Tourist behaviour change for sustainable consumption (SDG Goal12): Tourism Agenda 2030 perspective article

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Introduction

At COP27 in 2022, Antonio Guterres, the Secretary-General of the United Nations (UN) warned global leaders that "We are on a highway to climate hell with our foot on the accelerator. Our planet is fast approaching tipping points that will make climate chaos irreversible. We need urgent climate action". The pathway to climate action is set out in the UN Global Sustainable Development Goals (UN SDGs). Goal 12 calls for ensuring sustainable consumption and production patterns and, as such, is highly relevant to the tourism industry. Particularly pertinent to tourism businesses are targets 12.2 (sustainable use of natural resources), 12.3 (halving per capita food waste by 2030), 12.5 (substantially reducing waste generation through prevention, reduction, recycling and reuse by 2030) and 12.b.1 (monitoring the environmental aspects of tourism).

This perspective paper assesses how much tourism research has done to assist tourism businesses in achieving those targets, and to point to urgent future research directions that will ensure we have our foot on the accelerator of climate change mitigation, rather than climate hell.

Key developments towards Tourism 2030

Already, tourism researchers have contributed significantly by developing and empirically testing practical measures (interventions) that can be deployed to contribute to the achievements of SDG Goal 12. Importantly, these are not only good ideas, and they have not only been tested in survey studies using *intended* behaviour as dependent variable, which severely limits the ability to draw valid conclusions about how impactful those measures can be in tourism businesses. Rather, the interventions that have been developed have been tested in real tourism environments; in the tourism environments where they are planned to be deployed.

Towel reuse is the most researched sustainable consumer behaviour in the tourism context, and several interventions have proven effective in increasing it (Goldstein *et al.*, 2008; Baca-Motes *et al.*, 2013).

Daily room cleaning of hotel rooms is another key target behaviour. Every room clean in a four-star hotel uses some 35 L of water, 1.5 kWh of electricity and 100 mL of chemicals for cleaning (Dolnicar *et al.*, 2019a). This resource use could easily be avoided if hotel rooms were only cleaned when necessary. In the academic literature, at least two interventions have proven to be highly effective (Dolnicar *et al.*, 2019a; Knežević Cvelbar *et al.*, 2021).

Water use in hotel showers has also been targeted with several interventions (Tiefenbeck *et al.*, 2019; Dolnicar *et al.*, 2019b).

In alignment with target 12.3 (halving **food waste**), several studies have developed and then tested in the field the effectiveness of interventions encouraging tourists to eat up everything they have taken from a buffet (Kallbekken and Sælen, 2013; Dolnicar *et al.*, 2020; Chawla *et al.*, 2020).

Waste reduction has attracted surprisingly little attention in tourism to date, possibly because measurement is more complicated. A study by Obersteiner *et al.* (2021) identifies several practical measures that have been implemented by tourism businesses to reduce different types of waste.
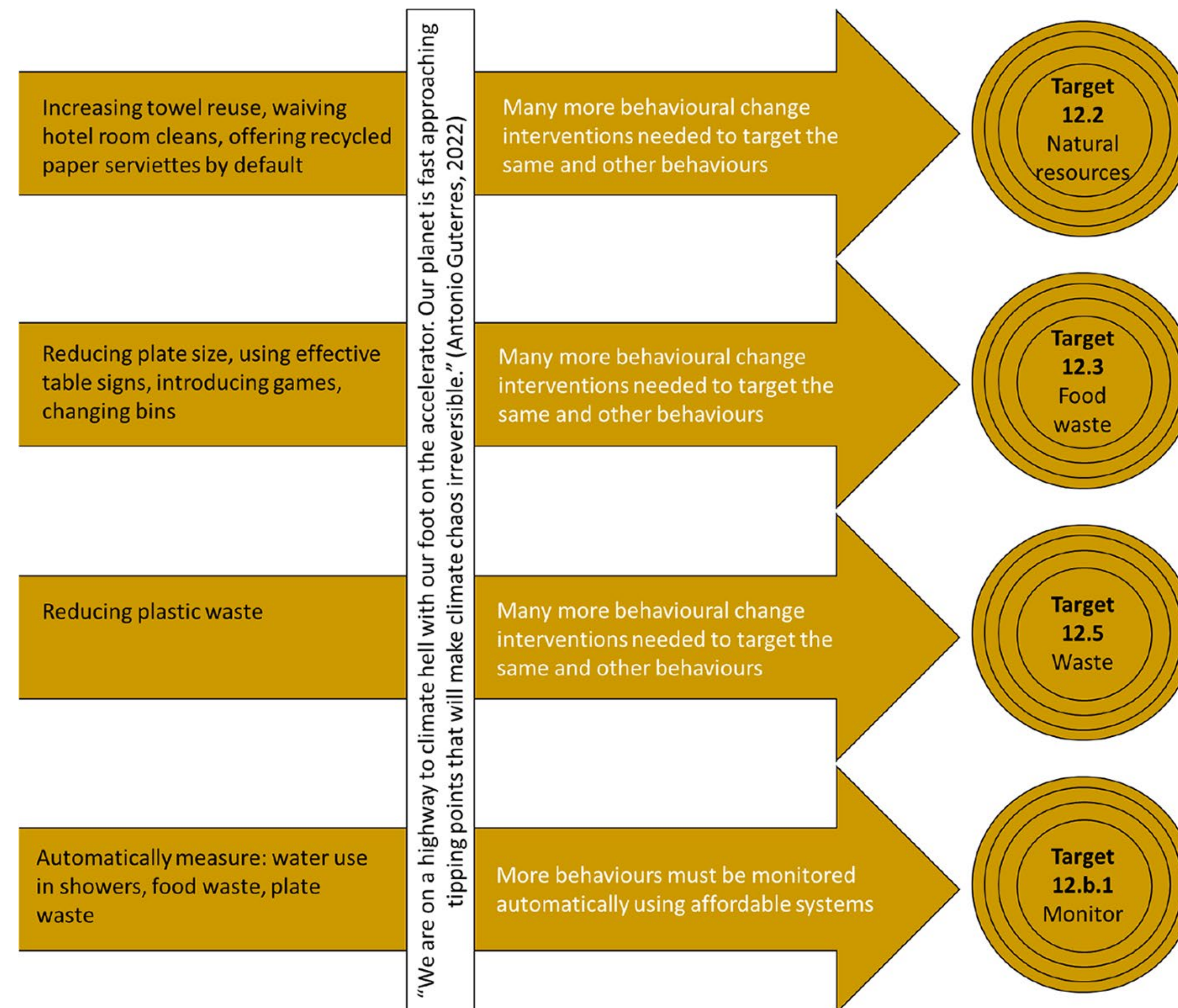

Figure 1 summarizes the progress made in tourism research towards helping the industry achieve targets under SDG 12. Much more progress is needed urgently to enable the step change required in sustainable consumption and production to make a material contribution to climate change mitigation.

Call to action

What is urgently needed into the future is:
- continuous and automatic monitoring of environmental performance using systems that are affordable to a sector characterised by small and medium enterprises;
- development, testing in the field and large-scale deployment of behavioural change interventions to improve environmental performance; and
- monitoring the improvements achieved to demonstrate and celebrate the contribution of the tourism industry to Goal 12, as well as identifying the most effective interventions for further large-scale adoption within the tourism sector and beyond.

Conclusions

Despite the significant disruption caused by the COVID pandemic, the tourism industry must urgently implement operational changes that will ensure the sustainable provision and consumption of tourism services into the future, in line with UN SDG 12. This perspective article identifies which specific targets the industry can focus on achieving and highlights practical measures that have already been developed and tested in quasi-experimental field studies by researchers. These existing practical measures can easily and immediately be deployed by tourism businesses to improve their environmental performance. Many more such practical measures are urgently needed to target a much wider range of environmentally significant behaviour in the tourism context. Also urgently needed is an affordable automated monitoring system that can provide a detailed environmental profile of tourism businesses and enable monitoring of improvement.

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