20 YEARS OF THE IPCC
Working Group III - Climate Change Mitigation

The Working Group III Assessment and Special Reports reflect an evolution of ideas regarding the economics and social dimensions of climate change mitigation.

Mitigation is possible and a wide range of mitigation technologies are commercially available now and in the mid-term – but hard choices are needed.

By 2035 GHG emissions are projected to increase between 25-40% using IPCC SRES scenarios. But bottom-up and top-down studies indicate that there is sufficient economic mitigation potential over the coming decades to offset the growth in emissions.

All sectors can contribute, but the respective potential and costs differ within regions and among economic sectors.
- A large number of mitigation technologies are available now and in the near future.
- An effective carbon price signal could realise significant mitigation potential.
- A variety of policies and instruments are available to create incentives for mitigation action.
  - Emissions trading and technology transfer.
  - Investments in new technologies.
  - Market creation.
  - Tax credits and charges.
  - Market setting and regulatory measures.
  - Changes in behavior, and behavior patterns can contribute to climate change mitigation.
  - Occupant behavior, urban patterns, consumer choices.
  - Reduction of energy, improved urban planning, and more availability of public transport.

Short-term action matters to achieve stabilization targets in the longer term.

Mitigation efforts over the next two to three decades will have a large impact on opportunities to achieve lower stabilization levels.

Costs depend on stabilization target and level, baseline, portfolio of technologies considered, and rate of technological change.

There is a two-way relationship between climate change and sustainable development.
- Climate change will worsen the gap in distributional gains and losses between and within generations as the poor and disadvantaged will be the most affected.
- An effective climate change strategy will require a portfolio of policies and measures that integrate development, equity, and sustainability.
- Linking sustainable development with climate change policies will make it easier to control climate change risks.
- Decision making in a sustainable development context would require broadening economic analysis of climate change, by including all co-benefits.

Climate change policy alone will not solve the climate change problem.

Decisions about other policies that are unrelated to climate change can significantly affect emissions.
- Micro-economic policy: taxes, subsidies, other fiscal policies, structural adjustment.
- Trade policy: "redistributed carbon", removing barriers for low carbon products, domestic energy sources.
- Energy security: policies of efficient energy use, domestic energy sources.
- Access to modern energy: bio-energy, poverty targets.
- Air quality policy: clean fuel.
- Banking policies: funding for efficient/renewable energy; acid loads in metal technologies in developing countries.

A broad range of policy initiatives is needed in energy, environment, trade, economics, banking and insurance.

WMO
UNEP