


Original articles

Public policy networks: an approach to analyze the governance of Food and Nutrition Security¹


Redes de política pública: un abordaje para analizar la gobernanza de la Seguridad Alimentaria y Nutricional

Marianela Zúñiga-Escobar^a

 <https://orcid.org/0000-0002-6688-3665>


E-mail: marianela.zunigaescobar@ucr.ac.cr

Cátia Grisa^b

 <https://orcid.org/0000-0001-6685-4875>

E-mail: catiagrisa@yahoo.com.br

Gabriela Coelho-de-Souza^b

 <https://orcid.org/0000-0002-7652-9475>

E-mail: gabrielacoelho.ufrgs@gmail.com

^aUniversidad de Costa Rica. Facultad de Medicina. Escuela de Nutrición. San Jose, Costa Rica.

^bUniversidade Federal do Rio Grande do Sul. Programa de Pós-graduação em Desenvolvimento Rural. Porto Alegre, RS, Brasil.

Abstract

The concept of governance acquires more and more relevance in the debates and practice of the management of political strategies of Food and Nutrition Security (FSN). However, its analysis demonstrates a complexity due to the influence of local, regional, national and international actors. The systemic approach of the FNS contemplates participation and intersectorality, among other principles. Such strategies are based on a multidisciplinary perspective that does not imply homogeneity, but rather consists on diverse actors and their different forms of multilevel relationship. In order to clarify it, this article proposes a theoretical-methodological route that consists on the analysis of actors involved in a given problem using the contributions of the Public Policy Networks (PPN) approach. The analytical tools of this approach offer ways to delimit the study and define the way, as well as who exercises the governance in FSN under the context to be studied. **Keywords:** Participation; Intersectorality; Governance; Public Policy Networks; Food and Nutrition Security.

Correspondence

Marianela Zúñiga-Escobar

Universidad de Costa Rica. Ciudad de la Investigación, Finca 2. Sabanilla, San José, Costa Rica. 2060.

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Resumen

El concepto de gobernanza adquiere cada vez más relevancia en los debates y práctica de la gestión de estrategias políticas de Seguridad Alimentaria y Nutricional (SAN). Sin embargo, su análisis demuestra una complejidad por la influencia de actores locales, regionales, nacionales e internacionales. El enfoque sistémico de la SAN contempla, dentro de otros principios, la participación y la intersectorialidad, tales estrategias parten de una perspectiva multidisciplinaria que no presupone homogeneidad, sino que se conforma de diversos actores y sus distintas formas de relacionamiento multinivel. Para comprenderlo, este artículo propone una ruta teórico-metodológica que consiste en el análisis de actores involucrados en determinada problemática, utilizando las contribuciones del abordaje de las Redes de Política Pública (RPP). Las herramientas analíticas de dicho abordaje ofrecen caminos para delimitar el estudio y definir cómo y quiénes ejercen la gobernanza en la SAN del contexto a estudiar.

Palabras clave: Participación; Intersectorialidad; Gobernanza; Redes de Política Pública; Seguridad Alimentaria y Nutricional.

Introduction

According to the World Food Summit held in 1996, Food and Nutrition Security (FNS) is defined as “The situation that occurs when all people have, at all times, physical, social and economic access to sufficient, safe and nutritious food to satisfy their dietary needs and food preferences in order to have an active and healthy life” (ONU, 1996). Starting from this notion, the challenges posed by the 21st century in relation to FNS, as well as the means to face them, involve approaches that are probably more complex than in previous decades. This is mainly because political actions with a FNS approach need to be analyzed from a system conception, demanding transformations in the current and traditional sectoral forms in which some public institutions operate. This sectoral vision has hindered the necessary joint work in order to address development issues, promoting various debates about the social, environmental, economic, ethical, cultural, political and nutritional impact resulted from the fragmentation among the determinants of food production, food consumption and human nutrition.

Contrary to the fragmented context, the FNS approach presents certain principles that intervene in favor of systemic thinking. Within these principles, there is its integrative character, when contemplating the interrelationship between the pillars of availability, access, consumption, stability and biological use of food; as well as that of being an integral approach due to its multidimensionality, thus requiring intersectorality and multidisciplinary (Valente, 2002) to meet it. In addition, there is the principle of multilevel participation, the relevance of citizenship and its participation not only as instrumental, but substantive (Sen, 2010), because it has been shown that by contemplating the participation of the actors involved, it is possible to find more effective solutions (OPS, 2002). These principles establish important guidelines for the development of public policy. However, for the purposes of this article, the principle of participation and the

principle of intersectorality will be fundamentally addressed as elements of analysis of the actors in the study of governance.

By contemplating participation and intersectorality in FNS public policy (PP) processes, a multiplicity of actors is expected, which implies a network of relationships with actors from the micro level (as a community or municipality) and the macro level (as a country, region or from the global level) (Morón; Schejtman, 1997). In turn, these actors bring specificities to the PP process, based on variables such as the practices they carry out, the resources they have at their disposal to influence the actions, their procedures of relationship and perspectives about aspects on which they agree or disagree or about what they consider to be the main objectives and scope of the process.

To interpret these dynamics during the development of public policies, governance provides a better understanding of the phenomenon, recognizing that the process includes government actors and other actors of society (Bevir, 2013), such as civil society, the academy or international cooperators. In addition, an analysis of governance does not imply that there is a certain or expected form of governance, but rather provides elements to identify the unequal ways in which the actors are involved and to include in the center of the analysis the principle of participation and intersectorality, necessary for the governance of the FNS.

In this respect, the article proposes a theoretical-methodological route for the analysis of PP governance on FNS. To this end, the approach of Public Policy Networks (PPN) is presented as an analytical tool, which allows us to understand the complexity of relationships between different actors who argue, persuade, create lobby and criticize in search of new ideas (Rhodes, 2006). The article is divided into three sections: (1) discussing the basic concepts of governance; (2) exposing the theoretical bases and explanatory forms of the PPN approach; and finally (3) presenting the analysis of Public Policy Networks as a way to contribute to the study of Food and Nutrition Security governance.

Conceptual approaches: What do we think when we talk about governance?

When we ask ourselves “What we think about governance?”, it is important to consider the predominance that the field of public administration has had in shaping managerial visions which have given greater emphasis to governability. Although there is a relationship and even confusion about the meaning of the categories of governability and governance, a situation that is due to the existence of abundant literature and a variety of approaches to these issues, governability focuses on issues of institutional efficiency of the State (Atmann, 2013).

On some occasions, it is common to refer to the “ungovernability” that afflicts a country that, for the public authority that cites it, usually seems to refer to the fact that people do not remain quiet, static and domesticated in the face of government actions (Guzmán, 2013). In this sense, it is important to recognize and value the congruence that exists between the political sector’s agenda and the citizen’s agenda (Cerdas; Payne; Vargas, 2008); as well as the way in which participation is established, given the capacity to reach agreements on political orientation and government agendas.

Concerning the concept of governance, its use has depended on the circumstances like attributing to it the characteristics of governability in order to avoid the crisis of legitimacy of governments and points of view that dialogue with coordination, articulation between actors in spaces that are geographically, socially and culturally determined, demonstrating their usefulness in the instrumentalization of development policies (Torres; Ramos, 2011).

According to Guzmán (2013, p. 37), the use of the concept of governability is often opposed, superposed, put aside or closely related to the concept of governance, so that the term governance is used indistinctly; however, as indicated:

Governance gives an idea of greater movement. One of the key actors, of course, is the State, or rather,

the government and public institutions. However, clearly it is only one more actor. Governance gives the idea of a relationship, of a movement, that links public authorities with the citizenry, but that provides the multiple relationships between population groups, how they interact, what they achieve, and where they are going. In this sense, it also does not presuppose homogeneous public authorities, which have clearly established objectives, it goes beyond that, as it shows a greater complexity, there are contradictions not only in the interests defended by the different actors of the civil community, but also among those of the political community.

Recently, the term governance has been presented in technical discussions, as a response to the main limitations of the institutional models in areas such as rural development, agriculture and food in the Latin American and Caribbean Region, within the framework of the Sustainable Development Goals (FAO, 2014). On the topic of FNS, FAO (2011, p. 6) indicates that:

Food and nutrition security governance relates to formal and informal rules and processes by intersectorality which public and private actors articulate their interests, and make, implement and sustain decisions to achieve food and nutrition security (at local, national, regional and global levels).

Both Guzmán's perspective and the FAO's postulates on FNS governance refer to the way in which actors or population groups interact in relation to the issue of PP. The idea of participation associated with governance and as constitutive parts of it, is located as a central part of its analysis when it has to do with the relations between government and society. In this regard, Vásquez (2010) indicates that the notion of governance has great potential for the study of the PP transformations in Latin America, insofar as it can help reveal the emerging forms of public-private interaction in the treatment of collective problems.

The author points out the importance of broadening the perspective of this approach

so that it can transcend and be used in the description and analysis of the transformation of the government and of the PP in different contexts. In this respect, it is important to consider that it does not necessarily imply the presence of certain elements attributed to such governance, such as: the horizontality of relations, cooperation, the absence of conflict or trust among actors, but that there are particular forms of governance, according to the context.

Although there is little clarity in the literature about how to develop good governance (Bevir, 2013; Candel, 2014) in FNS, it does not mean that it does not exist or has not existed in management or administrative routines. In the context of the PP of the FNS, it is common to find the optimistic discourse about the principle of participation as a vital element to meet the demands of the approach. However, it does not imply that mechanisms are considered to ensure this participation and, on the contrary, it may be more common to find the precarious conditions to make it effective.

Theoretical bases and explanatory forms of the Public Policy Networks (PPN) approach

The PPN approach can be considered as one of the main analytical concepts in the field of public policy, sometimes in a competent way and in others in a complementary way with other important approaches (Rab; Knis, 2007). Unlike other theories, the development of the concept of networks attempts to break with the State-Society dichotomy and to understand that the actors belonging to government scenarios are also social actors who maintain constant relationships with others in a wide network of relationships (Capella; Brasil, 2015).

The PPN approach corresponds to a set of perspectives that have been contributing to the analysis of the PP and promoting significant advances in relation to the traditional theories of Political Science, that is, pluralism and elitism. The PPN would be considered a general category, which allows encompassing, rather than

overcoming, these approaches and other public policy approaches, in the light of the debates about the relative autonomy of the State (Romano, 2011). Thus, several studies (Le Galès, 1998; Marques, 1999; Rhodes; Marsh, 1995; Romano, 2009) include pluralism and neo-corporatism (contemporary approach to elitist theory) as part of the typologies in which a network can be classified. Thus, it is possible to consider PPN as a perspective that includes more open forms of participation and with characteristics of a pluralistic approach, as is the case of the United States contributions on “thematic networks” (Hecho, 1978), to more closed forms of participation and with neo-corporatist characteristics, as is the case of “iron triangles” (Lowi, 1968) or the studies carried out in Great Britain about “political communities” (Richardson; Jordan, 1979).

Given the broad spectrum presented by the literature on networks, Porrás Martínez (2001) establishes a minimum common denominator between the different definitions that are relevant during the analysis, identifying that the PPN: (1) refers to a structure formed by links, more or less stable, that maintain a certain number of actors (public or private); (2) exchanges material and immaterial resources in the public policy process, due to their mutual interdependence in a sector or subsector scope (Porrás Martínez, 2001). The various schools that are part of the debate agree on one point: networks exist and operate as links between public and private actors in a field of politics (Zurbriggen, 2011).

The Rhodes model as one of the most influential proposals about the idea of PPN, and one that has been used more frequently in studies about governance, involves three key variables summarized as: (1) a relative stability of the members of the network: Are the same actors who tend to dominate decision-making over time or is there a flow of members and it depends on the specific topic of the policy under discussion?; (2) the relative insularity of the network: Does it exclude other actors or is it highly permeable to a variety of actors with different objectives?; and (3) the strength of resource dependency: Are network members heavily dependent on each other for valuable resources such

as money, experience, and legitimacy, or are the actors self-sufficient and thus relatively independent of each other? (Peterson, 2003).

According to Peterson (2003), PPN are a research tool, rather than a theory, alluding to Rhodes’s arguments:

These are sets of formal institutional links and informal links between government actors and other actors, structured around shared beliefs and interests, if negotiated, for the formulation and implementation of public policies. These actors are interdependent and politics arises from the interactions between them. (Rhodes, 2006, p. 426)

In our modern societies, there is a functional interdependence between public and private actors, as governments are increasingly dependent on the cooperation and resources of actors that escape their hierarchical control, favoring the emergence of PPN as particular ways to analyze and understand the governance (Ruano, 2002). These events are characteristic of the 21st century, especially because of the regional agenda that has been stimulated by international bodies to address rural development and FNS issues, particularly in Latin America and the Caribbean. In this way, an advantage of the PPN approach is that it naturally predisposes the analyst to focus on multiple levels (micro, meso, macro) of analysis simultaneously (Hanneman, 2000) and thus be able to consider those interactions that depend on a greater number of links among actors.

The analysis of Public Policy Networks: a way to contribute to the study of the governance of Food and Nutrition Security

The analysis of the PPN contributes to the study of the governance of the FNS considering that it allows us to know the forms of participation and intersectorality among the actors, which are important principles of the systemic approach of the FNS. This analysis is possible from the

identification of the involvement of the actors in the PP process and, for that, it is necessary to define the context. Thus, when starting the analysis, it is important to identify the phase in which the process is situated, considering that this situation influences the involvement of the actors and can be useful when carrying out comparative (between periods) or longitudinal analyzes. Although all stages of the policy cycle can be analyzed using PPN, Vázquez (2011) highlights the opportunity that arises during the implementation stage, in terms of the possibility of clearly observing the diversity of actors that interact and develop a process of bringing together and stimulating various efforts within a PP program, in order to produce a specific result.

During the information collection stage, some procedures must be considered in order to ensure an adequate subsequent analysis. These refer to: (1) The definition of the PP or political action to be studied, considering that its specificity facilitates the analysis. This delimitation can sometimes be hard when analyzing policies or actions with a focus on FNS, due to its systemic nature. For this reason, the researcher must know the limits of the FNS policy or action analyzed and have enough information to identify when is necessary to guide the interviewee. (2) The preparation of the information collection form must contain the necessary elements to respond to the categories and subcategories of analysis of the PPN that will be described below. In addition, (3) skills must be developed for the use and interpretation of visual results and calculations allowed by the available software, such as tools for Social Network Analysis (SNA).

There are three main categories of analysis to define the PPN: network boundaries, network structure, and network cohesion. These, in turn, are composed of subcategories that allow the provision of necessary information, both qualitative and quantitative, to know the characteristics and behavior of the network actors and the network as a whole. The analysis starts from the identification of the **boundaries of the network** (Romano, 2011), the components that establish the restrictions of the network. For this, the subcategories that refer to the actors and the type of links that exist between

them must be identified and characterized. It is important to consider the development projects and the focus on FNS operating in a very complex socio-institutional framework, in which there are interactions between various public and private organizations operating at local, regional, national and even international levels (Clark, 2006).

The two most common methods for delimiting actors are the realist and the nominalist. In the realist method, the researcher adopts the criteria of the network actors themselves to define their borders. From this approach, the actors perceive the network as a social fact and are aware of who belongs to it and who does not (Porrás Martínez, 2001). Regarding the network as a social fact, according to Hanneman (2000), the network analyst tends to see people immersed in networks of direct relationships with other people and, often, these networks of interpersonal relationships become “social facts,” taking on a life of its own. While in the nominalist method the borders of the network depend on the theoretical framework of the study, being a function of the researcher to delimit the structure. This method may be a good option, if it is considered that the realist method may exceed the limit of resources or claims contemplated in the study (Porrás Martínez, 2001).

To characterize the actors, we determine their attributes or descriptive qualities. The basic aspects such as gender, age, organization or institution to which the person belong and the time of working in it will be significant. The latter are very important to identify those actors who participate from entities of civil society, academia and cooperation organizations and who belong to a specific government sector. Thus, the sector refers to knowledge specialties that are expressed in the governmental apparatus, by the functional organization, such as education, health, agriculture, and environment, where intersectorality refers to the relationship between various actors from government sectors (Cunnil-Grau, 2014, p. 6-7).

There are also attributes that will help to understand the way in which the actors participate in the process and provide better information to understand their role within the network.

These are classified according to the level from which the actor participates, whether in micro (local, cantonal, municipal, provincial or regional) or macro (national, international or global) contexts. Another attribute is the practices carried out by each actor in relation to the political action under investigation and the main resources available to an actor that can influence the effectiveness of the process.

Considering that a single actor can have several contributions in the same attribute, that is, participate in several levels, carry out several practices and contribute several resources, a recommendation is to consider those attributes that characterize the actors and that are carried out to a greater extent in relationship with others, according to their answers. In this way, those who carry out actions at both the national and local levels would define those in which the actor identifies himself according to his participation. In the case of carrying out several practices, the one that the actor considers to represent the purpose of the actions would be considered; and, in the case of resources, these would be classified according to the one that the actor thinks is most representative, based on his participation.

Although it is possible to establish a classification prior to the interview to define the practice or resource that each actor brings, it is advisable to do so when having all the answers. This would show the heterogeneity that exists among the actors that make up the network. In relation to resources, these influence the implementation of a political action from the beginning and in a significant way. The identification of resources is one of the premises, since the actors immersed in the policy network need to exchange resources with each other in order to achieve their goals (Rhodes, 2006). Furthermore, resources are the main elements available to the actors, as they influence the decision making of a political action.

Although the most general classification that can be given to resources is based on their material and immaterial nature, they could be classified from those like status and prestige, to more easily measurable resources like money and information (Marques, 1999). Romano (2009) mentions

the resources of type: constitutional, legal, organizational, financial, political or of information. Others, like Santibáñez, Barra and Ortiz (2012) developed a scheme defining that resources can be: cognitive/technological, normative, financial, human and organizative/political. On the other hand, from the classification proposed by Vázquez (2011), resources can be moral, human, organizational, cultural and material. It is also possible to provide cognitive resources, related to a learning process or experience. Despite the variety of possible classifications, each investigation, by the nature of the study, can establish its own particular basis.

Many of the disputes are due to the power resources available to the actors, such as control of research funding and legitimization processes in the field; disputes over public recognition, academic and other disputes taking place within the network (Romano, 2009). Even the mobilization of resources will be based on the relations that exist among the actors, whether they are cooperative or conflictive. The identification of conflict relationships is one of the weaknesses during the methodological process. However, the relationships that exist between the actors and the resources they have to achieve their goals could be important clues in the identification of possible conflicts.

The second subcategory of the network boundaries are the links between actors. These can be formal or informal (Rhodes, 2006), between pairs of actors, and they are much diversified (Lozares, 1996) depending on the research interests. These can be personal ties, such as relationships of friendship, respect, advice and family, considered more informal; as well as other types of ties, which arise from organizational or institutional relationships established by formal contracts between actors.

Any set of actors can be connected to different types of relationships and, during data collection, the categories of relationships that will be measured for the study are often selected or sampled (Hanneman, 2000). To identify the types of relationships, two methods are commonly used. The first method is “complete networks”, which

requires information about the links of each actor with the others and the way to develop it is using a census on the links between the population of actors. Despite providing a lot of information and being highly detailed, this method is considered expensive, requires more time and resources than other methods (Ramírez de la Cruz, 2015).

The second method is the “snowball” method, which begins with one or a few actors being asked about relationships with others, then noting the names mentioned (that are not part of the original list) (Hanneman, 2000; Ramírez, 2015) and asking them about their links, continuing the process until no more actors are identified or when it is decided to stop, depending on the resources or the nature of the study (Vázquez, 2011). Some care in using this method is to consider the possibility that some of the actors do not mention others who are part of the network and to pay attention when choosing the actors with whom to start the “snowball” (Ramírez de la Cruz, 2015). Some researchers prefer to ask the informant to indicate, in order of preference, the different links established with the rest of the actors. This can be used to assess the relationships, revealing different scores depending on the order provided by the interviewee, or, on the contrary,

not to assess them and simply to treat all the relationships with the mentioned actors in the same way.

Both for the analysis of the category of network structure and for the category of network cohesion, there are measures of centrality and power of the relational and positional type. According to Lozares (1996), relational methods are based on the direct and indirect connections that are created between actors, with microanalysis focus (by each actor). While the positional methods are based on patterns of actors’ relationships with each other, it focuses more on macro analysis and describing the entire network of actors or the overall structures that include actors and their relationships (for the entire network) as shown in Charts 1 and 2.

Once the boundaries of the network are identified, it is possible to use analysis software, including UCINET and Visone, to know the map of relationships and advance in the second category of analysis, the **structure of the network** that refers to the number of actors that make up the network and their behavior as a whole or individually. The following table summarizes the main subcategories, including some measures of centrality and power (degree of intermediation, entry and exit) to analyze this category.

Chart 1 – Analysis subcategories to characterize the PPN structure

Subcategory and definition	Actor	Network	Considerations and interpretation of the results of the analysis
Structure: number of actors that make up the PPN.		X	The networks are not necessarily open or inclusive; they may include a small number of actors, as expected.
Degree of Intermediation (betweenness): is the possibility that an actor has to connect to others who are isolated.	X		Actors with greater intermediation have great power because they control communication or resource flows.
Degree of centrality of entry (indegree) of an actor: number of links with actors who report knowing him.	X		It allows the identification of those actors who, because of their high degree of recognition (a considerable number of actors recognize them or report having some kind of inter/dependent relationship with them), occupy a central position in the network.
Degree of centrality of output (outdegree): number of links with actors who report to know the actor.	X		They are considered influential actors in the PP process.

Source: Own elaboration based on Hanneman (2000), Velázquez and Aguilar (2005), Mesa and Murcia (2017)

After knowing the boundaries and structure of the network, it will be necessary to identify the **cohesion of the network**. This refers to an identification of the actors with the community, expressed in terms of identification and belonging, mutual recognition or trust, reciprocity and common values among

other aspects; in addition to the intensity of the relations between the actors (Rincón Rubio, 2014). The subcategories of analysis that can provide information about network cohesion are density, actors' perspectives, and measures of centrality such as centralization and proximity, as presented in Chart 2:

Chart 2 – Subcategories of analysis to characterize PPN cohesion

Subcategory and definition	Actor	Network	Considerations and interpretation of the results of the analysis
Substructure: the coalitions and subgroups that are in a PPN.		X	Coalitions, alliances or micro-networks characterized by the proximity or specific collaborative work of a set of actors who are closer and more strongly connected to each other than the rest of the network members.
Density: the number of relationships actually existing versus the number of possible relationships in the network.		X	The non-existence of relationships between some actors shows a disconnection among them, around issues on which they should be articulated to mobilize a PP, support its formulation, work on its implementation or on its monitoring/evaluation. Provides evidence of political and ideological differences among actors, preventing collaborative work.
Degree of centralization (centrality): Level of concentration of power in the PPN.		X	It shows how in/equitable the distribution of power is. A high centrality in the network is dominated by one or few actors. If those actors are removed, the network will quickly fragment into disconnected sub-networks. A network with low centrality does not have a single point of failure, making it much more resilient. High values of centralization show dysfunctional and hierarchical coalitions.
Degree of Closeness (closeness): The ability of an actor to reach all actors in the PPN.	X		It allows to identify who has more capacity to obtain and send information.
Actors' Perspectives: Actors' views about aspects of their participation in the PPN.	X	X	They can include aspects on which the actors consider that everyone agrees. Aspects on which the actors do not agree. What they consider is the objective of the PP or political action, as well as its scope.

Source: Own elaboration based on Hanneman (2000), Freeman (1978), Velázquez and Aguilar (2005), Mesa and Murcia (2018)

In relation to the perspectives of the actors, the objectives among the actors that make up the network are fundamental:

Objectives can vary from conflictive to compatible by mutual reinforcement. Since within each network, various actors may have both supportive and conflicting objectives, a more general variable is needed: "cohesion"; that is, the extent to which

individuals, groups and organizations identify with each other's objectives and their relevance within the policy field. This empathy generally derives from shared values and a shared worldview. (Bressers; O'Toole, 1998)

The joint action of the actors goes beyond the personal objectives that each one of them has, because it requires the construction of a greater

shared objective as a network. The lack of congruence of values and agreement of objectives is one of the most important limitations to make effective the political actions, besides the mobilization and control of resources, being a challenge to be able to reconcile the objective of the network with the particular objectives of the actors (Mandell, 1990). Mandell (1990) raises questions for reflection during the analysis: What could everyone agree about? What is the biggest goal of the network?

The analysis of the perspectives of the actors can deepen the information that qualifies the principle of participation and intersectorality of the FNS approach. At the same time, it can broaden the reflections about the objectives and scopes that are sought when participating in the PPN in FNS. Together with information about the practices that the actors carry out, it can investigate the ways in which they contribute to the issue of food sovereignty, to the exercise of the Human Right to Adequate Nutrition and to the promotion of human development.

The set of subcategories and measures shown in this article comprises a minimum of what would be necessary to calculate for the PPN study and contribute to the analysis of the FNS governance. This analysis provides an understanding of how actors are involved, defining how the principles of intersectorality and participation are contemplated or manifested during the development of a policy strategy. However, these can be complemented with an analysis of the type of resources and practices that the actors contribute and, in this way, also deepen the integral and integrating principle of this approach.

Final remarks

In view of the systemic nature of the FNS approach, its analysis in terms of governance should make it possible to perceive the relationship between the various actors that interact as part of the PP, in order to emphasize and understand the way in which the participation and intersectorality that identifies it are contemplated. To this end, the PPN approach, both in its explanatory forms and in its analysis of the variables that define the boundaries, structure and cohesion of the network, provides contributions

to this study. Thus, the identification of actors' attributes during the definition of network boundaries is necessary to know who are the governmental actors providing information on intersectorality; as well as who are the non-governmental actors and what they say about participation.

In societies with governments that are less open to forms of participation in PP deliberation, studying governance can make important contributions to discussions about how governmental and non-governmental actors relate to each other and their perspectives in terms of a joint goal. Furthermore, far from falling into determinism when talking about governance, thinking that it is about non-hierarchical relations between actors, with common goals, effective use of shared resources and other aspects that have been attributed to it in an unreflective way, the analysis presented allows us to elucidate the diversities on the forms of involvement and relations between actors.

The approach to such complex issues as FNS requires analytical tools that establish a dialogue with different fields of knowledge and, in this respect, the PPN provide a theoretical-methodological alternative that offers important contributions to analyze the governance of FNS during the PP process. The PPN is adjusted to the heterogeneity of the actors and their joint behavior in order to characterize the principle of participation and intersectorality that are part of the systemic approach to FNS.

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Authors' contribution

Zúñiga-Escobar worked on the conception and delineation of the data, the writing and final elaboration of the article, the research and methodology and the approval of the version to be published. Grisa and Coelho-de-Souza worked on the conception and delineation of the data, the writing of the article, the research and methodology and the approval of the version to be published.

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