



# Multi-level Governance for Climate Change

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# Structure of the presentation

- Governance: characteristics, challenges, instruments
- Environmental governance and climate change governance
- Multi-level governance: vertical and horizontal dimensions

# Defining governance

Interactive  
decision making

Complex  
networks of  
actors

Dispersion of  
power and  
resources

Diffused patterns  
of  
interdependence

Participation and  
partnerships

Steering and  
influence

# Decision making frameworks

## Hierarchies

- Formal bureaucracies
- Rules
- Low flexibility

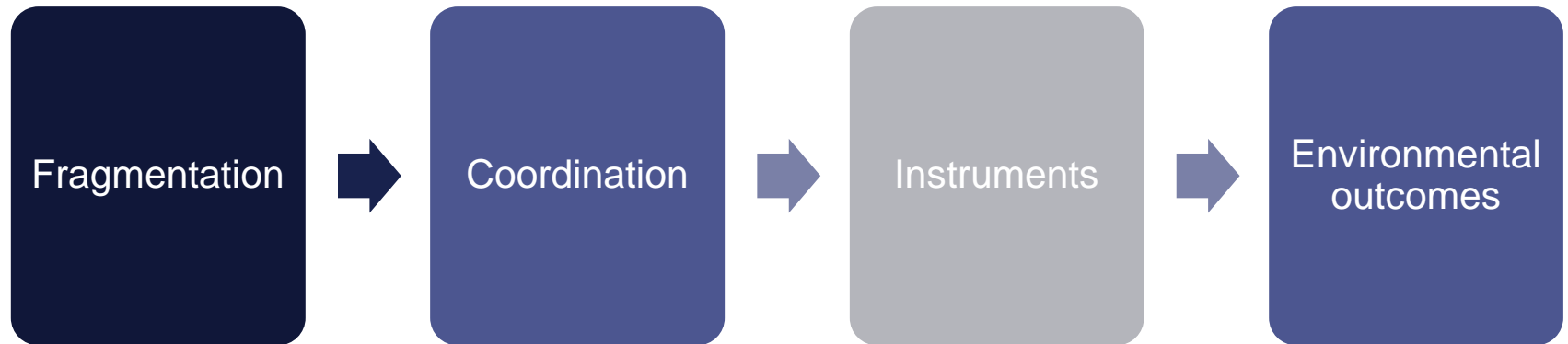
## Markets

- Contracts
- Prices
- High flexibility

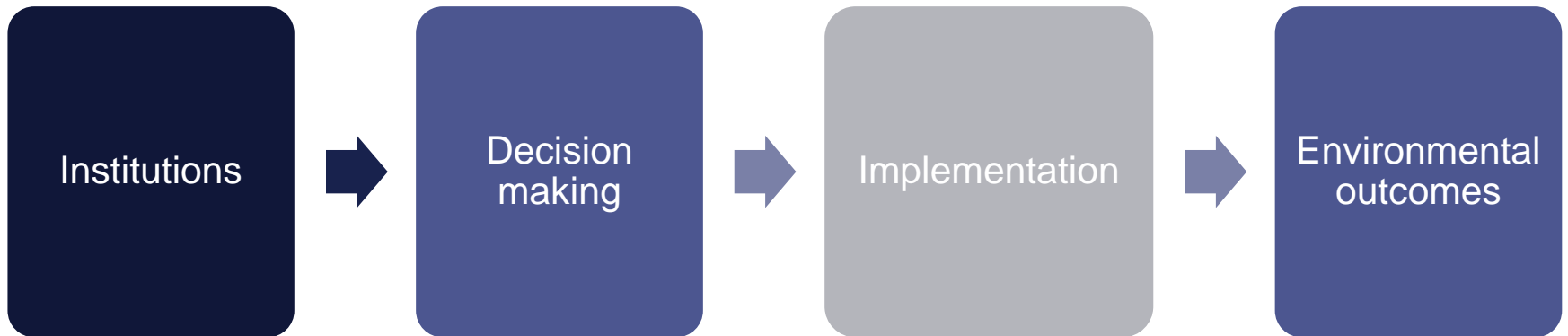
## Networks

- Interdependent units
- Coordination
- Medium flexibility

# Governance



# Governance



# Governance challenges

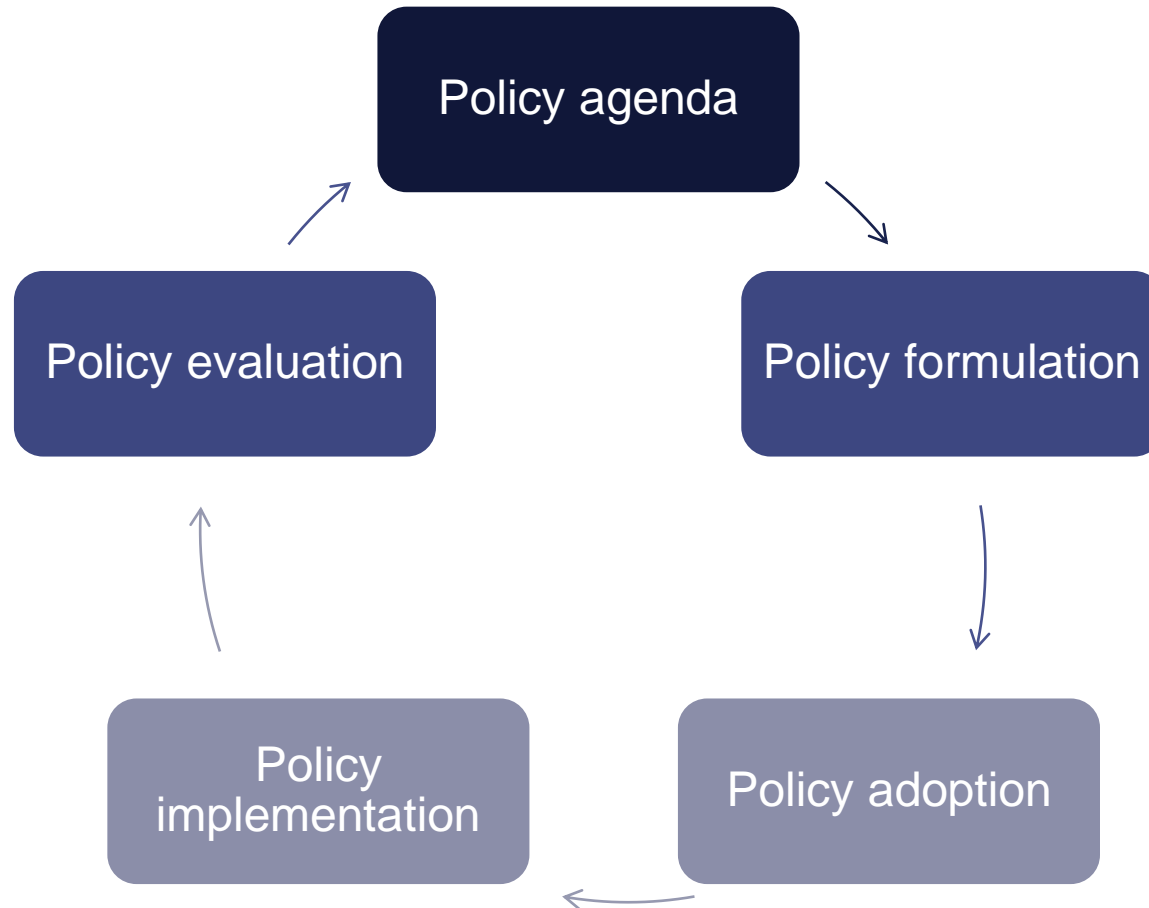
Accountability

Interest  
representation

Legitimacy

Access and  
power

# Policy cycle (rational model)





# Governance instruments

- Market instruments to modify price signals (e.g. taxes, tradable permits, subsidies, fees).
- Regulations to provide incentives (e.g. increase energy efficiency, emissions performance standards).
- Consumer behaviour changes (e.g. green labelling, awareness campaigns).

# Climate change governance

- Climate change risk and vulnerability require integrated approaches that combine established policies and strategies with new powers, responsibilities and instruments.
- Uncertainty: environmental systems and responses, impacts of climate change, effects of adaptation measures, etc.
- Governance complexity applied to a complex policy domain.

# Climate change local governance

- Local policy decisions are essential in the design and implementation of climate change strategies.
- Climate change impacts are manifested locally, affecting local livelihoods, economic activities, human health, etc.
- GHG emission derive from processes in a given location and local level actions are ultimately needed (within the context of international and national policy frameworks).
- Adaptation interventions are often best implemented at the local level and vulnerability and adaptive capacity are determined by local conditions.

# Local government roles

## MITIGATION

**PLANNING:** impact of urban form and design on energy use and transportation

**TRANSPORTATION:** transport demand management (public and private transportation)

**ENERGY MANAGEMENT:** housing sector (grants, public awareness) industrial activities within local government operations

## ADAPTATION

**BUILT ENVIRONMENT:** urban planning; building codes; land use regulations; public buildings;

**INFRASTRUCTURE:** piped water; sanitation and waste-water treatment; drainage; roads and pavements; electricity

**SERVICES:** solid waste management; public health; social welfare; environmental management

# Climate change governance

- Governing by **consuming**: the local authority as consumer.
- Governing by **provision**: the local authority as provider.
- Governing by **authority**: the local authority as regulator.
- Governing through **enabling**: the local authority as facilitator.

# Governance of adaptation

How decisions related to adaptation are taken and implemented, including public investments in protection measures, incentives for private adaptation efforts, increasing awareness, etc.

## Urban flooding adaptation measures

Integrated land use and water management

Dykes and dams

Climate proofing of flood prone areas

Awareness campaigns

Water retention improvements

Green spaces and corridors

Early warning systems

# Multi-level governance for climate change

- Multi-level governance calls for a narrowing or closing of the policy gaps among levels of government via the adoption of tools for vertical and horizontal co-operation.
- Multi-level governance provides a flexible conceptual framework to understand the relationships between cities, regions and national governments across mitigation and adaptation policy issues as well as across a widening range of non-state and non-governmental actors.

# Multi-level governance

- **Vertical** governance across multiple levels of government.
- **Horizontal** governance across multiple sectors and actors.



# Vertical governance

- Local government authority is nested in legal and institutional frameworks at higher scales.
- Two-way relationship between local and national levels.
- Set national targets, establish incentives, align national policies to local goals.
- Leverage local innovations, accelerate learning, foster resource mobilization

# Models of vertical governance

- National frameworks.
- Bottom-up approaches.
- Hybrid forms.

# Horizontal governance

- Actors from the public, private and civil society sectors.
- Sectors and departments to deal with cross-cutting issues.
- Local jurisdictions within metropolitan areas.
- Transnational networks.

# Multi-level governance tools

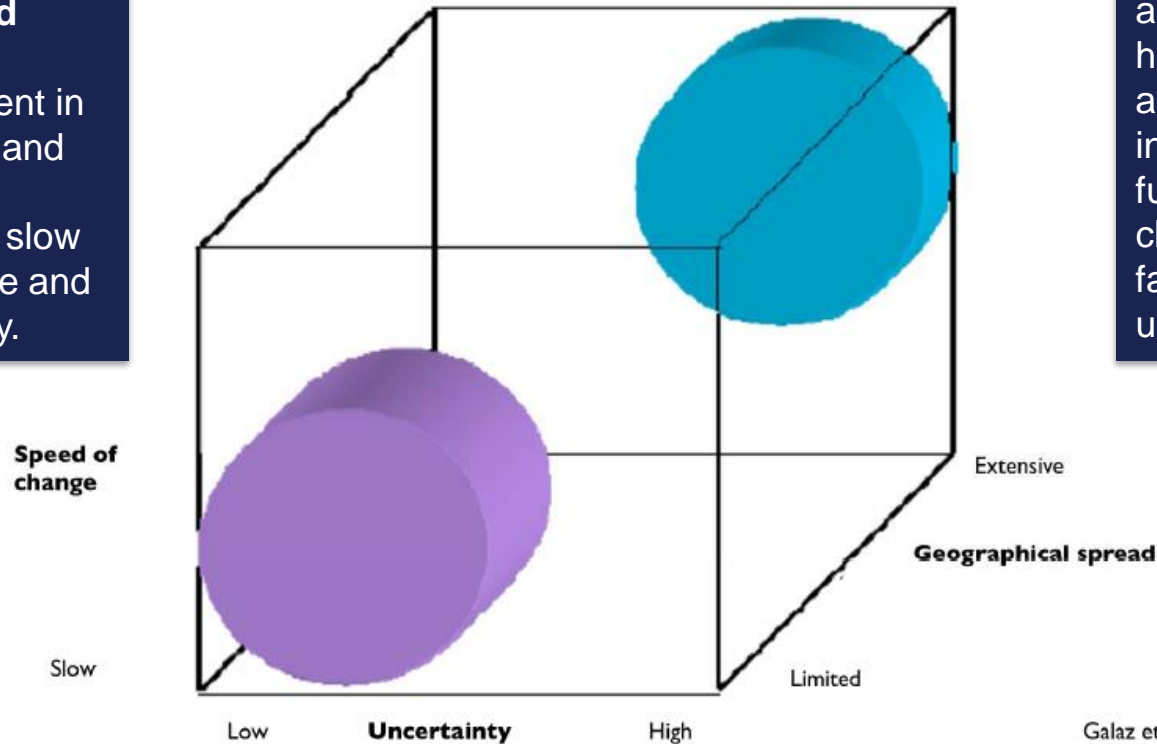
- Laws and regulations
- Policies
- Performance indicators
- Contracts
- Financing mechanisms

# Governance framework assessment

Process	Outcomes
Accountability	Long-term perspective
Transparency	Effectiveness
Flexibility	Efficiency
Responsiveness	Experimentation and innovation
Involvement	Equity
Monitoring, evaluation, reporting	Synergy and coherence

# Network governance as adaptive

**State-dominated governance**  
(heavy involvement in decision making and implementation): functions best at slow speeds of change and high predictability.



**Network-based governance**  
(informal cooperative arrangements with higher level of actors and repeated interactions): functions best as change becomes faster and more uncertain .

Galaz et al. 2007

# Adaptive governance and resilience

CONVENTIONAL GOVERNANCE	ADAPTIVE GOVERNANCE
Stakeholder participation promoted for legitimacy and efficiency of management	Collective action and network-building promoted to strengthen capacity to deal with unexpected events
Social learning to create consensus around management initiatives	Social learning is institutionalized to understand system dynamics
Institutions designed to achieve fixed targets	Institutions designed for adaptation to environmental change
Evaluation is applied ad hoc	Policy viewed as hypotheses and management as experiments from which to learn
Strategies to deal with uncertainty are absent or limited	Strategies to tackle uncertainty and complexity are a fundamental aim
Emphasis on solutions to achieve fixed quality and quantity targets	Emphasis on solutions to reduce vulnerability and strengthen capacity to respond and adapt
High reliance on models as a base in management plans	Models in collaborative processes important to understand behaviour of ecosystems and to identify critical thresholds
Multilevel governance encouraged for legitimacy and efficiency with regard to fixed targets	Multilevel governance promoted to secure local ecological knowledge, reduce vulnerability, and strengthen capacity

**THANK  
YOU**

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