

# GOVERNANCE OF INTERMEDIATE CITIES<sup>1</sup>

## LESSONS FROM POST-DISASTER ACTION IN THE ACAPULCO METROPOLITAN AREA, MÉXICO

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GOBERNANZA DE CIUDADES INTERMEDIAS APRENDIENDO DE ACCIONES POST-DESASTRE EN LA ZONA METROPOLITANA DE ACAPULCO, MÉXICO

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Este artículo analiza los patrones de gobernanza de la acción pública post-desastre realizada tras el paso de los huracanes Ingrid y Manuel en 2013, en Coyuca de Benítez -municipio que forma parte de la Zona Metropolitana de Acapulco, México-, buscando contribuir a expandir el conocimiento sobre los modos de gobernanza de las ciudades intermedias y, en particular, aquellos relacionados con la reducción del riesgo de desastre. Conceptualmente, se moviliza el concepto de gobernanza adaptativa para contrastar y reflexionar los patrones de gobernanza imperantes en Coyuca. Metodológicamente, este trabajo se basa en la sociología de la acción pública para analizar los procesos de reconstrucción de infraestructura, servicios públicos y vivienda a través de entrevistas, grupos focales y diversas fuentes escritas. El artículo argumenta que, a pesar de los esfuerzos de descentralización y democratización en las últimas décadas, los patrones de gobernanza son altamente centralizados y poco adaptativos, lo que limita el desarrollo de intervenciones participativas y articuladas que atiendan las necesidades cotidianas de las personas y que mejoren su calidad de vida; contexto en el cual, la acción pública más que reducir los riesgos de desastre ha incrementado y/o generado nuevos riesgos en territorios urbanos ya de por sí precarios y vulnerables. Asimismo, se pone en cuestión la relevancia de marcos conceptuales y normativos, como el de gobernanza adaptativa, para guiar cambios significativos, dada la distancia entre los patrones de gobernanza deseables y aquellos existentes en los territorios.

**Palabras clave:** Gobernanza, ciudades intermedias, política urbana, post-desastre, reconstrucción

This article analyses the governance patterns of post-disaster public action carried out after Hurricanes Ingrid and Manuel hit Coyuca de Benítez in 2013, a municipality that is part of the Metropolitan Area of Acapulco, Mexico, seeking to contribute towards broadening knowledge about the modes of governance of intermediate cities, and in particular, those related to disaster risk reduction. Conceptually, the concept of adaptive governance is presented to contrast and reflect on prevailing governance patterns in Coyuca. Methodologically speaking, this work is based on the sociology of public action, to analyse the reconstruction processes of infrastructure, public services, and housing, through interviews, focus groups, and diverse written sources. This paper argues that, despite the decentralization and democratization efforts of recent decades, governance patterns are highly centralized and not very adaptive, limiting the development of participatory and articulated interventions that meet people's daily needs and improve their quality of life. In this context, public action, rather than reducing disaster risks, has increased and/or generated new risks in already precarious and vulnerable urban territories. Along the same vein, this paper questions the relevance of regulatory and conceptual frameworks, such as adaptive governance, to guide significant changes, given the distance between ideal and existing governance patterns in the territories.

**Keywords:** Governance, intermediary cities, urban policy, post-disaster, reconstruction

## I. INTRODUCTION

Latin America and the Caribbean (LAC) is the second most exposed region in the world to natural threat associated disasters (United Nations Office for the Coordination of Humanitarian Affairs [OCHA], 2020), and are especially vulnerable to the effects of climate change (Marguilis, 2016). In this context, urban settlements with under a million inhabitants represent a specific challenge, given that it is expected that the urban population growth will be greater in this type of settlement in several regions, including LAC. These tend to be institutionally weak, and have limited capabilities to enact climate actions (Intergovernmental Panel on Climate Change [IPCC], 2014). Although the key role intermediate cities have at a local and regional level is well known, when performing roles of articulation and intermediation between different territories and spaces (Bellet & Llop, 2004), institutional autonomy and disaster risk reduction (DRR) related capacities are still pending issues.

Different studies have stated that, at least in the case of Mexico, the limited range of decentralization, combined with the institutional and administrative weaknesses of municipal governments, are essential in the management of the territories (Arellano, Cabrero, Montiel & Aguilar, 2011; Cabrero, 2005; Merino, 2001). In this way, the ways of governance, even though it has been sought to give greater autonomy to local governments as part of a general State reform started in the 90's, regarding risk management, still raise wide-ranging questions.

This work aims at contributing towards understanding the means of governance regarding DRR in intermediate cities, analyzing the post-disaster public action after hurricanes Ingrid and Manuel hit Coyuca de Benítez in 2013, a municipality that is part of the Acapulco Metropolitan Area (ZMA, in Spanish). From a conceptual point of view, this study takes an adaptive governance approach, which does not propose a single strategy and/or definition, nor a centralized management in the hands of the public or private sector, but rather one based on a high knowledge transfer, and on the articulation between a management capacity at a municipal and/or community level of the territory, and a centralized management of certain protected areas or infrastructures that is usually in the hands of the public or private sector (Kenward *et al.*, 2011). Adaptive governance is also known as experimental governance, as it implies a process of constant readjustment, understood as "learning by doing", which allows for the continuous adaptation of governance patterns, and establishes as premises, the multiple systemic interactions between the players and scales that have an impact on the territory (Tosun & Lang, 2017). Finally, this approach suggests the formation of structure monitoring communities and mechanisms, along with organizational

processes (Kaika, 2017), as well as the expansion of urban planning and territorial organization tools and mechanisms, connecting not just the rural and urban matters, but also the social, economic, environmental, and political ones (Salazar, Irrarázaval & Fonck, 2017). Starting from these guidelines, this article explores the contrasts between the aforementioned conceptual and regulatory proposal, and the dynamics in the territory within a context of post-disaster attention.

As a methodological framework, the study mobilizes the perspective of the Political Sociology of Public Action (Lascoumes & Le Gales, 2014), analyzing the different players, relationships, articulations, structures, and mechanisms that take part in the reconstruction of major infrastructure, public services, and housing in Coyuca de Benítez, ZMA. It is argued that, in spite of the decentralization and democratization efforts in recent decades, the governance patterns are still highly centralized and are not very adaptive, holding back the running of participatory and articulated interventions that satisfy the daily needs of the people, and that reduce the disaster risk in the territories, problematizing urban and territorial management. The research emphasizes the importance of developing not just regulatory frameworks like adaptive governance, but also a reflection about the methods to approach these.

## II. THEORETICAL FRAMEWORK

### **Decentralization and intermediate cities: towards a questioning of governance**

In Latin America, the rise in importance of intermediate cities falls within the readjustment of the urbanization pattern in play since the end of the last century, associated to demographic transition, State reform, and globalization (Carrión, 2013). Following the argument of Carrión (2013), in the region, the State reform linked to decentralization, that sought to democratize the territories through the transfer of responsibilities and resources, coming from orders from central to local governments, is of special interest. However, this decentralization has taken place within a lack of structures and roles that support the consolidation and concretion of agreed upon and participatory projects in the territory (Gómez-Álvarez, Rajack & López Moreno, 2019).

In this process, intermediate cities, defined not just by the size of their population or of their territory, but from the implementation of articulation roles between territories (rural and urban), and of intermediation between local, regional, national, and global spaces (Bellet & Llop, 2004), have experienced important changes on being one of the main recipients of the decentralizing policies, although

with very few results. For some time now, intermediate cities were characterized as urban spaces with balanced and sustainable systems, that were more “easily governed, managed, and controlled” (Bellet & Llop, 2004, p. 33). However, it is currently clear that these cities have great challenges that come from the unequal distribution of resources and capacities, the dependence on central powers, the lack of trained personnel, the intervention of private players, and the primacy of economic interests external to their territories, all these linked to the limitations of the decentralization processes (Gómez-Álvarez *et al.*, 2019).

In this context, the issue of governance has been crucial, as this is focused on the coordination processes of institutions, players, and actions to collectively achieve the established goals (Lascoumes & Le Gales, 2014). Recent studies have developed conceptual and regulatory frameworks that state that, in order to face the challenges of decentralization and democratization, the collaborative transformation of the State-society relationship must be looked into.

### The perspective of adaptive governance

Adaptive governance represents a recent approach in these areas, which states that the sole existence of laws, standards, and regulations, usually centralized and in State hands, is insufficient to trigger an effective decentralization of responsibilities; in other words, promoting open networks of relationships among multiple players capable of setting common goals and actions (Kenward *et al.*, 2011; Li *et al.*, 2017). The increase of political competences and technical capacities of the urban players, at an individual level, is built more effectively through systemic and continuous interactions among multiple players, and on multiple scales (Chindarkar, Howlett & Ramesh, 2017).

The perspective of adaptive governance starts from three key premises. First, it suggests that urban and territorial planning requires the (horizontal) articulation of different sectors and their interests, as well as the (vertical) articulation of different scales, both at decision making and territorial levels; since pursuing the goals of a single sector/scale tends to block other players (Tosun & Lang, 2017), in particular, the vulnerable people who are living in poverty or in risk areas (Fernández-Álvarez, 2017; Kaika, 2017).

It also states that moving towards adaptive or experimental governance structures (Kenward *et al.*, 2011; Li *et al.*, 2017) requires creating mechanisms and communities, to continuously monitor the organizational structures and their processes. Among some of the issues to monitor are the formation of intermediate players with the role of incorporating new ones, in particular, from dissenting communities and/or those with disadvantages, inter-scale and inter-sectorial interaction, and the design of substantial

policies that promote new means of interaction and financing that encourage collaboration and the development of plausible and innovative alternatives (Kaika, 2017).

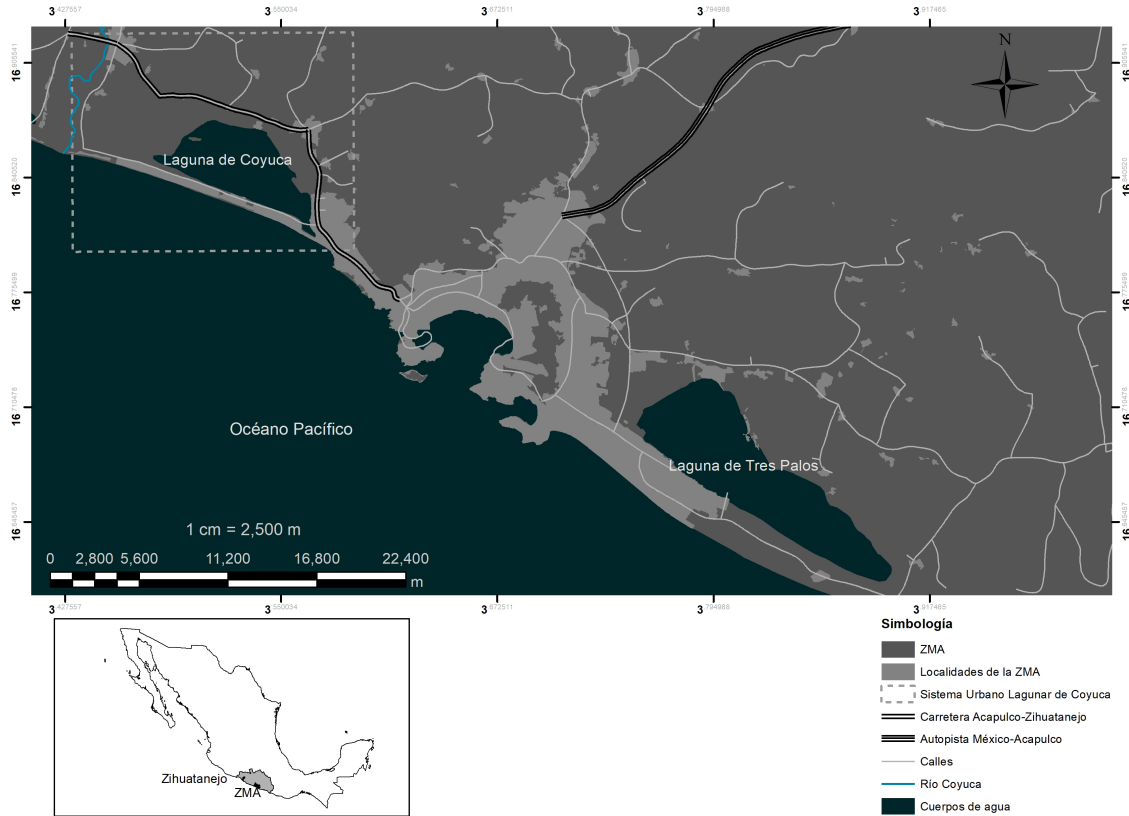
Finally, it uncovers the need to broaden the territorial planning mechanisms and/or tools, including the complex rural-urban ties, and the interrelations between social, political, and economic processes, on different scales (Salazar *et al.*, 2017). Along this same line, Folke (2016) and Galaz *et al.* (2012) state that, to manage a more suitable and resilient development, it is necessary to strengthen polycentric governance structures, to promote interactions among sectors and scales to understand the relationship between nonlinear variables, between different response times, and especially, to promptly respond to the needs of the different players, especially those in risk situations.

Although it may be desirable to address the premises of adaptive governance, especially those regarding risk and disaster reduction, the question arises about what the convergences or divergences in terms of the dynamics in the territories are, in particular, regarding the articulations among players and intervention scales in DRR matters.

## III. CASE STUDY

The ZMA, located in the State of Guerrero, comprises the municipalities of Acapulco de Juárez and Coyuca de Benítez. It has a population of 887,005 (National Institute of Statistics and Geography [INEGI], 2016), and constitutes a regional cluster, both by its size and its mediator role, connecting different rural and urban settlements in the State, and with other cities in Mexico (Figure 1). The expansion of the urban sprawl and the population in the ZMA has fundamentally been driven by the development of Acapulco as a beach resort, rising from 55,000 inhabitants in 1950, to more than 600,000 in just 5 decades.

The municipality of Coyuca de Benítez has seen a smaller population growth and less urban expansion. However, the area between the cities of Acapulco and Coyuca, considered by this study as an urban-lacunar system, has experienced a major transformation linked to the urban and touristic development of Acapulco. This zone is structured around the Coyuca River, the main catchment in the municipality, born under the Guerrero mountains, which borders the municipal capital of Coyuca to the East, and feeds the coastal lagoons of Coyuca and Mitla, before emptying into the Pacific Ocean. This area is also structured by the federal highway that connects Acapulco with the municipalities of Costa Grande to the East of the State, important regions for agroindustry, coconut production, and tourism, like the case of Zihuatanejo, the second largest tourism hub in Guerrero, located a little over 200 km from Acapulco.



**Figure 1.** Acapulco Metropolitan Area. Source: Preparation by Sindy Atzyl Pérez Reyes, with vectorial data from the National Commission for the Knowledge and Use of Biodiversity (CONABIO) (2018).

The municipality of Coyuca is characterized by a high degree of marginalization (National Population Council [CONAPO], 2016), where more than half its population live in poverty (55.2%) (National Council for the Assessment of the Social Development Policy [CONEVAL], 2015). In financial matters, the municipality depends to a great extent on federal transfers. Likewise, Coyuca is considered as a very high risk municipality with regard to severe weather (Arreguín, López, Rodríguez & Montero, 2015). In September 2013, said risk was materialized with hurricane Manuel, on the Pacific Ocean to the South of the ZMA, and Ingrid, in the Gulf of Mexico, which caused heavy rain and flooding for 3 consecutive days, causing major damage.

The post-disaster actions, which the different public and private players took part in, were a key moment in the ZMA's management, which is why, as a whole, they allow exploring the prevailing governance patterns, and to contrast them with the perspective of adaptive governance. Furthermore, this experience is relevant

for said exploration, as the ZMA has the typical traits of settlements of under a million inhabitants around the world, marked by limited institutional capacities, and a relevant urban growth that demands forming alternative governance patterns.

#### IV. METHODOLOGY

This research is based on the approach of Political Sociology of Public Action, as it allows approaching governance processes like a result of the combination of public and private players, with the State being just another element of a complex collective dynamic. Said approach focuses its attention on "the players, their exchanges, and the sense they give to these, but also the institutions, standards, and procedures that govern the set of interactions, as well as the collective representations" (Lascoumes & Le Gales, 2014, p. 16). In this sense, the study conceptualizes governance as "a set of state and

Phases	Technique or method	Tool or Instrument	Results
Phase 1. Delimitation of the universe of public action.	Factor layouts involved in the vulnerability on facing the risks	Diagnostic document of Coyuca (previous research) Field visits Interviews with key players	Determination of the public action to be studied
Phase 2. Analysis of players and their relationships	Institutional framework layout	Document revision	Political-institutional context and substantial chronological description of the development of the public action
	Mapping of key players	Interviews Document revision	
	Mapping of relationships during the design and implementation of the actions	Interviews Document revision	
Phase 3. Analysis of results and impacts	Results matrix by type of public action	Participatory workshop	

**Table 1.** Summary of the methodology. Source: Preparation by the Authors.

non-state players interconnected by formal and informal ties, who operate within a policy formulation process and are integrated in specific institutional settings" (Marques, 2013, p. 16). Based on this, the analysis of the ways of governance of public action included the identification of the institutional and political frameworks, the characterization of the state and non-state players, and their relations, within the public policy processes.

Operationally speaking, the work was divided into three phases. During the first, the analysis was limited to the public action related to post-disaster attention after floods, which represents one of the main threats associated to risks and climate change in Coyuca de Benítez. As a result, different relevant actions were identified, like the reconstruction of (i) major infrastructure, and of (ii) public services and housing. In the second phase, the ways of governance of said actions were analyzed, including for each type of action, the exploration of the institutional and political frameworks, the characterization of the state and non-state players, and their relationships, within the design and implementation processes of the public action. Finally, during the third phase, the results and impacts of the public actions implemented were surveyed using interviews, focus groups, and a participatory workshop (Table 1). During the research, information was produced from primary (interviews, focal groups, etc.) and secondary sources, such as government programs, public policy documents, reports, and printed press sources. With this information, substantial chronological descriptions were prepared for each type of public policy, through which the key players, relationships, resources, processes, and participation in decision-making that

make up the governance pattern in place for post-disaster actions, were identified. These substantial descriptions allowed analyzing the experiences against the premises of adaptive governance.

## V. RESULTS

The following general characteristics, which must be considered in the analysis, were identified as part of the revision of the institutional and political frameworks regarding public action in Mexico, which have an impact on the different post-disaster actions.

In Mexico, the decentralization process led by the political modernization and the democratic opening of the 1990s, allowed state and municipal governments to achieve greater participation in the policies implemented in their territories. For this, it was sought that the municipalities increased their resources and gained autonomy in the preparation of their local development plans and strategies. However, the federal government continued to define said policies, and the state system continued to be highly centralized, which is still an obstacle for the autonomy and independence of municipal governments in their different instances (Cabrero, 2015).

Regarding the urban development and territorial organization policies, the federal frameworks establish that said powers are present in the three levels of government (municipal, state, and federal). However, the areas of action for each level are not clearly laid out, and the municipalities only take on some of the powers, given their insufficient

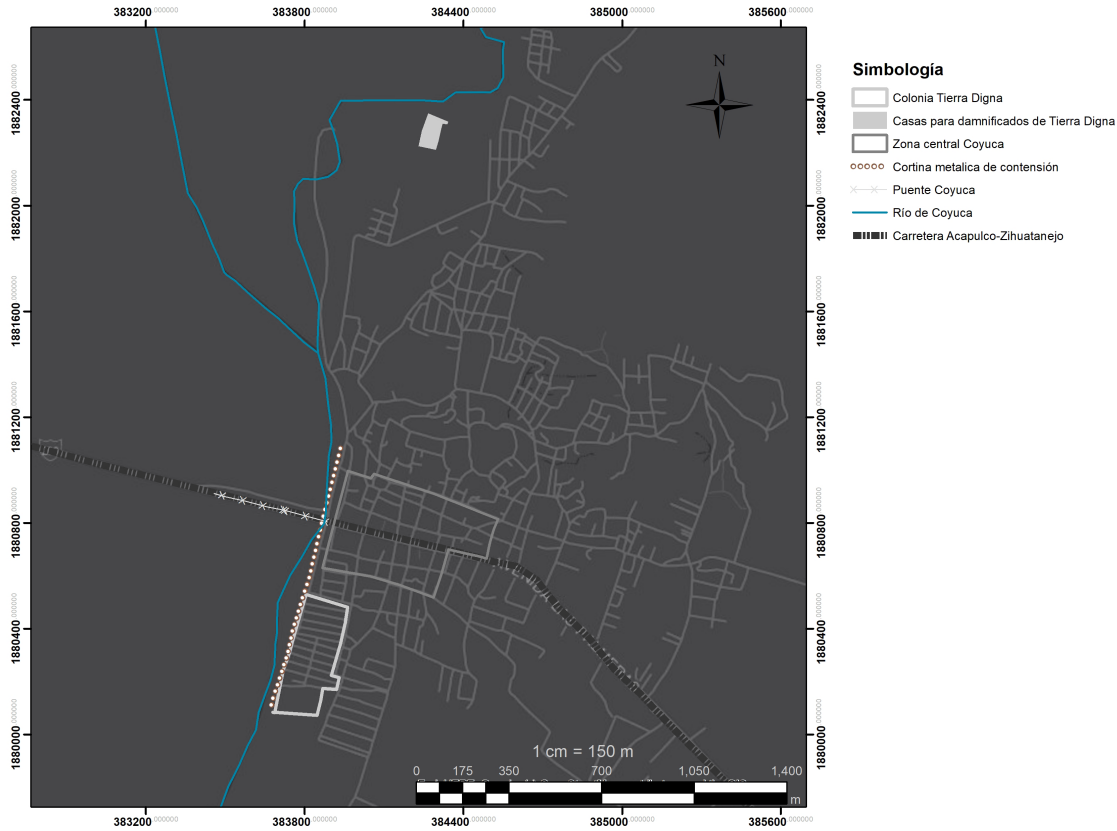


Figure 2. Post-disaster actions. Source: Preparation by Sedy Atzyl Pérez Reyes with vectorial data from the National Commission for the Knowledge and Use of Biodiversity (CONABIO) (2018).

financial, technical, and human resource capacities, among others. In addition, the federal government continues to control the design and operation of policies related to the urban development of the municipalities, such as health, education, and the fight against poverty, while the municipal governments continue still have no legislative powers (Cabrero, 2005).

Despite this, to foster coordination in urban development and territorial planning among municipalities, states, and the federal government, in 2013 the Secretariat of Territorial Urban Development (SEDATU, in Spanish) was created, to cover issues such as the regularization of agrarian ownership, the urban development of cities and metropolitan areas, and housing planning (Official Gazette of the Federation [DOF], 2015). But the reach of SEDATU has been limited, since a recentralization policy was set out, under which the territorial policy at a local scale was reduced to “financing labeled through federal transfers, making the “bottom-up” design of policies for urban development, impossible” (Verdugo, 2017 p. 190).

As for actions for the prevention and management of natural disasters, these fall within purvey of the National Civil Protection System (SINAPROC), created from the need of establishing an articulated layout, based on the identification of natural disasters as public affairs and thus as responsibility of the State (Morán Escamilla, 2017). It has also been sought to decentralize the attention of damages from natural phenomena, which is initially done by subnational entities, and when the magnitude of the natural disasters exceeds their response capacities and resources, the federal government takes part through the National Natural Disaster Fund (FONDEN), whereby resources are channeled for the immediate attention of the affected population, and for the later reconstruction (Rodríguez Esteves, 2004). In this context, after a natural disaster, the Secretariat of Communications and Transport (SCT), among others, is responsible for repairing or rebuilding federal communication links with FONDEN resources (SCT, 2015). Meanwhile, SEDATU is responsible for promoting and coordinating among the three government levels, the risk mitigation and prevention actions in urban settlements, and the evaluation, attention, and remediation of damaged homes and infrastructure (DOF, 2015).



**Figure 3.** Protection curtain and Coyuca I Bridge in April 2017. Source: Photograph courtesy of the Coyuca Climate Resilient Project.

It is starting from and through said highly centralized and not very democratic institutional frameworks, that the specific ways of governance for the post-disaster public actions analyzed in this work are produced and reproduced: reconstruction of major infrastructure, public services, and housing. The following key elements are described below for each way of governance: key players, degree of participation of non-governmental players, alliances, and conflicts between players, and the results and impacts on risk reduction.

### Reconstruction of major infrastructure

In September 2013, hurricanes Ingrid and Manuel caused major damage in the ZMA. Among other aspects, the Coyuca River broke its banks, destroying them and flooding entire neighborhoods, while Coyuca I bridge, located on the river with the same name, and part of the Acapulco – Zihuatanejo highway, collapsed.

In Coyuca's main city, the post-disaster actions included the reconstruction of the aforementioned bridge, and the

reinforcement of the left bank of the Coyuca River with a metal contention curtain at the height of the main city. These works were financed by FONDEN, which could be accessed thanks to the declaration of a "Natural Disaster" (DOF, 2014).

The reconstruction of the bridge was supervised by the SCT, which assigned the works to Freyssinet Mexico, a specialized company that, in recent decades, had carried out several works in Guerrero. Freyssinet was in charge of the construction of a temporary bridge, and for the design and plans of a new bridge, as well as for the selection of materials and labor. The construction of both the temporary and the definitive bridge allowed quickly reestablishing connection of the municipality of Coyuca and the ZMA with the municipalities of Costa Grande. Works began just 5 days after the collapse of the old structure (on September 18<sup>th</sup>, 2013), and were finished in July, 2014.

At the same time, the construction of the protection curtain was supervised by the National Water Commission (CONAGUA), the SCT, with the participation of UrioTech and Peninsular Compañía Constructora S.A. de C.V., affiliate of the company, Hermes Construcción, highly specialized companies with decades of experience. This work, which did not arise from any local demand, or include prior studies, began in December 2013 and was finalized in June, 2014. Currently, as a result of field work, it was seen that in the rainy season, the curtain impedes that water runs off into the river, causing flooding in the areas alongside it, like the Tierra Digna neighborhood (Figures 2 and 3).

Reconstruction of public services and housing Regarding public services, the post-disaster action focused on the sanitation system, that was greatly impaired by hurricanes Ingrid and Manuel. For example, in El Bejuco, located alongside the Coyuca River, the drains that had not been renewed for 40 years, collapsed in some sections, leading to raw sewage spillages and sources of infection. It is important to mention that El Bejuco, as well as most of the urban-lacunar system locations (Figure 1), are in precarious situations: educational gaps, unemployment, lack of infrastructure, and public services (CONEVAL, 2015; INEGI, no date).

Despite the different demands of the inhabitants to resolve the sanitation issue, the works were done 8 months after the hurricanes hit. The work was done by the Secretariat of Environment and Natural Resources (SEMARNAT, in Spanish) using federal funds (CONAGUA, 2014). There was practically no participation of municipal players, while both the communities of Coyuca and the municipal governments were only informed about the approval and installation of the project. In the case of El Bejuco, once the project was handed over in 2016, there were complaints from the





Figure 4. Housing for the affected in September 2018. Source: Photograph courtesy of the Climate Resilient Coyuca Project.

Type of public action	Key players	Participation of non-governmental players	Alliances and conflicts	Results and impacts
Reconstruction of major infrastructure	Federal Government (SCT, CONAGUA), Specialized companies (Freyssinet, UrioTech, Peninsular Compañía Constructora S.A. de C.V.)	None	Long term alliances between the federal government and the specialized private sector.  No conflicts were identified between the private sector and the federal government.	New floods due to the design of the reinforcement wall alongside the Coyuca River
Reconstruction of public utilities and housing	Federal Government (CONAGUA, SEDATU, PROFEPA and the Civil Protection Direction)	None	Demands from the neighbors/ inhabitants due to the poor quality of the infrastructure built and delays in handovers.  Clash between entities of the federal government due to the location of the reconstruction area of the housing, and its risk condition.	Lengthening of the vulnerability conditions of the affected inhabitants.  Reproduction of risk situations due to the location of the new housing, and the conditions of the new sanitation services.

Table 2. Key elements in the ways of governance of post-disaster public action after hurricanes Ingrid and Manuel. Source: Preparation by the Authors.

neighbors about its inadequate installation, with sections where the drains were not connected, which led to constant overflows of raw sewage (Pacheco, 2014a). In addition, the water treatment oxidation lagoon was located upstream, impeding the natural flow of the wastewater and causing constant blockages and a difficult maintenance. It is worth adding that the inhabitants of El Bejuco had identified a better location for the lagoon, but they were ignored.

For the reconstruction of housing, SEDATU evaluated the damages, made a census of the people affected, and led the repair and reconstruction process. However, this process experienced several delays and setbacks, and as of January 2018, had not yet been concluded. Among other aspects, the resources were not used in the period allocated and, later, the contracts exceeded the permitted resources (Secretariat of the Treasury and Public Credit [SHCP, in Spanish], 2014). In addition, in 2014, the Civil Protection Direction stopped the construction of four of the dwellings on being located in a high risk area (Pacheco, 2014b), and later, the Federal Attorney's Office for Environmental Protection (Profepa, in Spanish) closed down the construction of 44 houses assigned to those affected in the Tierra Digna neighborhood, a shanty town that did not have basic utilities and that was seriously hit by the hurricanes, for this same reason (Pacheco, 2016). It is necessary to highlight that the Tierra Digna Neighborhood is in the heart of Coyuca, while the houses for those affected were built upstream, with a difficult connection to the municipal hub and the services this provides (Figures 2 & 4).

Table 2 summarizes the key elements presented regarding each way of governance.

## VI. DISCUSSION

In general, the analysis shows a limited or non-existent articulation of the players, their interests and their scales of action, which contrasts considerably with the premises behind promoting an adaptive governance (Kenward *et al.*, 2011; Li *et al.*, 2017; Chindarkar *et al.*, 2017).

This coincides with Tosun & Lang (2017) in that on prioritizing the goal of a single sector/scale, other players and interests are hindered. The case shows the priority given to the regional and national connectivity and economy, with the rapid and effective reconstruction of the Coyuca I bridge, to the detriment of the sanitary and housing infrastructure needs of Coyuca's population. Likewise, it is corroborated that the disconnection between players and scales (as happens with the shutting down of the reconstruction of housing, on being located in risk areas) leads to interventions that are unsuitable for the needs of the different players, in particular the populations at risk, as Folke (2016) and Galaz *et al.* (2012)

propose. But it is not just that. The case shows how more precarious conditions and new risks are fostered, for example, the recent flooding of neighborhoods like Tierra Digna, after the construction of the protection curtain, or the construction in areas prone to flooding and far from the urban center for those affected.

On the other hand, no mechanisms or players that continuously monitor the governance structures and their processes are detected, and who foster the inclusion of new players, their knowledge, and needs, as Kaika (2017) and Fernández-Álvarez (2017) mention. Despite the creation of SEDATU, the knowledge, design, and planning continue to be predominantly centralized. In addition, the analysis shows that post-disaster actions are interventions disconnected from the urban planning and territorial organization tools, leaving aside the urban-rural dynamics, and the different development aspects (ecological, economic, social, and political), as Salazar *et al.* (2017) propose. Alongside this, and in mutual interdependence, no mechanism or spaces of inter-sectorial connection, and between scales, are detected, or the existence of open networks that increase the political competences and technical capacities of municipal players.

## VII. CONCLUSIONS

The study presented shows that the governance patterns in Coyuca are highly centralized and not very adaptive, limiting the development of participatory and articulated interventions that reduce disaster risks in the territories.

Beyond Coyuca, the research made allows considering that the challenges of governance of intermediate cities when facing risks and climate change, do not just imply the development of technical or administrative capacities, but also the transition towards governance patterns that recognize and strengthen the role of the public, private, and civil society sectors, their articulation, the configuration of adaptive structures, and suitable territorial planning mechanisms. In this framework, the absence of a suitable vertical and horizontal articulation among players and institutions, the permanence of rigid structures that are away from the local dynamics, as well as weak territorial planning mechanisms, are added to the already identified institutional weaknesses and the lack of capacities of local governments.

Regarding the methodology, this was shown to be useful to track the interconnections and relationships between players and actions, showing the prevailing patterns that a particular way of government reproduces in the region. Specifically, the analysis of the institutional and political framework was crucial to better understand the players and their actions. As for the theoretical framework, the study made the great distance between adaptive governance and its premises

evident, as well as the prevailing governance patterns in Coyuca, questioning their pertinence to guide transformative changes in urban settings like the ZMA in Mexico and in other areas. In this sense, the reflection and generation of suitable conceptual and regulatory frameworks appear as essential, not just to understand the problematic situations vis-à-vis governance of cities, but also to take action.

All-in-all, intermediate cities are spaces of opportunity with multiple comparative advantages over large urban conurbations. However, the complexity of the governance processes and the challenges of DDR and the climate crisis require new cognitive and regulatory layouts for the administration of their territories. This is where different lines of research open, that can contribute to the understanding and strengthening of these cities against DDR and climate action and that, at the same time, acknowledge the political dynamics and tensions present on a local scale.

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