

Vulnerability & Adaptive Capacity Assessment of Tourism Destination Communities: Comparing Indicator and Place-based Approaches

Research Need

- Adaptation measures required in coastal areas/ SIDS and for the tourism sector.
- Further research on the vulnerability and adaptive capacity of tourism destination communities.
- Comparative methods *within* and *across* tourism destination communities needed.



Goals

- To understand the processes and contexts influencing adaptation of a tourism destination community in a SIDS, including the impacts of climatic and non-climatic stressors.
- To employ two methods that can allow for the comparative assessment of the vulnerability and adaptive capacity *within* and *across* destination communities. To determine whether they can be used in combination or whether one can offset limitations posed by the other.

Study Site

- Caribbean:** 'tourism vulnerability hotspot'.
- Barbados:**
 - Exposed to long-term changes in climate and climate-related hazards.
 - In 2012 tourism accounted for 12.6% of direct and 42.7% of direct and indirect GDP.
 - High exposure and high adaptive capacity.
- Oistins:**
 - Low-lying, coastal. Small-scale and large-scale tourism related activities.
 - Attractions:** Two beaches, hotels and restaurants, Bay Garden Food & Craft Vendors, Fish-Market.
 - Neighbourhoods have high vulnerability.

Methodology

- Field work in 2010 – 2011. *Key stakeholders:*
 - Decision-makers, tourism, government and community representatives.
 - Livelihoods most connected to Oistins tourism activities.
 - Who live in neighbourhoods adjacent to the key attractions.
- Indicators:**
 - Development:* Identified conceptually relevant. Held focus groups to further develop.
 - Application:* Collected primary and secondary data, surveyed 71 households.
- Community-Based Vulnerability Assessment (CBVA):**
 - 48 Semi-structured interviews.

Results - Indicators

- Destination level:**
 - 37 indicators conceptually relevant (25 applicable at the destination scale). Of latter, **10** being applied or could be in the near-future.
 - Exposure: Analysis of the majority occurs at the national or regional level. Data might be feasible to analyze for the biodiversity indicators to demonstrate indirect impacts.
 - Sensitivity and adaptive capacity: some have been or are being applied, though not consistently. Some could be applied, if parties had the appropriate need, resources and/or capacity.
- Household level:**
 - 31 indicators conceptually relevant (26 applicable for sensitivity and adaptive capacity).
 - Of latter, data being collected for **11** by various organizations, though time frames and scales of collection differ.

DESTINATION Indicators being applied (MT = Monitoring Tool for CBVAs)

Exposure: Change in the suitability of the climate.

- Biodiversity:** Change in mean reef fish harvest in the past 30-years. **MT.**
- Biodiversity:** Changes in coastal ecosystems of the destination. **MT.**

Sensitivity- Characteristics which affect its susceptibility.

- Destination's share of total tourist arrivals for recreation .

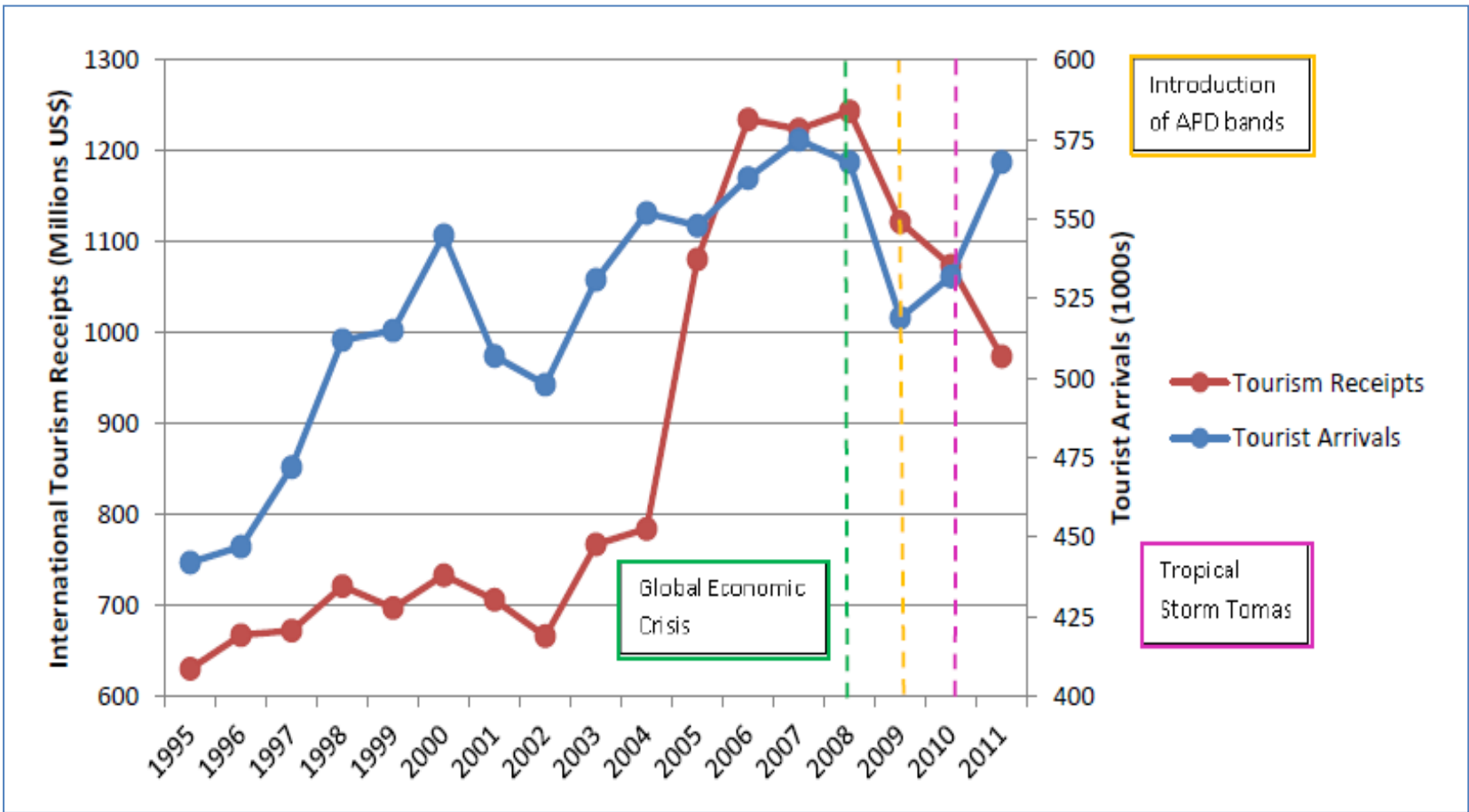
Adaptive Capacity – Characteristics which affect its ability to adapt.

- Existence of functioning Emergency Management Committee. **MT.**
- Availability and circulation of *EMPs* or *DRM Strategies* for Destination. **MT.**
- Availability and circulation of Risk Maps, operationalized in the past 10 years. **MT.**
- Ranking of tourism destination and/or attraction.
- Availability of insurance for tourism related employment and infrastructure. **MT.**
- Effective erosion protection measures in place in vulnerable areas. **MT.**
- Beaches monitored on a regular basis. **MT.**

HOUSEHOLD Indicators being applied (that could serve as a Monitoring Tool for CBVAs)

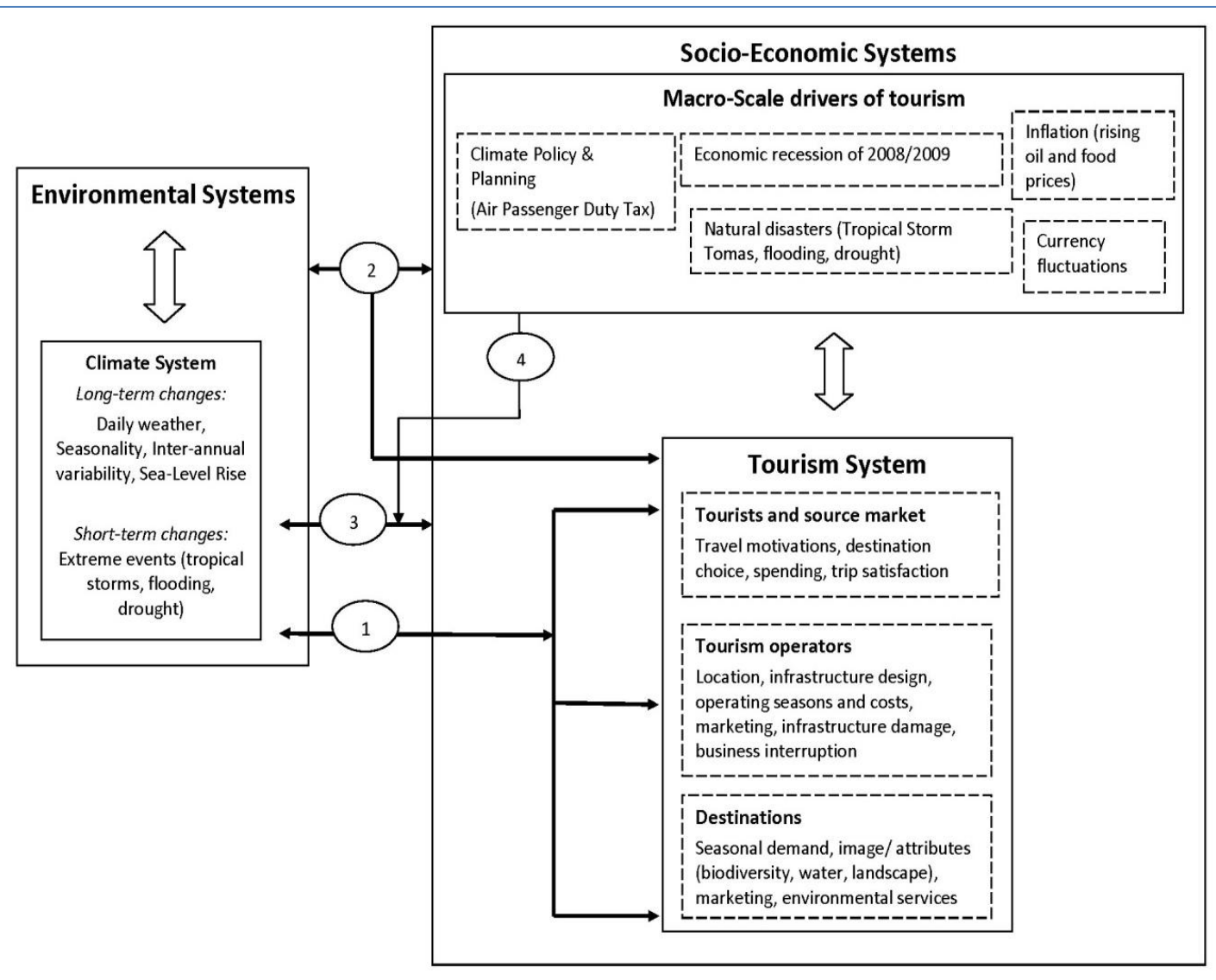
Adaptive Capacity – Resources that determine a household's capacity to adapt

- Knowledge of climate change, impacts and actions [via respondents who complete secondary school]. **MT**
- Range and scope of social capital contacts. **MT.**
- % of households with access to one or more natural resources. **MT.**



Results - CBVA

- Stakeholders experiencing differing exposure-sensitivities to climate related events . Impacts exacerbated by exposure-sensitivities from non-climatic stressors. Impacts to livelihoods, include less economic revenue and decreased tourists.
- Coping strategies for present social and environmental changes and plans to adapt to future changes, might indicate how they would adapt to further long-term changes in climate-related events.



Conclusions

- Barbados's national stakeholders have a high adaptive capacity and understanding of climate change. Action is needed to build the capacity of local stakeholders, including those in Oistins, and to determine priorities for adaptation planning, including at which scale and sectors.
- Destination level indicators** are the most applicable within a defined spatial boundary and scale. **Household level indicators** can provide information to understand stakeholders dependent on tourism-related livelihoods, though indicators do not provide much sector specific data.
- The **CBVA** approach can provide the broadest and most in-depth tourism-specific information. Limitations in comparing its findings amongst communities could be offset by applying destination-level indicators as *long-term monitoring tools*.



Relevance

- Further comprehension of the stressors influencing adaptation of tourism destination communities in SIDS.
- Application of the two methods provides new insights on assessing the vulnerability and adaptive capacity of destination communities in developing countries.
- Relevant to policy-makers and practitioners engaged in community-based vulnerability studies and adaptation planning.

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