IJEIR
International Journal of Educational Innovation and Research ISSN: 2810-0808
Volume 1, Number 1, 2022, pp 52-63
DOI: https://doi.org/10.31949/ijeir.v1i1.2401

Ecocentric governance: Sustainability between the availability of resources and needs

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ABSTRACT
The objective of this study was to corroborate the dimensions of ecocentric governance: conflict between authorities and users, negotiation and agreement between the parties, and co-responsible self-regulation between the rulers and the ruled regarding energy and water resources and services. An exploratory, cross-sectional and psychometric study was carried out with a non-probabilistic selection of 100 officials and users of the electricity and water service. The Governance Inventory was used, and the three preponderant factors were obtained: conflict, negotiation-consensus, and self-regulation-co-responsibility. In relation to the literature consulted, the three factors refer to governance oriented towards resource conservation. The third factor of self-regulation and co-responsibility suggests policies oriented by the availability of energy and water resources. Empirical testing of the model in a scenario and a sample exposed to resource scarcity is recommended.

ARTICLE HISTORY
Received 2022-02-18
Accepted 2022-04-24

KEYWORDS
Water
Energy
Scarcity
Governance

INTRODUCTION

Within the framework of the Sustainable Development Goals, the conservation of resources such as electricity and water are the central axis of the public agenda(Tapia-Fonllem et al., 2013). Public policies unfold between scarcity or abundance. Intermittent supply leads to savings in users(Carreón-Guillén1 et al., 2021). On the other hand, the permanent availability of electricity and water encourages greater consumption.

In this sense, the objective of this study was to establish the governance structure, considering five phases: conflict, negotiation, consensus, self-regulation and co-responsibility. This paper establishes the differences between anthropocentric governance and ecocentric governance with respect to the management of energy and water resources and services. The orientation towards the conservation of resources for the benefit of future generations versus the consumption of current generations defines the type of government. Complexity is that approach that from multiple natural or social sciences aims to account for the recursion, emergence or fractality of a phenomenon(Tapia-Fonllem et al., 2013). In the case of converging science around a common problem: The economy of an increasingly complex world in the relations between its economic and political actors, as well as between public and private sectors. What is

new is that the relationship between humanity and nature is increasingly distant(Quezada-Castro, 2019). It is about sustainable development that obliges stakeholders to conserve the environment for future generations(Marcos et al., 2017). In other words, science as an observatory and record of the unsustainable economic reality is a self-verifying testimony of the complexity of the relationship between humanity and nature.

From the social sciences, the proposals for scrutinizing the unsustainable reality between the availability of resources and human needs have been explained as a fractal (Espinoza-Morales et al., 2021). The complexity of a fractal phenomenon is that it repeats itself in its structure of relations between center and periphery(Espinoza-Morales et al., 2021). In this way, globalization is an economic condition of the fractality of increasingly limited resources.

Globalization allowed resources to be available in the economic centrality where the institutions and organizations that decide on resource transfers are agglomerated (Nájera et al., 2018). From the periphery, resources were transferred, after transformation into products in the industrial semi -periphery, towards the centrality of the cities(Espinoza-Morales et al., 2021). The United States and Europe, from a geopolitical fractal logic, are financial and economic nodes that attract natural resources for the satisfaction of their current generations of citizens without considering their future descendants(Marcos et al., 2017). This fractal globalization of the availability of resources generated an anthropocentric consumer consciousness.

Anthropocentrism is distinguished by its high degree of consumerism without considering future generations (Hernández-Valdés et al., 2020). It is assumed as an exclusive right of current humanity with respect to the resources it can consume(Lirios, 2018). Against this dominant ideology stands ecocentrism that puts the availability of resources before any need of any generation(Nájera et al., 2018). This is a complex nature conservation approach. The foundation of econcentrism is in the recursion that assumes the relationship between resources and needs as non-linear.

Ecocentric ideology is an alternative to the right to private and public resources(García-Lirios & Bustos-Aguayo, 2021). In order to conserve resources, ecocentric governance suggests assuming that the environment is common to any human generation(Vázquez et al., 2017). Therefore, the fractality of the central node cities with respect to the suburbs or periphery, is established from a logic of public resources in which the periphery pays tribute to the centrality. Or, from the private resources of the centrality that give value to the common resources of the periphery.

Ecocentric governance, the centrality and the periphery share the availability of resources(García-Lirios, Bustos-Aguayo, et al., 2021). An increase in resources in the periphery impacts centrality and vice versa. In this way, the scarcity of resources affects both entities. In an energy or water crisis, the periphery does not solve the necessary work to pay taxes to the centrality(Bustos et al., 2017). Even a bonanza in the centrality inhibits the development of the periphery accustomed to scarcity and without a strategy for abundance.

Unlike anthropocentric governance that distributes resources according to asymmetric relationships between centrality and periphery, ecocentric governance assumes a co-management model in which centrality and periphery are interdependent (Bustos-Aguayo et al., 2020). An example is the coupling of central and peripheral institutions in the face of a resource crisis.

Ecocentric governance is distinguished from other forms of state, government regimes or political systems in terms of its logic of construction and deconstruction of asymmetries between rulers and ruled (Sandoval-Vázquez et al., 2021). The purpose of ecocentric governance is to achieve intercultural co-government. That is, each minority will be represented to have a voice and a vote in the decisions that concern resources. Ecocentric governance achieves its goal of co-government based on the recognition of differences, negotiations, agreements and co-responsibilities between stakeholders, political and social actors, as well as public and private sectors.

The conflict between the public administration and the users of public resources and services represents the beginning of the deconstruction of anthropocentric governance (Carreón-Guillén1 et al., 2021). The asymmetries between the policies of forgiveness, subsidies and unit cost inflation are the beginning of a dialectic between the parties involved.

State management instruments such as payment forgiveness, debt reduction or cost increases are disseminated as conflicts increase (Nava-Tapía et al., 2021). Demonstrations emerge, blockades of avenues, rallies in esplanades, confrontations between the authority and dissatisfied users. The first phase of governance emerges, but it is confused as a class struggle that should be directed towards the dictatorship of the proletariat through the stewardship of the State.

Therefore, the objective of this paper is to describe the differences between political systems, government regimes and anthropocentric and ecocentric forms of State with respect to the public administration of the problems of scarcity, unhealthiness and scarcity of energy and water services in the centrality. urban and the rural periphery.

Are there significant differences between the dimensions of the ecocentric governance of energy and water resources and services both in the urban centrality and in the rural periphery with respect to the observations made in the present study?

The premises that allow approaching the question suggest that: 1) The availability of energy and water resources depends on anthropocentric or ecocentric management. Consequently, 2) the public administration of energy and water services distances itself from the needs of users. 3) The policies of cancellation, subsidy and increase in rates exacerbate the differences between the public administration and the demands of the users. 4) The needs of the users depend on their location in the urban center and in the rural periphery. 5) Centrally located users develop anthropocentric expectations such as comfort and recreation in energy and water consumption. 6) The users of the periphery demand the regularization of energy and water services because they allocate up to 20% of their income. 6) The users of the centrality and the periphery coincide in a post-materialist policy that allows them to inhibit consumerism, scarcity, unhealthiness and famine.

The theoretical and conceptual frameworks that explain the differences and similarities between the rulers and the ruled are: 1) Giddens's theory of social structuring, 2) Bourdieau 's theory of habitus and 3). Lefebvre's theory of spatiality.

Governance, as a co-government system, emerges with a conflict between the rulers and the ruled. The differences between public administration and users of energy and water services are controversial. The theory of social structuring warns that the asymmetries between the parties are due to the dialectic between agents and institutions (Bustos-Aguayo et al., 2020). The hegemony of the rulers over the ruled is exercised through the institutions that are responsible for structuring society (Lirios et al., 2015). In this sense, the constitution of the citizen crosses norms and moral civic values that border him to agency, or else, to conformity and obedience. In the dialectic between the State and society, the users of energy and water services are constituted from the policies of forgiveness, subsidy and price escalation, which are executed based on the conflicts between the parties.

Structuring theory explains the relationship between objectivism and subjectivism (Bermúdez-Ruíz et al., 2021). The interaction of the macro political and the micro community or neighborhood. The anthropocentric policy versus the ecocentric micro system that distinguishes cities from communities. The coexistence or co -presence of the systems can be observed in the supply and charging systems for public services. Oversupply policies in industrial zones contrast with austerity or tandeo policies in community areas or peripheral neighborhoods. These differences lead to conflicts that the print media have recorded from verbal to physical confrontations between users and the police.

Energy and water resources and services are fields of structuring the differences between the rulers and the ruled. The imposition of a tariff policy supposes the formation of what the theory of habitus calls a field of power (García-Lirios, Quintero-Soto, et al., 2021). This is the case of the operating agencies for the supply and collection of energy or water. The conflict between the parties becomes evident when the utilities establish rate increases in urban areas and subsidies or forgiveness in peripheral areas. Metropolitan energy and water policies do not inhibit protests in outlying neighborhoods and communities over service regulation.

habitus theory explains the field of power (Carren-Guillén et al., 2021). Anthropocentric governance resembles a field of power from which habitus or dispositions emerge between political and social actors. This interaction between the anthropocentric structure and the ecocentric attitude determines a habitus between the parties involved: the public administration and the civil mobilization of users.

The structuring theory warns of a co -presence of energy and water policies with respect to users' disagreement. Habitus theory observes a field of power configured by asymmetrical verbal dispositions between rulers and ruled (Molina et al., 2020). Both theories of structuring and habitus ignore that it is a contradictory space as enunciated by the theory of spatialities (Bustos-Aguayo et al., 2020). A contradictory space deactivates and condenses conflicts to generate a new production of space (Espiinoza et al., 2019). Ecocentric governance is that new space that emanates from the contradiction between the consumerist centrality and the austere periphery.

Consequently, the theory of spatialities can analyze the differences between the policies of oversupply to the industry and the policies of scarcity or tandem for the peripheral communities and neighbourhoods. Structuring theory reveals the asymmetries between the rulers and the ruled (Carreón-Guillén et al., 2021). The habitus theory explains these differences from the parts either as use or appropriation of central and peripheral spaces (Martìnez-Muñoz et al., 2021). Or, as generations through inherited habitus in fields of power. The theory of spatiality incorporates the contradictions between the rulers and the ruled to discuss the production of a new space that the theory of habitus considers to be a field of power and the theory of structure a co -presence between the political and the subjective.

The three approaches, structuring, habitus and spatiality point towards a convergence of political and social structures in the subjectivity of users. That is, the public administration of public resources and services reflects the differences between social class structures, spaces of use and appropriation, as well as habitus and fields of power.

Each of the three perspectives, structuring, habitus and spatialities, emphasizes the private use of energy and water resources and services. The structuring suggests that users cannot distance themselves from the imposition of tariffs according to the capacities of the State to supply the resources and its consumption projections. The habitus explains why the differences between the rulers and the ruled are limited to fields of power in which the rates are far from the needs. The spatialities follow this logic by indicating that policies and demonstrations coexist and even configure a negotiation scenario.

Precisely, after the recognition of the differences between the parties, underlies the negotiation and the agreements that probably lead to co-responsibilities. Political actors rely on institutions to structure their supply and collection policies. Social subjects use these policies to express their disagreements and demand a better quality of energy and water services. The parties involved, in accordance with the three perspectives of structuring, habitus and spatiality, agree on a new management of energy and water resources and services.

However, the theoretical guidelines to explain co-responsibility between the rulers and the ruled have not yet been established from any of these three approaches. Structuring theory only suggests overcoming the dichotomy of objectivism and subjectivism. The habitus theory proposes a symbolic emancipation from the field of power where political and social actors exercise their capital. The theory of spatiality warns of a

production of spaces and scenarios, but without considering the co-government that co-responsibility supposes as the last phase of governance.

Ecocentric governance in terms of administration and participation in the management of energy and water resources and services suggest observing four instances: conflict, negotiation, agreements and co-responsibilities.

The conflict around the management of natural resources and public services is a guiding axis in metropolitan governance (Carreon-Guillen et al., 2021). The inclusion of the participation of civil sectors in the coupling of organizations and institutions in charge of managing the supply of electricity and water is a central issue on the public agenda. The discussion on the availability of energy and water resources is generated by the regulation of supply and rates. As the differences between public administration and users are reduced, risk events such as floods, frosts, fires or earthquakes reduce their impact on the quality of public services.

Transparent tariff management implies open concessions, public investment, citizen consultations or discussion forums (García-Lirios, 2017). Once the differences between the rulers and the ruled have been overcome. Immediately afterwards, the proposals and agreements fill the agenda of municipalities, towns and communities. The political and social actors establish subsidy or remission agreements, but the institutional decoupling revives the asymmetries between the parties involved.

Therefore, a third actor materialized in the media promotes consensus by offering a quality service. The conflicts due to the increase in rates and the shortage of supply are overcome through subsidies and forgiveness (Muñoz et al., 2021). Such a process is susceptible if the media and networks report on the discovery of new sources of resources and risk scenarios if differences between political and social actors persist. The promotion of water scarcity generates savings for users. The propaganda of abundance and subsidization of energy resources encourages excessive consumption.

The supply policies for energy and water resources and services are replaced by co-responsibility (García-Lirios, Bustos-Aguayo, et al., 2021). The system in which users are able to read electricity and water consumption guides the acceptance of a rate system based on compared consumption. Users who in the media and networks are informed about the increase in rates in other communities and localities self-regulate their needs.

Co-responsibility can be expressed in a document signed by the parties, as is the case of agreements between organizations and sectors, but it can also be observed in the self-regulation of consumption, the reduction of subsidies, the eradication of forgiveness and the gradual increase in rates (Espinoza-Morales et al., 2021). The result of co-responsibility is the governance indicated by the representation of user sectors in the boards of directors of the organizations in charge of supplying or charging electricity and water. The representativeness of the parties involved presupposes an interculturality that distinguishes ecocentric governance from anthropocentric governance. In other words, the interested parties agree on a rate system that may or may not obey the availability of energy and water resources.

The theoretical, conceptual and empirical axes that explain the comprehensive management of energy and water resources agree in an intercultural co-government, but this ecocentric governance would be possible as long as the parties involved followed specific decision paths (Valdes, 2020). The modeling of ecocentric and intercultural governance is possible from the theories and findings reviewed.

Two routes are possible to establish: 1) The prediction of an intercultural and ecocentric scenario if the political and social actors reflect a conflict, agreement and co-responsibility. 2) The anticipation of an ecocentric and intercultural governance scenario if the determinants of self-regulated co-responsibility can mediate urban and rural, central and peripheral differences.

Governance is in theory and empirically a system of co-management and co-government (Espinoza-Morales et al., 2021). That is, an interrelation of needs, expectations and capacities that political and social

actors use to establish a provisional hegemony of interests. The governance that is built in a community is not necessarily suitable for a locality or municipality. If there are differences between management territories, then the governance of a demarcation may not be acceptable in another mayor's office. If an inter-municipal governance is built, the process is similar: conflict, agreement and co-responsibility between the inhabitants and authorities of a locality in front of the counterparts of another demarcation.

Therefore, both governability and governance in their anthropocentric and ecocentric dimensions assume political and social roles that can be addressed from their conflicts, agreements, consensus, self-regulation and co-responsibilities, provided that the parties establish their priorities based on scarcity, unhealthiness and scarcity of energy and water resources and services. That is, the differences between the dimensions reported in the literature with respect to those observed in the present study will allow opening the discussion on the research agenda on the matter. Unlike the study of Tapia-Fonllem et al., (2013) in which the impact of the scarcity, unhealthiness and scarcity of natural resources and public services on the consumption of users is observed, this paper reviews the dimensions that will allow systematizing the provisions, expectations and strategies of authorities and users in the event of a maximum risk event. The interpretive analyzes of the representations or experiences of users with respect to the decisions of their rulers are distant from the present work that configures a model where it is possible to investigate how related the phases of the relations between rulers and the ruled are with respect to their environment (Quintero-Soto et al., 2021).

METHODS

A cross-sectional qualitative and descriptive study was carried out in a sample of 100 officials and users of the electricity and water service in a community in central Mexico, considering the inter-institutional public administration of energy and water resources and services. According to the theory of environmental farsightedness, which warns of the emergence of despair in communities in the face of the informative onslaught of climate change, the margin of error is greater than the standards of five percent and the confidentiality less than interviews on topics related to climate change(Lirios et al., 2017). In other words, traditional media such as television, radio or the press generate despair in the population by announcing the extinction of species, the scarcity of water and the increase in the cost of electricity(García-Lirios, Bustos-Aguayo, et al., 2021). Therefore, users tend to increase their consumption because they assume that they will not live longer than their predecessors(Sandoval-Vázquez et al., 2021). If the media tells the story that climate change is intensifying in rich or poor countries, then users will not change their expectations and will stick with their average consumption of water and electricity, considering that the risk situation is distant(Bustos-Aguayo et al., 2020). A version that scarcity, unhealthiness and famine are already present in the communities supposes a greater despair(Alvarado-Garibaldi et al., 2021). Therefore, it is necessary to develop an instrument that measures each scenario: fatalistic, optimistic and probable. The town of La Cañada in the municipality of Huehuetoca with a medium and low level of quality of life, average income of 7'934 pesos per month and truncated upper secondary education. Unemployment lower than the national average, even when it receives migrants from Central America. The consumption of electricity (0530 kWh) and water (200 m3) is lower than the national average per capita.

The Corporate Practices Inventory was used (Campos Guido et al., 2021), Includes questions related to conflict (How much do you disagree or agree with: lighting, sewage, repair of leaks, electricity and water?), negotiation (How unwilling or willing are you to request reports on spending on municipal services, follow-up on complaints or attention to demands?), agreement (How infrequent or frequent have you participated in public assemblies, basin committees, censuses, plebiscites or surveys? related to electricity and water in your locality?), self-regulation (To what extent have you participated in campaigns to save electricity and water, repair leaks, calls for help, advice or training for the maintenance of your residential and public

facilities?) and co-responsibility (How often do you monitor or ignore water leaks, power outages, supply failures, poles falling, transformer fires or irregular supplies').

Public officials and users of the electricity and water service were selected by invitation to their institutional or personal email. The objectives and those responsible for the study were reported. The confidentiality and anonymity of their answers were guaranteed in writing, as well as the non-affectation of their economic status. The homogeneity of the concepts was established using the Delphi technique. The data was captured in Excel and processed in JASP version 15.

The coefficients of normality, linearity, reliability, adequacy, homoscedasticity, sphericity, validity, correlation and covariance of the response distributions were estimated. The null hypothesis of significant differences between the theoretical dimensions of governance with respect to the observed factors was tested with adjustment and residual parameters.

RESULTS AND DISCUSSION

Results

Table 1 shows the factorial weights that explain governance in three components: conflict, negotiation and agreements, as well as self-regulation and co-responsibility. The governance structure suggests three main phases that explain the management of energy and water resources and services. That is, the relationship between officials and users is explained from these three factors.

Table 1. Factorial weights

	RCI	RC2	RC3	Uniqueness
p1			0.775	0.353
p2		0.856		0.333
p3		0.896		0.208
p4		0.824		0.307
p5		0.668		0.496
p6			0.797	0.228
p7		0.671		0.439
p8		0.753		0.430
p9			0.814	0.262
p10	0.525			0.380
p11	0.796			0.453
p12	0.811			0.323
p13	0.656			0.391
p14	0.742			0.373
p15	0.636			0.276
p16	0.894			0.237
p17	0.756			0.306
p18	0.675			0.347
p19	0.898			0.318
p20	0.847			0.330
p21	0.575			0.570

Source: Elaborated with data study

Once the components were established, the relationships between the factors were estimated (see Table 2). The values of proportion, accumulation and correlation between the three dimensions suggest the

validity of the instrument that measures ecocentric governance. Conflict, negotiation and agreement, as well as self- regulation and co-responsibility are predominant factors in ecocentric governance.

Table 2. Component Characteristics

	eigenvalue	Proportion	Cumulative	RCI	RC2	RC3
RC1	9,773	0.465	0.465	1.00		
RC2	2,065	0.098	0.564	0.610	1.00	
RC3	1,800	0.086	0.69	0.373	0.243	1.00

Source: Elaborated with data study

Figure 1 shows the structure of relationships between factors and indicators. The relationships between the factors are lower than those with the indicators. That is, the structure indicates the possibility of excluding the third factor, although three indicators justify its inclusion. In this way, the observed ecocentric governance suggests that the surveyed sample experiences conflict, negotiation and agreement, but not self-regulation and co-responsibility in the same way.

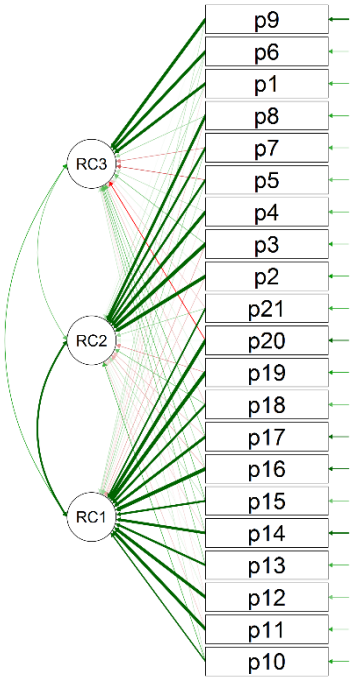

Figure 1. Route diagram
Source: Elaborated with data study

The adjustment and residual parameters suggest the non-rejection of the null hypothesis regarding the differences between the theoretical dimensions with respect to the observed ones. The model found indicates that governance is a process that begins with conflict and is reconfigured in co-responsibility. In the administration of energy and water resources and services, ecocentric governance is consolidated in the two phases.

Discussion

The structure found in the present work suggests that in the face of the problems spread in the media and social networks, the expectations of ecocentric governance are structured in three columns: conflict, discussion-agreement, and self-regulation-co-responsibility. It means then that in all scenarios: fatalistic,

optimistic, and probable, ecocentric governance will prevail over anthropocentric or ecocentric governance, as well as over anthropocentric governance. The hegemony of ecocentric governance suggests that although natural resources and public services are exposed as axes of the public agenda, users and public services surveyed are forced to differentiate themselves, discuss, agree, negotiate and take responsibility for their management and consumption decisions.

Ecocentric governance has been emerging in cities like Los Angeles where rising rates have reduced the risk of scarcity, unhealthiness, and famine(Molina et al., 2021). In the Los Angeles city, anthropocentric governance dominated over ecocentric governance, but governance underlay after the rulers established a tariff system which revealed a conflict with users unwilling to pay the increase and subsidize lower-income communities. Higher income areas implemented a saving and recycling technology to renegotiate the collection system. Poor communities transitioned to austerity and mobilized to self-manage their supply. Both groups, rich and poor, opened the discussion on the scarcity of water and the electricity used to pump it. As the aquifers dried up, pumping increased and water rates included the cost of electricity. Immediately, the agreement between the parties materialized with the stabilization of the rates and the persistence of the system until today reflects a co-responsibility between the governors and the governed.

In the municipality of Huehuetoca, it is possible that the increase in residential areas reduces aquifers and increases the cost of water, as well as conflicts. The scarcity and tandeo policy have already been observed in Iztapalapa and San Luis for political reasons. In Iztapalapa, the mobilizations reduced and abolished the tariffs. In San Luis, the shortage was due to the decoupling of the managing and administering entities of the water(Hernández-Gracia et al., 2018). A third instance was enough to regulate the rates. In Huehuetoca it is possible to observe both solutions. Shortages due to increased demand will increase rates and protests. The differences between native peoples, housing units and residential areas will allow self-management and self-regulation until achieving co-responsibility materialized in the stabilization of rates.

However, the limits of this study should be in the measurement of the dispositions, expectations, and strategies in the face of scarcity, unhealthiness and high cost of electricity and water services(Sandoval-Vázquez et al., 2021). The new settlements take between three and five years to regulate the measurement of their consumption. Therefore, the government's standard rate inhibits differences, conflicts, agreements and responsibilities between the parties. Such appreciations can be registered in electoral season and political contest. As the elections approach, it is difficult to observe ecocentric governance because the parties are dedicated to an agenda distant from the users and close to the politicians. It is true that the conflicts between the rulers and the ruled are appreciated in the elections, but these asymmetries do not allow progress in social self-management because the political forces assume them as clienteles, militants, adherents, sympathizers, or opponents. In other words, political polarization inhibits ecocentric governance.
Ecocentric governance. The dimensions of conflict between rulers and ruled, negotiation and agreement between political and social actors, as well as self-regulation and co-responsibility are in the making. In other words, the surveyed sample reflects dimensions and indicators that the literature identifies as a co-government in the face of scarcity, unhealthiness and high cost of energy and water resources and services.

Governance theory delves into the differences between the rulers and the ruled in their immediate environment of resources (García-Lirios & Quintero-Soto, et al., 2021). The present work found a three-phase factorial structure that denotes co-management, even when the prevalence of conflict explains the highest percentage of variance. The instrument that measures this process reaches its validity with the structure of three factors and respective indicators. Using the scale in other scenarios and samples will show that governance is reflected in all three dimensions. The applicability of the findings to resource management policies would consist of an agenda guided by the dimensions found.

Governance studies emphasize the conflictive dimension between the rulers and the ruled (Rosas-Ferruzca et al., 2019). The differences between political and social actors are more explanatory of the

management because they justify forgiveness, subsidies and rate increases. Since the conflict, the energy, and water operating agencies base the differences between the public and private sectors. A further increase in consumption suggests an increase in the rate. A low-quality service justifies waivers and subsidies.

However, if tariff policies are designed from a notion of co-responsibility, it will be possible to notice that the greater the difference between the parties, the greater self-regulation in the face of scarcity. In this way, both actors, politicians, and civilians, develop a co-management to achieve co-government. The public administration increases the rates based on the scarcity of resources and civil society limits its consumption. In this process, risk communication is fundamental. The diffusion of scarcity will generate savings and the promotion of abundance as waste. Therefore, the State must promote scarcity to encourage savings. For that purpose, negotiation, consensus, and self-regulation emerge as instruments of ecocentric governance rather than anthropocentric governance.

CONCLUSION

This study showed that the ecocentric governance of energy and water resources and services lies in three dimensions: conflict, negotiation-agreement, self-regulation-co-responsibility. The instrument that measured this process warns of a prevalence of conflict as well as the consulted literature. In the case of negotiation and consensus, the literature consulted suggests that this instance is generated from a governance of scarcity, forgiveness, subsidies and increase in rates. That is, ecocentric governance coexists with anthropocentric governance. Indeed, anthropocentric governance addresses conflict in the same way as ecocentric governance. Both coexist in the phase of conflict and consensus.

However, the sample surveyed, and the instrument used suggest that governance differs from governability starting from the co-responsibility phase. The cancellation, subsidy and increase in rates are tools for managing the differences between the governors and the governed. The self-regulation of tariffs according to the availability of resources is the basic principle of ecocentric governance.

The differences between anthropocentric governance and ecocentric governance serve to distinguish the design of supply or demand policies. The public policy that communicates an abundance of energy and water resources guides consumerism. The communication of risks due to scarcity, unhealthiness or famine reorients the saving of energy and water resources, reflecting in residential savings. Lines of research concerning the differences between anthropocentric governance with respect to ecocentric governance will allow progress in the discussion of rates, as well as in the design of co-management policies.

ACKNOWLEDGMENT

I am deeply indebted to my Transdisciplinary Academic Network. Department of Complex Sciences, for their warm support, inspiration, and thoughtful guidance.

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