

– COASTAL URBAN PLANNING IN THE 'GREEN REPUBLIC': Tourism Development and the Nature-Infrastructure Paradox in Costa Rica

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Abstract

This article examines coastal urban planning in Costa Rica vis-à-vis the country's values in the areas of sustainable tourism and community development, focusing on the city of Jacó. I argue that an anti-urban tourism development strategy, swift coastal urban development and weak planning have nurtured a nature–infrastructure paradox: when people are brought closer to nature without proper urban and governmental infrastructure, this causes social and environmental damage. To assess this paradox and understand local perceptions of development, I analyzed lengthy semi-structured interviews and survey responses in San José and Jacó in this study. Research methods also encompassed analysis of current tourism planning institutions and regulations, tourism media coverage and reports, real estate data, participant observation of planning and community meetings and activities, and observations of the built and natural environmental conditions in Jacó and its surroundings. The findings show jurisdictional fragmentation, regulatory weaknesses, complexity, poor coordination, slow action, and incoherent planning and development, leading to environmental degradation and socio-spatial inequities. A more balanced approach to planning and development would seek to improve environmental health and socio-spatial equity in tandem, by nurturing and advancing both nature and infrastructure development. Lessons from Jacó have global resonance, given the expansion of the worldwide tourism and second-home/retirement-housing industries, their recent concentration in urban coastal destinations of developing countries, and the fragility of these socio-ecological systems.

Introduction

Many studies regard Costa Rica as a role model for the way it has linked tourism development to ecological conservation and community wellbeing. Costa Rica, nicknamed 'The Green Republic'¹ (Evans, 1999), does deserve recognition for its standing and its accomplishments in sustainability.² Therefore, it is critical to call attention to its current tourism practices at odds with such aims. If current chaotic planning and development conditions persist in Costa Rica's coastal areas, and particularly in the cities, achievements in the areas of ecotourism as well as sustainable development and ecological conservation, for which the country has garnered significant recognition, could be eroded. Other positive country traits, such as its democracy, political stability and peace, might also be compromised if socio-spatial inequality and polarization continue to grow.

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- 1 This 'nickname' can be attributed to the nation's track record for establishing national parks and protected reserves in particular, but in public perception it extends to include the broader arena of environmental policymaking and planning.
- 2 For instance, in 2008, Yale University and Columbia University released the first comprehensive 'green-ness' country rankings, based on an Environmental Performance Index (EPI) incorporating 25 categories of statistics and indicators to arrive at a composite score between 0 and 100, with 100 representing a 'perfect' EPI score. In 2010, only four countries of the 163 analyzed scored an EPI of 85 or higher. Costa Rica was ranked third out of all the countries surveyed, despite the fact that its GDP represents less than a third of any of the other 'top four' countries—Iceland, Switzerland, and Sweden.

In the past 20 years, Costa Rica has experienced a rise in tourism and real estate development, particularly along its coast. The country received approximately 2.6 million visitors in 2015 (the equivalent of more than half the country's population of 4.8 million) (Dyer, 2016). The increasing number of tourists swelled the tourism sector by 9% in 2015, outpacing the national GDP of 2.8% by threefold. According to the Costa Rican Institute of Tourism (ICT), the tourism sector brought more than US \$2.8 billion in revenue in 2015, a US \$246 million increase over 2014, and directly and indirectly employed roughly 600,000 people (ICT, 2015).

However, tourism in the central and northern Pacific regions of the country has expanded without adequate government control. As a result, Costa Rica's standing as a world leader in ecological tourism is fragile. In this article I discuss the particularities and challenges associated with coastal real estate and tourism development in Costa Rica by focusing on the role of planning and on the local population's perceptions of coastal development. It addresses the following questions: How is planning of coastal development handled? And: How do Costa Ricans perceive this development vis-à-vis the country's expressed values in the areas of sustainable tourism and community development? I examine these matters by focusing specifically on the case of Jacó, a city on the Pacific coast experiencing rapid tourism growth and, as a result, significant social and environmental transformation.

Some studies have been critical of Costa Rica's tourism development in light of its purported 'green image'. Honey *et al.* (2010), in particular, examine the social and environmental impact of development along Costa Rica's Pacific coastline, focusing on the concepts of ecotourism and sustainable development. This study complements and further develops this literature by (1) emphasizing a planning focus and paying attention to planning regulations, institutions and frameworks; (2) focusing on the case of Jacó to promote a more in-depth understanding of the environmental and socio-economic impacts of tourism development in this particular city; (3) analyzing the perceptions of residents, planners, government officials, developers, tourists and others, of the impact of planning and tourism; and (4) introducing the notion of a nature–infrastructure paradox to explain these dynamics in general contexts of nature-driven tourism development and highlighting its poignancy in Costa Rica.

This study adds to our understanding of the tourism–urban-sustainability nexus—the correlation between tourism development and progress along the urban sustainability axis³ (Shahgerdi *et al.*, 2016; Saarinen, 2006). According to Boschken (2013: 1776), 'city development and the coastal ecology may form a uniquely challenging, high-stakes paradox in sustainability', as cities' metabolisms may create 'a footprint of impacts incompatible with limits of the coastal ecology's carrying capacity'.

At its heart there is a nature–infrastructure paradox, whereby the creation and development of a nature-based tourism strategy requires not only proper conservation policies and mechanisms to ensure the protection of natural resources, but also the construction of appropriate infrastructure and urban services (airports, transit facilities, road systems, water and sewerage infrastructure, hotels, food and service facilities, and so on) to support this specific type of tourism development. If the infrastructural development that is necessary to support tourists' encounters with nature (Hill *et al.*, 2014) is lacking or not planned for and managed sustainably, the natural assets that attract tourists will eventually become partially or totally damaged.⁴

3 I treat the notion of sustainability as a balancing of the economic, environmental and equity concerns of development (see Campbell, 1996).

4 This nature–infrastructure paradox is present in many contexts and scales, to different extents. It could be extended to be part of the global tourism system, where local sustainability might be possible at the destination level itself, while there is unsustainability and harm to natural resources at the more international level, owing to tourists traveling great distances mostly by plane to get to their chosen destinations. However, this study focuses on local and national infrastructure and does not include discussions of potential degradation of natural resources caused by arrival and departure trips of tourists.

Hetherington and Campbell (2014: 191) state that 'infrastructure becomes that which is both a crucial organizer of a given situation and has become routinized to the point of banality or invisibility'. Concerning infrastructural deficit in Costa Rica, I clearly refer to urban physical infrastructure (roads, water treatment plants, public spaces), which should support tourists' sustainable encounters with nature (Pollalis, 2016). Tyrväinen *et al.*'s (2014: 1) survey analysis of 1,054 foreign and domestic tourists, carried out from 2009 to 2010 in Finnish tourism destinations, demonstrated, for instance, that building density and patterns affect the perceived quality of a nature tourism destination: the tourists valued small-scale accommodation units, habitat protection, green infrastructure, and easy access to authentic nature in the immediate vicinity of their accommodation site. The study results stressed the need for careful planning and design of tourism destinations, while simultaneously aiming for eco-efficient land use. Such efforts include conserving natural forest vegetation and instituting landscaping practices, as well as ensuring views onto the natural environment from accommodations.

However, I am also referring to infrastructure more broadly. Beyond 'brick-and-mortar' structures, governance and planning processes and procedures constitute 'stunningly consequential' infrastructures:

Emerging infrastructures that map out how citizens and states articulate with nature depend on less visible structures than the typical brick-and-mortar infrastructures brought to mind by both developmentalism and classic materialist philosophy. Though less visible, these infrastructures are indeed material and stunningly consequential. These processes and procedures are often quite literally infra—below—structural in that they defy scrutiny or escape debate as they accompany neoliberal reforms, development 'solutions', or forms of environmental politics that reach for the global register (Hetherington and Campbell, 2014: 193-4).

The particularities of tourism development in Costa Rica (its historical trajectory, institutional framework and marketing strategies) make the nature–infrastructure paradox particularly salient and difficult to overcome. The nature–infrastructure paradox is at the heart of the country's urbanization process. Jacó, the largest and fastest-growing coastal city in Costa Rica, is an important site for testing out the efficacy of Costa Rica's widely touted commitment to environmental preservation and community development. This study points out the pitfalls and risks of development, while also suggesting ways of development that would be more in tune with the country's development ethos and commitments.

Tourism as development strategy in developing and Latin American countries

Tourism development is beset with contradictions. Williams and Ponsford (2009) coined the concept of 'resource paradox', whereby nature-based tourism development needs environmental resources for the creation of tourism experiences and depends on the protection of ecological integrity for sustained effectiveness. Almeyda *et al.* (2010a), emphasizing this focus on nature, noticed in Costa Rica that increased development—in particular, hotel operations and large condo projects—were capitalizing on nature and would reverse natural health indicators if not accompanied by conservation strategies. Chakravarty and Irazábal (2011) expanded this focus to discuss the 'tourism–community development paradox': the larger the global attractiveness of a tourist asset—in this case, the Taj Mahal and neighboring World Heritage Sites in Agra, India—the greater the chances that there would be more costs than benefits to the local community in the case of improperly planned tourism growth. However, tourism *can* be harnessed to meet both ecological and community development imperatives.

Planners, policymakers, tourism academics and community leaders can develop the role of tourism in societies to help realize ‘the tantalizing promise that tourism holds’ (Higgins-Desbiolles, 2006: 1192).

The rise of tourism as a development strategy, and particularly nature- and community-based tourism, is a relatively recent trend in developing countries. Weinberg *et al.* (2002: 374) found that ‘ecotourism has brought varied positive changes, including more jobs and income leading to an improved standard of living; better and more varied services; a conservationist ethic; better training; the start of recycling; and a bilingual population’. Some benefits of tourism as an instrument of development are ‘foreign exchange earnings and the balance of payments; the generation of income; the generation of employment; the improvement of economic structures; the encouragement of entrepreneurial activity; and the stimulation of regional economies and the mitigation of regional economic disparities’ (Wall and Mathieson, 2006: 89; Miller, 2012). Yet, despite the growing importance of tourism development in the field of planning, only a handful of topical articles have found their way into planning journals (Mullins, 1991; Jamal *et al.*, 2002; Harrill, 2004).

The tourism industry continues to grow rapidly, demanding attention from planning; as Brohman (1996: 48, cited in Chakravarty and Irazábal, 2011: 356) admonishes, it ‘has also encountered many problems common to other outward-oriented development strategies, including: excessive foreign dependency, the creation of separate enclaves, the reinforcement of socioeconomic and spatial inequalities, environmental destruction, and rising cultural alienation’. Badly planned tourism development can contribute to a loss of cultural identity, the production of a ‘geography of nowhere’ (lack of unique architectural, environmental and/or socio-cultural characteristics) and partial foreign takeover as transnational ventures exploit travel and hotel industries. Other negative social effects include a rise in drug use and trafficking, increased prostitution, as well as loss of public access to beachfronts and other natural areas (Irazábal, 2009). Given these conditions, some analysts see tourism as a reflection of neo-colonialism and imperialism—a manifestation of a neo-Marxist ‘pleasure-periphery’ world dependency (Robinson, 2001: 45; Angotti and Irazábal, 2017). In this view, tourists are attracted to developing countries ‘where the fantasy of eroticised populations, tropicalised geography and unrestricted leisure and pleasure provides a letting off of steam for the First-World’ (Irazábal and Gómez-Barris, 2007: 200; Feldman, 2011).

In many Latin American and Caribbean countries, the focus of tourism development on economic growth has created undesirable urban forms and an inequitable distribution of benefits and costs between foreign visitors and residents. In addition, tourism’s contributions to economic growth are unstable at best, as worldwide, ‘investments in tourism in and of itself appear to be insufficient for economic growth. Instead, tourism’s contribution to the long-term growth of an economy comes through its role as an integral part of a broader development strategy’ (Du *et al.*, 2016). This study assumes a dual planning focus on environmental health *and* socio-spatial equity, as well as nature preservation *and* infrastructure development, to counterbalance the favoring of economic factors in both promoting and examining development in tourism-driven places.

Another challenging condition has been increased foreign property ownership and transfer of land in coastal regions, particularly foreign-owned hotels and gated communities mostly used by tourists and expatriates. Attracting tourism development often prompts cities to abandon environmental or cultural standards, especially for beach, port and airport infrastructure developments. Some regions, such as those along the Caribbean and the tropical Atlantic and Pacific coastlines, have tested the limits of the carrying ecosystem’s capacity for tourism (Christofakis, 2010; Feldman, 2011) by incorporating two further S’s—sex tourism and service/servility—into the traditional

3S beach branding image (sun, sand and sea), both of which have a significant social impact on local residents (Irazábal, 2006; 2009; see also Campbell, 1999; Momsen, 2005).

Costa Rica and other Latin American countries that have recently been experimenting with coastal tourism development could heed lessons learnt in Mexico, which has the oldest and largest modern tourism industry in the region. Córdoba Azcárate (2010: 99) points to Mexican beaches as 'contentious hotspots where mobilities are concentrated, space and resources are appropriated, and locals and institutions fight to stay still'. Acapulco, Cancún and the Escalera Náutica are three historical moments in the gradual rise of beach resorts towards global commonplace in Mexico where, as Cocks (2010: 128) reminds us, 'the uses and abuses of indigenous histories and peoples are widespread'. Locals refer to Cancún as 'Gringolandia', a term that 'reflects the circus-like spectacle of the overbuilt resort, embedded in a region deeply divided by uneven development and the ensuing inequitable power relations' (Torres and Momsen, 2005: 314). This is consistent with Cortes *et al.*'s (2014: 507) research in Costa Rica, which suggests that the relationships between amenity migrants and local rural residents 'are mainly superficial, with no signs of the establishment of strong bonds between groups' or collaborating in community development efforts.

Tourism development also often restructures rural-to-urban migratory trends and job geographies. In Mexico, for example, Mayans migrate from rural Yucatán to work in the service sector in Cancún, while Mexicans from other states occupy better positions, all related to serving international tourists (Berger and Grant Wood, 2010). Costa Rica, like Mexico, has a growing population of North American and European emigrants, many of whom are retirees. Given that this transnational population is likely to increase in both countries in coming years, Croucher (2009) urges us to be mindful of the political and policy implications of bringing in or employing tourism-industry workers from more well-off states than workers in the states that receive them.

Urban coastal development in Latin America and the Caribbean is turning fragile ecosystems and assemblages of small parcels of land into resorts, golf courses and marinas at a pace that has alerted environmentalists and provoked legal disputes over the role of governments as regulatory and managerial guarantors of public goods (Irazábal, 2009). The growth of such development is prompting local and national governments to react rather than proactively challenge unchecked development that damages the environment and impacts on the population's social wellbeing.

Striking a balance between addressing economic, social and environmental factors in tourism development is a challenge (Campbell, 1996). This holds true particularly for developing countries favoring pro-growth strategies. Achieving such balance in coastal areas is all the more challenging (Norton, 2005c), owing to the fragility of ecosystems, the intensifying climate-change-related phenomena (for example, rising sea levels and exposure to storms and surges), and increased pressure for tourism and real estate development in many coastal areas. Such development requires an integrated management and land-use planning approach (Allmendinger *et al.*, 2002), a clear planning mandate from institutions above the local (Norton, 2005b), as well as coordination among different government agencies at various levels (Norton, 2005a). It also needs to take into account social dynamics, including people's relationships to place (Burley *et al.*, 2007). In the past decade, we have seen increasing awareness of the need to plan for coastal resilience in light of the effects of climate disruption (Beatley, 2009; Irazábal, 2010), although practice has been lagging dangerously behind theory.

– Making tourism development sustainable

To combat some of the adverse effects of typical mass tourism, trends such as 'ecotourism' and 'sustainable tourism development' have emerged as alternative forms of tourism planning. The International Ecotourism Society (TIES, 2015: n.p.) defined

‘ecotourism’ as ‘responsible travel to natural areas that conserves the environment, sustains the wellbeing of the local people, and involves interpretation and education’. Two major factors contributed to the emergence of ecotourism: the environmental movement of the 1970s and 1980s, and a growing dissatisfaction with mass tourism owing to overdevelopment, environmental pollution and culturally insensitive and economically disruptive foreigners (Buchsbaum, 2004; Bhatt and Liyakhat, 2008). The concept of ‘sustainable tourism development’ often encompasses mass tourism as well as ecotourism and includes principles such as using resources sustainably, maintaining biodiversity and supporting local economies (Blaney, 2001).

Ecotourism is currently the fastest-growing sector of the global tourism industry (Roberts and Thanos, 2003) and estimates indicate that its demand has been rising at an annual rate of 10% to 30% (Buchsbaum, 2004). An emergent body of planning literature, however, challenges the assumed benevolence of ecotourism initiatives and questions their contribution to greater social and economic justice. Laudati (2010), for instance, explains how the commodification of the Bwindi Impenetrable National Park in Uganda, marketed to foreign visitors as a wild and unspoilt destination, promotes the external control of conservation spaces by international organizations, ultimately contributing to the poverty and dependency of local communities.

While there are positive ecotourism initiatives in Costa Rica, efforts are still needed to incorporate them into more holistic development projects. ‘Compared to alternative land-use options, ecotourism remains a promising development strategy’, is the assessment of Koens *et al.* (2009: 1225) of the environmental, economic and social impact of ecotourism development at four Costa Rican tourist destinations—Manuel Antonio, Monteverde, Tortuguero and a region in which ecotourism is promoted by the NGO ASCOMAFOR (Asociación Comunal para el Manejo Forestal, or Communal Association for Forestry Management). Yet, the authors warn, ‘it should be embedded in a broader process of capacity building’ (*ibid.*).

Tourism development in Costa Rica

Costa Rica, once an agricultural economy based on banana and coffee production, has largely shifted to a service and tourism economy. Tourism now earns more foreign revenue than bananas and coffee combined.⁵ Travel and tourism’s total contribution to GDP and employment in Costa Rica is only second to that in Mexico in the Latin American and Caribbean context (World Travel and Tourism Council, 2015).

In the 1970s and 1980s, the Costa Rican government increased expansion of protected natural areas to incorporate a quarter of the national territory into national parks and protected regions. Since then, the country has continued bolstering its image as ecotourism’s ‘world leader’ (Miller, 2012: 1) through its engagement with initiatives that include becoming a zero-emission country by 2021, conserving 32% of natural land resources, and achieving almost 100% renewable energy in 2015 (renewable resources provide 95% to 99% of demand, and the country uses approximately 80% hydropower) (Greenpeace, 2014; Go 100% Renewable Energy, 2017). The government has actively supported ecotourism development in a variety of ways, including the creation of the ICT, Costa Rica’s tourism institute (Fletcher, 2014: 70).⁶ It has also instituted measures that encourage the creation of businesses necessary for ecotourism, such as the Law

5 In 2014, the total contribution of travel and tourism to GDP, in Costa Rican colones (CRC) totaled CRC 3,359.8 billion (US \$6.2 billion, or 12.5% of GDP). It is forecast to rise by 4.5% per annum to CRC 5,378.9 billion (13.2% of GDP) by 2025. Its total contribution to employment, including jobs indirectly supported by the industry, was 12.0% of total employment (247,500 jobs), a figure that is expected to rise by 2.8% per annum to 330,000 jobs in 2025 (13.0% of total).

6 ICT is a government institution. In 1931, the country decreed the first normative regulating tourism activity: the National Tourism Board was created by means of Law 91 of 16 June 1931, which was in operation until 9 August 1955, when the Instituto Costarricense de Turismo was created in terms of Law #1917 (ICT, 2016).

of Incentives for Tourism Development of 1985,⁷ and a range of other environmental policies and institutions. However, the disorderly growth of the tourism industry is threatening these measures (Horton, 2009).

In addition to government marketing efforts, a number of private companies, both national and international, have been tasked with branding Costa Rica's tourism. These include McCann Erickson, the company that crafted the ICT campaign 'Costa Rica—No Artificial Ingredients' (Raventos, 2006).⁸ A strong *marca país* (country brand)⁹ also supports tourism marketing in Costa Rica—a variety of national factors that act as an identifiable platform to showcase the purported essence of the country. The *marca país* is aimed at shaping the perceptions, preferences and behaviors not only of foreigners, but also of national citizens (FutureBrand, 2008). For years, Costa Rica has cultivated national pride and aimed for world recognition as well as a strong *marca país*, based on its attitude towards democracy, peace, security, natural beauty and ecotourism. Costa Rica promotes itself as a privileged place and prime destination for tourists, by highlighting its qualified personnel, its specialized tourism services and the opportunities for tourists to visit a variety of ecosystems and microclimates within a small territory (Pratt, 1997; Miller, 2012).

Tourism development planning and marketing in Costa Rica, particularly in its top two markets—US and Canada—have traditionally emphasized the 'natural' component of its assets, thus veiling, and all too often ignoring, the urban development consequences of tourism growth. This produces a nature–infrastructure paradox: On the one hand, nature-based tourism requires urban infrastructure (airports, transit facilities, roads, hotels, food and service facilities, water and sewerage systems, treatment plants, labor housing, and so on), thus relying on and causing urbanization. On the other hand, inefficient planning and managing of urban growth leads to unsustainability and equity losses for places and communities. Ultimately, this threatens the tourism industry altogether. For instance, for the past ten years, one of Costa Rica's most popular tourist slogans has been the aforementioned 'No Artificial Ingredients'. There is a strong rationale for such a slogan, since 'perception of natural beauty is the most important driver of destination choice' (FutureBrand, 2008: 40). Yet the slogan's attractiveness comes at a cost, as it feeds on and reinforces an anti-urban bias. 'No Artificial Ingredients' implies a natural, non-human-made form of development. Developing urban infrastructure—such as roads, water and sewage systems, and transit facilities—seems in contrast with this vision. However, such an antagonistic stance towards the built environment simultaneously leads to and obscures unsustainable development practices, as the infrastructure required to support tourism is often not sufficiently planned for and managed.

By the mid-1990s, mass coastal tourism, characterized by standardized all-inclusive packages and resort-based hotel services and amenities run by transnational corporations, started to grow in Costa Rica, particularly along the Pacific coast. A construction boom that focused on hotel and real estate development began in the late 1990s and accelerated between 2002 and 2007, especially in the coastal areas of Guanacaste and the Central Pacific (where Jacó is located). By the end of 2015, Costa Rica had 2,559 hotels with 47,452 registered rooms, of which 70% were concentrated

7 Ley de Incentivos Para el Desarrollo Turístico, available at <http://www.canatur.org/docs/6990.pdf> (accessed 3 June 2018).

8 Marketing has been widespread in all national media (print, radio, TV and billboards) and includes important international markets such as the United States, Canada and Europe. Promotions include glossy magazine advertisements, street advertisements such as billboards and signs, and advertisements in public transportation systems such as subways and busses.

9 FutureBrand, a global brand consultancy, annually ranks countries across 30 distinct categories related to qualities and assets that shape countries' reputations, perceptions and experiences, including standard of living, political freedom, advanced technology and environmentalism, among other variables.

in the coastal areas and San José's metropolitan region¹⁰ (Central America Data, 2016). This type of coastal development has had a high environmental impact but provided low economic returns to local communities, thereby expanding socio-spatial inequities and leading to a negative correlation with the *marca país*. Honey *et al.*'s (2010: 61)¹¹ study of Costa Rica's tourism industry from 1980 to 2010 reports alarming results indicating loss of sustainability: 'despite the continuing strength of Costa Rica's reputation for eco- and sustainable tourism, our review reveals a range of concerns expressed in the media, in market studies, and by tourism professionals about the impacts of resort and residential tourism sectors of the Pacific coast on the country's brand'. Barrantes-Reynolds (2010: iii) reasserts this point of view, stating that 'the promotion of residential tourism in the coastal areas is at odds with Costa Rica's touristic branding and its constitutional and legal framework concerning the environment'.

Current patterns of coastal real estate and tourism development are 'damaging Costa Rica's international image as a green and sustainable destination, eroding the tourist experience, and causing a decline in quality of life for residents in a number of coastal communities' (Honey *et al.*, 2010: 11). Business Monitor International (BMI, 2012: 7) stated that 'fears about overdevelopment in some regions threaten Costa Rica's position as a sought after ecotourism destination'. Honey *et al.*'s findings on the tourism implications for social equity are less conclusive, but still demand attention. In terms of employment, coastal tourism has created jobs in construction, ongoing operations and the informal sector, but long-term effects on poverty alleviation are less clear:

Direct and indirect jobs in tourism-related businesses ... increased during the years of economic boom. However, better paying jobs which require a level of education and proficiency in English often went to foreigners or Costa Ricans from the Central Valley, and not to coastal residents. Extreme poverty fell along the coast during the tourism boom between 2003 and 2007, but it again rose in 2008 and 2009, as the economic crisis hit. Overall poverty levels (extreme and non-extreme) between 2003 and 2009—the timeframe of the boom and bust—show no significant change for the Central Pacific, beginning and ending at 26% ... However, a number of variables—such as labor migrations and government investment in infrastructure and social service projects—make it difficult to draw firm conclusions about the relationship between tourism development and reduction of poverty (Honey *et al.*, 2010: 11).

Coastal residential real estate development is also worrisome. These developments are typologically varied, encompassing residential buildings, second and retirement homes, high-rises, row houses, detached houses, resort complexes and gated communities. Particular trends developed, such as combining residential homes and condos with resort tourism complexes and the construction of apartment buildings. This development has 'brought unanticipated demands for government services and resources, while apparently bringing scant long-term benefits in terms of employment, taxes, or sales of goods and services' (*ibid.*: 52–53).

Santamaría and Pratt (2007) urge us not to confuse these residential tourism developments with tourism *per se*. Residential development is more profitable for

10 The hotel sector alone in Costa Rica grew by more than 400% from 433 hotels in 1987 to about 1,800 in 2000 (Rivera, 2002). The new developments are usually elitist and architecturally nondescript: between 2001 and 2006, the number of 4- and 5-star rooms grew by 10% and 6%, respectively, whereas 1-, 2-, and 3-star rooms grew by only 1.2% combined. As 4- or 5-star rooms are typically unaffordable to most Costa Ricans, these cater mostly to foreigners, particularly high-income North Americans.

11 This four-year project (from 2007 to 2010) was conducted by an international team of multidisciplinary researchers who developed 16 reports on different aspects of Costa Rica's coastal tourism development (see individual reports at <http://www.responsibletravel.org/resources/Coastal-Tourism.html>) (accessed 21 June 2016).

developers (with a 100% to 700% profit gain within two to three years, as opposed to around 20% annual gain for hotel investors), but their multiplier effect in the local economy is negligible, as development leads to demands for additional infrastructure (schools, health clinics, telecommunications, and more) and to competition with the room supply of hotels. As Barrantes-Reynolds explains:

the supply side of residential tourism competes with ecotourism for touristic spaces and undermines the conditions of possibility of touristic activity in any given coastal location. The reasons for this are developers' short-term commitment to a location, the residential tourism's business capacity to urbanize and to significantly alter and negatively impact the natural landscape, and the competition this type of infrastructure represents for the hotel sector (Barrantes-Reynolds, 2010: iii).

The residential tourism model is also extremely dependent on the North American market for investors, developers and consumers and is thus very vulnerable to global economic climate changes. Given all these factors, public capital investments, leasing and incentives intended to make tourism profitable should not be misdirected to this industry, as they often are (Estado de la Nación, 2015).

There are certainly examples of past tourism abuse in Costa Rica, especially on the Caribbean coast. For instance, in her novel *La Loca de Gandoca* (1991), Ana Cristina Rossi cynically describes how foreign private investors and Costa Rican government officials sought to develop the Gandoca–Manzanillo wildlife refuge in non-ecological manners. Other places where abuse of ecotourism as a development strategy has resulted in serious socio-spatial impacts are the Monteverde Cloud Forest Reserve and the Caribbean coastal village of Tortuguero, where tourists swamped and transformed a little village of 150 inhabitants (Place, 1990). In Bahía Ballena and Uvita, competition between foreigners and locals over resources, as well as socio-economic and cultural factors, and conflicts from previous planning experiences with the state, make for poor relations and lack of collaboration in community development between the two groups (Cortés *et al.*, 2014). Stocker's study of two beaches in Costa Rica—which she calls Playa Tica and Playa Extranjera ('Costa Ricans' Beach' and 'Foreign Beach') based on their respective degrees of local as opposed to foreign land and business ownership—reveals 'an existing culture clash and set of misunderstandings' as well as community issues that 'include expats' ideas of who counts as "a local", concerns regarding the cost of living, drugs and prostitution, water, and development' (Stocker, 2013: 29).

Jacó: a case study of coastal urban tourism development

– Overview of development in Jacó

As the aforementioned precedents demonstrate, abuses of tourism development and their negative consequences are not new to Costa Rica, yet the scale of abuse in the case of Jacó is. The case study I present here provides a more in-depth understanding of the environmental and socio-economic impacts of coastal urban tourism development and the related nature–infrastructure paradox in Costa Rica.

Jacó is a coastal city on Costa Rica's Pacific coast, located in the Puntarenas Province (Costa Rican provinces are the equivalent of states in the US) and Garabito municipality (called canton in Costa Rica). Honey *et al.* (2010: 18) note that during the first half of the twentieth century Jacó, like much of Costa Rica's Pacific coast, was 'characterized by small rural towns based primarily on agriculture, livestock and fishing'. In the 1960s, Jacó could only be reached by ferry, as there was no bridge over the nearby Río Tárcoles. In the 1970s, development along the Pacific coastline increased

rapidly, the expansion of roads and the construction of a small international airport in nearby Liberia complementing the existing main national airport in the capital San José. Jacó is currently the closest coastal city to San José (approximately one-and-a-half hours away by car). Connections were further improved from 2010 with the building of a new freeway.

The population of Jacó has grown significantly over the past 25 years, to an estimated 21,519 in 2015 (Rosero Bixby, 2002).¹² The city has significantly grown in popularity and was named the 'leading beach' in Central America in 2007 (World Travel Awards, 2007). While data about employment and poverty within Jacó and Garabito are limited, Honey *et al.* (2010: 71) found that, from 2003 to 2008, construction led to a high demand for mainly unskilled jobs, which were mostly filled by Costa Ricans from other provinces or by temporary immigrants, as developers were unable to find enough locals to meet demand. According to the National Institute for Statistics and Census (INEC, 2011), extreme poverty fell from 6.2% of households in the Central Pacific region of the country in 2003 to 4% in 2007. Honey *et al.* (2010: 78) report that in tourism-related regions along the Pacific coast, there are 'two parallel realities: 1) temporary employment in construction, unskilled hotel jobs and the informal economy and 2) unusually well-paying jobs, especially for employees in management positions'. However, 'the fact that construction and back-of-the-house tourism jobs are poorly paid and at times abusive, explains in part why, tourism experts say, there is such a high turnover in the tourism workforce' (*ibid.*).

Regarding development and environmental change, Jacó has undergone tremendous transformations. Honey *et al.* (*ibid.*: 20) report a large percentage change of area dedicated to human settlements within the Herradura–Jacó region from 1980 to 2005. Settlements grew in size by approximately 525% from only 3.97% of land in this area dedicated to human settlements and tourism in 1980 to 20.67% of land in 2005. Recent environmental issues in and around the Jacó region include conflicts over fresh water allocation, beach pollution and forest removal (*ibid.*: 79–86). In Jacó, the local aqueduct for fresh water has proved to be insufficient to meet local needs, yet many residents and environmental activists fear its privatization and worry that this could result in the provision of water to tourism developments at the expense of local communities (Fonseca, 2012). Jacó received a great deal of media coverage from 2007 to 2009, when reports about pollution of ocean water caused by wastewater contaminants discharged by hotels, residential developments and local housing resulted in government officials closing down beaches for public use and removing Blue Flag certificates¹³ until proper measures had been taken (Cantero, 2008).

Tourism development in Jacó has been opportunistically built without the organizing framework of a regulatory plan. This has resulted in a patchwork of incompatible and pedestrian-unfriendly spatial typologies. The transformation of beachfronts, which began in 2002, sped up as residential real estate development accelerated, surpassing the rate of tourism development and expanding into non-coastal zones that provided services to the coastal regions. In 2005, Puntarenas absorbed the second largest share of total foreign direct investment in Costa Rica (23%), and in 2006, Garabito was the municipality with the highest total built area in Costa Rica, namely 6.8% (Román, 2007). In 2007, residential construction totaled

12 The Instituto Nacional de Estadística y Censos (INEC, or National Institute for Statistics and Census) reports a total population of 15,479 in Jacó and 22,143 in the Garabito municipality in its October 2011 report. This is up by 136% from a population of 6,568 in Jacó and 106% up from a population of 10,702 in Garabito, as per a July 2000 report. Jacó's population in 1990 was 2,519 people.

13 In 2005, the Water and Sewage Institute (AyA), in collaboration with the ICT and other government institutions, implemented the Ecological Blue Flag Program (BAE) modeled on a successful European program. The BAE annually assesses the environmental quality of beaches to award certification on a scale of one to four stars (one being the lowest ranking). Since 2010, nearly 60 beaches have been certified, many of them along the Pacific coast (Honey *et al.*, 2010, 54).

74% of all new construction along the entire Pacific coast. Between 2005 and 2007, 26 of 48 municipalities along this coast accounted for 92.3% of new coastal construction. Four municipalities—Liberia, Tamarindo, Sardinal and Garabito (Jacó)—increased enormously: by 1,223,360 square meters or 12.2% of all new construction nationally, and 49.8% of total construction along the Pacific coastline (Honey *et al.*, 2010: 46). Prices were driven up not only by real construction costs, but also by demand from foreign buyers. In Jacó, these properties formed a speculative real estate market, commanding high prices in US dollars and a rapid turnover rate. However, since these market conditions faltered after the 2008 world economic crisis and have not been fully restored yet, some projects have defaulted, remaining unfinished or vacant, giving some areas the appearance of ghost towns.

It is clear that the type of development occurring within Jacó does not square with Almeyda *et al.*'s (2010a; 2010b) favorable views of ecotourism in both the Nicoya and the Osa peninsulas of Costa Rica. Here, the local community reaped positive social, economic and environmental benefits. In both cases, ecotourism developments were smaller in scale (Lapa Rios Ecolodge has fewer than 20 guest rooms, while Punta Islita offers approximately 50) and focused on attracting an upscale clientele interested in engaging with the local community through nature tourism and community arts programming. Owners and developers of these hotels paid attention to social, economic and environmental implications, undertaking efforts to ensure a positive impact for their local communities (developing local primary schools and childcare centers, investing in environmental conservation, arts education, and more). Development in Jacó, by contrast, has been primarily focused on generating economic benefits, with little attention to environmental and social concerns. Contrasts in priorities (community development as opposed to economic development) and scale (community-based versus mass tourism) between the Nicoya and Osa peninsulas and Jacó explain these differences, and analysis of the coastal planning framework in Costa Rica sheds additional light on existing challenges in Jacó. (see Figures 1–4, illustrating the impact of tourism in Jacó).



FIGURE 1 Densely constructed buildings along Jacó Beach (photo by the author, 2010)



FIGURE 2 English-language financing and rental advertising for newly constructed apartments in Jacó (photo by the author, 2010)



FIGURE 3 Many roads in Jacó are badly maintained or altogether unpaved (photo by Joe Melara, 2010)



FIGURE 4 Polluted river water flowing into the sea at Jacó Beach (photo by Joe Melara 2010)

– Coastal planning in Costa Rica and Jacó

The Costa Rican state protects its coastline. A wide range of institutions and regulations are in place that govern coastal planning (see Table 1). As the focus of this study is on Jacó, the Maritime Land Zone Law #6043 (MLZL, 1977),¹⁴ coastal plans and urban regulatory plans are particularly pertinent. The MLZL stipulates that no development should occur within 50 meters from the high-tide line, which is designated a 'public zone'. The next 150 meters of land adjacent to the public zone is referred to as the MLZ (maritime land zone) or restricted zone and may not be subject to private ownership. This land may be leased by the municipalities for use by private companies that are more than 50% owned by nationals (or who have been residents of Costa Rica for at least five years). Concession users are obligated to keep the zone accessible and within the jurisdiction of the public. Municipalities are responsible for upholding the law regarding dominion, land-use controls, development, eviction of transgressors and demolition of illegal construction. The ICT is responsible for creating a General Coastal Plan in the MLZ, in collaboration with municipalities and in accordance with the National Plan of Tourism Development, and for approving development plans that affect the MLZL, along with the National Institute of Housing and Urban Development (INVU). Municipalities may only grant concessions after approval of coastal plans. Planning, management and control of the MLZ involve at

14 See <http://www.canatur.org/docs/6043.pdf> (accessed 3 June 2018).

TABLE 1 Public planning organizations and their functions dealing with coastal planning in Costa Rica

Institution	Governing Authority
Asamblea Legislativa (AL)/Legislative Assembly	Provides authorizations in exceptional cases; administers island concessions
Ministerio de Ambiente, Energía y Telecomunicaciones (MINAET)/Ministry of the Environment, Energy and Telecommunications	Flora and fauna extraction permits in the maritime-land zone (MLZ) National natural assets administration
Secretaría Técnica Nacional Ambiental (SETENA-MINAET)/National Technical Secretary of the Environment	Approves environmental impact evaluations Establishes criteria and procedures for environmental control Issues administrative resolutions Appellates against decisions to the Ministry of Environment Assesses environmental viability of coastal/urban regulatory plans
Tribunal Ambiental Administrativo (TAA-MINAET)/Environmental Administrative Tribunal	Solicits administrative or technical reports from various institutions Carries out onsite inspections, administer tests and issues fines for environmental damages
Ministerio de Hacienda/Ministry of Finance	Declares land values; does assessments Collects taxes and land-in cases of failure to pay taxes
Ministerio de Obras Públicas y Transportes (MOPT)/Ministry of Public Works and Transportation	Builds infrastructure and ports
Ministerio de Salud (MINSAL)/Ministry of Health	Issues sanitation permits and other types of permits related to the environment, health and environmental health Addresses issues concerning natural resources that pose a risk to the environment (together with MINAET)
Registro Nacional (RN)/National Registry	Registers concessions (land leases)
Procuraduría General de la República y Procuraduría Ambiental y de la Zona Marítimo-Terrestre (PGR)/General Comptroller of the Republic and Environment and Maritime-Land Zone Comptroller	Has judicial control over compliance with laws
Municipalidades/Municipalities	Ensure compliance with laws in their jurisdictions, development, and use of the MLZ and coastal tourism areas Manage use of land, address the MLZ and coordinate functions with the ICT Authorize tourism development projects with prior authorization of the ICT and INVU Grant concessions once development plans have been ratified by the ICT and INVU Approve regulatory plans as instruments for planning and development within their jurisdictions Remove or demolish illegal buildings, including public property and property located within the MLZ Manage these properties according to law
Instituto Costarricense de Turismo (ICT)/Costa Rican Institute of Tourism	Exercises authority over all areas administered by the MLZ Has decision-making power over areas designated for both tourism-related and non-tourism-related activities through own initiatives or upon request from municipalities Formulates the National Tourism Development Plan, which includes a General Land Use Plan to establish recommendations and guidelines for regulatory plans, including plans for the MLZ Reviews the tourism part of regulatory plans Reviews marine boat ports
Instituto Geográfico Nacional (IGN)/National Geographic Institute	Demarcates and delimits the MLZ

TABLE 1 Continued

Institution	Governing Authority
Instituto Nacional de Vivienda y Urbanismo (INVU)/ National Institute of Housing and Urban Development	Processes projects once a concession contract for the MLZ has been obtained and registered Approves urbanization or tourism development plans and reviews the urbanization part of regulatory plans, concurrently with the ICT Urbanizes land included in plans in accordance with the regulatory plan's criteria according to the Law of Construction, the Law of Urban Planning and the Law of Condominium Property Regulation Prepares building permits for construction of urban and tourism development
Instituto Costarricense de Electricidad/ Costa Rican Institute for Electricity (ICE)	Provides access to electricity and telecommunications
Instituto Costarricense de Acueductos y Alcantarillados (ICAA or AyA) y Asociaciones Administradores de Acueductos Comunales o Rurales (ASADAS)/ Costa Rican Institute of Acueducts and Sewage and Administrative Association of Communal and Rural Acueducts	Administers and supplies potable water
Instituto Costarricense de Pesca y Acuicultura (Incopesca)/ Costa Rican Institute of Fishing and Aquaculture	Administers the fishing sector and aquaculture in coastal zones
Instituto de Desarrollo Agrario (IDA)/ Institute of Agrarian Development	Approves concessions for areas designated for non-tourism development

SOURCE: Adapted from Cabrera and Sánchez (2009: 88-92)

least 11 public institutions at the national level,¹⁵ 19 municipalities and 4 municipal district councils (Cabrera, 2009).

In terms of the MLZL, coastal cities—Puntarenas, Golfito, Quepos and Limón—are exempted based on a 1973 law that, for a limited time, allowed titles to be granted to beachfront settlers. Jacó was exempted in terms of the MLZL later, in 2006,¹⁶ to legalize constructions that had taken place illegally. This exception of coastal cities from the MLZL constitutes a challenge to beachfront planning. Today, development within the MLZ occurs mostly in piecemeal fashion, following proposals by private concession seekers. Coastal municipalities allowed chaotic development to take place, including the building of structures that do not meet technical engineering criteria. This had a huge impact on the environment, and made adequate sewerage and solid-waste disposal technically challenging to manage (CGR, 2008; Fonseca, 2008).

The General Comptroller of the Republic (CGR), an independent government institution and the highest form of fiscal control in the country, recognizes that the MLZ law creates conflict between environmental conservation concerns and tourism development. The problems affecting the MLZ are related to a lack of integrated planning that promotes the correct use of both the regulated area with its publicly accessible zones and the preservation of natural areas. The main legal framework governing the MLZ, Law #6043, has undergone very few changes since 1977, when it was first issued (CGR, 2008), although both the definition of the concept of the MLZ and the law itself are regularly challenged. Another sensitive issue concerns the hoarding of land in the MLZ by a few legal persons, usually foreigners creating oligopolistic land regimes that threaten equity and sovereignty (*ibid.*). During 2006 and 2007, of a total of 80 square kilometers of MLZ, only 10% had coastal plans. Also, the National Registry showed that 1,600 concessions in the MLZ had been subdivided and sold illegally (Fonseca, 2008: 7–8; 2012).

These problems are possibly being exacerbated by some initiatives within the National Legislative Assembly that attempt to deregulate the MLZ and hence weaken coastal management. In 2005, some laws were passed to modify Law #6043, such as one that exempts new communities from this law (for example, Cahuita and Puerto Viejo were declared ‘cities’, so that the MLZ law no longer applies to them) (Fonseca, 2008). Since 2007, dozens of bills have sought to relax the requirements and extend the concession rights of investors in marinas and piers, promote economic and tourism development in several areas in the MLZ, and enable families living in coastal and island areas to build housing and other facilities on coastlines (CGR, 2008). In 2014 alone, more than 90 provisions were adopted—laws, regulations and decrees related to environmental management. A relevant example was the Law of Occupant Protection in Areas Classified as Special, which replaced the moratorium on the eviction of people who had settled in ‘special areas’ (Law #9073) and changed the limits of the Gandoca–Manzanillo wildlife refuge. Law #9221 (Framework for the Declaration of Coastal Urban Areas and their Use) and Law #9242 (Regularization of Existing Buildings in the Restricted Area of the Maritime Land Zone) were approved. The latter is subject to the validity and implementation of coastal regulatory plans by municipalities that have jurisdiction in the MLZ (Estado de La Nación, 2015: 201).

In 2015, no coastal municipality had a regulatory plan that covered its entire territory. The area is highly fragmented, as 81 of the approximately 124 existing regulatory plans cover coastline lengths of less than two kilometers. Prime examples may be found in

15 The institutions are the Legislative Assembly, the Costa Rican Tourism Institute, the National Institute of Housing and Urban Development, the Attorney-General’s Office, the Ministry of National Planning and Economic Policy, the Ministry of Public Works and Transport, the Ministry of Agriculture and Livestock, the Ministry of Environment, Energy and Telecommunications, the National Geographic Institute, the Directorate of Direct Taxation and the Institute of Agrarian Development.

16 Declaration of Jacó as a city, Law #6512 of 25 September 1980, Art. 3, Contraloría General de la República (CGR, or General Comptroller of the Republic), see http://www.pgrweb.go.cr/scij/Busqueda/Normativa/pronunciamiento/pro_ficha.aspx?param1=PRD¶m6=1&nDictamen=8255&strTipM=T (accessed 3 June 2018).

the district of Cóbano (Puntarenas), where 11 regulatory plans each cover a distance equal to or less than 2.3 kilometers over 14 consecutive kilometers of coastline. It is not certain how many regulatory plans exist in the coastal municipalities, because the ICT, the INVU and various municipalities all state different figures (*ibid.*: 205). In an attempt to address this matter, the sector for Environment, Energy, Seas and Land Management was created in 2014 under the Ministry of Environment and Energy (MINAE) (Cabrera, 2015).

There are also a number of non-governmental institutions that intervene in coastal planning processes, including private institutions (such as the country's Global Association of Realtors and Chamber of Commerce), national professional and academic institutions (including CLACDS-INCAE, Costa Rica's premier business school); the Federal Association of Engineers and Architects; the Research Program on Sustainable Urban Development (ProDUS); as well as international and national nonprofit organizations (such as the Rainforest Alliance; the National Resources Defense Council; the Nature Conservancy, and more). Non-governmental environmental and interest groups exert pressure on government agencies and occasionally have achieved impressive results (Cupples and Larios, 2010).¹⁷

Government entities in Costa Rica have had varying and conflicting responses to increased development, in part as a result of the fragmentation of intergovernmental bodies and because of a lack of communication among policymakers. The legal framework for coastal development 'suffers from internal deficiencies and inconsistencies, overlapping authorities, and heavy reliance on weak and ill-equipped municipal governments' (Cabrera, 2009: 2). Legislation is enforced ad hoc, with government institutions occasionally collaborating to respond to illegal activities reported by the media, NGOs or communities. The legal framework is fragmented too, and there is no jurisprudential consistency (CGR, 2007). Many rules and institutions involved in land management with responsibilities in areas such as conservation, construction, land subdivision, or use and exploitation of water and wood, make the processing of plans and building permits a highly complex procedure. Additionally, there is the high political and economic vulnerability of local administrative structures when there are changes in government or economic climate. Socio-economic planning is decoupled from land management and public policy, with no clarity on scope or means to enable and facilitate citizen participation in planning processes (Zapata, 2014). Furthermore, technical capacity in the majority of local governments for environmental management is weak (Román, 2007; Fonseca, 2012).

Even when the requisite legislation and institutions are in place to monitor development and preservation of the environment, flawed systems of accountability allow for uneven monitoring, evaluation and application of sanctions for non-compliance. Where they are executed, sanctions do not outweigh the gains that have accrued to the developers through their illegal practices (Irazábal, 2009). Some mayors have reacted with clientelism, prioritizing economic gains and turning a blind eye to violations. Corruption is also a factor, with regulators allowing individuals to log areas illicitly and to commit other environmental crimes. Miller (2011: 50) states that 'a serious failure to satisfy regulators' material needs, including salary, equipment, funds and staff, is the key issue causing them to fall into corruption'. In addition, some developments are exempted from environmental laws through political interventions such as presidential decrees that sanction them as being in the 'national interest', as in the case of former president Oscar Arias granting permission for construction of the first tourist marina in the country, Los Sueños (The Dreams), which neighbors Jacó.

In terms of land-use planning, municipal regulatory plans are deemed a key planning instrument. Nevertheless, some municipalities do not have such a plan. The weaknesses

17 NGOs in Costa Rica stopped offshore oil explorations by a US-based company in the Caribbean Sea in 2002 and played a pivotal role in almost stopping the Free Trade Agreement with the US in a 2007 referendum (Cupples and Larios, 2010).

identified in the regulatory plans, alongside the insufficient institutional capacity of Costa Rica's national technical environmental secretary (Secretaría Técnica Nacional Ambiental, or SETENA), the government's principal environmental watchdog, allow for real estate development in the coastal zone to take place in a context of broad deregulation (Román, 2007). As a result, the development of the urban regulatory plan of the city of Jacó and the coastal regulatory plans for its beaches has been 12 years in the making. The regulatory plan was launched in November 2005, when the firm DEPPAT SA was hired to prepare it. In 2007, the regulatory plan commission formally handed the document to the city council. Since then, these documents have undergone several review processes, primarily by SETENA. SETENA and the INVU have formally requested clarifications or supplements to the documents that were submitted. Plans have also been adapted to new regulations issued by the ICT and based on citizens' input. Nevertheless, the urban regulatory plan is still awaiting approval by the Ministry of Environment, Energy and Telecommunications (Ministerio de Ambiente, Energía y Telecomunicaciones, or MINAET) for the Environmental Vulnerability Index, which is necessary before the process can continue through the INVU. Work on the coastal regulatory plans for areas under the MLZ has also come to a standstill pending certification by the MINAET (Garabito Municipality, 2017).

– Perceptions of tourism development in Jacó

Various researchers have investigated residents' attitudes towards tourism development (see Brougham and Butler, 1981; Williams and Lawson, 2001; Stocker, 2013). Harrill's literature review (2004) offers implications for tourism planning. There is, however, little insight into the differing perceptions of experts, residents, tourism-industry workers and tourists. To assess the nature–infrastructure paradox and understand local attitudes and feelings towards development in Jacó, in the course of this study I conducted 35 long, semi-structured interviews and analyzed 89 survey responses. Interviews and surveys were conducted in San José and Jacó on separate month-long field trips in 2008, 2009 and 2010.¹⁸

The interviews were aimed at understanding contextual factors, power relations, the institutional framework and conditions related to the tourism–sustainability nexus and the nature–infrastructure paradox. Individuals interviewed included scholars (in architecture, planning, environmental sciences, business, tourism); planners, policymakers and bureaucratic officials in public agencies; independent policy analysts; domestic and international tourist and environmental NGO operators; private practitioners (architects, developers and planning contractors); as well as community leaders in San José and Jacó.¹⁹

Surveys were administered in the public spaces and on the beaches of Jacó. In about half of the cases, surveys were followed up with short, informal interviews (impromptu conversations about people's reactions to the survey questions) that either provided more insights into their survey responses or revealed other tourism-related issues. The sample was balanced regarding subjects' positionalities: residents, tourism-industry workers and tourists.²⁰ Survey responses are used in this article

18 San José was included because bureaucratic and academic centralization is still very prevalent in Costa Rica, and a great deal of policymaking, management and data producing/processing related to Jacó takes place in San José.

19 About 80% of interviews and surveys were conducted in Spanish and then translated into English by the author and her research assistants. The remaining interviews were conducted in English. Most interviews lasted approximately one hour. Interviewees were chosen by their relevance (the most recognized people in their respective fields and those directly involved in the dynamics of coastal development in Costa Rica and Jacó). They were identified by the author through research and referral by other interviewees.

20 These positionalities usually provide the most noticeable variation in relation to the way people perceive and are affected by tourism and development. Variation within these categories was also sought, including residents from low-income, middle-income and high-income areas; national and international tourist workers in blue- and white-collar positions; and national and international tourists. In the latter category, I distinguished between those from Latin America and those from the US, Canada and Europe. The sample was also balanced in terms of age and gender, because people belonging to different categories along these lines are generally conceived as dissimilar in their engagement with and appreciation of the effects of the dynamics of tourism development.

to illustrate the perceptions of members of these groups; there is no claim to representativeness. The qualitative data from the interviews and surveys were coded and analyzed manually.

Finally, research methods also encompassed the analysis of current planning institutions and regulations, tourism media coverage, tourism reports, tourism and real estate data, resort performance vis-à-vis sustainable tourism and community development, observations and participant observation of planning and community meetings and activities, and observations of the built, social and natural conditions in Jacó and its surroundings. The qualitative data collected and analyzed for this study complement and update previous studies on tourism development in Costa Rica based on quantitative indicators, provide specific impressions about development in Jacó from different sectors in society, and offer both evidence of the nature–infrastructure paradox in existence and ways to overcome it.

Interview findings

While the interviews included a variety of individuals, common themes emerged regarding tourism development in Jacó, particularly concerning poor planning and complex regulations, environmental degradation, deficient infrastructural support, socio-economic implications, and proposals for Jacó's recovery.

– Poor planning and complex regulations

Many experts reported that development in Jacó had happened too fast and haphazardly, without proper plans, regulations or consideration for the country's *marca país*. Lawrence Pratt, Director of the Latin American Center for Competitiveness and Sustainable Development (CLACDS), stated, 'there is nothing particularly Costa Rican about development in Jacó', while Antonio Farah from the ICT indicated that 'Jacó does not represent Costa Rica's commitment to sustainability: Jacó is Costa Rica's Cancún'. Indeed, Jacó may not be representative of other cities in Costa Rica yet, but it is closely followed by rapid and haphazard growth in Tamarindo, Playa del Coco and Flamingo in Guanacaste; Manuel Antonio and Quepos in Puntarenas; and Santa Teresa, Mal País and Nosara in Nicoya. Thus, this trend may expand if urban tourism development is not better planned and managed as the national and global economies improve after the Great Recession.

Interviewees commented on disparities between the country's *marca país* and its actual actions. Rosendo Pujol, Director of ProDUS, stated that 'the paradox between Costa Rica's environmental legislation and its anti-environmental practice is terrible', while Andrés Bourreout, Manager of steel company Holcim, asserted that 'there is tension between the political vision reflected in the *marca país* and economic pragmatism ... some elements [of the *marca país*] are left aside to accelerate economic development'. Kyra Cruz, Executive Director of ACTUAR, a nonprofit organization comprising 37 community tourism organizations, denounced the fact that investment was prioritized towards major economic indicators in current tourism instruments, 'invisibilizing others' that are more pertinent to sustainable community development.

Olga Solís, Regional Coordinator for the Federal Association of Engineers and Architects of Costa Rica in Jacó, enumerated a series of developmental problems in the city, stating that 'Jacó has undergone exaggerated growth in a context of collapsed services: water, sewage, electricity ... The lack of regulatory planning allows chaotic construction: new buildings without water treatment plants, proper setbacks, etc.'. Architect Javier Salinas believes that 'Jacó is beyond repair. It looks like Manhattan, like Panama City, even worse ... They sell one square meter at US \$10,000, as in Barcelona, but without the same urban amenities. They allow the maximum building-site area, intensifying flooding which swipes away squatter settlements'. Rolain Borel, Head of the Department of Environment, Peace, and Security at the United Nation's Peace University in San José, similarly painted a negative portrait of development in Jacó, stating:

go check Jacó to see what should not be done: people rushing to be the first ones to make a million, while polluting the water that they'll drink ... The built environment is chaotic; land prices drop because there is no water. There are many vacant properties because they are bought for speculation. Poverty, polarization and insecurity have risen.

Pujol seconded these opinions and was quick to assert that work remained to be done. He believed that Jacó is 'a lost cause. We propose a strategic withdrawal: let them [developers and government officials] continue doing what they are doing and "stew in their own juices". There are winnable battles in other places: Osa, Golfito, Isla de Chira, etc.'

Pujol also emphasized that municipalities are not equipped to do the work assigned to them, asserting that 'municipalities in Costa Rica are among the weakest in Latin America' and that 'regulations are very complicated and often overlapping. They are hard to enforce, particularly in poor communities. There are contradictions and interest groups in confrontation. Also, presidential decrees can override environmental legislation, such as in the controversial case of Los Sueños Resort and Marina [near Jacó]'. Roy Castellón, Garabito Municipality's planning official, endorsed this view, stating that 'the process of decentralization has only recently started to take root in Costa Rica. Garabito has had to take on responsibilities without adequate institutional capacities'.

Pujol asserted that a nature–infrastructure paradox in Costa Rica exists partly as a result of the way the planning profession is perceived in the country: 'there is no planning school in Costa Rica, the discipline lacks a strong identity, and municipalities lack planners'. Borel stated that 'there is a great dichotomy between the high value of conservation, a motive of pride for lay citizens, and the unchecked negative consequences of urban development: sewage, traffic, air and waste pollution'. Vanessa Camacho, Inspector at the Garabito Municipality, pointed out that 'there are only seven inspectors for the entire municipality. When they point out an irregularity, the damage has already been done'. Sirlene Jiménez, Water System Executive at the Costa Rican Water and Sewage Institute (Instituto de Acueductos y Alcantarillados, or AyA) in Jacó, lamented that the existing environmental commission 'cannot cope with the needs. There is a need for more resources and more political will at the local and national level to follow up when irregularities are pointed out'. When I interviewed her, Doris Salazar, the regional representative of the Ministry of Health in Garabito and a member of the Municipal Environmental Commission, operated from a cramped room in Jacó with no ventilation, no computer, no internet access and no filing cabinets. She expressed interest in better facilities, but focused the bulk of her concerns on the slow pace or lack of follow-up to the commission's solicitations to upper-level governmental institutions, stating that 'the pace of development has left behind both institutions and regulations. The [world's economic] crisis could be an opportunity to bring together what we preach and what we do'.

– Environmental degradation

The theme of growing environmental degradation was a common thread in interviewee responses. Several interviewees alluded to the fact that the local river, Río Tárcoles, is the most polluted river in Central America and that its waters pollute Jacó Beach. Solís reported seeing 'great destruction: rivers have been polluted, mountains destroyed and deforested, fauna has decreased, the sea water is contaminated'. Ronald Sanabria, from the Rainforest Alliance Central America, commented that '1492: Conquest of Paradise', a 1992 film depicting Columbus's arrival to the Americas featuring famous [actor] Gérald Depardieu, was filmed in an area near Jacó, 'a paradisaical, lush place that is now gone'. He lamented that in Guanacaste (to the

north) and in the Central Pacific (where Jacó is located), there were hotels 'consuming more water than three towns together to maintain their golf courses'. Pratt added: 'to build the Resort and Marina Los Sueños, mountains were flattened and hillsides were deforested'.

Private developers and expatriates are taking some steps for reparation into their own hands. Jacó has a Chamber of Commerce that holds meetings and organizes activities in English. Javier Angel Müller, the architect of Wyndham, Jacó's first five-star hotel, explained the formation of Friends of Jacó, a group of developers who got together to tackle issues regarding tourism promotion, sanitation, insecurity and maintenance in Jacó. He also explained that planners preferred to consult real estate developers with regard to the urban regulatory plan and that their considerations ran counter to the original intents of the plan: 'the plan proposed ascending building heights from the beachfront, but there were already high buildings along the beachfront and lots are usually smaller and more expensive there, which increases the cost of land assemblage'. Adjustments to the developers' requests have led to further complications, contradictions and delays regarding the still pending approval of the urban regulatory plan and the coastal plans, and may potentially compromise their environmental considerations. Some acknowledged that there was no consideration of the effects of climate change in current planning and development practices in the area, despite the fact that rising sea levels (of up to seven centimeters within 50 years) were expected to have a significant impact.

– Deficient infrastructural support

Costa Rica's national position on the index of competitiveness in tourism, as calculated by the World Economic Forum (WEF, 2015), has been improving since 2013; yet, of the 14 issues that are assessed, the country has very low ratings for land and port infrastructure (Estado de la Nación, 2015: 141). Similarly, the experts I interviewed in this study supported the notion of a nature–infrastructure paradox, which states that a lack of infrastructural planning had contributed to Jacó's haphazard growth. Vladimir Klotchkov, Chief Planner at San José Municipality, argued that 'wherever there are disputes between environment [i.e. nature] and urbanity, the environment always wins, i.e. the urban needs are always subordinate to the environment's'. Kristian Benavides, Sales Director of Marriot Costa Rica, expressed the view that 'in Costa Rica, we rested on our laurels, in the belief that we were the best in service, as a country with peace, with no army, ... but in terms of infrastructure (roads, airports, sewerage) there is a lot to be desired, compared to Panama and other tourist destinations. We forgot about infrastructure'. Gustavo Alvarado, Director of the ICT, stated that 'the country had abandoned infrastructure. Only now we are finishing highways started 40 years ago. Airports, ports, sewerage systems ... are only now being reconsidered'. Pratt claimed that 'the "blind spot" that the nature–infrastructure paradox creates did not exist before 2000. [Before that time], it was zero-infrastructure-investment tourism. That was so successful that the paradox came in simultaneously with the real estate construction and speculation boom'. Jiménez conceded, more specifically, that 'there is a critical situation with water in Jacó. Projects have been stalled because there is water, but a lack of water infrastructure'.

Some interviewees expressed concerns that the new infrastructure that was being created would not be sufficient for current and future demand. Many believed that the new highway that links the capital to Jacó—which they claimed was already obsolete, since it had been many years in the making and had been built according to old plans—would only cause increased growth in the Jacó region. Müller warned: 'there is going to be enormous development along the San José–Jacó corridor. Jacó is going to grow significantly'. Raúl Goddard, Central Pacific Officer for Edificar, one of the largest construction companies in the country, corroborates this view:

‘all developers are expecting that the new highway will spark development. Jacó is bound to move the market away from San José’. While these predictions did not materialize during the Great Recession and the years of economic recovery that followed, they seem to indicate a plausible growth scenario for the late 2010s or early 2020s.

– Socio-economic implications

Interviewees variously commented about the socio-economic implications of tourism development in Jacó, distinguishing the unequal impact that tourism has had on different groups of people, depending on their level of education, legal status, wealth, land tenure status and work position. Solís pointed to the surge in the number of construction workers who were working under poor labor conditions and without access to proper accommodations. This group includes unauthorized migrants. Solís stated that ‘construction [in Jacó] has attracted workers, often undocumented Nicaraguans. Many have been laid off. Frequently, they occupy the river fronts in precarious settlements that offer no services, and are prone to flooding in the rainy season’. Solís added that the surge in the number of workers and migrants created ‘spatial fragmentation: tourists have privileged access to recreational areas, while locals scramble for the rest’. Alexandra Kleinox, local Remax realtor, conceded: ‘there is more purchasing power in Jacó, but there are also more “created needs” for the locals’.

Cruz pointed to the phenomenon of Costa Rican landowners being displaced from coastal areas, stating that ‘there is little coastal land in the hand of Costa Ricans. The rise in land prices puts locals under a great deal of pressure to sell, because they need to pay higher [property] taxes’. In her experience, tourism development in Costa Rica needs to strike a balance between what tourists want and what locals need. This includes the need to become more ethno-racially and gender-sensitive: ‘we need to develop gender- and locally focused projects’, particularly in respect of the fluidity of identities in Costa Rica owing to changing economic circumstances and class structures (Chant, 2006; Mannon and Kemp, 2010).

Many mentioned the erosion of affordable and inclusionary housing. Even when Pratt conceded that Costa Rica may be better off having an attraction such as Los Sueños Resort and Marina, ‘Costa Ricans do not play golf, and golf courses can add 20%+ to condominium costs’. He mentioned other undesirable socio-economic factors: the cost of living has skyrocketed; many locals do not have the labor skills to fit in (construction, tourism hospitality, language proficiencies); have been uprooted and are unable to buy or rent equivalent housing in San José; have been affected by increased gambling and prostitution in their communities; and suffer intimidation and harassment by security guards in exclusive communities.

Others have focused on the attrition of the social safety net, traditionally robust in Costa Rica (see Garnier and Blanco, 2010). Miguel Rojas Castillo, Jacó’s Catholic priest and Vice-President of Garabito’s Health Commission, lamented:

despite the fact that Garabito is the third or fourth richest municipality in Costa Rica in terms of tax and social security collection, less attention is paid to human development than to economic development. We need better labor and health insurance, and also social services such as education, child care and a better health center.

Castillo pointed to the fact that workers in the tourism industry lived in environmentally risky areas (for example, along creeks in Quebrada Amarilla and Quebrada Dragón) and that, in his view, tourism had brought more problems and expenses to Jacó (related to drug addiction, alcoholism and prostitution) than gains.

– Proposals for Jacó's recovery

Based on his study of tourism perceptions, Harrill (2004: 263) recommended development options that planners could pursue to manage tourism growth, including economic programs, such as tax abatement for residents bearing the brunt of tourist activity; concentration or dispersal of tourism facilities, such as the creation of tourism districts or zones; and urban design that carefully integrates tourism facilities into the community fabric, as buffer zones between residents and tourists.

He also suggested that 'ongoing resident participation and education must be key components of the tourism development process, with planners reinforcing perceptions of positive economic benefits and effectively addressing what is being done or can be done to mitigate adverse social and environmental impacts' (*ibid.*: 263). In tune with some of these ideas, many interviewees believed that planning could help alleviate the negative aspects of development in Jacó. Those in government institutions advised decentralization, better coordination across agencies and levels of government, and streamlined regulations. Others believed that marketing the country's tourism offering needed to be based on better practices, with incentives to support these. Solís suggested improving systemic planning so that Costa Rica's '*marca país*' not only promotes proper nature planning, but also infrastructure planning to support tourism and real estate growth'.

Regarding urban design, both Salinas and Goddard favored plans that would promote verticalization within Jacó's city limits. Salinas believed that the Costa Rican government should 'create regulations for adequate verticalization, pedestrianize the commercial boulevard, put parking underground, and build another beach boulevard', while Goddard believed that verticalization and density would 'concentrate resources and service networks and lessen impacts'. Indeed, given that scattered tall buildings already exist, allowing reasonable verticalization might help accommodate expected growth within the city limits, encourage densities that can support pedestrian and bike-friendly environments, be better served by transit and other infrastructure, and avoid new greenfield developments. Catherine Filton, real estate agent and tour operator, agreed: 'Jacó can become the "city" of the region, hence helping preserve the natural conditions of beaches to its north and south'. Müller advocated for green architecture and urban design: 'new projects need to improve public space and construct urbanity'. In recent years and little by little, Jacó has been advancing on public-space projects through public-private partnerships with real estate and private tourism agents.

Regarding economic and community development programs, Solís believed that economic diversification and speculation caps would prove helpful in the case of Jacó. She claimed:

everything has been dollarized [in Jacó's development]. Rents and everything is cheaper in San José, yet salaries in Jacó are lower than in San José. There is assistance for tourist entrepreneurs, but not for other entrepreneurial activities. We need to diversify the economy, enforce minimum wages, maintain prices in Costa Rican currency, and raise awareness among the business class about adequate profit-making levels.

Cruz also urged support for community entrepreneurship, and Pratt and Rojas Castillo advised more investment in health, education and job training.

Survey findings

Survey respondents also addressed the impact of tourism on environmental quality, architectural appropriateness of tourism structures, satisfaction with infrastructure and the local economy.

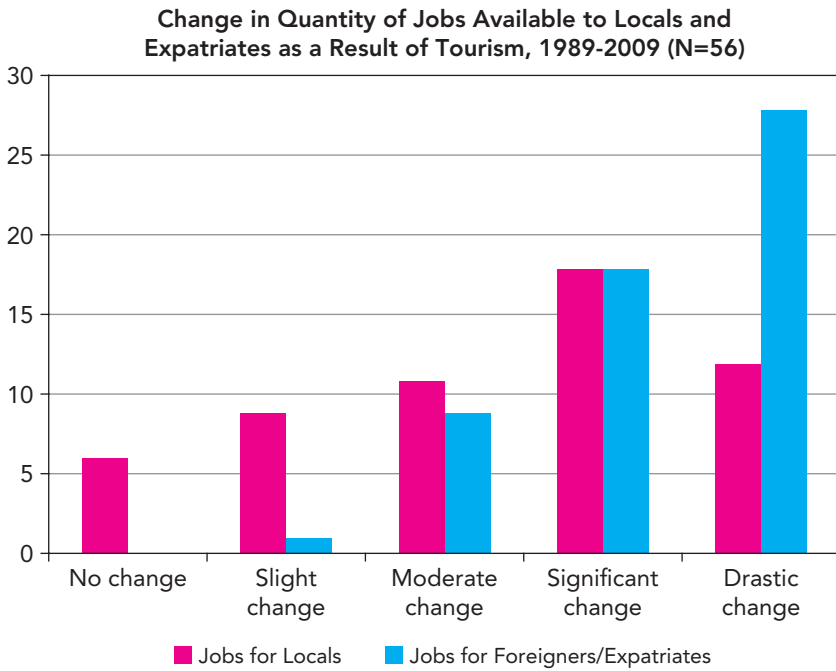


FIGURE 5 Residents’ and tourism-industry workers’ perspectives on employment opportunities in Jacó, 1989-2009 (source: author’s own research findings)

Tourism’s Effect on the Rise in Cost of Living (N=52)

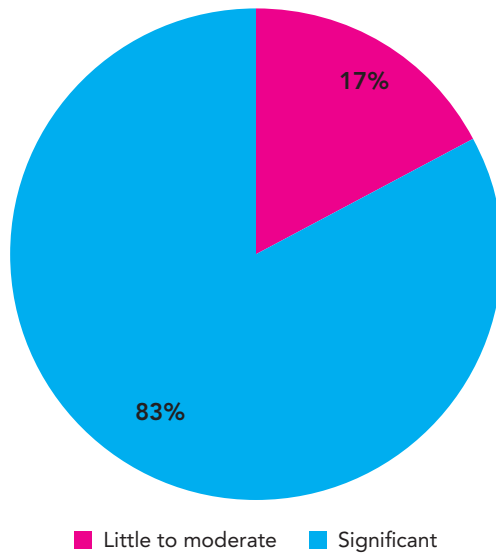


FIGURE 6 Residents’ and tourism-industry workers’ perspectives on cost of living in Jacó, 2009 (source: author’s own research findings)

– Environmental quality

In total, 45 residents and tourism-industry workers responded to two survey questions regarding environmental quality. Of these respondents, 71% believed that protection of natural resources as a result of tourism in Jacó had worsened, while only 27% thought that it had improved. When asked whether environmental sites or resources had been protected in Jacó, 70% of 27 residents answered 'no', while only 26% answered 'yes'. However, when asked whether the promotion of sustainable tourism had helped to achieve the protection of natural resources, 68% of 31 tourism-industry workers responded with 'yes', while 29% said 'no'. Differences in results between residents and tourism-industry workers may be attributed to the perceptions that tourism-industry workers acquired from their places of work. A clearer picture of residents' and workers' concerns regarding environmental quality was revealed in their detailed spoken or written responses (not accounted for in the figures), including: too much development prevents protection of the environment; money talks and buys what you want whenever you want; the MLZ is not respected, many areas of the coast have been destroyed; flora and fauna have been protected, but not the beaches; the destruction of the mountains around the coast is obvious; environmental resources are protected only when there are big events about to take place, such as the World Surfing Championships; contamination of water and deforestation are problems as people sometimes don't have access to water; in the past the hotels didn't treat wastewater; and sewage is an issue.

Tourists, in turn, perceived environmental degradation as an outcome of tourism development as less of a concern than residents and tourism-industry workers: 43% of the tourists surveyed believed there was no problem or few problems with environmental degradation in Jacó as a result of tourism development, 16% thought it to be a moderate problem, 36% believed it to be a 'significant' or 'very significant' problem, and 20% stated that they thought there was no problem. Many tourists' responses suggested an internalization of Costa Rica's fine reputation for ecological considerations, shaped through advertisements even before they arrived in the country, as Stocker (2013) had also found.

– Architectural appropriateness of tourism structures

Residents were asked if they felt that the architectural typologies of tourism developments (such as resorts and hotels) were appropriate to Jacó in scale and context. From the 26 responses, 17 (65%) answered 'no'. However, residents who responded with 'yes' justified their responses by making comments such as 'it is inevitable', or 'tourism drives everything; it has to happen'. Their comments suggest that they have resigned themselves to the process of tourism development rather than approving of it. The residents who responded 'no' replied more emphatically, making statements such as: 'Jacó looks like a mini-Miami, it doesn't look like Jacó anymore' or 'you have turned a nice beach town into a nightmare!' They commented extensively on the appropriateness of tourism structures, pointing out issues such as the following: developments are poorly made; they need to be planned better, are too big and too near the ocean, are too close to the beach; there's only one main road; it is said the structures are defective; hotels are ugly and poorly made, look at the huge yellow beachfront hotel!; hotels aren't very good, and they aren't made from quality materials; the high-rises on the beach make it look like there's a wall on the beach, it doesn't look appropriate for the culture or the environment; the hotels are too big—they rob the area of space and its natural beauty and are only for the well-off.

Finally, they addressed other aspects too: developments alter many aspects of Jacó, especially the ecology; overdevelopment and issues such as increasing drug problems aren't given much attention; developments do not respect the MLZ; developments cause water-service problems, leaving some residents without water; and there are too many condos. Residents' dissatisfaction was based as much on the appearance of buildings per se (their form, bulk and height) as on the inequality they created between tourists and locals (for example, the structures are regarded as being 'only for the well-off' and 'cause water-service problems').

– Satisfaction with infrastructure

Residents were asked about the magnitude of change in the past 20 years regarding public services such as water and electricity in Jacó. Residents had evidently noticed the change as Jacó has grown from a sleepy and isolated village to a small coastal city accessible by road, but they were split on their value judgment of such change. Altogether 28 residents responded, of which 60% said there had been a significant to drastic change in public services. Half the respondents stated that the change in public services had been ‘good’, while the other half believed that the change had been ‘bad’. In total, 30 tourism-industry workers responded as to whether they had benefited from improvements in transportation services and public works; 60% stated that they did not perceive improvements in transportation services, while 40% said that they did. Also, 57% of the total sample stated that they had perceived improvements in public works, while 43% said that they had not. When asked for a more detailed response, tourism-industry workers explained that long and difficult commutes to work made improvements in transportation seem limited. In addition, any improvements in public works were unequally distributed and concentrated along and near the main beachfront avenue: street and sidewalk paving and maintenance, lighting, access to water, sewerage systems and water treatment plants. Of the 30 tourists surveyed in this area, 14 (46%) stated that they were satisfied or very satisfied with public services, 8 (26%) were indifferent and 8 (26%) were dissatisfied or very dissatisfied.

– The local economy

Both residents and tourism-industry workers reported a significant change in job opportunities in Jacó for both locals and expatriates (see Figure 5). Tourism-industry workers reported a more significant change in job opportunities, especially for expatriates, than did residents. There were very few responses to the question regarding the quality of new employments. However, in conversations with residents and workers, both groups reported a change for the better, although primarily for expatriates. Both residents and workers strongly expressed that the cost of living in Jacó had increased sharply in the past 20 years: 83% reported a ‘significant’ increase in the cost of living, while only 17% reported a ‘little to moderate’ increase (see Figure 6).

Corroboration of survey findings against tourism research literature

These survey findings are in accordance with the literature on residents’ perception of tourism development, and complement it with perspectives from tourists and tourism-industry workers. Harrill’s (2004) literature review demonstrates that residents often have a sophisticated grasp of the positive and negative aspects of tourism development. This study evidences that they are more critical than tourism-industry workers and tourists. Thomason *et al.* (1979), in a study of the attitudes of groups that had been affected within a host community in Texas, also found that entrepreneurs were more positive about tourism development than residents, who felt that too many tourists strained local resources. Harrill’s research shows that residents identified diverse negative impacts, as they did in Jacó, including poor economic benefits, such as low wages; increasing property values and housing prices (Var *et al.*, 1985); environmental impacts, including litter and ecological degradation (Liu *et al.*, 1987); increased costs of accommodation (Ross, 1992); undesirability of tourism jobs and tourism’s poor role in raising living standards (Lankford, 1994); tourism revenue ‘leakage’ from local economies (Lawson *et al.*, 1998); high prices, drug use, vandalism, violence and sexual harassment (Haralambopoulos and Pizam, 1996); degradation of community aesthetics (Murphy, 1981); displacement of locals (Perdue *et al.*, 1987; Keogh, 1990; Allen *et al.*, 1993); and dissatisfaction with local planning and environmental management efforts (Liu *et al.*, 1987; Cavus and Tanrisevdi, 2002). More, recently, Stocker (2013) reached similar findings regarding the perception of different tourism stakeholders in four different Costa Rican destinations.

Many of the authors above found that the perceived benefits of tourism regularly outweighed its perceived adverse impacts and that often residents not only supported the current level of tourism, but favored expansion in expectation of an increased share of its benefits. They focused on the potential of tourism to create businesses, reduce unemployment and enhance leisure and economic activities. Residents, however, were often concerned about unmanaged growth and the deterioration of the destination itself (Harrill, 2004). These findings are consistent with my findings for Jacó.

The Irridex Model (Doxey, 1975), which is used to define attitudes of residents resulting from tourism impact on a destination community, suggests that residents react to tourism in stages. From an initial stage of *euphoria* they reach a stage of *apathy* followed by *annoyance*, in which the community feels saturated by tourists. In its final phase, the community becomes a mass tourist destination, resulting in *antagonism* between residents and tourists (Harrill, 2004: 256–7). In Jacó, residents' attitudes are currently ranging between euphoria and annoyance. Better planning and management can contribute greatly to preventing an escalation towards the stage of antagonism.

Conclusion: Planning for natural protection and urban development in Jacó

The existence of a nature–infrastructure paradox in the development of Jacó is evident in this study's findings. An analysis of the development of Jacó over the past 20 years shows that construction was done opportunistically and characterized by minimal attention to infrastructural support, planning and oversight, resulting in growing environmental degradation and socio-economic inequality. Observations, surveys and interviews confirmed this paradox: a number of individuals in multiple private, nonprofit, public, academic and community sectors verified that a lack of focus on infrastructural planning and community-based development have led to undesirable conditions in Jacó. An analysis of the planning institutions and regulations that are currently in place also indicates that jurisdictional fragmentation, regulatory weaknesses and complexity, poor coordination, slow action and insufficient and incoherent infrastructure planning and development have fostered the nature–infrastructure paradox that is at the center of Costa Rica's tourism development. The effects of this paradox, which are commonly found in nature-based tourism development projects, are particularly regrettable in Costa Rica: the country has experienced a commendable ecological trajectory, and sound environmental ethos and initiatives on the one hand, as well as an anti-urban bias in its tourism marketing campaigns on the other, which, however, have led to it having a 'blind spot' for the infrastructural needs of the tourism industry.

Jacó's rapid transformation and the undesirable effects of development show that, despite Costa Rica being internationally showcased as a model of ecological tourism development planning, it has not been immune to global capital dynamics and development tendencies transforming many coastal urban areas throughout the world, signaling both the timeliness and the transbordering character of these issues (Irazábal, 2014). As the literature has for long suggested (see Allen *et al.*, 1988), low to moderate tourism development is perceived as beneficial to communities, but as development increases, perceptions of tourism may quickly turn negative. Given the findings discussed in this study, Jacó is approaching this tipping point, and while planning institutions, regulations and practices in Costa Rica are becoming more coherent and robust, this is not happening at the same pace as the development. Particularly worrisome is the long-term lack of an urban regulatory plan and coastal plans for Jacó. Conversely, the creation in 2012 of Municipal Councils of Institutional Coordination (Consejos Cantonales de Coordinación Institucional, or CCCI) in Costa Rica may benefit technical and inter-institutional coordination in the Garabito Municipality (2017) and offer the promise of long-term planning.

Recent studies on tourism development in Costa Rica offer multiple recommendations 'to ensure that coastal tourism fulfills the goals of protecting the environment, benefiting and empowering local communities, and providing visitors a

unique and memorable holiday experience' (Honey *et al.*, 2010: 90; Stocker, 2013). This study supports these recommendations and provides evidence of the specific risks, as well as the negative environmental and socio-spatial implications, of current real estate and tourism development trends in Jacó, Costa Rica's largest and fastest-growing coastal city. Yet, the most distinct contribution of this study is that it sheds light on the nature–infrastructure paradox that lies at the heart of the discord between the efforts and resources put into protecting and showcasing Costa Rica's natural assets and the lack of attention to, or outright disregard of, proper infrastructure development, which is needed not only to bring tourists close to nature, but also to ensure its preservation. Jacó is at this crossroads, and in its future development it could either absorb and contain the negative impacts of unchecked urban tourism development in the country or foreshow developmental trends in other urban coastal areas.

Jacó and Costa Rica would be best served by a more balanced approach to planning and development that seeks to improve environmental health and socio-spatial equity in tandem, by nurturing and advancing both nature *and* infrastructure development. Not only would this approach help Costa Rica redress the current state of its nature–infrastructure paradox; it could also be a warning to the country of the potential counter-effect of ameliorating the paradox—that of induced demand:²¹ if Costa Rica upgrades its infrastructure, real estate and tourism development could tend towards new heights in Jacó and other coastal areas.

Planners and policymakers should avoid perceiving nature tourism and infrastructure development as antagonistic to each other. Based on contributions from sociology, geography and anthropology (Goodman and Redclift, 1991; Freudenburg *et al.*, 1995; Demeritt, 1998; Smith, 2007; Redclift and Woodgate, 2013; Hetherington and Campbell, 2014), I contend that nature and infrastructure should not be understood as opposite entities. Rather, they are part of a continuum in which natures become hybrid (Whatmore, 2002). There is no separation between nature and society/infrastructure; instead, these are social constructs that are mutually imbricated in varying and fluctuating degrees of hybridity (Whatmore, 2008; 2013). Furthermore, it is not only physical, external infrastructures (roads, airports, buildings, trails, utility grids) that mediate our encounters with nature. Our own bodies are also both infrastructures in themselves and part of infrastructural assemblages. As such, they mediate encounters with nature—i.e. with hybrid nature–infrastructure assemblages—and are part of them. As human beings and planners we embody the tensions between natures and infrastructures and can strive to deconstruct their relations as paradoxical.

Such a holistic approach to nature *and* built environments requires an understanding of their interconnected character, as well as the transformation of tourism marketing, planning and management strategies. The financial crisis that has slowed real estate and tourism development around the world, the growing awareness of rising sea levels and other global climate-change effects in coastal areas, the increased global interest in sustainable development and Costa Rica's record as a world leader in ecotourism and sustainable development should be seen as opportunities to better align planning and development practices with the country's proclaimed focus on its *marca país*.

The sobering lesson of this case study is that, if tourism-related urban development in Costa Rica were to be derailed in the quest for social and environmental goals despite the country's strong environmental ethos and proven record of community-based ecotourism, it could more easily happen in other contexts. Hence this study is important, considering the expansion of the worldwide tourism and second-home/

21 The notion of induced demand—the phenomenon that once supply increases, more of a good is consumed (from the economic theory of supply and demand)—has been frequently invoked in debates over the expansion of transportation systems and particularly used as an argument against widening or building new roads (Leeming, 1969).

retirement housing industries, their recent concentration in coastal urban destinations of developing countries, and the fragility of those countries' socio-ecological systems.

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