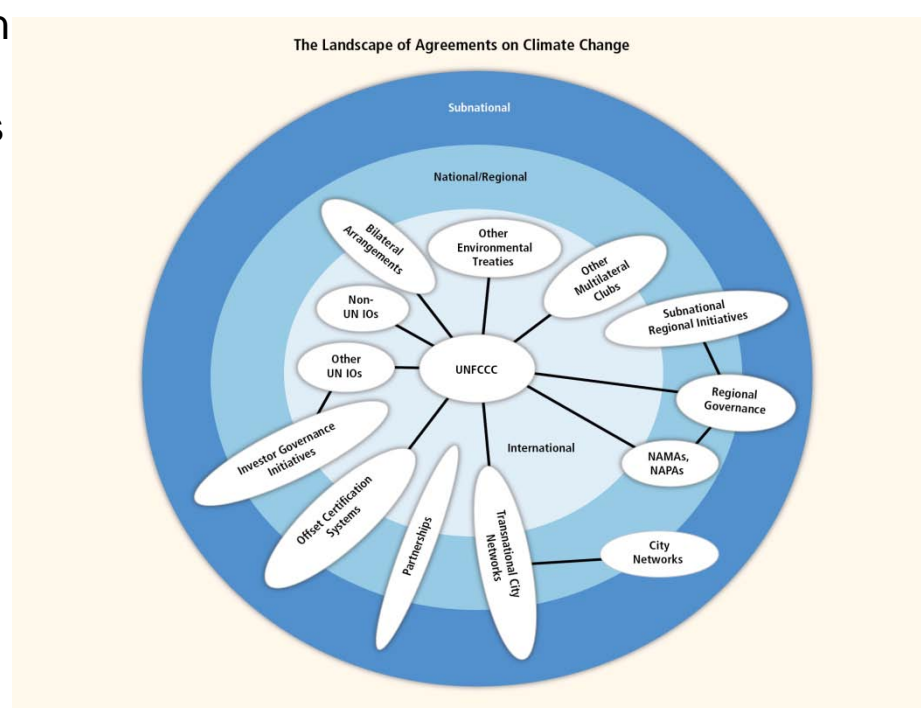


Chapter 13, 14, &15 Global, Regional & National Policies and Institutions

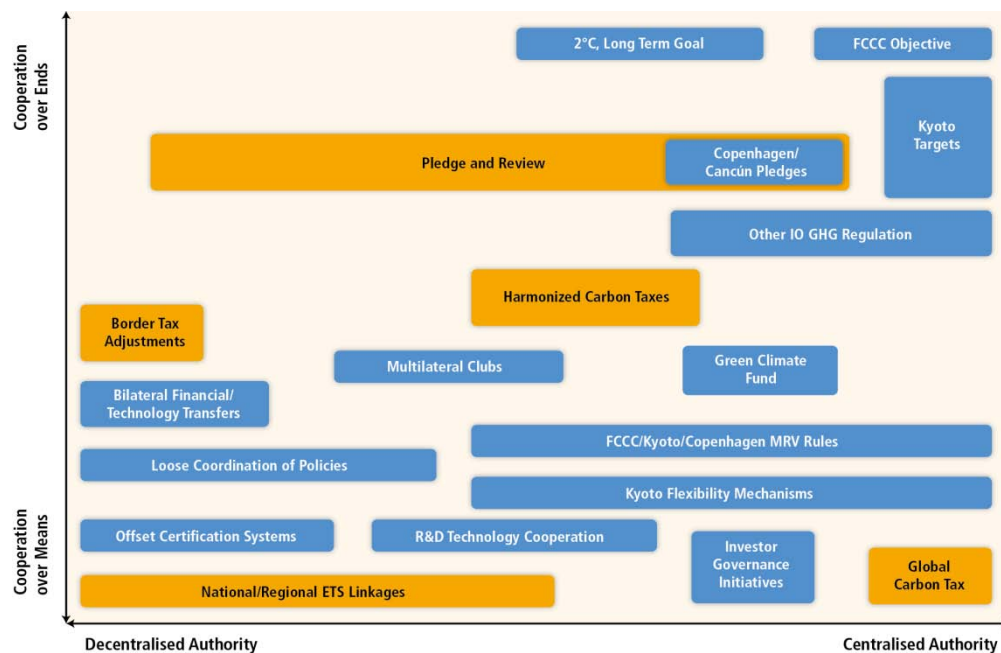
International cooperation on climate change has diversified over the past decade

- The United Nations Framework Convention on Climate Change (UNFCCC) remains a primary international forum for negotiations
 - It enjoys broad legitimacy, due in part to virtually universal membership
- But other institutions have emerged at multiple scales
 - This diversity arises in part from the growing inclusion of climate change issues in other policy arenas



Existing and proposed international climate agreements vary in the degree to which their authority is centralized

- Strong multilateral agreements (such as the Kyoto Protocol targets)
- Harmonized national policies (such as the Copenhagen/Cancún pledges)
- Decentralized but coordinated national policies (such as planned linkages of national and sub-national emissions trading schemes)



The Kyoto Protocol was the first binding step toward implementing the principles and goals of the UNFCCC

- It has had limited effects on global emissions because:
 - Some countries did not ratify the Protocol
 - Some Parties did not meet their commitments
 - Its commitments applied to only a portion of the global economy
- The Parties to the Protocol collectively surpassed their collective emission reduction target in the first commitment period
 - But the Protocol credited emissions reductions that would have occurred even in its absence.
- The Kyoto Protocol does not directly influence the emissions of non-Annex I countries, which have grown rapidly over the past decade.

The Kyoto Protocol's flexible mechanisms have helped to improve its economic performance, but their environmental effectiveness is less clear

- The Clean Development Mechanism (CDM) created a market for emissions offsets from developing countries
 - It generated credits equivalent to 1.4 billion tCO₂eq as of October 2013
 - But environmental effectiveness has been mixed due to concerns about:
 - Additionality of projects
 - Validity of baselines
 - Possibility of emissions leakage
 - Recent price decreases
 - Its distributional impacts were limited due to the concentration of projects in a limited number of countries.
- The Protocol's other flexible mechanisms, Joint Implementation and International Emissions Trading, have raised concerns related to government sales of emission units

The Montreal Protocol has also achieved significant reductions in global GHG emissions

- The Montreal Protocol set limits on emissions of ozone-depleting gases that are also potent GHGs, such as chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs).
 - Substitutes for those ozone-depleting gases (such as hydrofluorocarbons, HFCs, which are not ozone-depleting) may also be potent GHGs.
- Potential lessons learned from the Montreal Protocol:
 - Use of financial and technological transfers to broaden participation in an international environmental agreement
 - May be of value to the design of international climate change agreements

Recent UNFCCC Negotiations

- Recent negotiations have sought to foster:
 - More ambitious mitigation commitments from countries with commitments under the Kyoto Protocol
 - Mitigation contributions from a broader set of countries
 - New finance and technology mechanisms
- Under the 2010 Cancún Agreement, developed countries formalized voluntary pledges of quantified, economy-wide emission reduction targets and some developing countries formalized voluntary pledges to mitigation actions.
- Under the 2011 Durban Platform for Enhanced Action, delegates agreed to craft a future legal regime that would be 'applicable to all Parties ... under the Convention'
 - To include substantial new financial support and technology arrangements
 - But delegates did not specify means for achieving those ends

Regional heterogeneity has implications for the potential of regional low-carbon development.

- The considerable heterogeneity across and within regions relates to the opportunities, capacity, and financing of climate action.
- The poorest developing regions have the greatest potential to leapfrog to low-carbon development trajectories as there are few lock-in effects in terms of modern energy systems and urbanization patterns.
- BUT: These regions also have the lowest financial, technological, and human capacities to embark on such low-carbon development paths and their cost of waiting is high due to unmet energy and development needs.

The role of climate-specific regional cooperation agreements in addressing mitigation challenges could be strengthened.

- The EU-ETS has demonstrated that a cross-border cap-and-trade system can work, but the low carbon price in recent years has not provided sufficient incentives to motivate additional mitigation action.
- Binding regulation-based approaches such as the EU Directives on energy efficiency, renewable energy, and biofuels, have had some impact on mitigation objectives.
- Overall, one of the main barriers relates to the low level of regional integration and associated willingness to transfer sovereignty to supra-national regional bodies to enforce binding agreements on mitigation.

There has been a considerable increase in national and sub-national mitigation plans and strategies since AR4.

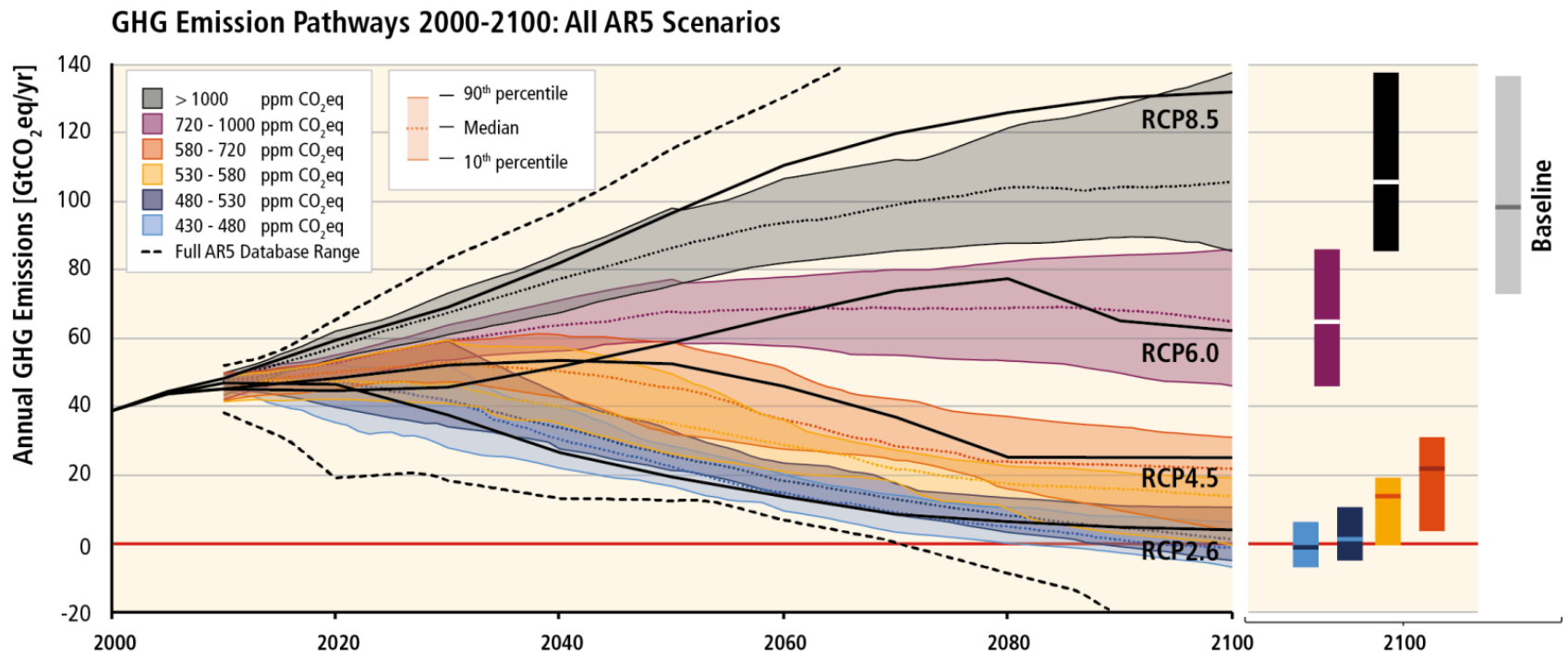
In 2012, **67%** of global emissions were subject to national legislation or strategies versus **45%** in 2007.

There has been an increased focus on policies designed to integrate **multiple objectives**, increase **co-benefits**, and reduce adverse **side-effects**.

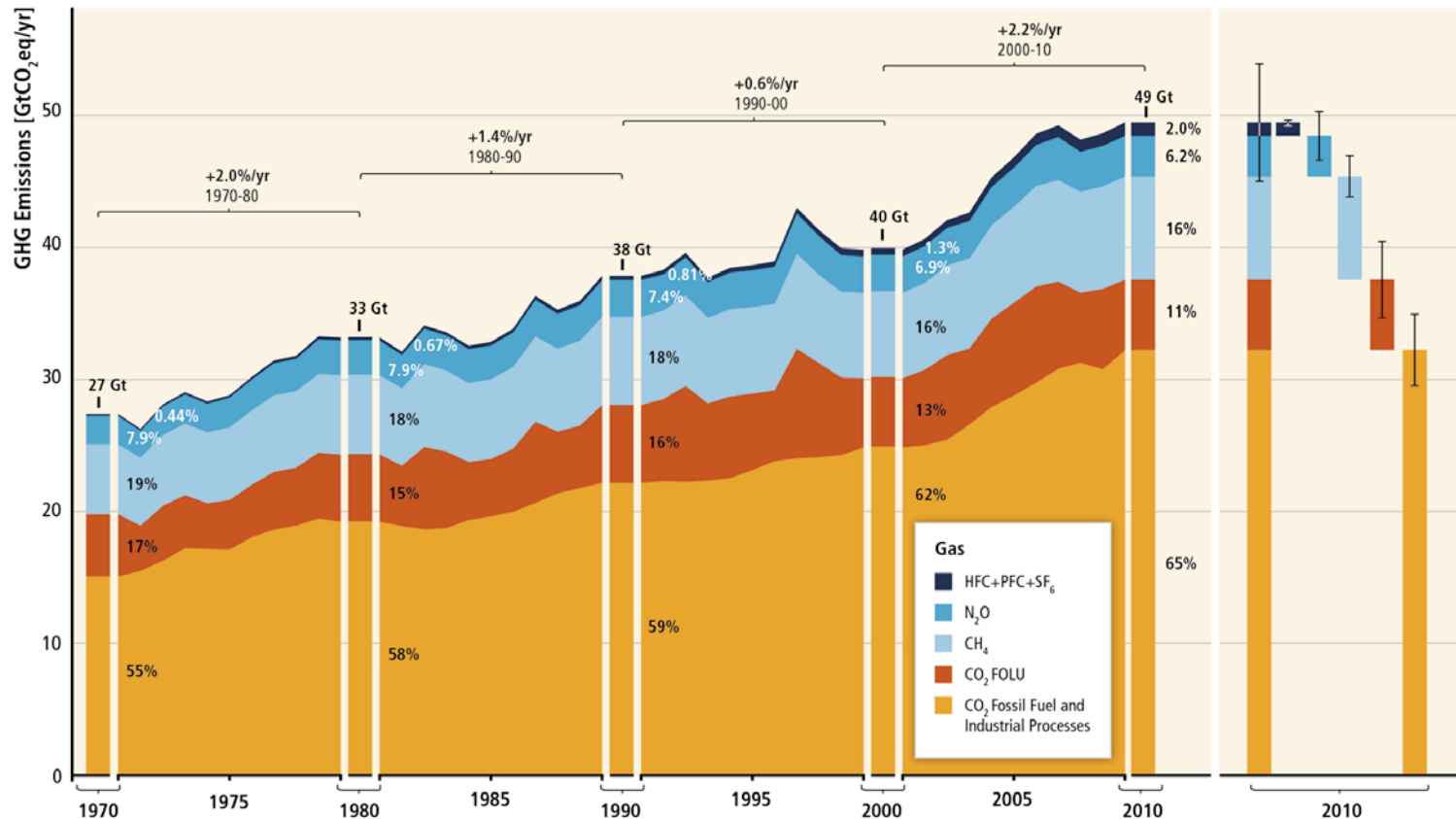
Sector specific policies have been more widely used than economy-wide policies.

An explicit focus on mitigation is needed because:

- GHG emissions rise with growth in GDP and population; long-standing trend of decarbonisation of energy reversed.
- Without more mitigation, global mean surface temperature might increase by 3.7° to 4.8° C over the 21st century.
- Delayed mitigation significantly increases the challenge to reach low concentration targets



There has not yet been a substantial deviation in global emissions from the past trend.



Some Key Findings

A number of **cap and trade systems** have been established. Their short-run environmental effect has been limited as a result of loose caps or caps that have not proved to be constraining.

In some countries, **tax-based policies** specifically aimed at reducing GHG emissions- alongside technology and other policies- have helped to weaken the link between GHG emissions and GDP.

The reduction of **subsidies** for GHG-related activities in various sectors can achieve emission reductions, depending on the social and economic context.

Government planning and provision can facilitate shifts to less energy and carbon-intensive infrastructure and lifestyles.

Successful **voluntary agreements** between governments and industries to reduce emissions are characterized by a strong institutional framework with capable industrial associations.

The ability to undertake policy action requires information, knowledge, tools and skills, and therefore **capacity building** is central for mitigation and to the sustainable development agenda.

Public finance mechanisms reduce risks that deter climate investments. **Mainstreaming** climate change into development planning has helped yield financing.

Technology policy complements other mitigation policies.

- Technology policy includes **technology-push** policies such as publicly funded R&D and **demand-pull** such as governmental procurement programmes.
- Technology support policies have promoted substantial **innovation and diffusion** of new technologies, but the **cost effectiveness** of such policies is often difficult to assess.
- **Program evaluation** data can provide empirical evidence on the relative effectiveness of different policies and can assist with policy design.

Policy interactions are an important consideration.

Interactions between or among mitigation policies may be synergistic or may have no additive effect on reducing emissions.

A **carbon tax** can have an additive environmental effect to policies such as subsidies for the supply of renewable energy.

If **cap and trade** system has a binding cap, then other policies such as RE subsidies may have not further impact on reducing emissions within the time period that the cap applies (although they may affect costs and possibly the viability of more stringent future targets).

Some mitigation policies raise the prices for some energy services and could hamper the ability of societies to expand access to modern energy services to underserved populations. These potential adverse side effects can be avoided with the adoption of complementary policies.