Collaborative construction of a virtual agroecological fair between family farming

and federal higher education institutions in the state of Goiás-Brazil

Construção colaborativa de uma feira agroecológica virtual entre agricultura familiar e instituições

federais de ensino superior do estado de Goiás-Brasil

Construcción colaborativa de feria agroecológica virtual entre agricultura familiar e instituciones

federales de educación superior en el estado de Goiás-Brasil

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Ariandeny Silva de Souza Furtado

ORCID: https://orcid.org/0000-0002-8237-2603 Universidade Federal Rural de Pernambuco, Brazil Instituto Federal de Educação, Ciência e Tecnologia de Goiás, Brazil E-mail: ariandeny.furtado@ifg.edu.br

Júlia Figueredo Benzaquen

ORCID: https://orcid.org/0000-0002-4945-7058 Universidade Federal Rural de Pernambuco, Brazil E-mail: juliabenzaquen@gmail.com

Oscar Mosquera

ORCID: https://orcid.org/0000-0002-3647-8749 Universidade Federal Rural de Pernambuco, Brazil E-mail: oscar.mosquera@ufrpe.br

Wagner Lins Lira

ORCID: https://orcid.org/0000-0002-5174-980X Universidade Federal Rural de Pernambuco, Brazil E-mail: wagneip79@gmail.com

Lara Cristine Gomes Ferreira

ORCID: https://orcid.org/0000-0001-9592-7981 Universidade Federal Rural de Pernambuco, Brazil E-mail: lara@ufg.br

Stéfanny da Cruz Nóbrega

ORCID: https://orcid.org/0000-0002-5044-5871 Universidade Federal Rural de Pernambuco, Brazil E-mail: afilhadopordosol@hotmail.com

Tania Maria Sarmento Silva

ORCID: https://orcid.org/0000-0003-1887-2598 Universidade Federal Rural de Pernambuco, Brazil E-mail: sarmentosilva@gmail.com

Abstract

Alternative food networks have emerged in recent decades as a bottom-up social phenomenon and consist of food provision initiatives that seek to operate outside globalized industrial supply chains that incorporate the values of social justice, environmental sustainability, community health and democracy. In this sense, the present study aimed to analyze the contributions that the virtual agroecological fair action plan between family farming and federal institutions in the state of Goiás-Brazil brought to family farmers. The methodology is characterized by an action research both by the character of the collaborative construction action plan of an agroecological fair, and by the structure of development in which the insertion of authors is guided by the permanent collection of elements of the practice and, also, for the development of small interventions that help to elucidate the problems detected, through problematization and collaborative way with family farmers with the appreciation of family farming of ecological Goiás basis and culminates in a path that enhances more sustainable territorial development with income generation, weaves an alternative for food supply and the promotion of the alternative food network "from the countryside to the city" in the face of socio-environmental rationality, in addition to a fairer and more equitable society, with the enhancement of biodiversity and the offer of food produced in the face of ecological practices.

Resumo

As redes de alimentos alternativos surgiram nas últimas décadas como um fenômeno social de baixo para cima e consistem em iniciativas de provisionamento de alimentos que buscam operar fora das cadeias de abastecimento industrial globalizadas que incorporam os valores de justiça social, sustentabilidade ambiental, saúde comunitária e democracia. Neste sentido o presente trabalho teve como objetivo analisar as contribuições que o plano de ação feira agroecológica virtual entre agricultura familiar e instituições federais do estado de Goiás-Brasil trouxe para os agricultores familiares. A metodologia é caracterizada por uma pesquisa-ação tanto pelo caráter do plano de ação construção colaborativa de uma feira agroecológica, quanto pela estrutura do desenvolvimento no qual a inserção dos autores é pautada para a coleta permanente de elementos da prática e, também, para o desenvolvimento de pequenas intervenções que ajudam a elucidar os problemas detectados, via problematização e aprofundamento teórico. A Feira Interinstitucional Agroecológica Virtual é realizada de forma interinstitucional e colaborativa com os agricultores familiares com valorização da agricultura familiar de base ecológica Goiana e culmina em um caminho que potencializa o desenvolvimento territorial mais sustentável com geração de renda, tece uma alternativa para o abastecimento alimentar e a promoção da rede de alimentos alternativos "do campo à cidade" diante a racionalidade socioambiental, além de uma sociedade mais justa e equânime, com valorização da biodiversidade e a oferta de alimentos produzidos diante as práticas ecológicas.

Palavras-chave: Agricultura familiar; Feira agroecológica; Biodiversidade; Comida saudável.

Resumen

Las redes de alimentos alternativos han surgido en las últimas décadas como un fenómeno social de abajo hacia arriba y consisten en iniciativas de suministro de alimentos que buscan operar fuera de las cadenas de suministro industriales globalizadas que incorporan los valores de justicia social, sostenibilidad ambiental, salud comunitaria y democracia. En este sentido, el presente trabajo tuvo como objetivo analizar las contribuciones que el plan de acción de feria agroecológica virtual entre la agricultura familiar y las instituciones federales en el estado de Goiás-Brasil trajo a los agricultores familiares. La metodología se caracteriza por una investigación-acción tanto por el carácter del plan de acción de construcción colaborativa de una feria agroecológica, como por la estructura de desarrollo en la que la inserción de los autores está guiada por la recopilación permanente de elementos de la práctica y, también, para el desarrollo de pequeñas intervenciones que ayuden a dilucidar los problemas detectados, a través de la problematización y profundización teórica. La Feria Virtual Agroecológica Interinstitucional se realiza de manera interinstitucional y colaborativa con agricultores familiares con la apreciación de la agricultura familiar de la base ecológica de Goiana y culmina en un camino que potencia un desarrollo territorial más sostenible con generación de ingresos, teje una alternativa para el suministro de alimentos y la promoción. de la red alimentaria alternativa "del campo a la ciudad" frente a la racionalidad socioambiental, además de una sociedad más justa y equitativa, con la puesta en valor de la biodiversidad y la oferta de alimentos producidos frente a prácticas ecológicas. Palabras clave: Agricultura familiar; Feria agroecológica; Biodiversidad; Comida saludable.

1. Introduction

The Brazilian food pattern follows developed countries and constitutes a dependent and interconnected system between supply, demand, niche markets, large marketing networks and meets the interests of world economic policy (Monteiro et al, 2013; Litre, et al, 2014), promoting various territorial changes in the supply of food, such as enhancing the regional agricultural potential, strengthening long production chains, increasing the distance of consumers throughout the food production process; replacing fresh foods by ultra-processed industrialized products, standardizing taste and monotony in the choice of food. This system corroborates for an unhealthy diet and with a health risk factor (Monteiro et al., 2013; Brasil, 2014; HLPE, 2017a, 2017b) and mainly in the rural area, family farming practices are replaced by agro-industrial complexes, industrialization of agriculture leading to a change in the agricultural profile and the agrifood system according to capitalist rationality, being characterized by the characteristics of intensive use of chemical/agrochemical inputs, technologies and mechanization in production processes, subsidies of agricultural credits to agroindustries, companies of machinery and production of ultra-processed industrialized foods (HLPE, 2017a, 2017b; Barros, 2018).

Agriculture industrialization generates greater vulnerability for family farmers, which makes it more difficult to enforce human rights and accentuates the difficulty of access to goods, services and public policies, stimulating the rural exodus coupled with the lack of qualifications to meet the needs of technological modernization, in addition to the environmental impact caused by the expansion of agricultural frontiers with a significant increase in deforestation, putting all biodiversity at risk (HLPE, 2017a, 2017b). In this sense, it is necessary to overcome the industrial agrifood system, recognizing ecological practices in the production and trade of food, inserting local products present in the territories, adding the flavors and knowledge of family farmers (Lamine, 2008; HLPE, 2017a, 2017b).

In Brazil, 77% establishments with agricultural production are family farms, with 67% occupation in the rural area representing 23% national agricultural production. The state of Goiás has the lowest percentage of family farming establishments to the detriment of those using conventional practices of industrialized agriculture, with an emphasis on monocultures, livestock, and poultry (IBGE, 2017). The focus of production runs through the binomial agriculture and pro-export industry, with the strengthening of agro-industrial complexes driven by the globalization of capitalist agriculture anchored in agribusiness (Barros, 2018).

Alternative food chains (AFNs) have emerged in recent decades as a population claim (Barbera & Dagnes, 2016; Berti & Mulligan, 2016) and consist of food provision initiatives that seek to operate outside industrial globalized supply chains (Forssell & Lankoski, 2017) that incorporate the values of social justice, environmental sustainability, community health and democracy (Levkoe, 2011; Matacena, 2016). Farmer markets are the most traditional form of alternative food chains, but more innovative models have started to spread, as food centers and group buyers, always backed by reciprocity between farmers who produce and consumers. These interactions converge with the socio-environmental and multidimensional rationality of sustainability as political, cultural, economic, ethical, and social (Darolt et al, 2016).

Foods *in natura* are the basis for healthy eating (Brasil, 2014), strengthens the immune system and contributes to the protection of health (Brasil, 2020e). In addition to the nutritional and biological value, the food production process should foster the most sustainable, fair and equitable agri-food systems (HLPE, 2016, 2017b; Goodman, 2009), leading to Food and Nutritional Security (FNS) (HLPE, 2016, 2017b; Goodman, 2009). In this context, healthy eating assumes a fundamental role in the period of the global coronavirus pandemic (COVID-19). According to the weekly newsletter in February 2021, from the World Health Organization (WHO), COVI-19 was responsible for the death of 2,457,026 people worldwide, of these 316,221 were in Brazil (WHO, 2021).

The pandemic of COVID-19 caused political, social and economic consequences, widened inequalities, causing greater food and nutritional insecurity, especially for vulnerable populations, such as blacks, traditional and rural communities living in peripheries (Tang et al., 2020; Wenham, et al., 2020), potentiating Brazil's return to the hunger map (Oliveira, et al., 2020). In view of this, there is a challenge to achieve Food and Nutritional Security in the face of the pandemic through the food production process, with economic, regular and permanent access to quality food, in sufficient quantity, without compromising other essential needs (Brasil, 2006).

The Federal Institutions of Higher Education: Federal University of Goiás (UFG) and the Federal Institute of Education of the State of Goiás (IFG and IF Goiano), located in Goiânia, assume co-responsibility in the face of social demands and problems, being teaching-research-extension required for the construction of scientific knowledge through the exchange of knowledge and experiences of the institutional community and society (UFG, 2018; IFG, 2019; IF Goiano, 2019), allowing Food and Nutritional Security "from the rural community to the city" and the more sustainable territorial development with income generation for rural communities. The Virtual Agroecological Interinstitutional Fair (VAIF) culminates in an alternative food chains during the COVID-19 pandemic.

Once a month, the IFG, UFG, and IF Goiano hold the Virtual Agroecological Interinstitutional Fair, which in 2020, 29 family farmers from the State of Goiás offered 165 varieties of food developed by ecological practices, under the mediation of the Interinstitutional Reference Group for the Execution of the Agroecological Fair (GRIEFA) and the decentralized organization teams.

Based on the problem question "what were the advances and challenges identified by farmers in participating in the Agroecological Interinstitutional Fair?" action research Rapid Participatory Emancipatory Diagnosis (RPED) method was applied. This represents a method that makes it possible to identify the challenges and possibilities with family farmers in the face of territorial specificities (Pereira, 2001). Its premise is the action-reflection-action trinomial according to the theoretical framework of education (Freire, 1989), idealized to be applied in rural communities. It is an instrument of problematization and intervention that dialogues with family farmers, public institutions and an interdisciplinary team. The application encompasses the entire systematic process that deals with the identification of the problem until the interventions to be traced (Pereira, 2001). In this sense, the present study aimed to analyze the contributions that the action plan "virtual agroecological fair between family farming and federal institutions in the state of Goiás-Brazil" brought to family farmers. This study provides tools to understand the potential of agroecological fairs in certain territories, with information for public politics, market agents and institutions in the sector.

2. Methodology

This study is characterized as an action-research (Silva et al., 2020) both for the character of the action plan "collaborative construction of an agroecological fair", and for the structure of development in which the insertion of the authors is guided by the permanent collection of elements of the practice and, also, for the development of small interventions that help to elucidate the problems detected, through problematization and theoretical deepening. The meticulousness of the gaze, integrated with the social phenomenon, makes "researchers establish channels of investigation and dissemination in the studied environments, in which the interaction between the "more enlightened" and "less enlightened" groups generates and prepares collective changes in the representations".

2.1 Characterization of the research area and family farmers

The Virtual Agroecological Interinstitutional Fair is held in an interinstitutional and collaborative way with family farmers with an appreciation of ecological-based family farming of the state of Goiás (IFG, 2020a, 2020b). Family farmers were selected in the IFG public call in 2020 (IFG, 2020c), which once a month offer food at the School of Nutrition of the Federal University of Goiás (FANUT/UFG), rectories of the Federal Institute of Education, Science and Technology of Goiás (IFG) and the Federal Institute of Education, Science and Technology of the state of Goiás (IF Goiano). The selection was made by public call through: 1) photo identification document; proof of residence; declaration of aptitude to the valid/active pronaf/DAP (physical or legal) of the state of Goiás; 2) project for the sale of foodstuffs (up to 15 foods for DAP/physical and 30 for DAP/legal), which may be fruits, leaves and vegetables, processed foods, groceries, foods of animal origin, and legumes; 3) signatures and 2 self-declarations, one related to ecologically based production of foodstuffs and the other that presented a commitment to participate in monthly meetings for pro-teaching-research-extension (IFG, 2020c). In total, 29 family farmers participated in the fair, 10 men and 19 women, all literate in rural areas, in economic vulnerability, low education and the majority aged between 45 and 64 years (IFG, 2020a, 2020d, 2021). These farmers are in the rural area of the municipalities of Goiânia, Silvânia, Vianópolis, Campestre and Palmeiras. All who live in Campestre and Palmeiras are part of the Canudos settlement (IFG, 2020a, 2020c). And given the territorial and geographical specificities, they were divided into 5 groups (Table 1, Figure 1). During the fairs, a survey was carried out of the products sold, as well as the main crops in the municipalities of Campestre, Goiânia, Palmeiras, Silvânia and Vianópolis in the state of Goiás.

The operationalization of the Virtual Agroecological Interinstitutional Fair took place in compliance with the health legislation in force in Brazil and in the State of Goiás in view of the good practices of operation and commercialization of food during the pandemic of COVID-19 (Brasil, 2020a, 2020b, 2020c, 2020d), happening once a month, following 6 steps:

a) Mapping of food in communities by farmers and development of the food catalog;

b) Elaboration of the virtual form for purchases and disclosure;

c) Remote monitoring of family farmers in the process of harvesting/processing and organizing food for the three institutional spaces (UFG, IFG, IF Goiano);

d) Collection, by the decentralized organization team and the execution team of the agroecological fair in official IFG and IF Goiano cars, of food at meeting points in the municipalities of Posselândia, Palmeiras, Silvânia and Goiânia;

e) Organization of food in the offices of IFG, IF Goiano and FANUT/UFG and delivery to consumers;

f) Evaluation in virtual meetings (IFG, 2020b).

It should also be noted that in the second step there was an obligation to buy from all family farmers as a way of guaranteeing income and permanence for all at the Virtual Agroecological Interinstitutional Fair (IFG, 2020a). This determination is in accordance with Magnanti (2008), characterized as exchange and circulation of products, in which the entire rural community has the opportunity to "flow" the food produced in an equitable way.

Group	Name	Municipality	Area
group 1	Movimento de Trabalhadores Rurais Sem	Palmeiras	area I of the Canudos settlement
	Terra		
group 2	Movimento de Trabalhadores Rurais Sem	Palmeiras	area II of the Canudos settlement
	Terra		
group 3	Grupo de Agricultoras(es) Familiares	Campestre	area III of the Canudos settlement
	Independente		
group 4	Solidary Network Berço das Águas	Silvânia and	-
		Vianópolis	
group 5	Solidary Network Berço das Águas	Goiânia	-

Table 1. Division of family farmers by geographic region and territories.

Source: Authors.

Figure 1. Geographic map with the location of the municipalities and groups participating in the Virtual Agroecological Interinstitutional Fair.



Source: Authors.

2.2. Construction of the Rapid Participatory Emancipatory Diagnosis (RPED)

The virtual format was adapted due to the COVID-19 pandemic, with social distancing and without agglomerations (Brasil, 2020), according to Rapid Participatory Emancipatory Diagnosis. The research was approved by the research ethics committee of the Federal Rural University of Pernambuco, under opinion number 4,460,948, entitled: "The potential of the interinstitutional of an Agroecological Fair in Goiás". Three techniques were used for organizing and conducting the virtual fair, developed from November 2020 to January 2021 of DPRE in virtual format: 1. The technique of historical mapping by documentary research, from institutional documents, 2. The semi-structured interview method (responses to the form) by phone calls and/or whatsapp video call, for the leaders of the rural communities that represented the 5 groups at the Virtual Agroecological Interinstitutional Fair, in order to complement the historical mapping. The technique of reality and desire matrix with the election of priorities through another semi-structured interview with the leaders of the communities that participated in the historical mapping (1st step), culminating in participatory intervention for each key point.

3. Results and Discussion

3.1 Collaborative construction of the Virtual Agroecological Interinstitutional Fair

In six edition, there were an average of 40 orders and a total of 165 types of food were offered, which changed by edition according to seasonality. Box 1 lists the variety of the main foods distributed in 6 groups: fruits; dehydrated fruits, juices, and pulps; sweets, greens and vegetables; animal foods; dehydrated herbs and spices; bread and seeds (IFG, 2020a).

Fruits, dehydrated fruits, juices, and pulps	Sweets	Vegetables and legumes	Food of animal origin	Dehydrated herbs and spices: popular name (scientific name) ^a	Baked Products and seeds
Banana Pacovan*	Peanut brittle*	Common pumpkin*	Egg*	Roselle (<i>Hibiscus</i> sabdariffa L.) *	Pitta*
Manzano banana*	Cane molasses*	Green zucchini*	Frescal cheese**	Lemon balm (<i>Melissa</i> officinalis L.) *	Manioc cake**
Jabuticaba** Jabuticaba	Rapadura*	Cassava*	Ripened cheese**	Moringa (<i>Moringa oleifera</i> Lam.)	Cheese Biscuit***
Sweet passion fruit	Jellies (20 flavors with and without sugar) *	Lettuce*	Lard**	Clove basil (<i>Ocimum</i> gratissimum L.) *	Cassava starch biscuit*
Mandarim lime** Mandarim lime *	Dulce de leche*	Kale* Kale**	Canned meat**	White turmeric (<i>Curcuma</i> <i>zedoaria</i> (Christm.) Roscoe) *	Balls with and without gluten**
Persian lime** Persian lime*	Genipap sweet*	Chive and parsley seasoning*	Free-range chicken**	Carqueja (<i>Baccharis</i> genistelloides var. trimera (Less.) Baker) *	Cassava cheese puff*** Cassava cheese puff**
Blackberry*	Banana sweet*	Radish*	Cream curd cheese*	Indian coleus (Plectranthus barbatus Andrews) *	Corn bread**
Lemonade**	Tangerine, orange and lime sweet*	Peanut*	Jatobá flour*	Chive (Allium schoenoprasum)	Pumpkin bread**
Tamarind* Tamarind**	Sweet cheese in syrup**	Chive*	Green banana flour*	Basil (Ocimum basilicum L.) *	Pumpkin ring bread**
Cajá-manga**	Banana sweet*	Beetroot *	Cassava starch*	Oregano (Origanum vulgare L.) *	Cereal bar*
Cashew** Cashew*	Cashew sweet*	Carrot* Carrot **	Cassava flour*	Apple mint (<i>Mentha suaveolens</i> Ehrh.) *	Frozen cheese biscuit***
Guava* Guava	Pig skin jelly *	Mint*	Baru seed*	Congorosa (<i>Maytenus</i> <i>ilicifolia</i> Mart. ex Reissek)*	Frozen cheese biscuit***
Passion fruit* Passion fruit**	Green Papaya Sweet *	Basil*	Sesame seed*	Hibiscus*	Salty biscuit of fines herbs
Lemonade**	Banana sweet*	Purple beans**	Sesame paçoca*	Common mugwort (Artemisia vulgaris L.) *	Nut cookies***
Tamarind* Tamarind**	Baru nut brittle***	Pickled mini cucumbers*	Jerked beef paçoca*	Complete seasoning*	Mini green banana flour cake***

Box 1. Main foods offered at the Virtual Agroecological Interinstitutional Fair by family farmers in the Canudos settlement, independent group and solidarity network Berço das Águas.

Barbados cherry** Barbados cherry*	Lemon sweet in syrup **	Pickled chili peppers*	Baru paçoca*	Rosemary (Salvia rosmarinus Schleid.) *	Mini rice cake***
Fruits, dehydrated fruits, juices and pulps	Sweets	Vegetables and legumes	Food of animal origin	Dehydrated herbs and spices	Baked Products and seeds
Mango*	Orange sweet in syrup**	Pickled sweety drop peppers*	Sesame paçoca*	Chive and parsley (Allium schoenoprasum + Petroselinum crispum) *	Rice cake on banana leaf***
Blackberry*	Grated papaya sweet**	Pickled pequi pulp*		Chive and Coriander (Allium schoenoprasum + Coriandrum sativum L.) *	Brazil nut shortbread biscuit***
Siriguela**	Pumpkin jam with coconut**			Annatto - <i>Bixa orellana</i> L.*	Rice cake on banana leaf***
Surinam cherry**	Half ripe mango sweet **			Turmeric - <i>Curcuma longa</i> L.* Turmeric**	Mini green banana flour cake ***
					Mini rice cake***
Frutas, frutas desidratadas, sucos e polpas	Doces	Verduras e legumes	Alimentos de origem animal	Ervas desidratadas e temperos: nome popular (nome científico) ^a	Panificados e sementes
Banana Pacumã*	Pé de moleque*	Abóbora comum*	Ovo*	Hibisco (<i>Hibiscus</i> sabdariffa L.) *	Peta*
Banana Maçã*	Melado de cana*	Abobrinha verde*	Queijo frescal**	Cidreira (Melissa officinalis L.) *	Mané pelado**
Jabuticaba** Jabuticaba	Rapaduras*	Mandioca*	Queijo curado**	Moringa (<i>Moringa oleifera</i> Lam.)	Biscoito de queijo***
Maracugina	Geleias (20 sabores com e se açúcar) *	Alface*	Banha de porco**	Alfavaca (Ocimum gratissimum L.) *	Biscoito de polvilho*
Limão china** Limão china*	Doce de leite*	Couve* Couve**	Carne de lata**	Zedoária (<i>Curcuma</i> <i>zedoaria</i> (Christm.) Roscoe) *	Bolinhos com e sem glúten**
Limão taiti** Limão taiti*	Doce de jenipapo*	Cheiro verde*	Galinha caipira**	Carqueja (<i>Baccharis</i> genistelloides var. trimera (Less.) Baker) *	Pão de queijo*** Pão de queijo**
Amora*	Doce de banana*	Rabanete*	Requeijão*	Boldo (<i>Plectranthus</i> barbatus Andrews) *	Broas**
Limonada**	Doce friscurinha de mexerica, laranja e limão*	Amendoim*	Farinha de jatobá*	Cebolinha (Allium schoenoprasum)	Pão de Abóbora**
Tamarindo*	Doce em calda de queijo**	Cebolinha*	Farinha de banana verde*	Manjericão (Ocimum	Rosquinha de Abóbora**

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Tamarindo**				basilicum L.) *	
Cajá-manga**	Doce de banana*	Beterraba*	Polvilho*	Orégano (Origanum vulgare L.) *	Barrinha de Cereal*
Caju** Caju*	Doce de cajú*	Cenoura* Cenoura**	Farinha de mandioca*	Mentrasto (<i>Mentha</i> suaveolens Ehrh.) *	Biscoito de queijo congelado***
Goiaba* Goiaba	Geleia de pele de porco*	Hortelã*	Semente de baru*	Espinheira Santa (<i>Maytenus ilicifolia</i> Mart. ex Reissek) *	Biscoito de queijo congelado***
Maracujá* Maracujá**	Doce de mamão verde*	Manjericão*	Semente de gergelim*	Hibisco*	Biscoitinho salgado de ervas finas
Limonada**	Doce de banana*	Feijão Roxinho**	Paçoca de gergelim*	Artemísia (Artemisia vulgaris L.) *	Cookie de castanhas***
Tamarindo* Tamarindo**	Pé de Moleque de Barú***	Conserva de mini pepinos*	Paçoca de Carne Seca*	Tempero completo*	Mini bolo de farinha de banana verde***
Acerola** Acerola*	Doce em calda de limão**	Conserva de pimenta malagueta*	Paçoca de baru*	Alecrim (Salvia rosmarinus Schleid.) *	Mini bolo de arroz***
Frutas, Frutas Desidratadas, sucos, polpas	Doces	Verduras e Legumes	Alimentos de Origem Animal	Ervas desidratadas e temperos	Panificados e sementes
Manga*	Doce em calda de laranja**	Conserva de pimenta biquinho*	Paçoca de gergelim*	Cebolinha e Salsa (Allium schoenoprasum + Petroselinum crispum)*	Bolo de arroz na palha de banana***
Amora*	Doce de mamão ralado**	Conserva de polpa de pequi*		Cebolinha e Coentro (Allium schoenoprasum + Coriandrum sativum L.)*	Amanteigado de castanha do Pará***
Siriguela**	Doce de abóbora com coco**			Colorau (Urucum) - Bixa orellana L.*	Bolo de arroz na palha da bananeira***
Pitanga**	Doce de "manga de vez" **			Açafrão (Cúrcuma) - <i>Curcuma longa</i> L.* Açafrão**	Mini bolo de farinha de banana verde***
				-	Mini bolo de arroz***

Subtitle

Canudos Settlement*

Independent group**

Solidarity network Berço das Águas***

^ahttp://reflora.jbrj.gov.br/reflora/herbarioVirtual/ConsultaPublicoHVUC/ConsultaPublicoHVUC.do, http://www.ans.gov.br/images/stories/abril_mes_da_saude/alimentos_regacionais.pdf Source: Authors. The Virtual Agroecological Interinstitutional Fair is being a successful food supply strategy in the face of the COVID-19 pandemic with Food and Nutritional Security (FNS) "from the countryside to the city". Food and Nutritional Security represents the process "from production to food consumption", being essential for the implementation of public policies (HLPE, 2017a) and the "realization of everyone's right to regular and permanent access to quality food, in sufficient quantity, without compromising access to other essential needs, based on health-promoting food practices that respect cultural diversity and that are environmentally, culturally, economically and socially sustainable" (Brasil, 2006).

In addition to promoting Food and Nutritional Security, the following also included: internship for undergraduate students of public health nutrition, development of food and nutrition education materials for consumers and the institutional community, boosting the interinstitutional relationship by expanding the normative acts among the participants, participation in scientific events and production of agroecological knowledge, enabling the mapping of food and the technical qualification of the steps that deal with "production for trade" of food by family farmers (IFG, 2020a).

In view of the current situation of the COVID-19 pandemic, it was possible to adapt and reinvent new techniques, seeking solutions for the process of change, rebuilding resilience and reintroducing diversification, reallocating food production and distribution, reducing dependence on inputs and imports, prioritizing food justice, equity and justice, as all parts of the food system are linked (Gliessman, 2020). By evaluating this new virtual format, it was possible to make a comparison between the participation of leaders of the agroecological fair in the face-to-face format and recently in the virtual format. The result is unanimous for the choice of the virtual format, with emphasis on the generation of income, since it presented stability with constancy in the commercialization of the food offered, since fluctuations were observed in person, since not all editions were significant. Another highlighted dimension was also waste, because fresh food that was not sold, had no other flow than the family's own consumption. When performing a quantitative analysis, it is clear that of the five family farmers who have remained at the agroecological fair since 2019, four pointed out that sales in the virtual format, at least, doubled in all Editions, shown in Graph 1.





Source: Authors.

3.2 Construction of the Rapid Participatory Emancipatory Diagnosis with the leaders of the rural communities active in the Virtual Agroecological Interinstitutional Fair

During the construction of the Rapid Participatory Emancipatory Diagnosis, a critical and reflective look was experienced, raising hypotheses about the challenges and solutions for the transformation of this reality, with an understanding of the reality itself (Freire, 1989), giving leadership opportunities to present different realities of the communities, as well as the challenges, advances, and the possibilities of participation in the Virtual Agroecological Interinstitutional Fair.

The conscious person better understands the reality around, which occurs through the educational process of awareness and criticism because "in criticism there is a commitment" (Freire, 1989) that induces social transformation and self-reflection in the face of the different experiences lived in the context of rural communities, pushing forward in a collaborative way in praxis, where the collectivity transcends individualism and enhances the collective struggle in combating the social problems of race, gender, class and the fulfillment of human rights, such as narratives:

"we can do the fair a very relevant experience for the lives of women, this process is interesting, because the majority are black women" (MORS, black woman, representative of the solidarity economy network Berço das Águas) "it is not just a way to earn money, it is good to earn money, it is very good, but the fair is a school that we have to dedicate ourselves to, study to get a good score at the end of the year. It's a learning experience" (LPO, leadership of the group of women warriors from Canudos, municipality of Palmeiras).

In dialogue with the results found in the studies carried out by Goodman (2003), Lamine (2008), it is worth highlighting the political positioning of rural communities in the recognition of short marketing chains as a promising path for generating income in the face of socio-environmental rationality, as well as highlights the family farmer from the Canudos settlement:

"The fair comes to meet us, so to speak, of our policy, I speak ours, I speak of the countryside, which articulates via peasantry in spaces with people, with the production of healthy food. With another conception of the world and the field". This is the great challenge, that of healthy foods going through the expansion of consumers, because the way of taking middlemen out we have already discovered the formula". (JVM, National leadership of the landless rural workers movement, municipality of Palmeiras).

It is fundamental to problematize the reality of rural communities, with emphasis on the gender and generational dimension, with women being the reference in the production process, the providers of their homes and who accumulate, in addition to the functions of domestic activities, those who deal with the process of production, while there is a need to participate in the Virtual Agroecological Interinstitutional Fair, presents itself as additional work, even if it corroborates the protagonism and the generation of income, being even more hope in the face of sociability and the exchange of experiences. Most are at an advanced age (over 50 years old) and only two can count on other generations for continuity and/or to enhance work in the rural area. This context is presented by the representative of the solidarity network Berço das Águas

"the workforce is all over 40 years old, because these women are tired and will not be able to meet these requests, are there family and neighbors to transfer this knowledge?" (MORS).

Rural communities start to incorporate in their daily lives a new model of planning and organization to meet the requirements of the public call in the operationalization of the Virtual Agroecological Interinstitutional Fair, which reinforces

the process pro-autonomy in the face of their own experiences, in the identification of possible interventions on capitalist rationality and present other ways and forms of organization for income generation, in a more just and equitable way "from the countryside to the city"; with emphasis on the narratives:

"to be at the fair, you need to organize your time, other activities, you need to be ready for that day and time". (RMRS, single, financial coordinator of the solidarity network Berço das Águas). "Would a fair voucher work as a sequence of the fair? Create like a seal!!!" (MORS).

"There are things that do not justify the cost increase, such as the fruit pulp, the fruit that is only to be picked up and bagged, now there are others that justify it" (TSV, leader of the independent group in the municipalities of Palmeiras and Silvânia).

"And it's not even forbidden to pay, but to pay who? How? If it is not with financial resources, it may be due to exchanges, it is also a possibility to solve the manpower" (MORS).

"The plants are already drying, and we are already putting them in the packages, and we do this so that we do not get too overloaded on the day of ordering" (ASS, matriarch, mother of 3 children, married, elderly, from the Canudos settlement, municipality of Campestre).

The Comité de Seguridad Alimentaria Mundial (HLPE, 2017a, 2017b) and the results found by Litre et al., (2014), Lamine (2008) emphasize that rural communities with emphasis on women farmers are the references for maintenance and protection biodiversity and the preservation of the knowledge of traditional communities, as well as in the offer of healthy foods that culminate in the strengthening of more sustainable agri-food systems for the entire population, giving opportunity and greater possibility of economic access to food produced with ecological practices.

Direct contact with consumers enables fairer prices, in addition to less risk of waste (Darolt et al., 2016), according to the speeches:

"sometimes we did and there was too much waste and, in this format, it responds well to the needs of the groups, even for the viability of the raw material, the losses are smaller and stimulates the desire for more. The risk is less" (RMRS).

The collaborative construction between family farmers, consumers, institutions, civil society, teaching-researchextension and the public authorities (Lamine, 2008) together with the alternative food networks enhance social transformation, so that the Virtual Agroecological Interinstitutional Fair is part of this context, as reported by one of the leaders:

"there is the fair project, you need us and we need you, without farmers there is no fair and without organization there are no people" (LPO).

The DRPE served as a reference for the continuity of the other research steps and these experiences, as well as the Virtual Agroecological Interinstitutional Fair, are constituted as problematized by the JVM leadership

"I go until I have no public policies, until I overcome this phase, until we have a government that understands this conception of field, life"

4. Final Considerations

Through the collaborative construction between family farmers and federal institutions in the state of Goias-Brazil, it was possible to set the Virtual Agroecological Interinstitutional Fair, with benefits and interactions with consumers,

institutions, civil society and with the involvement of teaching-research-extension, in addition to public power, with information for public politics, market agents and institutions in the sector. Through the Rapid Participatory Emancipatory Diagnosis, it was possible to understand that family farmers support traditional practices and their ways of living, organizing, and producing and transcends the Industrial Agri-Food System and the historical, political, cultural, and socioeconomic problems that reflect in the daily life of rural communities. The main contributions of Virtual Agroecological Interinstitutional Fair include a path that potentiates more sustainable territorial development with income generation, weaves an alternative for food supply and the promotion of the alternative food network "from the countryside to the city" in the face of socio-environmental rationality, in addition to a fairer and more equitable society, valuing biodiversity and offering food produced according to ecological practices. Despite the good results obtained with the fair so far, new strategies for the benefit of products, such as the production of booklets, a website with information on food products for sale and the inclusion of new farmers need future considerations.

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