

Counting the Socioeconomic Cost of Climate Change in Developing Countries

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Climate change and socioeconomics at IIED



IIED's is a policy-focused independent research organisation that specialises in linking local to global.

- Providing the world's most vulnerable people with a policy voice
- In partnership with local organisations

Climate change at IIED finds fair and equitable solutions to CC by improving:

- Understanding of CC impacts for developing countries
- Decision making capacities
- Negotiating capacities
- Sustainable livelihoods opportunities in the face of CC impacts

Economics at IIED has the following resources and capacities:

- 7 economists working in London and Edinburgh
- Track record in bringing a “grassroots economic s” approach to a range of issues: forestry, conservation, livelihoods, poverty alleviation, agriculture
- **Global network** of economists, near-economists, econometricians and others

Estimating the economic costs of CC: Demand for this work

- **Policy makers:**
 - need data to begin lobbying for CC to be taken seriously
 - Begin elevating ranking/significance relative to other risks
- **Experts on CC**
 - Not taken seriously without robust, dependable, independent data
- **Civil society groups**
 - Limit to lobbying capacity without stronger arguments backed with data

Methodology

- **Literature review**
 - Grey, web, official, NGO, etc
- **Stakeholder engagement**
 - champion identification
 - Gap identification
 - Local economists
- **Expert meeting**
 - facilitated by economists
 - generation of “consensual” findings
- **Outputs – data and gap identification**
- **Modelling – static and dynamic**
 - Adapting existing tools to fit with data constraints
- **Dissemination phase – media, stakeholders, etc.**

e.g. Namibian economy

Values	Current GDP contribution (%)	Changes expected due to climate change (%)	Effect on GDP (millions N\$)	Confidence in range of change
Use values:				
Cereal production	0.5	Decrease (10-20)	-16 to -32	Low to medium
Crop production	1	Decrease (10-20)	-32 to -65	Low to medium
Livestock production	4	Decrease (20-50)	-264 to -660	Medium
Traditional agriculture	1.5	Decrease (40-80)	-197 to -395	Medium to high
Fishing	6	Increase(30)/decrease(50)	0 to -990	Low
Tourism	2.3	Increase/decrease	-	Low
Forests	+ *	Unchanged	0	Low
Non-use value	+ *	Decrease	-	Low
Total value			-509 to -2142	

e.g. Namibian economy

- Climate:

- drier, intense variable rainfall, 2-6 degree increase, less plant cover, higher evaporation, desertification, water shortages

- Macroeconomic:

- **up to 6% loss to GDP – US\$70-200 million**
- under worst case scenario – agricultural and fishing outputs impacted
- Irrigated crop production could thrive but job creation minimal

- Social: poorest hardest hit –

- Labour-intensive livestock farming hit hard
- **loss of 24% of unskilled wages**
- Poor pastoralist and dryland populations most affected
- Displacement/ migration to urban areas

- Policy traction:

- 24 April 2009: Minister of Environment and Tourism Nandi Ndaitwah “in a study commissioned by the Ministry, concluded that over the next 20 years, annual losses to the Namibian economy could be between 1 to 6% of GDP ... based on the study we need to develop and adopt mitigation to climate change effects”

e.g. Tobago's tourism economy

- **Climate:**
 - Tobago will have to market itself as a climate friendly destination
 - Hurricane line
- **Macroeconomic:**
 - Work in progress
- **Social: poorest hardest hit –**
 - Work in progress

e.g. Tanzania's agricultural sector/economy



- **Climate**

- Mixed bag with some losses and some gains for agricultural productivity from expected changes in climate

- **Macroeconomic**

- Between 0.6 to 1% GDP losses by 2030 ; 5% to 68% by 2085

- **Social**

- Numbers are being redone!

- **Policy traction**

- IIED team working with donor community on messaging
- Writing donor speeches
- Working with Tanzania's IPCC Focal point and the government

In conclusion

- **Developing data from the grassroots**
 - Novel approach
 - Many studies on “CC&GDP” – e.g. WB Dominica – top-down/macro
 - Listening
 - Process
 - Champions
- **Developing killer facts for international lobbying/negotiations**
 - With the robust science and tested evidence backing-up
 - Socioeconomic impacts have political currency
 - Creating momentum – research plus collaboration building
- **Successive policy phase**
 - Missing, debate these data

Reports available FREE from IIED!



Namibia

- Discussion paper
- Two policy briefings

Tanzania

- Policy briefing

Downloadable: www.iied.org

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Discussion Paper 07-02

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International
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Environmental
Economics Programme

The economic impact of climate change in Namibia

How climate change will affect the
contribution of Namibia's natural
resources to its economy

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