

Subject: Sustainable Architecture

Topic: Sustainable Planning & Development

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# UN COMMISSION ON ENVIRONMENT AND DEVELOPMENT/BRUNDTLAND COMMISSION

Three main pillars of sustainable development include

- **Economic growth** - efforts on resource extraction, which leads to unsustainable efforts for environmental protection as well as economic growth sustainability,
- **Environmental protection**- environmental protection has including investment in renewable energy power capacity, Eco-city development and
- **Social equality** - social well-being of people, reducing the growing gap between incomes of rich and poor .

## Habitat II : Un Conference on Human Settlement, 1996

- **The old urban agenda:** [Istanbul Declaration on Human Settlements](#)
- It called for **adequate shelter for all and sustainable human settlements in an urbanizing world**
- Since then, over 100 countries have adopted constitutional rights to adequate housing, a major success of the Habitat Agenda. At the same time, however, international aid organizations and bilateral development agencies have steadily reduced their investments in cities and slashed their urban programmes.

# Sustainable Cities Programme

- **Sustainable Cities Programme, in 1996**
  - SCP is a joint venture of United Nations Human Settlements Programme (UN-Habitat) and United Nations Environment Programme (UNEP)
  - Goal of ensuring environmentally sustainable local development fully realising the vital contributions that urban areas make to overall social and economic development
  - SCP promotes good environmental governance at all levels to support local and national partners adopt environmental planning management (EPM) processes and integrate good practice into national policy and legal frameworks

# MILLENIUM DEVELOPMENT GOALS (MDGs)

## Millennium Development Goals

- Millennium Development Goals provided the basis for the formulation of Sustainable Development Goals in 2015

### Millennium Development Goals, was adopted in 2000

- The MDGs aimed at an array of issues and set **8 targets** that the world committed to achieve by 2015
- The MDGs' focus on eradicating poverty and ensuring environmental sustainability led to 3 major United Nations gatherings on sustainable development –
  - World Summit on Sustainable Development in 2002
  - United Nations Conference on Sustainable Development / Rio+20 in 2012
  - Habitat III cities conference in Quito, Ecuador...the outcome document of which was the New Urban Agenda in 2016



# SUSTAINABLE DEVELOPMENT GOALS (SDGs)

## Sustainable Development Goals

- In 2015, the SDGs were built based on the Millennium Development Goals (MDGs)
- At the **United Nations Sustainable Development Summit, New York 2015**, the 2030 Agenda for Sustainable Development was adopted, which included a set of 17 Sustainable Development Goals (SDGs)
- It aimed to **end poverty, fight inequality and injustice, and tackle climate change**



# UN HABITAT III, QUITO, EQUADOR, 2016

## Un Habitat III, Quito

- **New Urban Agenda** was the outcome of the Conference
- Outcome document was the New Urban Agenda
  - To guide the efforts related to urbanization for the next 20 years
  - To lay the groundwork for policies and approaches that will impact the future

## • New Urban Agenda

- Commitments
  - Provide basic services for all citizens
  - Ensure that all citizens have access to equal opportunities and face no discrimination
  - Promote measures that support cleaner cities
  - Strengthen resilience in cities to reduce the risk and the impact of disasters
  - Take action to address climate change by reducing their greenhouse gas emissions
  - Fully respect the rights of refugees, migrants and internally displaced persons regardless of their migration status
  - Improve connectivity and support innovative and green initiatives
  - Promote safe, accessible and green public spaces

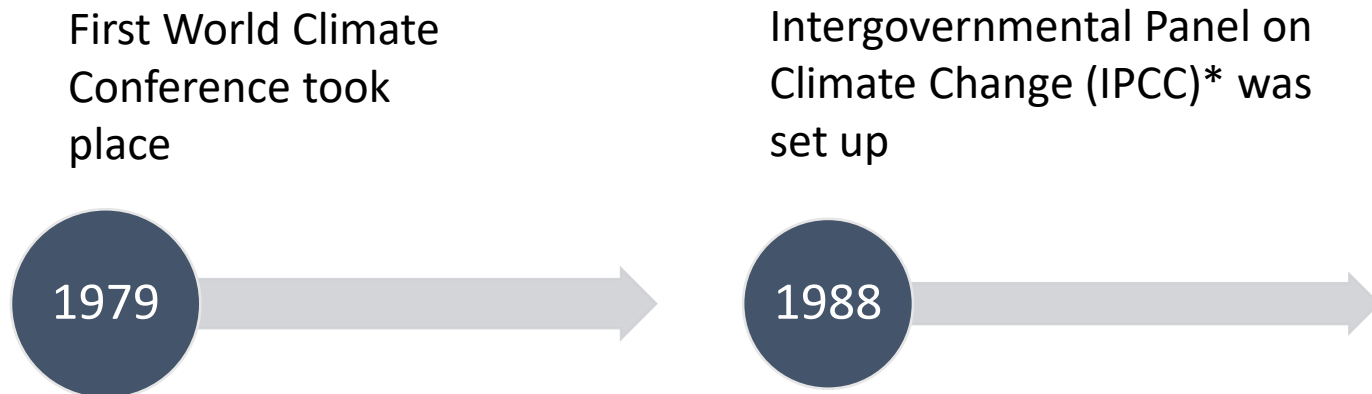
# CLIMATE CHANGE - MITIGATION/ADAPTATION

- Climate change is one of the most critical global challenges
- There is a growing vulnerability to climate change
- Climate change impacts include –
  - affecting agriculture ...further endangering food security
  - to sea-level rise and the accelerated erosion of coastal zones
  - species extinction
  - increasing intensity of natural disasters
  - spread of vector-borne diseases
  - species extinction *(Harshal.T.Pandve, 2009)*
  - spread of vector-borne diseases *(Harshal.T.Pandve, 2009)*



## International efforts

- **Timeline of efforts at an international level for mitigation/adaptation of climate change**



\* IPCC - international body for assessing the science related to climate change

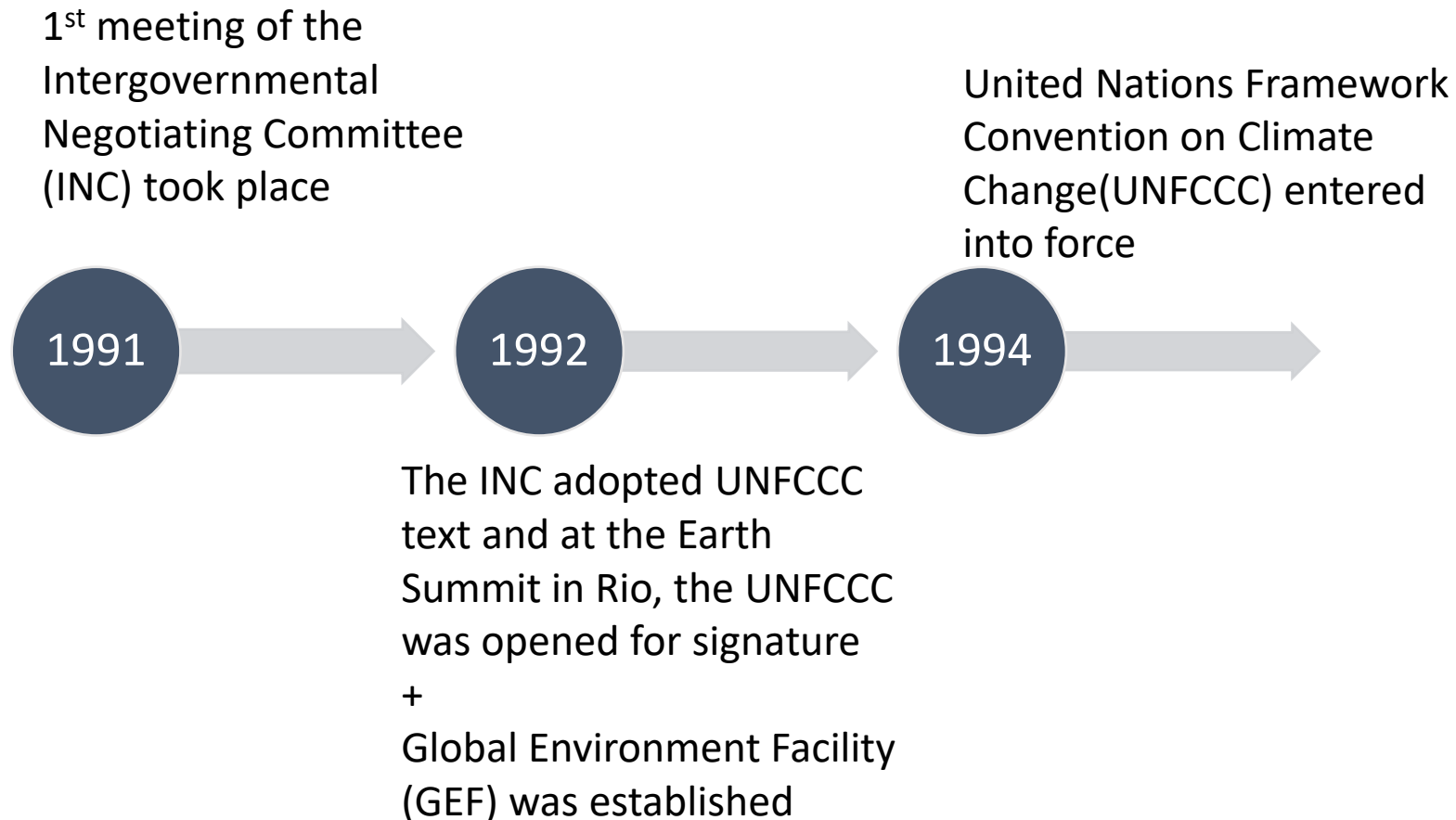
## International efforts

- **Intergovernmental Panel on Climate Change**
  - The IPCC was set up by the World Meteorological Organization (WMO) and United Nations Environment Programme (UNEP) to provide policymakers with regular assessments of the scientific basis of climate change, its impacts and future risks, and options for adaptation and mitigation.
  - IPCC assessments provide a scientific basis for governments at all levels to develop climate related policies, and they underlie negotiations at the UN Climate Conferences
  - 1990 — IPCC's first assessment report was released
  - IPCC report and Second World Climate Conference called for a global treaty on climate change and UN General Assembly negotiations on a framework convention began

# CLIMATE CHANGE - MITIGATION/ADAPTATION

## International efforts

- **Timeline of efforts at an international level for mitigation/ adaptation of climate change (contd...)**



## International efforts

- **UNFCCC: UN Framework Convention on Climate Change**

Aims to strengthen the global response to climate change

Details of UNFCCC

- 1995 — The first Conference of the Parties (COP 1) of UNFCCC took place in Berlin
- 1996 — The UNFCCC Secretariat was set up to support action under the Convention
- 1997 — Kyoto Protocol formally adopted in December at COP 3

## International efforts

- **Kyoto Protocol**

- The Kyoto Protocol is an international agreement which commits its Parties by setting internationally binding emission reduction targets
- **Relevance** - seen as an important first step towards a truly global emission reduction regime that will stabilize GHG emissions, and can provide the architecture for the future international agreement on climate change
- **When** - adopted in Kyoto, Japan, on 11 December 1997 and entered into force on 16 February 2005
- **Scope** - first commitment period started in 2008 and ended in 2012 and the second commitment period began on 2013 and will end in 2020

## International efforts

- **Kyoto Protocol**

- **Working principle** - 'common but differentiated responsibilities'

Recognizing that developed countries are principally responsible for the current high levels of GHG emissions in the atmosphere as a result of more years of industrial activity, the Protocol places more responsibility on developed nations

- **Mechanism of working** -

- countries must meet their targets primarily through national measures
    - also offers them an additional means to meet their targets by way of three market-based mechanisms-
      1. International Emissions Trading
      2. Clean Development Mechanism (CDM)
      3. Joint implementation (JI)

## International efforts

- **Kyoto Protocol (contd...)**

- **Amendments** - The detailed rules for the implementation of the Protocol were adopted at COP 7 in Marrakesh, Morocco, in 2001, and are referred to as the "**Marrakesh Accords**". Its first commitment period started in 2008 and ended in 2012
- In Doha, Qatar, on 8 December 2012, the "**Doha Amendment to the Kyoto Protocol**" was adopted

## International efforts

- **Clean development mechanism of Kyoto Protocol**
  - Clean Development Mechanism (CDM), defined in Article 12 of the Kyoto Protocol, allows a country with an emission-reduction or emission-limitation commitment under the Kyoto Protocol to implement an emission-reduction project in developing countries
  - Such projects can earn saleable certified emission reduction (CER) credits, each equivalent to one tonne of CO<sub>2</sub>, which can be counted towards meeting Kyoto targets



## **International efforts**

- **Clean development mechanism of Kyoto Protocol**

The mechanism is the first global, environmental investment and credit scheme of its kind, providing a standardized emissions offset instrument, CERs.

- A CDM project activity might involve, for example, a rural electrification project using solar panels or the installation of more energy-efficient boilers
- The mechanism stimulates sustainable development and emission reductions, while giving industrialized countries some flexibility in how they meet their emission reduction or limitation targets

## International efforts

- **Timeline of efforts at an international level for mitigation/ adaptation of climate change ...contd...**
  - 2014 - At COP 20 in Lima in 2014, Parties adopted the 'Lima Call for Action', which elaborated key elements of the forthcoming agreement in Paris
  - 2015 - Intensive negotiations took place under the Ad Hoc Group on the Durban Platform for Enhanced Action (ADP) throughout 2012-2015 and culminated in the adoption of the Paris Agreement

## International efforts

### •Paris Agreement

- A new course in the global climate change mitigation efforts
- For the first time...brought all nations into a common cause to undertake ambitious efforts to combat climate change and adapt to its effects, with enhanced support to assist developing countries to do so
- Aims –
  - to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius
  - to strengthen the ability of countries to deal with the impacts of climate change
  - to work for enhanced transparency of action and support through a more robust transparency framework
  - to provide appropriate financial flows, technology framework and enhanced capacity building framework for supporting developing countries and the most vulnerable countries in achieving the set goals

## National efforts

- The various assessment reports brought out since 1990s by the **Intergovernmental Panel on Climate Change (IPCC)** have progressively tracked the development and build up of knowledge and **understanding of the science, impacts and mitigation of climate change at the global and regional levels**
- The IPCC report concluded that the impact of human activities on climate is unequivocal (IPCC, 2007)
- In 2008, India released its **National Action Plan on Climate Change (NAPCC)** to mitigate and adapt to climate change, NAPCC directed ministries to submit detailed **implementation plans on Climate Change** to the Prime Minister's Council
- In 2009, with a view to enhance knowledge about the impacts of climate change at the national and sub national level, the Minister for Environment & Forests announced the launch of the **Indian Network of Climate Change Assessment (INCCA)**