

Design of “1.5°-proof” mitigation policy instruments and NDCs

Side Event: Underpinning ambitious NDCs compatible with a 1.5°C emissions pathway and a resilient society

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Research Project

Transformative Raising of Ambition – The contribution of effective climate policy instruments to the 1,5°C target

Project team: Perspectives Climate Research gGmbH and University of Freiburg, Chair of Forest and Environmental Policy

Project period: April 2017 – December 2018

Overall project goals: Peer-reviewed publications on how international climate policy instruments can increase mitigation ambitions towards the 1.5C target.

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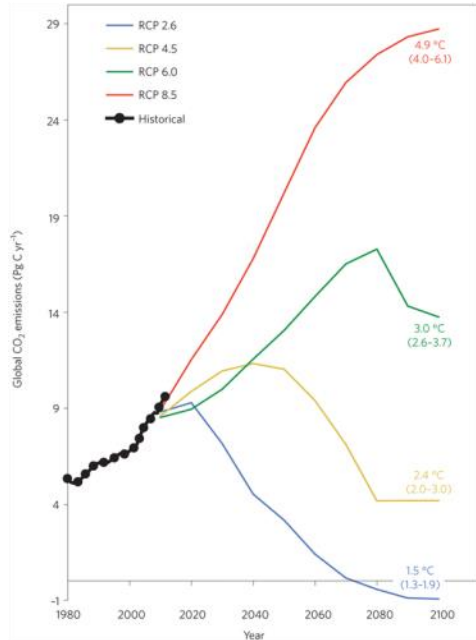


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The challenging path towards 1.5°C

- How can policymakers design, introduce and enforce policy instruments that **transform entire economies in one generation?**



- Maintain **current growth rate of renewable electricity generation**
 - **Fossil-free and near zero energy new buildings by 2020**
 - Emissions from **forestry** to decrease by 95% from 2010 levels by 2030
- policy instruments need to **direct capital towards low-carbon infrastructures** and assure **early shutdown and dismantling of high carbon infrastructures**

Source: Sandford, T., et al. (2014) The climate policy narrative for a dangerously warming world, Nature Climate Change, <http://dx.doi.org/10.1038/nclimate2148>

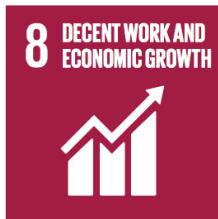
Introducing 1.5°- compatible mitigation policies

- **Interest group constellations determine the success/failure of a policy instrument.**
 - constellations are **temporary** (example: feed-in-tariff)
 - “windows of opportunity“ are **short-lived**
- **Policy instruments generate varying price signals depending on the strength of interest groups**
- **Redistribution is crucial!**



Sustainable Development Co-Benefits

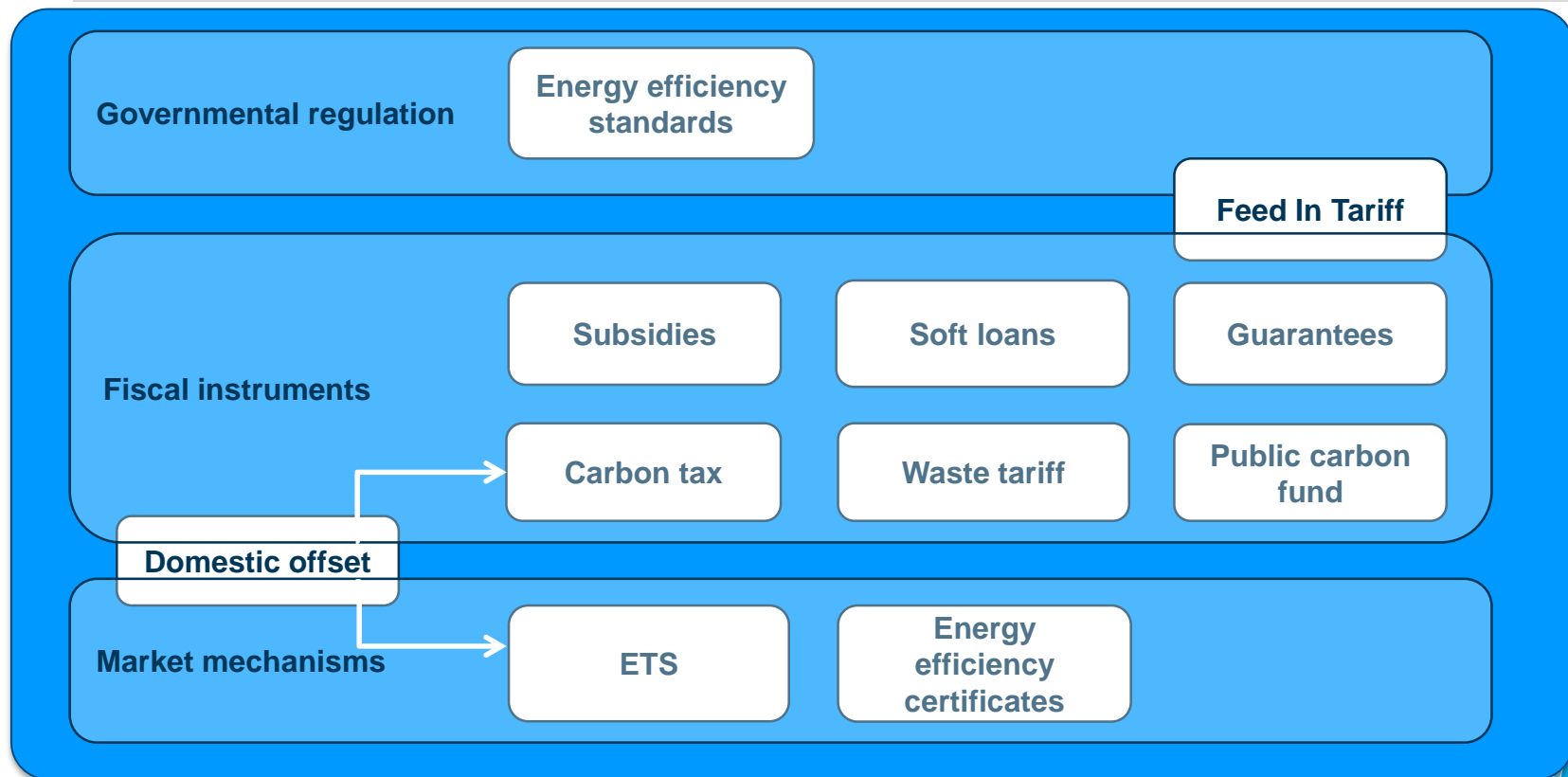
- **Justification of mitigation policy instruments through their benefits in other policy fields**
 - SDGs as approach for classifying co-benefits
- **Environmental co-benefits: Mitigation of air pollution**
- **Economic co-benefits of carbon pricing policies e.g. through redistribution policies**



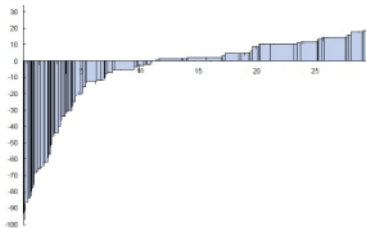
Framing of policy instruments for the 1.5° transition

- **Mitigation policy instruments can be framed as business opportunity, combining market mechanisms for mature technologies with public investment programmes for emerging technologies**
 - Will those efforts suffice to reach a 1.5°C path?
- **Alternative framing as a (global) societal emergency.**
 - Will there be a willingness to deal with **impacts** far from the respective national contexts?

Policy instruments that could underpin NDC implementation



Key barriers for mitigation policy instruments



- Lacking belief in **mitigation cost estimates**
 - Policymakers see MAC curves as artifacts without real-life significance
- Effective opposition of **emitter lobbies**
 - Heavy industry lobbies are usually politically powerful, as they are **strongly concentrated** and contributed to **past development of the country**
 - As most **low-cost** measures are **concentrated in heavy industries**, a key chunk of abatement potential is lost



Key barriers for mitigation policy instruments II



- Focus on **politically salient high cost** measures
 - Low cost measures are often “**boring**” and do not relate to visible high technology
 - Policymakers like to deal with **glitzy technology** that can be unveiled in spectacular fashion
 - **New lobbies** emerge that thrive on subsidies
- **Consumption growth** overrides carbon intensity reductions
 - Even if measures are successful, increasing consumption will be a powerful counterforce



Successful introductions of policy instruments did...



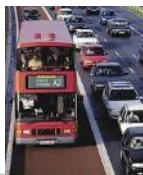
- ... use **political windows of opportunity**
 - Energy crisis allowed drastic energy efficiency measures (Brazil)



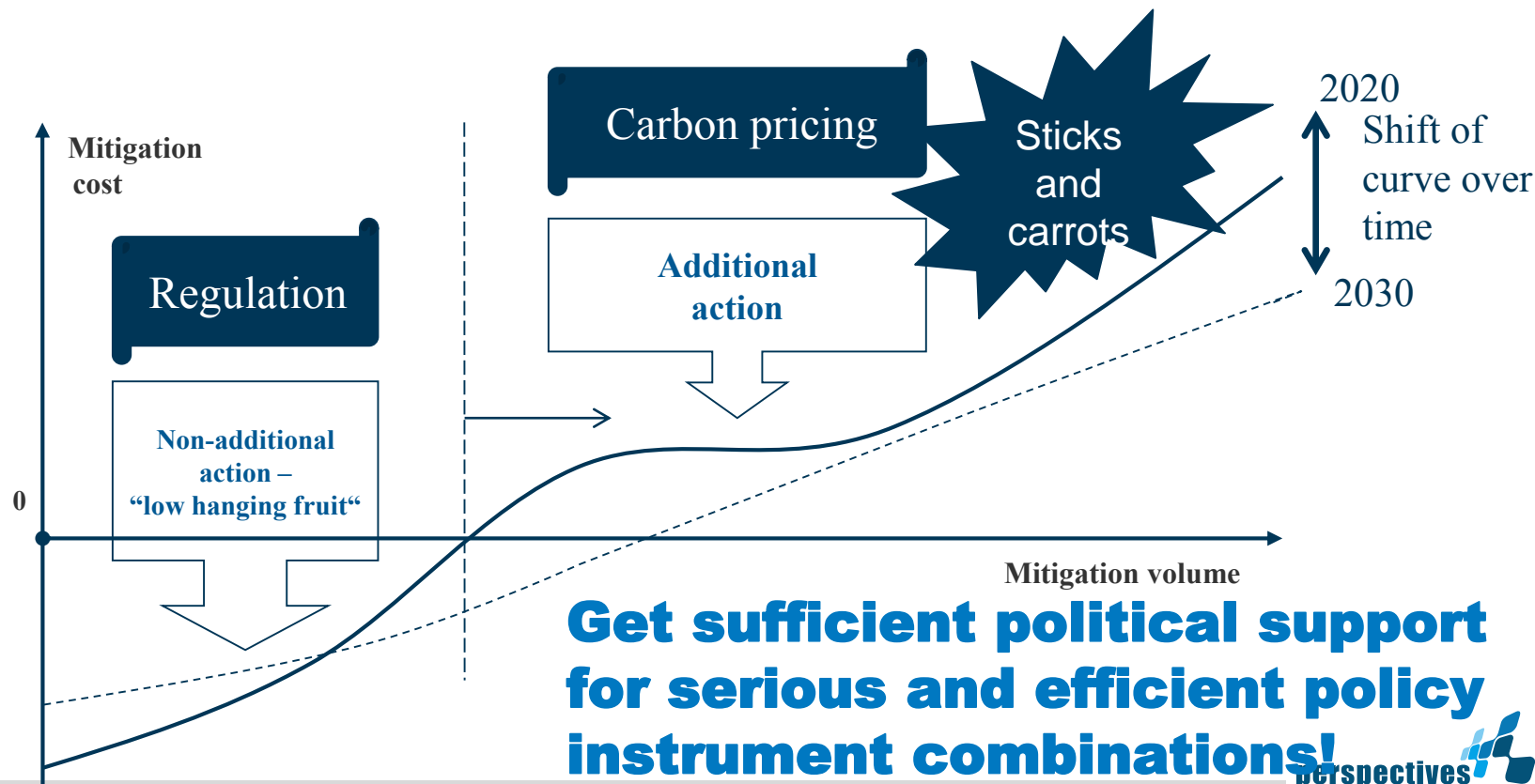
- ... **align powerful economic interests**
 - Ethanol programme provided a new outlet for **sugar industry** (Brazil)
 - Wind power feed-in-tariff brought together **farmers'** and **metal industry** lobbies (Germany)



- ... **build on backing of key individuals**
 - World's first bus rapid transit programme pushed by long-serving mayor of Curitiba (Brazil)



Recommendation for policy mix



Policy brief with summary messages

- Application of the vast toolbox of regulatory and financial policy instruments requires **robust political will**
- Governments need to **abandon fossil fuel subsidies** immediately and introduce effective financial mechanisms like competitive auctions for renewable energy
- Forest landscape restoration requires **multi-stakeholder collaboration**
- Reaching the **1.5°C target** requires **large-scale carbon dioxide removal**



THE POLITICAL ECONOMY OF ACHIEVING 1.5°C

Potential and limitations of climate policy instruments

KEY MESSAGES

- While there is a vast toolbox of regulatory and financial policy instruments for climate change mitigation, its application requires robust political will.
- The IPCC Special Report on the 1.5°C target specified in the Paris Agreement shows that greenhouse gas mitigation ambition needs to be raised drastically to keep the target of global net zero emissions by mid-century within reach.
- Yet, the report does not address political economy questions like how interest groups influence the design, implementation and effectiveness of mitigation policy instruments. Moreover, it does not discuss how governance should be structured to prevent undermining climate policy ambition.
- In order to mobilize large-scale and cost-efficient investments in rapid decarbonization, governments need to abandon fossil fuel subsidies immediately and introduce effective financial mechanisms such as competitive auctions for renewable energy and emission reductions.
- Forest landscape restoration holds great potential for CO₂ removal but requires multi-stakeholder collaboration and the reconciliation of carbon sequestration with agricultural interests, local livelihood concerns, and biodiversity conservation.
- Climate models suggest that reaching the 1.5°C target requires large-scale carbon dioxide removal, including through largely untested technologies. Policy challenges and potential conflicts with sustainable development require dedicated research and international oversight.

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Key questions for the side event

- **How can the 1.5° imperative be “brought down” to the implementation level?**
- **How can effective mitigation policy instruments be introduced in the context of NDC implementation?**
- **How did Morocco achieve its frontrunner status in renewable energy?**
- **What are Moroccan approaches in the context of NDC revision?**



Thank you!

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