

# A Teacher's Guide



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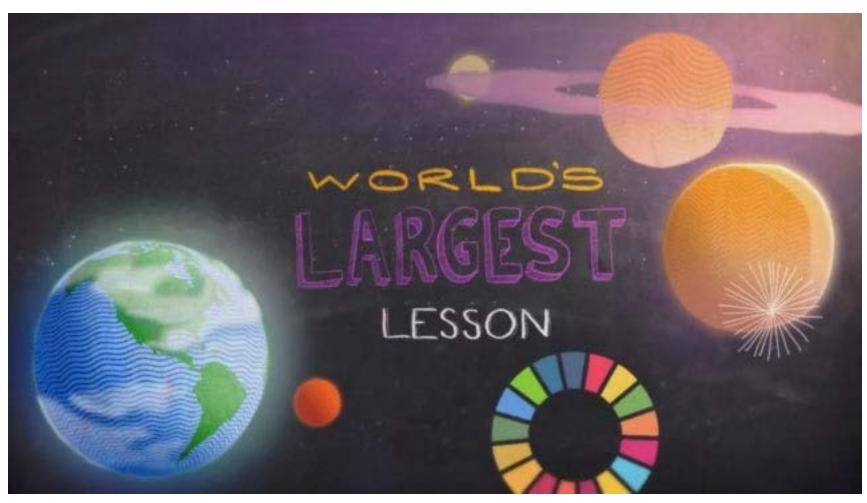




# What is Sustainable Development?

The Brundtland Report of 1987 defines sustainable development (SD) simply as "... development that meets the needs of the present without compromising the ability of future generations to meet their own needs." This simple definition encompasses many ideas – mainly the preservation of overall balance in our consumption of natural resources. Sustainable development encourages replenishing the earth with the resources that we consume with reduced production of waste and encouraging clean energy production. SD also extends to social equality and justice for all citizens of the world – the change must occur on both the local and global levels.





The World Bank says that "In order to be sustainable, development must combine three main elements: fairness, protection of the environment, and economic efficiency."

# Why is it important to us? What are its aims?

The main aim of SD is to create a balance in our environmental, economic and social needs. This balance can ensure that future generations too enjoy the same natural resources that we were blessed with. Additionally, the aim is also to create a wonderful and peaceful world for future generations by encouraging equality and fairness. The key is to achieve these goals whilst avoiding over consumption of the current resources; we enjoy and take for granted.





SD encourages us to consume the resources with more responsibility, and widen our resource base by slowly changing the way in which we develop new technologies for production. Lastly, SD aims to ensure that economic growth is supported and developing countries are allowed a growth of equal quality to developed nations.

# What are the Sustainable Development Goals (SDGs)?

The Sustainable Development Goals or SDGs are an intergovernmental set of 17 aspiration Goals with 169 targets in total. The implementation of these goals is spearheaded by the United Nations. The Goals are contained in paragraph 54 United Nations Resolution A/RES/70/1 of 25 September 2015.

These goals that many countries adopted include ending poverty, hunger, infant mortality; protecting everyone in the planet, including biodiversity and prosperity and peace for all. These goals were adopted as part of a new sustainable development agenda. Each goal has specific targets to be achieved over the next 15 years.

# THE GLOBAL GOALS For Sustainable Development

6 CLEAN WATER AND SANITATION

THE GLOBAL GOALS



For the world to be able to achieve these goals, each of the following sections must play a key a role: governments, the private sector, civil society and every individual.

### **SDGs in India**

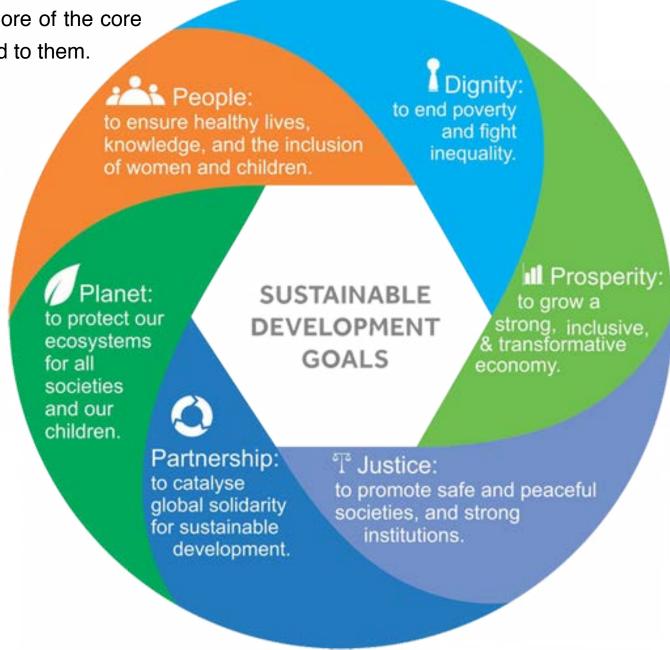
The NITI Aayog and the Ministry of Statistics and Programme Implementation will monitor the progress of the SDG's implementation in India and proactively work with other ministries by helping them with this.

The Government has involved relevant ministries and assigned them to particular goals. Each goal has 1 to 4 main ministries working on them, along with 5-6 related ministries helping. The Government has also assigned "core" and "core of the core" centrally sponsored schemes and

related interventions for each goal. Core means one of the main scheme to achieve the targets. Core of the core

means the main scheme to achieve the goal's targets. All goals do not have core schemes attached to them.





# Important Terms/Glossary

- 1. Acidification Ongoing decrease of the oceans' pH levels
- 2. Aid-for-Trade Aiding developing countries in developing trade capacity
- 3. Biodiversity The variety of life in the world
- 4. Carbon Footprint–Total amount of GHGs produced by human activity
- 5. Conservation The act of conserving something/restoration of natural environment
- 6. Consumption—The using of a resource
- 7. Deforestation Transforming a forest into cleared and by cutting trees
- 8. Desertification—The process of fertile land become a desert
- 9. Diarrhoea-Frequent discharge from the bowel
- 10. Drought-A prolonged period of severely low rainfall
- 11. Ecosystem—A biological community of interacting organisms and their physical environment
- 12. Employability–A set of skills, attributes and achievements that make one fit for employment
- 13. Empowerment—To give power/authority to someone
- 14. Equality—The state of being equal in rights and opportunities
- 15. Equity—The quality of being fair and impartial
- 16. FDI–Foreign Direct Investment
- 17. GDP Gross Domestic Product
- 18. GHG Green House Gases

- 19. Gini Coefficient-Tool to measure income distribution within a nation
- 20. Gender Inequality Unequal treatment or perceptions of individuals based solely on gender
- 21. Global North/South Simply put, North is developed and richer, south is developing and poor
- 22. HIV Human Immunodeficiency Virus
- 23. Inequality –The state or condition of being unequal in income, rights and opportunities
- 24. Infant Mortality Rate Number of deaths under 1 year of age in an area for every 1000 births
- 25. LDC Least Developed Countries
- 26. Literacy The ability to read and write
- 27. Malnourished Suffering from a lack of nutrition
- 28. Maternal Mortality-Death of women while pregnant, or within 42 days of pregnancy termination
- 29. Megacities A large city with a population of over 10 million people
- 30. NITI Aayog-National Institution for Transforming India
- 31. Nutrition Providing food vital for health and growth
- 32. OECD The Otganisation for Economic Co-operation and Development
- 33. Parity The state of being equal, usual in terms of status and pay
- 34. Portable Water Water safe for consumption
- 35. Poverty –The state of being very poor, state of being inferior
- 36. Reforestation–Establishment of a forest on land that was recently covered by trees
- 37. SDG Sustainable Development Goals
- 38. UNDP United Nations Development Programme
- 39. WEF World Economic Forum
- 40. WWF World Wildlife Fund



# No Poverty

End poverty in all its forms everywhere

The main aim of this goal is to end poverty in all its forms by 2030.



Poverty is not simply defined as a lack of income or resources to ensure a sustainable livelihood. It is reflected in hunger and malnutrition, limited access to education, and a lack of basic services. Social discrimination is also an integral part of defining poverty. Economic growth must include people from all financial backgrounds so as to provide sustainable jobs and promote equality.



Approximately 700 million people in the world still live in extreme poverty (<\$1.25 a day). They are struggling to fulfil the most basic needs like health, education, and access to water and sanitation, to name a few. The overwhelming majority of people living poorly are in South-Asia and sub-Saharan Africa and account for about 70% of the global total of extremely poor people.

The causes for extreme poverty are unemployment, social exclusion, diseases and social beliefs that prevent people from being productive.

It is important to eradicate poverty because our collective well-being is dependent on each other, be it social or economic. Inequality brings about social discrimination and is also a major contributing factor to poverty. Political and social tensions result in slowed economic growth that has in turn resulted in global poverty.



The targets that this goal is looking to achieve are complete eradication of extreme poverty with the help of implementation of social and economic relief schemes. It hopes to create gender positive framework in terms of policies. One of the main aims to is to reduce the vulnerability of the poor masses and by 2030, halving the number of extremely impoverished people.

# **Poverty in India**

According to the United Nations Development Programme, around 21% of India's population is under the poverty line, i.e. 254.1 million people – making it one of the highest in the world.





The number of people that live below the poverty line has reduced significantly in the last 10 years, India is still home to one of the largest population of malnourished children. It is also home to chronic gender inequality and social injustice.

As mentioned earlier, poverty is not only measured by income, but also factors such as well-being, nutrition and hunger. India tops the list of being one of the hungriest nations in the world with a sizeable population of children under five years of age being malnourished. Although India met a major portion of its goal to raise income by 2015, there are still approximately 221 million people in India that are severely underfed.

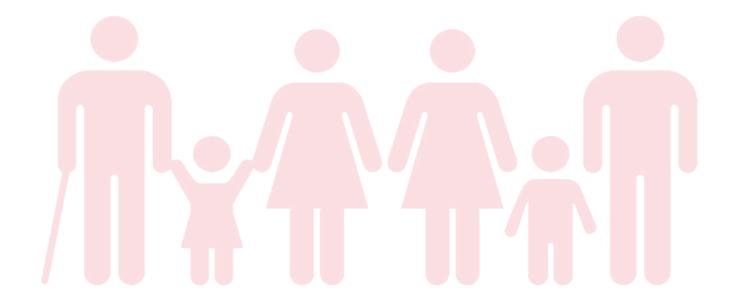
# What is the Indian government doing to implement this goal?



In addition to India's rapid economic growth rate since 1991, the government launched social welfare programmes such as "Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)" that guaranteed 100 days of paid work to all lower income populations seeking employment. The government also started the "Midday Meal Scheme" in Government Schools to provide meals to the chronically hungry children and also to encourage poor families to send their children to school. There is also the National Food Security Act, 2013 that guarantees low cost grains to all 820 million lower income people in Inia

The government will use the following Centrally sponsored schemes, along with other related pogrammes to achieve this goal—

- National Urban Livelihood Mission
- National Rural Employment Guarantee Scheme (MGNREGA)
- National Rural Livelihood Mission (NRLM)
- National Social Assistance Programme (NSAP)
- National Land Record Management Programme (NLRMP)
- · Pradhan Mantri Jan Dhan Yojana
- Pradhan Mantri Jeevan Jyoti Bima Yojana
- Atal Pension Yojana (APY)



# **Teaching Suggestions for Goal 01**

- o Teachers can first define poverty itself, with a special focus on how poverty is also a lack of opportunity and resources, rather than only the lack of income.
- o Different types of poverty can be defined using pictures that show the contrast in living conditions of people (eg. High-rise luxurious buildings in Mumbai, and the sums underneath them). Pictures will help younger students truly grasp the need to address this issue
- o Slightly older students (middle school) may be asked what the role of the government should be, or they can also be asked what they feel the government is already doing.
- o Teachers are also encouraged to address certain fundamental issues such as fairness and inequalities. The problems that arise from them. Students can be asked for a solution, and can be encouraged, therefore, to treat everyone with respect and sympathize with those less fortunate.

Ready to teach Goal No. 1 to the students? Find lesson plans, posters and other resources here:







# Zero Hunger

End hunger, achieve food security and improved nutrition and promote sustainable agriculture.

For this goal, nutrition and food security go hand in hand. It can be seen as an extension to Goal 1 as this too focuses on a lack of access to a resource.





**Hunger:** 795 million people in this world are undernourished, and the majority of them live in developing countries of Asia. South Asia is home to 281 million of them, i.e. 35.3% of the worlds malnourished live in the Indian subcontinent. Western Asia and Sub-Sahara Africa are next in line in terms of an undernourished population.

As for the lack of nutrition from undernourishment, 3.1 million children under 5 die every year from deficiency of adequate food and lack of nutrition, i.e. nearly 45% of the deaths at this age group. Additionally, almost one in three children in developing countries suffers from stunted growth.

Lastly, an estimated 66 million primary school aged children go to school hungry in developing countries.

**Food security and Agriculture:** Agriculture is the largest source of income for poor and rural households and employs approximately 40% of today's global population. Most of the food consumed in developing countries comes from small farms that mostly depend on the rain and climate – the government needs to invest more in these farms to ensure food security and also reduce dependability solely on rain.

Diverse farming techniques and methods of irrigation can be taught to rural farmers, especially their children in school. The idea of sustainable farming must also be explored, along with an emphasis on women farmers to promote equality.

The lack of energy and electricity also contribute to hunger and food production. Almost 1.4 billion people do not have access to electricity in the world.

In terms of specific targets through which this goal is to be achieved, the goal aims to remove all hunger by 2030 by promoting access to food for all. It also looks to end malnutrition, especially in small children, adolescent girls and pregnant women. Additionally, by 2030 this goal wants to double





the productivity of small-scale food producers by strengthening farmers' capacity against climate change and forces of nature such as drought or floods. Lastly, government investment in small scale farming must increase, along with promoting genetic diversity of crops and seeds.

# **Hunger, Nutrition and Food Security in India**

India for many years has been home to some of the most impoverished people in the world. More than half of Indian women aged between 15 and 49 years are anemic, and more than one-third have a low body mass index. Among children younger than age five, 48 % have low height-for-age, and 42.5 % have low weight-for-age. In addition, 43.1 % of children aged 6–59 months have moderate to severe anemia. In 1990, 53% of all Indian children were malnourished. In 2015, malnourishment declined to 40%."



# What is the Government of India doing about removing Hunger?

India has had systems such as the PDS (Public Distribution System) and the Minimum Support Price (MSP) so both the systems are able to promote farming, and also provide basic food to lower income and impoverished people.

The agriculture ministry is the main body through which the government is looking to implement the targets.

The following schemes are the Centrally Sponsored schemes through which the Government will tackle the problem of Hunger and Nutrition -

1) National Food Security Mission, 2) Mission for integrated Development of Horticulture, 3) National Mission on Sustainable Agriculture, 4) National Oilseed and Oil Palm Mission, 5) National Mission on Agriculture Extension and Technology, 6) Rashtriya Krishi Vikas Yojana, 7) National Livestock Mission, 8) Livestock Health and Disease Control, 9) National Programme for Bovine Breeding and Dairy Development

Additionally, the government will also use the following related schemes to eradicate hunger from India -

- Targeted Public Distribution System
- National Nutrition Mission
- National Food Security Act
- Mid-Day Meal Scheme

Although we are still a long way from food security in India, the government has taken multiple measures to reduce hunger by 2030 and achieve this goal.

# **Teaching Suggestions for Goal 02**

- o Teachers can address the fundamental right to be fed, and the importance of nutrition itself. Give special focus for nutrition in girls (anemia) and also pregnant women.
  - o Also, focus on fairness (like Goal 1). Is it fair that some have access to food, while others do not? This can be done in an interactive fashion like a group activity.
  - o Ask the students if they know what the government is doing for farmers, and also to provide food to lower income groups. Older children may be asked what more the government can do to help eradicate hunger, along with what it should do on a moral and humanitarian level.
- o Many in India are dependent on farming and will be aware of problems such as droughts and floods affecting not only the amount of food, but also livelihoods of the farmers. Therefore the importance of the government's attention to farming and farmers can be addressed.
- o The importance of hygiene and proper healthcare may be emphasized when taking about nutrition and well-being (This will also help understand Goal 3 better).

Ready to teach Goal No. 2 to the students? Find lesson plans, posters and other resources here:







# Good Health and Well-being

Ensure healthy lives and promote well-being for all at all ages

Goal 3 can be seen as an extension of the previous goal, wherein it promote overall health and well-being, not just that caused by lack of nutrition, but also maternal health and reproductive health, along with children's health.





The UNDP has divided health into three sections –Child, Maternal and Diseases

**Child health:** Almost 6 million children die before reaching 5 years of age. 4 out of 5 of these deaths occur in South Asia and Sub Sahara Africa. Children born in poverty are more likely to die due to poor health, and children of uneducated mothers are also more susceptible to death.

**Maternal health:** Maternal mortality rate has declined significantly in the last 25 years, especially in Northern Africa and South Asia where it has dropped by 66%. The maternal mortality ratio – the proportion of mothers that do not survive childbirth in developing regions is 14 times higher than in developed regions. Maternal medical care must be made more accessible as only about half the women in developing regions receive the recommended amount.

**Diseases:** HIV infections have reduced by 38% since 2001, with 35 million infected persons in 2013. HIV also affects children with an estimated 240,000 infected, i.e. 58% lower than 2001. Adolescent girls and young women are faced with gender based inequalities and are more susceptible to contract HIV – Out of all new infections in 2013, two thirds were adolescent girls. AIDS is the leading cause for death among adolescents in Africa, and in many cases an adolescent girl's first sexual experience is forced. This goal aims to create awareness about the harm of such practices.

The global mortality rates due to malaria have fallen by 58% as over 6.2 million malaria deaths have been averted between 2000 and 2015, primarily of children under five years of age in sub-Saharan Africa.

Between 2000 and 2013, tuberculosis prevention, diagnosis and treatment interventions saved an estimated 37 million lives.

Lastly, measles vaccines have averted nearly 15.6 million deaths since 2000.





Targets to achieve this goal include improving healthcare conditions by creating awareness among the masses about diseases. It also aims to reduce maternal mortality and infant mortality rates by 2030 and deaths caused by diseases such as AIDS, TB and malaria.



Targets also include access to good infrastructure related to healthcare, especially reproductive. Additionally, it also wants to create awareness against substance abuse, and reduce deaths caused by the same and substances such as tobacco.

Lastly, support medical innovation such as vaccines by increasing governments' financing towards the healthcare sector.

# Good Health and Well-being in India

As of 2011, India's Health Index was 0.702. The goal is to increase this to 0.9.



India has made substantial progress in the last 25 years in terms of improving healthcare facilities, awareness, and also reducing the mortality rates of both mothers and infants. Life expectancy at birth in India was at 66.3 years in 2012, which is 14 years lower than the OECD average of 80.2 years. India's Infant Mortality Rate at 43.2 deaths per 1000 live births in 2012 still lags behind the average of low and middle income countries at 33 per 1000 in 2010-15.

India still needs to go a long way in terms of healthcare. As of 2013, 30% of primary healthcare centres had only around 60% of the required facilities and medicines. Lack of clean water and sanitation has also led to stunted reduction of communicable diseases such as malaria.

# What is the Government of India doing?

The government currently uses approximately 5% of the GDP towards healthcare. In order to be able to achieve this goal, this percentage will likely be increased.

The NITI Aayog is responsible for the implementation and the main department to achieve this goal is the Department of Health & Family Welfare. It will also take the help of Ayush, Tribal Affairs, and the Dept. of Drinking water and sanitation.

The government will use the following central and related schemes:



- National Health Mission including NRHM
- · Human Resource in Health and Medical Education
- National Mission on Ayush including Mission on Medical Plants

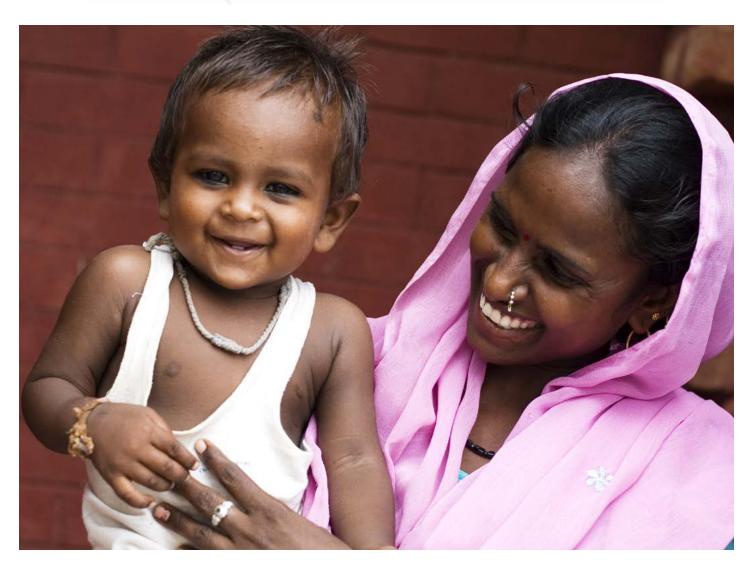
- National AIDS &STD Control Programme
- Integrated Child Development Service (ICDS)
- Pradhan Mantri Swasthya Suraksha Yojana

# **Teaching Suggestions for Goal 03**

- o Teachers can explain the importance of good health. This can be done by contrasting the differences between a healthy and an unhealthy person.
- o Children should be encouraged to discuss why they themselves feel good health is necessary.
- o The fairness of access to healthcare must also be explored and discussed. (The theme of fairness of access can be carried forward from the previous goals).
- o Children should be asked to define what they feel good health is, what they would like.
- o Older children can discuss the topics of more serious diseases such as HIV and also mental health and the importance of talking about them.
- o Through this goal, equality between genders should also be promoted.

Ready to teach Goal No. 3 to the students? Find lesson plans, posters and other resources here:







# **Quality Education**

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

Enrolment in primary education has seen a massive upsurge in the last 20 years and is currently at 91%. However, 57 million children still do not go to school and more than half of them are in Sub-Sahara Africa.



There are almost 103 million youth that lack basic literacy skills, and the ratio is also not in favour of women with them being 60% of this number. This lack of access to education mostly takes place in conflict-affected areas such as Northern and Sub-Saharan Africa and West Asia.



Economic backgrounds also affect education and literacy rates. Children belonging to poor households are 4 times as likely to be out of school as children in the richest households.

In terms of achieving this goal, gender equality has been achieved in primary education, but not in all age groups. Also, the literacy rate for youths is 83% and still not at a desirable level.



Targets to achieve this goal say that there should be equitable and quality education for both girls and boys on a primary, secondary and tertiary level by 2030. It also aims to increase vocational and technical training in young adults and decrease gender disparities. It also aims to promote inclusivity for children with disabilities. Lastly, the targets include globally expanding scholarships for impoverished youth, and also create more qualified teachers.

# IN 2030 EVERY BOY AND GIRL IN THE WORLD WILL GET A QUALITY EDUCATION

# **Quality Education in India**



The Right to Education Act mandates free and compulsory education for all children aged 6-14 in India. According to the ASER 2014, India is now close to universal enrolment for the age group 6-14, with the percentage of children enrolled in school at 96% or above for the last six years (Pratham Education Foundation, 2014). In the 15-16 age group, there are still a considerable number of children who are out of school, including drop-outs (almost 16.6%).



The net enrolment ratio in primary education (for both sexes) is 88%(2013-14). At the national level, male and female youth literacy rate is 94% and 92%.

# What is the Government of India Doing?



The government is aiming to allocate more of its resources by increasing the percentage spent in the GDP for education. The Human Resource Development Ministry is the main department through which the government will carry out the implementation process.

The following are central and related schemes the government is using to implement the goal of quality education for all -

- Sarva Shiksha Abhiyan
- National Programme Nutritional Support to Primary Education
- Rashtriya Madhyamik Shiksha Abhiyan
- Support for Educational Development including Teachers Training & Adult Education
- · Scheme for providing education to Madrasas, Minorities and Disabled
- · Rashtriya Uchhtar Shiksha Abhiyan
- · Padhe Bharat Badhe Bharat.

### **Teaching Suggestions for Goal 04**

- o Focus on the importance of education itself, by discussing the differences between the opportunities of someone with and without education. Pictures can be shown of doctors, scientists and managers, to contrast against impoverished people.
  - o The pictures can also be used to show opportunities that children will potentially have in the future with education highlight different professions



- o The importance of being independent can also be discussed.
- o In India, the children can be shown charts of how India compares to the rest of the world in terms of literacy.

o This can also be taught by facilitating a discussion on fairness, and by discussing the targets themselves. The children can say why they feel education is important.

Ready to teach Goal No. 4 to the students? Find lesson plans, posters and other resources here:







# **Gender Equality**

Achieve gender equality and empower all women and girls

On an average, women in labor force earn 24% less than men. The aim of this goal is to achieve gender equality in all its forms.



As of 2014, 143 countries have constitutionally guaranteed equality between men and women, but 52 countries still have not. In some countries, girls are deprived of access to health care or proper nutrition, leading to a higher mortality rate. A lack of education leads to lower employability and awareness – also leading to poorer quality of life.

Gender equality is a fundamental human right, and therefore, it is important for governments to implement this goal.

A lack of gender parity is visible both in the workplace and schools. Only 66% of developing countries have been able to fully achieve it.

South Asia has been able to achieve gender equality in enrolment ratios for primary school. The same number of boys and girls go to school now, as compared to 1990 when the girl to boy enrolment ratio was 3:4.

Although the situation is improving in South Asia, women in West Asia and Sub-Saharan Africa continue to face barriers to entry in both primary and secondary schools. Additionally, less than 1 in 5 women in Northern Africa are employed outside the agricultural sector.

Lastly, only in 46 countries women hold more than 30 % of seats in national parliament in at least one chamber – still a long way from achieving complete gender parity.



Targets to achieve this goal include ending gender discrimination in all its forms. The aim is to remove all forms of violence against women, including trafficking and sexual assault. Another important aim is to eliminate child marriage and genital mutilation completely. All this is to be done by providing and promoting equal opportunities for both genders and creating social programmes to ensure this. More women should be included and encouraged to participate in political, economic and public life. Access and knowledge to technology and economic benefits are to be used to empower women.



IN 2030
THERE WILL BE NO
DISCRIMINATION
AGAINST WOMEN
AND GIRLS, ANY
WHERE IN THE
WORLD



# **Gender Equality in India**



In the field of education, India has been able to achieve full gender parity in the primary education level. In the 15-24 year old bracket, the current ratio of female to male enrolment ratio is 0.91.

However, in terms of representation in parliament, only 12% of the seats are held by women (Target – 50%)

Therefore, despite the government's efforts, it can be said that India has a very large gender gap. It is among the bottom 12% in the world in gender inequality and the bottom 26% in gender gap.

# What is the Government of India doing?



The Ministry for Women and Child Development (WCD) is in charge of implementing this goal. It will work in conjunction with the department of health, telecommunications and social justice.

The government has implemented and will use the following centrally sponsored and related interventions to tackle the issue of gender parity -

- · National Mission for Empowerment of Women including Indira Gandhi Mattritav Sahyog Yojana
- Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (SABLA)
- · Beti Bachao Beti Padhao
- Sukanya Samridhi Yojana (Girl Child Prosperity Scheme)
- Support to Training And Employment ProgrammeFor Women (STEP)
- Janani Suraksha Yojana (JSY)
- SWADHAR 2011 (A scheme for women in difficult circumstances)
- Kasturba Gandhi Balika Vidyalay (KGBV)
- UJJAWALA: A Comprehensive Scheme for Prevention of trafficking and Rescue, Rehabilitation and Re-integration of Victims of Trafficking and Commercial Sexual Exploitation

India is expecting to achieve complete gender parity in youth education by 2030. The NITI Aayog will monitor the progress of the implementation of these schemes.

# **Teaching Suggestions for Goal 05**

- o The main aim will again be to focus on the "fairness" of gender inequality. Gender equality should be discussed as a fundamental human right.
  - o Define the types of discrimination. They students can be asked why they feel discrimination is bad.
  - o Lists can be made of conventional gendered traits. This can then by challenged by the teachers to promote equality.
- o Students can then be asked why they feel both genders should be equal. The discussion can revolve around the right to opportunities.
- o The importance of mothers, sisters, aunts and grandmothers can be discussed students can be encouraged to speak of how they are inspired by these women. The teacher can add to this activity by discussing how access to better opportunities can therefore inspire more people.

Ready to teach Goal No. 5 to the students? Find lesson plans, posters and other resources here:







# Clean Water and Sanitation

Ensure availability and sustainable management of water and sanitation for all.

The scarcity of water affects almost 40% of the global population. Access to water, sanitation and hygiene is a human right. The main aim of this goal is to ensure that all people have access to safe portable water, and sanitation.

More than 2 million people die every year from diarrhoeal diseases. Poor hygiene and unsafe water are responsible for nearly 90 % of these deaths. Almost 800 children die every day from diarrhoeal diseases that occur from contaminated water.

Almost 1.8 billion people in the world use water that is fecally contaminated and 663 million people do not even have access to safe water.

Water scarcity will only increase in the future as over 1.7 billion people are currently living in river basins where water use exceeds recharge.

Around 80% of wastewater that is dumped into rivers and oceans is not treated for pollution. Therefore, the use of river water leads to more diseases. This also affects aquatic life.

Approximately 70% of all water abstracted from rivers, lakes and aquifers is used for irrigation and the polluted discharge released in the water is also harmful for crops, and therefore the food we ingest.

Lastly, almost 2.4 billion people do not have access to basic sanitation services, such as toilets or latrines

Conservation of water itself is also important as almost 16% of the world's energy comes from hydropower. Since use is more than recharge, we may soon also experience global energy depletion.

Also, water related disasters and floods account for approximately 70% of deaths related to natural disasters.



The targets to achieve this goal include universal and equitable access to safe water, sanitation facilities and an end to open defecation by 2030. Aims also include improving water conditions by reducing pollutants and eliminating dumping as much as possible. Lastly, it aims to improve access to water across the globe, especially in water scarce regions.



IN 2030



Water-related ecosystems such as lakes, rivers and oceans must be protected and cleaned to promote biodiversity by 2020. Local communities and government must be taught the importance of clean water and hygiene.

### **Clean Water and Sanitation in India**



India is very deeply affected by the problem of clean water and sanitation. Almost 77 million people lack the access to safe water and 769 million people lack access to sanitation.

In 2012, 59% households in rural areas and 8% in urban India did not have access to improved sanitation facilities. Almost 600 million people in India defecate in the open, the highest number in the world.

Access to clean water in India has improved significantly since 1990, but the World Bank estimates that around 21% of the communicable diseases in India come from unsafe and unclean water. "In India, diarrhea alone causes more than 1,600 deaths daily. Latrine usage is extremely poor in rural areas of the country; only 14% of all rural population has access to a latrine."

India, therefore, has a long way to go in the implementation of the goal and achieving the targets by 2030.

### What is the Government of India doing?



This is one of the most important goals in the Indian context. The government aims to implement the targets using the Ministry of of Water Resources, River Development, & Ganga Rejuvenation. It is one of the few goals that has had more than one ministry dedicated to its implementation.

The following centrally sponsored schemes and related interventions will be used to achieve this goal by 2030 -

- National Rural Drinking water Programme
- Nirmal Bharat Abhiyan
- Pradhan Mantri Krishi Sinchayee Yojana
- National River Conservation Programme (NRCP)
- Namami Gange Integrated Ganga Conservation Mission

Inter-linking of rivers

The government will also take the help of the ministry of WCD and Agriculture to implement this goal. The Panchayats are also being involved and taught the importance of sanitation and clean water – to be able to penetrate into rural India.

### **Teaching Suggestions for Goal 06**

- o Ask the students the importance of water and the uses of water. Teachers can add come uses that students do not come up with.
- o Ask if water should be clean. Talk about why water should be kept clean. Students can be asked what they know about dirty water/water borne diseases.
- o Show pictures of polluted water and clean water. Which one is preferred and why?
- o What causes water pollution? Students should be encouraged to answer, then shown pictures of polluted water/factory dumps.
- o Once it is established that water is a basic human necessity tie the discussion back to "fairness". Why is access to water important and a fundamental human right?
- o Means of purifying water can be discussed such as a simple filter for home use.
- o The students can now respond to why water needs to be saved and importance of clean water.
- o Methods of saving water can be discussed. Also, practices like rainwater harvesting should be encouraged.
- o Pictures comparing clean and dirty water can be used throughout the class, and mostly while discussing harm to biodiversity.



Ready to teach Goal No. 6 to the students? Find lesson plans, posters and other resources here:





# Affordable and Clean Energy

Ensure access to affordable, reliable, sustainable and clean energy for all.

"Energy is the dominant contributor to climate change, accounting for around 60% of total global greenhouse gas emissions." The main aim of this goal is to ensure access to affordable, reliable, and sustainable energy for all. A lack of access to energy supplies and transformation

systems is a constraint to human and economic development.

UN Secretary-General Ban Ki-moon is leading a "Sustainable Energy for All" initiative to ensure universal access to modern energy services, improve efficiency and increase use of renewable sources. Access to energy is essential for jobs, security, climate change,

food production or increasing incomes.

In terms of global statistics, one in five, or nearly 1.3 billion people lack access to modern electricity. Almost 3 billion rely on wood, coal, charcoal or animal waste forcooking and heating.

One of the main objectives of the SDG's is to reduce the carbon footprint or intensity in the long run. Energy production and consumption is the main contributor to climate change. It accounts for around 60% of total global greenhouse gas emissions (The main reason for climate-change itself).

Another important aim of this goal is to promote renewable energy such as wind, water, solar, biomass and geothermal energy. These forms of energy are clean and inexhaustible, and leave considerably lesser of a carbon footprint. Renewable energy currently constitutes 15% of the global energy mix. The objective is to considerably increase this percentage.



The targets to achieve this goal include universal access to modern energy for all by 2030, and also a considerably increased share of renewable energy in the mix. Increased (doubled) energy efficiency is also a target by 2030. An increase in multilateral cooperation so as to facilitate research, along with upgrading infrastructure to support modern energy is also part of the targets for this goal.

# **Renewable Energy in India**

India is still one of the most affected countries in terms of lack of energy. The total installed capacity for electricity generation in India has registered



IN 2030 THE WORLD WILL BE POWERED BY RENEWABLE ENERGY





a compound annual growth rate of 7% (2013-14). Additionally, the total installed capacity of grid interactive renewable power has been showing a growth rate of over 12% (2013-14). India still has a long way to go in terms of providing energy throughout the country. It also has ample potential in terms of renewable energy protection.

### What is the Government of India doing?



The Ministry of Power is the main department that is being used to tackle this goal. There are, however, no centrally sponsored schemes the government has issued for creating renewable and affordable energy.

The following are related interventions the government will undertake to achieve its energy targets:

- Deen Dayal Upadhyaya Gram Jyoti Yojana
- National Solar Mission providing continuous power supply to rural India
- India Energy Policy
- Power (2015) Electrification of the remaining 20,000 villages including off-grid Solar Power by 2020
- Five new Ultra Mega Power Projects, each of 4000 MW to be installed

# **Teaching Suggestions for Goal 07**



- o One of the main things to discuss is pollution. Teachers should define different kinds of pollution, using pictures to support them (eg. Photograph of garbage island).
- o Green-house gases, emissions and effect can be discussed using a 3-D model or a video to explain how it occurs.
- o Discuss the causes for pollution and encourage students to talk about how pollution can be reduced. Teachers should talk about why it should be reduced.
- o Define fossil fuels and energy production. Teachers can discuss how both energy consumption and production lead to air pollution, and in turn the green-house effect

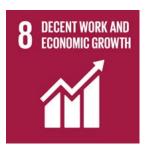
(discussed earlier in the lesson).

o Students can be taught about waste management and recycling. (This will help tie this goal to the successive goals to follow).

Ready to teach Goal No. 7 to the students? Find lesson plans, posters and other resources here:







# Good Jobs and Economic Growth

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

30 million new jobs need to be created every year to sustain new entrants to the labor market due to the growth of the global working-age population.

The main aim of this goal is to promote inclusive and sustainable economic growth, employment and decent work for all. This goal is directly linked to goals 1 and 2. Poverty eradication and eliminating hunger is only possible through stable and well-paid jobs.

Nearly 2.2 billion people live below the US\$2 poverty line and poverty eradication is only possible through stable and well-paid jobs. A continuous lack of decent work opportunities and insufficient investments lead to a loss of the basic social norm underlying democratic societies: everyone must share in progress. Sustainable economic growth will require societies to create the conditions that allow people to have quality jobs that stimulate the economy and do not harm the environment.

According to the International Labour Organization, more than 204 million people are unemployed as of 2015. Global unemployment increased from 170 million in 2007 to nearly 202 million in 2012. Around 44% of these people are part of the youth. Nearly 2.2 billion people live below the US\$2 poverty line. The world needs almost 470 million jobs between 2016 and 2030 for the new entrants to the labour market.

Small and medium-sized enterprises that engage in industrial processing and manufacturing are the most critical for the early stages of industrialization and are typically the largest job creators. They make up over 90% of business worldwide and account for between 50-60% of employment.



Targets to achieve this goal include the effort to achieve higher levels of economic productivity through diversification, technological upgrading and innovation. The governments should promote development-oriented policies that support job creation, entrepreneurship and innovation. By 2030, the aim is to achieve productive employment for all men and women with equal pay, and reduce youth unemployment by 2020. The targets also discuss eradication of modern slavery such as child soldiers and human trafficking. Lastly, the targets include a promise by developed countries to aid developing countries to enhance trade, or "aid-for-trade".



IN 2030 EVERYONE IN THE WORLD WILL ALL BE ABLE TO FIND ADECENTJOB



### Good Jobs and Economic Growth in India



As of 2011, India's unemployment rate was around 9.5% (see infographic below). As of 2013-2014 censuses, the unemployment rate in India is estimated to be approximately 5%. It is estimated that India's labour force will grow by more than 8 million per year.

The data from the census 2011 shows that almost 84 million literate people in India were unemployed, with one of the highest levels at the below matric and below graduation levels.

# What is the Government of India doing?



The Government of India has made the Ministry of Labour and Employment the main department to implement this goal. The Ministries of Finance, Urban Development, Tribal Affairs, Science and Technology, Tourism, Commerce and WCD will work alongside the Labour and Employment Ministry to eliminate unemployment and create jobs.

The following central sponsored and related schemes will be undertaken to implement this goal -

- National Service Scheme (NSS)
- Skill Development Mission
- Social Security for Unorganised Workers including Rashtriya Swastya Bima Yojana
- Deendayal Upadhyaya Antodaya Yojana
- National Urban Development Mission

# **Teaching Suggestions for Goal 08**



o The main is to focus on the importance of jobs. Discuss with students why they feel having a job is important. The can be encouraged to talk about what they would like to do once they are at an employable age.

o Inequality can be discussed once more, and then tied to fairness (both discussed in previous goals). Why is decent employment necessary? What is decent employment?

- o Discuss and define different types of unemployment seasonal, chronic, etc. What are their effects on society? The students should be encouraged to answer before the answer is given.
- o Is inequality only about money? Does a job provide more than simply a livelihood? Such overarching questions can be asked of older students. This will force students to be critical thinkers, and go beyond a simple yes/no answer.

Ready to teach Goal No. 8 to the students? Find lesson plans, posters and other resources here:







# Innovation and Infrastructure

Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

The main aim of this goal is to build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation by promoting economic growth and social development.



UNDP says that for every 1 job created in one sector, it creates 2.2 more jobs in other sectors.

Basic infrastructure like roads, information and communication technologies, sanitation, electrical power and water remains scarce in many developing countries. Approximately 1 to 1.15 billion people do not have access to reliable phone services. 2.5 billion people worldwide lack access to basic sanitation and almost 800 million lack access to water. In developing countries, barely 30 % of agricultural production undergoes industrial processing.

The growth of new industries means improvement in the standard of living for many of us. Also, if industries pursue sustainability, this approach will have a positive effect on the environment. Around 16% of the world's workforce of 2.9 billion is created in the manufacturing industry. For many African countries, particularly the lower-income countries, infrastructure constraints affect company productivity by around 40%.



In order to achieve this goal, targets include developing quality, reliable, sustainable and resilient infrastructure to support economic development and equitable access for all. Additionally, by 2030 raise employment levels and GDP. An increased access of small-scale industries to financial services, including affordable credit, and their integration into markets. Scientific research and innovation must be encouraged and developing countries must be given aid for facilitating trade. Lastly, significantly increase access to information and communications technology in LDC's by 2020.

### **Innovation and Infrastructure in India**



In developing countries like India, around 30% of agricultural production undergoes industrial processing. In high-income countries, 98% is processed. This suggests that there are great opportunities for developing countries in agribusiness.



IN 2030 EVERYONE WILL HAVE ACCESS TO THE INTERNET



India's growth rate averaged at 7.25% in the last 5 years. Therefore in terms of growth, it is at a good pace, but double digit growth rates are more desirable.

Lastly, India's CO<sub>2</sub> emissions per capita are 1.67 (metric tons) is one of the lowest in the world. The global average is around 4-5 (metric tons). Also, in 2010, per capita annual electricity consumption was 626 kwH compared to the global average of 2977 kwH.

# What is the Government of India doing?



The Commerce and Industry Ministry has been tasked with enforcing this particular goal. Other Ministries and departments the government will use are The Road Transport and Highway, Civil Aviation, Railways, Shipping, Steel, Corporate Affairs, Science and Technology and the HRD ministry.

The following are centrally sponsored and related schemes the government will directly implement to achieve targets by 2030 -

- Border Area Development Programme
- National Handloom Development Programme
- Catalytic Development Programme under Sericulture
- Pradhan Mantri Gram Sadak Yojna
- Pt. Deendayal Upadhyay Sharmev Jayate Karyakram
- Minimum Government Maximum Governance
- · Make in India
- Start Up India
- Ease of doing business policy
- FDI Policy

# **Teaching Suggestions for Goal 09**

o The main aim of this lesson will be to explain the concept of finite resources. Teachers are encouraged to re-define sustainability. Ask the students how that connects

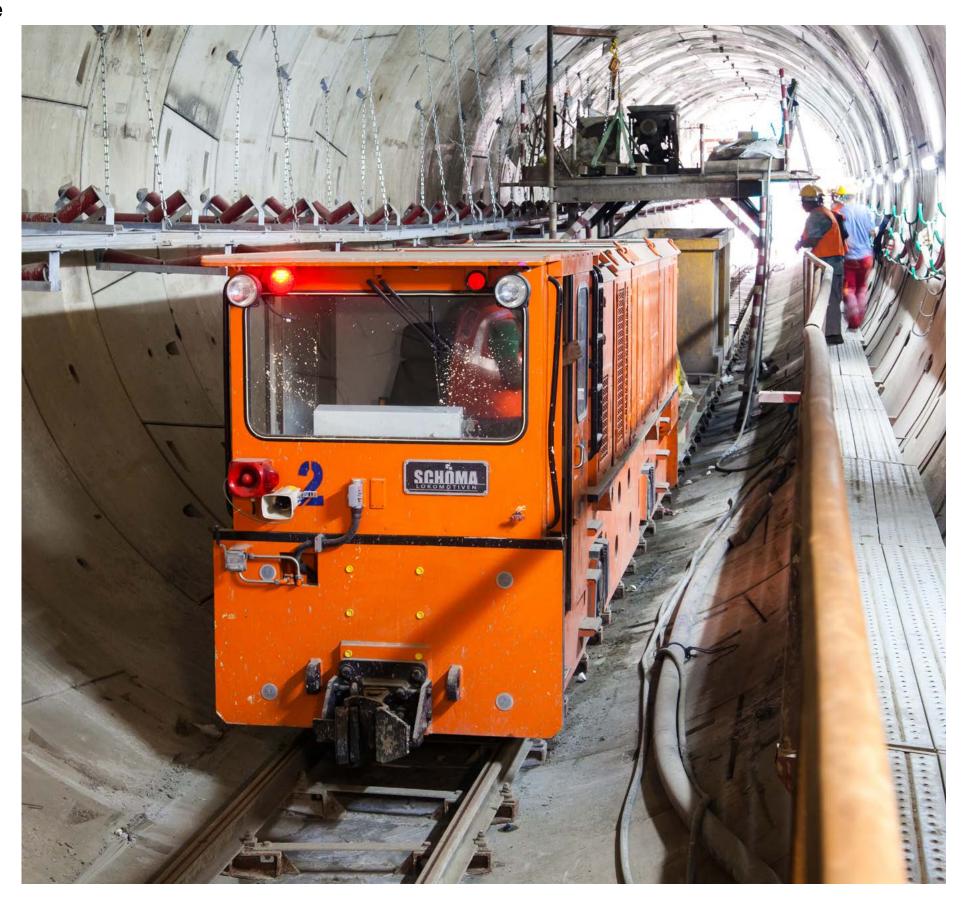
with finite resources. What does it mean to not have infinite resources?

o A group discussion can be led after this asking the students if it is viable to continue to live the way we are currently. If not, why?

o The diagram below can be shown to students to help understand the concept of the circular economy. This can later again be connected to finite resources and renewable/restored energy.

Ready to teach Goal No. 9 to the students? Find lesson plans, posters and other resources here:





# Reduced Inequalities

Reduce inequality within and among countries

Income inequality is a global problem that requires global solutions.

The richest 10% earn up to 40% of total global income; the poorest 10% earn only between 2 and 7%.

Income inequality has increased by 11% between 1990 and 2010 due to the rise in population.

"These widening disparities are a call for action that require(s) the adoption of sound policies to empower the bottom percentile of income earners and promote economic inclusion of all regardless of sex, race or ethnicity."

In addition to income inequality, income distribution has also become drastically worse. Almost 75% people live in societies where income is unequally distributed. This has mostly affected children, many of whom often die before their 5th birthday in poor households.

Lastly, according to the UNDP, "despite overall declines in maternal mortality in the majority of developing countries, women in rural areas are still up to three times more likely to die while giving birth than women living in urban centres."



In terms of targets to achieve this goal, by 2030, the aim is to sustain economic growth for the bottom 40%. Additionally, promote social, economic and political inclusion for all, irrespective of sex, disability, race, age, ethnicity or religion. Discriminatory laws need to be abolished, especially in terms of migration and immigration. FDI must be encouraged above all else, as this will also help facilitate trade. Wage policies can be adopted to endure societal equity.

### **Reduced Inequalities in India**



India is among the most unequal countries in the world, with children lacking access to clean water and sanitation. It also suffers in terms of poverty and hunger. Lastly, maternal health is also a major concern in India as poorer households suffer far more than the well off.



IN 2030 OUR POOREST PEOPLE WILL HAVE FASTER GROWING INCOMES



Although this is a rise, it is not significant enough to achieve the targets.

#### What is the Government of India doing?

The main Department tasked with implementing this task is that of Social Justice and Empowerment. The Finance Ministry, Minority Affairs Department, Urban Development, Law and justice and the Ministry of External Affairs will also help in the goal's implementation.

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The following are centrally sponsored schemes and related schemes to help achieve these targets -

- Multi-Sectorial Development Programme for Minorities
- · Backward Regions Grant Fund
- Scheme for Development of SC
- Scheme for development of OBC's, nomadic and Semi-nomadic Tribes
- Scheme for development of Economically Backward Classes
- Backward Regions Fund
- Grant from Central Pool of Resources for the North East Region
- Udaan Scheme for Youth in J&K
- Give it up Campaign (LPG Subsidy)
- Mudra Yojana

#### **Teaching Suggestions for Goal 10**

- o The main aim of this goal is talk about diversity and equality. Encourage the students to talk about how different they are. What makes each of them different?
- o Foster discussion which forces students to talk about children from other regions, societies. Are they any different? What can they learn from them? The discussion can be mostly about multi-culturalism.

- o Are all societies equal? The fairness exercise can be repeated here, and connected to different countries.
- o Pictures of children stuck in conflict zones can be shown. This will also help create an atmosphere of self-well being. It will grow sympathy for everyone.
- o The issues of education and child poverty from the previous goals can be reiterated here.

Ready to teach Goal No. 10 to the students? Find lesson plans, posters and other resources here:







# Sustainable Cities and Communities

Make cities and human settlements inclusive, safe, resilient and sustainable

Almost 50% of the world lives in urban areas. By 2050, that figure will have risen to 6.5 billion people – i.e. almost 66% of the population. Urban Space management is to key to sustainable development.

The rural to urban migration has given rise to megacities. As of 2014, there are 28 megacities and are home to around 453 million of the world's population.

According to the UNDP, "extreme poverty is often concentrated in urban spaces, and national and city governments struggle to accommodate the rising population in these areas." There is a long way to go, with the first step being that cities should be made safer and more affordable housing must be made available.

Almost 828 million people live in slums. Slum rehabilitation is a big part of achieving this goal. Almost 70% energy consumption and 75% carbon emissions come from cities, and rapid urbanization affects this amount. The key is to be able to sustainably grow. The rapid growth in population also limits the access to resources and deteriorates public health. Reduction of resource and energy consumption is key.

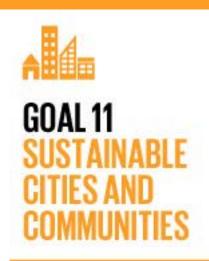
Green energy is a viable option for up and coming cities. Rizhao in China is powered 995 by solar energy.



Targets include the achievement of safe, affordable and sustainable housing for all in urban areas. The aim is to also provide safety and rehabilitation for slum dwellers. Sustainable urbanization is to be promoted, and also eliminate deaths to due to economic losses or reasons. Reduce pollution for cities and also increase the number of green spaces. Lastly, financial, technical and social assistance must be given for the development of cities.

#### **Sustainable Cities and Communities in India**

Almost 68% of India's population still lives in rural areas, with the remaining 32% in the urban ones. This number is likely to grow drastically in the next few decades.



IN 2030 OUR
CITIES WILL BE
HEALTHIER TO
LIVE IN, WITH
CLEANER AIR
FOR US TO
BREATHE





By 2030, India is expected to have 6 mega-cities, each of which will be home to a population of more than 10 million people.

This expansion also comes with a challenge. With an increase in the urban population and growth in mega-cities, it may also lead to more slums. Currently, around 17% of India's population lives in Urban Slums.

#### What is the Government of India doing?



The Ministry of Urban Development will handle the implementation of this goal. It will work with the Railway Ministry, Road Transport and highway Ministry, Home Affairs, Rural Development and Finance Ministry.

The following central and related schemes will be implemented to achieve the targets for this goal -

- · Rajiv Awas Yojna
- Indira Awas Yojna
- Pradhan mantri Adarsh Gram Yojna
- National Programme for Persons with Disabilities
- · Jawaharlal Nehru National Urban Renewal Mission
- · Smart Cities Mission
- Pradhan Mantri Awas Yojna
- Atal Mission for Rejuvination and Urban Transformation
- Heritage City Development and Augmentation Yojna

#### **Teaching Suggestions for Goal 11**

o The idea of circular economy can be reinforced here.

- o The idea of fairness and finite resources must also be discussed. This can also be done in a similar fashion to that of the previous goal. This would also help students understand that all the goals are inter-connected and dependent on one another. Only if this one thing is achieved, the other will too.
- o A type of flow chart can be made to show the ripple effect each goal will have on society with a special focus on urban centres for this particular goal.

Ready to teach Goal No. 11 to the students? Find lesson plans, posters and other resources here:







# Responsible Consumption and Production

Ensure sustainable consumption and production patterns

The UNDP has divided this goal into three sub-categories – water, energy and food.

Almost 1.3 trillion tonnes of food worth \$1 trillion goes to waste every year. It either spoils in bins of consumers or retailers, or "due to poor transportation and harvesting practices."



Water

☐ Humanity relies only on 0.5% of all the available freshwater for all of man's fresh water needs. The remaining 2.5% are frozen in in the form of glaciers or ice capped peaks.

- Man is polluting water faster than nature can recycle and purify water in rivers and lakes.
- More than 1 billion people still do not have access to fresh water.

#### **Energy**

- Energy use in Organisation for Economic Co-operation and Development (OECD) countries will continue to grow another 35% by 2020.
- In 2002 the motor vehicle stock in OECD countries was 550 million vehicles. A 32% increase in vehicle ownership is expected by 2020. Motor vehicle kilometres are projected to increase by 40% and global air travel is projected to triple by 2020.
- Households consume 29% of global energy. It is estimated that the world will save around \$120 billion if it switches to energy efficient lightbulbs.
- One-fifth of the world's final energy consumption in 2013 was from renewables.





#### **Food**

- Substantial environmental impacts from food occur in the production phase (agriculture, food processing). Households influence these impacts through their dietary choices and habits. This affects the environment through food-related waste generation.
- Overconsumption of food is detrimental to our health and the environment about 2 billion people in the world are overweight or obese.
- Land degradation, declining soil fertility and unsustainable water use are all lessening the ability of the natural resource base to supply food.
- ☐ The food sector accounts for around 30% of the world's total energy consumption and around 22% of total Greenhouse Gas emissions.



The targets to achieve this goal include halving per capita food waste by 2030 and by 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle. Also, by 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse. By 2030, the aim is to ensure that people everywhere have the relevant information about sustainable development. Lastly, the goal aims to support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production.

#### **Responsible Consumption and Production in India**



More than 1 billion people still do not have access to fresh water, a major fraction of which resides in India and South-Asia.

India is the fourth largest Greenhouse Gas emitter in the world and contributes to almost 5.3% of the total global emissions.

The government of India has committed to reduce the emissions intensity of its GDP by 20 to 25% by 2020.

#### What is the Government of India doing?



The Ministry of Urban Development is the main department responsible for implementing this goal. Additionally, the government will also use the Culture Ministry, Department of Home Affairs, HUPA, Ministry of Railways and Ministry of Road Transport & Highways.

The following centrally sponsored schemes and related interventions will be used to achieve this goal -

Rajiv Awas Yojana (including BSUP)

- Indira Awas Yojana
- · Pradhan Mantri Adarsh Gram Yojana
- National Programme for Persons with Disabilities
- Jawaharlal Nehru National Urban Renewal Mission
- Smart Cities Mission
- Pradhan Mantri Awas Yojana (Housing for All-2022)
- Atal Mission for Rejuvenation and Urban Transformation
- Heritage City Development and Augmentation Yojana

#### **Teaching Suggestions for Goal 12**



- o The concept of finite resources and circular economy will again be the focus of this particular lesson's goal.
- o The diagrams and concepts from the lesson plans in the previous goals can be used here to define terms such as resources and their finite nature.
- o The circular economy diagram must be discussed and in this case, connected to the idea of sustainability.
- o A main concept to be introduced in this lesson is that of reduce, reuse and recycle.
- o The concept of the 3 R's must then be re-connected with that of the circular economy, and of course the idea of finite resources.



Ready to teach Goal No. 12 to the students? Find lesson plans, posters and other resources here:





# Climate Action

Take urgent action to combat climate change and its impacts

This goal directly deals with that of climate change. Although other goals have also touched upon this topic in passing, this goal addresses only climate change.



Global emissions of carbon dioxide have increased by almost 50% since 1990. Human activities that release GHG's are at the highest level in history right now.

Carbon dioxide concentrations have increased by 40% since pre-industrial times, primarily from fossil fuel emissions and secondarily from net land use change emissions. The ocean has absorbed about 30% of the emitted anthropogenic carbon dioxide, causing ocean acidification. The amount of GHG's in the atmosphere is the highest it has been in 800,000 years.

From 1880 to 2012, average global temperature increased by 0.85°C. Without action, the world's average surface temperature is projected to surpass 3 degrees Celsius this century. The poorest and most vulnerable people are being affected the most.

From 1901 to 2010, the global average sea level rose by 19 cm as oceans expanded due to warming and melted ice. The Arctic's sea ice extent has shrunk with 1.07 million km² of ice loss every decade since 1979.

The goal set by governments is to limit the rise of temperature to around 2°C instead of 3.



The main targets to achieve this goal include the inclusion of climate change in social policies and future laws. It also aims to reduce climate change related hazards. Lastly, it looks to raise awareness about climate change itself in all ages, and also build infrastructure resilient to this change.

#### **Climate Action in India**

India is the fourth biggest emitter of Green-house gases, India has a long way to go to reduce pollution, especially in megacities.







A step the government has taken is to create more public transport, with the construction of metro trains in many major cities and more buses plying.

Delhi' odd-even car formula was also a step in this direction towards reducing pollution that contributes to climate change.

India has committed to reduce the emissions intensity of its GDP by 20 to 25% by 2020.

#### What is the Government of India doing?



The Ministry of Environment, Forest and Climate Change is the main department of the government that will be used to implement this goal.

The following schemes have been implemented to combat climate change –

- National Action Plan on Climate Change
- · National Mission for a Green India
- · National Solar Mission
- National Mission for Enhanced Energy Efficiency
- National Mission for Sustainable Habitat
- National Water Mission
- National Mission for Sustaining the Himalayan Ecosystem,
- National Mission for Sustainable Agriculture
- National Mission on Strategic Knowledge for Climate Change.

#### **Teaching Suggestions for Goal 13**

o The students must be shown pictures and videos showing different forms of pollution – with a special focus on air pollution. They can later be asked about pollution within their community. Local examples will help understand the concept better.

o The concept and definition of greenhouse effect can be retaught, and again a link between different goals can be emphasized.



- o In addition to local examples, give more global examples like oil spills. This can later be linked to the goal of life conservation under water.
- o The impact of climate change can be shown using pictures and videos of the barrier reef and garbage-island teachers can discuss long term effects and therefore the need to fight this.

Ready to teach Goal No. 13 to the students? Find lesson plans, posters and other resources here:







## Life Below Water

Conserve and sustainably use the oceans, seas and marine resources for sustainable development

Oceans contain 97% of the Earth's water, and represent 99% of the living space on the planet by volume. They contain almost 200,000 identified species, and therefore embody most of the earth's biodiversity. It is believed oceans also contain millions of more unidentified life-

forms. Moreover, oceans account for around 5% of the global GDP or \$3 trillion.

Almost 80 million tonnes of fish are caught globally – which is approximately the estimated rate of the ocean's production capacity. This also occurs due to the vast subsidies given to the fishing industry by governments. Marine fisheries indirectly employ almost 200 million people worldwide.

In terms of the importance of oceans – it is the world's largest source of protein and around 3 billion people depend on oceans as their primary source of food and this essential nutrient. Additionally, they absorb about 30% of carbon dioxide produced by humans, buffering the impacts of global warming. This is important to note because almost 40% of the world's oceans are heavily affected by human activities, including pollution, depleted fisheries, and loss of coastal habitats.



The main targets to achieve this goal are to reduce water pollution significantly by 2025 and also preserve aquatic ecosystems by 2020. Targets also include the reduction of overfishing, and reduce certain subsidies for fisheries by 2020. Lastly, enhance the conservation and sustainable use of oceans.

#### Life below water in India



There are around 120 species of marine mammals to be found in the world, and approximately a fourth of these are believed to be found in India and adjacent countries (Indian Ocean).

According to the NITI Aayog, "more than 1 million people in 3651 villages of India situated along the coast are employed in marine capture fisheries." Therefore we are directly dependent on the ocean and must try to conserve life in it as much as possible.



IN 2030 OVER FISHING WILL BE OUT LAWED, AND OUR FISH STOCKS WILL HAVE BEEN RESTORED



The Wildlife Trust in India, along with the World Wildlife Fund (WWF) is doing a lot of work focused on marine conservation in India. Some of these include the Mithapur Coral Recovery Project, and The West Coast Marine Conservation Project based in Gujarat.

#### What is the Government of India doing?

The Government has tasked the Ministry of Earth Sciences to implement the goal of life conservation under water. The department of animal husbandry, dairying and fisharies will also be involved.

The following centrally sponsored and related schemes have been implemented to achieve the targets in India –

- Conservation of Natural Resources and Eco-Systems
- National Plan for Conservation of Aquatic Eco-System
- Sagarmala Project (Blue Revolution)

#### **Teaching Suggestions for Goal 14**

- o The theme of pollution can be continued to teach this goal also. Show pictures of oil spills, water pollution, garbage. Images of the Ganga, or any local Indian river close to the area can be shown to create familiarity.
- o Students can be divided into small groups and can discuss what they feel is the problem with pollution. They can also talk about potential solutions that they can implement within their community.
- o In addition to local pollution, teachers are encouraged to discuss bigger problems like water acidification and oil spills (for 12+ students) and overfishing for younger students.
- o The concept of limited resources can again be visited while teaching this goal this will also help connect it to the other goals.



Ready to teach Goal No. 14 to the students? Find lesson plans, posters and other resources here:





### 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.

Forests cover 30% of the Earth's surface and key to "combating climate change, protecting biodiversity and the homes of the indigenous population." Deforestation and desertification pose major challenges to sustainable development.



The UN has divided this goal into the following three sub-parts:

**Forests:** Over 25% of the world's population or 1.6 billion people depend on forests for their livelihood. This number also includes around 70 million indigenous and tribal peoples that reside in forests. More than 80% of all terrestrial species of animals, plants and insects live in forests.

**Desertification:** 52% of the land used for agriculture is affected to some degree by soil degradation. This is a concern because 2.6 billion people or over 35% of the world's population is directly dependent on agriculture for their livelihood. As of 2008, land degradation affected the lives of around 1.5 billion people.

Additionally, the rate at which the earth is losing arable land due to pollution, construction and other human activities is at an all-time high (almost 30-35 times more than the historical rate).

Drought and desertification on earth have resulted in the potential loss of 20 million tonnes of grains. This is significant to the first few goals focusing on poverty and hunger as well. Land degradation is indirectly denying many of a fundamental right. "74 % of the poor are directly affected by land degradation globally."

**Biodiversity:** Around 8% of the total animal population is extinct and 22% are endangered. Almost 99% of all trees have still not been studied for their properties and uses.

Over 80% of the human diet is provided by plants. Only three cereal crops – rice, maize and wheat provide 60% of energy intake. Fish provide 20%





of animal-protein to about 3 billion people.



In terms of targets to achieve this goal, the main aim is to reduce deforestation and reduce desertification as much as possible by 2020. It also aims to promote sustainable management of all forests and natural habitats like mountains and lakes by 2030. Reforestation I also an important target to fight this. Targets also include helping people who got affected by drought and floods. Lastly, the targets to achieve this goal mention the preservation of endangered species and reduce the loss of biodiversity by implementing stricter anti-poaching and hunting laws. Governments are also encouraged to divert more finances to this cause.

#### Life on Land in India



UNDP says that almost 80% people living in rural areas of developing countries (such as India) depend on plant-based medicine for everyday healthcare.

Forest cover in India had depleted significantly, but has increased to 21.23% - an increase of 5871 sq. km in the last few years. Protected areas cover around 4.8% of India's total landmass.

According to the NITI Aayog, "India is among the early movers on the Nagoya protocol and is committed to the Aichi targets on conserving biodiversity." Lastly, it is important to note that India has 8% of the world's biodiversity with many species that are not found anywhere else in the world.

#### What is the Government of India doing?



The Ministry of Environment, Forest and Climate Change is responsible for implementing this goal. The Ministry of Tribal Affairs, and Agriculture will also be used to help implement this goal. The Finance Ministry will also play a minor role.

The following centrally sponsored and related schemes will be used to achieve the targets -

- National Afforestation Programme (National Mission for a Green India)
- Integrated Development of Wild Life Habitats
- Project Tiger
- Project Elephant
- National Environmental Policy

- National Agroforestry Policy (2014)
- National Action Programme to Combat Desertification

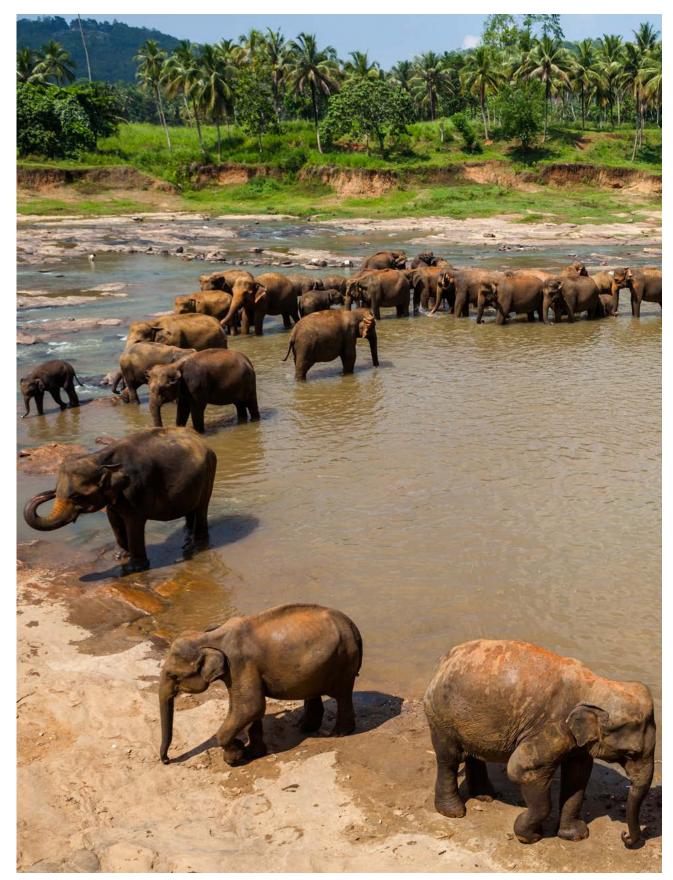
#### **Teaching Suggestions for Goal 15**



- o The concept of circular economy would be key in teaching this goal. The students can be shown the diagram, and again told how the goals are interlinked.
- o The economic value of forests must be highlighted while teaching the circular economy and the concept of limited resources for us all to share.
- o The second part of this lesson will depend on the environmental importance of trees. The idea that they give us oxygen can be discussed with younger students. Students older than 12 can be taught the importance of reforestation by linking it to the green-house effect. The concept of ecosystems can be explored by using little models of forests or lakes.
- o The concept of interdependency must be explored when talking about ecosystems. Encourage students to make a flow chart of what depends on what to understand this point better. This can then again be related to the circular economy for a more rounded understanding of this goal.

Ready to teach Goal No. 15 to the students? Find lesson plans, posters and other resources here:







### Peace and Justice

Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

Peace, stability, human rights and effective governance based on the rule of law are important conduits for sustainable development. Some regions

(1)

enjoy sustained levels of peace, security and prosperity while others are conflicted and violent. According to the UN, the most corrupt institutions are the judiciary and police. This goal aims to fight that.

GOAL 16
PEACE AND
JUSTICE

According to the UN, "Corruption, bribery, theft and tax evasion cost some US \$1.26 trillion for developing countries per year; this amount of money could be used to lift those who are living on less than \$1.25 a day above \$1.25 for at least six years"

The SDGs aim to significantly reduce all forms of violence, and work with governments and communities to find lasting solutions to conflict and insecurity. Strengthening the rule of law and promoting human rights is key to this process.



The targets to achieve this goal include significantly reducing all forms of violence and related death rates everywhere. Also reduce abuse exploitation, trafficking and all forms of violence against and torture of children. The implementation of proper rule of law at both national and international levels, and equal justice for all is the most important target.

### IN 2030 WE'LL ALL HAVE EQUAL ACCESS TO JUSTICE

#### **Peace and Justice in India**



India is developing country and has a very poor GINI coefficient, making it highly unequal economically. India also suffers from gender inequality.

Corruption is also a major factor stopping India from achieving this goal. It may have laws in place, but corruption still persists.

In terms of education, India has improved in the primary section, but the drop-out rates in secondary school have improved more slowly. In India, more than 20% of all pupils and one-third of all Scheduled Tribe students drop out before finishing primary education.



#### What is the Government of India doing?

The Ministry of Home Affairs and the Ministry of External Affairs are tasked with implementing this goal.

The government has introduced the following centrally sponsored schemes and related interventions:

- · Panchayat Yuva Krida aur Khel Abhiyan
- Development of Infrastructure Facilities for Judiciary including Gram Nyayalayas
- Integrated Child Protection Scheme
- Digital India
- Pragati Platform (Public Grievance Redressal System)
  - RTI (Right to Information Act)



**Teaching Suggestions for Goal 16** 

- o This goal can be thought of as the mixture of many of the previous goals, and the idea of fairness can be re-taught.
- o There is lots of rhetoric about corruption in India. Students can be asked if they personally have suffered and can therefore be encouraged to come to the conclusion of how corruption needs to be reduced.
- o Also talk about conflict, and how that can lead to migration. This can help a discussion about diversity. India's diversity can be talked about with pictures.
- o The main theme of this lesson should be equality and fairness and its importance in today's world.



Ready to teach Goal No. 16 to the students? Find lesson plans, posters and other resources here:





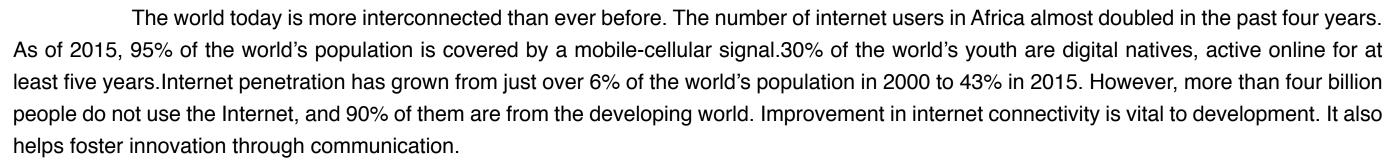
# Partnerships for the Goals

Strengthen the means of implementation and revitalize the global partnership for sustainable development

The SDGs can only be realized with a strong commitment to global partnership and cooperation. While official development assistance from



developed countries increased by 66% between 2000 and 2014 (approximately \$135 billion), there was still humanitarian crises and disasters in developing countries that warranted more aid. Coordinating policies to help developing countries manage their debt, as well as promoting investment for the least developed, is vital to achieve sustainable growth and development.



The goals aim to enhance Global North-South and South-South cooperation by supporting national plans to achieve all the targets. According to the UNDP "Promoting international trade, and helping developing countries increase their exports, is all part of achieving a universal rules-based and equitable trading system that is fair and open"



Targets to achieve this goal have been divided by the UN into many categories. The three main ones are Finance, Technology, and Trade. The main targets for finance are for developed countries to provide developing countries with more aid, mostly to encourage trade. In terms of technology, the aim is to be improve connectivity – both cellular and internet in least developed and developing countries. Lastly, the targets also include improving free trade by removing barriers as much as possible. This will also help promote interdependence and connectivity between countries.

#### Partnerships for Goals in India

India has the second highest number of Internet users in the world. However, internet penetration in the country is under 20%.



IN 2030
THE LEAST
DEVELOPED
COUNTRIES WILL
EXPORT TWICE
AS MUCH AS
THEY DO NOW





India's vast population makes it difficult to achieve all goals in a timely manner. However, in terms of cellular and internet technology, India has penetrated vastly into even very remote and rural locations. The government will continue to improve this with the help of recently launched services like Reliance Jio.

In terms of trade, India has in the last few years improved relations with all its neighbours, west and South-East Asia to foster trade.

#### What is the Government of India doing?



The Government has divided the implementation of this goal between many departments. These include the Ministries of Finance, External Affairs, Commerce & Industry, and Science and Technology. Additionally, the government will also use the Ministry of Rural Development, Corporate Affairs, Telecommunications, and Information and Broadcasting.

The following are Centrally Sponsored Schemes and related interventions employed by the government to achieve the targets –

- Support for Statistical Strengthening
- South-South Cooperation
- India Africa Summit
- SCO (Shanghai Cooperation Organisation)
- BRICS (Brazil, Russia, India, China, and South Africa)
- NDB (New Development Bank BRICS)
- SAARC Satellite (South Asian Association for Regional Cooperation)

#### **Teaching Suggestions for Goal 17**



- o The main aim of this is to understand what the goals stand for as a whole concepts of fairness, circular economy, limited resources must all be brushed upon.
- o An activity can be to make students think of themselves as policy-makers or heads of state. What would they do to implement these goals?
- o This can then be tied to what governments are already doing what they can do on an individual level.

o Do a short recap of all the goals, and show the students pictures related to the SDGs to tie it all together.

Ready to teach Goal No. 17 to the students? Find lesson plans, posters and other resources here:







Oxford English Dictionary

NITI Aayog SDG Overview

NITI Aayog SDG Statistics "Sustainable Development Goals (SDGs), Targets, CSS, Interventions, Nodal and other Ministries"

**UNDP Sustainable Development Goals** 

**UN Sustainable Development Goals Overview** 

IISD, Sustainable Development

World Bank "What is Sustainable Development?"

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World's Largest Lesson "Global Goals"

FAO "The State of Food Insecurity in the World 2015"

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Census 2011, Government of India, Ministry of Home Affairs

UNESCO "Global Education Monitoring Report"

World Health Organisation (WHO) "Drinking Water"

"India's Water Crisis"

World Economic Forum (WEF) "From Linear to Circular Economy"

Renewable Energy World

Centers for Disease Control and Prevention (CDC) "Impact of Climate Change on Human Health"

Wildlife Trust in India

Visit our websites

### **The Climate Reality Project**

India: www.climatereality.org.in

International: <u>www.climaterealityproject.org</u>

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