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GOVERNANCE AS PROCESS: POWERSPHERES AND CLIMATE CHANGE RESPONSE

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Governance as process: Powerspheres and climate change response

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Abstract

Climate change related governance is usually explored in terms of creating the conditions for achieving specific collective outputs (e.g. mitigation measures, vulnerability reduction, bringing together poverty alleviation and adaptation); rather than exploring the governance process itself. This paper argues that the quality of the governance process is what matters the most for climate change adaptation. Consequently, attention should be shifted from outcome to process. Researching governance as process calls for historical and place-based approaches focused on the social construction of power relations. This paper offers an approach to map local governance in terms of evolving spheres of power/authority in constant relationship (e.g. legitimacy, expectations, and consent) with local people. Governance processes are moulded by factions competing for "power space". The Mexican Caribbean is a case in point to describe the evolution of a fluid powersphere alongside the rapid development of tourism. The paper discusses the ways in which factions have shaped local governance in the last four decades. Local power relations, which are usually regarded as a "given" in research into climate change adaptation, should be brought into the centre of the debate. These power relations determine not only the distribution of the economic benefits of tourism, but also the dominance of a governance culture that prioritizes the fulfilment of sectarian and instrumental objectives. Climate change questions this culture by demanding "tough" decisions that reduce the potential suffering of many, although affecting the privileges of the powerful few. As a corollary, the prospect of global environmental changes, especially in environmentally vulnerable areas like that of the Mexican Caribbean coast, needs to be clearly linked to existing and changing local governance systems.

Introduction

Governance evokes a set of considerations other than conventional "top-down" government control. Academic communities dealing with climate change, disasters, and development assistance tend to equate governance with the socio-political conditions affecting the adjustments that are needed to cope with climatic stimuli or their effects (Burton et al., 2002). These adjustments are typically thought of in terms of one-off policies, single interventions, or changes in behaviour. For instance, they may include actions to reduce greenhouse gas emissions, plans to weather the impacts of hydro-meteorological extreme phenomena, or incentives to change the behaviour of economic actors (Adger, 2001). Burton et al. (1993) distinguish between behaviours that: prevent loss, tolerate loss, spread loss socially, and change use, activity, or location. Carter et al. (1994) differentiate interventions between: infrastructural, legal and legislative, institutional, administrative, organizational, regulatory, financial, research and development, market mechanisms, and technological change. We build on this literature but are interested in capacities and processes that shape potential for local actors that can influence climate mitigation as well as adaptation.

Governance conditions are often considered as a "given" in the sense that their genesis and evolution are not the object of research. Instead, governance is often represented and parameterized in terms of structural conditions, constraints, or functions (e.g. transparency, accountability, participation) that are amenable to adjustments. The goal of such adjustments is to improve adaptation effectiveness. In an attempt to broaden the scope of possible adjustments, beyond "quick-fixes", "one-off" interventions and spontaneous changes in behaviour, the notion of "adaptive capacity" has gained considerable currency. The drivers of adaptive capacity are commonly described as the "forces that influence the ability of the system to adapt" (Smit and Wandel, 2006:287). These drivers may encompass flows of resources, knowledge, or technology; changes in organizations, institutions and administrative bodies; and any form of human, social or political capital (Pelling and High, 2005; Eakin and Lemos, 2006). Building adaptation capacity may require governance modifications in order to re-direct human systems' forces towards reducing vulnerability. Such governance modifications often consist of discrete interventions (e.g. new regulations), or long-term strategic reforms (e.g. government decentralization).

Pelling et al. (2007) have proposed a broader framework to understand capacity to adapt to climate change as an outcome of institutional modifications based on social learning. The framework does so by drawing attention to ongoing interactions between actors and social structures through the institutional architecture of organisations and policy or political regimes. Six pathways for adaptation are proposed that can also be extended to other areas of behavioural change including local mitigation actions. The pathways are distinguished by the actor (individual or organisational), site for modification (internal or external institutional architecture) and degree of independence and reflexivity (action as a result of following prescribed practices or spontaneous self-organisation). Context and history determine the combination of attributes most likely to result in progressive adaptation.

We propose a conceptualization of adaptation that departs from the idea of scientifically determined adjustments to be carried out by stakeholders. That is, instead of constraining/enabling conditions, capacities, or parameters amenable to modification for achieving climate proofing outcomes; adaptation is characterized as the outcome of historical, on-going governance processes. Processes that include back-sliding, and contested and may be interpreted in multiple ways by different actors as social and natural system co-evolve (Norgaard, 1994). Consequently, the first step in broadening our concept of adaptation is to map the dynamic evolution of governance in particular places. In order to carry out this task, the role of scientists shifts from identifying social, political, or other type of adjustments for

adaptation; to constructing useful narratives that help people to make sense of the governance processes in which they participate, and to envision alternatives.

The next section describes the "powersphere framework", which maps the evolution of governance as the outcome of factions competing for power. Central to this framework is a diffuse notion of authority. Diffuse in the sense that authority is not a monopoly of the State, but an asset shared amongst competing organizations, including corporate actors and public institutions both local and distant. Social systems are so interconnected that any division of them is, however necessary, highly arbitrary. The powersphere framework focuses on the evolving sphere of power/authority, which is in constant interaction with its broader socioecological context. The usefulness of the powersphere framework is illustrated by constructing a narrative about the evolution of governance in the Mexican Caribbean, which has, in this particular case, been deeply influenced by the growth of the tourism industry. Global climate change can potentially have deep implications in terms of governance particularly when combined with dynamic periods in local or global economic cycles (Leichenko and O'Brien, 2008). For instance, changing climate patterns can indirectly affect the distribution of power through altering the process of tourism development. This case study is focused on the evolution of the sphere of power itself, rather than in its relationship with the broader socio-ecological context.

Mapping powerspheres

We introduce the notion of "powerspheres" as the cluster of hierarchical roles, organizations, institutions, and persons invested with power/authority; in opposition to the local people who grant them legitimacy from outside of the powersphere. Mapping the evolution of powerspheres provides narratives about the governance processes through which power relations persist, break down, or are gradually transformed. The space within the powersphere can be defined as a managerial and political arena (i.e. the background against which managerial and policy decisions take place). It is populated with hierarchical organizations and coalitions, named "factions", which are in constant competition for power, influence and entitlements (Figure 1). Every faction embodies a group of persons who band together¹ and is recognized by their shared values or goals. Every faction seeks to advance the interests, positions and agendas of their individual members both within the powersphere, and in relation to the broader socio-ecological context. Inside factions, individuals are induced to "socialize" (e.g. into hierarchically arranged roles) by internalizing the norms associated with each faction and role. Obviously, the ability to control material resources, as well as social discourses, is determinant to explain the influence of a faction within the powersphere and the relationships between different factions.

Governance evolution involves factions adapting to, as well as trying to reshape, the powersphere as well as the broader socio-ecological context. Their adaptation is neither passive, nor merely reactive. Rather, they both react to context, and act from the position of the faction's core culture (e.g. endogenous practices, worldviews, objectives, and fundamental values and beliefs) (Figure 2). Faction's cultural practices are akin to the myths and ceremonies devised by many societies. They both contribute to enhance formal means-ends efficiency, and confer identity and purpose to the faction. At the core of each faction rest symbolic representations of the world, the place of humans in it, and ideas about how the world should work. The meanings of these representations are often concealed. That is, they

¹ Factions are less bounded and more informal than organizations. For instance, factions may contain other factions evolving independently. Individual or organizational members of a faction need not necessarily have direct contact or even knowledge of one another, though often they do and use this instrumentally to assert power.

are only made explicit and understood through internal frameworks, myths, and rituals. However, these symbolic representations are at the root of the faction's discourses, which get articulated from the inside out. The faction's core culture provides members with a locus of identity, which is particularly potent in a context of rapid social, economic and environmental change.

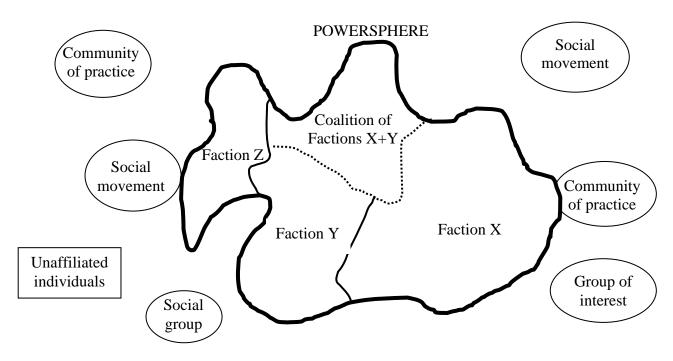
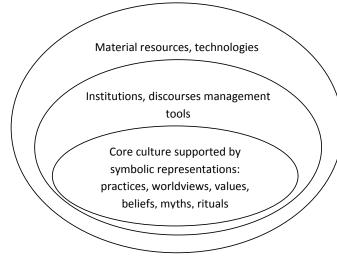


Figure 1: Schematic representation of governance structures as powerspheres

Figure 2: Schematic representation of a faction's structure



The socio-ecological context of a powersphere is mostly populated with social actors (e.g., social groups of interest, movements. groups, communities social of practice², and unaffiliated well individuals). as as environmental entities and artifacts. The evolution of the relationship between the powersphere and its socio-ecological context is crucial for climate change.

Powerspheres can be conceived as geographically bounded and scale dependent. They can also be sectorialized for analytical purposes (e.g. the powersphere of the tourism sector). The typology of factions

² Communities of practice are formed by people who engage in a process of collective learning in a shared domain of human endeavor (Wenger, E., 1998. Communities of Practice: Learning, Meaning, and Identity. Cambridge University Press, Cambridge.)

and their relative predominance will determine the overall character of a powersphere, ranging, for instance, from monolithic and authoritarian to diverse, flexible, and democratic. This character also influences the relationship between the powersphere and the rest of the adaptive landscape. For instance, democratic powersphere will be more permeable by empowering new actors to either become factions, get incorporated into existing factions, or challenge factions from the outside.

Global environmental change will likely have an effect on local governance. Beyond specific responses to perceived threats, adaptation may also foster modifications of governance structures (Pelling and Dill, 2009), and as we suggest, the very evolution of governance. The first step to start exploring this hypothesis consists of mapping governance processes historically and contextually. Accordingly, we have constructed a narrative, inspired by the powersphere framework, which explores the governance processes related with tourism development in the Mexican Caribbean during the last four decades. The second step involves inquiring about how these governance processes may be affected by a scenario in which societies will have to live up with the unpredictable and unprecedented phenomenon of global environmental change. The fact that such phenomenon is, at the same time, suffered and caused by humans augments its implications for governance. Our inquiry in the Mexican Caribbean is guided by the following research questions: Are ongoing evolutions of local governance independent of climate change? If so, To what extent and under what contextual circumstances? If not, What are the processes, or mechanisms, through which climate change may possibly affect governance evolution? Will these mechanisms most likely be activated and deployed within the powersphere or outside of it? How can we differentiate between the effects of separate climate extreme phenomena, and the systemic ones as well as the trends that are to be expected as a result of global climatic changes? Are there lessons to be learnt from exploring the impacts of, so far, discrete meteorological phenomena?

Fieldwork method

Powersphere analysis requires data about governance and power relations, but this type of information is hardly ever systematically collected. A quantity of information can be found about the formal structure of government, including citizens' perceptions of government's performance. Unfortunately, the formal (i.e. official) representations of institutions and organizations are very incomplete or, even worse, unrealistic. In addition, governance processes encompass a far broader spectrum of power relations that are not formally acknowledged or documented. Consequently, governance research needs to draw on subjective perceptions about complex social relationships as one of the main sources of information. Additionally, this brings about the challenge of building coherent, balanced, and relatively objective narratives out of a cacophony of subjective perceptions.

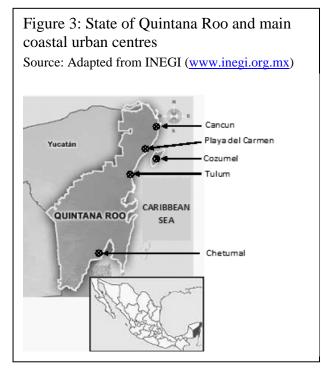
In the Mexican Caribbean, capturing people's perceptions about power relations required extensive interviews and a thorough immersion of the researcher in the local context in order to develop relationships of trust. The main source of information feeding the narrative about the process of governance originated from 109 open and 68 semi-structured interviews with local inhabitants who had been in contact with, or were involved in shaping, the powersphere. Informants were identified following a snowball method. Attention was focused on citizens and agents involved in NGOs, private sector, and public institutions who had, at some point in their lives, shared a commitment to service their communities.

Informants were approached as observers of and participants in the local social system, and, as such, holding unique perspectives. In open interviews, the researchers' emerging interpretations were shared with the interviewee for confirmation, rebuttal, or follow-up. Conversations were often directed towards unveiling the interviewee's perceptions on social

divisions, power relations, decision-making processes, dominant discourses, institutionalized processes, local rules, and organizational cultures. Information from interviews was triangulated with the outcome from four focus groups, a regional workshop, bibliographic search, review of press clips, informal talks, and participant and non-participant observations throughout one year of inhabiting the area as foreign researchers.

Genesis of the powersphere associated with tourism development in the Mexican Caribbean

The current State of Quintana Roo was formally created in 1974 and engulfs the entire Mexican Caribbean (Figure 3). Between 1935 and 1974, Quintana Roo was a federal Territory ruled by governors appointed from Mexico City. During this period, it was largely underpopulated, although population numbers rose rapidly from 18,752 in 1940 to 88,150 in 1970. Most of the territory's 50,843 km² were inhabited by sparse ejidatarios³ and chicleros⁴ some of whom were of Mayan origin (Redclift, 2004). The only significant towns were Chetumal, the administrative capital locate in the south; and Cozumel, located in an island in the north. Cozumel was founded by refugees from the Caste War⁵ who arrived in the island in 1848 while fleeing from Mayan rebels (Dacharay and Arnaiz Burne, 1998).



Tourism development started in Cozumel (see Figure 3) in the late 1950s. The first hotels were built by former chicle entrepreneurs patronized by a few well-Americans (Redclift connected and Manuel-Navarrete, 2008). Consequently, Cozumel's tourism entrepreneurs emerged the first faction to populate the as powersphere of tourism development in the Mexican Caribbean. while the government's bureaucracy remained residing in Chetumal. Given that the economic power derived from tourism concentrated in the northern part of the territory, the capital of the state rendered relatively disconnected from the process and benefits of tourism growth.

In the early 1970s, the incipient powersphere was altered with the creation of Cancun, an integrally planned

development pole for tourism, in the almost uninhabited northern extreme of Quintana Roo. A new faction formed by a coalition of the federal government, developers from Mexico City and the neighboring State of Yucatan, and financial institutions rivaled the hegemony of Cozumel entrepreneurs. Through the Cancun project only the federal Government invested US\$48 million over a few years to buy land, build infrastructure, and finance the construction of hotels (Martí, 1985). This federal faction controlled not only the distribution of land and

³ Ejidatarios are members of ejidos; a legal and economic form of organization based on the communal ownership of the land

⁴ Chicleros roam the forest to tap *Manilkara Zapota* trees to produce chicle (chewing gum) out of its sap ⁵ The Cast War (1847-1901) was a conflict between the Mayan and the white populations of the Yucatán peninsula (Reed, N., 2001. The Caste War of Yucatan Stanford University Press, Stanford.)

construction work, but also the urban design of Cancun. This design was in line with the promotion of the government-led development that prevailed under the presidential administrations of Luis Echeverría (1970-76) and José López Portillo (1976-82) (Clancy, 1999). The core culture of this faction represented the Mexican Caribbean as a money-making machine with the fundamental goal of attracting foreign currency (Murray, 2007).

The federal faction receded in importance as decentralization advanced and private investments increasingly flowed into the region (Brenner and Aguilar, 2002). The onset of the debt crisis in 1982 radically changed the government's development role, while at the same time the private sector had become increasingly eager to invest. During the 1990s, tourism developments sprawled south of Cancun towards Playa del Carmen and the Mayan Riviera (Redclift and Manuel-Navarrete 2009). As discussed below, this expansion created business opportunities that conditioned the powersphere evolution. The federal faction kept playing a significant role, although far more marginal than before, through planning, tourism and environmental laws, and the activities of the secretaries of tourism, and environment. Mexican corporations continued to dominate tourism development in the northern part of State. However, the regional government, regional entrepreneurs (from Yucatan and Quintana Roo), and International tourism corporations would become major power actors.

The emergence of the PRI as a dominant faction within the tourism powersphere

The Institutional Revolutionary Party (PRI) has consistently held the monopoly of regional and municipal government power in the Mexican Caribbean. Its surfacing can be traced to the times of President Lázaro Cárdenas (1934-1940), when revolutionary institutional structures and discourses started to be reproduced by chicleros, ejidatarios, Mayans, *Chetumaleños*, and *Cozumeleños*. This fact is uttered by seniors when they frequently say: "Here we have always been *priistas*" (Personal communications with elderly people). As a faction, the PRI is a remarkably persistent hierarchical organization which has historically built its legitimacy from an unusually balanced mixture of threat, exchange and integrative power (in Kenneth Boulding's (1995) sense). That is, balancing coercion, access to resources, and the ability to seize national identity, and presenting itself as the keeper of the Mexican revolutionary contract. A great deal of PRI's power in Quintana Roo is based on role power (Boulding, 1978); specially that associated with the role of the State's governor and, to a lesser extent, municipal presidents (Weldon, 1997).

Since the first State elections in 1975, a few families from Cozumel and Chetumal have rotated in power. The evolution of the PRI faction can be characterized through the succession of State governors. The first governor (1975-1981) was born into a family from Chetumal. His relationship with the ongoing process of tourism development, concentrated in Cancun and Cozumel, was likely characterized by *laisser-faire*, naïveté, and a nascent culture of "pay to play". This might be partly explained by the geographical disentanglement of Chetumal from this tourism process. A governor's relative and political partner explains this relationship as follows (Personal communication 2008):

"He helped the [establishment of] hotels. He was not corrupt. Directives from Sheraton and other hotels used to invite him to their events. They used to write him checks without being asked to. In that way they assumed they could do whatever they want. [...] Big hotels entered in Quintana Roo as if they were at their own home"

The next two governors (1981-1993) were born in Cozumel. During their ruling the state deployed its own bureaucracy for tourism promotion (e.g. creating the State's Secretary of Tourism and the Fund for Integral Tourism Development). In addition, the Cancun project got consolidated, increasing the number of hotel rooms from 5,225 to 18,554 (Figure 4).

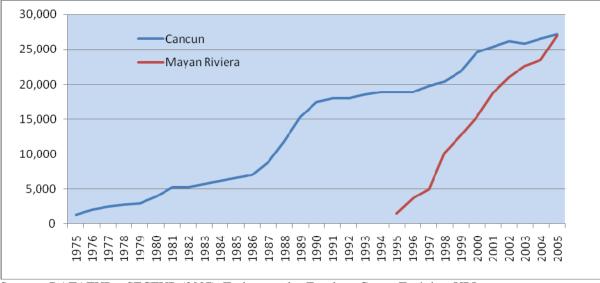


Figure 4: Number of hotel rooms in Cancun and the Mayan Riviera (1975-2005)

Sources: DATATUR – SECTUR (2007). Turismo en los Estados - Centro Turístico. URL: http://datatur.sectur.gob.mx/jsp/index.jsp; and Fideicomiso of the Mayan Riviera

The landing of Hurricane Gilbert in Cancun in 1988 had a great impact on Cancun's international image and its tourism infrastructure. This might have catalyzed changes in the development process that, in turn, affected the powersphere. First, interviewees generally believed that Gilbert assisted the expansion of all-inclusive hotels within Cancun, and benefited the international chains offering this model. This is concurrently explained by several inhabitants of Cancun as follows (Personal communication with a tourism analyst 2008):

"The all-inclusive started after Gilbert when hotels needed to attract new fluxes of tourists in order to maintain their levels of occupation. First, it was the [Grand] Oasis hotel managed by a Spanish chain. They were offering very cheap packages including flights. Some sectors in Cancun protested, but soon most hotels followed by offering all-inclusive packages, and now the whole hotel zone is based on this model"

People interviewed in Cancun also believed that Gilbert accelerated the sprawling of tourism towards the Mayan Riviera (Figure 4), which is located south of Cancun and stretches from the north of Playa del Carmen down to the south of Tulum (Figure 3). Arguably, this expansion towards the south transformed the powersphere by opening a relatively pristine power space to be disputed among established and emerging factions.

During the 1980s and early 1990s, the municipal government of Cozumel administered the territory of the Mayan Riviera. According to several accounts from original inhabitants of Playa del Carmen, some families from Cozumel might have been interested in keeping Playa del Carmen from developing in order to prevent unwanted competition. According to the opinion of a high rank PRI official (Personal communication 2007):

"[G]rowth in Playa was contained by Nassim [the most powerful entrepreneur in Cozumel] who did not want to let anyone enter to do business here".

This perception was probably fuelled by the fact that Playa's urban growth was in the early 1990s strained by restrictions imposed by the federal government (West), a private gated resort (South), and the inaction of the State government (ruled by a *Cozumeleño*) to exercise

its right over the lands situated in the North, a 273 ha property claimed by a retired army official allegedly well connected with the federal faction.

The election of a new governor from Chetumal in 1993 transformed the PRI faction. The new governor, Mario Villanueva (1993-1999), became well known for his authoritarian and paternalistic style, as well as his boldness to confront well-established factions, and "shaken up" power structures. As an outcome of his provocative actions, he gained as many loyal followers as bitter enemies. Allegedly, due to his clash with the interests of the federal government faction, he ended his office term running away from the federal justice, accused of drug-trafficking. A few months later he was captured, convicted, and since then imprisoned for money-laundering offences. There are countless versions regarding the case of Mario Villanueva, and it is beyond the range of scientific research, or even scientific speculation, to attain a big picture or "true story" of the events which took place during the six years of his ruling. Such an endeavor would require mapping the mental content of the actors involved, in the implausible case that they would be willing to cooperate. However, the case is illuminating in terms of uncovering the overwhelming degree of complexity underlying powerspheres. First, it shows the multiple divisions (ideological, personal, family, religious, and geographical) under the umbrella of the PRI faction. Second, it unveils the obscure complicities amongst people occupying roles as tourism entrepreneurs, politicians, drug dealers, and bureaucrats, to mention a few. As acknowledged by some of his closest collaborators (Personal communication 2008), one of Villanueva's "mistakes" might have been to arrogantly ignore these complicated networks of kinship, friendship and connivance and making erratic decisions benefiting particular groups: "Mario was often betrayed by his own arrogance". Third, it illustrates the disputes between Cozumel and Chetumal families over control of the PRI faction. One of the first acts of Villanueva's administration was to create the new municipality of *Solidaridad* encompassing the Mayan Riviera, which had been until then under the administration of the municipal government of Cozumel. His last act, the selection of his successor, was probably the "drop that tipped the glass" of Cozumel's faction dissatisfaction, when he refused to appoint the daughter of the most influential businessman of Cozumel.

The next governor of Quintana Roo (1999-2005) was "appointed" by Villanueva, although he was, according to witnesses of the succession process, the 13th amongst Villanueva's preferences (Personal communication 2008). By many accounts, he was a compromise candidate settled through a forced agreement between Cozumel and Chetumal. His term was characterized by lack of confrontation, little transparency, and a relatively low profile. His extremely unpopular administration is regarded by many as narrowly concerned about strengthening his personal own agendas.

The current governor (2005-present) was a former municipal president of, and born in, Cozumel. By many accounts, the success of his candidacy resulted from the PRI's need to stop the intestinal disputes lingering from Villanueva's period, and heal the wounds inflicted by the extremely unpopular former administration. A very young candidate was presented to project an image of regeneration. Through this strategy the PRI returned to its traditional compromising style, while at the same time projecting a sense of renovation. One of the signs indicating the party's need for regeneration in Quintana Roo was probably its first loss of a municipal election in Quintana Roo, when the Green Party's candidate won in 2002 the government of Cancun. This loss marked the emergence of Cancun entrepreneurs as a faction that would challenge the PRI's absolute control of municipal government. Another faction that recently gained power is the Gulf drug cartel, which is seriously threatening not only traditional factions, but also the image of Cancun and Quintana Roo as a safe destination.

Government and business alliances

High investment returns in the Mexican Caribbean have worked as a magnet for investors and entrepreneurs. The characterization of the networks of factions forming out of these private actors is beyond the scope of this paper. However, it is important to have a general idea about how this part of the powersphere looks like. There is a plethora of tourism business association operating in Quintana Roo. Two of the most influential are the Mexican Association of Tourism Developers, and Mexican Chamber of the Construction Industry, but there is a plethora of other associations such as, to mention a few, the National Touristic Confederation, Association of Owners and Investors of the Mayan Riviera, Cancun Hotel Association, Association of Vacation Clubs, and Caribbean Entrepreneurship Coordinating Centre. These associations are helpful for maintaining lines of communication and lobbying. They coalesce around common interests rather than a core culture. In terms of factions it is worth mentioning that many entrepreneurs from the neighboring state of Yucatan, and some from Mexico City, were the major promoters of the initial development of Cancun, and remain today largely influential factions (Personal communication with local hotel entrepreneurs 2007-2008). The faction of Mexico City businesses includes leading industrial conglomerates such as business groups ICA, Cemex, Carso, Gutsa, and Sidek (through subsidiary Situr), along with the large domestic banks Banamex and Bancomer.

Mexican entrepreneurs have tended to engage in strategic alliances with major international hotel chains (Clancy, 1999). International tourism consortia from the United States of America (e.g. Sheraton, Radisson, Hilton, and Marriott) have played crucial roles along the last twenty years. These chains have formed local partnerships with large-scale Mexican business groups. Spanish tourism consortia (Bahía Príncipe, Barceló, Iberostar, Riu, Sol-Melia) dominate the Mayan Riviera and created their own faction through the Hotel Association of the Mayan Riviera, which represents 125 hotels.

A faction integrated by Cancun tourism entrepreneurs, such as the Quintana Roo Group, or the X-Caret Group, emerged in the 1990s. This faction integrates entrepreneurs who started with small construction businesses in Cancun, accumulated capital and land, and ended up financing their own developments. This faction is known for articulating discourses of social responsibility and "caring more about local issues". For instance, advocating sustainable and more socio-culturally sensitive forms of tourism development, although "business must inevitably come first in order to survive" (Personal communication with a local businesswoman 2008).

It is probably fair to say that one of the main concerns of business factions is making capitalism work. They all share the necessity to allocate capital surpluses to profitable enterprises. For that purpose, tourism destinations need to be developed around the goal of maximizing capital investments returns. For each private actor it is crucial to achieve a position in the powersphere from where they can influence the ways in which surpluses are allocated. For instance, to gain access to information affecting Real Estate values. As in the case of the PRI, geography, ideology, friendship, and kinship ties are vital to explain the forming of business factions, but the thriving for short-term profits might force this type of faction to be more flexible, fluid, and pragmatic.

Tourism business factions, along with the PRI and the federal government, have dominated the powersphere, and the course of tourism development in Quintana Roo. From an evolutionary point of view, the relationship between PRI and the business conglomerate can be portrayed as mostly marked by cooperation and complicity. A veteran ecologist leader in Quintana Roo goes a bit further when she points that (Personal communication 2008):

"There is a political relationship between politicians and entrepreneurs. The latter subsidize the electoral campaigns in exchange for certain favors. The worst of all is that many entrepreneurs have become politicians and vice versa"

A prominent journalist puts forth a similar idea in different terms (Personal communication 2007):

"What it is happening [in Quintana Roo] is that if an investor wants to build a hotel, he needs to pay a 'quote' and provide for the infrastructures. In this way investors are increasingly performing the functions of the State. In exchange, investors secure the right of 'seating' in the government's 'chair'"

There is little doubt that both types of factions share a neoliberal discourse through which development and social progress are equated with economic growth. The spectacular growth in terms of hotel rooms, from a few thousand in 1976 to about sixty thousand in 2006, attests for the economic success of this discourse. According to the generalized local perception, the institutions reproduced by the PRI are instrumental to the private sector, and vice versa. The former provide a business friendly environment in which investment returns are maximized by curtailing both environmental restrictions, and the socialization of profits. The cost of this benign environment for business is that part of the capital returns are to be shared with members of the political elite and government bureaucracy. To be sure, the idea is that the observance of the law is flexible, to a certain extent, but this flexibility comes at a "price"⁶.

Phases shaping the evolution of the Mexican Caribbean powersphere

The powersphere evolution can be divided into four distinctive phases (Figure 5). Along this evolution the regional PRI faction (controlling the State government) has consistently enhanced its influence over the processes of governance and tourism development. The relationships amongst factions have been characterized by equilibriums between competition and collaboration, except for the third phase (1993-1999) dominated by a dynamic of confrontation amongst two groups of factions. The State governor Mario Villanueva, leading the PRI faction, confronted the President, Ernesto Zedillo, and Cozumel's powerful entrepreneurs. It is difficult to discern which side the other factions of entrepreneurs banded. However, it is notorious that one of the key allies of Villanueva was the governor of Yucatan.

The first phase (1970-1982) was marked by the dominant role of Cozumel entrepreneurs and the federal faction promoting the Cancun project. In the second phase (1982-1993), the role of the federal government receded in favor of international and national tourism entrepreneurs and corporations (mostly from the neighboring state of Yucatan, Mexico City, and the USA). In these two first phases tourism growth was concentrated in Cancun and Cozumel. During the third phase (1993-1999), tourism development was expanded south of Cancun towards the Mayan Riviera. By several accounts, Yucatan entrepreneurs and Spanish tourism corporations considerably increased their influence over this period. In the fourth phase (1999-2008), the PRI faction managed to bring confrontation to an end by reestablishing new power balances and competition/collaboration equilibriums. However, they lost their hegemony in Cancun, the most important municipal government of Quintanta Roo,

⁶ All the informants interviewed share the perception that this is the way things work, not only at the business level but in terms of the general relationship with government institutions. It is certainly the way it works in the case of traffic offences.

which is currently under the control of an emerging faction of local entrepreneurs affiliated with the Party of the Democratic Revolution (PRD).

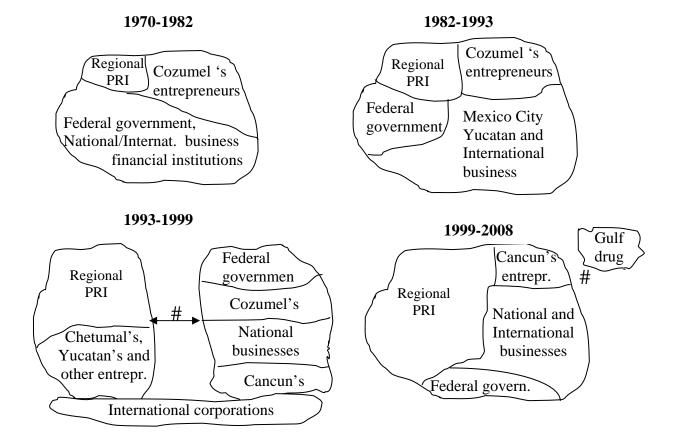


Figure 5: Phases in the evolution of the Mexican Caribbean powersphere (1970-2008)

Note: The space occupied by each faction seeks to roughly indicate its relative power for influencing the process of tourism development. Factions within the same powersphere are in constant competition/collaboration for power/influence.

(#) Indicates coalitions of factions in confrontation

As a disclaimer, it is important to stress that the above narrative about the powersphere evolution needs to be taken as work-in-progress and a coarse estimate rather than a final finding. Powerspheres are extremely complex and generally concealed. Researchers can only have an indirect access through the perceptions of factions' participants or local observers who are willing to honestly share their tacit knowledge and viewpoints. The collection and triangulation of further perspectives would likely result in the identification of different phases and configurations, which will inevitably be also incomplete and part of a never-ending process of refinement. This intrinsic incompleteness, however, should not render the exercise scientifically worthless. Regardless of all its imperfections, a conceptualization of governance in terms of perceived power relations is useful not only to understand, as in this case, the process of tourism development, but to start speculating about the direction and

capacity for change that might be expected of social systems adapting to climate change beyond discrete responses to external threats.

Powerspheres and adaptation to climate change

Climate change presents governance with the global challenge of living in a planet that we are capable of transforming as a whole, including the life-support systems that provide the context for our own existence as a species. In the Mexican Caribbean there is little evidence supporting the idea that governance evolution has already been affected by this global challenge. Rather, the powersphere narrative shows that governance processes have been mostly shaped, firstly, by external social forces, including federal government planning and global markets. And secondly, by power disputes, whose origin can be traced to geographical, ideological, and kinship conflicts within the PRI faction. In fact, governance evolution has been led by factions sharing a core culture based on seeking economic gain, and capitalistic development discourses. These factions included national entrepreneurs, international corporations, the regional and national PRI, and the federal government, amongst others. Their main concern is to control the benefits of tourism growth, while forging alliances to attract capital to the region, maximize investment returns, and further their position within the powersphere. As a consequence, these factions have been for the most part insensitive to the environmental and social side-effects of tourism beyond the fulfillment of their strategic and sectarian objectives (Manuel-Navarrete et al. 2009a). In this context, it is not surprising that climate change had largely been ignored, or at best had a very limited impact in the powersphere both in practice and discourse.

Regarding the impacts of discrete climate events, the powersphere narrative shows that hurricanes have likely accelerated some governance processes, although never in a determinant manner. There is consensus amongst informants that Hurricane Gilbert had a significant impact in Cancun's tourism development by accelerating the process of tourism expansion towards the Mayan Riviera. Therefore, this hurricane might have indirectly catalyzed governance transformations associated with the business and political opportunities offered by the blossoming of a new tourism enclave. In 2002, when Hurricane Isidoro crossed the Canal of Yucatan as Category 3, the governor of Quintana Roo (1999-2005) was loudly criticized for being travelling in Europe, and having an extra-marital affair, while Cancun was facing the storm (Martí, 2006). This episode, however, only contributed to augment the exceptionally low reputation of an already unpopular governor. The next governor (2005-present) had to deal with the landfall of hurricanes Emily and Wilma in 2005, and Dean in 2007, but no significant change in the powersphere can be associated with this remarkably active storm period.

Wilma deserves special attention since its erratic trajectory made it wander over Cancun for three long days causing a tremendous devastation in the city's infrastructure (Ferriss, 2005). The governor, as his predecessor, happened to be in Europe when the hurricane approached the State. However, he canceled his tour and managed to return to Quintana Roo a few hours before the landing of the cyclone (Martí, 2006). Arguably, this shows how the PRI faction might have learnt from previous mistakes that hurricanes are a unique chance to lose or gain political capital (Manuel Navarrete *et al.* 2009b). When the governor and the Mexican

president visited Cancun, the city had been ravaged by looting and chaos as the Mexican army struggled to take control (Palma, 2006). According to many informants, the chaos of the week after Wilma had a deep psychosocial effect in the community. As pointed out by a journalist who researched the impacts of Wilma (Personal Communication 2007):

"The city was never the same [after Wilma]. People awakened to the crude reality of a neurotic society only concerned with achieving rapid gain. Since then on, there has been a progressive degeneration of the city's own image"

Despite likely changes in socio-cultural perceptions, Cancun's tourism infrastructure was unbelievably recovered in less than a year due to strong federal government support and copious insurance payments received by affected hotels. The rapid return to "normality" contributed to keep the powersphere evolution practically unaffected. In addition, the powersphere's resilience can be explained by the PRI's learning process. Since Wilma, civil protection has been at the top of the regional political agenda. Arguably, the PRI has managed to "shield" governance evolution from the effects of hurricanes through implementing a fairly effective early warning and civil protection system (Manuel-Navarrete *et al.* 2009c). The fact is that this system is popularly acclaimed regionally and internationally as a main institutional achievement, even if still perfectible.

The case of Wilma shows how relatively small changes in the instrumental objectives of dominant factions can protect the powersphere evolution from external shocks. However, the hurricane left a long-term scar in Quintana Roo by washing away large tracks of sand from many beaches in Cancun and the Mayan Riviera (Buzinde et al. 2009). Currently, beach erosion is actually threatening the hotel industry in Cancun. One may speculate, as some informants do, that Wilma contributed to nourish a sense of social decline amongst local people which might have contributed, in the mid-term, to the unanticipated defeat of PRI in the Municipal elections of 2008. These speculations, nonetheless, are very difficult to test given the countless factors influencing the outcome of an election.

Since very limited impacts on the powersphere evolution, if any, can be attributed to discrete meteorological extreme events, a relevant question is whether a string of such events, maybe prompted or exacerbated by climate change, might have a more tangible influence. Again, one can only speculate about the thresholds of accumulated external shocks which, in combination with other processes, might significantly alter the course of the powersphere evolution. Nevertheless, external shocks are not the only means through which climate change may affect governance. The global awareness about the need of humanity to react to climate change may contribute to transform the culture of the factions shaping the powersphere evolution. For instance, the federal government is acknowledging climate change adaptation as a vital part of its agenda. Mexico has already prepared a national strategy and a program for action. In the last couple of years a relative greening of PRI's discourses is taking place in Quintana Roo. The adjective "sustainable" is routinely attached to official statements, although it has not yet gone beyond lip-service. Private factions are also changing their discourses and realizing the strategic importance of projecting an image of sustainability for the sake of their own touristic operations. Beach erosion has chiefly contributed to such realization since many hotels have seen the beach width shrinking over the years (Buzinde et al. 2009). For instance, directives from the Hotel Organization of the Mayan Riviera claim that the new developments are built respecting the beach dunes in order to reduce the risks of beach erosion.

The case of Quintana Roo shows that institutional and discourse modifications are important as far as they actually transform the factions' culture. Alas, they can also help to delay more radical power transformations that might be vital to enhance local governance in the face of climate change vast challenges. For instance, they can prevent re-arrangements of factions' relative influence, or draft individuals with critical ideas into the powersphere structure, by giving them a position within a faction, but with little chance of carrying these ideas out into action. Thus, dominant factions can "shield" the powersphere evolution not only from the effects of meteorological extreme events, but also from the aspirations of social actors who do not belong to factions (Manuel-Navarrete *et al.* 2009b). The case of PRI suggests that evolutions towards more flexible, responsive and inclusive powerspheres might be key to equip societies to adapt to the challenges of climate change.

Conclusion

Governance is a "living" process through which social goals and objectives are achieved. It is not a given, but a changing set of procedures and processes. Local governance is closely linked to reactions to climate change. We need frameworks to understand the process of change at the local level rather than simply that of coping or adapting to external impacts. Viewing governance in a more processual way enables us to invest the concept with reflexivity, and to better represent the conditional and changing ways in which individuals respond to others. This paper is built upon the idea that there exists a sphere of power characterized by competition, collaboration and power disputes, and populated by hierarchically organized factions. The evolution of the powersphere can be mapped by drawing on the researcher's interpretation, and triangulation, of local people's perspectives/perceptions of power relations. Thus, rather than focusing on official and institutional roles, and the discourses of the powerful, a narrative is developed by triangulating local people's perceptions.

In the case of Quintana Roo, one of the most dominant factions is the regional PRI, which displays a hierarchical structure topped by the role of governor. People engaging in the PRI faction generally share political visions, ideologies, and interests. However, this faction has undertaken significant turns depending on the personal ties, family, geography or ideological commitments of the person occupying the role of governor, among many other factors. In addition, global capital has, from the beginning, developed a comfortable relationship with state agencies, and become part and parcel of an undemocratic governance regime that has been forced to make few concessions to other social groups. This paper has explored the transformations of the sphere of authority of this governance system.

The PRI faction illustrates the vast complexity associated with powersphere analysis, particularly when it is carried out at a scale as large as the Mexican Caribbean region. In relation to climate change, it is worth mentioning the efforts carried out by the government to implement an effective civil protection system against the effects of hurricanes. The outcome of this system in terms of saving lives is acknowledged by local people and international organizations. However, its rigid design and hierarchical implementation might contribute to

"shield" the powersphere evolution from climate change red flags, such as the increasing intensity of hurricanes. To a marked degree, the Mexican Caribbean, its resources and ecosystems have been transformed during the last thirty years through the tourism- generated neoliberal development model launched by the federal government and engineered by Mexican elites, international corporations and the regional government. This remaking of the biophysical landscape is to a certain degree an outcome of the governance process. A leading question in the advent of global environmental change is: how much the governance evolution will be altered by the reality of environmental change?

We have argued that discussing climate change adaptation in the context of a powersphere evolution, such as we have employed, is very different from the static conception of social structures. Factions rest on a set of ideational and material foundations that, if shaken, can open up possibilities for change. But different factions rest on different foundations, and so the processes that are likely to disrupt them will also be different. Factions and their configuration within a powersphere are often remarkably resilient even in the face of huge environmental stresses. They are less vulnerable to the ecological "imperatives" represented by coastal climate change, than to forms of political and social dissent that cannot be accommodated within the governance system. Furthermore, they are constantly undergoing subtle shifts that, over time, can completely redefine the character of the powershpere.

In the case of the Mexican Caribbean, conventional approaches to climate change adaptation would likely entail policy-oriented adjustments related with early warning, civil protection and insurance systems (e.g., strategies for adapting these systems to scenarios with recurrent and more intense hurricanes). Experts would assess strategies, plans, programmes and regulations based on, for instance, adapted architecture standards, building further away from the sea, beach restoration, or preserving critical ecosystems for coastal protection. In terms of mitigation, conventional approaches would likely encompass incentives to expand the use of renewal energies, green buildings, avoiding deforestation, or compensating for the emissions related with tourism travel. Recommendations resulting from these conventional approaches are certainly needed to address climate change, but they are not sufficient. First, failing to account for power relations can largely hinder the actual implementation of such wellintended recommendations. Second, and more importantly, climate change may require social transformations that cannot be implemented as policies, given that they precisely consist of altering power relations. At the same time, environmental change may trigger the transformation of a faction by reshaping its goals and directing it to new ends. One way that this can occur is through the inclusion of new groups that need to be assimilated in order to legitimaze the faction's role. In many such cases, newly incorporated actors do not simply adapt to the prevailing system and contribute to its reproduction. Rather, their very participation alters the trajectory of the system in important ways. One has only to reflect upon the way the accumulation of wealth in few hands can be used to open up new power configurations. The impacts of the Cancun project, or the "revolution" instigated by Mario Villanueva illustrate the potential for change although not necessarily in the direction of climate change adaptation.

In the case of Quintana Roo, the democratization of power and a better distribution of the benefits of tourism development might encourage people outside the powersphere to adopt

their own adaptation and mitigation strategies. This in turn might support a culture based on caring for one's surroundings, rather than exploiting them; and seeking for the common good, rather than for the fulfilment of sectarian and instrumental objectives. The embodiment of this culture within factions and social actors seems crucial for creating governance processes based on mutual respect, trust, and solidarity. It is also vital for making the tough decisions that, under a climate change scenario, might reduce the suffering of many although affecting the privileges of a few. Yet, the goal of powersphere analysis is not to prescribe or even recommend the power transformations that societies should carry out or promote. This task is left to each society and it cannot be carried out by "experts". Quite the opposite, the analysis of governance evolution seeks to increase societies' reflexive capacities in the process of deciding about their own destiny. Academics have not gone far enough in cultivating an awareness of governance issues and how they work. A lot of the time the academic world has tacitly accepted neo-liberal stances, or sought to distance themselves, through postmodernism, from engaged political dialogue. There are all sort of ideological barriers, misunderstanding and a lot of work to do in understanding these connections. Our research in the Mexican Caribbean seeks to open up the largely unquestioned terrain, the "doxa" to quote Bourdieu (1991), and to demonstrate its application to the study of coastal adaptation and governance.

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