Tourist behaviour and dynamics of domestic tourism in times of COVID-19

Michael Moya Calderón, Kevin Chavarría Esquivel, María Margarita Arrieta García and Carlos Barriocanal Lozano

Institute of Environmental Science and Technology (ICTA), Universitat Autònoma de Barcelona (UAB), Barcelona, Spain; Department of Geography, University of Costa Rica, San José, Costa Rica; Civil and Environmental Department, Corporacion Universitaria de la Costa, Barranquilla, Colombia

ABSTRACT
The purpose of this study was to determine the changes and consequences in travel plans due to Covid-19 and characterize the behaviour of domestic tourism in Costa Rica after the confinement through an online survey. The respondents expressed their intention to travel in the first six months, mostly two nights, and accompanied by their family members. Factors related to safety and security appear as key drivers affecting travel decisions. Protected areas and nature-based tourism are the preferred destinations to visit after the lockdown with a clear concentration in the most visited protected areas of Costa Rica.

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Introduction
In January 2020, Wuhan became the epicentre of the Covid-19 outbreak and by March 11, 2020, the World Health Organization declared it as a pandemic (WHO, 2020). Some Non-Pharmaceutical Interventions (NPI) like limiting human movements and quarantining them have been used as global strategies to prevent the virus’ spread (Gössling et al., 2020). The impacts of this brake on mobility caused an unprecedented fall in international tourist arrivals (UNWTO, 2020) and at the same time an inevitable change in the tourist behaviour. The evasion of danger and perceived risk are determining factors of behaviour in scenarios that threaten personal safety (Kock et al., 2018). These patterns in tourism dynamics have led to a strengthening of domestic tourism, as a strategy to survive the crisis (Buckley, 2020). Furthermore, tourists find it as a closer and safer option to travel.

Extensive investigations have shown the dynamics between pandemic diseases and international travels. Despite this, there has been almost no discussion about the behaviour of potential domestic travellers during a pandemic outbreak (Cahyanto et al., 2016). Some authors believe that research needs to go beyond the economic level and incorporate intangible aspects such as social injustice, discrimination, xenophobia, racism, fear, and other emotional responses that these may cause in tourists and locals (Jamal & Budke, 2020). There is still uncertainty about the relationship between Covid-19 and domestic tourism and emerging avoidance behaviour. For that reason, this exploratory study applied in Costa Rica, aimed to examine (a) the changes and consequences in travel plans due to Covid-19 and (b) the behaviour of domestic tourism after confinement in a pandemic scenario. The results provided an important opportunity to advance in the understanding of tourist dynamic in
situations of confinement and health threats which is key for the management of tourist destinations.

Methodology

The data was collected through an online survey (~8 min). It was shared on multiple social media channels and e-mail lists during Covid-19 lockdown (March and April 2020). The sampling was based on a non-probabilistic method, selected through convenience (Dörnyei, 2007). The overall study sample took into consideration people over 18 years old of Costa Rican nationality. The internal consistency of the instrument according to the Cronbach Alpha Coefficient was 0.87 for the first 30 applied surveys (pre-test), and 0.90 to all valid surveys; considered as acceptable values between 0.80 and 0.90 (Streiner, 2003). A total of 1078 valid surveys were collected. Most respondents belonged to the 25 to 34 age group (39.20%). A total of 59.70% were female and 39.80% male. The confinement level of the sample, on a scale from 1 to 5, where 1 is the minimum level and 5 is the highest level, was mostly 4 (45.55%;  n = 491).

Results

Covid-19 impact on travel plans and travel intentions

The main impact was the cancellation or postponement of domestic travel (n = 369; 34.23%), followed by cancellation or postponement of trips abroad (n = 186; 17.25%) and 14.66% (n = 158) who experienced both situations. When the participants were asked about short-term travel intentions (intra-pandemic period) once allowed by the authorities, 24.03% (n = 259) of them stated that they have no intentions or possibilities to travel. The most decisive factors for this decision are (a) low economic resources (n = 127; 49.03%) and (b) fear of Covid-19 contagion (n = 67; 25.87%). The remaining 76% (n = 819) indicated that they have the intention and possibility to travel for tourism reasons. The females (n = 488; 59.58%), the age group between 25–34 years old (n = 342; 41.76%), level 4 confinement respondents (n = 370; 45.18%), respondents who believe that their income has not changed (n = 370; 45.18%) and will remain the same after confinement (n = 343; 41.88%), are the ones who have the greatest intentions to travel for tourism in the short term. Of the study population, 89.38% (n = 732) have as a priority to do domestic tourism in the short term, and only 9.89% (n = 81) internationally. Respondents between 25–34 years old (n = 310; 42%), with a level 4 of confinement (n = 326; 39.80%), with no variations in their monthly net income during (n = 370; 45.18%) and after the confinement (n = 343; 41.88%), prefer to travel via domestic tourism.

The behaviour of domestic tourism

The preferred intention of post-confinement travel is between 0 and 6 months (n = 663; 80.95%), followed by 0 and 2 months (n = 321; 39.19%). As the number of months increases, the intention to travel decreases. There is a statistically significant relation (p ≤ 0.05) with respect to the age, gender, and income levels before confinement. Day trips are the least frequent (n = 62; 7.57%), along with those of more than three nights (n = 79; 9.65%). There is a preference for two-day travel among respondents in the age group between 25–34 years (n = 149; 18.19%), female gender (n = 205; 25.03%), with a confinement level of 4 (n = 154; 18.80%), whose monthly net income has not changed (n = 151; 18.44%) and will remain the same after confinement (n = 140; 17.09%).

Regarding the company to travel with, 39.19% (n = 321) of the respondents will do it with their family, 30.40% (n = 249) as a couple, 14.77% (n = 121) with friends, 3.17% (n = 26) alone, and only 0.12% (n = 1) in the company of co-workers. This variable has a statistically significant relation (p ≤ 0.05) to several of the independent variables: gender, age, level of confinement, level of income before confinement, income variation during and after confinement.
**Priority factors to consider when visiting a tourist site**

To further analyse frequencies, two categories were established based on the 5 points Likert Scale: C1 = low priority (sum of percentage frequencies 1 and 2) and C2 = high priority (sum of percentage frequencies 4 and 5) (see Table 1).

**Motivations for domestic tourism**

As the previous section on priority factors, two categories (C1- lower motivation and C2- higher motivation) were established (see Table 2).

**Visit intention**

Although no significant spatial patterns of visit intention were determined by the Moran’s I statistics, when analysing the distribution of observations (mean = 7.61; median = 2; min = 1; max = 129; Q1 = 1; Q3 = 6) it is possible to observe a high degree of spatial concentration at certain tourist sites considered by respondents. In total, 1752 observations (n = 732) were obtained, from 230 sites (concentration of 7.61 visitors per site on average). The visit intention is concentrated in protected areas (28.52%) followed by beaches (18.76%) and rural areas (18.75%).

In Costa Rica, the protected areas are organized in 11 territorial and administrative units, called Conservation Areas (CA). The results show visit intention in 10 of these areas (see Figure 1(a)) with different percentages of frequency. The Tempisque Conservation Area (ACT) and Central Pacific Conservation Area (ACOPAC) are the ones with the greatest intention to visit. Except for ACT where the intention to visit is distributed along the coast (see Figure 1(d)), the remaining CAs identify representative protected areas that concentrate potential tourist visits. The protected areas that concentrate 48.95% of the visit intention are four national parks: Manuel Antonio (15.9%), Cahuita (9.41%), Marino Ballena (8.16%), Tortuguero (7.53%), and a mixed wildlife refuge (7.95%) (see Figure 1(c)).

**Conclusions**

The main findings of the study indicates that domestic tourism will be a key factor in economic revival, which coincides with the forecasts of the UNWTO Panel of Experts which expects domestic

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**Table 1. Priority factors for domestic tourism.**

| Priority factors                                      | Mode | Mean  | SD   | Category 1 (%) | Category 2 (%) |
|-------------------------------------------------------|------|-------|------|----------------|----------------|
| Price of tourist services                             | 5    | 4.07  | 1.12 | 8.67           | 62.72          |
| Sites with few visitors                               | 5    | 3.82  | 1.20 | 12.60          | 57.45          |
| Purchase of tourism services from national projects   | 5    | 3.78  | 1.24 | 13.69          | 56.23          |
| Distance from residence                               | 3    | 3.08  | 1.41 | 31.71          | 37.40          |
| Hygienic and sanitary conditions of the tourist site  | 5    | 4.27  | 1.01 | 5.69           | 72.76          |

**Table 2. Motivational factors for domestic tourism.**

| Motivation factors                                       | Mode | Mean  | SD   | Category 1 (%) | Category 2 (%) |
|----------------------------------------------------------|------|-------|------|----------------|----------------|
| Collaborate with the local economy                       | 5    | 4.26  | 1.06 | 6.10           | 70.7           |
| It is cheaper than international tourism                 | 1    | 2.90  | 1.48 | 37.80          | 30.89          |
| More sense of safety in terms of probability of COVID-19 contagion | 5    | 3.75  | 1.27 | 15.04          | 51.49          |
| Increased valorisation of the country’s tourist destinations | 5    | 3.46  | 1.41 | 20.60          | 43.5           |
| Resume postponed trip                                    | 5    | 3.09  | 1.66 | 30.35          | 35.91          |
| Less planning time                                       | 5    | 3.47  | 1.36 | 19.51          | 41.73          |
| Desire to visit places identified during confinement     | 1    | 2.72  | 1.54 | 39.57          | 27.37          |
tourism to recover faster than international tourism (UNWTO, 2020). Factors related to health care against Covid-19 were considered as high priority for Costa Ricans when deciding to visit a tourist site. It was also one of the factors that motivated the decision to carry out domestic tourism, which offers respondents a higher sense of security in terms of the probability of contagion. Potential domestic tourists prefer short-term tourism, lasting 2 to 3 days, and accompanied by their relatives. The favourite destinations to visit are associated with nature tourism in protected areas. The preference of certain areas does not appear to undergo major changes between pre-pandemic and intra-pandemic scenarios. For instance, Manuel Antonio National Park was the second protected area with the highest report of resident visits during 2017–2019. Marino Ballena National Park takes the third position during the same period, and Cahuita the fifth (Instituto Costarricense de Turismo, 2020). The results of this study are complemented by other findings that establish different temporal and spatial changes in the consumption of goods and services (Hall et al., 2021), changes in the motivation to travel (Ulak, 2020), and emotional stability (Wen et al., 2020). These dynamics in demand associated with risk situations offer an opportunity for future research that can help tourist destinations to be prepared and take advantage of the emergent tourist behaviours.

Disclosure statement

No potential conflict of interest was reported by the author(s).

ORCID

Michael Moya Calderón  http://orcid.org/0000-0002-6766-4392
Kevin Chavarría Esquivel  http://orcid.org/0000-0003-4483-4990
María Margarita Arrieta García  http://orcid.org/0000-0001-6796-7150
Carlos Barriocanal Lozano  http://orcid.org/0000-0002-6107-9360

Figure 1. Visit intention to protected areas.
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