases, cholera, polio, and antimicrobial resistance to prevent the fatality of water and sanitation-related diseases. One invention through which we can prevent this calamity is by using THE SOLAR BALL. This ball was an experiment to see if it can purify polluted water. And the results were positive. This is a ball that charges itself from the sun's heat and exerts enough energy to clean the water. It is a small invention and many more can be inspired by it. The 8 targets which pave the way to achieve this goal were also created. They include, 6.1 To achieve access to safe and affordable drinking water for everyone. 6.2 To achieve access to equitable sanitation and hygiene for everyone and end open defecation. 6.3 To improve water quality by reducing pollution, eliminating dumping and minimizing the release of dangerous chemicals, halving the proportion of untreated wastewater, and increasing recycling and safe reuse globally. 6.4 The increase of water-use efficiently across all sectors and ensures sustainable withdrawals and supply of freshwater 6.5 The implementation of integrated water resources management at all levels 6.6 To, protect and restore water-related ecosystems. 6. A to, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programs. 6. B to improve the support and strengthen the participation of local communities in improving water and sanitation management.

## **5. Results**

A program named wash SDG has taken action to achieve this goal by 2030. It has improved the access to and the use of safe drinking water for at least 4,50,000 people, has provided sanitation access to 2 million people, and improved the hygiene condition of 1.6 million. Its project was launched and successful in the areas of Bangladesh, Ethiopia, Indonesia, Nepal, Tanzania, Uganda, and Zambia

## **6. Discussion/conclusion**

Proper clean water and sanitation are a key foundation for achieving Sustainable Development Goals, Including good health and gender equality. If we manage our water sustainably, we will be also able to manage our production of food and energy and contribute to proper work and economic growth. Having clean water and sanitation helps us to avoid several severe diseases. Every year, countless people die from these diseases which are caused by inadequate water supply, improper sanitation, and less hygiene. Apart from pneumonia, diarrhea is also the main aspect of death in children under age 5. Water is a natural resource that is indispensable to human health. It is also a resource that is undergoing a deadlock crisis; its capacity to bear plant and animal life is swiftly coming down at a rate due to problems causing human activities.

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# Goal - 6

## Clean Water and Sanitation



**B.N.V.K Srija<sup>1</sup> , P Sakshith Reddy<sup>2</sup> , Vali Keerthan<sup>3</sup>**

Jain Heritage a Cambridge School, Shamirpet

### About Sustainable Developmental Goal-6

#### **CLEAN WATER AND SANITATION**

- ❖ The 6th sustainable development goal among the 17 sustainable goals is about the importance of clean water and sanitation in one's life.
- ❖ It was started in 2015 by the United Nations to spread awareness about the condition of sanitation and the availability of clean water in different places worldwide.
- ❖ It has eight goals in all, which discuss the steps that can be taken to achieve this goal by 2030.
- ❖ The various inventions that were made to achieve this and small steps that we can take to protect our mother Earth.
- ❖ **In short, water and sanitation are the key to a sustainable future.**

## Review of the Issue

- ❖ **Unsafe water**- Main cause of unsafe water is water pollution, pollution of underground water.
- ❖ **Inadequate sanitation**- This problem interlinked with unsafe water, majorly seen in the year 2019 and 2020.
- ❖ **Insufficient hygiene**- 1.7 billion people do not have basic sanitation provisions like toilets and bathrooms.
- ❖ **Dumping of chemicals and wastes into the water**- Rural areas around industries face this concern.
- ❖ **Lack of sanitation facilities**- In 2015, 2.5% of people lacked sanitary facilities. At least 10% of the world's population is thought to consume food irrigated by wastewater.
- ❖ **Impact of COVID-19 pandemic**- The COVID-19 pandemic has greatly affected the urban poor living in the slums with little or no access to clean water.

## Methods Adopted to Improve Clean water and sanitation facilities

**Bio-toilets**: bio-toilets are eco-friendly and a sustainable solution for places in rural, urban, and peri-urban areas. They treat human waste in a bacterial culture that eliminates pathogens and excreta disposal.

**Solar ball**: this ball is an invention that stores water and purifies it using solar energy. There was an experiment done to view the workings of the solar ball that was successful in many areas, like Cambodia and Australia.

**Dry bath gel**: dry bath gel is the world's first germicidal water gel, which cleanses the body and provides a waterless hygiene solution to the poor. A 15-ml dry bath sachet can help eliminate the waste of water taken for one bath.

## 8 targets to achieve Goal-6

### **TARGET 6.1:**

#### **SAFE AND AFFORDABLE DRINKING WATER**

By 2030, achieve universal and equitable access to safe and affordable drinking water for all.

This target aims in providing equal and safe drinking water to everyone worldwide

### **TARGET 6.2:**

#### **END OPEN DEFECATION AND PROVIDE ACCESS TO SANITATION AND HYGIENE**

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.

## 8 targets to achieve Goal-6

### **TARGET 6.3**

#### **IMPROVE WATER QUALITY, WASTEWATER TREATMENT AND SAFE REUSE**

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.

### **TARGET 6.4**

#### **INCREASE WATER-USE EFFICIENCY AND ENSURE FRESHWATER SUPPLIES**

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.

## 8 targets to achieve Goal-6

### **TARGET 6.5**

#### **IMPLEMENT INTEGRATED WATER RESOURCES MANAGEMENT**

By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate.

### **TARGET 6.6**

#### **PROTECT AND RESTORE WATER-RELATED ECOSYSTEMS**

By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes.

## 8 targets to achieve Goal-6

### **TARGET 6.6 A**

#### **EXPAND WATER AND SANITATION SUPPORT TO DEVELOPING COUNTRIES**

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.

### **TARGET 6.6 B**

#### **SUPPORT LOCAL ENGAGEMENT IN WATER AND SANITATION MANAGEMENT**

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

## Custodian agencies, in charge of reporting on the following indicators

Indicator 6.1.1 and 6.2.1: Joint Monitoring Programme for Water Supply and Sanitation (**JMP**). The JMP is a joint program of **UNICEF** and **WHO** and compiles data to monitor the progress of Target 6.1 and Target 6.2.

Indicator 6.3.1: **UN-Habitat** and **WHO**

Indicator 6.3.2: Global Environment Monitoring System for Freshwater (**GEMS/Water**), International Centre for Water Resources and Global Change (**UNESCO-IHP**); Federal Institute of Hydrology, Germany; University College Cork, Ireland

Indicators 6.4.1 and 6.4.2: **FAOSTAT - AQUASTAT**

Indicator 6.5.1: United Nations Environment Programme-DHI Centre

Indicator 6.5.2: **UNECE** and **UNESCO-IHP**

Indicator 6.6.1: United Nations Environment Programme, World Conservation Monitoring Centre, International Water Management Institute (**IWMI**)

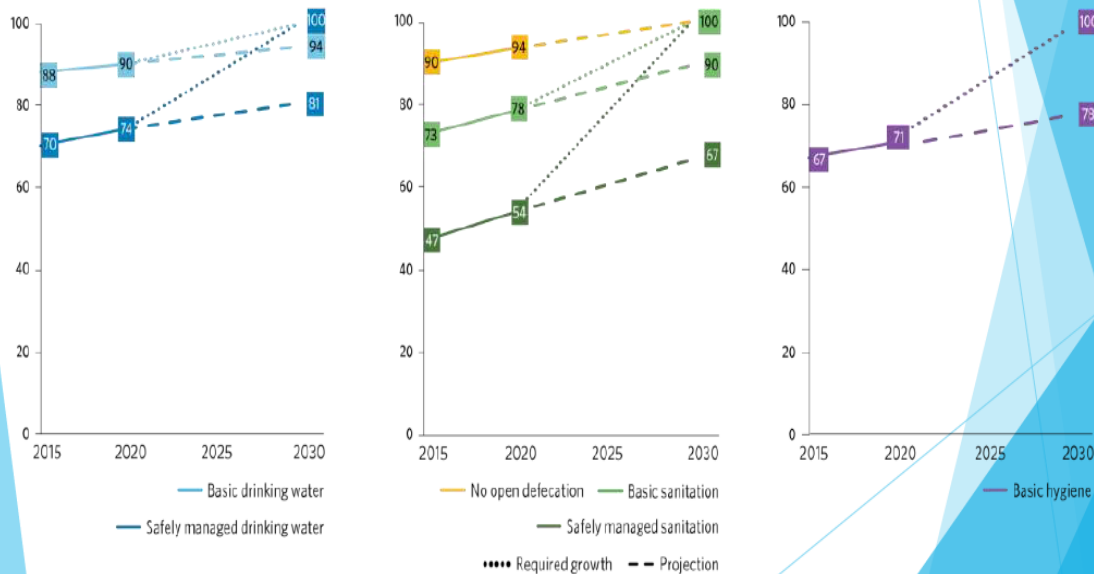
Indicators 6.a.1 and 6.b.1: UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water (**GLAAS**)

## Country Efforts to achieve results

A Program named wash SDG has taken action to achieve this goal by 2030. It has improved the access to and the use of safe drinking water for at least 4,50,000 people, has provided sanitation access to 2 million people, and improved the hygiene condition of 1.6 million. Its project was launched and successful in the areas of **Bangladesh, Ethiopia, Indonesia, Nepal, Tanzania, Uganda and Zambia**



## Global coverage of drinking water, sanitation and hygiene services, 2015-2020 (percentage), and acceleration required to achieve universal coverage by 2030



## CONCLUSION

**Water is a natural resource that is indispensable to human health. It is also a resource that is undergoing a deadlock crisis; its capacity to bear plant and animal life is swiftly coming down at a rate due to problems causing human activities.**

- ❖ If we manage our water sustainably, we will be also able to manage our production of food and energy and contribute to proper work and economic growth.
- ❖ Having clean water and sanitation helps us to avoid several severe diseases.
- ❖ Every year, countless people die from these diseases which are caused by inadequate water supply, improper sanitation, and less hygiene.

How are we contributing to  
achieve the goal of clean water  
and sanitation?

*Thank  
you*

# **TEAM IX**

**Chew Man Zhee, Dhahroonah Shree Ghaneshan, Tan Li Ying**

**School- Sri Kdu International School ( KLANG)**

**Topic – Quality Education**

## **ABSTRACT**

Quality education is knowledge that helps a child to obtain good learning experiences; We chose this topic as Malaysia was the 5th longest online learning country due to Covid 19 pandemic i.e. 656 days.

We have chosen questionnaire as our research method as it's one of the best method; It helps to get more accurate and solid data for our research.

We are conducting two different questionnaires. One is for the parents, while the other is for students. The data collected will help us get a better understanding from two different perspectives. From the parent perspective, we will be able to find out the progress that the child has made during online lessons while the students views on effectiveness of online learning. Our detail research findings, statistics, evidence and review of the topic will be shared in the research article.

## **RESEARCH ARTICLE**

### **INTRODUCTION**

Education is the process through which one person gains or transfers fundamental information to another<sup>4</sup>. It is also the place where a person learns life skills, social conventions, develops their judgement and thinking, and learns to tell right from wrong. This is the time when young children learn the foundational skills of reading, writing, and maths. Students from grades one to eight study core subjects together with history, science, and health education. Additionally, there are four more years of school when students improve their social skills and prepare for college through vocational programmes. College students who enrol in degree programmes in certain subject areas are trained for a particular profession. We now accept the fact that learning is a lifelong process of keeping abreast of change. And the most pressing task is to teach people how to learn -Peter Drucker.

Quality Education is not only a way to provide information; it is a system created to help all students realise their full potential and become contributing members of society when they grow up. Education must fully assume its central role in helping people to forge more just, peaceful and tolerant societies -Ban Ki-Moon. By providing the youngster some experience, it helps prepare them for life, not only for tests. A quality education provides resources and guides policy to ensure that every student enters school in good health, learns about and practises a healthy lifestyle, studies in a setting that is physically and emotionally safe for both students and adults, is actively engaged in learning and connected to the school and larger community, has access to personalised learning and is supported by qualified, caring adults, and is intellectually challenged and prepared for success in life.

There are several factors that make schooling important for a human, The specific cause of it is because, learning how to read, write, talk, and listen aids in improving one's communication abilities<sup>6</sup>. Critical thinking evolves with education. This is essential for instructing someone on how to make decisions and communicate with others logically like boosting creativity, enhancing time management. When a person is applying for a job, education meets the standards for entry level positions, that's how education assist a human being.

In Malaysia six years makes up the elementary schooling and another five years are required for secondary education a total of eleven years of cost-free schooling. To enrol in the first year of elementary school, a student must be at least seven years old. Everyone who is between the ages of seven and twelve must attend primary school. At the conclusion of elementary, lower secondary, and upper secondary levels, an admission exam is performed for the free secondary school. After finishing high school, students have the opportunity to pursue one to two years of post-secondary education. It is a requirement for college-level higher education. The minimum entrance criterion is 12 years of primary and secondary school.

The lack of face-to-face communication between the teacher and student is the primary issue with distant learning. This is just not doable with broadcasts. Every child was kept inside their houses and forced to complete online coursework, which had a detrimental effect on the standard of education because pupils were dealing with challenges like slow internet, etc.

### **Review of the issue**

The main reason we are choosing this topic is because Malaysia was the 5th longest online learning country due to Covid 19 pandemic which lasted for almost 2 years. The best brains of the nation may be found on the last benches of the classroom. All of us do not have equal talent (Abdul Kalam). On March 18, 2020, Malaysian schools were closed, preventing over five million students from continuing their studies. The Ministry of Education introduced a national online teaching and learning platform to keep kids learning.

As part of the country's strategy to study with lesser distractions, the national platform has kept 3 million children learning throughout school closures and play a significant role after gradual school reopening on 24 June 2020. This disease had a tremendous impact on higher education, causing significant changes that had an effect on the students there too. These effects range from social exclusion to border closures, isolation measures, university closures, and travel limitations.

As a result of the disease's spread and the closure of physical classes, online learning has emerged as an alternate teaching technique using a variety of internet-connected devices, including computers, laptops, tablets, and mobile

phones, in both synchronous and asynchronous settings. Students can study at their own pace and connect with their teachers wherever they are thanks to these teaching strategies and environments.

The discrepancy and dropout among them are brought on by their incapacity to access and participate in online learning. Online learning also takes discipline and dedication from the students, especially from vulnerable pupils who require engagement to develop their social skills. It is difficult for the students to transition from the traditional classroom to the new environment of computer-led training in virtual classrooms.

During the online learning, there are people who play two main roles who are the parents and the children. A parent's role can be hard because there is a lot of factors to take in and it's very hard for them to balance their work life and their child care. There are lot problems that a parent must have faced to take care of their child's education during the covid 19 crisis.

A parent who approaches task-oriented activities with authority can help a child not to be hard on his or herself by relying too much on their independent learning habits. It can be hostile or demotivating when a parent and a teacher have goals that are similar. "I don't feel comfortable studying online. Not only that, I understand lesser and I don't have much motivation to study because I don't feel same when the environment is different from my school and they are a lot of things that are holding me back since I am studying at home such as house work".

Therefore, it's crucial to strike a balance between preparing a performer for long-term success and seeing education as a burden. Additionally, there are instances where parents, particularly those who are parents of university students, lack empathy, ordering and assigning the students to do housework and interfering with their online learning. The stress that students already experience from online learning is increased by this. Education needs inspiration, not just information. Only inspired human beings can transform their own lives around them -Sadhguru.

Finding the right parent-coaching style might vary depending on the age group, and parents must adjust to their child's demands in terms of how they learn and react to learning, especially in an online environment. If a child can't learn the way we teach, maybe we should teach the way they learn -lgancio Estrada. Let us remember: one book, one child, and one teacher can change the world - Malala Yousafzai

Due to the fact that their children live at home with them, parents have the advantage of controlling the online environment. They ought to play a significant role in establishing the tone, creating a physical environment specifically for online learning, and maintaining encouragement in the absence of everyday face-to-face interactions. Upon the subject of education, I can only

say that, I view it as the most important subject which we as a people may be engaged in -Abraham Lincoln

Parents must model this behaviour if they want their online students to remain committed and study hard. Children frequently embrace behaviours that they perceive to be positive. A student can develop work habits and expectations by setting pace and expectations that are similar to the child's learning style and the parent's attention.

Particularly in a setting where learning takes place online, parents have a direct influence on the education that their children get. As a result, coaching pupils and instilling values during challenging times when we are undergoing a new normal can empower them and ensure beneficial influence.

Now, students generally didn't like online learning because they are not used to online learning. They are more used to offline learning which is basically studying at school like the old traditional way of studying in class. "I miss studying with my friends and having physical interactions with teachers, I also think offline classes are also important to build social interactions skills"

Connectivity problems and uneven learning structures served as the foundation for this. Since then, recurrent school closings have prevented kids from returning to their usual routine, and for many students, virtual classrooms remain their primary method of instruction. "I was really excited to start online class last year, but it's really hard to get used to the apps because it's the first time I've ever used Google Meet and Zoom and it was quite difficult to understand what the teacher was saying because of the connection of the network<sup>10</sup>"

"Sometimes I find it hard to understand my studies that my teachers teach during online learning and the internet connection can affect my classes" (project-id.org). Students also find online learning fun by playing multiple websites such as Portal Delima, Quizizz, Kahoot, Padlet as well as Telegram where they can also communicate with teachers and also students who are an introvert can privately chat to teacher through WhatsApp or other social media to help with their education. Since teachers post their videos on YouTube, it is easier for me to do revision and rewatch the video without limitation.

Online classes through Google Meets are also very helpful. Besides, I can record the meeting and rewatch it later which is very helpful."

Students will sometimes have internet connections when they are studying online because their area does not have a secure flow of network or because they are staying in rural areas. Most kids will not have a comfortable environment to study for example a noisy environment. Most students who will have disturbance by their siblings because of the amount of sound.

It will affect their understanding when their study. Another cause of an uncomfortable environment is that televisions and radios can sometimes be too loud for the students because students will study in the living room or in the hall

or houses may be too compact for the students to have a comfortable space to study. Teachers also need to motivate the students to study because they are not used to online learning. "There is also a lack of structure in online school. The ability for teachers to pick and choose when they have classes is extremely frustrating. Not to mention the workload is significantly heavier because they tend to think we have more time since we are at home. I like a teacher who gives you more to think about besides homework - Lily Tomlin

Kids are not accustomed to studying online, parents can help by encouraging their children to do so and by making sure that they are in a comfortable environment that will allow them to focus on their studies.

Methods There are various methods for doing a good survey. a. Interviews are the first way to do a good survey. Interviews are research that involves getting face-to-face. Often, in-person interviews are recorded on camera so that experts can review the interviewee afterward. b. Also have a kind of survey group called focus groups, which involves a number of people rather than just one individual. A focus group may be sampling new products, or having a discussion around a particular topic, often a hot-button one. This is frequently the costliest survey technique because a skilled moderator must be compensated. c. A questionnaire is a type of research tool that consists of a list of questions or other prompts intended to gather data from respondents. The data collected from a data collection questionnaire can be both qualitative and quantitative in nature. d. A kind of survey is called telephone surveys. Most of the telephone survey research types are conducted through random digit dialling (RDD). A mail-in survey was used before the advent of the internet, when respondents were spread out geographically and didn't require much other than the postage. There are all kinds of good methods of doing a survey, but we chose to use a questionnaire for our research. We chose to use a questionnaire because this kind of survey has lots of benefits for our research. Compared with face-to-face interviews, questionnaires are delivered online over the phone or by post. There are no extra costs or expenses to worry about with the online questionnaire, making it a much more cost-efficient approach. From the Questionnaire: by emailing or texting it, posting the link on our website, and quickly receiving feedback and responses. The ability to provide anonymity with an online questionnaire is a significant benefit compared with other ways of doing a survey, including face-to-face and over-the-phone questioning, particularly when you are looking to urge respondents on a sensitive issue. When anonymity is provided, it immediately puts respondents at ease and encourages them to answer truthfully, which is better when we're trying to get more honest and accurate information. The flexibility for respondents over where and when to complete their questionnaire The respondents can choose when and where they will complete the questionnaire. With more time to fill in our survey and even the flexibility to start it and then come back to the questionnaire at another time



to finish it off, this can help us boost overall response rates. While methods such as face-to-face and over the telephone questionnaires require the interviewer to process the respondent's answers, with the online questionnaire answers are automatically inserted into spreadsheets, databases, or other software packages. This can reduce the risk of human error while also enabling automatic validation of the data. The ability to obscure an internet-based questionnaire is a significant advantage. Especially when you are hoping to study respondents on delicate issues. When namelessness is offered, it immediately reassures respondents and encourages them to respond honestly, which is exceptional when you're trying to get a more accurate and legitimate picture of your subject of examination, like when you're interviewing people about the culture of your organisation. There are also disadvantages to using a questionnaire, like having problems with differences in understanding and interpretation, incorrect feedback, or ignorance of questions. But we still chose to use a questionnaire for our survey. There are different types of questions in a questionnaire, like open-ended questions, dichotomous questions, scaling questions, and more. We have chosen the dichotomous question method. This is because this kind of question is usually used in cases of the need for necessary validation. And it is the most natural form of a questionnaire; it just needs to be answered by choosing yes or no.

## **Results**

**Parents Questionnaire Result** For our research we chose to use questionnaire to collect general parents' opinion about online education during the pandemic. The questionnaire for parents, we had 12 questions related to the topic we are researching. We had collected 104 of responses from parents to complete this questionnaire for our research.

From the responses data we had collected, the most significant data are as follows. For the first general question, 58.3% of the parents felt that quality education was affected by online learning, while 15.5% parents said it was not affected, 17.5% parents think it might have affected their child's quality education and 8.7% of parents are not sure. "Did your child face any internet issues during online-classes?", had 61.2% of students faced internet issues during online-classes, and 38.8% of students don't have any issues in internet connection during online classes. **Students Questionnaire Results**

Based on a questionnaire we did, that was sent to students and have gotten 140 responses. The results showed clear evidence that student's think the quality of education has been affected due to online learning. When we asked them based on their experience do they think that online learning has affected the quality of education, 79.8% said yes, 11.0% said no, and 9.2% said not sure.

There are various reasons of why online learning has affected the quality of education, so in the questionnaire we had put some questions where we asked students if they think the quality of education was affected by these reasons.

The majority of students were unmotivated to study. "I think its due to the lack of a classroom, when I'm at home, I'm not usually there to lean and it is just a lot harder to stay motivated on one task without getting distracted" Junior Ian McCarthy. "It actually feels like there is more work" said Thorstienson (granitebaytoday.org)

The responses we got for, students think that they don't think it is as effective as online learning, it was mundane and tiring, hard to focus. This shows that students hate online learning and they think it is boring and not motivating. To view the full results of the questionnaire, please click the link below:

**Results:**

[https://www.canva.com/design/DAFQ4es9qYs/itfMBpp1muPu5s48sX\\_0Zw/edit?utm\\_content=DAFQ4es9qYs&utm\\_campaign=designshare&utm\\_medium=link2&utm\\_source=sharebutton](https://www.canva.com/design/DAFQ4es9qYs/itfMBpp1muPu5s48sX_0Zw/edit?utm_content=DAFQ4es9qYs&utm_campaign=designshare&utm_medium=link2&utm_source=sharebutton)

To view the questionnaire, please click the links below: Student's questionnaire:

<https://forms.gle/hGndkukEgoPwoXCZ9>

Parent's questionnaire: <https://forms.gle/UVF8b9NaoGHAFpkL9>

**Conclusion**

Based on our research, quality education has been heavily affected by online learning. We did research on two main perspectives for our research which are the parent's perspective and the children's perspective of online learning. More than half of the parents felt that their children's education was affected by online learning and roughly 80% of their children felt like their education was also affected by online learning. Less than half of the children state that they are disciplined during online learning but the rest were sometimes disciplined or not disciplined at all. This is because only roughly 30% of parents motivated their children to study online and the rest were not motivated properly which is one of the main cause of children not being discipline during online classes. This would also mean that they are being distracted by their mobile phones and playing games during lessons. Majority of students stated that they were not motivated to study because of their connection issue which the parents most of the parents realise. Therefore, they will help their child to look for a great place to study at their home or call the internet connection services to fix their WIFI but the inevitable cause of internet connection is that they are too many people using the network at once. Almost half of the students felt like that their education was affected by their environment for example pets, siblings, construction sites and too loud of a background. The parents should be responsible for this because they should be the one to ensure their child's environment to be as comfortable as possible and according to our research most of them were able to ensure it. In conclusion, in the eyes of the parents,

they state that it would be better for their children to have a physical class with face-to-face interaction and they wouldn't have to be lazy by sitting down just to study in one place the whole time. Whereas for students, they state that online education is boring and is not as effective as physical learning and lastly, they felt like they need more motivation and care from their parents and teachers. One of the major things that we could have improved on is the way we asked our questions to get more accurate and better information for our research.

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## POWERPOINT



**SRI KDU INTERNATIONAL SCHOOL, KLANG, MALAYSIA**



How did online learning affect the quality of education?



The process of our research





## The method of our research



## Research findings

### Highlights from students perspective

- Did students believe that online learning had affected their quality of education?
- Were students disciplined during online classes?



**Student Questionnaire & Findings**

### Highlights from parents perspective

- Do parents think that online learning has affected the quality of education?
- Would their child study better if they were motivated by their parents?



**Parents Questionnaire & Findings**



# Conclusion



# **TEAM X**

**Aggy Dominic, Chirag Lulla, Keya Nandi**

**School- GEMS Modern Academy – Dubai**

**Topic – Decent Work & Economic Growth**



## **ABSTRACT**

As the world takes further strides in gender equality, the inclusion of women and their representation on corporate platforms has been steadily increasing. A research conducted by the Harvard Business Review, surprisingly showed, women have a tendency for superior leadership abilities compared to men. Women achieved a higher score, in leadership skills such as teamwork, creativity and problem solving. This leads us to believe that the influence of women on economic growth could only be positive, but unfortunately, there are still obstacles for women in the workforce. Especially the women in Asian countries, that continue to rank low in the World Economic Forum's Global Gender Gap Report and are continually struggling for equal opportunities in the workforce. This is a profound global issue challenging many developing countries today. Women need to share an equal footing and pay in the workplace for sustained economic growth.

Keywords as mentioned in the abstract: Economic; women; leadership

## **RESEARCH ARTICLE**

### **INTRODUCTION**

Women have made important contributions to Asia's progress during the past ten years, particularly in the manufacturing industry, the growing care economy, and other service industries. Additionally, the number of educated women in all fields, including business and management, is rising. Women in Asia face unique difficulties as they attempt to improve their economic standing as automation alters the nature of labour globally. There is a lot of opportunity for women to increase their participation and contribution to the economy in the area. There is enormous potential. We estimate that by 2025, women in Asia will have contributed an additional \$4.5 trillion to the region's GDP, or 12% more than what is anticipated for the region's GDP at that time.

Asia is also one of the most active continents in terms of demonstrating to the rest of the globe that women's roles may be elevated. To give you a few examples, China is actually home to 114 of the 150 self-made women billionaires in the world because of the country's booming tech industry. However, every statistic of the labour market highlights ongoing gender disparities. Compared to men, female employees are paid less, more likely to work in dangerous or low-skilled positions, more likely to lack access to social security, and more likely to be unemployed.

Women encounter a number of challenges in their pursuit of opportunities and better careers, including discrimination, unpaid caregiving and family duties, harassment, stereotypes, and gender gaps in voice, representation, and leadership. This problem is especially prevalent in developing countries in Asia where both cultural and societal norms, underplay the roles of women in the

workforce. This brings us to an important question that we need to answer in order to enhance the position of women in the developing Asian countries and their respective workforces.

To what extent does the inclusivity of women in the workforce affect the economic growth of developing Asian countries?

### **Review of the Issue :**

The issue revolving around SDG8, particularly around Target 5, is the inequality of representation in the workforce, which can have grave effects on the economy. An empirical analysis by Daniel Lenderman indicates that rising income inequality lowers GDP per capita for the average country in the sample for the period 1970–2010. In particular, over a five-year period, a one percentage point increase in the Gini coefficient lowers GDP per capita by roughly 1.1%. The long-run (cumulative) effect is worse and equals about -4.5%. To be explicit, this result suggests that weaker transitional GDP per capita growth results, on average, from rises in the degree of inequality. Increases in income inequality have a detrimental long-term impact on GDP per capita levels. One of the predominant inequalities in the workforce is the inequality of the representation of women. This is a crucial subject to take into account while discussing economic growth. A research conducted by the Harvard Business Review, surprisingly showed, women have a tendency for superior leadership abilities compared to men. Women typically take leadership roles that are more cooperative and participative. The American Psychological Association says that men typically have a "command and control style" that is stronger. Men are more task-oriented and direct, whereas women are more democratic. Frequently, this is the most obvious leadership distinction between male and female managers: Men provide direction to their employees, whereas women let workers determine their own course. Women frequently inspire their staff by assisting them in finding self-worth and fulfilment in their work, which acts as its own form of compensation. This data clearly shows that women definitely have the capability to be an asset to the team. So why aren't they actively included in the workforce? Or maybe the question is what really obstructs the opportunities given to women? The key factors that obstruct the inclusion of women in Asia can be connected to their cultural and societal norms.

There are many factors that seem to affect the worklife of women in Asia. Globally, the proportion of women in the labour market who are between the ages of 25 and 39 declines by about 10% for every additional kid. Opportunities for women and girls to grow economically and educationally are restricted by unintended pregnancy.

Another factor for poor economic development is violence against women. Higher medical expenses, missed workdays, and lost revenue are all

consequences of violence against women. The economic cost of gender-based violence is estimated to be between 1.2 and 3.7% of GDP, which is comparable to what many nations spend on education.(www.weforum.org)

High rates of domestic violence may, in the long run, result in a reduction in the number of women employed, a restriction on women's opportunities to acquire education and skills, and a reduction in total public investment as more public resources are utilised for health and judicial services.

According to previous studies, the economic impact of domestic violence ranges from one percent to two percent of GDP. However, these investigations rely on fundamental accounting practices that frequently neglect to take into account the possibility of reverse causality. Education of women also plays an essential role in equal inclusion. In his study, Lawson (2008) found that the education of women directly correlates to the economic growth of a country, while their removal from education hampers it. The increase in the number of educated women would replace the uneducated men in the workforce and thereby increase the number of skilled labour which promotes economic growth.

There are numerous other factors as well that can hamper a woman's potential in the workforce. All these factors affect the ability of a female individual to survive in the working field. The yearly release of the Global Gender Gap Report by the World Economic Forum is often a source of tremendous embarrassment for Asia's developing economies. The recently released 2020 version of this report emphasises the significant and persistent discrepancies between Asian women and men on indicators of health, education, economy, and politics. According to the report's results, discrimination against women appears to be pervasive in most Asian civilizations.

<https://www.lowyinstitute.org/the-interpretor/asia-s-shameful-gender-discrimination>

Not only does this affect a female's everyday work life presence, but it also greatly increases the gender wage gap. Hence, this issue reduces our capability of achieving the 5th target of SDG 8 which revolves around equal employment opportunities and equal pay.

Developing Asian Countries In Comparison To Developed Countries:

Women's entrepreneurship growth in emerging Asian nations has a great deal of potential to empower women and change society in the area, just like it does in other parts of the world. Developing Asian Countries:

In developing asian countries nations, it is critical to comprehend not only whether women are employed but also the employment results for those who do. Despite the fact that women now make up a larger portion of the workforce in emerging nations and frequently put in longer hours than males, this trend has been ignored. In Asia, women work an extra 12–13 hours per week on average than men. In developing nations, especially in Asia, the proportion of women working in the manufacturing sector has risen lately.

Overall, even in nations where the labour force participation rate is nearly equal among men and women, possibilities for better occupations and the quality of employment are still unequally divided between the sexes. When women work, they typically earn less than males (the well-known gender wage gap), do less-productive tasks, and are disproportionately represented in unpaid family work and other vulnerable occupations.

**Developed Asian Countries:**

Although women are entering the workforce at an exponentially higher rate, some form of unconscious discrimination is always prevalent. Today women are more likely to be employed, and have progressively raised their educational levels to the point that they have now surpassed men in a number of advanced Asian nations. Women often work five to ten hours more per week than males in developed Asian countries, and at least two hours more each week. The gender wage gap narrows significantly with the increase in women in the workforce and economic growth has been encouraged by the positive change. Despite the widespread observation of progress toward gender parity in incomes, there is a broad range in the patterns that have been seen through time and across different nations.

### **Methods:**

To increase the inclusivity of women in the workforce, we have to redefine many of the societal norms in Asian societies. For example, if women are always presumed to be the primary caregivers, many women will have to choose their children over their jobs, which doesn't need to happen if the father also contributes. Defining women as homemakers and preventing their education, degenerates the coefficient of the economic growth's function. Even the home life of women has to be improved in order to improve their inclusion in the workforce. Domestic violence against women severely affects their ability in their work place. This diverges the gender pay gap and creates numerous other minor inequalities. This drastically reduces the growth rate of a country. The short- and long-term health of an economy is impacted in multiple ways by violence against women and girls. Women who come from abusive families are more likely to work fewer hours and perform less well at work. Research conducted by the World Bank Group estimates that absenteeism caused by domestic violence in Bangladesh causes 262 million dollars loss in production or in productivity which impacts its Gross Domestic Product immensely.

There have been numerous studies that show that the bias against women in the workplace in Asia is majorly an unconscious phenomenon, and is overlooked due to it being a cultural norm in such societies.

Hence, the redefining of cultural norms in Asian societies is imperative. The change needs to commence in every household which will ultimately reflect in the overall development of a country. The only way to improve the situation is

by making the people cognizant of the issue and actively taking steps in order to change the current state of women in these countries.

In order to fulfil this one sector of SDG 8, we must look back into the perception of women in an Asian society and deconstruct, and rebuild it on new foundations.

### **Results :**

The effect that women have on a community has been seen successively in many studies stretching across various countries . For example, if women are always presumed to be the primary caregivers, many women will have to choose their children over their jobs, which doesn't need to happen if the father also contributed. This societal norm was battled in Iceland through their revolutionary legislation on Paternity Leave. The case study of Iceland's paternity leave in the 2000 clearly shows that if both parents are expected to look after the children, the productivity and the opportunities for women in the workplace skyrockets. This also helps narrow the gender wage gap to tremendous amounts.

([https://www.leavenetwork.org/fileadmin/user\\_upload/k\\_leavenetwork/country\\_notes/2017/Iceland.FINAL.2may2017.pdf](https://www.leavenetwork.org/fileadmin/user_upload/k_leavenetwork/country_notes/2017/Iceland.FINAL.2may2017.pdf))

The inclusion of women in the workforce promises numerous economic benefits. According to the United Nations site, UN Women (dedicated to gender equality and women empowerment), economies expand as more women work. In addition to other beneficial development results, the economic empowerment of women raises productivity, enhances economic diversification, and increases income equality. For instance, raising female employment rates in OECD nations to the level of Sweden could increase GDP by more than USD 6 trillion, keeping in mind that growth does not always translate into a decline in gender-based inequality. On the other hand, it is estimated that gender disparities cost the economy about 15% of GDP.

(<https://www.unwomen.org/en/what-we-do/economic-empowerment/facts-and-figures>)

When more women are given the chance to work, Third World economies grow at a faster rate. This is due to the positive effects on other facets of development that economic empowerment of women has on economic diversity, productivity, and income equality. According to an IMF (International Monetary Fund) study, policies that promote women's access to finance and educational opportunities can lower inequality and boost economic growth in developing nations. "Reductions in fertility rates and increases in labour force participation rates, and in which therefore greater quality of human capital of the future economy and generations" are made possible by giving women and girls more educational possibilities. (<https://www.kcl.ac.uk/news/women-are-the-key-to-economic-development-in-third-world-countries>)

Therefore, the inclusion of women in the workforce of any country has proven positive impacts which will definitely be present in developing asian countries that follow down the same path.

### **Conclusion:**

No healthy economy can be formed without the inclusion of women in the workforce. They are one of the basic units of society which contribute to almost 50 % of its members. They form a family, families form a home, homes form a society, and societies, in turn, form a country. While it is important for developing asian countries to preserve important aspects of their cultures, the redefining of a woman's place in the workforce is crucial in order to boost their economic growth and take strides in their achievement of SDG 8. It is vital to address societal gender issues such as economic abuse, equal footing in the workplace with equal pay and domestic violence as it will make Asian countries realise how gender equality benefits everyone. While it may not be immediately obvious, seizing the gender equality agenda in society at large has enormous internal value and can lead to the flourishing of many countries. Therefore, the inclusion of women in the workforce affects the economic growth of asian countries to a large extent, which in turn helps in the further progress of the country.

Changing society is an important part of the journey to changing our future into something to rejoice for. And it will take a lot of arduous work that will have many obstacles, but it will reap just as many rewards. Because: "When women are empowered and can claim their rights and access to land, leadership, opportunities and choices, economies grow, food security is enhanced and prospects are improved for current and future generations." – Michelle Bachelet, Under-Secretary-General and Executive Director of UN Women

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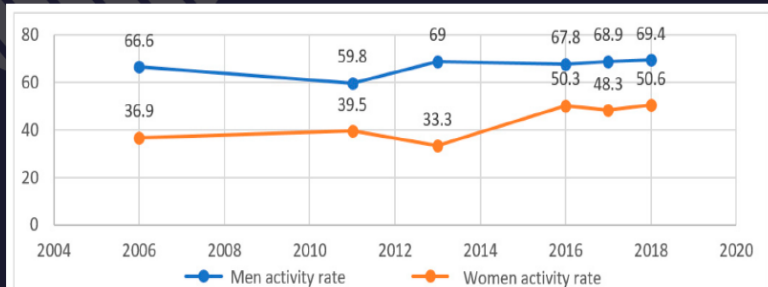
### Copywriter Consent

We certify that the work submitted for this research paper is our own and research sources are fully acknowledged. The information gathered is through public domains. And the organisers can use it for the publication of the same in their journals

### POWERPOINT



# INTRODUCTION



A Graph Depicting  
Unequal Gender Representation

## Review Of The Issue

Chirag Lulla

## Methodology

Aggy Brinnel Dominic

## Results

Keya Nandi



## SDG 8 : DECENT WORK AND ECONOMIC GROWTH

The Question Of Focus:  
To what extent does the  
inclusion of women affect the  
economic growth of  
developing Asian countries?





## REVIEW OF THE ISSUE

Issue: Despite significant strides in gender equality made over the past few decades, gender representation in the workforce is incredibly unbalanced which has large effects on the economic growth of a country.

Lack Of Unbiased Opportunities

Lack Of Higher Education In Women

Presence Of Strong Societal Norms And Gender Stereotypes

Violence Against Women And Laws Against Men

## METHODOLOGY

How do we improve the situation?

Redefining The Role Of Women In Society

Removing Bias In Opportunities

Enforcing The Education Of Women

Examining The Effects Of Gender stereotypes

# RESULTS

What do we believe the outcome of the Methodology will be?

Economic empowerment of women raises productivity, enhances economic diversification, and increases income equality.

Women in the workforce promise numerous economic benefits.

When more women are given the chance to work, Third World economies grow at a faster rate.

women in the workforce of any country have proven positive impacts on the economy

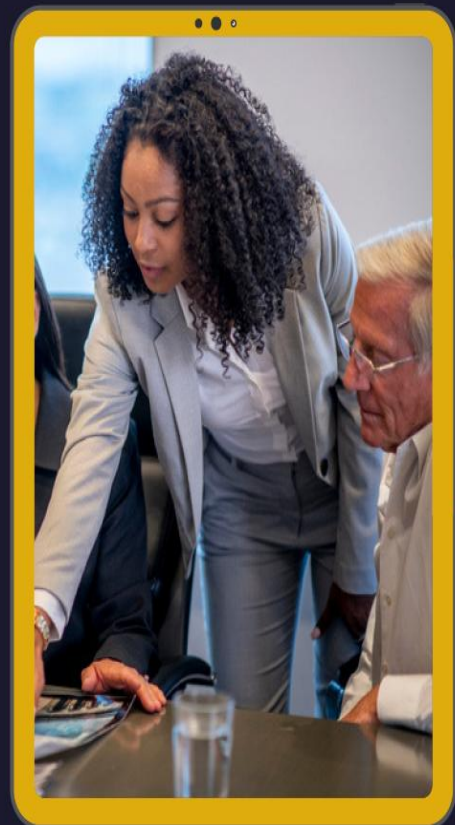
# Conclusion



The inclusion of women in the workforce is imperative for the economic growth of developing asian countries.




Increase of GDP with the increase of gender representation in Iceland





**THANK YOU  
FOR LISTENING**

Aggy Dominic, Chirag Lulla & Keya Nandi



# RESULTS

**Best Abstract – Zainab Riza, Tanaya Sharma, Anahad Kaur H( TEAM III)**





**Best Research Article – Ananya Pramod, Archana Suraj, Diya Mohan(TEAM I)**





**CHAIRMAN'S CHAMPIONSHIP**  
An initiative of JGI



## Congratulations!

**ARCHANA SURAJ** of grade **XI**  
from **CIS, Dubai** for submitting the  
**BEST RESEARCH ARTICLE** as part of the  
**STUDENT LED CONFERENCE** on **SDG** on the topic  
**Zero Hunger** organized by  
Jain Heritage a Cambridge School, Hyderabad  
cluster (India).

Thank you for your active participation during  
the conference. We wish you all the very best  
for the future endeavors!

DR. Chandrashekar D.P.  
President - JGI

DR. Mona Mehdi  
Secretary - JGI

Lalitha Kosaraju  
Jt. Secretary - JGI



Date  
12.Nov.2022



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Lalitha Kosaraju  
Jt. Secretary - JGI



Date  
12.Nov.2022

**Best Presentation – Mohammed Rayyan Younus, Nathania Moncy John, Shresti Subahar(TEAM V)**







Best Team – Ananya Pramod, Archana Suraj, Diya Mohan(TEAM I)





**CHAIRMAN'S CHAMPIONSHIP**  
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## Congratulations!

### **ARCHANA SURAJ**

Of **XI** from **CIS, Dubai**  
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Date  
**12.Nov.2022**

**Runners up Team – Diya Pratish Parikh, Gowri Hari Prasad, Karthika Ratheesh Panicker (TEAM - II)**



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**Congratulations!**

**DIYA PRATISH PARIKH**  
Of **IX** from **DPS DOHA-QATAR**  
has been adjudged as the **Runners Up-BEST TEAM** during  
the **STUDENT LED CONFERENCE on SDG**  
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Thank you for your active participation during  
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DR. Chandrashekar D.P.  
President - JGI

*DR. Mona Mehdi*  
DR. Mona Mehdi  
Secretary - JGI

*Lalitha Kosaraju*  
Lalitha Kosaraju  
Jt. Secretary - JGI

**Runners up  
Best Team  
Award**

**Date**  
**12. Nov. 2022**



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**Congratulations!**

**GOWRI HARI PRASAD**  
Of **IX** from **DPS DOHA-QATAR**  
has been adjudged as the **Runners Up-BEST TEAM** during  
the **STUDENT LED CONFERENCE on SDG**  
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Secretary - JGI

*Lalitha Kosaraju*  
Lalitha Kosaraju  
Jt. Secretary - JGI

**Runners up  
Best Team  
Award**

**Date**  
**12. Nov. 2022**



Best Speaker – Chew Man Zhee (TEAM IX)



# TESTIMONIALS



**Lakshmi Bijoy**

**Nonika Sambyal**

**In charges**

**Overseas Exchange Programme**

**DPS Modern Indian School, Doha Qatar**

Hearty congratulations to Mona ma'am and team on the grand success of the second edition of International Students' Led Conference on Sustainable Development Goals (SDGs), a topic which indisputably needs an urgent call for action.

On behalf of our Principal, Ms. Asna Nafees and the entire DPS Modern Indian School, Qatar family, I wish to express my sincere gratitude to the management and Council members of JGI for giving our students an opportunity to participate in such a distinguished programme that not only enabled them to share their perspectives on this crucial topic but also to learn and know the viewpoints of other young researchers as well. It was undoubtedly a well administered programme.

Your mindfulness and careful attention even to the minutest details have made this conference phenomenal. It was truly learning beyond comprehension for all of us. Our team of students also had a good time collaborating with teams from across the globe. Kudos to all the efforts of your team of teachers and IT team for their relentless efforts. Looking forward to associate with your team in such events in the future as well.



**Shuchita Malhotra**

**Coordinator**

**JHCS, Kondapur**

It was a great opportunity for our students to be a part of the International Student Led Conference second time as part of Chairman's Championship – an initiative of JGI.

10 teams 30 members, 10 Sustainable Development Goals an excellent platform for learning was provided.

The three students from kondapur branch were Aarya Rajput, Ancy Siya and Ananya Nair. The team trio along with the teachers- Ms Sirisha, Ms Kavitha R and Ms Mary worked hard to prepare the abstracts, research articles and presentations which gave a tough fight to other teams. The team trio was quite open to the suggestions and quick in making the changes. Learning about these initiatives helped the team to develop insights into critical issues around the world, such as lack of access to clean water and gender equality. The timely and clear instructions from the Dr Mona Mehdi, Secretary, Academic Council helped us to follow the deadlines. It was a great learning experience for all the teams who were part of it.

We look forward to many more such collaborative events with students from across the globe.



**Dr Abhilasha Chaube**

**Activity Supervisor**

**The Indian High School, Dubai**

Organizing a conference about the Sustainable Development goals in such a large scale is no mean feat and I would like to thank the organizing school for giving us an opportunity to take part in this Championship. The upcoming generation must develop such sensitivity, responsibilities towards the surrounding and by organizing such conferences give them an open place to express productively, creatively and freely. It was a wonderful experience for my students, as they have not only presented their views but also gained the views of others. The conference was well organized and scheduled in such a way that students got an opportunity to rehearse their presentation well beforehand with the help of training sessions. These training sessions get the gist of the conference and get an idea about the procedures. The productive feedback received from the judges has helped students gain confidence for such kind of conferences in the future.

last but not least I would like to thank the organizing committee for the hard work they put in to collaborate with different schools internationally and making this virtual conference a huge success.





**ARCHANA TIWARI**  
**JHCS Nagpur**

My journey at JHCS Nagpur has been spectacular and overwhelming. The school has positive vibes that makes it a beautiful shelter for not only students but also for the teachers. Our students who participated in Chairman's Championship events got the biggest opportunity to present their Research work in front of 10 schools. It was very surprising to see the interest of students in writing abstract, their research and power point presentation. It was a wonderful journey where we learned so many new things from the students. Our paper presentation on Sustainable Development : Sustainable Cities and Communities objective is to learn about how it impacts our careers. It adds value because it brings the real world to my students



**Mrs Naseema Khanum**

**Senior Coordinator**

**JHCS Shamirpet**

Let me start by showing my gratitude to the Academic Council, CEO Dr Chandra Shekar DP, Secretary Dr Mona Mehdi, Jt Secretary Lalitha Kosaraju and our beloved Principal Ms Raheela Tabasum for giving me an opportunity to be a part of this mega event.

Coming to the event, it left me speechless witnessing the super talent across the 10 teams. To be honest all 10 teams performed exceptionally well. Kudos to the team members and their coordinators for all the hard work put in, and especially the Academic Council for arranging such an event where the students across the globe can participate to gain substantial experience, showcase skills, analyze and evaluate outcomes and uncover personal aptitude.



**Divya Rajgarhia**

**Coordinator**

**GEMS Modern Academy, Dubai**

Thank you for providing our students an amazing platform to present their research paper on SDG goal 8 on the 12th of November, in the International Student Led Conference on SDG as part of 8th Chairman's Championship organized by JGI group of schools in India. The event was well structured and sensitively coordinated. It was a good exposure for our students as they learnt about innovative research techniques and how to create presentations of a high standard with evidence presented and evaluated with questionnaires, polls, QR codes and pie charts . I am sure, it will enhance their critical thinking and evaluative skills and help them with their future endeavours . It was a truly global meet schools were from India , U.A.E , Qatar and Malaysia. This was the 1st time we had participated in this initiative which was referred to me through an acquaintance of another international programme. Our student Aggy felt It was an experience like none other. They learnt so much from the other schools present. It was one of the most terrifying and beautiful things he had ever done.

Chirag added that "The SDG conference was a self-reflective process. Not only did it help me understand the SDG Goals at a more intrinsic level but also helped me discover many things about myself. This was especially true when we were writing the research paper, for which we had to read and analyze various journals.

It was great connecting with you Mona ma'am and thank you for your help and support .



**V. Lavindran**

**Coordinator**

**Sri KDU International School Klang, Malaysia**

It was an honour for us to be part of this competition. It was conducted very professionally and I must say it was a privilege for us to be part of this. My students have learnt a lot during the preparation for the competition. This has boosted their confidence level and knowledge on various aspects including the preparation of abstract, research findings, research article and oral presentation.

Once again, on behalf of Sri KDU International School Klang, Malaysia, we would like to thank the management of JGI Schools for having us part of this competition. And, Congratulations to all students who have participated in this competition. Kudos to all for a job well done!!!

Hope to be part of this prestigious competition in the coming years.

## Invitation

The Academic Council of JGI Schools  
(Hyd Cluster)  
Cordially invites you to the



### INTERNATIONAL STUDENT LED CONFERENCE (2 ND EDITION ) ON SUSTAINABLE DEVELOPMENT GOALS

AS PART OF  
**8<sup>TH</sup> CHAIRMAN'S CHAMPIONSHIP**  
(AN INITIATIVE OF JGI)

Date : 12th November 2022  
Saturday

Time : 10:30am to 1:00pm



#### Presided By

**Dr. Chandrashekar DP**  
CEO - JGI PRESIDENT - ACADEMIC COUNCIL

**Dr. Mona Mehdi**  
SECRETARY - ACADEMIC COUNCIL

**Mrs. Lalitha Kosaraju**  
JT - SECRETARY - ACADEMIC COUNCIL

#### Distinguished Guests (Jury)

**Dr. Sanobar Hussaini**  
Mumbai

**Dr. Uma Shankar. M**  
Bangalore

**Dr. Tajwar**  
Dubai

*Programme Schedule*  
**8<sup>TH</sup> CHAIRMAN'S CHAMPIONSHIP**



1. Lighting of Lamp	- 10:30 am
2. School Song	- 10:33 am
3. Welcome Address by Secretary Academic Council – Dr Mona Mehdi	- 10:33 am to 10:45 am
4. Oral Presentation by Team 1 – Cambridge International School, Dubai	- 10:45 am to 10:52 am
5. Oral Presentation by Team 2 – DPS Modern Indian School, Doha, Qatar	- 10:55 am to 11:02 am
6. Oral Presentation by Team 4 – Jain Heritage A Cambridge School, Kondapur	- 11:05 am to 11:12 am
7. Address by Jury Member – Dr.Sanobar Hussaini- Mumbai	- 11:15 am to 11:20 am
8. Oral Presentation by Team 3 – Delhi Private School, Sharja	- 11:23 am to 11:30 am
9. Oral Presentation by Team 5 – The Indian High School, Dubai	- 11:33 am to 11:40 am
10. Oral Presentation by Team 6 – The Jain International School, Aurangabad	- 11:43 am to 11:50 am
11. Address by Jury Member – Dr. Uma Shankar - Bangalore	- 11:50 am to 11:55 am
12. Oral Presentation by Team 9 – Sri Kdu International School (KLANG)	- 11:53 am to 12:05 pm
13. Oral Presentation by Team 7 – Jain Heritage A Cambridge School, Nagpur	- 12:08 pm to 12:15 pm
14. Address by Jury Member – Dr.Tajwar- Dubai	- 12:17 pm to 12:25 pm
15. Oral Presentation by Team 10 – GEMS Modern Academy - Dubai	- 12:25 pm to 12:32 pm
16. Oral Presentation by Team 8 – Jain Heritage A Cambridge School, Shamirpet	- 12:35 pm to 12:42 pm
17. Address by President Academic Council – Dr Chandrasekar DP & Release of SMART DIAMONDS Vol III	- 12:45 pm to 12:50 pm
18. Result Declaration for the Student Led Conference	- 12:50 pm to 1:00 pm
i) Best Abstract	
ii) Best Research Article	
iii) Best Presentation	
iv) Best Team	
v) Best Speaker	
Subject Expert for the Term I	
19. Vote of Thanks by Ms. LalithaKosaraju	- 1:00 pm to 1:05 pm
20. National Anthem	

INTERNATIONAL  
STUDENT LED CONFERENCE (2<sup>ND</sup> EDITION)  
ON SUSTAINABLE DEVELOPMENT GOALS



**OFFICE ADDRESS:**

Survey No. 187, Botanical Gardens Road, Masjid Banda, Kondapur,  
Hyderabad, Telangana. Contact: 9393676702/040 – 44755252

**Designed by:**

Ms Anunidhi Sharma