

Tourism, sustainability and climate change: policy responses for climate change adaptation in Botswana?

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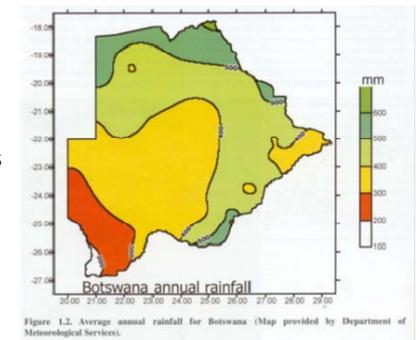
- In general, tourism is seen as highly climate dependent activity
 - Especially nature-based tourism products
- However, the possible impact of climate change on tourism has so far received relatively minimal attention in many parts of developing world
 - Focus been on north, snow-based winter tourism destinations and products (and small 'tropical' islands)
 - Surprising as the industry is widely based on the natural environment and wildlife in many developing countries, e.g.:
 - By 2020 Botswana aims to become "globally renowned as the most authentic and exiting wilderness tourism destination in the world with large numbers of the people of Botswana participating in, and benefiting from, the industry" (UNWTO, 2008:2)

Introduction

- Climate change impact, adaptation and mitigation have become major issues in contemporary tourism development and policy discussions
 - Needs for sustainability, product design (adaptation-innovation) and marketing highlighted the role
- Three main reasons (Becken & Hay, 2007)
 - **Direct climatic impacts**; e.g. seasonality, potential activities
 - **Indirect climatic impacts**; biodiversity loss, landscape changes
 - **Tourism contribution to GHG emissions**; app. 5 % of global GHG emissions, mainly based on transportation
- "Mitigationists" and "adaptationists" in tourism studies (Weaver, 2011:110, see Dubois & Ceron, 2006: 411).

Focus on Botswana

- Tourism product is based on wildlife and wilderness
- Arid / semi-arid country, with highly erratic rainfall
 - The mean annual rainfall ranges from 250 to over 650 mm
 - The national average rainfall is 475 mm/year,
 - half of the global average annual rainfall
 - falls as localised showers / thunderstorms
- -> highly vulnerable to climate change
- United Nations Framework on Climate Change predicts that Botswana will experience a temperature rise of 1–3 C in the next hundred years and a decline in rainfall of 25 %
 - or an increase of 10 percent, depending on which climate model is used...
- According to Hulme (1996), the scenario for 2050 indicates a possible increase in temperature by 2 C in parts of Botswana and Namibia
- Urgent need for adaptation (Heinrich Böll Stiftung, 2010, see Preston-Whyte & Watson, 2005)



Adaption to change - vs mitigation

- 'How unit or system aims to adapt to change through transforming its' operations'
 - Relates to vulnerability: 'ability to cope with change'
- 'How unit or system aims to reduce or eliminate long term risks causing change' (GreenHouseGases, GHG)
- **Adaptation** refers to the ability of a unit (e.g. a tourism operator or a resort) to transform its structure, operations or organisation to survive under changes threatening its existence and success (see Pielke, 1998; Kelly & Adger, 2000).
- The related concept of adaptive capacity can be understood as the ability of a unit and their networks to learn and accumulate knowledge and experience, innovations and creative flexibility in risk evaluations, decision-making and problem solving (Smit & Wandel, 2006), potential or capability to cope better with climate variability and change
- Climate mitigation is any action taken to permanently eliminate or reduce the long-term risk and hazards of climate change to human life, property. (IPCC, 2007; Kelly & Adger, 2000=
- Vulnerability: the degree to which a system is unable to cope with climate change (Burton, Huq, Lim, Pilifosova & Schipper, 2002)
- Vulnerability also influences the ability to adapt and vice versa (see Adger, Arnell & Tompkins, 2005)

Approaches in Adaptation

- Various types of adaptation, including anticipatory (proactive) and reactive adaptation, private and public adaptation, and autonomous and planned adaptation."
- Aall and Høyer (2005, modified) identify three types of adaptation processes:
 - – **Explicit adaptation** process
 - within the climate policy context in tourism, formally planned; government (/private)
 - – **Implicit adaptation** process
 - no direct links to climate change policies per se; but a logical connection based on sectorial policies, or occurs without human intervention ('autonomous')
 - – **Functional adaptation** process
 - applies to changes in the tourism industry accruing from changes in the (natural) environment associated with climate change or often with other causes other than climate change
- **Purpose:** to review the current adaptation processes on tourism in Botswana

Policy context: climate & tourism

- UNFCCC (United Nations Framework Convention on Climate Change) requires (and resources!) National Adaptation Programme for Actions (NAPA's) to be done in all Least Developed Countries (LDC)
 - However, Botswana is not LDC
- NDPs; covering various aspects of development and transformations
- Presidential directive in 2010 :
 - to oversee preparation of long term mitigation and adaptation strategy by the end of 2010
- Climate Change and Sustainable Development Programme (MEWT, 2009)

- There is a formal "National Tourism Policy of Botswana
- In practice Botswana's tourism policy is a combination of...
 - Policy for the Growth and Development of Tourism in Botswana (2008)
 - Botswana National Ecotourism Strategy (2002)
 - Tourism Master Plan 2000
 - Wildlife Policy
 - CBNRM (2007)
 - NDP 9 & 10
 - National Policy on Game Ranching
 - National Policy of Rural Development
 - Vision 2016
 - National Policy on Youth
 - National Forests and Range Resources Policy (2009)
 - Botswana Biodiversity Strategy and Action Plan
 - National Master Plan for Agricultural Development
 - Etc. etc.
 - And numerous Acts
 - And more in process; e.g. CBT policy, Global Tourism Ethics process

Explicit adaptation?

- No dedicated climate change policy or strategy climate policy with or without tourism reference:
 - Not mentioned in NDPs
 - The Presidential directive (2010)?
 - The National Adaptation Plan not developed yet
 - The Climate Change and Sustainable Development Programme
 - No implementation – the organisational structure was created in 2009
- Tourism policies:
 - No explicit reference to climate change adaptation

Implicit adaptation?

- An assessment tool (Tompkins et al., 2005)
 - ability to cope with climate related changes in the policy fields focusing on: housing, energy, transport, food security, tourism, water supply.
 - References in housing and water supply/resources
 - Mitigation expressed, except food security and transport
- Tourism related policies did not include implicit adaptation aims
 - E.g. Botswana Ecotourism Certification
 - Only mitigation related issues; energy saving, use of materials, life-cycle audits/analysis etc

Functional adaptation?

- “The involvement of Botswana’s private sector in climate change is virtually non-existent”

Heinrich Böll Stiftung (2010:19)

- Business interviews in:
 - Tshabong, Maun, Kasane, and Nata (n=46)
- Plus surveys



- Case Maun (n=18):
 - Most! of the interviewed establishments had in place/ had planned for adaptation mechanisms, e.g.:
 - tree planting
 - the use of natural air flow open structures
 - product diversification / product re-placement
 - alternative sites for safaris due floods.
- Obviously;
 - many existing practices aimed at the customers comfort and business competitiveness rather than climate change adaptation per se
 - E.g. swimming pools, air conditioners, shade-nets

Conclusions: (policy) responses for adaptation in Bots?

- No explicit or implicit climate change adaptation policies in tourism
 - However, strong references on mitigation
- Functional adaptation mechanisms exists among businesses
 - Reactive
 - Focusing on competitiveness and customers comfort
 - No practical implications related to mitigation
 - Many adaptation mechanisms in use actually work against mitigation goals (e.g. air cons)

To adapt or not to adapt... or mitigate?

- Africa accounts for less than 4% of total global GHG emissions!
- Yet it is the most vulnerable to the effects of climate change, particularly
 - due to high dependence on rain-fed agriculture, widespread poverty and weak capacity

- Forget mitigation?
 - Not ethical but...
- Need to contextualise the priorities in “mitigationists-adaptationists” spectrum
- Businesses are following place-based responses (although short-termed) to while the government policy responses are based on global climate change discourses and preferences
- While waiting to contribute to global climate change with needed mitigation approaches: pro-active adaption needed in all levels (explicit, implicit and functional)

Thank You