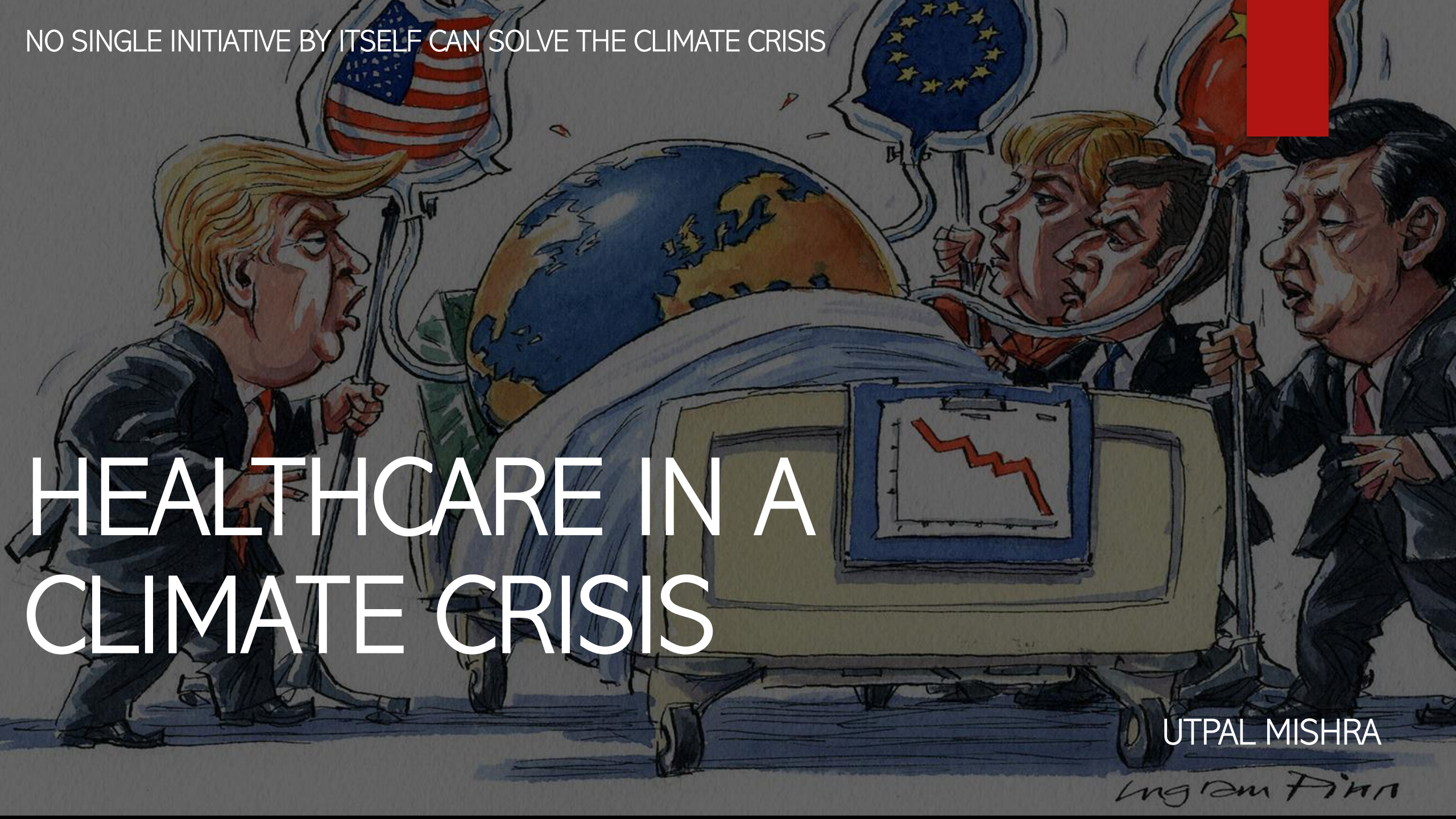


NO SINGLE INITIATIVE BY ITSELF CAN SOLVE THE CLIMATE CRISIS



# HEALTHCARE IN A CLIMATE CRISIS

UTPAL MISHRA



# PROBLEMS

A large hand is shown holding two different versions of the Earth. The left side of the hand holds a dark, brown, and cracked Earth, representing a dying planet. The right side of the hand holds a vibrant blue and green Earth, representing a healthy planet. The background is split vertically: the left side is a hazy, orange-brown landscape with smoke, and the right side is a clear blue sky with green hills and a small pond.

It's been quite a while since, we incepted witnessing the signs from the nature that it needs assistance and time to heal. A help to stay intact, help to keep flourishing, help to live and providing a living to all the beings.

But since, the mankind a have escalated over centuries we have show how selfish and greedy one can be. Reckless destruction of nature and destruction of habitat is we have been best at.

And with such activities of human, activities by us, who are the so-called intelligent species around have led the exploitation of nature and the escalating climate crisis.



# PROBLEMS

## LIST OF PROBLEMS:

1. Air Pollution
2. Ozone Layer Depletion
3. Water Pollution/ Rising Water Level/ Flood
4. Increasing Temperature/ Forest Fires/ Drought
5. Land Pollution
6. Earthquake
7. Hurricanes/ Cyclone



## Global Temperature Rising

The planet's average surface temperature has risen about 2.12 degrees Fahrenheit (1.18 degrees Celsius) since the late 19th century, a change driven largely by increased carbon dioxide emissions into the atmosphere and other human activities.<sup>4</sup> Most of the warming occurred in the past 40 years, with the seven most recent years being the warmest. The years 2016 and 2020 are tied for the warmest year on record.

## Warming Ocean

The ocean has absorbed much of this increased heat, with the top 100 meters (about 328 feet) of ocean showing warming of more than 0.6 degrees Fahrenheit (0.33 degrees Celsius) since 1969.<sup>6</sup> Earth stores 90% of the extra energy in the ocean.

## Shrinking Ice Sheets

The Greenland and Antarctic ice sheets have decreased in mass. Data from NASA's Gravity Recovery and Climate Experiment show Greenland lost an average of 279 billion tons of ice per year between 1993 and 2019, while Antarctica lost about 148 billion tons of ice per year.

## Glacial Retreat

Glaciers are retreating almost everywhere around the world — including in the Alps, Himalayas, Andes, Rockies, Alaska, and Africa

## Decreased Snow Cover

Satellite observations reveal that the amount of spring snow cover in the Northern Hemisphere has decreased over the past five decades and the snow is melting earlier

## Sea Level Rise

Global sea level rose about 8 inches (20 centimeters) in the last century. The rate in the last two decades, however, is nearly double that of the last century and accelerating slightly every year.

## Declining Arctic Sea Ice

Both the extent and thickness of Arctic sea ice has declined rapidly over the last several decades.

## Extreme Events

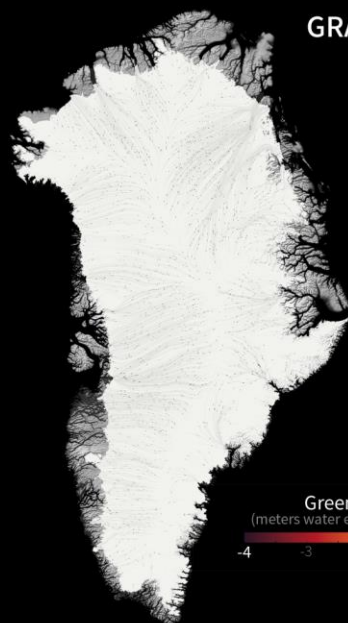
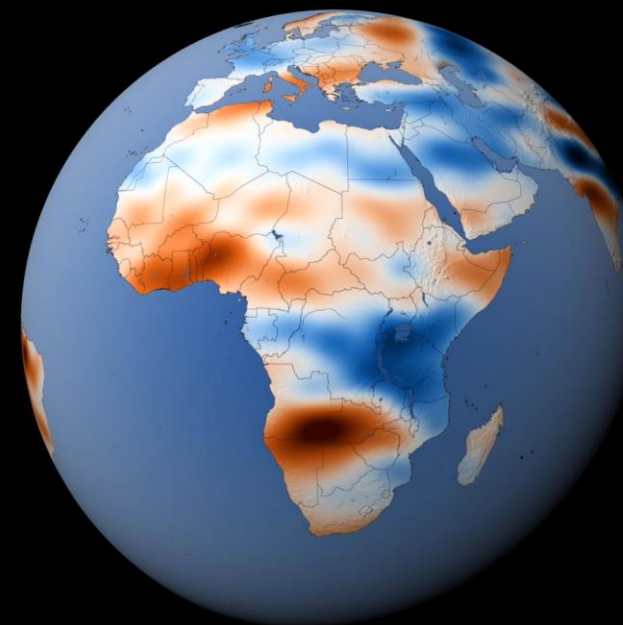
The number of record high temperature events in the United States has been increasing, while the number of record low temperature events has been decreasing, since 1950. The U.S. has also witnessed increasing numbers of intense rainfall events.

## Ocean Acidification

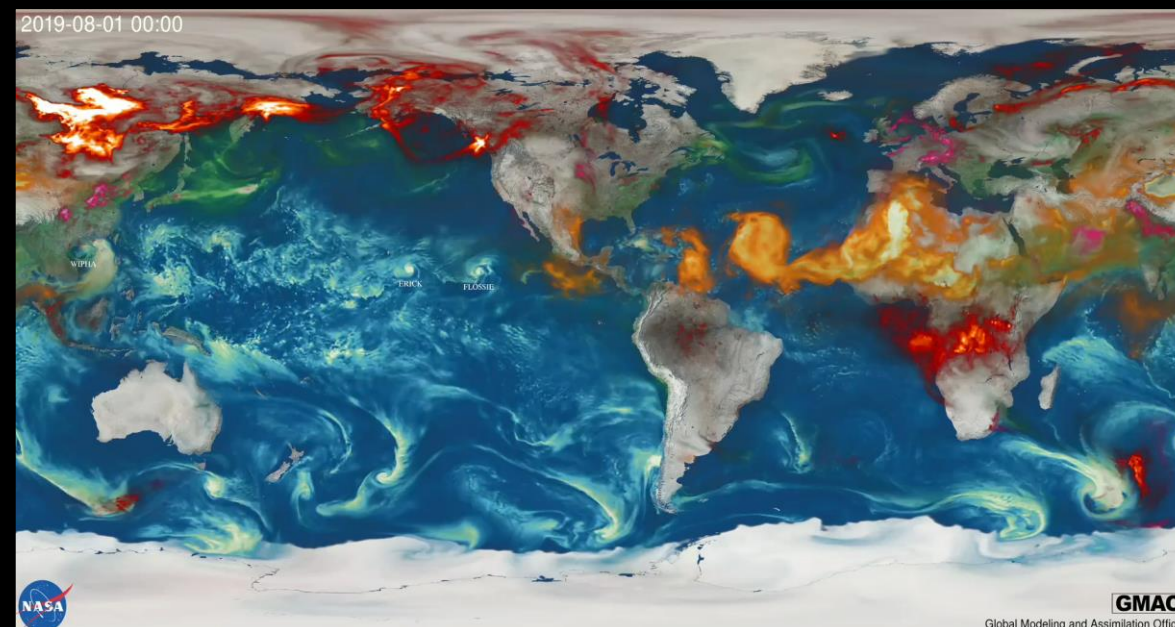
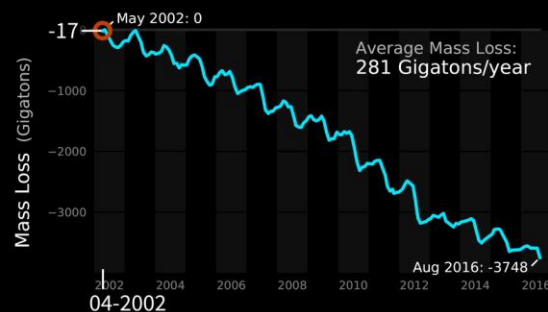
Since the beginning of the Industrial Revolution, the acidity of surface ocean waters has increased by about 30%. This increase is the result of humans emitting more carbon dioxide into the atmosphere and hence more being absorbed into the ocean. The ocean has absorbed between 20% and 30% of total anthropogenic carbon dioxide emissions in recent decades (7.2 to 10.8 billion metric tons per year)

EVIDENCE

# EVIDENCE



GRACE Observations of Greenland Ice Mass Changes









# Kyoto Protocol (1997)

- **Kyoto Protocol** is a protocol to the United Nations Framework Convention on Climate Change (UNFCCC or FCCC), aimed at fighting global warming. The UNFCCC is an international environmental treaty with the goal of achieving "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system."



Participation in the Kyoto Protocol, as of June 2009, where dark green indicates the countries that have signed and ratified the treaty, grey is not yet decided and red is no intention to ratify.

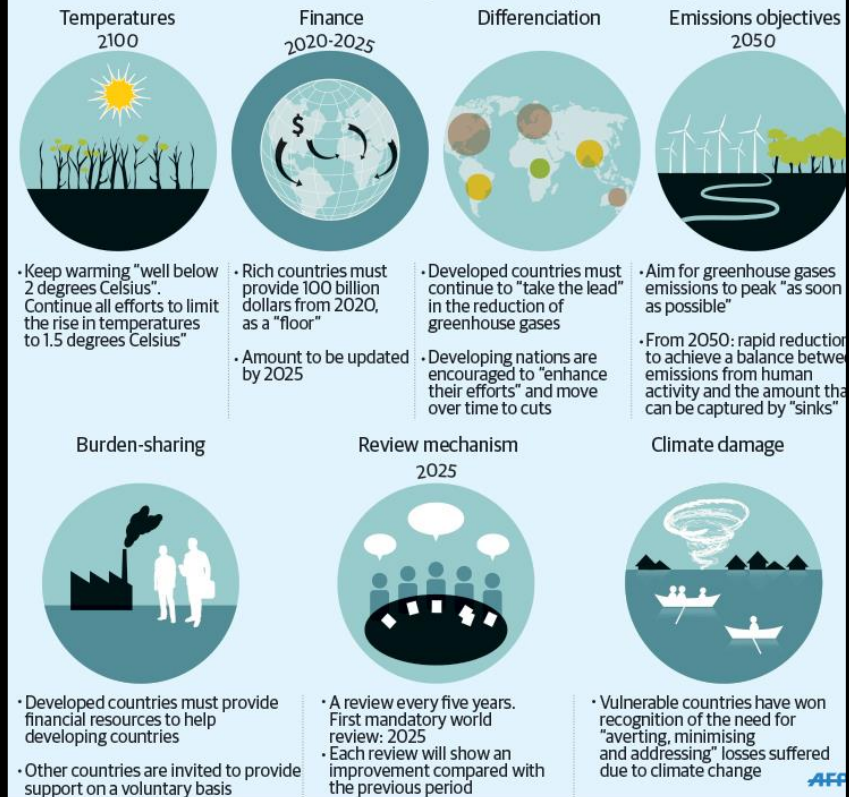
[http://en.wikipedia.org/wiki/Kyoto\\_Protocol](http://en.wikipedia.org/wiki/Kyoto_Protocol)

[http://en.wikipedia.org/wiki/File:Kyoto\\_Protocol\\_participation\\_map\\_2009.png](http://en.wikipedia.org/wiki/File:Kyoto_Protocol_participation_map_2009.png)

Back to  
Timeline

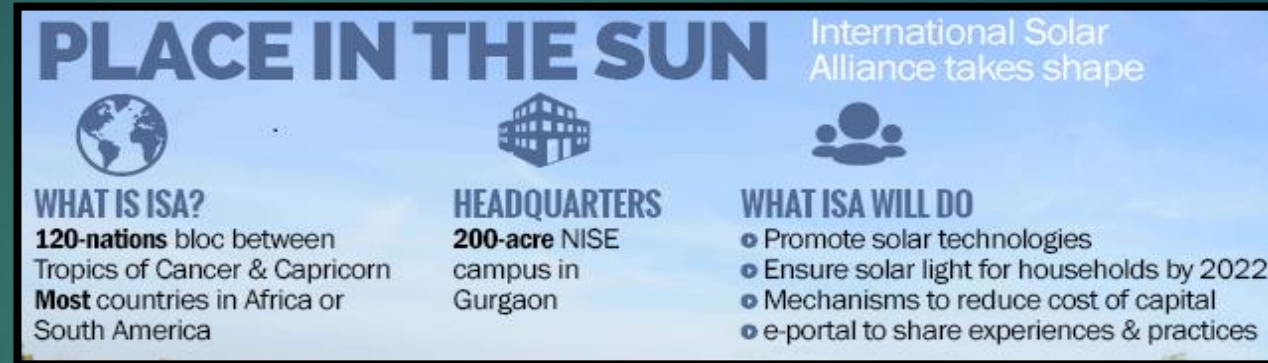
## THE PARIS CLIMATE AGREEMENT: KEY POINTS

The landmark pact enters into force on Friday and is to be implemented by 196 countries



# INITIATIVES

# INITIATIVES



## International Solar Alliance

Paris Declaration on the International Solar Alliance of 30th November 2015

The launch of the International Solar Alliance (ISA) was announced by H.E. Mr. Narendra Modi, the Hon'ble Prime Minister of India and H.E. Mr. Francois Hollande, former Hon'ble President of France on 30th November 2015, at the 21st session of United Nations Climate Change Conference of the Parties (COP-21) in Paris, France. Former UN Secretary-General Ban Ki-moon attended the launch, alongside the Heads of about 120 nations who affirmed their participation in the Alliance to dedicate efforts for promotion of solar energy.

## Global Climate Litigation Report

The UNEP provides an overview of the current state of climate change litigation globally, as well as an assessment of global climate change litigation trends. It finds that a rapid increase in climate litigation has occurred around the world. In 2017 there were 884 cases brought in 24 countries. As of 1 July 2020, the number of cases has nearly doubled with at least 1,550 climate change cases filed in 38 countries. This growing tidal wave of climate cases is driving much-needed change.



# INITIATIVES



## UNEP

The UN Environment Programme (UNEP) stands at the core of the action in the fight against climate change. We tackle the climate crisis on a variety of fronts:

- encouraging the transition to low- and zero-carbon emissions in key sectors such as energy, agriculture, buildings, forestry, industry and transport
- working with governments, civil society and the private sector to improve air quality and reduce emissions of short-lived climate pollutants
- protecting and restoring natural ecosystems such as forests, coral reefs and peatlands while combating the sources of degradation

# INITIATIVES

## World Metrological Organization

Climate describes the average weather conditions for a particular location and over a long period of time. We study the climate, its variations and extremes, and its influences on a variety of activities including human health, safety and welfare to support evidence-based decision-making on how to best adapt to a changing climate.

## World Economic Forum

Climate change poses an urgent threat. While the global community has been working on climate action for over thirty years, the pace of progress has been unacceptably slow. The world needs to adopt a new paradigm that catalyzes industry sectors to take action. Public and private collaboration is essential to dramatically reduce emissions and spur transformative change.

In this decisive decade for climate action, the Climate Ambition Team of the World Economic Forum has been established to deliver a net-zero economy.

Climate Ambition Initiatives provide a global platform to raise ambition and accelerate climate action through multi-stakeholder partnerships.





# INITIATIVES



## Green Tax

### Initiative of Climate by Denmark (Danish Energy Agreement Encourages Green Transition)

The report made by the Climate Action Network Europe in collaboration with the environmental think tank Germanwatch assesses countries based on Carbon-dioxide emissions, sustainable energy, energy efficiency, as well as environmentally-friendly policies

As a strong testament to Denmark's dedication to a green transition, the Danish government entered into an ambitious energy agreement in March 2012, stipulating that around 35 per cent of Denmark's energy will come from renewable resources in 2020, and that the country will be entirely free of fossil fuels by 2050

# SOLUTION/ INNOVATION

- 
- A hand holds a glowing lightbulb with a green plant growing inside it. Surrounding the lightbulb is a circular diagram with ten icons connected by lines, representing various sustainable technologies and innovations. The icons include: a solar panel, a wind turbine, a sun, a water drop, a fuel pump, a corn cob, a recycling symbol, a hydroelectric dam, a palm tree, and a nuclear reactor.
- i. Electric Vehicles
  - ii. Dimming the sun
  - iii. Palm tree wind farm
  - iv. Seaweed farming (improve ocean productivity, sequester millions of tons of carbon, produce bioethanol)
  - v. No Big Hydropower Project
  - vi. Futuristic Solar Panels
  - vii. Solar Geoengineering
  - viii. Nuclear-Fission Energy Power Plant
  - ix. Pumps to Cool Down Coral Reefs
  - x. Plastic-Eating Enzymes



# SOLUTION/ INNOVATION

- i. Climate Resilient Agriculture
- ii. Genetic Modification
- iii. Biomodification/ Bioaugmentation/  
Bioremediation/ Biostimulation
- iv. Using drones for plant
- v. Artificial Meat/ Egg
- vi. Sustainable Development/  
Manufacturing/ Building
- vii. Carbon Capture



# SOLUTION/ INNOVATION

Solutions to climate crisis, will result in:

- i. Cleaning the air quality and water quality
- ii. Cleaning the land/ maintaining the fertility of soil
- iii. Increasing the crop growth
- iv. Rejuvenating air and water
- v. Maintaining the temperature
- vi. Improving the aquatic life
- vii. Decomposing of non-biodegradable products



# BUSINESS MODEL



The economical cost of these ecofriendly approaches is less than 50% for most of the innovations and our market can easily afford them.

For approach of Nuclear-fission energy power plant and carbon capture the cost will be quite a number but once the model is built, the cost of return will be more and a real benefit for the nature and energy conservation.

Practically, there is no need to promote these revamping approaches because these are must considering elements to show the concern towards nature. We must adopt them at any cost as soon as possible.

The paramount component is the being eco-friendly, renewable, biodegradable, sustainable, cost efficient, self-reliant

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In the 1860s, physicist John Tyndall recognized Earth's natural greenhouse effect and suggested that slight changes in the atmospheric composition could bring about climatic variations. In 1896, a seminal paper by Swedish scientist Svante Arrhenius first predicted that changes in atmospheric carbon dioxide levels could substantially alter the surface temperature through the greenhouse effect.

In 1938, Guy Callendar connected carbon dioxide increases in Earth's atmosphere to global warming. In 1941, Milutin Milankovic linked ice ages to Earth's orbital characteristics. Gilbert Plass formulated the Carbon Dioxide Theory of Climate Change in 1956.

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