

Business Contributions to Climate Change Adaptation Insights from South Africa and Germany

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What role for business in climate change adaptation?

- → What are contributions to climate change adaptation increase overall adaptive capacity?
- → How do they contribute? modes of interaction
- → What are motivations and drivers?
- → New role for business?

Water Management as a Proxy

- Climate Change → Considerable impact on water resources
- High related uncertainties (droughts, scarcity, flooding)
- Adaptation challenge: Impacts on land management, nutrition, biodiversity, infrastructure, health



Potential Contributions/Firm Strategies

COPING

- Short-term resilience, process and technologies
- Monitoring

SUBSTANTIAL ADJUSTMENTS

Longer-term, involvement with planning mechanisms, infrastructure development

TRANSFORMATION

Collective action, social learning etc., involvement with policy-making



Drivers/Motivations





Case Study Set-Up

South Africa

- "Area of limited statehood; weak regulatory, implementation capacities"
- (Severe) climate change impacts expected
- Intensive public discourse on water management

Germany

- Consolidated statehood
- Well-developed policy framework
- · Climate change impacts unclear
- Public discourse mostly on mitigation



Firm Actions

South Africa

- Emphasis on increasing firms' resilience: water efficiency/saving
- Involvement in water planning
- Involvement in water infrastructure development – cooperation with municipalities
- Interaction with government at the national level – water resources planning and policy-making

Germany

- Coping measures slowly gaining in relevance
- Monitoring
- Technological improvements
- Limited Engagement beyond...supply chain
- Little involvement with policymaking



Discussion of Drivers

South Africa

- Currently: lack of regulation
- Expected regulation
- Actual, perceived dependence on water a key resource and uncertainty of access
- Firms anchored in local and international discourses
- Community needs

Germany

- Regulation: not effective; foresees business involvement in cc adaptation, but not yet operational
- Increasing uncertainities on cc impacts
- Mitigation much higher on agenda
- Aspect of precaution/regulatory history



Conclusion and Outlook

- There is a role for business that goes beyond corporate resilience
- Companies need inherent motivation to become active for climate change adaptation
- Motivations can be/is enhanced by other factors
- Government to provide guidance for sustainable outcomes
- → Implications for areas of limited statehood limited government capacity
- → Recommendations for policy-makers vis-à-vis business and climate change adaptation: lessons to be learnt from South Africa for Germany?



Thank you!

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Questions and the Way Forward

- → Questions/Challenges
- Case selection Features/Comparability Issues
- More precise mapping
- Continuation of the basin approach
- → WAY FORWARD PRACTICAL IMPLEMENTATION
- Re-assessment of the approach



Forms of Interaction

Collective action among firms

: some cases in the Platinum mining industry

Individual action/provision

: CC example

Implementation Partnerships

: emerging strongly – partnerships with NGOs, donors...

Dialogue Platforms

: some instances

Capacity-Building

: in the context of partnership approaches



Indicative findings

Contributions

	Innovation	Compensation
Internal	Process improvement	Internal monitoring
Supply-Chain	Process and Product Development	Awareness raising, control
Horizontal	Infrastructure Development Governance systems	Water Footprint Off-setting



Requirements for Adaptive Water Management

Criteria developed by Dietz/Stern and Ostrom (2003):

- Information/Data
- Stakeholder Participation, Mutual Learning
- Infrastructure Management
- Institutional Capacity (certain properties)
- Integration of different water uses (IWRM)
- → Preparedness for Change, Resilience, Adaptive Capacity



Contributions

Capacity- Building

Transfer of know-how on technologies and processes

Dialogue and Outreach

Creation of and institutional structures Dialogue with stakeholders Awareness-raising

Financing

Financial resources
Funding support and backing

Watershed Planning

Mapping of available water sources and water uses, hydrological conditions

Infrastructure Development

Mutual benefit to business and communities (e.g. water services, electricity, transport)

Operational Efficiency

Improved production processes
Increase water-efficiency in sourcing,
production and distribution

Technological Innovation

Water treatment technologies
Improve water footprint of products

Internal Planning

Company-level water accounting Impact monitoring

Regulatory Compliance



Motivations

Combinations of ...

Resource-based drivers

Water as a key resource:

Cost of resource

Technical management capacity
Organizational Slack

Relevance of SD Agenda with management

Staff motivation

Institutional drivers

International SD CC norms

Mimetic drivers and industry norms

Competitive (market drivers)

External stakeholders (NGOs, community)

Government

Different roles

Mandating
Facilitating, partnering
Non-action



Indicative findungs

Drivers

- Other drivers mostly have an enhancing effect
 - E.g. NGO and community pressure, which points to impacts of environmental chances and fulfills two function
 - Direct pressure on companies through watchdog function
 - Lobbying at government level to engage in certain policies
 - Important element of public dialogue
 - However not as an exclusive driver, but in conjunction with others
- Perception of a shared risk is conducive for joint action
- Guidance from government needed to channel corporate contribution and (probably) provide for long-term viability



Indicative findings

Drivers

- Strongest drivers:
 - Resource-base
 - Government pressure
- Specification and refinement:
 - Water as a resource and environmental change play a strong role however in combination with other drivers, organizational slack, firm disposition
 - In combination with government drivers ranging from mandating to facilitating as well as the lack to do so



Case Study Research - Data

- September 2011 South Africa 12 Interviews with
 - Business representatives
 - Government
 - NGOs
 - External experts
- Complementary research in Germany
 - Analyze research conducted in the context of KLIMZUG project



Indicative findings

Contributions in Platinum Case

- Covering the range from internal measures to more interactive measures with stakeholders, municipalities and/or communities
- Emphasis on technical approaches, efficiency measures and innovations as well as infrastructure development (often in collaboration with industry peers)
- Some instances of stakeholder interaction, dialogue and capacity-building (however limited and not inclusive)
- → Long term impacts difficult to assess (increase in adaptive capacity?)