

PEDL: FIRMS AND CLIMATE CHANGE

Technology Adoption and Innovation

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LANDSCAPE AND PLAYERS

■ 3 Tech Domains

■ Process Technologies

- Energy, technique, location

■ Monitoring and Enforcement Technologies

- Measurement of emissions and actions

■ Financial Technologies

- Capital and insurance

■ Many actors

- Firms, Government, International Institutions

FIRMS AND CLEAN TECH ADOPTION

■ Incentives

- Prices (push) – energy prices, carbon taxes
- Prices (pull) – subsidies, ‘green’ demand
- How shaped by policy?
- How they interact w/ other policies and secular trends?

■ Constraints

- Information – know-how and role of managers
- Capital – role of state and financial sector
- Uncertainty – role of insurance markets

GOVERNMENT INDUCED ADOPTION

- Usual policy levers to shape firm decisions?
 - Market and non-market interventions
 - International tech transfer
- Oversized role of infrastructure
 - Transport networks, energy grids
 - Credible monitoring networks – remote sensing
 - Fixed costs, lock in, and leapfrogging
- Political Economy
 - Transparent enforcement
 - Credible LR policy commitments compatible with investments in long-lived capital investments

GREENFIELD INNOVATION

- **What is the policy space to generate new ‘clean’ technologies?**
 - R&D subsidies
 - Technology Parks: Cluster or Cluster F&K?
 - International collaborations
 - Rent Capture: patents, prizes, etc.
- **What about complementary sectors?**
 - ICT for monitoring and enforcement
 - Fintech+ for coupled technical advice and financing
- **Comparative advantage and geographic factors**
 - Which physical and human resources are abundant?
 - How is this shaped by existing and planned infrastructure?