Climate Change and the Social Sciences and Humanities

Climate change is not just a physical and life sciences issue: it is a political, economic, and social issue

Responses to climate change are driven mostly by political, economic, and social considerations and motives, rather than scientific knowledge.

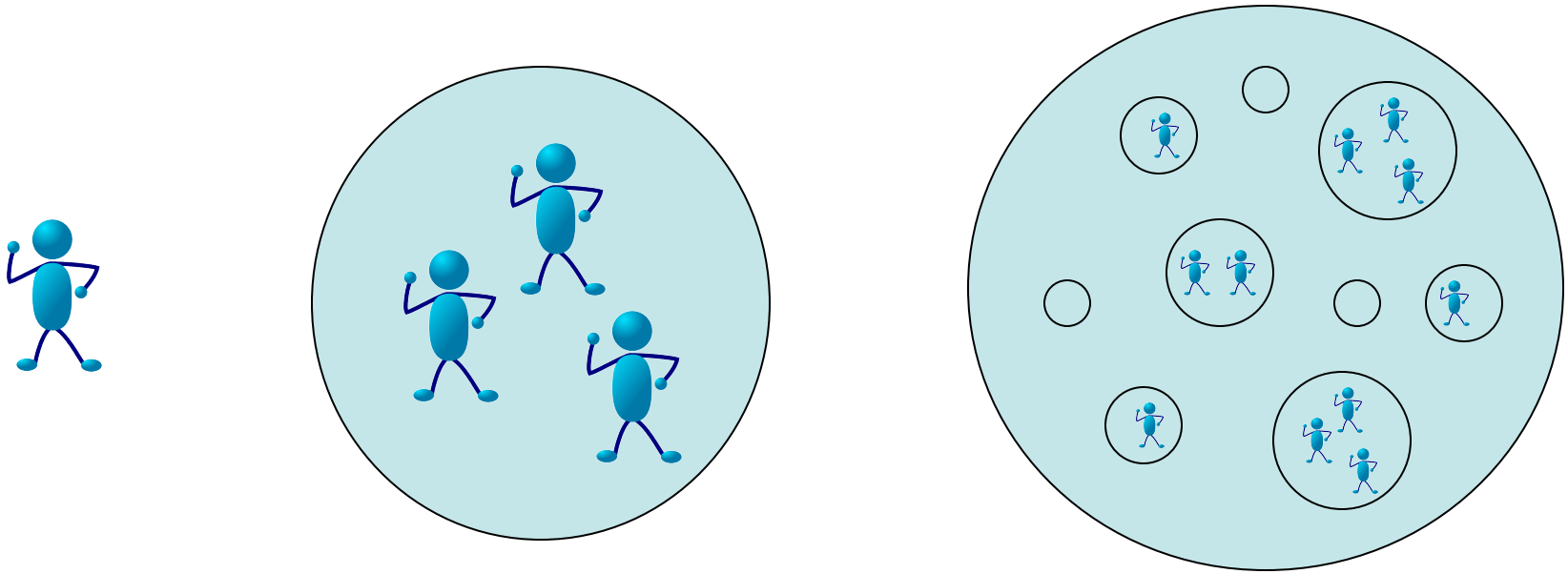
Climate Change and the Social Sciences and Humanities

The Global

Climate change impacts on human society and nonhuman systems

Climate Change and Global Governance

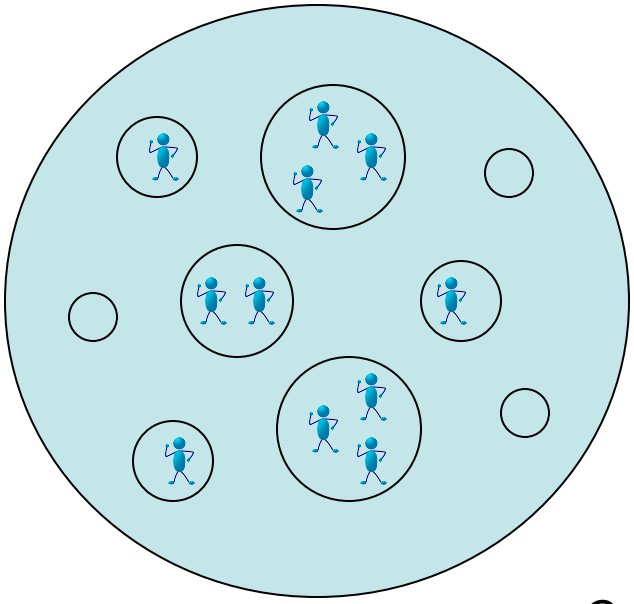
The Traditional Levels of Analysis: Individual, State/Group, and System



Climate Change and Global Governance

Divergent Interests

Compliance and Enforcement



Domestic Politics

Competition and the Relative gains problem

Climate Change and Global Governance

- Obstacles to progress
  - Competition and the relative gains problem
  - Divergent interests
  - The compliance and enforcement problem
  - Domestic politics

Prisoner's Dilemma

Choices and Consequences

Prisoner's Dilemma
Choices and Consequences

- If A and B both betray the other, each of them serves 3 years in prison
- If A betrays B but B remains silent, A will be set free and B will serve 3 years in prison for bank robbery
- If B betrays A but A remains silent, B will be set free and A will serve 3 years in prison for bank robbery
- If A and B both remain silent, both of them will only serve 1 year in prison (on the lesser charge of weapons possession)

Prisoner's Dilemma (Classic)

	Prisoner B stays silent (*cooperates*)	**Prisoner B betrays (*defects*)**
Prisoner A stays silent (*cooperates*)	Each serves 1 year	Prisoner A: 3 years Prisoner B: goes free
Prisoner A betrays (*defects*)	Prisoner A: goes free Prisoner B: 3 years	Each serves 3 years

Prisoner's Dilemma (Climate Change)

	State B Cooperates	**State B Defects**
State A Cooperates	Each benefits from reduced climate change impacts	State A: economic disadvantage State B: economic advantage
State A Defects	State A: economic advantage State B: economic disadvantage	Each incurs costs of climate change impacts

Global Climate Change Responses

- First World Climate Conference (1979)
- Formation of IPCC (1988)

IPCC First Assessment Report (1990)

"We are certain of the following: emissions resulting from human activities are substantially increasing the atmospheric concentrations of the greenhouse gasses… These increases will enhance the greenhouse effect, resulting on average in an additional warming of the earth's surface."

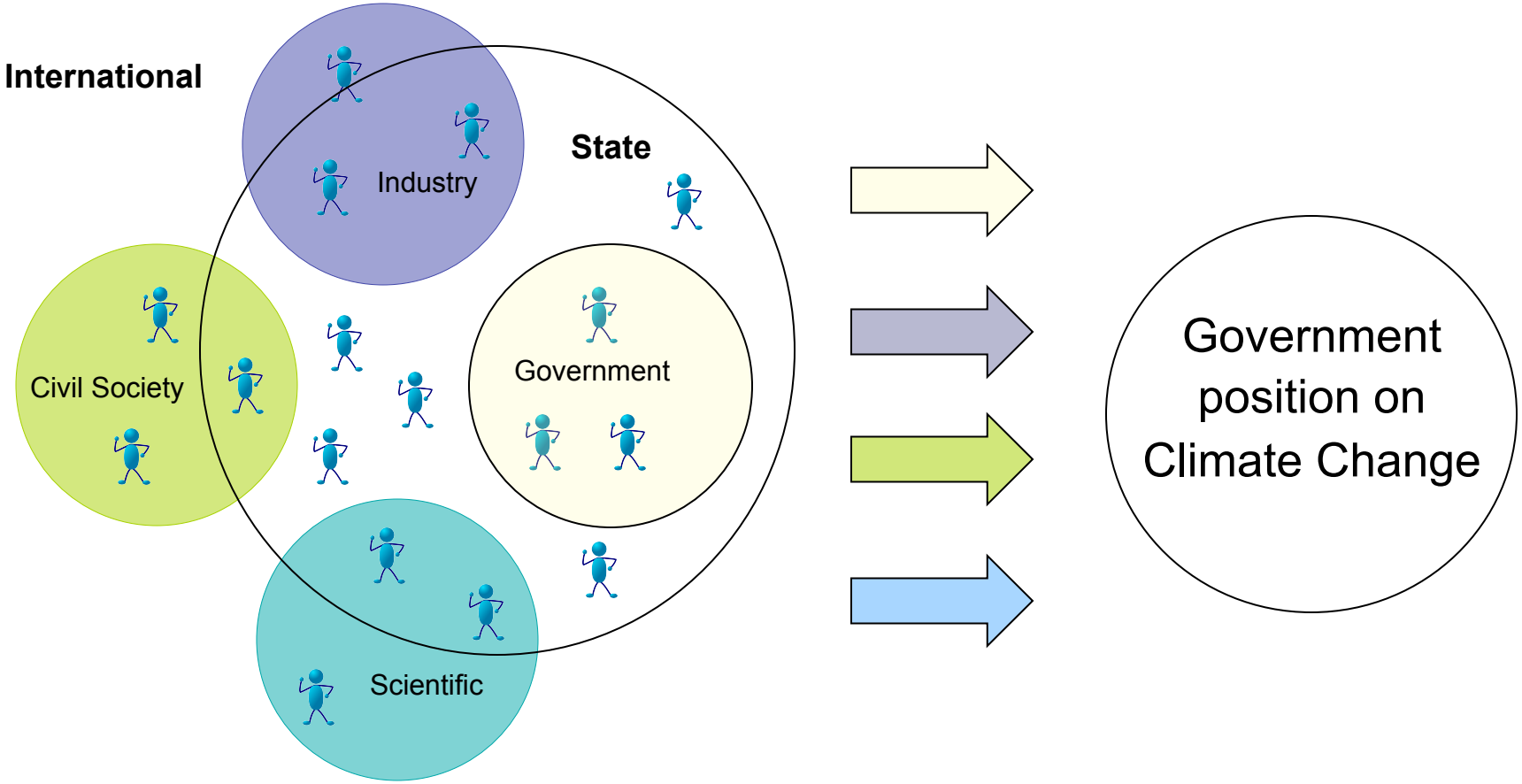
Global Climate Change Responses

- First World Climate Conference (1979)
- Formation of Intergovernmental Panel on Climate Change (1988)
- Second World Climate Conference (1990)

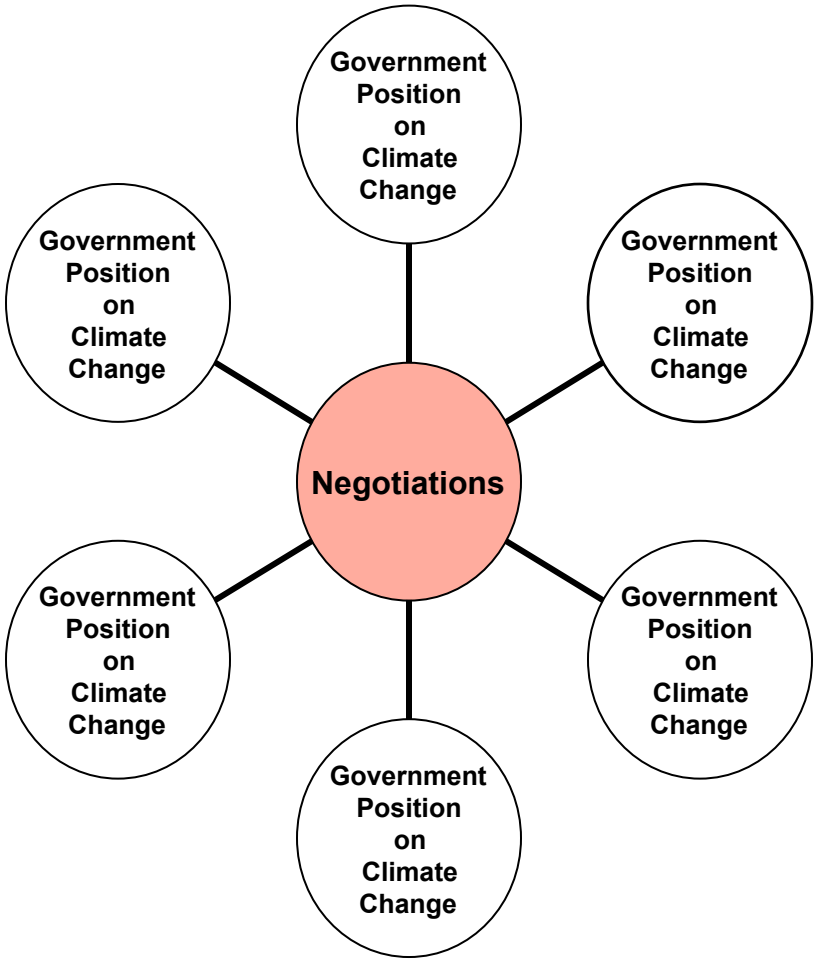
Climate Change and Global Governance

- Rio
  - Or: the United Nations Conference on the Environment and Development in Rio De Janeiro (1992)
  - Or: The Earth Summit

Influences and Determinants of Government Positions on Climate Change

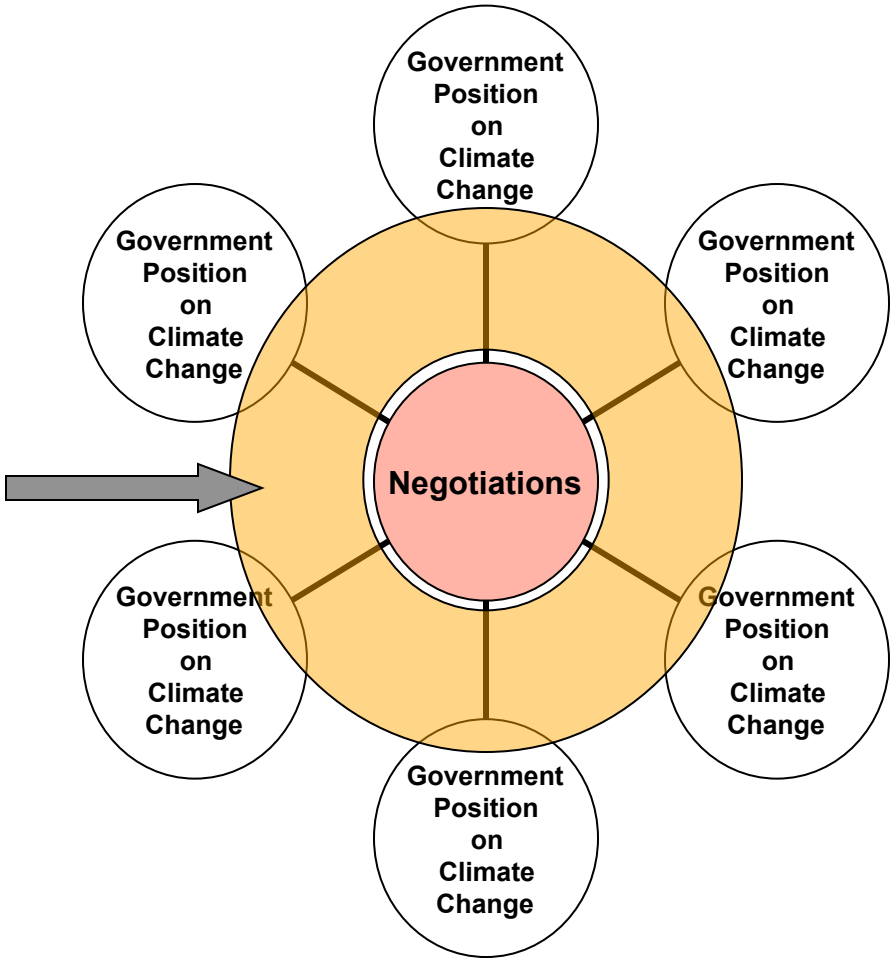


The Climate Change Negotiation Environment

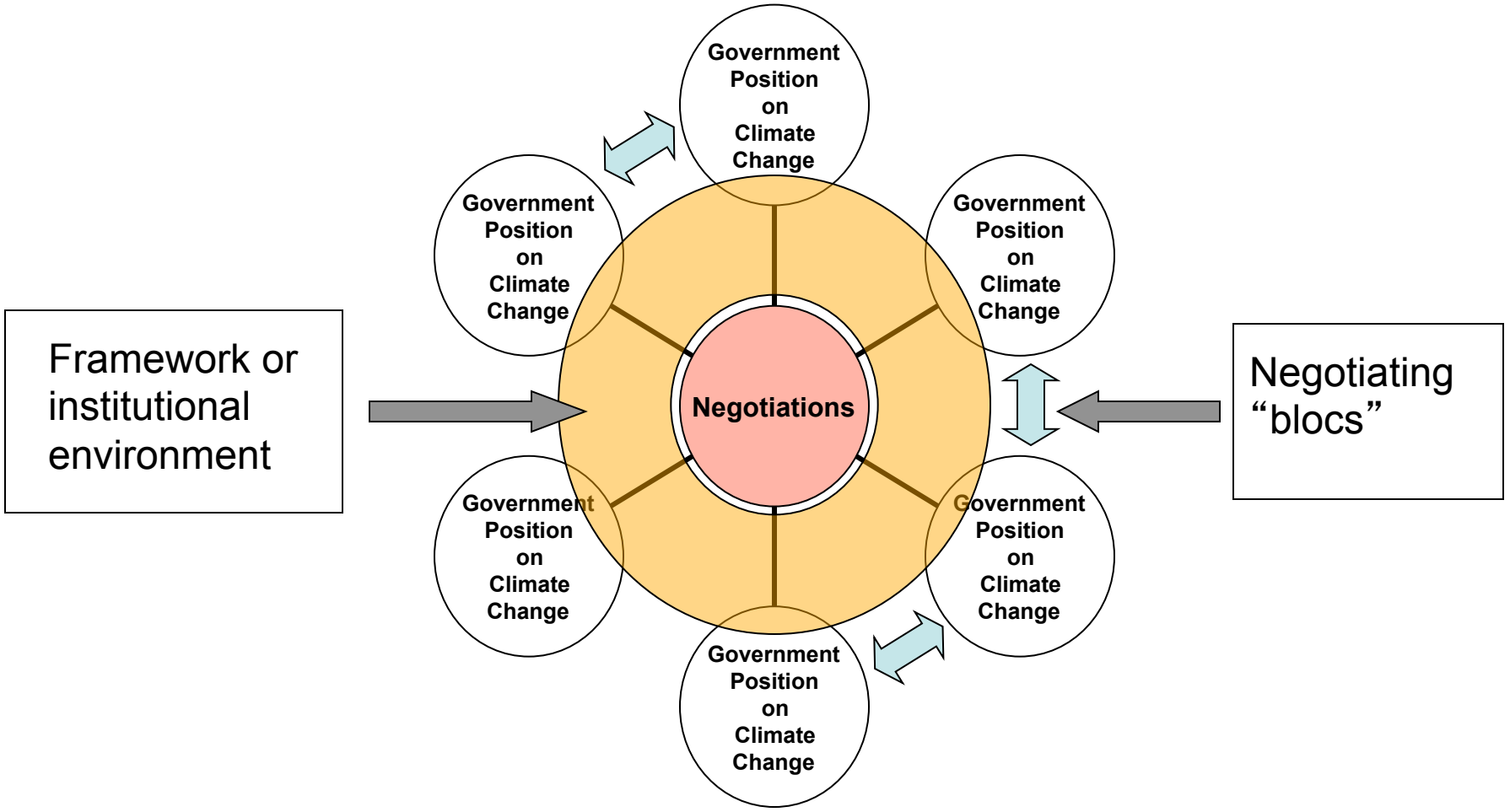


The Climate Change Negotiation Environment

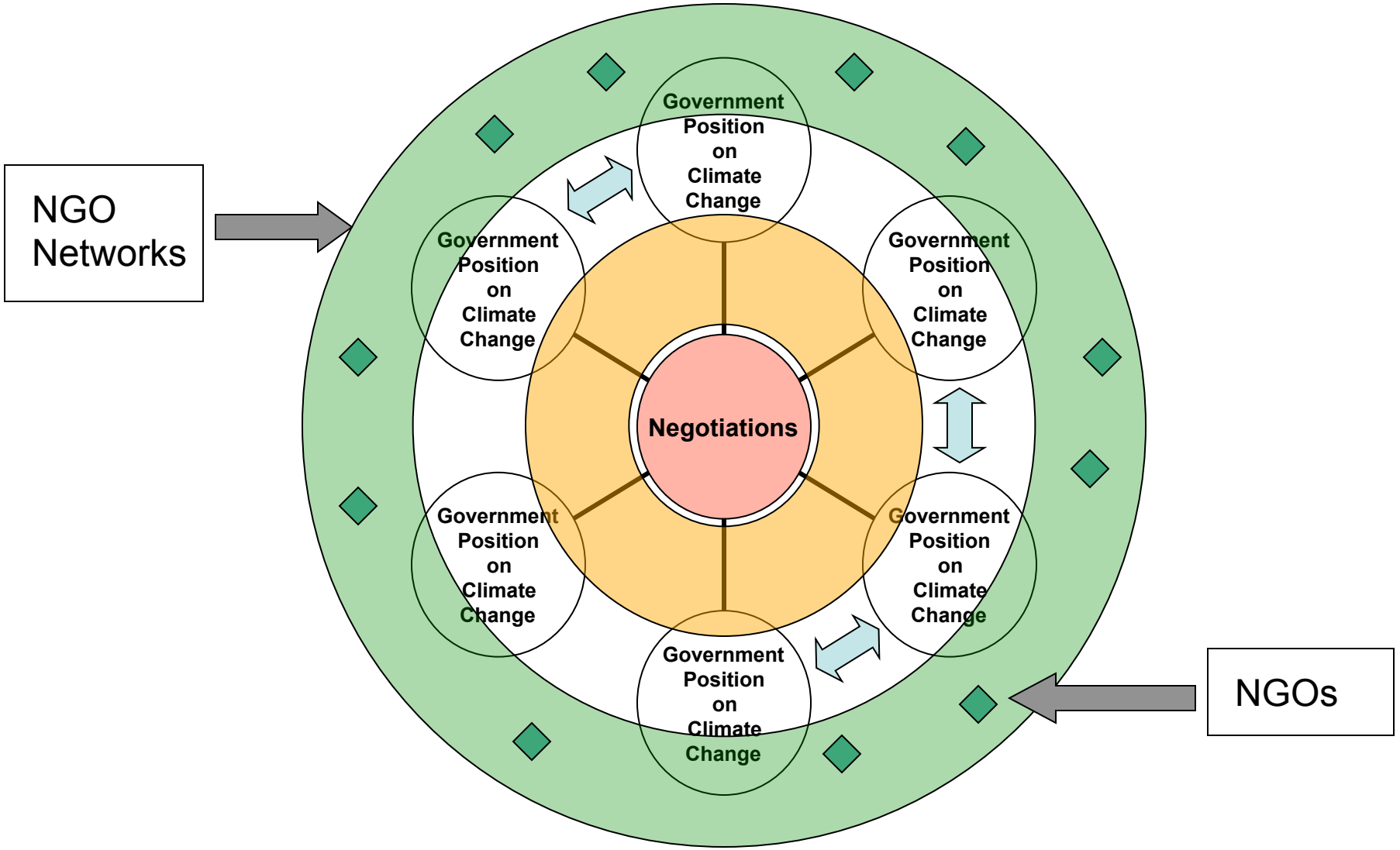
Framework or institutional environment



The Climate Change Negotiation Environment



The Climate Change Negotiation Environment



Climate Change and Global Governance

- Rio
  - Or: the United Nations Conference on the Environment and Development in Rio De Janeiro (1992)
  - Or: The Earth Summit
  - **Signing of the UN Framework Convention on Climate Change (UNFCCC)**

Climate Change and Global Governance

- UNFCCC (comes into force 1994)
  - provisions

IPCC Second Assessment Report (1995)

"…projections of future global mean temperature change and sea level rise confirm the potential for human activities to alter the Earth's climate to an extent unprecedented in human history; and the long time-scales governing both the accumulation of greenhouse gases in the atmosphere and the response of the climate system to those accumulations, means that many important aspects of climate change are effectively irreversible."

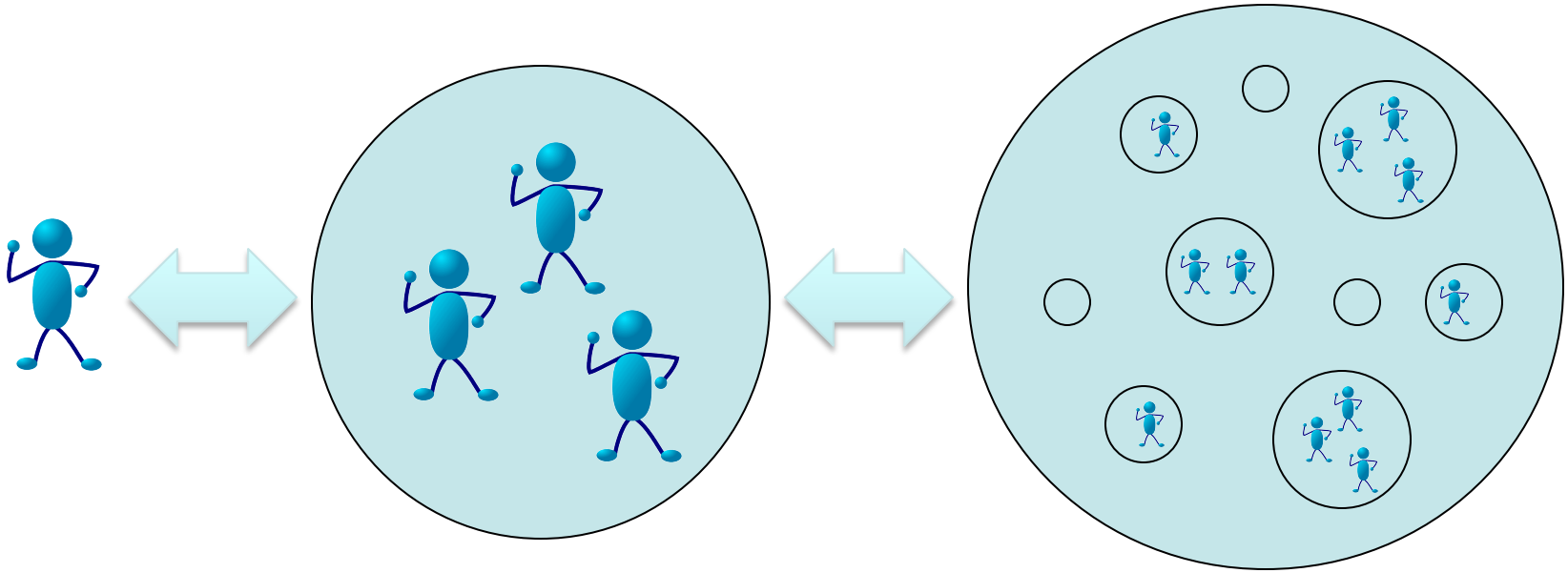
Climate Change and Global Governance

- Conference of the Parties 1 (COP 1): Berlin (1995)

Climate Change and Global Governance

- COP 3: Kyoto (1997)
  - The EU
  - JUSCANZ
  - Provisions

The levels of analysis: explaining agency in human affairs



1. Individual

2. State or Group

3. International System

The Byrd-Hagel Resolution (July 25, 1997)
(passes US Senate 95-0)

"Whereas the exemption for Developing Country Parties is inconsistent with the need for global action on climate change and is environmentally flawed; and Whereas the Senate strongly believes that the proposals under negotiation…could result in serious harm to the United States economy, including significant job loss, trade disadvantages, increased energy and consumer costs, or any combination thereof…the United States should not be a signatory to any protocol…at negotiations in December 1997, or thereafter."

Leadership

- Interests

  “We will not do anything that harms our economy, because first things first, are the people who live in America. That’s my priority.”

  US President George W. Bush on U.S. refusal to sign the Kyoto Protocol, 2001

IPCC Third Assessment Report (2001)

"There is new and stronger evidence that most of the warming observed over the last 50 years is attributable to human activities…observed changes in regional climate have affected many physical and biological systems, and there are preliminary indications that social and economic systems have been affected."

IPCC Fourth Assessment Report (2007)

"warming of the climate system is unequivocal… most of the observed increase in global average temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic greenhouse gas concentrations."

Climate Change and Global Governance

- COP 13: Bali (2007)
  - Provisions

Bali (COP 13)

- Set a goal to produce a legally binding global treaty to replace the Kyoto Protocol to the United Nations Framework Convention on Climate Change (UNFCCC), which was due to expire in 2012.

Heading into Copenhagen

- In 2008, carbon dioxide emissions were 30% higher per year than in 1992 when the UNFCCC was signed
- Emissions were 20% higher than in 1997, when Kyoto was signed.
- Atmospheric concentrations of CO2 equivalent GHG reached 430 parts per million in 2008, compared with 280 parts per million before the industrial revolution.
- A now widely accepted definition of dangerous climate change is a 2 degree C rise

Heading into Copenhagen

- The IPCC recommends that to have a good chance of avoiding dangerous climate change (a 2 degree increase) developed countries must cut their GHG emissions by at least 25 percent from 1990 levels by 2020, and global emissions must begin to decline by 2020 at the latest