

# Family farming in the amazon and the implementation of technical note 01/2017/ADAF/SFAAM/MPF-AM

Agricultura familiar no amazonas e a implantação da nota técnica 01/2017/ADAF/SFAAM/MPF-AM

La agricultura familiar en la amazonía y la implementación de la nota técnica 01/2017/ADAF/SFAAM/MPF-AM

## RESUMO

Objetivo: Avaliar o histórico de compras da agricultura familiar indígenas pelos municípios do Amazonas, considerando a implantação da Nota Técnica nº 01/2017/ADAF/SFAAM/MPF-AM da alimentação escolar indígena. Método: Estudo transversal descritivo, qualitativo e quantitativo. Resultado: Considerando escolas indígenas no Amazonas, apenas 30% de gastos nos municípios foram utilizados para a agricultura familiar indígena baseado no valor enviado pelo FNDE nos anos de 2017 a 2021. No que tange à ausência sequenciada de editais de Chamada Pública indígenas nos últimos cinco anos, foi devido a pandemia mundial de COVID 19; falta de planejamento da gestão administrativa para publicar a chamada pública indígena; adesão dos agricultores em participação da chamada; registro da DAP. Ao verificar a implantação da Nota Técnica, menciona-se a dificuldade na logística e na participação dos agricultores indígenas, além do que, adequação e informação é ausente pelos indígenas que participam da agricultura familiar. Conclusão: Portanto, nota-se que o acompanhamento do PNAE é fundamental para a valorização dos hábitos alimentares regionais, desenvolvimento rural sustentável e garantia do direito à alimentação adequada.

**DESCRIPTORIOS:** Agricultura. Alimentação Escolar. Indígena.

## ABSTRACT

Result: Considering indigenous schools in the Amazon, only 30% of spending in municipalities was used for indigenous family farming based on the amount sent by the FNDE in the years 2017 to 2021. With regard to the sequenced absence of public notices for Indigenous Public Calls in the last five years, it was due to the global pandemic of COVID 19; lack of planning by the administrative management to publish the indigenous public call; adherence of farmers to participate in the call; DAP registration. When verifying the implementation of the Technical Note, the difficulty in logistics and the participation of indigenous farmers is mentioned, in addition to the fact that adequacy and information is lacking for indigenous people who participate in family farming. Conclusion: Therefore, it is noted that monitoring the PNAE is essential for the appreciation of regional eating habits, sustainable rural development and guaranteeing the right to adequate food.

**DESCRIPTORS:** Agriculture. School Feeding. Indigenous.

## RESUMEN

Objetivo: Evaluar la historia de las compras de la agricultura familiar indígena por los municipios de Amazonas, teniendo en cuenta la aplicación de la Nota Técnica N ° 01/2017/ADAF/SFAAM/MPF-AM sobre la alimentación escolar indígena. Método: Estudio descriptivo, cualitativo y cuantitativo de corte transversal. Resultados: Considerando las escuelas indígenas de Amazonas, sólo el 30% del gasto en los municipios se destinó a la agricultura familiar indígena con base en el monto enviado por el FNDE en los años 2017 a 2021. Con respecto a la ausencia secuencial de convocatorias públicas indígenas en los últimos cinco años, esto se debió a la pandemia mundial de COVID-19; falta de planificación de la gestión administrativa para publicar la convocatoria pública indígena; adhesión de los agricultores a participar en la convocatoria; registro de la DAP. Al verificar la implementación de la Nota Técnica, se menciona la dificultad en la logística y en la participación de los agricultores indígenas, además de que falta adecuación e información entre los indígenas que participan en la agricultura familiar. Conclusión: Se observa, por lo tanto, que el monitoreo del PNAE es fundamental para la valoración de los hábitos alimentarios regionales, el desarrollo rural sostenible y la garantía del derecho a la alimentación adecuada.

**DESCRIPTORIOS:** Agricultura. Alimentación escolar. Indígena.

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## INTRODUCTION

The National School Feeding Program (PNAE - Programa Nacional de Alimentação Escolar) is considered one of the main public policies to work on food security and family farming at the same time, strategically strengthening improvements in school feeding and economic generation in Brazilian municipalities.<sup>1</sup> This is a public policy that has undergone several transformations and advances since its creation in the 1950s, and Resolution No. 06, of May 8th, 2020, is regulated in the country, the National Fund for Development and Education (FNDE - Fundo Nacional de Desenvolvimento e Educação), is in charge of administering the program.<sup>2</sup>

Considering that the PNAE maintains its efforts towards the replacement of care, the diversification and nutritional quality of food, the strengthening of family farming, social participation and encouragement of food education, factors that, fundamental for the promotion of health and human development in the country.<sup>2</sup>

In this regard, the PNAE has proven to be an important tool to encourage family farming and the production of organic and agroecological food, confident for sustainable development and the reduction of poverty in the countryside.<sup>2</sup> So that, according to Law 11.947/2009, of new guidelines for the implementation of

the PNAE, it becomes mandatory at least 30% of the total resources transferred by the National Fund for the Development of Education (FNDE), linked to the Ministry of Education (MEC) are intended for the purchase of preferably organic food, produced by family farming (local, regional or national).<sup>3</sup>

In Brazil, the term “family farming” emerged in the 1990s, by social movements and academic students who suggested the strengthening of the farmer in the Brazilian countryside.<sup>2,5</sup> However, the greatest social diffusion occurred with the implementation of the National Program for Strengthening Family Agriculture (PRONAF), which through the struggles of the rural union movement<sup>3</sup> and the union of school lunches with indigenous family farming allowed for the strengthening of eating habits.<sup>5</sup> After this dissemination, government agencies began to dedicate themselves to creating policies to encourage the practice of family farming.

Continuously, in 2019, the Food and Agriculture Organization of the United Nations (FAO) launched the plan called “Family Farming Decade”, whose main objectives are to create a political environment that strengthens family farming, strengthens producer organizations and improves socioeconomic inclusion.<sup>6</sup>

Therefore, in this context of strengthening family farming, it is important

to highlight the application in different contexts, such as indigenous communities. Because, despite the transformations that have occurred in the agriculture of these peoples over time, it is necessary to take into account the social and cultural diversity of these communities, with the aim of protecting traditional cultivation and generating local income in a fairer and more inclusive way.<sup>7</sup> Since, despite the agricultural conditions of the indigenous peoples in the State of Amazonas having undergone transformations in the last decades, it is necessary to reduce the existing gaps and improve the recognition of traditional cultivation, respecting their social and cultural diversity for the generation of local income.<sup>8</sup>

For this, the creation of Technical Note No. 01/2017/ADAF/SFA-AM/MPF-AM provided indigenous societies with the legal aspects for the commercialization of products of animal and vegetable origin, respecting their millennial agroforestry habits, guaranteeing their rights to participate in the public call for indigenous people as required by their municipality.<sup>9</sup> In this way, Technical Note No. 01/2017/ADAF/SFA-AM/MPF-AM is an important instrument for valuing family farming and the traditional knowledge of the peoples of the Amazon, promoting fairer, more sustainable production that is respectful of local cultures.

From this perspective, the scope of this study is to evaluate the history of purchases of indigenous family farming by the municipalities of Amazonas, considering the implementation of Technical Note No. (01/2017/ADAF/SFAAM/MPF-AM) on indigenous school meals. And specifically, verify the implementation of Technical Note n° (01/2017/ADAF/SFAAM/MPF-AM) of indigenous school meals and evaluate the history of purchases of in-

igenous family farming by municipalities.

## METHOD

This is a descriptive, qualitative and quantitative cross-sectional study, whose purpose is to evaluate the history of purchases of indigenous family farming by the municipalities of Amazonas, considering the implementation of Technical Note No. (01/2017/ADAF/SFAAM/

MPF-AM) of indigenous school meals. In which, 10 (ten) municipalities were chosen with large representation of schools accredited as indigenous, being: Amaturá, Coari, Japurá, Jutai Manaquiri, Parintins, São Gabriel da Cachoeira, Santo Antônio do Iça, Tapauá and Tefé, who agreed to participate in the study.

The data will be displayed as described below:

Table 1 - Identification of the municipalities in Amazonas identified in the study

MUNICIPALITY	IDENTIFICATION
Amaturá	M1
Coari	M2
Japurá	M3
Jutai	M4
Manaquiri	M5
Parintins,	M6
São Gabriel da Cachoeira	M7
Santo Antônio do Iça	M8
Tapauá	M9
Tefé	M10

Data were collected through electronic questionnaires between the months of January and August 2022, whose questionnaires with open and closed questions were sent to the Secretariats of Education in the interior of Amazonas, School Food Council and Technical Responsible. The tools varied according to the group belonging to each interviewee, however, the guiding axis always permeated the interviewee's view of the PNAE, the importance of allocating part of the resources transferred by the FNDE to family farming and their perception of the public call and the effectiveness of purchases.

- The Federal Public Prosecutor's Office questionnaire included two subjective questions about Technical Note no. (01/2017/ADAF/SFAAM/MPF-AM), <https://forms.gle/jFaxpTMismGZVjPv5>)
- The questionnaire sent to municipi-

pal managers contains 13 questions, 08 of which are objective and 5 subjective, related to Technical Note No. (01/2017/ADAF/SFAAM/MPF-AM), public call, performance of the CAE and the nutritionist in indigenous schoolchildren: <https://forms.gle/bk59r72NeiHm4W2y5> )

- The questionnaire sent to the CAE contains 13 questions, 07 of which are objective and 06 are subjective to evaluate Technical Note No. 01/2017/ADAF/SFAAM/MPF-AM, the management of the history of purchases of family farming by municipalities. Pertinent questions about: public call, information to the PNAE, types of production and sales project and nutritionist's role in indigenous schools. <https://forms.gle/yZEMQxAgroxjn2z67>)

- The questionnaire sent to the nutritionist comprised 28 questions, e) of which 22 were objective and 6

were subjective in all questionnaires included in Technical Note No. 01/2017/ADAF/SFAAM/MPF-AM, addressing the mandatory and complementary activities, described in CFN Resolution No. 465, of August 23, 2010, and if the tool available to the nutritionist is used is the PLAN and PNAE and the conditions for implementing the Program and inserting the AF, at the end of filling out the forms, menus for the last five years were asked from the technical managers to assess the quality of food served to indigenous students. <https://forms.gle/EKDji29oDyRZtbXs5>)

With regard to data analysis, descriptive statistics were used to analyze the answers to closed questions, and content analysis to categorize the responses of the research actors.

According to Triola <sup>10</sup>, Descriptive statistics is an area of statistics that is

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concerned with the organization, presentation and analysis of data through descriptive measures, such as mean, mode, median, standard deviation, among others. While content analysis is a research technique that aims to interpret messages presented in documents of various types, whether verbal, visual or sound, in which it consists of transforming the content of the material into units of analysis and, later, in thematic categories.<sup>11</sup>

The research was submitted to the Ethics Committee for Research with Human Beings of the Federal University of Amazonas (CEP/UFAM) and approved under CAAE number: 48609321.0.0000.5020 and participants were informed of the study objectives and data confidentiality in terms of commitment and informed consent.

## RESULTS

The PNAE in the municipalities was analyzed to verify the strengthening of indigenous family farming under the eyes of municipal managers, the School Feeding Council and the Technical Responsible for Nutrition, to extract situational information from the municipalities on the progress of the program and the insertion of Technical Note No. 01/2017/ADAF/SFA-AM/MPF-AM that aim at intersectoral actions such as access to traditional foods.

Considering the dimension of evaluation of the historical purchases of indigenous family farming by the municipalities, according to the information obtained in the questionnaires, the only actor is the municipal management. Soon, 4 tools were taken into account, only providing information on the percentage spent in the municipality for indigenous family farming based on the amount sent by the National Fund for Development and Education in the respective years from 2017 to 2021, which is a total of 30% according to data provided by the FNDE, and that trips with other partners to verify indigenous family agriculture were carried out according

to the needs of each municipality.

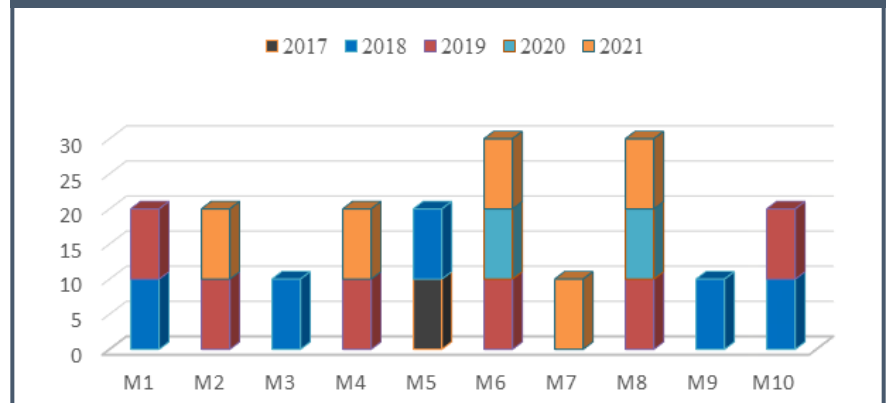
It is worth noting that, among the municipalities of Amaturá, Coari, Japurá, Jutai, Manaquiri, Parintins, São Gabriel da Cachoeira, Santo Antônio do Iça, Tapauá and Tefé, the indicators of the number of indigenous family farmers who participated in the public call for tenders in the respective years from 2017 to 2021 and the number of indigenous family farmers registered with the Agricultural and Forestry Defense Agency of the State of Amazonas - ADAF (Agência de Defesa Agropecuária e Florestal do Estado do Amazonas) in their municipality was not possible to measure according to the data collected.

And then, through the questionnaires collected from the management actors, CAE and technician responsible for Nu-

trition, it was possible to extract information regarding the sequenced absence of indigenous Public Call notices in the last five years, in which the indicators extracted in the responses were that the absence was due to the following reasons: global pandemic of COVID 19; lack of planning by the administrative management to publish the indigenous public call; adherence of farmers to participate in the call; registration of the Pronaf Aptitude Declaration.

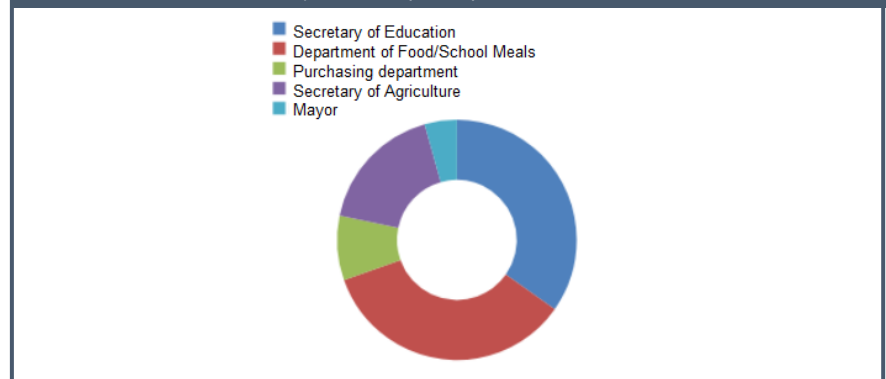
In Graph 01, it is highlighted that only two municipalities (M6 and M8) held public calls consecutively in the years 2019, 2020 and 2021. And five municipalities (M1; M2; M4; M5 and M10) performed only twice in the last five years. Through the questionnaires answered by the actors, three municipalities (M3; M7

Graph 1 - Evolution of Indigenous Family Farming in the municipalities of the State of Amazonas between 2017 and 2021



Source: Research data, 2022.

Graph 2 - Disclosure and participation of competent bodies in the process of purchasing indigenous school meals, in municipalities in the State of Amazonas, in 2022 (n=10)



Source: Research data, 2022.

and M9) carried out only one indigenous public call in those years.

It was observed in the research findings that the lack of municipal planning in recent years to offer the public notice of the Indigenous Public Call, observed in Graph 01, reduces indigenous farmers' opportunities to generate household income and therefore reduced access to near-natural foods available to indigenous schoolchildren. In addition, the absence of a Pronaf Aptitude Declaration (DAP - Declaração de Aptidão ao Pronaf) by indigenous farmers prevents the sale of their products to the community, making it possible to participate in Public Calls.

In Graph 2, it is observed that the eight municipalities, which are equivalent to 70% of the respondents, had support from the management and the purchasing department to assist in the process of acquiring food offered in the public call and that 17% of the respondents have the support of the secretary of agriculture. It is important to emphasize the municipal participation and the presence of the competent bodies in the process of purchasing indigenous school lunches was verified.

According to Graph 2, with regard to the disclosure and participation of the competent bodies in the process of purchasing indigenous school lunches, in municipalities of the State of Amazonas, in 2022, 35% are Education Secretariats, 35% the Food/School Lunch Department, 9% Purchasing Department, 17% Agriculture Secretariats and 4% Municipal Mayors.

It is worth mentioning that the response from the administrative managers of municipalities M7 and M8 informed that they were not in charge of this process of purchasing indigenous school lunches, since the Department of School Feeding acts effectively in the process of purchasing food. From this point of view, the implementation of participation in the procurement process depends on the combination of management control and the other bodies involved in the process.

In this sense, a weakness of more than 60% was considered in the purchase history of indigenous family farming in the

participating municipalities, regarding the production and commercialization of products and the motivation of farmers for effective participation in the organization of the indigenous public call. These indicators extracted from the forms used in this research showed a municipal deficit in educational, economic and social issues.

When verifying the implementation of Technical Note No. 01/2017/ADAF/SFA-AM/MPF-AM of indigenous school meals in accordance with the Federal Public Ministry, Municipal Management, CAE and Technical Responsible - Nutritionist, it was mentioned that the main difficulty in implementing the aforementioned technical standard is related to logistics.

Continuously, the research actors emphasized that the consequences of non-compliance with legal determinations are the lack of opportunity for indigenous farmers, which ends up making it difficult

to generate family income. However, with regard to knowledge of Technical Note No. 01/2017/ADAF/SFA-AM/MPF-AM, all local farmers in the municipalities under study have guidance given by the competent bodies.

With regard to the obstacles to the effectiveness of Technical Note No. 01/2017/ADAF/SFA-AM/MPF-AM, it was noted that the participation of indigenous farmers are the main reasons that delay the follow-up of the technical note, since, the search for adequacy and information is absent for the indigenous people who participate in family farming. For a better understanding of the implementation process of Technical Note No. 01/2017/ADAF/SFA-AM/MPF-AM, responses from municipal managers, CAE, Nutritionist – Technical Responsible for their municipality were extracted, as shown in Table 2.

Table 2 – Analysis of the implementation of Technical Note No. 01/2017/ADAF/SFA-AM/MPF-AM from the perspective of actors in their municipalities, 2022 (n=10)

INDICATORS	YES		NO		TOTAL	
	n	%	n	%	n	%
Knows the technical note	8	80%	20	20%	10	100%
Participated in some training	5	50%	5	50%	10	100%
Event brought useful information	5	50%	5	50%	10	100%
Disclosure for purchases in communities	9	90%	10	10%	10	100%
Public call period is longer than 20 days	8	80%	20	20%	10	100%

Source: Research data, 2022.

In Table 2 it is verified that 80% of the municipalities are aware of Technical Note nº01/2017/ADAF/SFA-AM/MPF-AM. When checking the other answers, 50% of the actors reported that they received training (events) on the purpose of the Note for indigenous family farming. Regarding the deadline for the Public Call, it was observed that 80% meet the

deadline of at least 20 days from publication of the notice of the Indigenous Public Call.

Still, the findings of this study point to the importance of the dissemination and participation of all sectors responsible for the technical operation of Technical Note No. 01/2017/ADAF/SFA-AM/MPF-AM. In this sense, a questionnaire

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was also carried out with the public prosecutor regarding the effectiveness of the Technical Note in the State of Amazonas, whose speeches demonstrate the difficulty of implementing the legislation – both of the gesture and of the indigenous people, and the compliance and non-compliance with the legislation by the PNAE actors, see below:

a) **Category - manager difficulty:** In this category, managers' lack of knowledge of the regulations, managers' omission and standard administrative models emerged. As can be exemplified in the speech:

*[...]...need to change the standard administrative models, greater contact between Adm. Audience and target audience of the note...[...]*

b) **Category - indigenous difficulty:** Some speeches allow us to glimpse the apprehension of indigenous peoples who are vulnerable to the media, which can affect their production and their ancient cultural habits.

*[...] are characterized as risk groups, as they are more susceptible to environmental influences such as culture, norms, traditions and values, as well as the media and social prestige of food are involved in learning and incorporating certain habits[...]*

c) **Category - compliance with legislation:** in which the speech emphasizes the mandatory purchase of 30% of family farming by public managers within the scope of PNAE resources

*[...] it is mandatory to comply with both, under penalty of liability of the manager in the civil, administrative and even criminal scope depending on the case [...]*

d) **Category - non-compliance with legislation:** failure by managers to purchase production from indigenous and traditional peoples brings losses to the municipality.

*[...] either for not generating local income and circulating this income in the municipality itself, having the City Hall more expenses with fuel for the logistics of school meals to villages and communities, not guaranteeing culturally adequate and quality food, generating more plastic waste/metals with less sustainable packaged foods, etc.[...]*

In the speeches above, from the attorney, he emphasizes the appreciation of the knowledge of the other within the hierarchical model that encourages and values the implementation and monitoring of the note in the municipalities.

In addition, the difficulties encountered for a good and constant articulation of the CAE in the various local contexts and that several factors would be disfavoring are also addressed.

Table 1 - Groupings of common information within each group and item

AUTHORS	ADVANTAGES	DIFFICULTIES	LEGISLATION
Public ministry	<ul style="list-style-type: none"> <li>Guarantee of indigenous school meals (and traditional peoples);</li> <li>Culturally appropriate</li> </ul>	<ul style="list-style-type: none"> <li>Need to change the standard administrative models,</li> <li>Greater contact between Public Administration and the target audience of the note.</li> <li>Not guaranteeing food</li> </ul>	<ul style="list-style-type: none"> <li>Purchase of 30% of family farming by public managers within the scope of PNAE resources;</li> <li>Knowledge of the Technical Note;</li> <li>Valuing cultural habits; - compliance with both is mandatory, under penalty of liability of the manager within the scope Secretary of Education</li> </ul>
Secretary of Education	<ul style="list-style-type: none"> <li>Income Generation in the municipality;</li> <li>Quality of fresh products;</li> </ul>	<ul style="list-style-type: none"> <li>Participation of farmers for the indigenous public call;</li> </ul>	<ul style="list-style-type: none"> <li>Knowledge of the indigenous public call;</li> <li>Legal requirements for participation;</li> <li>School Feeding Council</li> </ul>
School Feeding Council	<ul style="list-style-type: none"> <li>Possibility of new business;</li> <li>Production plan;</li> <li>Guarantee of rural productions;</li> <li>Institutional strengthening;</li> <li>Consolidation of Indigenous Family Agriculture;</li> </ul>	<ul style="list-style-type: none"> <li>Plan to serve the municipality 100%;</li> <li>Logistics;</li> <li>Diversity of regional foods;</li> </ul>	<ul style="list-style-type: none"> <li>DAP registration;</li> <li>Issue Invoice;</li> </ul>

Source: Research data, 2022.



Chart 4 refers to the grouping of the main information analyzed by the interviewed actors, in which it is possible to visualize the main advantages in serving indigenous peoples, such as: school access, income generation among indigenous farmers, cultural and regional strengthening of the studied society. Despite the advances mentioned, the actors also described some limitations that are being studied so that they can be remedied over the years, that is, working on the annual participation of indigenous farmers in the Indigenous Public Call process and the diversity of regional food production to be offered to indigenous schoolchildren.

All the actors interviewed were responsible for the effectiveness of this public policy, which aims, in addition to providing quality food to students, to favor indigenous family farming. In view of the indicators extracted from the actors, it is noteworthy that everyone involved in the PNAE emphasized that the competent bodies encourage the participation of farmers in the Indigenous Public Call when the public notice is opened and reinforce the importance of the Technical Note for strengthening the diet of traditional peoples..

## DISCUSSION

According to the results, three municipalities (M3; M7 and M9) carried out only one indigenous public call in those years. The results found in the present work are also similar to researchers Elias<sup>12</sup> and Silva<sup>13</sup>, in which the need to work in an organized manner annually aims at a fixed plan for participating farmers in the municipalities.

It is important to underline that the indicators of the Indigenous Public Call are correlated to the pandemic scenario and that agriculture has been the only activity that has not yet experienced an economic downturn. According to Silva<sup>14</sup>, information on the impact of the COVID 19 pandemic on the municipalities of the state of Amazonas, point out that in the beginning, residents quickly changed their eating and agricultural habits, adapting to the new re-

commendations for social distancing and other preventive measures, consequently, this brought losses in relation to the family economy and the production chains, since, according to the IBGE<sup>15</sup> in the first quarter of 2020 the Gross Domestic Product (GDP), affected by the pandemic and social distancing, presented a contraction in industry (-1.4% and -0.1%) and in services (-1.6% and -0.5%), while agriculture increased by 0.6% and 1.9%.

On the other hand, the lack of municipal planning in recent years to offer the public notice of the Indigenous Public Call reduces the opportunities for indigenous farmers to generate family income, and reduced access to almost natural foods available to indigenous schoolchildren. Similar data were found in the study by Bevilacqua<sup>16</sup>, who described the difficulty of managers in organizing the process of public call for purchases in city halls, adding to the difficulty of family farmers in supplying products on a regular and varied basis.

Another indicator observed was the absence of DAP by indigenous farmers, which prevents the sale of their products to the community, enabling participation. Similar data were found by Carvalho<sup>17</sup> in the South region, the majority (about 56%) do not have DAP, which highlights the importance of updating by the competent bodies to reduce this gap that does not allow the proof of indigenous farmers according to Law 11.326, of July 24th, 2006<sup>18</sup>, which established the National Policy for Family Agriculture and Rural Family Enterprises.<sup>19</sup>

As for the process of dissemination and participation of the competent bodies in the process of purchasing indigenous school meals, in municipalities of the State of Amazonas in the year 2022, most are from the Department of Education and the Department of Food. To Moreira<sup>20</sup>, the diversified participation of external managers in the purchasing process is fundamental to encourage the local economy in the municipalities, and also, it is a way of identifying the best strategies to promote the commercialization of products that are essential for the successful viability of family farming in the school canteen market.

Indigenous family farming is a very old sector, which over time has broken prejudices such as the traditional practice of cultivation, reinforcing its millenary knowledge for the preservation of the Amazon rainforest.<sup>21</sup> Today, it has a new concept and outlines a representative and significant profile for its local development, strengthening agriculture and the economy.<sup>22</sup>

According to what Castro<sup>22</sup> evidenced, the main characteristic of family farming in the North Region is the non-use of technologies and techniques that make large-scale production impossible to suppress the community's needs, becoming an obstacle to the family's livelihood.

Petry<sup>23</sup> in his research findings in Mozambique, he describes that municipal organization and planning in family farming is related to decision-making and adaptations according to the reality of the community. Another relevant evidence was the farmers' decisions to develop new technologies, related to the choice of implementation among their family and friends in the process, such results show an inverted U-shaped relationship, suggesting that the educational and social impact is positive.<sup>23</sup>

With regard to the implementation of Technical Note No. 01/2017/ADAF/SFAAM/MPF-AM for indigenous school meals, in accordance with the Federal Public Ministry, Municipal Management, CAE and Technical Responsible - Nutritionist, it was mentioned that the main difficulty in implementing the aforementioned technical standard is related to logistics. According to Lima<sup>24</sup>, the lack of investment in logistics infrastructure is also one of the main barriers faced by the state of Amazonas for the implementation of public policies, which ends up directly affecting the quality of life of the population, which often lacks access to essential services.

In this way, logistics in the state of Amazonas presents major challenges for the implementation of public policies, due to its geographic location, which makes the transport and distribution of goods difficult.<sup>24</sup> Thus, such as access to isolated places, and in some municipalities accessibility is restricted to waterways or air access.<sup>24</sup> There-

fore, from the results found in the responses of the actors, it is highlighted that there is a need to develop and implement new strategies for dissemination among different public sectors and organized civil society, encouraging the strengthening of family farming. Since, it allows the purchase of food dispensing with the regular bidding process, and seeks to encourage and develop the rural environment, inserting indigenous family farmers into a promising market.

In short, it is not enough to know and carry out indigenous public calls, it is necessary to encourage the participation of indigenous farmers, through training informing the need for planting planning that requires checking the characteristics of different products, since some foods have a longer production cycle, while others are more sensitive to climate changes (seasonality), which interfere with the supply of school lunches.<sup>25</sup>

Therefore, it is noted that the participation of all actors in monitoring the PNAE is essential for valuing regional eating habits, preserving local cultural identity and empowering the human right to food.

## CONCLUSION

It was noticed that, when studying the PNAE and the incentive of the Indigenous Public Call for the acquisition of products from indigenous family farming by the public administration, it becomes necessary to analyze some assumptions of public policies aimed at this sector.

It was found to be of fundamental importance for rural development the emergence of Technical Note No. 01/2017/ADAF/SFA-AM/MPF-AM in the state, which encouraged sustainable development in indigenous villages, expanding social control and promoting food safety in school menus. It is noticed that, in order to fulfill the objectives of public purchases of indigenous family farming, an analysis that goes beyond a simple purchase of food is necessary.

With regard to the evaluation of the purchase history of indigenous family farming by the municipalities of Amazonas, it is possible to observe that the

municipal management is the main actor involved in the purchase process. However, the sequenced absence of indigenous public call notices in the last five years was evident, which made it difficult to evidence the percentages of family farmers in the regions studied. In addition, this absence was motivated by several factors, such as the global pandemic of COVID-19, lack of planning by the administrative management to publish the indigenous public call, adherence of farmers to participate in the call and registration of the Declaration of Aptitude to Pronaf.

In this way, it is noted that it is necessary to improve the tools for evaluating purchase history, measure the missing indicators and seek solutions to overcome the challenges that have prevented the realization of public indigenous calls in recent years. Only in this way will it be possible to promote the sustainable development of indigenous family farming and guarantee the food and nutritional security of communities.

And, in verifying the implementation of Technical Note No. 01/2017/ADAF/SFA-AM/MPF-AM on indigenous school meals, it is noted that the participation of all actors in monitoring the PNAE is essential for valuing regional eating habits, preserving local cultural identity and empowering the human right to food.

Technical Note No. 01/2017/ADAF/SFA-AM/MPF-AM is important for family farming, as it establishes guidelines for the application of Law No. 11,326/2006, which deals with the organization and development of family farming. This technical note aims to guide public managers and produce information about the needs and benefits of this law, in addition to providing information on access to public policies and incentives for family farming.

It is worth mentioning that, recently, Technical Note nº 3/2020/6th CCR/MPF was applied, which reinforces the importance of family farming and seeks to ensure its continuity in times of a pandemic.

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The technical note provides guidelines for implementing measures to protect and assist family farmers, with a view to ensuring food security in rural communities.

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It is worth noting that the applicability of Technical Note No. 3/2020/6th CCR/MPF was evidenced after the pandemic scenario, in order to ensure the maintenance of food and nutritional security for rural and urban populations.

Therefore, the importance of these technical notes lies in their ability to guide and strengthen family farming, confident for the construction of a more just, equitable and sustainable society. The guidelines provided by these technical notes can help in the formulation of public policies aimed at family farming and in decision-making by public managers, with a view to promoting sustainable rural development and guaranteeing the right to adequate food. Therefore, Technical Note No. 01/2017/ADAF/SFA-AM/MPF-AM presents guidelines for the participation of indigenous family farming, emphasizing the importance of ensuring the inclusion of this segment in the institutional purchase policy.



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