

Research

Governance of family food security and sustainable planning. The case of the municipality of Santiago de Cuba

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Abstract

Governance is a process that enables communication and cooperation between the government, other public institutions, social organizations, and families. In Cuba, the recent approval in 2020 of the Food Sovereignty and Nutrition Education Plan implies strengthening governance as a catalyst for family food security (SAF). However, incorporating sustainable planning to promote food security from dimensions that describe eating practices in Cuban homes still needs to be improved. This research aims to assess the links between governance and sustainable planning, to strengthen the dimensions of access, use, social capital, and cultural food capital, among others (SAF) in the Santiago de Cuba municipality. For this, the interview and survey methods are used. The first, to 20 families in a situation of social food vulnerability, and the second, to a sample of 300 households whose coexistence is not marked exclusively by the exposure mentioned earlier. The results point to poor communication among the social actors, generating food-destructuring practices. It is also visible the scarce insertion of these dimensions in planning to achieve greater family food sustainability. It is concluded that to achieve SAF, it is necessary to strengthen the interconnection of governance and sustainable planning from a relational perspective of the food field.

Keywords Governance · Family food security · Sustainable planning · SDGs · Cuba

1 Introduction

The historical development of food security has gone through various epistemic positions [1–4] that denote the capacity for social integration of food as a sociocultural fact where economic and environmental factors interact that influence relationships between individuals, groups, and families. In the latter, not only these factors are expressed, but also food problems associated with malnutrition, undernourishment, obesity, gender inequities regarding access, and insufficient economic income, among other elements that require a transformative action of governance from sustainable planning—as a result of that security and at different territorial scales [5–11].

Undoubtedly, sustainable governance and planning are necessary tools to eradicate hunger and comply with the essential maxim of the Sustainable Development Goals (SDGs): "Leave no one behind." However, reaching this maximum of social inclusion constitutes a challenge from the emergence of social, economic, and cultural conflicts that impact

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local food systems. Some data offered by the FAO, IFAD, WHO, WFP and UNICEF (2022) [12] show that in 2021, 29% of the world population suffered from moderate or severe food insecurity. Likewise, 11.7% (923 million people) needed regular access to safe, nutritious, and sufficient food.

To deal with this situation of food vulnerability, the 2030 Agenda introduces an integrated perspective that links various SDGs. In our case, Goal 1 (to eradicate poverty), Goal 2 (Zero Hunger), Goal 3 (Guarantee a healthy life and promote well-being), Goal 5 (Gender equality), and Goal 10 (Reduction of inequalities) [13].

A practical alternative to reducing the above problem is the capacity of governance in family food security (SAF) to promote changes in local food systems. These include new security dimensions, such as family social capital, food cultural capital, household food care, gender relations, and food social vulnerability. These dimensions, constituted around access, availability, stability, and use, require the decisive role of local actors to achieve better access and resources in families through the distribution and planned marketing of food that allows its greater territorial sustainability.

In the context of Cuba, this governance of the SAF emerged strongly during the Covid-19 pandemic (2020) amid insufficiencies associated with production, distribution, commercialization, and consumption at the local level. The preceding led to incorporation of new concepts to promote national productive development from sustainable planning. In this sense, the Policy to promote territorial development from the municipalities and the Food Sovereignty and Nutrition Education Plan was approved on July 22, 2022 [14, 15].

Specifically, this plan contemplates food security and sovereignty dimensions associated with elements such as food culture, nutritional education, social practices, gender equity, attention to vulnerable groups, and sociodemographic and environmental characteristics of the different territories. However, understanding the dimensions of food security as an integrated whole where each part is in constant interaction, and interconnection still needs to be improved. This situation is influenced by the absence of variables and indicators that express food security behavior at the Cuban household level.

Within this dynamic, sustainable development and planning concepts stand out as elements that point to a development capable of satisfying current needs without compromising the resources and possibilities of future generations [16, 17]. In this regard, Holdem [18] consider that said sustainable development constitutes an alternative to transform social, economic and environmental relationships into more harmonious or balanced links between them, based on collective well-being. Let's consider the field of family food security. Sustainable planning includes actions that allow safe access to food through efficient planning of production, processing, distribution, and marketing of these at the local level, based on the aforementioned satisfaction of the food needs or preferences of individuals, social groups, families, and communities, without depleting the resources of future generations to lead an active and healthy life.

Therefore, this research aims to evaluate governance in the SAF from sustainable planning that includes the dimensions of this security at the level of Cuban households. For this, the variables of family social capital, cultural capital, food care, gender relations, and food social vulnerability are introduced from the production and reproduction of social practices that generate relations of disintegration and food integration in the territorial context.

2 Materials and methods

As a methodology, theoretical procedures such as the historical-logical and the analytical-synthetic were applied to describe the historical relationship established by governance in food security and sustainable planning based on the integration of the dimensions of this security in the family context [19]. Likewise, methodological triangulation was used through the questionnaire and scientific observation techniques. This made it possible to demonstrate the need to promote planning within the framework of coordination and communications that distinguish the interactions of social actors (families, private or state institutions, and community organizations) sustainably over time.

The research was conducted in 20 urban areas of the Santiago de Cuba municipality (2022), specifically to a sample of 300 families out of 168,600 families. This work made it possible to delve into the dimensions that mark the links between governance and sustainable planning in food security at the level of Cuban households. Various associated social practices color all of the above. On the one hand, to food disruption and, on the other, to integration. It should be noted that this sample selection procedure was configured based on a sampling error of 10% and a confidence level of 95.57%. Likewise, 20 families in a situation of social food vulnerability were interviewed to know their cultural representation of this food security.

The selection of the municipality and province of Santiago de Cuba is based on the fact that it constitutes one of the most populated territories in Cuba, with 1,043,264 inhabitants (in 2021), the second in the country after Havana (2,130,872). Likewise, the municipality of Santiago de Cuba has the largest population (509,071 inhabitants) compared

to the other eight municipalities of the province (Fig. 1) (Contramaestre, 104,957; Mella, 34,366; San Luis, 78,221; Segundo Frente, 40,419; Songo-La Maya, 90,573; Palma Soriano, 121,047; Third Front, 30,388; Guamá, 34,224) [20]. The previous demonstrates the population complexity of this territory to achieve food security and sustainable planning for all social groups and families regarding the production, processing, distribution, and systematic marketing of food.

3 Results and discussion

3.1 Demographic panorama of Santiago de Cuba municipality

According to the National Office of Statistics and Information (ONEI), in 2023, the aging index (groups of 60 years and over) in Cuba reached 22, 3%, and the municipality of Santiago de Cuba had a percentage of 20.9% [21]. These are aging rates that are slowly increasing in this municipality and the country as a whole.

These demographic changes in Cuba have similar relationships with the projection experienced not only by Latin America and the Caribbean, but also by Europe. For example, it is estimated that, in 2024, people aged 65 and over will represent 9.8% of the population of Latin America and the Caribbean, and 20.4% of the population of Europe. While in Europe the demographic transition took 57 years (from 9.9% in 1967 to 20.4% in 2024), it is estimated that in Latin America and the Caribbean this population group will increase from 9.8% of the total population in 2024 to 20.6% in 2054, which reaffirms a sustained increase in aging at the regional level [21].

Globally, in 2020, the population group of older people surpassed children under 5 years of age. By 2050, there will be more than twice as many people over 60 as children under 5. Likewise, by 2050, people aged 60 or older will outnumber adolescents and young people between the ages of 15 and 24. These changes reflect that 37% of older people will live in East and Southeast Asia, 26% in Europe and North America, 18% in Central and South Asia, 8% in Latin America and the Caribbean, 5% in Sub-Saharan Africa, 4% in North and West Africa and 0.7% in Oceania. Specifically in Cuba and Santiago de Cuba, the increase in the number of older people in 2024 also impacted their population, where the relationship between people aged 60 years and over with respect to those aged 0–14 years (or aging index), reached the figure of 1428 and 1206 per 1000 inhabitants, respectively [21].

In this demographic panorama, food social vulnerability emerges as a dimension of a change in the mode or lifestyle of families with elderly people in their care. The results obtained from the research on governance in the SAF and sustainable planning in the Santiago de Cuba municipality show the changes that mark the care of these social groups.



Fig. 1 Province of Santiago de Cuba and its 9 municipalities (2022)

3.2 Care and family food security

Regarding the care of vulnerable groups, food care stands out as a dimension to highlight in the domestic sphere regarding food safety. The data shows that 53.2% of those surveyed point to care in the framework of nutritional transformations in Cuba, taking into account its notable increase after the food crisis derived from Covid-19 (Fig. 2). This food care is influenced by the widening of gender inequalities, where many women sometimes do not have sufficient assets (economic capital) to access food opportunities safely. Therefore, sustainable planning of access to food is required from governance that reduces the domestic overload of women, who assumes the different activities of production and reproduction of family life under androcentric cultural matrices. Recent studies in Latin America, the Caribbean and Cuba [22–25] reveal the care practices that women develop on a daily basis for the food sustainability of the home, in a regional and national environment marked by social vulnerabilities. Economic crisis and fluctuation in food prices.

The previous figure shows some concepts that made family food security in the Cuban context. In the first place, food care points to the set of activities, actions, or practices that allow maintaining, continuing, and repairing the way of life of the family space concerning access, use, preparation, and distribution of food. Secondly, family relationships constitute social capital through support networks, trust, solidarity, values, and norms necessary to safely access food. Third, situations of social food vulnerability are associated with conditions that cause imbalances in food relationships, not only due to the lack of assets, the strength of family social capital, and cultural food capital but also instability in the food network, the structure of opportunities for access to food goods and services. Finally, the proper use of food is manifested in the cultural food capital, a concept nuanced by the knowledge, knowledge, meanings, and practices attributed to food from its use, consumption, and preparation by the different social actors. This is manifested in food care, where practices are developed for the sustainability of life in Cuban homes.

These care practices, generated in the family space, lead to conflicts related to the family organization of meals (food, diners, location, duration, and schedule). Many of these circumstances or factors emanate from situations of social food vulnerability (destructuring of these events in daily life), where there is an underlying food culture (knowledge, knowledge or meanings) associated with forms of use, preparation, and distribution of food that legitimize the loss of traditions, habits, and customs within homes [26, 27].

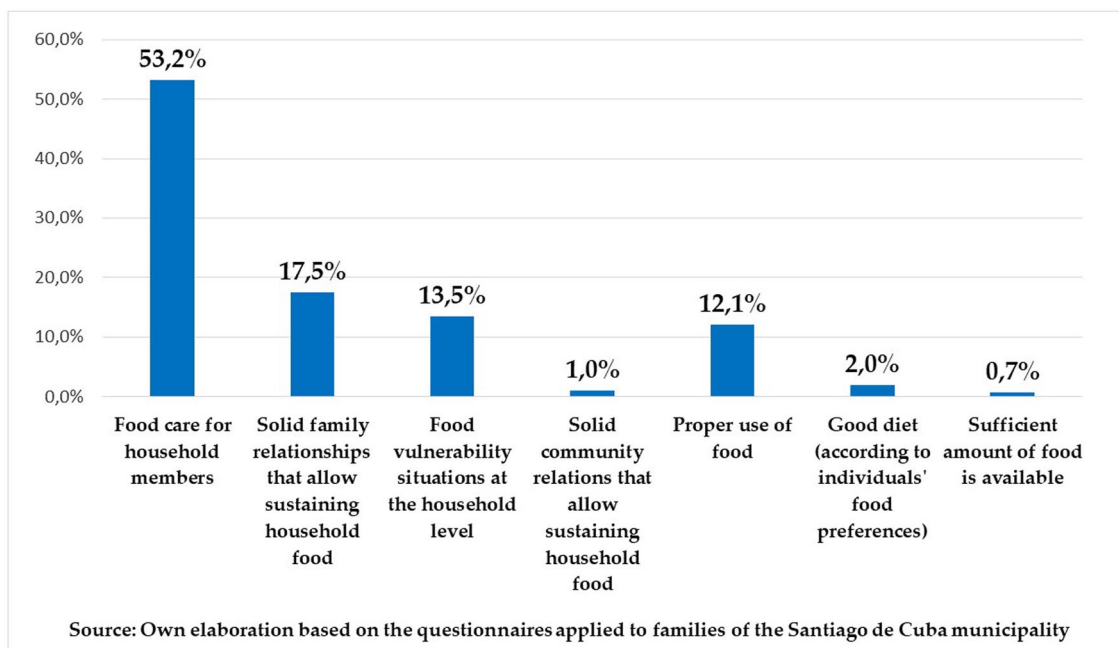


Fig. 2 Expressions of the SAF derived from the Covid-19 in Santiago de Cuba (2022)

3.3 Governance, planning and family food security

For governance in SAF in Cuba, it is essential to incorporate the collective imagination that configures food care and the cultural capital built around it inside and outside the family and domestic environment. Hence, said governance (coordination and collaboration between social actors, including family networks) should promote access, stability, and food availability from the sustainable planning of local public actions. These actions will enable safe access to food through efficient planning of the production, processing, distribution, and marketing of the endogenous resources of the territory. In this framework of analysis, the family social capital materialized in social support networks, trust, solidarity, values, and norms that constitute assets (tangible or intangible) necessary in households to access social security have a significant value food opportunity structure.

As an essential element of planning and governance, this capital (norms, values and social, family and community support networks) strengthens the social ties between the different members of the family in terms of food. Support networks or family relationship systems (25.6% of the people surveyed) contribute to strengthening interpersonal ties characterized by care, affection, solidarity, protection, and economic income (Fig. 3). All of them enable the self-organization of the domestic sphere to respond to the problems of territorial food security through the capacity of families to adopt measures for the supply and preservation of food (24.9% of those surveyed), according to the sustainable planning use of available economic resources.

Conceiving this planning in the governance of the SAF makes it possible to reduce social food vulnerability expressed, among other elements, in the degree of exposure of families to risk situations (time dedicated to managing food outside the home and the domestic overload of the woman) (Fig. 4). It is important to note that asymmetric social relations, eating habits or practices, cultural representations, and conditions of inequity and social inequality come together in this vulnerability [28, 29]. Consequently, the symbolic and economic matrices that condition food access, consumption, distribution, and use require the treatment of social actors (institutions, companies, groups, and families), whose communicative interaction facilitates a better approximation of the food way of life of the families.

Undoubtedly, food vulnerability as a social fact is self-produced through ways of doing, feeling, and thinking that encompass individuals, groups, and institutions concerning food access, use, or consumption. In this situation, the instabilities produced by family ties, community organizations, and state institutions stand out as essential governance instruments in the SAF. In this regard, 54.2% of the people surveyed point to this indicator and its influence on the cultural food capital that families develop in the face of the food crisis.

The links between the family, community organizations and state institutions, reveals that family food security not only exists as a symbolic space of physical, economic, and social access but is also a system of disintegration and food

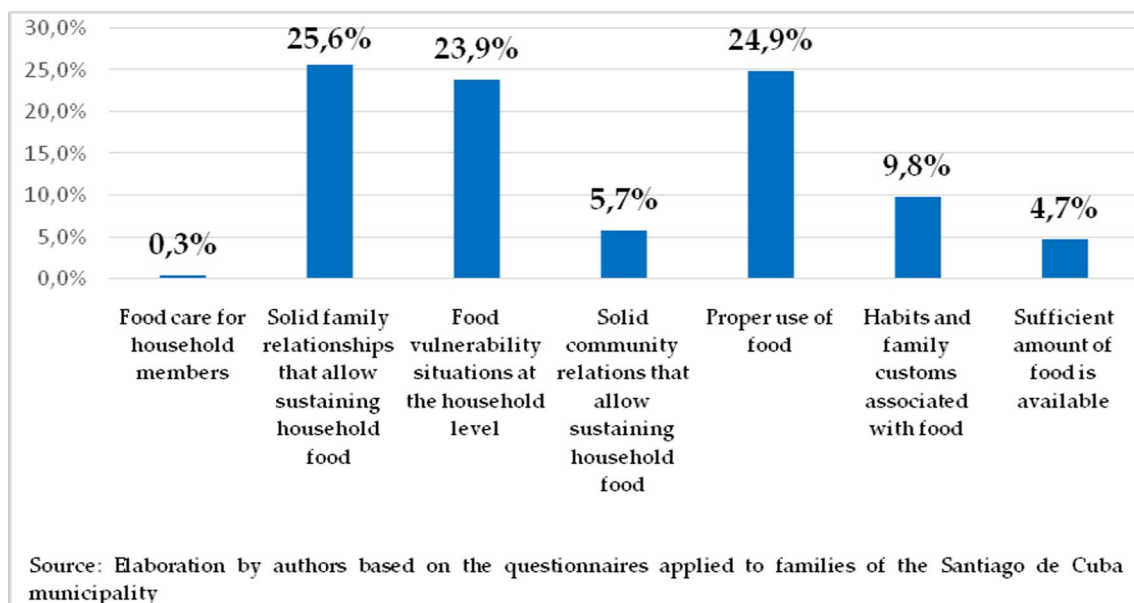


Fig. 3 Expressions of the SAF in the relationship governance—sustainable planning. Santiago de Cuba (2022)

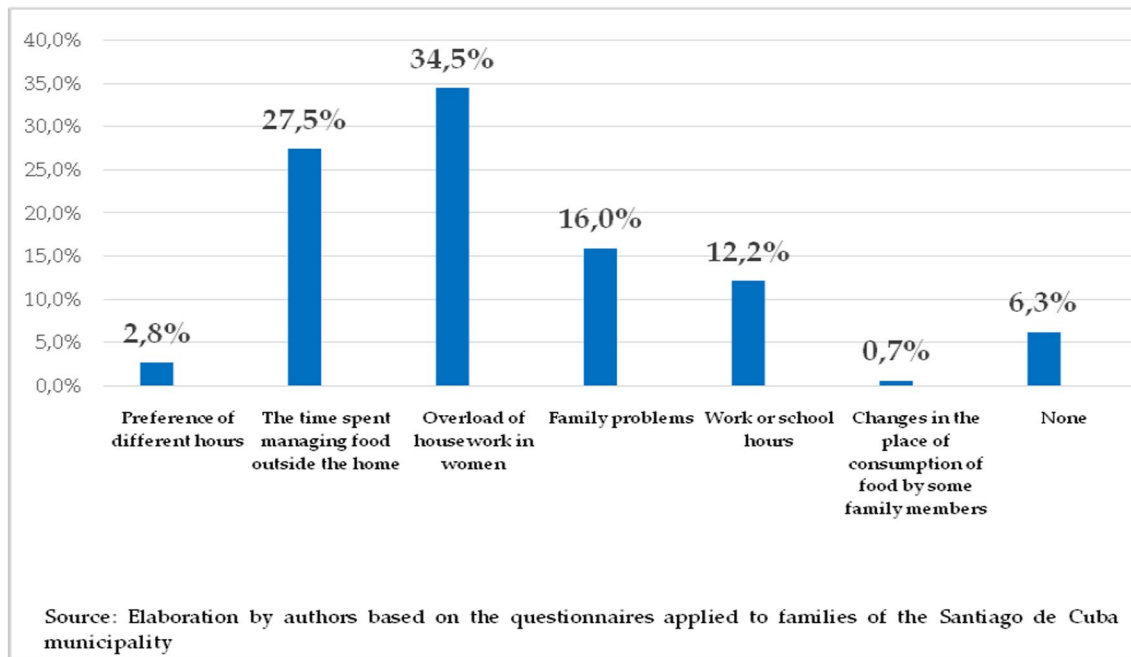


Fig. 4 Degree of exposure of families to risk situations. Santiago de Cuba (2022)

integration. Thus, the first (food disintegration) points to the changes in this network of family relationships regarding access, use, or food consumption in reciprocal connection with the environment. Regarding the second (food integration), it refers to symbols, meanings, practices, or actions constructed relationally at the family level to maintain, strengthen or solidify social ties, as well as the resources these households have to reach food safely.

Both ways of conceiving the SAF result from the socio-structural dynamics currently emerging in Santiago society, which are also extendable to the Cuban one. In fact, the integration enables all individuals and social groups to achieve access that enhances leading an active and healthy life [30]. Contrary to this, food disruption is conditioned by economic and sociocultural factors that inadequate planning of food goods and services affects [19].

3.4 Governance in the SAF from the Cuban reality at the local level

According to Farinós and Villamil [31, 32], governance addresses not only a new system of relations but also an alternative model of management of public affairs. This system of relationships includes various actors and social institutions that interact and coordinate horizontally to transform social reality from a more participatory perspective. Likewise, governance implies a new system of relations that includes new emerging external actors and an alternative public affairs management model.

In this sense, governance contains significant elements to achieve greater family food security; for example, it refers to the interaction, responsibility, coordination, cooperation, information, and communicative openness between the social actors. The interaction of the different actors configures a complex network of relationships where resources and information are exchanged, more or less permanently, to achieve the sustainability of the dimensions of that security and prevent situations of risk or food vulnerability in households [27].

For this reason, governance in the SAF alludes to a new governing style characterized by more accurate planning from the cooperation of the State and non-state actors to strengthen the networks of collective decisions [26]. As a driving force behind food development, the latter requires the participation of the government and the community, citizens, social groups, and the family. In the case of food security, sustainable planning must facilitate the stability and availability of food based on the efficient management of economic resources, the market, production, processing, and distribution throughout the territory.

Such planning also aims to boost food sovereignty and local productive self-management to reduce food imports, an issue that has marked the Cuban economy today. Recent data from the World Food Program for 2020 [28] indicate that Cuba imports around 70% of the food, costing approximately 1700 million dollars a year. This agri-food import seriously

worsened during the Covid-19 pandemic, causing a sharp decrease in the stability, availability, and marketing of food given the contraction of international trade. In this sense, the sustainable planning of food sovereignty and security is an indispensable alternative for the efficient organization of agriculture, agroecology, and state and private production [33, 34].

In this regard, we highlight the National Program for Urban, Suburban, and Family Agriculture in Cuba (founded in 1987 by the Ministry of Agriculture -MINAG-) as new spaces for the structure of opportunities for the adoption of food integration practices such as aid, solidarity, and protection, among other social action policies. This program currently occupies over two million hectares of arable land and manages 147,000 suburban farms. Its fundamental principle has been the planning and sustainable food production on agroecological bases [34–36]. This program enhances family social capital and cultural food capital to strengthen food relationships at the household or community level.

Another expression of governance in food security in Cuba is the approval of the Policy to promote territorial development and the Food Sovereignty and Nutrition Education Plan (includes Law 148/2022 and Decree 67/2022 of the Food Sovereignty Law and Food and Nutrition Security) [31, 32]. These normative and planning documents have a strong interconnection. The first deals with local development as a necessity to transform the territory from the potentialities (individual, group, or collective) and endogenous resources. The second refers to the achievement of food sovereignty amid a complex global and national economic situation aggravated by Covid-19. These referenced methodological instruments are expressions of the objective defended by the *Vía Campesina* International Organization; a peasant movement established in Belgium in 1993. This organization introduced the concept of food sovereignty during the World Food Summit in Rome from November 13 to 17 of 1996 [33].

Its essence is to promote better food production in the face of the food crisis from the national communities. Added to this is the right of people to define their production, distribution, and consumption policies and strategies, respecting their cultural diversity in traditional productive practices or modes. Sustainable planning regarding food and the governance of its security on a family scale and from the Cuban reality is inscribed under these principles. However, despite these public initiatives to achieve sustainability in the dimensions of the SAF, the inclusion of gender relations as a variable that influences the eating practices of Cuban households is still insufficient.

In these households, women have a significant role in food production, preparation, and distribution, considering the family system's specific needs and sociocultural and demographic characteristics. In addition, women's income directly impacts the family's food security based on the time they dedicate to unpaid work and food care for households or family members. In this sense, the National Survey of Gender Equality in Cuba (ENIG-2016) showed the domestic responsibility of women, who continue to be the main ones responsible for the care, accompaniment, and temporary and permanent care of dependent people outside the home. Cuban women spend more time (14 h more on average in a week) than men on domestic tasks at home, including food security [37].

Although women play an essential role in the family's food situation, their contribution is often invisible. Therefore, the visibility of the participation of these women and their families is required as relevant social actors of governance in SAF. Regarding this, Farinós [38] argues that participation must be adjusted to the specificities of the context and will be adapted to each territory based on the sociocultural characteristics of the population. Concerning this, planning assumes an essential function in governance by positioning itself as an indispensable tool in the self-organization of the local food system, especially in the various dimensions of food security in its family framework [39].

The coupling of governance and planning acquire a complementary character to achieve food social integration in the face of variations or oscillations in food prices within Cuba's market for goods and services. The sustainability of this planning, from the integration of the dynamic actors of this governance (cooperatives, MSMEs, municipal government, and community organizations, among others), assumes the current challenge of reducing situations of food vulnerability, as well as promoting physical access, social and economic access to food (sufficient, quality and nutritious) in the state and private markets to satisfy the food needs and preferences of families [35, 40].

4 Conclusions

The governance of family food security (SAF) in the Cuban context assumes sustainable planning not only from the dimensions of availability, access, stability, and use but also includes other essential elements such as family social capital, food cultural capital, gender relations, and food care, as well as attention to situations of social vulnerability. Such governance must guarantee the right to food for all, a basic principle for achieving food well-being. From this

perspective, sustainable planning is configured from social food integration as long as it is an inclusive, participatory process of constructing meanings and relationships between individual and collective actors.

At the level of the context of Santiago de Cuba, family food security governance still does not reflect in local planning, the conditions of vulnerability that emerge from the integration of social, environmental, cultural and economic factors, nuanced by the physical, geographical, the practices, cultural representations, ways of life and income that distinguish Cuban households. Hence, the links between this governance and planning must aim at greater participation and inclusion of the sociodemographic diversity of the territories, families and communities in order to focus institutional attention from planning.

Within this focus, the planning and governance links must promote family and community food resilience as important opportunities to overcome frequent disruptions in the food supply chain, its physical availability, the stability of supply, marketing and accessibility to food, local scale. Although the integration of social actors (state institutions, private market, community organizations, families and social groups) is vital, the resilience of households and communities makes it possible to generate endogenous development based on local initiatives (agriculture family), more sustainable over time.

This research shows that food security governance assumes its self-production concerning variables associated with the network of relationships, values, and norms that the family builds based on food well-being. Likewise, given the aging population of Cuban society, this governance enhances food care as a fundamental activity for people's reproduction, well-being, and sustainability. In the same way, the social food vulnerability that has emerged at the local level is marked by gender gaps, infrastructure problems, economic income, and the incorporated cultural capital that reproduces practices of food destructuring in terms of the use, preparation, and consumption of food. Hence, said governance must promote social integration of food from sustainable planning for greater production, processing, distribution, and marketing of food.

This way of conceiving governance and planning to achieve greater sustainability of food security at the local level responds to the principles of the 2030 Agenda and some of its SDGs. We highlight, in this case, Objectives 1, 2, 3, 5, and 10, whose constant interrelation in the food field constitutes a strength to achieve more inclusive, participatory, and safe local food systems.

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Data availability The data presented in this study are openly available. In addition, it is possible to contact one of the study authors.

Declarations

Ethics approval and consent to participate This article does not contain any studies with human participants or animals performed by any of the author(s).

Consent for publication This manuscript is an original work of the authors which has not been submitted elsewhere and we give our full consent for its publication in the Discover Sustainability journal.

Competing interests The authors declare no competing interests.

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