The role of observatories in the sustainable transformation of destinations

Harald Pechlaner and Anna Scuttari
Center for Advanced Studies
Eurac Research

Global INSTO Meeting 2022 - Madrid, 20.10.2022
Agenda

- Transformation challenges and adaptive management
- The great transformation towards tourism sustainability
- The role of measurement and observatories
- Challenges and opportunities
Transformation challenges

• Tourist Destinations have proven to work as Complex Adaptive Systems during the Covid-19 pandemic (Hartman, 2021)

  • They absorbed shocks, adapted to radically new framework conditions and sometimes transformed their offer to the better

  • Not only the Covid-19 pandemic, but multiple other stressors (crisis bundles) will affect tourist destinations in the future (e.g. climate change, energy crisis, natural hazards/disaster), and multiple layers of resilience will support continuous adaptation and transformation (Benedikter, Fathi, 2021)

  • Absorption, adaptation and transformation occur at many nested levels (e.g. business, destination, continent) and with different speeds (s. panarchy adaptive cycle)


Gunderson, L.H., Holling, C.S. (Eds), 2002. Panarchy. Understanding transformations in human and natural systems, Washington DC, Island Press. Figure 3-10 (page 75).
Adaptive management

• Due to the fragmented nature of tourism supply, the **management of change** is related to **choices and actions of individual and (semi-)interdependent agents** (Hartmann, 2021).

  • **GOVERNANCE** (i.e. self-governance, hierarchical governance and shared governance) plays a crucial function to enable smooth transformations (and to manage chaos and uncertainty)

  • **MONITORING** (i.e. measuring and understanding change) supports governance systems in **setting the right boundaries** to the transformation and in developing strategic storytelling to achieve a new system state

• **ADAPTIVE MANAGEMENT** (Holling, 1978, Walters, 1986) creates a connection between scientific experimentation and iteration to support and continuously improve decision making (PLAN-DO-CHECK-ACT)
  • It represents a possible response of destinations to face multi-scalar change

The transformation towards tourism sustainability
Socio-ecological transformation

• **SOCIO-ECOLOGICAL TRANSFORMATION** “[…] is an umbrella term which describes political, socio-economic, and cultural shifts resulting from attempts to address the socio-ecological crisis” (Brand & Wissen, 2017: 2).
  • Etymology: lat. Transformare = to reshape, turn into
  • Not only top-down, but also bottom-up approach
  • Collective, plural, and open-ended search, experimentation, and learning process towards new societal models of development

Reshaping tourism demand

• **@ QUALITY LEVEL**
  - Foster *behavioural change* and *knowledge transfer* while on vacation (command and control regulations vs. market oriented tools)
  - Question *social norms* and habits and give visibility and emphasis to *new/different habits and role models* (visioning, strategic storytelling)
  - Start from *quick-wins* and accompany tourists in their behavioural change
  - Address *more sustainable target markets* (e.g. proximity markets, environmentally sensitive markets)

• **@ QUANTITY LEVEL**
  - Monitor and manage *flows* across space (overcrowding) and time (seasonality)
  - Assess *impacts* per capita and total impacts
  - Identify *critical limits* (e.g. maximum capacities for attractions)
Reshaping tourism demand – the case #Dolomitesvives

- Example: traffic calming initiative (command and control measure) in an Italian World Heritage Site (Dolomites Unesco WHS)

Monitoring of traffic **flows** and their variation ➔ 2500 cars less on the road

Detecting **behavioural change** ➔ Different use of public space

Knowledge transfer ➔ Clear communication
Reshaping tourism supply

• **@QUALITY LEVEL**
  • Support *product, process and market innovation* (e.g. climate-resilient tourism offers, efficient use of resources and circular economy, market selection based on the internalization of tourist’s environmental costs)
  • Enhance *local/regional supply chains* and give visibility to innovative *business models*
  • Spread and support the adoption of *certification schemes* and guide SMEs in the selection of the most adequate and reliable certification scheme

• **@QUANTITY LEVEL**
  • Quantify and classify the *sustainable offer* (e.g. public transport, bike rentals)
  • Identify *limits to growth of the accommodation facilities* (e.g. moratoria, maximum capacities, geographical boundaries for expansion)
  • Give statistical relevance and monitor *peer-to-peer accommodation* (e.g. AirBnB statistics) and its impacts
  • Assess *environmental and social impacts* of infrastructural projects
Reshaping tourism supply – The sustainability award

• Example: the Sustainability Award of the Bolzano/Bozen Hotel Fair (4th edition)

Hotels and accommodation facilities that have transformed their business based on sustainability principles apply

STOST – South Tyrolean Observatory for Sustainable Tourism defines the scientific evaluation criteria to rank the hotels

~ 30 Accommodation facilities apply each year

The local DMO offers a prize of 10,000 Euro (marketing budget) for the prize winner
The role of measurement and the observatories
The role of observatories in the adaptive management circle

The Deming Circle and the integration of the Observatory into the tourism ecosystem and tourism policy:

- Impact assessment
- Monitoring of change
- Identification of trends and mega-trends
- Benchmark performance

- Scoping issues
- Setting priorities
- Offer classification schemes
- Visioning and setting scenarios
- Simulate the effects of possible policies
AN EXAMPLE...
STOST – Monitoring mobility issues

Identification of the additional issue area: Mobility (local-specific)


Governance  Local and visitor satisfaction  Land use and Landscape diversity  Solid Waste Management  Nature Conservation  Mobility

Identification of the main issue in tourism transport in South Tyrol
STOST – Monitoring mobility issues

Selection of indicators to monitor impacts, ongoing transformations and their effectiveness

Table 10: Indicators of climate action. Source: own calculation based on data from ASAT, STOST, Google Maps, German Umweltbundesa-


test

<table>
<thead>
<tr>
<th>INDICATOR</th>
<th>VALUES (ABSOLUTE)</th>
<th>CHANGE (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Estimated car-related CO₂ equivalent emissions from induced tourism</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2019: 112.4 kt CO₂eq</td>
<td>2021: 68.9 kt CO₂eq</td>
</tr>
</tbody>
</table>

Table 12: Indicators for mobility. Sources: SIMA – Sitzleider Transport- 
structures AG (10.1); ASAT (10.2); Neogy & Tesla (10.3). * no data available for 2020 and 2021.

<table>
<thead>
<tr>
<th>INDICATOR</th>
<th>VALUES (ABSOLUTE)</th>
<th>CHANGE (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
|           | Mobitickets, bikemobili 
Cards, moumobil Cards 
and guest tickets |            |
|           | Activation         |            |
|           | 2019: 3,658,620    | 2021: 958,658 | -258.5% | +44.7% |
|           | Users              |            |
|           | 2019: 6,824,310    | 2021: 4,675,548 | +382.2% | +41.1% |
| 10.2      |                   |            |
|           | Ski lift and cable car users by season |            |
|           | Summer             |            |
|           | 2019: 30,817,825   | 2021: no data | +50.9% | no data |
|           | Winter             |            |
|           | 2019: 118,094,699  | 2021: no data | -7.5% | no data |
| 10.3      |                   |            |
|           | Charging stations for e-mobility |            |
|           | in hotels          |            |
|           | 2019: 120          | 2021: 207   | +10%   | +60.9% |
|           | Public             |            |
|           | 2019: 130          | 2021: 177   | +10%   | +60.9% |

Figure 23: Charging stations for e-mobility in hotels and in public areas, South Tyrol 2021. Sources: Neogy and Tesla, own elaboration.
STOST – Monitoring mobility issues

Identifying specific challenges through additional and ad-hoc analyses

- Regular monitoring of the modal split
- Analysis of the locals’ perception of the impact of tourist transport on life quality
- Assessment of the Covid-19 effects on tourist mobility
- Pilot study on the accessibility of the local hiking trails
- ...

Intra-destination mobility by car
Pandemic effect

55.7% in 2013 ➔ 69.9% in 2020

Accessibility of hiking trails by public transport (2019)

Perception of traffic load by locals

Wie schätzen Sie die Verkehrsbelastung in Ihrer Wohnsitzgemeinde ein? (1 = Sehr niedrig, 5 = Sehr hoch)

3.2
What do observatories stand for?

Observatories as tourism intelligence tools

Primary and secondary data collection

Transformation of data into relevant information

Data visualization and communication (stakeholders + general public)

Knowledge exchange

Evaluation of results/performance or policy outcomes

...i.e., definition and co-lead of the tourism sustainability governance at local and global level

Identification of trends and emerging issues

Networking

Scenario setting
Challenges and opportunities
Challenges and opportunities

Data collection → Knowledge production → Knowledge consumption → Policy or business outcomes

Thank you for your attention!

Center for Advanced Studies
Eurac Research

Follow us on: