

## MOBILIZATION OF POLITICAL-RELATIONAL CAPACITIES BY STATE GOVERNMENTS: an analysis of the formulation of the state plan for solid waste in Tocantins

A MOBILIZAÇÃO DE CAPACIDADES POLÍTICO-RELACIONAIS POR GOVERNOS ESTADUAIS: uma análise da formulação do plano estadual de resíduos sólidos do Tocantins

MOVILIZACIÓN DE CAPACIDADES POLÍTICAS-RELACIONALES POR GOBIERNOS ESTATALES: Un análisis de la formulación del plan estatal para residuos sólidos en Tocantins

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### ABSTRACT:

The National Solid Waste Policy provides for the elaboration of national, state, micro-regional, intermunicipal and municipal plans for integrated waste management (Brasil, 2010). Therefore, the objective was to analyze the political-relational capacities mobilized by the network formed by the actors/ participants in the Technical Workshop for the elaboration of the State Plan for Solid Waste of Tocantins (PERS/TO), which took place in October 2015 in Palmas. Reports were collected from the Secretariat of Environment and Water Resources (Semarh) and a questionnaire was applied to the participants of the technical workshop, which sought to identify the interests of the various actors and investigate the structure and function of the network. The data were analyzed with the support of the Visone 2.7 software.

**KEYWORDS:** State capacities; Political-relational capabilities; Public Policy Networks; Formulation of Public Policies; Solid waste.

### Introduction

The concern with the protection and conservation of the environment is increasing, since environmental degradation causes irreversible damage to society. Currently, the issue of Solid Waste (RS) is one of the points of greatest concern, as it is produced in homes, commercial and industrial establishments, educational institutions, among others, therefore changing its characteristics as a result of economic and technological development. Thus, it is important to have a public policy instrument that serves as a model for actions to change society's habits (Tocantins, 2015).

Law No. 12,305/2010 establishes the National Solid Waste Policy (PNRS), which regulates the management of solid waste. In line with Law No. 11,445 / 2007, which provides for the National Basic Sanitation Guidelines, Law No. 11,107/2005 of Public Consortia (Maiello, Britto, & Valle, 2018) and the National Environmental Education Policy, Law No. 9,795/1999 make up the legal framework that seeks to influence the behavior of waste generators, as well as those that develop actions related to the management of materials present in economic activities (Brasil, 2010).

The PNRS, in addition to establishing that all citizens are responsible for the waste generated and proposing an improvement in the management of this waste through the sharing of responsibilities between society, the government and the private sector, is considered an important step forward in addressing the issue solid waste (Brasil, 2010; Almeida & Gomes, 2018). The law provides for the elaboration of a national plan, state, micro-regional, metropolitan, intermunicipal, and municipal plans for integrated solid waste management, in addition to proposing incentive measures for the realization of regional public consortia aiming at a possible cost reduction with the systems for collection, treatment and final disposal of waste (Brasil, 2010).

One of the necessary conditions for the transfer of financial resources from the Union to the Federal District and the Municipalities for the management of solid waste is the preparation of Municipal Plans for Integrated Management of Solid Waste (PMGIRS), which may be included in the Basic Sanitation Plan (PSB). The main aspects addressed in the Municipal Plan for Integrated Solid Waste Management refer to the diagnosis of the situation of waste in the territory, the characteristics of that territory and the agents involved, developed through a participatory process (Brasil, 2010).

According to the National Information System on Solid Waste Management (SINIR) (<http://www.sinir.gov.br/web/guest/observatorio-de-lixoes>, recovered on March 17, 2018), at Tocantins (TO), about 48% of the 139 municipalities prepared their municipal plan for RS. In this state, the disposal of waste in open pit dumps occurs in 63% of the municipalities. It is also worth noting that the state only managed to elaborate its state solid waste plan after 5 years of the deadline, that is, in 2017, and the law is from 2010.

Although the policy is a reality in the country and regulates the issue of solid waste, there are still many difficulties in its implementation. Some may be related to the policy-making process and even to the necessary resources, which are insufficient in this context. In addition, the challenges in its implementation are also notorious, highlighting the integration between the different actors, provision of trained human

resources and financial and technological resources appropriate to the reality in question, among others (Maiello, Britto, & Valle, 2018).

The topic of waste is quite complex, either because of the specificity of its management, or because it affects numerous actors with different interests, being one of the reasons for the difficulty of consensus on the establishment of a national policy, whose bill passed for more than 20 years (Almeida & Gomes, 2018), therefore, the State of Tocantins opted to develop its plan together with society, enabling the participation of several actors in the design of the policy, as recommended by the Ministry of the Environment (MMA) (Tocantins, 2015). The benefits of participation are in the fact that the discussion from different perspectives and the gathering of different knowledge, “expands the acquisition of information about problems, increases the stock of knowledge available for the formulation of solutions and, finally, involves various agents in the follow-up, monitoring and evaluation of the initiatives” (Pires & Gomide, 2016, p. 126).

In addition, the interaction of state agents, political agents and society enables the introduction of innovations in public policy (Pires & Gomide, 2016). In addition to greater legitimacy, participatory processes improve the quality of decisions (Gomide & Pereira, 2018).

In this research, the approaches to political-relational capacities advocated by Pires and Gomide (2016, p. 127) are adopted, according to which they are “associated with the skills and procedures of inclusion of the multiple actors (social, economic and political) of articulated form in public policy processes”. This seeks to “build minimum consensus and coalitions to support government plans, programs and projects”.

In this sense, the objective is to analyze the state political-relational capacities mobilized in the process of building the Tocantins solid waste plan. Highlighting the elaboration workshops, which were configured as a participative decision-making body. Specifically, an attempt was made to identify the network formed by the actors/participants in the technical workshop for the elaboration of the State Plan for Solid Waste of Tocantins in the municipality of Palmas and to map the number and type of participants in the workshop, identify their interests and finally investigate the structure, network function and state-society power relations. This research intends to contribute with discussions in order to collaborate for the establishment of future hypotheses about the influence of political-relational capacities in the adoption of solutions to public problems in public policy formulation processes.

Aside from this introduction, the research is structured on the following topics: theoretical rescue on the concept of state political-relational capacities and the formulation of public policies and network of actors. In the third section, the methodological procedures used are presented. Subsequently, the analysis and discussion of the collected data is presented. In the final considerations, the contributions of this case study to the practice of public management of the state and to research on state capacities of subnationals are presented, including suggestions for future studies. In the final considerations, the contributions of this case study to the practice of public management of the state and to research on state capacities of subnational entities are presented, including suggestions for future studies.

### **Political-relational capabilities and public policies**

Among the various changes instituted by the Federal Constitution of 1988, measures that aimed to restore democratic instruments were highlighted, such as, for example, the expansion of control, participation and transparency instruments in the formulation and management of public policies, making it more complex the institutional environment (Pires & Gomide, 2016).

At the same time, the reform of the state increased the jurisdiction of the municipalities, made it possible to open channels of participation, fostering informal and flexible innovative dynamics, and a favorable environment for the establishment of partnerships. Thus, in the face of a fiscal crisis in the State, combined with a crisis in the bureaucratic public administration model and a crisis in governance, it was necessary to reform towards a State with greater flexibility, which could decentralize functions and transfer responsibilities while extending it time, the universe of participating actors, without, however, giving up the instruments of control and supervision (Diniz, 1996).

In short, the transformations of the State have led to changes in the way it produces public policies. In this sense, there was a redefinition and rearticulation of relations between the State and society, and the idea of "government" gives rise to the broader concept of "governance", including not only political systems, but also social and respective systems formed networks (Shneider, 2005). The "governance" literature presents the possibilities for configuring the relations between government, the private sector and civil organizations from three general configurations: hierarchy, market and network (Rhodes, 1997). Therefore, more complex structures became necessary so that the formulation and management of policies could be distributed or shared by

government and civil society actors (Shneider, 2005), examples of such structures are the management councils; conferences; public hearings and consultations; ombudsmen and others, such as negotiating tables, management committees, meetings with stakeholders, among others (Pereira, 2014).

Faced with a context of democratization and globalization, researchers in the fields of political science and public administration, turn their attention to the capacities of the State in the context of the elaboration and implementation of public policies. There are countless discussions about the role that the State plays in economic development, but little is discussed, in isolation, about its capabilities in order to legitimately define objectives collectively and implement them based on relationships with different actors and institutions (Pires & Gomide, 2016). In addition, these authors consider state capacities as variables according to the time, space and area of performance of public policy, therefore, they are not fixed and timeless attributes.

Pires and Gomide (2016) consider that state capacities can be analyzed from two specific types: technical-administrative and political-relational. In this first case, the presence of the theory of bureaucracy [Weber] is clear, since it involves the qualification of public managers to coordinate and achieve the objectives of public policies. In this second, governmental skills necessary to negotiate with actors from civil society and different companies, including interests, conflicts and established relationships, are notable as requirements.

Political-relational capacity involves the following indicators: "institutionalized interactions between bureaucratic actors and political agents (parliamentarians from different parties), the "existence and functioning of mechanisms for social participation (such as councils and public hearings)" and "the presence of inspection of control agencies" (Pires & Gomide, 2016, p. 130).

In this sense, Souza (2016) highlights the need to think about reconfiguring public debate arenas in order to provide civil society with new spaces to participate in public decisions. However, the author points out that social participation started with management councils and participatory budgets, subsequently, with public consultations, conferences, ombudsmen and negotiating tables.

Souza (2016, p. 13) explains that participatory processes seek to "create conditions" for the participation of citizens, private companies, public agencies, universities, among others, in the arenas of public discussions, seeking "direct effects" and indirect in public decisions". This can be justified by the fact that the more diverse this audience is, the greater legitimacy is given to public processes. In other words, the

distinct interests of the collectivity are more likely to be represented. It also highlights the need for interaction between State actors and external to it for the proper functioning of its institutions (Souza, 2017).

According to Souza (2017, p. 114) the execution of participatory processes depends on four types of capacities: institutional, political, administrative and technical. In the case of institutional capacity, this refers to the "condition of establishing the parameters for the development of the participatory process in a manner appropriate to the organizational reality of the state agency promoting the process and the political field of the participating subjects". The policy "brings the connection of participatory processes to the public policy management cycle and other forms of socio-state interaction". In the administrative "the look is for the conditions of operation of the State in the promotion of social participation in the management of public policies". Finally, the technique "deals with the mobilization of cognitive resources to generate appropriate solutions to participatory processes, in particular, to promote conditions for qualified interactions in conversations directed to a purpose".

The management of participatory public policies is a reality in several surveys (Pires & Gomide, 2016; Souza, 2016; 2017). These are "the skills of state bureaucracies to create effective channels of dialogue with the social groups affected by a given policy" (Pereira, 2014, p. 54). As the author points out, this can occur in a formal way "from the use of institutionalized means of interaction between the State and society, such as thematic management councils and public hearings provided for by the legislation" and also informally through the "holding of meetings spontaneous and dialogue tables between bureaucracy and social groups".

In the view of Pires and Gomide (2016, p. 126), "the meeting between different actors allows the problems to be faced and the projects to be designed can be discussed from different perspectives, mobilizing varied knowledge and resources". According to these authors, this allows more information about the issues discussed, increases the possibilities for solving the problem pointed out, involves various actors in the monitoring and monitoring and evaluation of public acts, as well as a relational point of view on the part of the government, so that it encompasses an inclusive process of different actors, negotiation and/or articulation both between social groups and with state groups and also with coordination with different public organizations of the State apparatus.

Still regarding the relational dimension, Gomide and Pereira (2018, p. 939) report that they seek the "relationship between the executive bureaucracies and local social

groups, articulation with the representatives of subnational entities; and dialogue with external control bodies". Similarly, the authors point out that this capacity, in addition to the interaction between the various social actors interested in the elaboration and implementation of public policies "would be positively associated with political support for projects and social learning, resulting in quality public services and with expected benefits".

The importance of interaction between the multiple social actors is perceived for the effective delivery of products, which involves from the representatives of the Executive and Legislative municipal, state and federal, the state actors linked to the management of public policies of state institutions, even control bodies, as well as representatives of civil society in general. Hence the importance of analyzing political-relational capacities in public policy formulation processes.

### **Formulation of public policies and networks**

Almeida and Gomes (2018) highlight that public policies are shaped from established relationships (formalized networks or not) by actors and institutions internal and external to the government. Each of these participates exposing ideas on a given subject, considering their beliefs and their individual interests. However, it is significant to point out that their actions are affected by the context and influenced by external events.

The recognition of this complexity in the process of building public policies led to the network approach in the literature (Scharpf, 1977). Sneider (2005, p. 38) explains that the concept of public policy networks can be understood as a set of "macro-structural manifestations of political systems, in which political and social interests are integrated in the public policy process in quite different ways". Thus, the networks incorporate "different actors from different social and political sub-sectors in the context of producing a policy".

Despite the widespread use of the concept of public policy networks, there is no consensus on its definition. There are significant differences between the understanding arising from the authors who represent the American, British tradition (Marsh & Rhodes, 1992; Downing 1995, apud Klijn & Koppenjan, 2000) and the European perspective (Marin & Mayntz, 1991; Van Wardeen, 1992, apud Marinho, 2015), although there are also differences between authors within the same tradition.



The American tradition has its origin in the works of Lowi (1964) who developed the concept of iron triangles and Heclo (1978) who worked on the concept of issue network.

The concept of an iron triangle or iron triangles proposes that there is no single formula to explain public policies, as each arena tends to develop its own structure and dynamics formed by the interaction of a set of specific actors. The iron triangle is a representation of the government agency, the congress and interest groups, that is, a small number of actors that influence public policy (Lowi, 1964). The notion of issue networks or thematic networks of Heclo (1978) also suggests that there is a stable group of actors to control certain public programs, however, it assumes that there are a greater number of participants than only the elite proposed by Lowi (1964) and that these can move constantly in and out of the network. Heclo's (1978) approach is more flexible and emphasizes the process of opening up public policy decisions.

For the analysis of public policies, policy networks or issue networks are of great importance, especially as factors in conflict and coalition processes in political-administrative life. It was observed, in the case of the political reality of more consolidated democracies, that the members of such policy networks tend to compete, but end up creating internal bonds of solidarity, which allows them to defend themselves and act against other policy networks considered competitors (Frey, 2000).

The concept of policy network appears as an influence of the works of Heclo (1978) and Lowi (1964), as well as by the interorganizational theory, which assumes that the actors are dependent on each other's resources in the pursuit of their goals. Systems theory also contributed to the extent that organizations came to be seen as an open system with connections to the environment, whose relationships would determine their processes.

Marsh and Rhodes (1992) are considered exponents of British literature on networks. For them, the policy network approach analyzes organized social complexity, focusing on organizational interdependence between public institutions and private interests. The element that explains political results is the structural relationships between political institutions and not the interpersonal relationships within those institutions.

Thus, Marsh and Rhodes (1992) assume an essentially structural approach where the structure of the network affects political results and factors external to the network lead to changes both in the network and in the results. Klijn and Koppenjan (2000) conceive networks also from a structural perspective, describing them as more or less



stable patterns of social relations between mutually dependent actors that are established in terms of political problems or resources and whose formation, maintenance and change are the work of a series of games, which take place from continuous and consecutive actions between different actors, carried out according to formal and informal rules that are established around themes or focal decisions.

Downing (1995, apud Klijn & Koppenjan, 2000) although part of the British current, has a different perspective from that of Marsh and Rhodes (1992). He defends exploring the micro level, because according to him, the behavior of the actors determines the political result. For him, networks reflect models of interaction and exchange of resources between agents and this exchange is crucial for understanding the result and not the structure of the network as predicted by Marsh and Rhodes (1992).

Marin and Mayntz (1991), representatives of the European perspective, understand the network from a governance perspective, that is, a new way of governing that avoids market failures and the lack of flexibility and adaptability of bureaucracies to changes. The network would be an intermediate government structure that is distinguished from the vertical (hierarchy) and horizontal (market) forms of organization. Freelance authors interact in order to produce a negotiated consensus that is the basis for cooperation.

The basic assumption behind the idea of networks as a governance system is associated with the government's inability to meet the growing demands of complex and rapidly changing times (Goldsmith & Eggers, 2005). The term governance implies a change in the meaning of government referring to a new process or method in which society is governed (Rhodes, 1997).

From the perspective of network analysis, Marinho (2015) emphasizes the importance of using typologies, emphasizing that these tools allow describing characteristics and relating causes between variables, thus defining the researcher's task, which is to identify the main elements, of the variables to be considered and the disposal of what is unnecessary (Marinho, 2015). Typologies can be the basis for the ontology of a theoretical model of public policy networks, considering that interactions between different actors can contribute to the structuring of a given public policy.

Among the typologies proposed by several authors, that of Van Waarden (1992) mentioned by Marinho (2015) has greater significance because it considers the number of participants and the relationship between state and society in the description and characterization of networks, in addition to proposing a systematic model and

organized of the dimensions of networks. The seven dimensions proposed by Van Waarden are shown in Chart 1.

**Frame 1** Complete model proposed by Van Waarden

<b>Dimension</b>	<b>Characteristics</b>
<b>Actors</b>	Number: determines the size of the policy network: <ul style="list-style-type: none"> <li>• Type: individuals or organizations; public or private;</li> <li>• Characteristics: needs and interests; available resources and type of action; degree of professionalization, training.</li> </ul>
<b>Functions</b>	<ul style="list-style-type: none"> <li>• Channel access to the decision-making process;</li> <li>• Consultation and exchange of information;</li> <li>• Coordination of independent actions;</li> <li>• Cooperation in the formulation, implementation and legitimation of the policy.</li> </ul>
<b>Structure</b>	Type of relationships between the actors defined by: <ul style="list-style-type: none"> <li>• Size;</li> <li>• Limits: open or fluid, closed or monopolistic;</li> <li>• Affiliation: voluntary or mandatory (perception of a problem or opportunity);</li> <li>• Type of relationships: chaotic or ordered; duration and intensity of interactions, symmetry and reciprocity of the interconnection;</li> <li>• Degree of centralization;</li> <li>• Type of coordination: hierarchical, horizontal, consultative, negotiation;</li> <li>• Nature of relationships: conflicting, cooperative or competitive;</li> <li>• Stability relative to the participants and relations between them.</li> </ul>
<b>Institutionalization</b>	Formal or informal character of structure and stability over time. It is greater if access is restricted, there is mandatory affiliation, hierarchical and intense relationships.
<b>Standards of Conduct</b>	Rules of the game that drive exchanges in the policy network. Perceptions, attitudes, interests, intellectual training and social status create a specific culture. Consideration should be given to: <ul style="list-style-type: none"> <li>• Type of relationship that predominates between rival groups (opportunism, negotiation between conflicting interests, or the search for consensus and accommodation between different views regarding social problems);</li> <li>• The objective of the participants focuses on the pursuit of the general interest and social well-being or the particular interest;</li> <li>• Decisions are made in a transparent or obscure manner;</li> <li>• Politicization or mutual understanding of non-political issues;</li> <li>• Pragmatic or ideological guidance.</li> </ul>
<b>Power relations</b>	The distribution of power depends on the resources and needs of the participants and the organizational structure - size, degree of centralization and fragmentation and monopoly of representation. Power relations can be: <ul style="list-style-type: none"> <li>• Capture or colonization of the State by interest groups (clientelism);</li> <li>• State autonomy vis-à-vis business groups (statism);</li> <li>• Instrumentalization of interest groups by the State (state corporatism);</li> </ul>

	<ul style="list-style-type: none"> <li>• Symbiosis or relative balance of power between the actors through an intense negotiating relationship (pluralism).</li> </ul>
<b>Stakeholder Strategies</b>	<p>The strategy depends on:</p> <ul style="list-style-type: none"> <li>• Access by private groups to the public policy making process;</li> <li>• Comparative advantages for certain interest groups, with privileged access over the rest. Monopoly power can still be guaranteed in the representation of certain groups;</li> <li>• Dependence of the State in relation to the resources of private groups;</li> <li>• Willingness to create stable structures that reduce the doubt or uncertainty of the public policy making process.</li> </ul>

Source: Van Waarden (1992, apud Marinho, 2015, pp. 25-26)

According to Marinho (2015, p. 25), three of the seven dimensions of Van Waarden's typology (1992) would be the most relevant for the characterization of public policy networks, namely: "1) the number and type of participants ( government agencies, dominant social group, groups in conflict, political parties, unlimited number of participants "; 2) the function that performs the network defined by access to design and implementation "; and "3) the state-society power relationship" (Marinho, 2015, p. 25).

This research sought to analyze the relational political capacities mobilized in the formulation of PERS/TO based on the dimensions identified by Van Wardeen (1992), especially the main dimensions: actors, functions, structure and power relations.

### Methodological procedures

In the present study, the "public policy networks" approach is seen as a promising tool for a better understanding of the process of building public policies involving the management of solid waste in Tocantins, because the framework allows visualizing the alignment of the actors, the position occupied, the greater or lesser protagonism of certain actors, which will help to identify the relationships between state and non-state actors in proposing solutions listed for the plan.

The Wand Warden model was partially employed in order to identify the structure and function of the network formed by the actors/participants in the technical workshop for the elaboration of the Tocantins Solid Waste State Plan in the municipality of Palmas. Specifically, we sought to map the number and type of participants in the workshop, to identify their interests. From this identification, it was intended to understand how the political-relational capacities were or were not mobilized in this case.

The research is characterized as a case study. The case study is applied when one wants to “investigate a current phenomenon within its context of reality, when the boundaries between the phenomenon and the context are not clearly defined and in which several sources of evidence are used” (Yin, 2005, p. 32). The choice of the municipality of Palmas was due, in addition to being the capital of the state, to the fact that the municipality has a history of leading role in environmental issues, being, for example, the first municipality in Brazil to have a specific law for the combating climate change (Almeida, Silva & Pessoa, 2013).

As for data collection: Semarh documents produced in the technical workshop were consulted, such as: attendance list, photographic records of the workshop, photographic records of the group dynamics panels, as well as the results of these panels, the suggested names of the Mascot Family and the slides used in the presentation of the PERS/TO technical workshop.

The primary data were collected through a questionnaire, containing twelve questions for the workshop participants that took place on October 14, 2015 in the municipality of Palmas, in which they sought to identify their interests in the process and their relationships, in order to understand the structure and network function. Data collection took place via e-mail, where the questionnaires were made available together with the Informed Consent Form (ICF) to the participants. We opted for an approach via e-mail, due to the large number of participants in the workshop and the possibility of obtaining the answers faster than applying the questionnaire in person, implying the displacement of the researcher. The population consisted of ninety-four participants in the technical workshop. Of these, fifty-eight contacts were made, however, only twenty-six responded to the questionnaire. The sample was classified as non-probabilistic by accessibility. It is understood that the failure to reach the total number of responses is due to the fact that the workshop was held in 2015. In addition, the study proposed here was not intended to generalize the results, therefore, there was no need for a probabilistic sample, but rather, to know the interests of the actors and their interactions.

The data resulting from the closed questions were the object of descriptive statistical analysis and were triangulated with the results of the content analysis of the workshop report, which sought to identify the type of actors and their interests. The data collected regarding the relationships between the different actors were the basis for the design of sociograms with the support of the Visone 2.7 software. The choice of this software was due to the visualization based on the centrality of the actors and the

possibility of elaborating the network by designing it, and not from matrices. The relationship of the actors during and after the technical workshop was explored, as well as the identification of the nature of these relationships, seeking to understand how and if such relationships acted as mobilizers of the state capacity of the state of Tocantins in the elaboration of its state solid waste plan.

### **Presentation and analysis of results**

The Regional Workshops for the preparation of the PERS/TO were defined based on Law No. 2,436/2011, which established the use of 18 workshops distributed in macro-regions, called Program Areas, which are groups of Tocantins municipalities, with the purpose of practicing actions and state government programs on a regionalized basis (Tocantins, 2016).

According to Tocantins (2015), the main objective of the Technical Workshops was to promote a space for discussions and proposals, where the different social actors could demonstrate the current view on solid waste management, as well as the perspective of the future, enabling the formulation of a bank of ideas that would contribute to the presentation of the guidelines, strategies, projects and actions that would make up the final plan.

The regional technical workshops were held in the municipalities that hosted each of the 18 (eighteen) program areas, where preliminary elements were pointed out regarding the management of waste in them, from questionnaires sent to city halls and information from SINIR. In addition, during the discussions, participants pointed out the deficiencies and potential of solid waste management according to their perception (Tocantins, 2016).

In the 18 technical workshops held, a total of 901 participants were present, among the popular participation of diverse actors, entities representing different social segments, representatives of the city halls, representatives of the Tocantins Social Communication Secretariat (Secom-TO), technicians from state and Semarh entities, representatives of Naturatins, Funasa, Tocantinense Sanitation Agency (ATS), the Secretariat for Regional, Urban and Housing Development, among others (Tocantins, 2015).

The technical workshop of the regional of Palmas took place on October 14, 2015, and a total of 103 (one hundred and three) participants from 08 (eight) municipalities in the regional were present, with the largest participation being from the municipality of Palmas.

As for one of the specific objectives of this research, that of mapping the number and type of actors, it can be identified from the responses to the questionnaires, that most of the actors were representatives of the state government (69.2%), followed by representatives the municipal government (11.5%), the federal government (7.7%) and private companies (7.7%), and the lowest participation was from representatives of the social movement / third sector (3.8%). It is noted that most organizations were limited to the sphere of public power. Regarding the positions held by participants in the organizations they represented, (61.5%) answered that they held a technical position, (19.2%) held management positions and others (19.2%) answered that they occupied other positions. It is important to note that there were no representatives of the categories researcher/professor, journalist and independent citizens in the technical workshop. It is possible to notice the low political-relational capacity of the state of Tocantins in the process, because even having hired a consultancy to conduct the formulation process, it was unable to mobilize external actors to the public power and to the state bureaucracy, remembering that the low interaction evidenced, the political support for the solutions raised decreases, as well as impairs the social learning process (Gomide & Pereira, 2018). According to Souza (2017, p. 114), the organization must have "condition to establish the parameters for the development of the participatory process in a manner appropriate to the organizational reality of the state agency promoting the process and the political field of the participating subjects". From what was pointed out in the research, the state of Tocantins, especially SEMARH, showed deficiency in this regard.

The results indicated that the main interest in participating in the workshop was of a technical nature (84.6%), followed by political interest (7.7%), financial interest (3.8%) and legal interest (3.8%). It is observed that among the motivations identified, the possibility of cooperating in the formulation, implementation and legitimation of the policy appeared as the main reason that boosted the participation of the actors (50%), followed by consultation and exchange of information (34.6%), access to the decision-making process (11.5%), negotiation and mobilization (3.8%).

The results pointed out the cooperative nature of the relationships established in the workshops (88.5%), which can be explained by the fact that the majority of the participants held technical positions within the state government, which may indicate a certain isonomy of interests.

The low participation of representatives of the municipal government, private companies and the third sector can also be indicative of the low level of competition and conflict (11.5%).

However, it was also evidenced, low institutional capacity to provide conditions for participation and interaction between the actors by SEMARH, which means that the solutions presented start from an eminently technical character, without the legitimation of the interested parties, such as waste pickers recyclable materials and private companies that generate waste (such as hospitals or construction companies, or even recyclers). According to (Souza, 2016), the presence of actors from diverse areas and social contexts, represents more legitimacy of public decisions, since there is the participation of a multiplicity of groups in society, consequently, the representation of interests and ideas of these groups.

It should be noted that the plan aims to cover the following types of waste: solid urban waste (MSW), waste from public basic sanitation services, industrial waste, health service waste (RSS), construction and demolition waste (RCD), waste agrosilvopastoris, transport service waste, mining waste and waste inserted in the reverse logistics chain (Tocantins, 2016). Therefore, it was to be expected a greater participation of private companies in the health area, such as hospitals and clinics, and civil construction, since they could contribute with proposals of their interests, since according to Tocantins (2015), the objective The main focus of the technical workshops was to promote a space for discussions and proposals, enabling the formulation of a bank of ideas.

The low participation of these segments can have several explanations, ranging from possible failures in the dissemination of the workshop or a lack of interaction between these sectors and the government. However, SEMARH reported that the workshop was widely publicized, through letters, invitations, banners, folders, stage background, newspapers, television stations, radio stations, car stereo, web radio, portals, websites, e- mail, videos for websites, digital newspapers and social networks (Tocantins, 2015). It is noticed at this point that the state government demonstrated a low political-relational capacity, which, among other aspects, was represented by low competences to articulate, participatory and interactive processes between state and non-state actors (Pires & Gomide, 2016, p. 127).

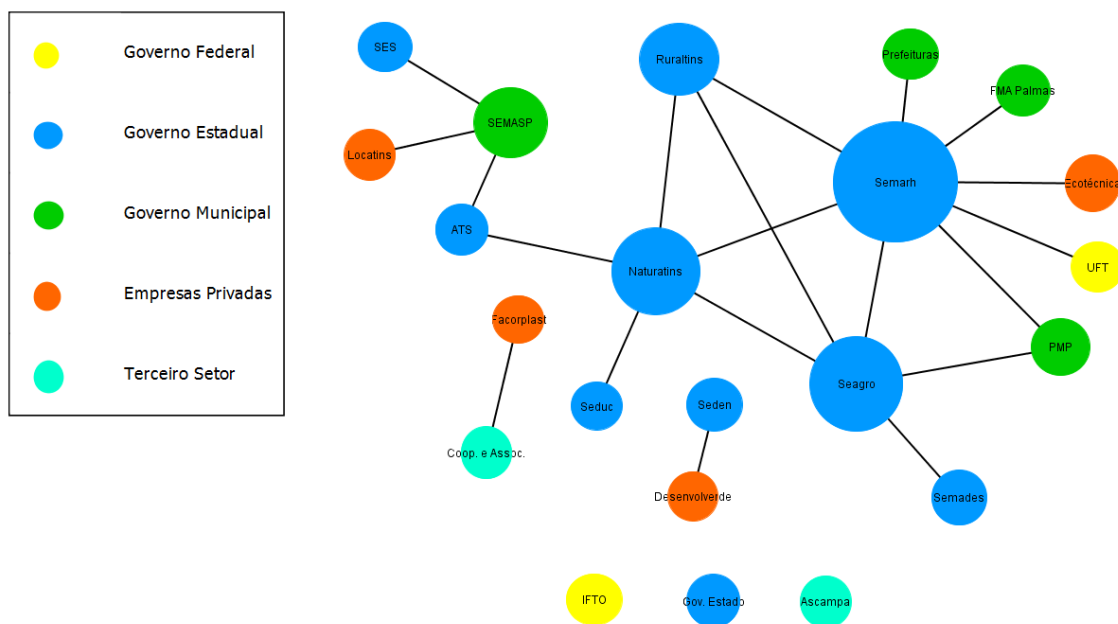
Still, as for the proposals for waste management in Tocantins, as a result of the group dynamics carried out in the workshop, one sees again the strictly technical character reflected in the most cited proposals, namely: a) creation of organic fertilizer factories, power generation, art and craft / reuse; b) installation of recyclable material



factories; c) comply with the reverse logistics policy; d) structuring cooperatives and encouraging new cooperatives; e) establish effective environmental education programs; f) implementation of ecopoints; g) implantation of a construction waste sorting center; h) creation of storage centers for recycled materials (Tocantins, 2015).

The results of the application of the questionnaire regarding the relationships between the different actors were designed with the support of the Visone 2.7 software. Sociograms representative of the relationship of the actors representing each organization were drawn during and after the technical workshop, as well as the identification of the nature of these relationships. Figure 1, below, shows the relationships between the participants of the technical workshop.

**Figure 1** Sociogram of relationships during the technical workshop



Source: Elaborated by the authors (2017)

By analyzing the sociogram, the centrality of the organizations representing the state government is noted, which were the ones that most related to each other, highlighting Semarh as the body that most related to different institutions, followed by the Agriculture and Livestock Secretariat (Seagro), Instituto Natureza do Tocantins (Naturatins) and the Tocantins Rural Development Institute (Ruraltins). Semarh's centrality can be explained by the fact that it was the organization that was in charge of supervising the process of elaborating the PERS, and appears as the centralizer of the relationship with organizations representing the municipal public power, such as the Palmas city hall itself (PMP), and the Palmas Environment Foundation (FMA). At the

same time, it established relations with the Federal University of Tocantins (UFT) and with the technical consultancy (ECOTÉCNICA) responsible for providing technical assistance for the construction of the Plan. It should be noted that the centrality occupied by Semarh was restricted to the government (state) level, as it did not fulfill the role of focal point with other actors representing the third sector or private companies (except the consultancy itself).

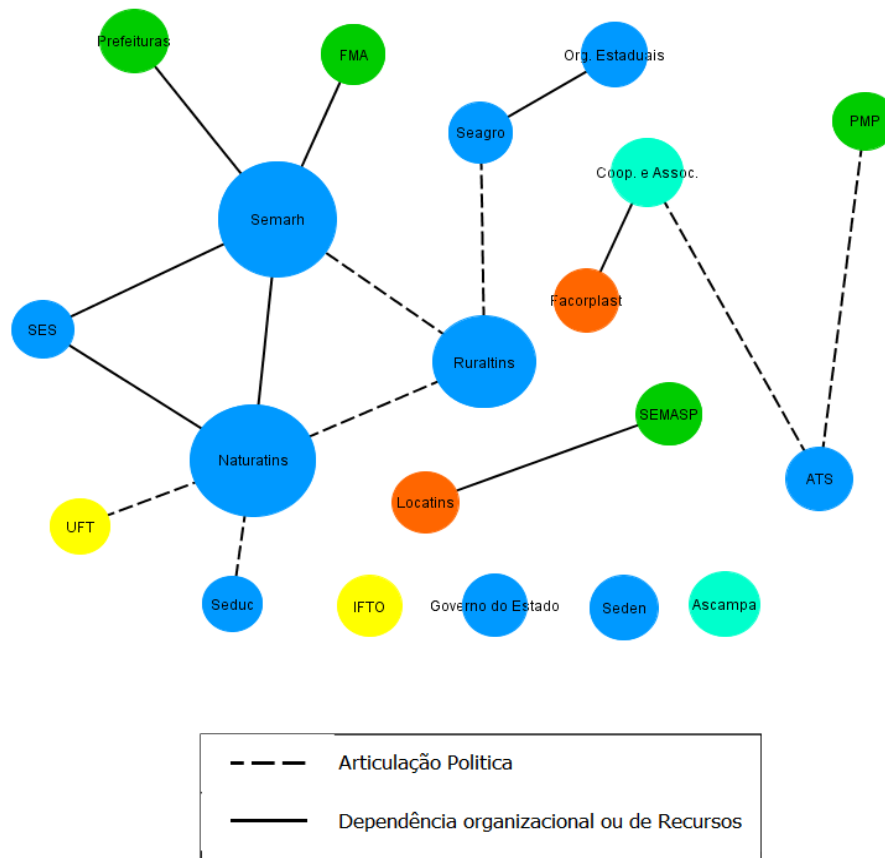
Another important fact to note is that the other three central actors, Ruraltins, Naturatins and Seagro, did not establish relations with actors that were not state government organizations. Therefore, an internal coordination was perceived between the state government bodies, however, there was a lack of external coordination (both with other public administration bodies and with civil society).

The representatives of the private sector, proved to be poorly articulated in the network, establishing relations with only a single actor each. The Federal Institute of Tocantins (IFTO), and the Association of Waste Pickers from the Centro Norte de Palmas Region (Ascampa) did not relate to any other participant. It was also noted that other cooperatives and associations, representatives of the third sector, did not relate to public sector organizations.

In this regard, the political-relational capacities showed great deficiency, as the solutions were not legitimized by the interested parties. As pointed out by Ramesh et al. (2016, p. 13, our translation), in one of his studies, "without communication structures and processes that enable the exchange of two-way information between the State and citizens, it is difficult for states to respond to needs and expectations of the public".

We also sought to investigate whether the relationships were maintained after the technical workshop, and what the character of these relationships was, in order to verify the stability or not of the network. The results are shown in figure 2

**Figure 2:** Sociogram of relations after the technical workshop



Source: Elaborated by the authors (2017)

There are few changes in relation to the relationship structure at the time of the technical workshop. State government actors such as Semarh, Naturatins and Ruraltins still remain central players in the network. However, the State Department of Health (SES) appears in this second moment having more centrality than it had at the time of the workshop, in which it was related only to the Municipal Department of Environment and Public Services (SEMASP). There is also a lower centrality of Seagro and Seden compared to the previous moment. The removal of the PMP from state organizations suggests a lack of deepening of these relationships, which may indicate possible future difficulties in implementation. In this sense, Maiello; Brito and Valle (2018) point out that one of the factors responsible for the difficulties in this regard, is due, among other causes, to the lack of coordination between the environmental area and state sectors for the integration of objectives, division of tasks, delegation of competences, among others.

There is also an approximation between the Tocantinense Sanitation Agency (ATS), cooperatives and the Municipality of Palmas, in a relationship of political articulation, which was not present during the workshop.

It is concluded that the formed network can be considered of the issue network type (Hecló, 1978), that is, the decision-making process is not as closed as the model of iron triangle (Lowi, 1964), and that these can move constantly inside and outside the network. Some movements of the actors were perceived, such as the ATS, due to political articulations and a greater role of the SES, however, the network remained stable.

It was noticed that the political-relational capacities of the state government proved to be deficient, mainly in the capacity to enable effective instruments for the participation of stakeholders in the public policy in question. Reasonable internal coordination (between state government agencies) was perceived, but low external coordination (between state government agencies and municipal bodies). In addition, it was noticed that the internal coordination evidenced was very punctual, not remaining after the context of the public hearing.

### **Final considerations**

The research aimed to investigate the process of preparing the State Plan for Solid Waste of Tocantins (PERS/TO), more specifically to understand and analyze the political-relational capacities established by the network of actors formed by the various participants of Palmas in the technical workshop, which took place on October 14, 2015 at the Legislative Assembly of the State of Tocantins.

The PERS refers to an alternative for the management of solid waste in the State, which meets the objectives proposed in Law No. 12,305/2010, mainly with regard to integrated waste management, involving the participation and sharing of responsibilities between the companies different spheres of public power, private companies and other sectors (Brasil, 2010).

In this context, we sought to map the number and type of participants in the PERS/TO elaboration workshop. For this, the documents made available by Semarh were analyzed, where a total of ninety-four participants from the municipality of Palmas were found. Regarding the type of participants, there was a predominance of public sector organizations at the state level. On a smaller scale, municipal and federal government organizations, private companies and third sector organizations were present, according to responses to the questionnaire. It is important to note that there were no representatives of the categories researcher/professor, journalist and independent citizens in the technical workshop.

It was noted that most of the organizations were limited to the sphere of public power and discussions were restricted to technical issues. The centrality of the organizations representing the state government was noted, which were the ones that most related to each other, highlighting Semarh as the body that most related to different institutions. Another important fact to note is that the other three central actors, Ruraltins, Naturatins and Seagro, did not establish relations with actors that were not state government organizations. It was noticed, therefore, that internal coordination between state government bodies, however, lacking external coordination (both with other public administration bodies and with civil society).

The representatives of the private sector, proved to be poorly articulated in the network, establishing relations with only a single actor each. Also noteworthy is the Federal Institute of Tocantins (IFTO), the State Government and the Association of Waste Pickers in the North Central Region of Palmas (Ascampa) as the organizations that did not relate to any other participant. Another fact that drew attention was that private companies and organizations representing the third sector did not relate to public sector organizations. Thus, it is concluded that there was little articulation between public institutions, private companies and the third sector. In this regard, the political-relational capacities showed great deficiency, as the solutions listed in the Workshop were not legitimized by the interested parties.

It was noticed that the political-relational capacities of the state government proved to be deficient, mainly in the capacity to enable effective instruments for the participation of stakeholders in the public policy in question. Reasonable internal coordination (between state government agencies) was perceived, but low external coordination (between state government agencies and municipal bodies). In addition, it was noticed that the internal coordination evidenced was very punctual, not remaining after the context of the public hearing.

This research is expected to be relevant for the expansion of knowledge about the formulation of public policies by subnational governments, as well as the importance of the formation of networks as an instrument to improve the political-relational capacity of governments based on a greater integration of agents involved in public affairs.

It is suggested that civil society be more representative in the decision-making process regarding the formulation and implementation of public policies, since popular participation and social control guarantee the discussion on local problems in search of joint solutions, as well as the control of its execution. To this end, the state must have

the capacity to articulate and create mechanisms for the participation and mobilization of civil society.

## References

- ALMEIDA, L. de A., & GOMES, R. C. (2018). Atores, Recursos e Interesses na Formulação da Política Nacional de Resíduos Sólidos. *APGS*, 10(3), 160-225.
- ALMEIDA, L. de A., SILVA, M. A. da R., & PESSOA, R. A. C. (2013). Participação em redes transnacionais e a formulação de políticas locais em mudanças climáticas: o caso de Palmas. *Rev. Adm. Pública*, 47(6), 1429-1449.
- BRASIL. (2010). *Lei nº 12.305*, de 2 de agosto de 2010. Institui a Política Nacional de Resíduos Sólidos.
- DINIZ, E. (1996). Governabilidade, governance e reforma do estado: considerações sobre o novo paradigma. *RSP*, 120(2), 05-22.
- FREY, K. (2000). Políticas Públicas: um debate conceitual e reflexões referentes à prática da análise de políticas públicas no Brasil. *PPP*, (21), 211-259.
- GOLDSMITH, S., & EGGERS, W. D. (2005). *Governing by network*. The new shape of the public sector. Washington: Brookings Institution Press.
- GOMIDE, A. de A., & PEREIRA, A. K. (2018). Capacidades estatais para políticas de infraestrutura no Brasil contemporâneo. *Revista adm. Pública*, 52(5), 935-955.
- HECLO, H. (1978). Issue networks and the executive establishment. *Public Adm. Concepts Cases*, 413, 46-57.
- KLIJN, E. H., & KOPPENJAN, J. F. M. (2000). Public management and policy networks: foundations of a network approach to governance. *Public Management an International Journal of Research and Theory*, 2(2), 135-158.
- LOIOLA, E., & MOURA, S. (1997). Análise de redes: uma contribuição aos estudos organizacionais. In: FISHER, T. (Org.). *Gestão contemporânea, cidades estratégicas e organizações locais* (pp. 53-68). Rio de Janeiro: FGV.
- LOWI, T. J. (1964). American business, public policy, case-studies, and political theory. *World politics*, 16(4), 677-715.
- MAIELLO, A., BRITTO, A. L. N de P., & VALLE, T. F. (2018). Implementação da Política Nacional de Resíduos Sólidos. *Rev. Adm. Pública*, 52(1), 24-51.
- MARIN, B., & MAYNTZ, R. (1991). *Policy networks*. Empirical Evidence and Theoretical Considerations. Frankfurt: Westview Press.
- MARINHO, J. F. (2015). *A Lei da Política Nacional de Resíduos Sólidos: Atores, Interesses e Interações*. Monografia (Especialização) – Pós-Graduação em Parlamento e Direito da Câmara dos Deputados, CEFOR, Câmara dos Deputados, Brasília.

- MARSH, D. & RHODES, R. A. W. (1992). *Policy networks in British government*. Oxford: Clarendon Press.
- PEREIRA, A. K. (2014). *A construção de capacidade estatal por redes transversais: o caso de Belo Monte*. Tese (Doutorado em Ciência Política) - Universidade de Brasília, Brasília.
- PIRES, R. R. C., & GOMIDE, A. A. (2016). Governança e capacidades estatais: uma análise comparativa de programas federais. *Rev. Sociol. Pol.*, 24(58), 121-143.
- RAMESH, M., SAGUIN, K., HOWLETT, M. P., & XUN, W. (2016). Rethinking Governance Capacity as Organizational and Systemic Resources. *Lee Kuan Yew School of Public Policy Research Paper*, (16-12).
- RHODES, R. A. W. (1997). *Understanding governance: Policy networks, governance, reflexivity and accountability*. Philadelphia: Open University Press.
- SCHARPF, F.W. (1977). Interorganizational Policy Studies: Issues, Concepts and Perspectives. In: HANF, K., & SCHARPF, F.W. (Orgs.). *Inteorganizational Policy Making: Limits to Coordination and Central Control*. (pp. 345-370). London: Sage.
- Schneider, V. (2005). Redes de políticas públicas e a condução de sociedades complexas. *Civitas – Revista de Ciências Sociais*, 5(1), 29-58.
- SOUZA, C. H. L. de. (2016). *Capacidades estatais para a promoção de processos participativos: uma análise da forma de organização de conferências nacionais*. Tese (doutorado em ciência política) - Programa de Pós-Graduação em Ciência Política, Universidade de Brasília, Brasília.
- SOUZA, C. H. L. de. (2017). Capacidades estatais para a promoção de processos participativos: atributos do aparato burocrático ou condições temporárias para a ação?. *Sociedade e Cultura*, 20(1), 105-126.
- TOCANTINS. Secretaria do Meio Ambiente e Recursos Hídricos. (2015). *Relatórios das 18 Oficinas Técnicas Regionais - Regional de Palmas*.
- TOCANTINS. Secretaria do Meio Ambiente e Recursos Hídricos. (2016). *Estudo de Regionalização da Prestação dos Serviços de Manejo dos Resíduos Sólidos no estado do Tocantins*.
- YIN, R. K. (2005). *Estudo de caso: planejamento e métodos*. 3 ed. Porto Alegre: Bookman.



**RESUMO:**

A Política Nacional de Resíduos Sólidos prevê a elaboração de planos nacional, estaduais, microrregionais, intermunicipais e municipais de gestão integrada de resíduos (Brasil, 2010). Diante disso, o objetivo foi analisar as capacidades político-relacionais mobilizadas pela rede formada pelos atores/participantes na oficina técnica de elaboração do Plano Estadual de Resíduos Sólidos do Tocantins (PERS/TO), ocorrida em outubro de 2015 em Palmas. Foram coletados relatórios da Secretaria de Meio Ambiente e Recursos Hídricos (Semarh) e aplicado um questionário junto aos participantes da oficina técnica, que buscou identificar os interesses dos diversos atores e investigar a estrutura e função da rede. Os dados foram analisados com o apoio do software Visone 2.7.

**PALAVRAS-CHAVES:** Capacidades estatais; Capacidades político-relacionais; Redes de Políticas Públicas; Formulação de Políticas Públicas; Resíduos Sólidos.

**RESUMEN:**

La Política Nacional de Residuos Sólidos prevé la elaboración de planes nacionales, estatales, microrregionales, intermunicipales y municipales para la gestión integrada de residuos (Brasil, 2010). Por lo tanto, el objetivo fue analizar las capacidades político-relacionales mobilizadas por la red formada por los actores / participantes en el Taller Técnico para la elaboración del Plan Estatal de Residuos Sólidos de Tocantins (PERS / TO), que tuvo lugar en octubre de 2015 en Palmas. Se recopilieron informes de la Secretaría de Medio Ambiente y Recursos Hídricos (Semarh) y se aplicó un cuestionario a los participantes del taller técnico, que buscaba identificar los intereses de los diversos actores e investigar la estructura y función de la red. Los datos se analizaron con el apoyo del software Visone 2.7.

**PALABRAS-CLAVES:** Capacidades estatales; Capacidades político-relacionales; Redes de políticas públicas; Formulação de Políticas Públicas; Residuos sólidos.