### **CLIMATE CHANGE 2014**

Mitigation of Climate Change





Climate change is a global commons problem that requires international cooperation and coordination across scales.

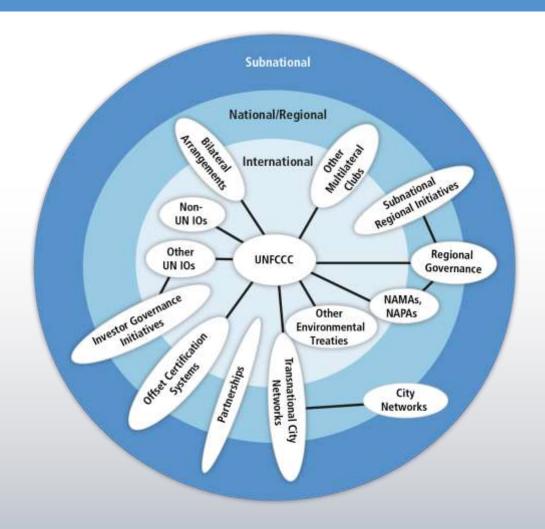
### International cooperation is necessary to significantly mitigate climate change impacts

- This is principally due to the fact that greenhouse gases (GHGs) mix globally in the atmosphere, making anthropogenic climate change a global commons problem
- International cooperation has the potential to address several challenges:
  - Multiple actors that are diverse in their perceptions of the costs and benefits of collective action
  - Emissions sources that are unevenly distributed
  - Heterogeneous climate impacts that are uncertain and distant in space and time
  - Mitigation costs that vary



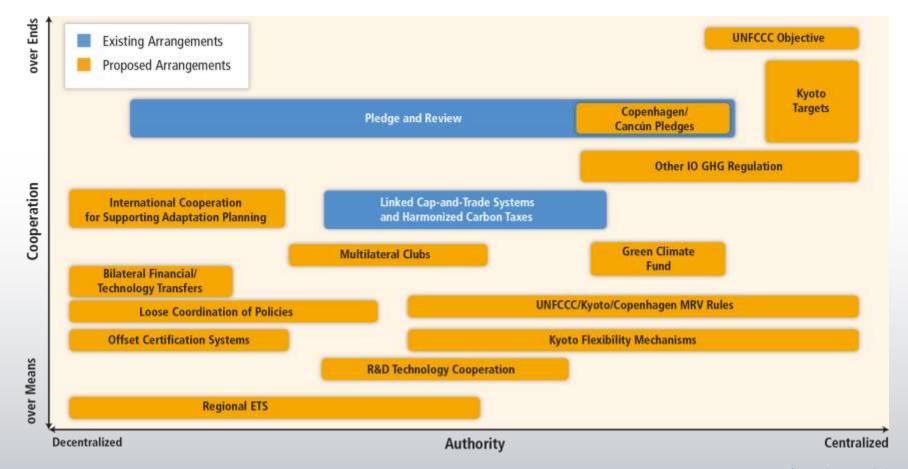


### Climate change mitigation requires international cooperation across scales.



Based on Figure 13.1

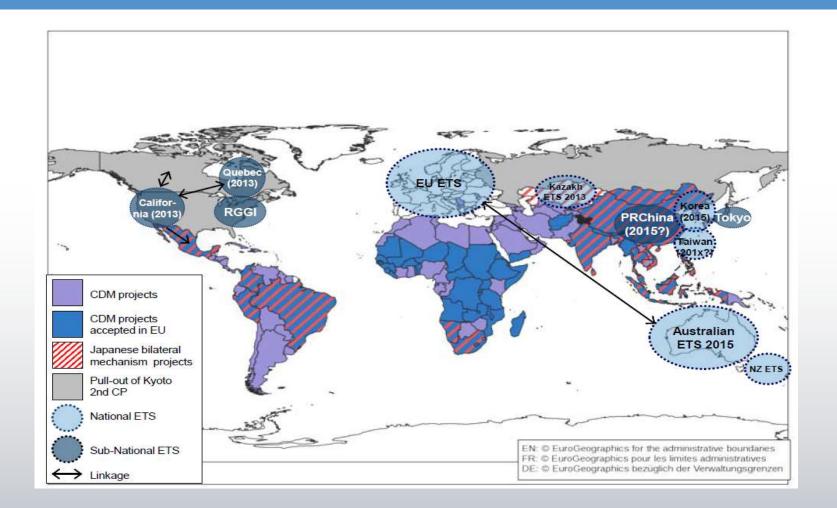
# Strong Multilateral agreements Harmonized national policies; Decentralized but coordinated national policies



Based on Figure 13.2











### International trade offers positive and negative incentives to promote international cooperation on climate change

- Three issues are key to developing constructive relationships between international trade and climate agreements:
  - How existing trade policies and rules can be modified to be more climate friendly
  - Whether border adjustment measures (BAMs) or other trade measures can be effective in meeting the goals of international climate agreements
  - Whether the UNFCCC, World Trade Organization (WTO), hybrid of the two, or a new institution is the best forum for a trade-andclimate architecture



#### Cooperation can be evaluated using a range of criteria

- Four criteria stand out:
  - Environmental effectiveness
  - Aggregate economic performance
  - Distributional impacts
  - Institutional feasibility.
- These criteria are grounded in several principles:
  - Maximizing global net benefits
  - Equity and the related principles of distributive justice and common but differentiated responsibilities and respective capabilities (CBDRRC)
  - Precaution and the related principles of anticipation, and prevention of future risks
  - Sustainable development.





## 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 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





#### **THANK YOU!**



