THE COMMON GOOD IN SAN ANDRÉS CHOLULA, PUEBLA. APPLICATION OF THE METRIC OF THE COMMON GOOD DYNAMICS IN A PERI-URBAN MUNICIPALITY

Oscar Garza-Vázquez*, Juan Pablo Aranda Vargas**, Roy Nuñez*

ABSTRACT

In this paper, we assess the common good dynamics of the Mexican municipality of San Andrés Cholula in the State of Puebla, using the common good matrix, developed by the Institute for the Promotion of the Common Good (IPBC). The metric captures the collective life and the social dynamics of a population at the municipal level, and sheds light on the formal and informal institutional framework that constitutes people's lives. Through the application of 600 surveys in this municipality, we assess collective life of the locality on five dimensions. We show that justice and governance pose the greatest challenges to the municipality and we note, second, important disparities in the structure of social life between different localities within the municipality.

Keywords: Development, Common good, Social dynamics, Mexico, Municipality. *JEL Classification:* O10, Z13, Y80. *ISSN:* 0035-676X (print); 1827-7918 (digital) *DOI:* 10.26350/000518_000058

1. INTRODUCTION

According to the World Bank, Mexico is an upper-middle income country and, as of April 2020, it was the 11th world's economy. With a Human Development Index (HDI) of 0.767 in 2018, it belongs to the group of high human development, and it is ranked at the 76th place out of 189 countries (UNDP, 2019a). Nevertheless, while it has been praised for its decades of macroeconomic stability and its integration to the world economy, in the last 30 years or so, the country has performed poorly in economic growth, poverty reduction, and in taming inequality (Levy,

^{*} Oscar Garza-Vázquez, Roy Nuñez, Department of Economics, Universidad de las Américas Puebla. Email Garza-Vázquez: oscar.garza@udlap.mx. Email Nuñez: roy.nunez@udlap.mx.

^{**} Juan Pablo Aranda Vargas, Department of Political Science, Universidad Popular Autónoma del Estado de Puebla. Email: juanpablo.aranda@upaep.mx

Acknowledgments: We thank all participants of the 4th research seminar of the IPBC, particularly our commentators Roberto Vélez and Graciela Teruel for their valuable input. We are also specially grateful to Ma. del Rosario Andrade and Jose Luis Ávila for their help, to Camila Rojas for all her assistance with data managing, and to all the IPBC team for our seminars. All errors remain ours.

2018; Obregón, 2013; World Bank, 2020). Indeed, in 2018, 42% of the total population in Mexico experienced multidimensional poverty, and only 21.9% of the population was considered non-poor and non-vulnerable (Coneval, 2018). In addition, Mexico continues to be one of the most unequal countries in Latin America – itself the most unequal region of the world – with a Gini coefficient of 0.45 in 2018 (World Development Indicators). More worrisome is the fact that these inequalities are more pronounced and its impact more lacerating at the municipal level.

Despite some minor improvements in regional and municipal inequities in the last years, in 2015 (the latest available data), the difference between the highest HDI value in a municipality in Mexico (0.944, Benito Juárez in Mexico City) and the lowest value (0.420, Cochoapa el Grande in Guerrero) was of fifty-two points. To put it differently, the highest ranked municipalities in Mexico have HDI values comparable to countries on top of the list, such as Switzerland, UK, and Spain, whereas the worst performing municipalities are comparable to countries at the bottom, such as Malawi, Ethiopia, or the Democratic Republic of Congo (UNDP, 2019b). Therefore, the Municipal Human Development Report for Mexico (UNDP, 2019b) recognises the need to strengthen the role of municipal governments in promoting local development.

Municipalities are the smallest units of governmental action and are also the setting in which a closer interaction between society and government takes place. In Mexico, municipal governments' responsibilities range from assisting the provision of public services (sewage, drinkable water, street lighting, public spaces, public security, police, culture, sustainable environment, among others) to the promotion of democratic practices (UNDP, 2019b). Hence, municipal policies are crucial for attending people's concerns and improving their social realities, and thus their lives. Moreover, municipalities are also the setting where people experience their social lives with others directly. To most people, municipalities are the milieu where they acquire their political, economic, cultural, and social experience of community life. Consequently, the way in which municipalities are organized and the social life they engender, structure people's behaviour, their interactions with others, and the real opportunities people enjoy pursing their life plan. For these reasons, it is fundamental to pay more attention and to develop better tools to analyse and understand social dynamics in municipalities.

This is precisely what the common good matrix, developed by the IPBC, is set out to do. It provides a framework for assessing this interconnected web of social institutions and social practices within a municipality – what Nebel and Arbesu (in this issue) refer to as "the nexus of the common good". In this paper we assess the common good dynamics in the municipality of San Andrés Cholula, and show that the common good matrix captures the way in which institutions, social norms, and social practices interact to provide a more comprehensive view of people's experience of their shared political, social, and communal life. Through the application of 600 surveys in December 2019, we find, first, that that the dimensions of justice and governance pose the greatest challenges to the municipality, and we note, second, important disparities in the structure of social life between different localities within the municipality. A tension between traditional and communitarian values, on the one hand, and modern urbanization and economic growth, on the other, are visible in the eroded character of some common good dynamics in the municipality.

The argument is structured as follows. In Section 2 we offer a rationale, by means of a brief historical account of the municipality, for our focus on San Andres Cholula. Section 3 discusses our methodology, the common good metric, the data we use, and some sociodemographic characteristics of the sample. Section 4 reports the main results of the study. Finally, we conclude by identifying general lessons and future recommendations.

2. SAN ANDRÉS CHOLULA: TRADITION, MODERNITY AND INEQUALITY

San Andrés Cholula is a complex municipality. It has a robust indigenous past, but at the same time belongs to a State the capital of which was founded exclusively for Spaniards; its neighbouring village, the Tlaxcaltecas, were an important ally of Cortés against the Mexicas; notwithstanding having opposed the Mexicas, Cholula was savagely massacred. The city has experienced important contrasts: an accelerated but nonetheless uneven economic growth that has resulted in inequality, and pressures for urbanization and modernization countered by a deep indigenous past reluctant to give up. This section analyzes how these tensions have unfolded throughout San Andrés Cholula's history, in order to provide some background for interpreting the results of our survey.

2.1. A convoluted tradition

The city of Cholula (*Chollolan*) is one of the oldest settlements in Mesoamerica. It is located in the state of Puebla, west of the city of Puebla and to the south of Tlaxcala, near the Popocatépetl and Iztaccíhuatl volcanos (Figure 1). According to Bernal (2002: 142), Cholula was the head of a group of communities that shared common cultural traits: "This amalgam is so important that the Mixtec sovereigns came to Cholula to be crowned"¹.

In the sixteenth century, Cholula was one of the biggest, most important Mesoamerican cities, with a population between 30 and 50 thousand. Geopolitically, the city found itself at the crossroads of the confrontation between indigenous peoples and Spaniards. Cortés defeated the Mexica Empire by means of a series of alliances with various groups surrounding Mexico-Tenochtitlan (García, 2002: 239). According to McCafferty (2016: 5-6), Cholula consistently opposed the Aztecs. When Cortés entered Cholula, however, hostilities broke between the Spaniards and the Cholultecas. Malintzin, Cortés' interpreter, claimed to have discovered a plot, which unleashed a massacre. Thousands were killed, the city was plundered,

¹ Translations from Spanish sources are ours.

and the temples destroyed. Cortés would eventually face charges for his many cruelties against the natives.



FIGURE 1 – Map of the State of Puebla

Source: National Institute of Statistics and Geography.

The colonial economy of Nueva España was founded upon the *encomienda* system, a tribute, paid in the form of work, due by every subject to the *encomendero*, a Spaniard in charge of a manor. The many abuses and cruelties perpetrated by encomenderos were rejected by a group of priests who, influenced by the utopian humanism of Erasmus and Thomas More, decided to erect a brand new city exclusively for Spaniards, "whom through their work [rather than the encomienda system] would make their city grow and progress" (Salazar and Olivares, 2015: 20). That city was named Puebla de los Ángeles.

In 1535, Philip II ordered Cholula to be recognized as a city, under the patronage of St. Peter. Two years later, the city would obtain the juridical and nobiliary status of head city and *República de Indios* [Indian Republic] (Sáenz, 2004: 12). In 1714, San Andrés Cholula split itself from San Pedro, becoming a *República de Indios* itself. According to Olivera (1970; quoted in Sáenz, 2004: 12), this separation has led to conflictual relations between the two cities. Finally, in 1861 San Andrés Cholula became a municipality of the State of Puebla.

2.2. Urbanization and its discontents

Cholula is a heterogenous municipality. Its syncretic character is visible today in Cholula's Great Pyramid, originally dedicated to the god Tlaloc, which was crowned, at its top, with a Catholic Sanctuary dedicated to the Virgin of Los Remedios. The city evolved from a key indigenous religious centre to a group of predominantly rural communities that eventually became part of the city of Puebla. As mentioned, within the seventeenth- to nineteenth centuries, San Pedro Cholula and San Andrés Cholula emerged as independent political units. Then, Cholula experienced steady but moderate growth throughout the twentieth century, retaining a predominantly rural character.

Along the decades of the 1950 and mid 1970's, Mexico experienced an accelerated growth and development – the so-called "Mexican miracle", driven by the success of the program of import substitution industrialization (ISI), which postulated a strong State actively involved in the economy. This model entered into crisis in the late 1970's: "With the 1976 devaluation, the 'economic Mexican miracle' reached its end" (Meyer, 2002: 897). In the 1980s the Mexican government opted for neoliberal measures. Carlos Salinas' government (1988-1994) aimed at "creating a true market economy, ending subsidies, privatizing the system of parastatal firms, and accomplishing the full opening of Mexican economy abroad" (Meyer, 2002: 898).

It was during the neoliberal wave that the *Programa de Desarrollo Regional Angelópolis* was adopted in 1994. Leaning on the constitutional reform to article 27, a total of 1,015 hectares of ejido lands (i.e. communal lands used for agriculture) were expropriated, "with the aim of promoting urban and social development in the region" (Hoffman, 2012: 35; Rentería, 2014: 10). This geographical space is known today as *Reserva Territorial Atlixcáyotl*, or *Angelópolis*. San Andrés Cholula "drastically transformed its rural landscape, through the territorial reserve, into a fully urban space" (Schumacher, 2015: 5).

The municipality of San Andrés Cholula has experienced a rapid urbanization and accelerated economic growth. In 2010, for instance, out of a total population of 127,496 inhabitants, 80,642 (63.3%) lived under the poverty line. Only five years later, in 2015, out of 156,754 inhabitants, 62,224 (39.7%) were poor. In the same period, the population of San Pedro Cholula living under poverty increased, from 47.5 to 53.3 percent (Coneval, 2015). No other municipality of Puebla managed such an economic improvement of its population. In fact, according to UNDP (2019b), in 2105 San Andrés Cholula reported the highest value in the human development index (0.845) in Puebla, comparable to that of Portugal.

On the other hand, according to the Municipal Development Plan (MDP here after), these transformations "tore the social fabric – which had hitherto been powerfully oriented towards agriculture – apart" (2018: 102). From 2010 to 2015, the proportion of the population employed in agriculture shrunk by 37.10%, according to the National Institute of Statistics and Geography (INEGI), which implies that "a thousand 860 inhabitants of San Andrés Cholula stopped working in agriculture and cattle raising" (MDP, 2018: 231).

The urbanization process has thus been neither ordered nor even. The first square of Cholula is still dominated by its traditions, and one can still appreciate the "rural and religious festive mood of its surrounding neighborhoods" (Schumacher, 2015: 9). In 2012, in fact, Cholula was declared a *Pueblo Mágico*, a designa-

tion that pushes for the conservation of the traditional colonial architecture, its traditions, and festivities. Urbanization and modernization, however, have eroded these traditions (MDP, 2018: 295).

In a contrasting way, the Reserva Territorial, at the southeast of Cholula's first square, has become a vibrant economic centre and an exclusive residential area. Hoffman offers a suggestive comparison between Santa Fe, in Mexico City, and Reserva, in Puebla. Both areas are characterized by the coexistence between the high-income class, living in luxury residences, and a "floating" class whose members work as the former's employees. His conclusion is telling: "Definitely, both projects... represent a classic model of exclusion and social segregation... In both cases the aboriginal population was displaced" (Hoffman, 2012: 37).

This brief historical account shows that, when looked from the perspective of traditional development indicators such as GDP per capita, poverty measures, or from a human development index, the municipality ranks amongst the best of the country. However, this also unveils the fact that development literature and its privileged indicators have prioritized results at the expense of the processes through which these outcomes were generated. As mentioned above, these indicators do not inform us about the collective life of the community, the state of social identities, the quality of the institutions, and the social practices that mediate social relations of its population.

In sum, in the 1990s, San Andrés Cholula suffered a transformation, from a rural-traditional area to a peri-urban municipality characterised by huge demographic, cultural, social, and economic changes, marked nonetheless by contrast. While its traditions are alive as a unique combination of indigenous and religious elements merged by the colonial experiment, in the metropolitan area the dismantling of the ejido system opened the way for a quick and intense modernization, which facilitated the creation of high-income residential areas that displaced its original inhabitants. The result has been inequality and cultural tension in the municipality. All these traits threaten to dislocate the basic cultural values whereby the community lives. The risk of a growing resentment between economic classes, moreover, is one of the main causes of the dissolution of healthy and productive neighbourly relations.

All of this makes of San Andrés Cholula an interesting case to analyse from the perspective of the common good proposed here. First, its multifaceted path of development may resonate whit other social realities within Mexico and beyond. Second, while many studies recognize that the process of urbanization has disrupted traditional collective life, there is no real empirical knowledge of the extent to which these social practices of collaboration, cooperation, and shared forms of coexistence remain a part of the municipality. Similarly, if they are indeed still alive, there is no knowledge regarding which state they are, i.e. the vitality of these practices, whether these are socially valued, socially maintained, and collectively enjoyed. In other words, we do not know the strength of these social dynamics. Third, this concern is fully in line with the current MDP of San Andrés Cholula (2018). It constantly refers to the unequal development of the municipality and its disastrous effect on the social identity, social cohesion, communal life, and traditional forms of coexistence of the population, and advocate instead for a collective type of development that respects and promotes collaborative, participatory, and a collective coexistence (e.g. see p. 12, 99-103, 174-176, 180-181, 193-195, among others). Yet, to be able to stimulate a social and political life in common and design policies accordingly, a diagnosis of the way in which institutions, social practices and social goods interact to give raise to a particular community life – what we call the common good dynamic – is necessary.

3. METHODOLOGY

3.1. The Model: The common good dynamic

Any analysis of how a municipality is doing will depend on the perspective one adopts to assess social reality; it depends on the kind of information one focuses on. Regarding municipal life, there are different approaches to assess municipal governments in Mexico (e.g. see ASF, 2013; López and Gómez, 2010; UNDP, 2019b). However, while these recognise the need of a multifactorial approach to evaluate and improve municipalities' realities (UNDP, 2019b: 108-110), these are all focused on local governments' fiscal, administrative, and political capacity. No doubt, achievements in any of these forms of government's capacities have the potential to translate into important improvements regarding local conditions. However, the issue with these indicators is both their static nature and their focus on the authority's effectiveness to govern – i.e. what the local government is able to achieve with the resources it has.

In contrast, our common good metric aims at capturing the social processes of municipal life as such. Rather than focusing on municipal management, we focus on the processes whereby institutions and standard social practices combine to produce a social dynamic. Following Nebel and Arbesu (in this issue) and other authors in the development literature, we claim that the latter information is crucial not only for enriching our understanding of how people's lives unfold within a community, but also in order to guide policies grounded on the actual social and historical milieu.

Several authors recognize that the structural and socio-historical institutions in which we act, the groups and collectivities we belong to, our intersubjective interactions, and our opportunity to participate in societal matters are all relevant aspects of our lives (e.g. Deneulin, 2006, 2008; Evans, 2002; Fraser, 1997; Ibrahim, 2006; Sen, 1999, 2009; Sewell, 1992; Stewart, 2005, 2013). All of these factors form part of the community dynamics in which institutions, governmental and society's actions co-construct the shared living experience of our humanity. This type of data – the structures and social relations that prevail within a social reality – is normally missing in traditional views of development, and in the assessment of the life of municipalities. For this purpose, the IPBC developed a matrix and a survey to capture these common good dynamics (see Garza-Vázquez and Ramírez, in this issue).

This common good dynamic questionnaire (see Appendix A, Table 5 in Ávila-Valdez and Castro-Manzano, in this issue) has the purpose of knowing a municipality's social reality. Particularly, the collective factors that structure the common life of its population and contribute to their experience of a good life, for instance the quality of social life within the municipality and its institutions, the social relationships it promotes, the degree of community life, and the extent to which people value, endorse, and appropriate this shared reality.

The survey measures the socioeconomic characteristics of the respondents and seventy-one items capture the structural and dynamic aspects of the nexus of the common good in five normative dimensions (*collective agency freedom, justice, stability, governance, humanity*), related in turn to five basic common goods (*rule of law, work, education, culture and solidarity*). The data used for this study comes from this questionnaire.

3.2. Data

The survey was applied to 600 individuals following a stratified sampling method to ensure its representativeness in terms of sex, age groups, and educational level, with available information in official statistics (INEGI, 2015)². In order to capture population heterogeneity within smaller geographic units, we used the electoral localities designed by the National Electoral Institute (INE, 2019)³. This gave us a better understanding of changes in individual responses in different localities, since INEGI does not have enough disaggregated data at this level. However, since territorial aggregation of the population differs in both of these public institutions, we consider the survey results as a case study with representativeness at the municipal level.

The data collection took place during the month of December 2019 by a team of a professional polling agency with previous experience in applying surveys within the municipality. All of them attended a training session in which the IPBC team, including one of the authors, explained the approach underlying the questionnaire, the items in the survey, and provided general recommendations to guarantee the quality of the data throughout the collection process. The selection of

 $^{^2}$ According to INEGI (2015), San Andrés Cholula had 137,290 inhabitants where 49.2% were men and 50.8% were women. By educational level, 40.1% had secondary school or less, 20.2% had highschool studies, and 39.7% had undergraduate studies or more.

³ In 2019, the voting age population in San Andrés Cholula (age 18 and older) was 94,404 people. In terms of electoral localities, Cacalotepec had 6.5% of voters, San Bernardo Tlaxcalancingo 18.7%, Acatepec 4%, San Luis Tehuiloyocan 4.2%, Tonanzintla 6.6%, San Rafael Comac 2.2%, Lzaro Crdenas 5.5%, Colonia Emiliano Zapata 9.7%, Reserva Territorial 22.3%, Colonia Concepcin La Cruz 8.7% and Cabecera 11.7%.

participants followed a rigorous methodology to minimize potential biases. For instance, in each of the selected locations within the municipality - called juntas *auxiliares*⁴ –, pollsters would begin at the northeast corner of the upper block and, walk clockwise. Then, they would apply the survey to a person above 18 years old of the fourth household of the road, once the survey was completed, they would move to the next road to select the fourth household. Through this method, pollsters performed a maximum of four interviews per block to then move to the next block and follow the same procedure. In gated communities, interviews were applied either at points of influx or at the entrance of the close subdivision. These procedures would continue while keeping track of the number of surveys and characteristics of the interviewees to satisfy the stratified sampling criteria. This implied that once the quota of a particular group in the sample (e.g. the percentage of males or a particular age group) mirrored the actual proportion of that group in the municipality's population, the remaining interviews would be applied to people of other characteristics (sex, age group, location, or educational level) until all municipality's proportions were emulated with respect to official data, as explained above (see Avila-Valdez and Castro-Manzano, in this issue).

3.3. Descriptive characteristics of the sample

In our sample, out of the 600 participants, 305 (50.8%) respondents were women and 295 (49.2%) men; 39.8% of the participants finished secondary school or less, 20.5% had highschool studies or obtained a technical career, and 39.7% had undergraduate studies or more. This high education levels may be related to the municipality being host of eight universities, some with international recognition. In terms of location, we collected data from 11 different localities (eight juntas auxiliaries, and three neighbourhoods, which used to be differentiated from, and have similar functions to other *juntas auxiliares*, but now they belong to one of the eight established juntas. The reason to include them as separate locations was that these are still perceived as independent and as differentiated locations by the municipality's inhabitants). The two localities with the highest representation in the sample are Reserva Territorial (22.3%) and San Bernardo Tlaxcalancingo (hereafter "Tlaxcalancingo" for short) (18.7%), while the remaining nine localities range from 11.7% (Cabecera) to 2.2% (San Rafel Comac). As mentioned above, the distribution of these variables corresponds to the actual proportions of the population of San Andrés Cholula, according to the last available data.

Table A1 (Appendix⁵) shows additional information on socioeconomic level (AMAI, 2018), and the presence of indigenous language. The sample shows a municipality with a high socioeconomic level, as most of the sample (59.5%) fall

⁴ These are smaller localities that function as branch offices of the municipal seat and are in charge of implementing municipal projects in these territories.

⁵ All tables and figures with data are in the Appendix.

within the range of low high class and middle class levels (C+, C, C-), and the proportion of people at the top class (8.7%) is more than double than that at the bottom (3.8%). Finally, 13% of the sample responded that they or one of their parents speak an indigenous language.

Important information arises when we cross-tabulate some of these socioeconomic variables. For instance, there is a positive association between education and socioeconomic level. For the higher the level of education (undergraduate degree or more), the higher the proportion of people among the upper socioeconomic levels (A/B, C+) and the lower the proportion of people within the lower ones (E, D). In contrast, the lower the level of education (secondary school or less), the lower the proportion of people within the highest socioeconomic levels and the larger the proportion of people within the lower socioeconomic levels (Figure A1).

In terms of location, a variable which will play a relevant role within our results below, we can see that there is an association between locality and both education levels and socioeconomic levels. Figure A2 shows this information. In terms of education (panel a), we can distinguish two localities that stand out, Lázaro Cárdenas and Reserva Territorial, for having a large proportion of respondents with undergraduate degree or more, followed by Cabecera; 90.9%, 65.7%, 38.6%, respectively. Then, the rest of the localities have very similar patterns in terms of education but those that stand out with the largest share of respondents with the lowest level of education are Acatepec (83.3%), San Luis Tehuiloyocan (64%), followed by Tonantzintla (55%).

In terms of socioeconomic level (panel b) we can observe a similar pattern with Lázaro Cárdenas and Reserva Territorial, followed by Cabecera, having the largest proportions of participants within the high and middle classes (from A/B to C-): 100%, 86.9%, and 72.8% respectively. The locations with the largest shares of respondents within the lowest socioeconomic levels (D, E) are San Luis Tehuiloyo-can (52%) and Acatepec (33.3%), followed closely by San Rafel Comac (30.8%) and Concepción La Cruz (30.7%).

4. THE COMMON GOOD DYNAMICS IN SAN ANDRÉS CHOLULA: RESULTS

We begin this section with a panoramic view of the results obtained through the application of the common good questionnaire. We then provide a brief analysis of each dimension regarding social and community life. Next, based on the development patterns within the municipality's territory documented in the MDP (see other references above), we present an exploratory analysis to identify whether there are different social dynamics among different groups of the population and whether there are particular groups that may be systematically marginalized from the nexus of the common good.

Note that for the interpretation of results, as explained in Nebel and Arbesu-Veruzco (in this issue), the distribution of the Likert scale responses were transformed into a "social dynamic (SD)" scale of 10 to 1 (where 10 = a dominant SD, and 1 = a dominant *negative* SD). The intention of this transformation is to differentiate between *social* response patterns, indicative of the degree to which each of the items were affirmed or denied by the *population* sample. This graduation from 10 to 1 depends on the distribution of responses within the scale (from strongly disagree to strongly agree).

4.1. A panoramic view of the common good dynamic

Table A2 shows the aggregate SD values for each dimension⁶. Although below we offer a detailed explanation of each dimension, we can already see that, aside from the dimensions of justice and, to a lesser extent, governance, the dimensions report positive values regarding the social dynamic. The data suggest that San Andrés Cholula is a well-ordered municipality with stable, dominant social practices of harmonious intersubjective relations that allow a dignified human life in conjunction with others (i.e. humanity). It is a community that perceives itself as capable of self-organising in search of a common goal (i.e. collective agency); and a municipality with a stable/vulnerable capacity to transmit cultural belonging and human dignity over time (i.e. stability). However, the data also show that the municipality has an in transition/vulnerable SD regarding its government's effective-ness and its ability to provide equality of opportunity among its inhabitants (i.e. governance); the community self-perceives as unable to equally share common goods (i.e. justice), a dimension which is in a state of mild anomie in the municipality.

While these aggregate numbers suggest that San Andrés Cholula continues to be a municipality with a strong sense of social and collective life despite the many disruptive changes that came with the process of becoming a peri-urban municipality, one needs to take these positive values with caution. They do not necessarily suggest that the rather unequal process of development in the municipality (visible, to a certain extent, in the justice dimension) has not affected the social cohesiveness and collective life of the municipality. In fact, as we will see below, when we disaggregate into localities, this impact becomes more visible. In addition, one could argue that these general positive values may well be the reaction of a resilient community whose SDs may be deteriorating (MDP, 2018)⁷. The real danger, therefore, is to take these social and historical values for granted and risk their decay if continued to be threatened by an uneven and disordered development, alien to these social realities. An analysis of the common good dynamics is an effort to provide a useful tool to municipal governments to identify where opportunities lie

 $^{^{\}rm 6}$ Aggregate values for each dimension are the geometric mean of all the items within the dimension.

⁷ This deterioration is also voiced by local people in the municipality.

within their people's own collective experience to promote a true community-driven development, and to attend the challenges hereby highlighted.

In this spirit we now present a more detailed analysis to better appreciate the SDs (positive or negative) existing in each of the dimensions. Figure A3 captures the SD values for each question within the five dimensions. In what follows, we present a brief description of each dimension, and a summary of the strengths and challenges in each of these. We emphasise, however, the two worst performing dimensions in aggregate values (i.e. justice and governance), which are also those in which the actions of the government have the greatest capacity for intervention⁸.

4.1.1. Humanity

The humanity dimension refers to the quality of the expected social behaviours and common practices within which people's interactions take place in the municipality, and the extent to which these promote a socially virtuous way of living together. The humanity dimension in the municipality displays the highest aggregate value (9.39), which speaks of a very robust SD. This indicates a social perception that SD embodies, in a dominant/stable way, a set of values and practices that promote a humanised shared coexistence. These items are freedom and responsibility (H55-56), justice and solidarity (H57-59), peace and concord (H62), prudence and magnanimity (H63-65), resilience and courage (H66-67), rationality and wisdom (H68-71). Only two items, referring to people's honesty (H60) and the sense of insecurity (H61) show a SD in transition and one in mild anomie, respectively⁹.

4.1.2. Collective Agency Freedom

This dimension is concerned with collective freedom and the capacity of the local population to self-organise to identify common goals, cooperate, act, and achieve them together (A44-A50). It also measures the quality of this collective process in relation to individual freedom, its universal reach within the population, and the quality of relations between organisations (A51-A54). With a geometric mean of 8.94, this dimension is the second best assessed by the sample. It indicates a positive and stable SD.

The large majority of the sample perceives positively the community's ability as agents. Responses describe a locality in which people are able to organise them-

466

⁸ All references to specific items will follow the enumeration of the common good dynamics instrument as presented in Ávila-Valdez and Castro-Manzano (Appendix A, Table 5, in this issue). For instance, item 1 is labled J1 (which indicates that is item 1 of the justice dimension).

⁹ According to the Mexican Government's National Public Security System (NPSS), a total of 76,557 crimes were committed in Puebla in 2019. San Andrés Cholula ranked second in committed crimes, with 5,483 incidents, only after the city of Puebla (28,774) out of which 1,663 were homicides. https://www.gob.mx/sesnsp/articulos/incidencia-delictiva?idiom=es

selves around a common objective, act together to solve a common problem and value this possibility, and where groups work toward the common good while respecting individual opinions (Dominant SD). They are also good (Stable SD) at cooperating with the government, searching for other's support and reach their goals. However, they identify established laws as their main obstacle to solve local problems $(A48)^{10}$.

4.1.3. Stability

The stability dimension refers to the functioning of the structures and social practices through which human dignity is transmitted in the locality, as well as the perpetuity of a shared common good (in social and temporal extension). This is measured, on the one hand, in relation to the five basic common goods and, on the other, in relation to the durability (stability) of the other dimensions: governance (the length of time of government programs), justice (respect for property over time) and collective agency freedom (durability of associations that organize collective actions and their vitality). With an aggregate value of 8.56, this dimension is in between a vulnerable and a stable SD.

In general, people perceive that social practices and institutions safeguard and transmit human dignity in a Dominant or Stable SD. For example, this occurs through people's respect of the rule of law by not taking justice in their own hands, the value of one's work, value of culture among generations, treatment of institutions, and in the permanence of collective associations and the frequency of their interactions. What threatens this stability are those items related to people's perception about government-related activities: police treatment towards detainees (S18; in transition SD^{11}), distrust that their property will be respected by the government (S25; vulnerable SD^{12}), and, more dramatically, disbelief in the long term vision of government programs (S24; emergent negative SD).

4.1.4. Justice

Unlike traditional conceptualizations of justice, the common good metric understands this dimension more broadly, paying attention not only to the formal presence of institutions, or to the final distribution of goods, but also to the underlying social actions and processes relevant to these social achievements. From this

¹⁰ We understand "established laws" as referring to any law, locar or federal, as well as administrative municipal norms and unwritten practices that restricts what people can or cannot do to solve a common problem.

¹¹ 35.8% negates adequate treatment to detainees and other 15.8% doubt (not agree not disagree).

 $^{^{12}}$ 23% negates trusting the government in this respect and 20.5% doubts (not agree not disagree).

perspective, the dimension of justice captures the institutions and collective processes through which people share common goods in three ways: (1) in the assessment of their value, (2) in their collective production, and in (3) their benefit to the community. Justice is thus measured in relation to the five basic common goods. Furthermore, this dimension seeks to measure the coherence and mutual support between the dimension of justice and that of governance (extension of the benefits generated by government actions), collective agency freedom (the distribution of power in decision-making) and stability (extension of opportunities to live well in the community and avoidance of systemic exclusion).

In aggregate terms, the dimension of justice is the worst evaluated, with a geometric mean value of 6.15, which suggests a state of mild anomie. In general, the results reveal a dimension of justice that performs well (Dominant SD) in terms of the shared *valuation* of work (J4), education (J6), and culture (J8) as common goods, and regarding the respect for individual's rights (J1). Similarly, results are good (Dominant SD and Stable SD) in the formal presence of institutions and social practices that *distribute access* to common goods. This is partly due to the existence of a support network both in existing institutions and at the social level to facilitate access to education (J7), work (J5), assistance (J11), and a community life where people can organize themselves to offer help in difficult times (J10).

However, results also show that the *benefits* of the common goods, the *opportunities to live well, unequal treatment*, and that the *creation of opportunities* are not equally shared. As for unequal treatment and opportunities to live well, 40-42% percent of the population expressed negative perceptions about police protection¹³ (J2) as well as in the distribution of benefits from government programs (J13), while between 17-14% neither agreed nor disagreed with the statements. These numbers express a SD in mild anomie and a failure in the justice of governance. Likewise, despite being in a Dominant SD, a notable result in this aspect is the fact that 16.4% felt humiliated in a systemic way in their daily activities (J16). A less negative (Vulnerable SD), though still important result in terms of a just transmission of opportunities over time (i.e. stability), is related to the opportunities to live well in the municipality without having to leave their cultural, social and family roots (J12).

Regarding the *creation of opportunities* as captured by the possibility to participate in decision making (J14, J15), answers show a shared feeling that the municipality is structurally divided in the exercise of power (dominant and stable negative SD). The vast majority of people feel that access to power and decision-making (i.e. justice in collective agency) is limited to a small group in society. This result is perhaps the most serious and urgent of all, since collective participation in the

¹³ This finding is even more worrying when complemented with the fact that 35.8% of the sample expressed that detainees are not treated adequately, and 23.7% hesitates in providing an answer to the question (S18 of the dimension of stability).

production of common goods and in decision-making is essential for addressing inequalities in treatment, as well as in the distribution of benefits from government programs. Overall, results in this dimension illustrates that the mere existence of formal institutions does not guarantee real access to basic common goods to all groups equally (Sen, 2009).

4.1.5. Governance

This dimension evaluates the degree to which the community and the government are capable of organizing/directing the common good towards all members of the community. As in the dimensions of justice and stability, this is measured for the five basic common goods. Likewise, the dimension measures government's ability (governance authority, efficiency, conflict resolution, and consensus building) and whether it generates dynamics that favour and facilitate the other dimensions.

In aggregate terms, the dimension is in a vulnerable/in transition SD (7.89). This may be explained by the contrasting perception of, on the one hand, the SD in people's practices (dominant and stable) regarding their contribution through taxes (G29), the maintenance of public spaces (G32), and respecting the authority (G35) and, on the other hand, by the people's perception about the government's performance. The government is perceived positively in making a formal effort to govern for the majority (G28), promoting public spaces (G31), and allowing the people's involvement in decision-making; a dominant majority (dominant SD) feels that they can participate in the decisions of the municipality (i.e. collective agency; G43).

However, when it comes to the government's actions, the quality of governance and its capacity to benefit all is perceived less positively, and sometimes, negatively. For example, only between 51 and 57 percent of the respondents perceive a government that is willing to resolve conflicts (G38), create agreements (G39), listen to the population (G42), work for the good of the majority (G36), and work for providing universal high school for all citizens (vulnerable SD).

Worst still (in transition SD) are those items associated to the government's effort to guarantee equal opportunities (i.e. justice) for the entire community (G40), and to create the necessary conditions so that people can stay and live a decent life in their community without having to migrate (i.e. stability; G41). All in all, these results unveil a disintegrated governance, visible in the perception of a government that does not act in favour of the common good and that fails to ensure that social goods are effectively managed as common goods for all.

In fact, despite having a higher aggregate value than in the case of the justice dimension, a broader reading of the results seems to reflect that this is indeed the most problematic dimension of all. For, first, this is the dimension that presents the largest number of polarized responses in the Likert scale; second, it has the fewest number of questions positively evaluated (dominant or stable SD); and third, the poor performance of governance is also reflected in other items that refer to governmental action in other dimensions. It should be noted that these items are also the most negative results found in all dimensions. These failures in governance are reflected in people's disbelief that politicians will deliver on the promises of their government plan (G37, emerging negative SD).

In summary, San Andrés Cholula presents itself as a community with shared social values and practices reflected in a positive perception of its social collective life in most of its dimensions. However, it is also a municipality where, although its population expresses a strong common value for equalizing opportunities, the equal enjoyment of common goods is not always nor uniformely achieved. This coincides with the perception of a government that fails to guarantee equal opportunities and equal treatment for the entire population, despite the formal presence of institutions at the service of the community.

This general finding in the municipality echoes people's continued discontent with the unequal conditions to live well, and with the high levels of corruption, insecurity, and violence experienced in the last decade all around the country. Therefore, it is not surprising that the dimensions of justice and governance report the lowest aggregate scores in the municipality, as there seems to be a relation between the perception of the seizure of power by a faction and the unequal distribution of opportunities and government benefits.

This inequality may also be indicative of different social realities lived within the municipality. Aggregate SDs do not tell us how these experiences might differ among groups. Indeed, it is noteworthy that in almost half of the 71 questions we observe highly polarized distributions or important minorities dissenting from the general tendency (Figure A4). The following subsection explores the possibility that these results may be reflecting unequal/fragmented realities for different groups of the population.

4.2. Inequalities in the nexus of the common good

According to a study carried out by the Ministry of Agrarian, Territorial and Urban Development (SEDATU) in the last decade, San Andrés Cholula experienced "the greatest territorial and urban transformation" in the state of Puebla (2017). As we mentioned above, and as confirmed by the latter document, this disordered urban growth, at the cost of displacing rural agricultural life, has marked the municipality in the last decades. While these changes have brought economic prosperity and social progress, the municipality is far from behaving organically and benefiting equally. Rather, it shows a complex tapestry in which a wide variety of economic, cultural, political, and social realities coexist together. Although exploring differences in each of these factors is interesting in itself, in this section we focus on exploring another factor, namely, territoriality. This is mainly because our database allows us to explore this feature due to the geolocalization of our data, and the fact that this factor is repeatedly mentioned in the historical development process of the municipality, which allow us to ground this exercise on pre-

viously documented knowledge¹⁴. Furthermore, this exploration is consistent with one of our central insights, namely, the embeddedness of the person in her milieu, that is, the fact that the self is dialogically and, thus, socially constituted (Taylor, 2016).

In the following analysis, we present information about the SDs for different groups of localities¹⁵. As described in the MDP, the demographic explosion and the urbanization process has had a differentiated impact in the localities of the municipality (see also Hernández-Flores and Martínez-Corona, 2011; Schumacher, 2015). Its effects range from an excessive increase in residential and gated communities destination of land, to a decrease in the cultivation area and agricultural production, the deterioration of the environment, and the loss of social ties. Our grouping of localities is based in this information, namely, on the dregee of localities' exposure to these impacts.

In particular, we can distinguish between the eastern and the western zones, as they seem to be experiencing the municipality's transformations distinctly. Whereas the eastern zone has been pressed by hyper-urbanization, the western area maintains more traditional communal habits, with more grounded cultural roots and identity at the expense of enjoying the socioeconomic benefits. However, their way of life continues to be threatened by the eastern pressure (i.e. patterns of migration and residential developments) and is under high tensions deteriorating their community dynamics (MDP, p. 104, 174-176, 193-195). On the basis of this division – recognised by the MDP – we distinguished between two groups of localities to carry our analysis out (see Figure 2).

Still, some decisions had to be made, since the territorial demarcation of some of these localities are in an "intermediate" zone between these two divisions and/ or are in more direct contact with real estate developments (e.g. Tlaxcalancingo, Cacalotepec, Cabecera, Lázaro Cárdenas). Decisions on these localities were based, on the one hand, on the basis of clear exposure to urban growth and foreign migration, and, on the other hand, on knowledge of the social life of each of these localities by local people and private communication with a former high public rank official. Cacalotepec and Tlaxcalancingo, which are next to each other, are two large territories exposed to demographic and urban expansion. In fact, part of their territories was expropriated for the development of a large luxurious gated community, yet, their population and their social life is still heavily ingrained in their local indigenous identity. These localities are then better defined as territories in tension but not fully co-opted. In contrast, Cabecera, as its name suggest in Spanish, is the municipal seat and thus it has deeply entrenched indigenous roots. Nonetheless, the most important university of the municipality, which hosts some 10,000 students from all over the country, is located at its heart. Therefore, it is safe to say

¹⁴ We will also make reference to the economic factor where appropriate and where data permits.

¹⁵ As mentioned above, our findings represent a particular case study.

that this locality, as well as Lázaro Cárdenas, which is next to it and is now considered part of the former, are two territories clearly affected by the demographic explosion and urban growth. Today, their population have fully adopted mercantile practices and most of them live from selling in markets fueled by students¹⁶.



FIGURE 2 – San Andrés Cholula: Localities by groups

Source: Authors' elaboration with data from National Institute of Statistics and Geography.

The resulting grouping was the following:

- *Eastern* group (group E): Reserva Territorial, Cabecera, Lázaro Cárdenas, Emiliano Zapata, Concepción La Cruz. Their combined sample population is of 347 out of 600.
- Western group (group W): Cacalotepec, Tlaxcalancingo, Acatepec, Tehuiloyocan, Tonantzintla, San Rafael Comac). These account for the remaining 253 participants to the survey.

As we can see from table A3, in our sample, the grouping of localities exhibit

¹⁶ This does not mean that local people from Cabecera have lost their traditions and ingrained indigenous roots. Rather, it means that they have been pushed to the peripheries of their territory and learned to live in conjunction with alien foreigners. However, considering this unique reality of the locality of Cabecera, we did the same exercised than the one presented here for a three-group classification. Results (not included but available upon request) remain quite similar. We decided to present the version of two groups for parsimony considerations and to have a more balanced number of cases between the groups.

different sociodemographic characteristics, with group E performing better in education and in socioeconomic levels.

From table A4, we can see that both groups remain within a stable/vulnerable SD in most dimensions, with the exceptions of justice (mild anomy SD) for group E, and justice (in transition/mild anomie SD) and governance (vulnerable/in transition SD) for group W. More importantly, the data suggests that there are disparities between the groups in most dimensions. Whereas group W has a better overall score in the dimensions of justice, group E performs better in governance, collective agency freedom, and humanity. Both groups fare similarly in the stability dimension. In what follows, we offer some broad insights about these different scores while highlighting specific items, which illuminate the divergent experiences of the two groups. Notwithstanding, this exercise remains at an exploratory level, so the insights below can only be speculative; they may raise more questions than answers, which will prove helpful for further analyses.

In comparing these two groups, we find that their SD differ in 29 out of 71 items: 7 in justice, 4 in stability, 9 in governance, 3 in agency, and 6 in humanity. Group E performs better in 21 while group W only in 8 (of which 5 are within the justice dimension, 1 in stability, 1 in governance, and 1 in humanity). It seems safe to say, therefore, that our sample suggests that not only are there some different social realities in these groups, but they are also biased in favour of one group (i.e. group E). This corresponds with the findings of previously cited scholars who denounce the negative impact of San Andrés Cholula's disordered development on the social life of the localities conforming group W (Hernández-Flores and Martínez-Corona, 2011; Hoffman, 2012; MDP, 2018; Schumacher, 2015). What our study adds to this discussion is, as we explained in previous sections, information about the inner processes and social dynamics responsible for the production of common goods or their lack thereof.

4.2.1. Justice

This dimension shows the lowest aggregate means for both groups (5.95, mild anomie for group E and 6.55, vulnerable/mild anomie for group W). Despite performing worst in all other dimensions, the population sample in group W has a higher overall score in this dimension. It has a better SD in five items (J3, J5, J13, J14, J15) (see Figure A5). Interestingly, this group responds better regarding all people having a job in these localities (J5; stable SD) than group E (vulnerable SD). This is also reflected in our data, as only seven people (2.8%) responded being without a job (unemployed, not working, not studying) in group W, in comparison to twenty (5.8%) in the other group. Of course, the type of jobs also differs in these two groups where the distribution reverses, in general, group E reports a higher proportion of better-paid jobs. On the other hand, the two items in which group E performs better are also the two items where the gap in SD is of two points or more. These refer to perceptions of police protection (J2) and the need to migrate (J12). In the latter, Cacalotepec, Acatepec, and San Rafael Comac stand

out for their negative responses (Figures A5.1 and A5.2). These two items are coherent with previous results about western localities being somehow excluded from the development of the region and deprived from public services $(MDP)^{17}$. It is worth mentioning that within this region (group W), San Rafael Comac followed by San Luis Tehuiloyocan – and sometimes Acatepec – are the worst performers on the basis of displaying the higher proportions of negative (SD and D) and middle-point (NA-ND) responses.

4.2.2. Stability

Although there are no real differences in aggregate values of this dimension (8.65 group E, and 8.69 group W; stable/vulnerable SDs), at least two results are notable (Figure A6). First, group W reports a significantly better SD (in transition SD) with respect to group E (emergent negative SD) in long-term benefits of government plans (S24). We have no explanation for this result but perhaps pointing out that it coincides with J13 in the dimension of justice (government programs benefit the majority). This, in turn, coincides with three localities (Cacalotepec, Acatepec, Tonantzintla) showing the highest proportions of total agreement in both questions (Figure A6.1).

Second, another result that may expose the downsides of the real estate boom in the area, is the feeling of insecure property rights in group W (S25, in transition SD), in comparison to group E (stable SD). As mentioned, many of these localities have been unjustly expropriated by the state (MDP), favouring the construction of luxurious developments for the rich; this might explain why responses of this item also vary with socioeconomic levels (Figure A6.2). This finding is relevant due to its economic implications (Acemoglu and Robinson, 2012; North, 1990), and because of the effect that uncertainty about the future has for the tranquillity of people and their possibilities of seeking greater stability for their relatives in the long term.

4.2.3. Governance

In this dimension, the two groups differ in a greater number of questions, with group E faring better in all (G29, G31, G32, G33, G34, G36, G38, G40, G41), but one (G30) of these items. This is reflected in their aggregate means with group E with a vulnerable SD (8.07) and group W with a vulnerable/in transition SD (7.53) (Figure A7). This comparison indicates that people in eastern localities perceive that the government is more capable (efficient, conflict resolution) to govern basic goods (culture, solidarity, education), and to create synergies with other dimen-

 $^{^{17}}$ In addition, these questions vary with socioeconomic level with the lowest three levels (D+, D, E) showing a higher proportion of negative (strongly disagree, disagree) and middle point (neither agree neither disagree) responses. Figures not included.

sions (justice). An interesting finding is that Cacalotepec, Acatepec, and Tonantzintla present the most polarizing responses in these items, with their populations exhibiting the highest proportions of "Strongly Agree (SA)" answers. Similarly, San Rafael Comac and San Luis Tehuiloyocan are again the two localities with most negative and middle-point responses across all these questions.

4.2.4. Collective Agency Freedom

Groups diverge only in three items in this dimension (Figure A8). Both regional territories report positive SDs in terms of their capacity to act together with others, still, group E has a higher overall mean (9.03; stable SD) than group W (8.68; stable/vulnerable SD). If anything, their main difference appears to be their perceived ability to reach group's objectives (A49); a result that also relates to socioeconomic levels (Figure A8.1). The pattern of worse performers in most items of this dimension remains the same: San Rafael Comac and San Luis Tehuiloyocan, followed closely by Acatepec.

4.2.5. Humanity

Similarly to the global result, this dimension has the highest mean value for both groups, with group E (9.52, dominant/stable SD) doing slightly better than group W (dominant/stable SD). There are 6 items with different SD (Figure A9), but only two of these have a low positive SD. One of these items show that honest behaviour (H60) is collectively perceived to be losing ground in both groups. Although the lack of honesty is perceived more strongly in group W (in transition SD), it is Cacalotepect (from this group) and Concepción La Cruz and Cabecera (from group E) that have the highest proportions of disagreement (SD, D) and indifference (NA-ND) regarding people's perceived honesty. Finally, the only result with at least two points of discrepancy has to do with social perception of insecurity (H61). It is also the only result in which group W has a better SD (vulnerable) than group E (mild anomie SD), with Lázaro Cárdenas, Reserva Territorial and Concepción La Cruz displaying the worst results. Not surprisingly, the result is also clearly related with socioeconomic level (Figure A9.1).

5. FINAL REFLECTIONS AND CONCLUSIONS

Measuring the common good dynamics in a community is a complex endeavour. It implies measuring perceptions in a specific moment in order to gather information about the *process*, and thus the static is always a distorted picture of reality. In addition, contrary to many studies, which are exclusively focused on institutional engineering, this study asserts that what is *behind* institutions is also crucial for understanding social patterns.

In this work we have presented the results of the first survey applied in the mu-

nicipality of San Andrés Cholula, in Puebla. The municipality is an exciting case study for understanding how urbanization and modernization can affect the social dynamics that provide citizens with a sense of rootedness and security. Rapid transformation, along with one of its most common consequences, namely, the widening of the gap between rich and poor, are often responsible for the erosion of the social dynamics that contribute to the proper provision of common goods.

In particular, San Andrés Cholula can be deemed a municipality still transitioning from a tradional communal life towards urbanization and modernization. It is precisely the conflict between these two sets of values, insights, and practices that seems to be causing social disruption, a sense of displacement in the localities resisting change, and even more serious conflicts like corruption and the tearing of the social tissue. While this study is based on a particular moment in time, by measuring social perceptions of the interlinkage of social institutions, social norms, and collective habits, we can infer more than a simple snapshot of reality. The metric of the common good applied in this study informs us about the social dynamics, which are at the same time persistent and fluid over time, as well as their degree of vitality in the municipality. Nonetheless, continued studies may bring social dynamics to the fore more clearly, suggesting directions, intensities, and endemic resistance to change. This is thus only a first attempt at putting the metric of the common good, designed by the IPBC, at work. The results presented here are therefore only preliminary, and subject to the limitations set by the sample and the unavoidable tension between static and dynamic elements in our study. What is not in question, however, we believe, is that common practices matter for development. This is, however, only a motivation to further pursue this investigation, adding more data as well as theoretical insights in order to come up with a more robust instrument for measuring how common goods emerge, are maintained, and become part of human communities.

APPENDIX

TABLES

Variable	Description	Number	Percentage
Sex	Men	295	49.2%
	Women	305	50.8%
Education Level	Secondary School or less	239	39.8%
	Highschool studies	123	20.5%
	Undergraduate studies or more	238	39.7%
	Cacalotepec	39	6.5%
	Tlaxcalancingo	112	18.6%
	Acatepec	24	4.0%
	San Luis Tehuiloyocan	25	4.1%
	Tonantzintla	40	6.7%
Locality	San Rafael Comac	13	2.2%
	Colonia Emiliano Zapata	58	9.7%
	Colonia Concepción La Cruz	52	8.7%
	Reserva Territorial	134	22.3%
	Lázaro Cárdenas	33	5.5%
	Cabecera	70	11.7%
Indigenous	Yes	78	13.0%
Language	No	522	87.0%
Socioeconomic Level	A/B	52	8.7%
	C+	102	17.0%
	С	158	26.3%
	C-	97	16.2%
	D+	79	13.2%
	D	89	14.8%
	Е	23	3.8%

TABLE A1 – Sociodemographic characteristics of the sample

Dimension	Geometric Mean
Justice	6.15
Stability	8.56
Governance	7.89
Collective Agency	8.94
Humanity	9.39

TABLE A2 – Geometric means per dimension

Source: Authors' calculations using the common good dynamics instrument. Population: 137,290 inhabitants (INEGI, 2015). Survey representativeness only at the municipal level.

	Description	Group E		Group W	
Variable		N	%	N	%
Sex	Men	172	49.6%	123	48.6%
	Women	175	50.4%	130	51.4%
Education Level	Secondary School or less	107	30.8%	133	52.6%
	High School studies	69	19.9%	52	20.6%
	Undergraduate studies or more	171	49.3%	68	26.9%
	Cacalotepec			39	15.4%
	Tlaxcalancingo			112	44.3%
	Acatepec			24	9.5%
	San Luis Tehuiloyocan			25	9.9%
Locality	Tonantzintla			40	15.8%
	San Rafael Comac			13	5.1%
	Colonia Emiliano Zapata	58	16.7%		
	Colonia Concepción La Cruz	52	15.0%		
	Reserva Territorial	134	38.6%		
	Lázaro Cárdenas	33	9.5%		
	Cabecera	70	20.2%		
Indigenous Language	Yes	40	11.5%	38	15.0%
	No	307	88.5%	215	85.0%
Socioeconomic Level	A/B	40	11.5%	12	4.7%
	C+	72	20.7%	30	11.9%
	С	98	28.2%	60	23.7%
	C-	55	15.9%	42	16.6%
	D+	34	9.8%	45	17.8%
	D	39	11.2%	50	19.8%
	Е	9	2.6%	14	5.5%

 TABLE A3 – Sociodemographic characteristics for eastern and western localities in the sample

Dimension	Geometr	Geometric means		
	Group E	Group W		
Justice	5.95	6.55		
Stability	8.65	8.69		
Governance	8.07	7.53		
CollectiveAgency	9.03	8.68		
Humanity	9.52	9.37		

TABLE A4 – Geometric means of groups E and W

FIGURES



FIGURE A1 – Socioeconomic level according to education level

FIGURE A2 – Education and socioeconomic level according to locality in the sample



Source: Authors' calculations using the common good dynamic instrument. Population: 137,290 inhabitants (INEGI, 2015). Survey representativeness only at the municipal level.



FIGURE A3 – Common good dynamics in San Andrés Cholula

Source: Authors' calculations using the common good dynamics instrument. Population: 137,290 inhabitants (INEGI, 2015). Survey representativeness only at the municipal level.

FIGURE A4 – Examples of polarising responses in different items



Source: Authors' calculations using the common good dynamics instrument. Population: 137,290 inhabitants (INEGI, 2015). Survey representativeness only at the municipal level. Questions: (J2) In my locality, the police serves to protect me; (S18) In my locality when someone is arrested, the police treats them with respect; (J12) In my locality, people in do not need to leave the municipality to live well.



FIGURE A5 – Justice: Groups E and W.

FIGURE A5.1 – J12: People in my locality do not need to leave the municipality to live well (by locality)



Source: Authors' calculations using the common good dynamics instrument. Population: 137,290 inhabitants (INEGI, 2015). Survey representativeness only at the municipal level.

FIGURE A5.2 – J13: The programs of the municipal government benefit the majority of the population (by locality)



Source: Authors' calculations using the common good dynamics instrument. Population: 137,290 inhabitants (INEGI, 2015). Survey representativeness only at the municipal level.



FIGURE A6 – Stability: Groups E and W.

FIGURE A6.1 – S24: The programs of the municipal government have long-term benefits (by locality)



Source: Authors' calculations using the common good dynamics instrument. Population: 137,290 inhabitants (INEGI, 2015). Survey representativeness only at the municipal level.

Figure A6.2 – S25: If I buy land or a house, I have confidence that the government will respect my property title in the future (by socioeconomic level)



Source: Authors' calculations using the common good dynamics instrument. Population: 137,290 inhabitants (INEGI, 2015). Survey representativeness only at the municipal level.

FIGURE A7 – Governance: Groups E and W.



Source: Authors' calculations using the common good dynamic instrument. Population: 137,290 inhabitants (INEGI, 2015). Survey representativeness only at the municipal level.



FIGURE A8 – Collective Agency Freedom: Groups E and W.

FIGURE A8.1 – A49: Most of the times, the neighbours achieve the goals we set for ourselves (by socioeconomic levels)



Source: Authors' calculations using the common good dynamics instrument. Population: 137,290 inhabitants (INEGI, 2015). Survey representativeness only at the municipal level.



FIGURE A9 – Humanity: Groups E and W.





Source: Authors' calculations using the common good dynamics instrument. Population: 137,290 inhabitants (INEGI, 2015). Survey representativeness only at the municipal level.

REFERENCES

Acemoglu D., Robinson J.A. (2012). Why Nations Fail. The origin of power, prosperity, and poverty. Crown Business, New York

AMAI (2018). Nivel Socioeconómico AMAI 2018. http://www.amai.org/nse/wp-content/uploads/2018/04/Nota-Metodolo%CC%81gico-NSE-2018-v3.pdf. Accessed 26 July 2020

ASF (2013). Índice de Desarrollo Institucional Municipal 2013 (IDIM). Cámara de diputados, México

Ávila-Valdez J.L., Castro-Manzano J.M. (2020). Measuring Common Goods: First Steps Toward Validation. *Rivista internazionale di scienze sociali*, **4**

Bernal I. (2002). Formación y desarrollo de Mesoamérica. In El Colegio de México. *Historia General de México*. El Colegio de México, México, pp. 129-152

Coneval. (2015). Pobreza a nivel municipio 2010-2015. Consejo Nacional de Evaluación de la Política de Desarrollo Social. https://bit.ly/3eIMVFQ. Accessed 26 July 2020

Coneval (2018). Medición de la Pobreza 2008-2018. *Consejo Nacional de Evaluación de la Política de Desarrollo Social*. https://www.coneval.org.mx/Medicion/MP/Paginas/Pobreza-2018.aspx. Accessed 26 July 2020

Deneulin S. (2006). "Necessary thickening": Ricoeur's ethic of justice as a complement to Sen's capability approach. In S. Deneulin, M. Nebel, N. Sagovsky (Eds). Transforming unjust structures. Springer, Dordrecht

Deneulin S. (2008). *Beyond individual freedom and agency: Structures of living together*. In F. Comim, M. Qizilbash, S. Alkire (Eds). *The capability approach: Concepts, measures and applications*, Cambridge University Press, Cambridge

Evans P. (2002). Collective Capabilities, Culture and Amartya Sen's Development as Freedom. *Studies in Comparative International Development*, **37** (2), 54-60

Fraser N. (1997). Justice interruptus: critical reflections on the "postsocialist" condition. Routledge, London

Garza-Vázquez O., Ramírez V. (2020). Design and Reflection on the Metric of Common Good Dynamics. *Rivista internazionale di scienze sociali*, **4**

García Martínez B. (2002). La Creación de la Nueva España. In El Colegio de México. *Historia General de México*. El Colegio de México, Mexico, pp. 235-306

Hofmann Aguirre V.H. (2012). Angelópolis, Puebla y Santa Fe, Ciudad de México, ¿centralidades detonadoras de desarrollo o de exclusión? *Rúbricas*, **4**, 30-39

Ibrahim S. (2006). From individual to collective capabilities: The capability approach as a conceptual framework for self-help. *Journal of Human Development*, **7**(3), 397-416

INE (2019). Padrón electoral y lista nóminal de electores. https://listanominal.ine.mx/ ESTADISTICAS/index.php. Accessed October

INEGI (2015). México en Cifras. https://www.inegi.org.mx/app/areasgeograficas/?ag=21-TABMCCOLLAPSE-INDICADORES. ACCESSED 20 JULY 2020

Levy S. (2018). *Esfuerzos mal recompensados. La elusiva búsqueda de la prosperidad en México*. Banco Interamericano de Desarrollo, Washington D.C.

López J.D., Gómez Álvarez, D. (2010). Midiendo las capacidades institucionales de los gobiernos locales de México: un mapa de su diversidad. In D. Gómez Álvarez (Ed.). Capacidades institucionales para el desarrollo humano: conceptos, índices y políticas públicas, Editorial Miguel Ángel Porrúa, México

McCafferty G. (2016). La matanza en Cholula: crónicas de facciones y la arqueología sobre la conquista. *Elementos*, **102**, 3-16

MDP. (2018). *Plan Municipal de Desarrollo 2018-2021*. Ayuntamiento de San Andrés Cholula, Mexico

Meyer L. (2002). De la Estabilidad al Cambio. In El Colegio de México. *Historia General de México*. El Colegio de México, Mexico, pp. 883-943

Nebel M., Arbesu-Verduzco I. (2020). A Metric of Common Goods Dynamics. *Rivista in*ternazionale di scienze sociali, 4

North D.C. (1990). *Institutions, institutional change and economic performance*. Cambridge University Press, Cambridge

Obregón C. (2013). *México: un país desarrollado*. Pensamiento Universitario Iberoamericano, México

Rentería Garita C. (2014). Social Capital Formation in Mexican *Ejidos*. Land decisions after the article 27 constitutional reform. *Revista Internacional de Sociología*, **72**(1), 9-33

Sáenz Serdio M. (2004). Vida cural doméstica en la parroquia de San Andrés Cholula durante los siglos XVII y XVIII: estudio de caso de arqueología histórica. B.A. Dissertation. https://bit.ly/3hIMRbx. Accessed 26 July 2020

Salazar Andreu J.P., Olivares Philips A. (2015). La Invención de un Sueño: Historia de la Ciudad de Puebla de los Ángeles, oficialmente Heroica Puebla de Zaragoza. Tirant Humanidades, Mexico

Schumacher M. (2015). Modelos de desarrollo socio-territorial: caso de estudio: Cholula, México. *VII Seminario Internacional de Investigación en Urbanismo*. Barcelona-Montevideo, junio. DUOT, Barcelona

Sedatu. (2017). *Proyecto ejecutivo catastral. San Andrés Cholula, Puebla*. https:// www.gob.mx/cms/uploads/attachment/file/227282/PEC_MUNICIPAL_SAN_ANDRES_ CHOLULA__PUEBLA_.pdf. Accessed 29 July 2020

Sen A. (1992). Inequality re-examined. Clarendon Press, Oxford

Sen A. (1999). Development as freedom. Anchor Books, New York

Sen A. (2009). The idea of justice. Allen Lane, London

Sewell W. (1992). A Theory of Structure: Duality, Agency, and Transformation. American Journal of Sociology, 98 (1), 1-29

Stewart F. (2005). Groups and Capabilities. Journal of Human Development, 6(2), 185-204

Stewart F. (2013). Capabilities and Human Development: Beyond the Individual. The Critical Role of Social Institutions and Social Competencies (SSRN Scholarly Paper No. ID 2344469). UNDP, Rochester, NY

Taylor Ch. (2016). The Language Animal. Harvard University Press, Cambridge

UNDP (2019a). Beyond income, beyond averages, beyond today: Inequalities in human development in the 21st century. Human Development Report 2019. UNDP, New York

UNDP (2019b). Transformando a México desde lo local. Informe de Desarrollo Humano Municipal 2010-2015. PNUD, Mexico

World Bank (2020). *Mexico Overview*. https://www.worldbank.org/en/country/mexico/overview. Accessed 26 July

World Bank (2020). *World Development Indicators*. https://databank.worldbank.org/source/ world-development-indicators/Type/TABLE/preview/on. Accessed 26 July

490