

## **Reinventing signature dishes to reduce the environmental footprint of tourism**

Tourism's rapid growth to one of the largest industries globally has increased its influence on food production (Gössling et al., 2011; Jenkins, 2018). Tourists spend on average 25% of their travel budget on food and beverages (World Food Travel Association, 2020) and account for more than 200 million meals per day (Gössling et al., 2011). Tourists immerse themselves into new cultures by consuming local and authentic foods (Ellis et al., 2018). Many signature dishes around the world are animal-based: France is famous for its butter croissants and pork knuckle is a symbol of Germany (Jenkins, 2018). Furthermore, consumers prefer ordering meat dishes when eating out to treat themselves (Biermann & Rau, 2020). Therefore, demand for animal products from the tourism sector has increased substantially (Jenkins, 2018).

The increasing consumption of animal products in the tourism sector is problematic because livestock and aquaculture is responsible for 14.5% human-induced greenhouse gas emissions (FAO, 2013). Animal agriculture uses 83% of farmland globally (Poore & Nemecek, 2018), and is a major contributor to deforestation, biodiversity loss, and water pollution (Machovina et al., 2015). The EAT Lancet Commission (2019) highlighted the need to halve the consumption of animal products by 2050 to meet the United Nations Sustainable Development Goals. The present essay will (1) draw on intertemporal-decision making theory to provide an explanation why shifting tourists' food choices towards plant-based options is challenging and (2) present an idea how the transition could be achieved.

### **Tourists' love for animal products**

Intertemporal-decision making theory provides an appropriate lens to describe how tourists make food choices. Intertemporal decision-making theory postulates that consumption decisions are guided by the anticipation of future outcomes including pleasure (see review by

Bulley & Schacter, 2020). Holidays represent a hedonic context in which consumers' make food choices to treat themselves and derive pleasure (Biermann & Rau, 2020). When people choose a dish at a restaurant, they mentally pre-experience alternative dishes, trying to anticipate the extent of pleasure they will derive from each option (Kang et al., 2015). Meat dishes are traditionally associated with high pleasure whereas plant-based foods are perceived as bland tasting (Biermann & Rau, 2020), a key barrier for consumers to replace their preferred meat option with a plant-based alternative (Rosenfeld & Tomiyama, 2020). As a result, guests' desire for immediate pleasure may override their intention to make environmentally friendly food choices (Muñoz-Vilches et al., 2020). A critical question to reduce the environmental footprint of the tourism sector is to identify strategies to change the perception of plant-based dishes.

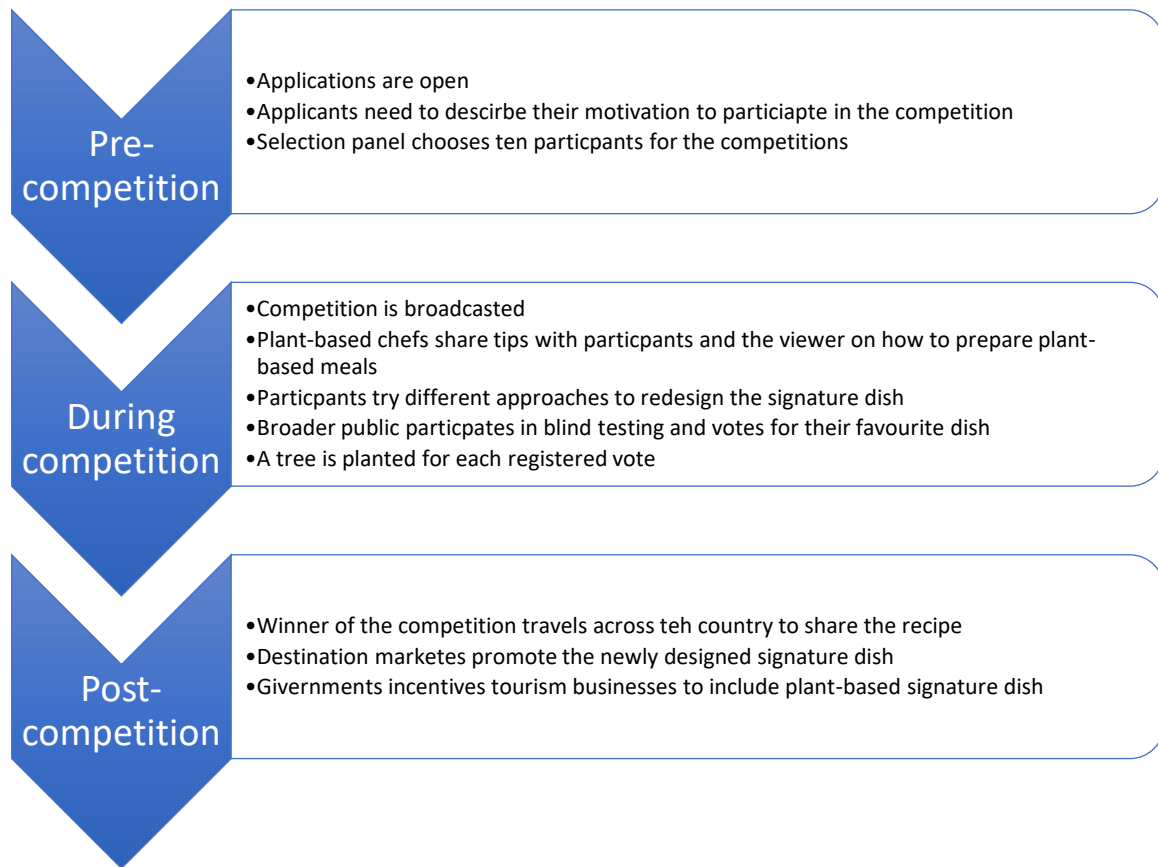
### **Plant-based cooking competitions**

Signature dishes are a magnet for tourists and play an important role in the tourism experience (Ellis et al., 2018). Creating and promoting plant-based signature dishes has the potential to change tourists' food choices. Importantly, local communities need to be actively involved in the process of reinventing signature dishes to ensure their authenticity. Chefs can either create plant-based alternatives to existing signature dishes or completely new meals. Cooking competitions can function as a vehicle to redesign signature dishes.

Figure 1 summarises the structure of the competition and is further described using Switzerland as an example in this paragraph. Switzerland is famous for its fondue, a dish primarily based on dairy cheese. The objective of the competition is to reinvent fondue using only plant-based ingredients. The Switzerland Tourism Council organises the competition. People living in Switzerland are invited to apply to participate in the competition. The selection committee chooses ten participants to be part of the competition. A plant-based chef

is allocated to each participant to provide guidance on how to prepare dishes without animal products (Biermann & Rau, 2020). The competition is broadcasted via social media channels and TV to people in Switzerland. The show includes tips on how to prepare plant-based meals as well as information on the impact of animal agriculture on the planet. Participants learn how to prepare plant-based cheeses with different ingredients such as nuts or coconut. Participants are able to test different approaches to create a plant-based fondue. After one week, live blind tastings are organised across Switzerland and the broader public can try the dishes from each participant. Each resident can vote for their favourite dish using an App. For each registered vote, the Switzerland Tourism Council will plant a tree in areas that were impacted by deforestation due to animal agriculture. The winner of the competition has the opportunity to travel across the country and offer cooking classes to share the recipe with the broader public and chefs. The government provides incentives for tourism businesses which include a plant-based fondue in their menu. Destination marketers implement advertising campaigns to promote the plant-based fondue to domestic and international travellers.

Future research opportunities exist in examining how tourism businesses can promote the newly developed signature dish. Choice architecture, the design of the social, economic, and physical context in which tourist make decisions, represents a promising avenue to promote plant-based dishes (Bianchi et al., 2018). For example, researchers could investigate how providing guests with free samples could be integrated in the dining experiences to increase the anticipated pleasure of ordering the new signature dish.



*Figure 1. Cooking competition structure.*

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