Abstract

This research poster examines the policy management challenges of water scarcity, limited natural recharge in underground water-bearing rocks (aquifers) and water removal from groundwater sources (abstraction) within regions of concentrated tourism development in the Mediterranean Basin. Focusing upon water scarcity in Malta, this poster seeks to examine the barriers to, and recommendations for, sustainable water usage within the Malta Tourism Policy (MTP) (2015-2020). The research methodology employed consists of a systematic literature review and semi-structured interviews with government officials, key Maltese environmental NGOs and private sector stakeholders. The findings suggest the dichotomy of supply and demand is a key influence upon Maltese water scarcity. This research recommends greater integration between the environmental, socio-cultural and economic pillars of sustainability in the future augmentation of tourism policy, facilitating intergenerational equity and community participation across Maltese stakeholder groups.

(1) Introduction

• Tourism remains an important Maltese sector of robust growth, contributing to 26.7% of total GDP and 15.5% of total employment, whilst attracting approximately 1.98 million tourists in 2016 (Figure 1) (MTA, 2016).
• Nevertheless, abstraction levels in regions of concentrated tourism development pose policy management challenges (Tekken & Kropp, 2015; Hadjikakou et al. 2013).
• Whilst local inhabitants utilise 800L per capita per day, tourist water consumption exceeds 2425L per capita per day (Gössling et al. 2012).
• Hence, with an estimated 20% reduction in Mediterranean Basin rainfall anticipated from 2071 to 2100, adaptation measures for freshwater availability appear vital within future Maltese tourism policies (Gabarda-Mallorqui et al. 2017; Re et al. 2014).

Figure 1: Growth in inbound tourist and total population in Malta between 2009 and 2016

[Source: Author; information from MTA (2016)]

(2) Research Location

GOZO
COMINO
Manikata
Pembroke
Sliema
Valletta
5 km
MALTAD

(3) Research Questions

• What are the barriers to sustainable water usage within the Malta Tourism Policy (2015-2020)?
• What recommendations could be implemented to aid sustainable water usage within the Malta Tourism Policy (2015-2020)?

(4) Research Methods

3.1 Systematic Literature Review:

• Overall, of the 1,902 academic sources identified, 45 peer reviewed journal articles examining water management, stress and scarcity in Malta were retained for review.

3.2 Key Informant Interviews:

• Five semi-structured interviews were undertaken to interpret barriers rooted within Maltese culture. Key informants included: a Maltese government representative; the Malta Tourism Authority (MTA); a Maltese Hotel Association; a private sector stakeholder. The findings suggest a stakeholder dichotomy exists between the environmental, socio-cultural and economic pillars of sustainability in the future augmentation of tourism policy, facilitating intergenerational equity and community participation across Maltese stakeholder groups.

(5) Results and Data Analysis


Figure 2: Tree Diagram of Barriers to Sustainable Water Usage [Source: Author]. Note: * indicates a primary code.

“As one of the thirstiest countries on the planet, desalination has heightened our dependency upon freshwater resources, creating a false sense of security. Everything here in Malta is driven by hydro-politics” (R3).

“Water is a finite national resource, which cannot just be extracted for free, as some rural citizens believe” (R4).

Figure 3: Key Informant Quotations [Source: Author]

(6) Conclusion

• The research findings suggest a stakeholder dichotomy exists between supply and demand orientated barriers and recommendations towards the MTP (2015-2020).
• Whilst eco-certified hotels and NGOs focus upon sustainable regeneration capacities orientated around freshwater demand, the public sector and non-eco-certified hotels prioritise illegal abstraction orientated around freshwater supply.
• Recommendations to mitigate ineffective governance in tourism policy could prove fruitful across broader global scales, with islands such as the Seychelles and Mauritius also exposed to water scarcity and tourism development pressures.
• Implications for the UK government include the development of ambitious strategies and policies to mitigate water supply deficits induced through future climate change.

(7) References

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Figure 3: Key Informant Quotations [Source: Author]

“Water is a finite national resource, which cannot just be extracted for free, as some rural citizens believe” (R3).

Figure 4: Tree Diagram of Recommendations for Sustainable Water Usage [Source: Author]. Note: * indicates a primary code.

Figure 4: Tree Diagram of Recommendations for Sustainable Water Usage within the MTP (2015-2020)

“Tariffs/Metering for Water Extraction

“Incentivisation to Reduce Water Usage

“Finite Perched Aquifer Resources

“Prioritisation of Environmental Sustainability

“Increased Policy/Ministerial Cohesion

“Educational/Training Initiatives (Tourist/Locals)

“Finite Perched Aquifer Resources

“The research findings suggest a stakeholder dichotomy exists between supply and demand orientated barriers and recommendations towards the MTP (2015-2020).

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• Recommendations to mitigate ineffective governance in tourism policy could prove fruitful across broader global scales, with islands such as the Seychelles and Mauritius also exposed to water scarcity and tourism development pressures.

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