# The role of international cooperation in the development of haitian agriculture against hunger and poverty

O papel das cooperações internacionais no desenvolvimento da agricultura haitiana contra fome e pobreza

El papel de la cooperación internacional en el desarrollo de la agricultura haitiana contra el hambre y la pobreza

Received: 10/15/2021 | Reviewed: 10/24/2021 | Accept: 10/25/2021 | Published: 10/29/2021

#### Ethol Exime

ORCID: https://orcid.org/0000-0002-6962-8088 State University of Western Paraná, Brazil E-mail: eeetholl@hotmail.com

#### Nelza Mara Pallú

ORCID: https://orcid.org/0000-0001-6296-9130 State University of Western Paraná, Brazil E-mail: Nelzapallu@gmail.com

#### Clério Plein

ORCID: https://orcid.org/0000-0002-7235-9771 State University of Western Paraná, Brazil E-mail: clerioplein@gmail.com

#### **Geysler Rogis Flor Bertolini**

ORCID: https://orcid.org/0000-0001-9424-4089 State University of Western Paraná, Brazil E-mail: geysler\_rogis@yahoo.com.br

# Abstract

In general, this article seeks to present a literature review involving a discussion of the themes of International Cooperation Haiti-Brazil, hunger in Haiti and the development of Family Farming, surveyed in the Capes¹ and *Science Direct* ² databases between the years 2000 and 2020. The objective is to understand the impacts of international cooperation on the development of family farming against hunger in Haiti. It is concluded that international cooperations are not sufficient in the face of the Haitian situation, in the fight against hunger and poverty, for the development of family farming, more actions are needed, such as a development plan against poverty that includes investments linked to technologies, the valorization of science, in addition to encouraging cooperation against hunger with social programs to combat inequality in Haiti.

Keywords: International cooperation; Hunger; Haiti; Development of family farming; Brazil.

#### Resumo

De forma geral, busca-se, neste artigo apresentar uma revisão bibliográfica envolvendo uma discussão a partir dos temas cooperações Internacionais Haiti-Brasil, fome no Haiti e desenvolvimento da Agricultura Familiar, levantados nos bancos de dados da Capes e do Science Direct entre os anos 2000 e 2020. Tem-se como objetivo de conhecer os impactos das cooperações internacionais no desenvolvimento da agricultura familiar contra a fome no Haiti. Concluise que as cooperações internacionais não são suficientes, diante da situação haitiana, na luta contra fome e pobreza, para o desenvolvimento da agricultura familiar são necessárias mais ações como um plano de desenvolvimento contra misérias que abrange investimentos ligado as tecnologias, a valorização da ciência, além de incentivar cooperações contra fome com programas sociais no combate à desigualdade no Haiti.

Palavras-chave: Cooperações internacionais; Fome; Haiti; Desenvolvimento da agricultura familiar; Brasil.

### Resumen

De forma general, este artículo pretende presentar una revisión bibliográfica que incluya la discusión de los temas de Cooperación Internacional Haití-Brasil, el hambre en Haití y el desarrollo de la Agricultura Familiar, encuestados en las bases de datos Capes y Science Direct entre los años 2000 y 2020. El objetivo es comprender los impactos de la cooperación internacional en el desarrollo de la agricultura familiar contra el hambre en Haití. Se concluye que las cooperaciones internacionales no son suficientes, debido a la situación haitiana, en la lucha contra el hambre y la pobreza, para el desarrollo de la agricultura familiar se necesitan más acciones como un plan de desarrollo contra la

# Research, Society and Development, v. 10, n. 14, e140101421864, 2021 (CC BY 4.0) | ISSN 2525-3409 | DOI: http://dx.doi.org/10.33448/rsd-v10i14.21864

miseria que abarque las inversiones ligadas a las tecnologías, la valorización de la ciencia, además de incentivar las cooperaciones contra el hambre con programas sociales en la lucha contra la desigualdad en Haití.

Palabras clave: Cooperación internacional; Hambre; Haití; Desarrollo de la agricultura familiar; Brasil.

# 1. Introduction

The diplomatic relationship between Brazil and Haiti has existed since 1928, but from the point of view of international relations, international cooperation actually began after World War II with the main objective of meeting a series of social and economic needs of vulnerable countries that lack financial resources related to economic development. (Pozzati Junior, 2015). From this perspective, diplomacy based on international cooperation has been important and necessary for countries in vulnerable conditions, especially in the Haitian situation.

In the case of Haiti, international cooperation has gained prominence since 2010, after the earthquake that devastated the country; however, the precarious situation had been dragging on for years. According to Sutter (2010), Haiti is a country whose problems have never ended, suggesting that Haitians have no luck in the national and international sphere. When it comes to inequality and hunger, they are known to be the biggest problems to be solved.

In fact, the problem of hunger in Haiti has proven to be far greater than the State's ability to solve it. It is important to emphasize that Haiti does not expect to find a path to a life free of poverty, but the unequal life in the country hinders the efforts of rebirth through international cooperation.

The problem of hunger is one that has received the most aid through cooperation in the last 15 years, and considering the agricultural potential of Haiti, even in view of the small cultivable territory, there is a contradiction, because the problems that interfere with the development of

Haitian agriculture, even with international aid, are characterized by internal factors, of economic structure, such as the lack of investment to boost agricultural production initiatives. Exime (2021) highlighted, Haitian agriculture represents hope for the Haitian people, as well as economic development through international investment.

Family farming represents not only a way to earn a living, but a way to demonstrate historically that Haitian society is capable of achieving any goal if it so wishes, because the cultivation of the land represents hope and the size of cultivable space is not only the problem facing Haiti, but the recovery of the essence of agriculture [...]. (Exime, 2021, p. 123)

This investment problem is compounded by a lack of technical training to help farmers improve their practices, and other serious problems of deforestation impacting the environment and impoverishing the soil:

Agriculture's problems are of various kinds and multidimensional. One of the main causes of the weakness of Haitian agriculture is the inability of farmers to economize. It manifests itself through several parameters. On the one hand, internal causes that are linked to the structure of Haitian society. That is, its organization and social formation, are constant problems that require a change of structure and a new way of organizing the country. On the other hand, these problems arise from the global context, that is, the dynamics of globalization such as neoliberalism through the Structural Adjustment Program (SAP) and food aid (Beaucejour, 2016, p. 10, our translation)<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Original Quote: Les problèmes d'agriculture sont de plusieurs ordres et multidimensionnelles. L'une des causes principales de la faiblesse de l'agriculture haïtienne est l'incapacité des paysans à épargner. Elle se manifeste par plusieurs paramètres. D'une part, les causes internes qui sont liées à la structure de la société haïtienne. À savoir, son organisation et sa formation sociale, se sont des problèmes constants qui demandent un changement de structure et une nouvelle forme d'organisation du pays. D'autre part, ces problèmes découlent du contexte mondial c'est-à-dire la dynamique de la mondialisation comme le néolibéralisme à travers le Programme d'Ajustement Structurel (PAS) et l'aide alimentaire. (Beaucejour, 2016, p. 10.

Thus, a series of unsustainable conditions are perceived by the country's leaders themselves. This is related to the lack of food sovereignty and food security, aspects that hinder the country in the issue of agricultural development. It is important to point out that this problem intensified in the 1970s and 1980s, when new measures were implemented by the IMF.

In this same perspective, international cooperation has been developing an important role for the most vulnerable countries, especially in the Haitian conjunctures related to hunger, economic development, as well as aspects linked to the areas that move the economy the most, such as family agriculture. Although international cooperation has been necessary and important in the Haitian context, there are doubts about its efficiency and whether it is sufficient to reduce and address the problems of Haiti's economy and poverty. In this way, we seek to answer the following questions: How are the main elements of the bibliographical research on the subject characterized? an the Brazilian family farming model be implemented in Haiti? Has international cooperation been sufficient in the fight against hunger in Haiti?

Therefore, the objective of this article is to analyze and understand the impact of international cooperation on the development of family farming against hunger in Haiti, based on the following elements: international cooperation between Haiti and Brazil, hunger and the development of family farming.

That said, in a structural way, this article will address the following points in addition to the introduction topic. Methodology; Results and discussions; The characterization of the theme from the articles found; Inclusion and exclusion criteria of the articles found; Characterization of the main findings that guide this work and its results; The analysis and contributions of the authors from the elements found in the theme; The main results and conclusions of the findings from the International Cooperation between Haiti and Brazil; Final considerations. Thus, the methodology of the article is presented below.

## 2. Methodology

This research is qualitative in nature, which allows us to focus on the main observations of an analytical nature. It was conducted by means of bibliographic research, which "is that which is carried out based on the available record, resulting from previous research" that may be books, scientific articles and more" (Severino, 2007, p. 122). It is understood that the bibliographic review is research carried out from documents already produced and published in Brazilian or foreign databases.

#### 2.1 The characterization of the theme from the articles found

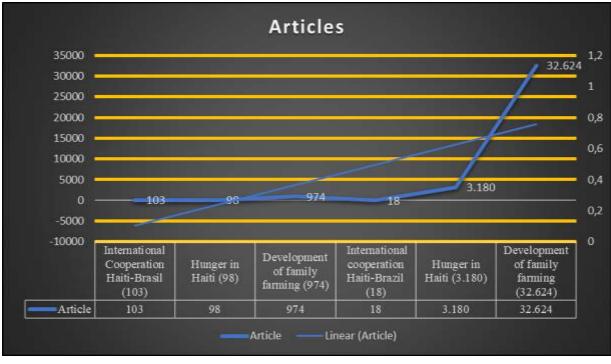
Thus, by characterizing the article in terms of discussing the importance of the findings that address how food issues in Haiti have become so complicated that they have become one of the greatest national and international weaknesses. At this point, in addition to the lack of food as part of the problem that aggravates hunger, one must take into consideration the impacts of publications related to the theme that appear in several articles found in the literature review, allowing us to present a flowchart of the articles found in the databases.

Search in Capes and Science Direct databases Keywords: International cooperation Haiti-Brazil; hunger in Haiti; Development of family farming. English: International cooperation Haiti-Brazil; hunger in Haiti; Development of family farming. Found studies (N = 37.416)Excluded from filters + last 20 years (n= 18.122) Outside the topic of interest (n= 16.305) Dissertations + book chapters (n= 65) Selected fot title reading (n=1.462)Excluded after rading of the abstracts (n= 1.160) Deleted duplicate articles (n= 9) Deleted articles without free acess (n= 494) Articles from other areas (n= 657) Selectedu for Reading of The abstracts (n=302)Excluded (n=231) Referred to articles not available (n= 180) Referred to articles off topic (n= 51) Selected and read in full (n=71) The 58 articles excluded in this last step were due to lack of specificity related to Haiti and Brazil. Articles for review (n=13)

Figure 1 - Flowchart of the articles found.

Source: Elaborated by the authors (2021).

37,416 articles were found in the CAPES and *Science Direct* databases meeting the criteria illustrated in the figure above<sup>2</sup> and the themes of international cooperation and family farming development between the years 2000 and 2020. In some specific cases<sup>3</sup> it was searched between the years 2015 and 2020. Thus below, we will present the articles related to the theme in Graph 1.



**Graph 1** - Articles related to the research descriptors.

**Source**: Elaborated by the authors (2021).

The selection of articles in Portuguese language related to the descriptors already mentioned can be compiled as follows:

- ➤ Haiti-Brazil International Cooperations: 103 articles;
- ➤ Hunger in Haiti: 98 articles;
- Family Farming Development: 974;

These same descriptors translated into English reveal the following numbers:

- ➤ International cooperation Haiti-Brazil: 18 articles;
- ➤ Hunger in Haiti: 3.180 articles;
- Development of family farming: 32.624 articles.

Filters were used in all searches, as shown in Figure 1. In addition, the bibliographic references of each work found were analyzed as a way to investigate new studies that were not found during the search with the descriptors.

The articles<sup>4</sup> were first searched through the CAPES portal, in the following databases: *Directory of Open Access Journals* (DOAJ), *Materials Science & Engineering Database*, *SciELO (CrossRef)*, *Scielo, Scielo Brazil* and the second

<sup>&</sup>lt;sup>2</sup> Available in: file:///D:/Ethol/Downloads/ilovepdf\_merged%20(5).pdf

<sup>&</sup>lt;sup>3</sup> Specific cases are related to when a large number of articles produced in the last 20 years are found, with more than 10,000 per keyword, so the search is reduced using the last 5 years as a filter.

<sup>&</sup>lt;sup>4</sup> Available in: file:///D:/Ethol/Downloads/ilovepdf\_merged%20(5).pdf;

database elected to follow up the searches for materials in English was Science Direct. The descriptors were the same used in the Capes portal in English, and in the first one, *hunger in Haiti*, 03 articles were found, and because there were few publications, no filter was used.

In the second, *international cooperation Haiti-Brazil*, 240 articles were found, and with the term *Development of family farming* 176 articles were found. In these last two searches, the demarcation 2015-2020 was used as a filter due to the excessive amount of materials found with the original filter.

In the second stage some filters were used such as peer review of the articles, reduction by search years and fixed search with the keywords, totaling 37,416 articles. After a brief reading of the titles, 1,462 articles in Portuguese and English were selected. In this same line of reasoning, the third stage began with the choice of 302 articles to read the abstracts in order to find articles at the height of this review. In this step, 71 articles were chosen to be read in full, and finally, the fourth step included more inclusion and exclusion criteria as explained below, reaching the number of 13 articles.

#### 2.2 Inclusion and exclusion criteria of the articles found

To delimit the final articles that would be analyzed in this work, we included all articles whose reading of the abstracts allowed us to glimpse the theme "agreements and cooperation between Haiti and Brazil in the area of family farming. Next, we excluded all those that had not been published in the last 5 years, all those with blocked access and not available for download, or those requiring investment for access. These steps can be seen in the flow chart above.

In the 13 selected articles, the presence of the descriptors in two languages was evaluated.

That said, the content of the results and discussions of this article will address two main stages: the first is the characterization of the literature review, and the second is the results and analysis of the findings on the subject of international cooperation between Brazil and Haiti. Next, results and discussions will be presented.

# 3. Results and Discussion

# 3.1 Characterization of the main findings that guide this work and its results

To conduct this literature review, the searches were guided by three keywords in Portuguese and English, considered thematic axes from which the articles are discussed in an attempt to combine<sup>5</sup> them to be analyzed together.

The first keyword, International Cooperation Haiti-Brazil (CIHB), refers to the explanatory search of the diplomatic relationship between the two countries since 1928, based on the idea of technical cooperation as a strategy to enable permanent dialogue. This bilateral cooperation exists until today, sealing the friendly relationship between Haiti and Brazil that has conducted the peace mission since 2004. In addition, this cooperation was greatly strengthened after the 2010 earthquake.

The second keyword, Hunger in Haiti (HH), refers to a situation that has existed since the country's independence and has been accentuated due to the large foreign debts, making up a fragile point in the country's history. The third keyword, Development of Family Farming (DFF), is finally a big debate for the international communities, for the politicians of the country who struggle to solve the non-development of family farming in Haiti. The aspects that hinder this movement towards progress are rooted in various conjunctures that include even natural disasters, such as the most recent cyclone that hit the country, called Laura, and that left more than 8,000 farmers with devastated productions. Agriculture has always had a great economic impact on the country, because it has always provided income for the most vulnerable.

Besides natural disasters, the precarious situation of agriculture is also linked to the failure to do the minimum possible to develop a plan for this specific problem. The plan of policies and investments for the development of Haitian

<sup>5</sup> The key words in English will be considered for analysis in the same ways as those in Portuguese, so from now on, mentions and approaches will be in Portuguese only, to maintain the standard of writing and avoid contradictions in a linguistic sense.

agriculture until 2025<sup>6</sup> proposed by the Haitian government to boost family farming and the other areas that impact it moves slowly due to the fact that the culture of corruption is very strong in Haitian society and hinders, almost in general, the progress of the country (Haiti, 2011).

Table 1 below presents the themes, authors, years of publication, and methodology of the papers selected for analysis.

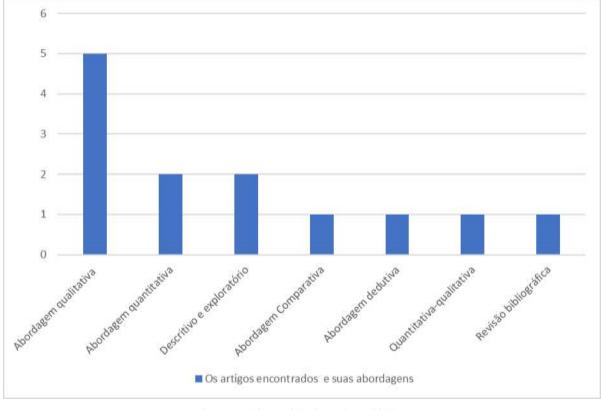
**Table 1** - The themes, followed by author, year of publication, and methodological approach.

Subjects	Author and year of publication	Methodological approach
International Cooperation Haiti-Brasil	(Hébert, 2018).	Qualitative
ICHB	(Sebestyén; Domokos & Abonyi, 2020).	Comparative
ІСНВ	(Correa, 2012)	descriptive and exploratory
ICHB	(Ribeiro; Lupatini & Dos Santos, 2018).	descriptive and exploratory
ICHB	(Sardenberg, 2005)	Qualitative
ICHB	(Gomes & Oliveira, 2015).	Qualitative
Hunger in Haiti	(Annoni & Manzi, 2016).	Deductive
нн	(Williams et al., 2011).	Quantitative
Development of Family Farming	(Rover & Munarini, 2010).	quantitative-qualitative
DAF	(Pereira & Pupim, 2016).	Method a literature review
DFF	(Da Silva & De Paula, 2018).	Qualitative
DFF	(Cabral et al., 2016).	Qualitative
DFF	(Graeub et al., 2016).	Quantitative

**Source**: Elaborated by the authors (2021).

In the classification of these articles it can be seen that the qualitative approach predominates in about 38.46%: (Hébert, 2018); (Sardenberg, 2005); (Gomes & Oliveira, 2015); (Da Silva & De Paula, 2018); (Cabral et al., 2016). In 15.38% of the articles there is a quantitative approach in (Williams et al., 2011), (Graeub et al., 2016) and descriptive and exploratory in (Correa, 2012); (Ribeiro; Lupatini & Dos Santos, 2018). The other approaches add up to one unit each: comparative (Sebestyén; Domokos & Abonyi, 2020), deductive: (Annoni & Manzi, 2016) and quantitative-qualitative (Rover & Munarini, 2010) and literature review (Pereira & Pupim, 2016). In graph 2, below, it is possible to visualize the data.

<sup>&</sup>lt;sup>6</sup> General objective of the implementation of the agricultural policy plan is to contribute to meet the food needs of the Haitian population in a sustainable way and to support the social and economic development of the country. As for the specific objectives, it is aimed that the rate of coverage of national consumption by national production should increase from 45% to 70%; The agricultural sector has about 500,000 farms,



**Graph 2 -** The articles found and their approaches

Source: Elaborated by the authors (2021).

The qualitative approach is very recurrent in the discussion of cooperation issues involving family farming between Brazil and Haiti, and the works that use this approach are directly linked to this theme, as well as to cooperation with other countries, such as Cuba, for example, and address issues about the responsibility of the international community to combat poverty in underdeveloped countries, such as Haiti. In the second most prominent area are works related to the development of family farming and vegetable garden projects to reduce hunger.

In relation to the procedures<sup>7</sup> and instruments used to reach the results of these studies, the most common among researchers are questionnaires, forms, and research based on existing documents. It is also possible to notice the use of agricultural census data to guide the work related to family farming, which is how this review article is characterized.

# 3.2 The authors' analyses and contributions from the found elements of the theme

Aiming at the discussion already underway in this article, we intend to bring the main contributions of the authors of this review. To this end, we have used three tables (Table 2, Table 3 and Table 4) to punctuate the main results and conclusions of the three major themes with the intention of stitching together the debate that encompasses the development of family farming through international cooperation

### 3.3 The main results and conclusions of the findings from the International Cooperation Haiti-Brazil

In the modern world, cooperation between countries, organizations, and other entities is increasingly present, always with the purpose of helping countries to evolve in a less suffering way. This is due to the fact that some countries, especially

<sup>&</sup>lt;sup>7</sup> The examples of procedures have not been placed in table 1, as they are not the purpose of this chapter, which explains their citation as examples only in the text.

those with emerging characteristics, have difficulties in adapting and conquering space in the international arena. For cooperation to survive, it is necessary for countries with common interests and governmental and non-governmental institutions to come together, that is, it is a situation that requires joint actions to strengthen the collective.

From this perspective, Table 2 below seeks to summarize the contributions of authors such as Sardenberg (2005), Correa (2012), Gomes and Oliveira (2015), Hébert (2018), Ribeiro, Lupatini and Santos (2018) and Sebestyén, Domoks and Abony (2020) on the subject of international cooperation.

Table 2 - Journals, article title and main contribution to the theme International Cooperation

Journal	Title	Main contribuition
Geografia Política	Living in the yellow zone: the political geography of Haiti intervention	It is claimed that Haiti's history is a clear distinction between the haves and have-nots, marked by economic, political, racial, and linguistic divisions. International intervention acts on these divisions, influencing in its own way the socio-political geography of Port-au-Prince by directing investments to the already wealthier part of the city
Journal of Environmental Management	Focal points for sustainable development strategies - comparative analysis based on text mining of voluntary national reviews	It is understood how part of the study results will extend the collective knowledge base of sustainability science and the solutions and focal points highlighted will initiate policy makers and researchers to conduct more detailed research and cooperation.
Meridiano 47 - Journal of Global Studies	Development and International Cooperation: a look at the Brazilian and US projects in MINUSTAH	The difference between the cooperation provided by Brazil to Haiti and the cooperation provided by the United States to Haiti is demonstrated, concluding that Brazil's cooperation represents the values and principles of solidary cooperation.
Rev Panam Salud Publica	International cooperation: medicines donations made by the Brazilian government from 2005 to 2016	It is concluded that to a large extent, the donated medicines were antimicrobials used for the treatment of neglected tropical diseases, as a way to promote the sustainable economic development of the recipient countries through South-South cooperation.
Estudos Avançados	Brazil, multilateral politics and the United Nations	t is said that the UN makes, great difference and multilateralism is its essence. The UN enjoys international admiration and respect because, despite its limitations, it is in the UN that are deposited the best and deepest hopes for a more just, solidary and prosperous world, and for the peaceful solution of today's crises
Ciência & Saúde Coletiva	International Cooperation Brazil-Cuba-Haiti: the role of community radios in the strengthening of social mobilization in the field of public health in Haiti	Given the above, the importance of projects developed in partnership Brazil-Cuba-Haiti, evidencing the priority of listening by Brazilian professionals to the real needs of health professionals for the Haitian community through international cooperation.

Source: Elaborated by the authors (2021).

From this, one can see the importance of international cooperation, especially in Haiti. In fact, the country's economic and social development is linked to a set of group measures, which can be called collective action (Correa, 2012). The vulnerabilities of sectors of the Haitian economy require, to a certain extent, international aid, a characteristic peculiar to Haiti, which over the years has become unsustainable, requiring a way out regardless of the crises that shake the country (Hébert, 2018). As for the sectors mentioned, health ends up being one of the most affected, even with cooperation through international projects and partnerships between Brazil-Cuba-Haiti (Gomes & Oliveira, 2015).

The international coalition countries that join together to strengthen Haiti's economy in times of calamity through solidarity, with the intention of alleviating poverty, recurrently join international organizations such as the UN in order to

alleviate hunger in Haiti, as well as in other emerging countries (Sardenberg, 2005). In recent years, a space has opened up to question the responsibilities of the UN as an organization that deals with the problems of humanity, since there is an uncertainty about the real solution of these problems. The organization with its partner countries opens up the possibility of easing conflicts in a peaceful way, which are points that contribute to obtaining international respect from the organization, on the other hand, it is noted the permanence of these countries in their condition of dependentes.

In recent years, the cooperation activities of organizations and countries like Brazil have been presenting more challenging objectives due to the increasing problems and needs of countries with few financial resources to fund their own development programs. At this point, South-South cooperation in the Haitian-Brazilian context has been important to help drive and promote new economic development paths and ideas for the Caribbean country (Ribeiro; Lupatini & Dos Santos, 2018). However, international cooperation, depends on other factors that can help develop a safer relationship, based on research that can bring new discussions on the subject, which reinforces the importance of encouraging researchers to bring news on the subject (Sebestyén; Domokos & Abonyi, 2020).

#### 3.4 The main results and conclusions of the findings from the hunger in Haiti

The constant struggle of Haitians has been debated in the international context in search of solutions to implement measures that can help the government in the mission to take the country out of extreme poverty. In the national context, the discussion about confronting hunger becomes more and more a struggle for power and political debates, and many plans remain on paper due to lack of resources and a long history of corruption that aggravate hunger in the Haitian territory.

According to Annoni and Manzi (2016) and Williams et al. (2011) have proposed works that discuss hunger in Haiti, as shown in Table 3.

Journal Title Main contribuition Boletín Mexicano Brazilian immigration policy and The conclusions reached are: a) there is an increase in Derecho its reflections for the states: a study international crimes and violence in the member states that Comparado on the treatment given to Brazil and border Brazil; the case of two Haitians. b) if the Brazilian public civil action is successful it will encourage a rethinking of refuge on the American continent, strengthening regional integration for humanitarian reasons Rutgers, The Bringing a Community Garden to The problems associated with hunger in the world are State University Haiti: Solving World Hunger One analyzed, especially the Haitian case and a possible solution involving the construction of a series of community gardens in Garden at a Time of New Jersey Haiti with humanitarian aid for the production of Haiti's main agricultural products.

**Table 3** - Journals, titles, and the main contribution to the problem of Hunger in Haiti.

Source: Elaborated by the authors (2021).

Hunger in Haiti does not only cause problems for the Haitian people, but also has direct effects on other countries such as Brazil, causing, for example, changes in immigration issues in order to receive refugees. The hunger, poverty, and environmental crises that the country has been experiencing since the 2000s, increased with the 2010 earthquake. This situation created discomfort for neighboring countries, from the point of view of international or border security, there were human rights violations caused by Brazil's unpreparedness in dealing with the immigration issue. However, it was a necessity that ended up encouraging new debates on the issues of international cooperation, integration and solidarity with the people of Haiti (Annoni & Manzi, 2016).

As a result, through international solidarity, community garden programs were created with the aim of strengthening the agricultural production of the country, in addition to reducing hunger, creating opportunities to encourage the resumption

of food sovereignty of Haiti (Williams et al., 2011). It can be seen that this work opened a debate that would help propose a way out of the crisis through agriculture, but an agriculture based on solidarity and the collective that focused only on crops that the country is actually able to produce, such as corn, sweet potatoes, broccoli, among others. In other words, the importance of Family Farming Development is pointed out here.

#### 3.5 The main results and conclusions of the findings from Family Farming Development

In the Haitian context, family farming represents a plausible path to economic development, even taking into account the difficulties and challenges faced by farmers in the country. From a territorial point of view, the challenges start from the lack of space, or land suitable for cultivation, to the conceptions of credits to leverage notional production.

In the aspect of economic development in Haiti, agriculture is an important pillar, not only in the perspective of national development, but also in the development of the local economy from the family agriculture. From this, the importance of local productions is understood to establish a bridge between farmers, consumers, and rulers that can leverage and extend a cooperation to help the country from the inside out in the context of agricultural productions in the fight against basic subsistence needs. (Exime et al, 2021).

Thus, the results and contributions of the research of Rover and Munarini (2010), Pereira and Pudim (2016), Silva and De Paula (2018), Cabral et al. (2016), and Graeub et al. (2016) are presented below in Table 4. It is considered their views and research conducted on the topic of agricultural development as an activity that has the ability to help Haiti in economic and social aspects, contributing to scientific, academic debates, an aspect that is one of the central points of the discussions of this work.

**Table 4** - Journals, title and the main contribution of Family Farming Development.

Journal	Title	Main contribuition		
Revista Katálysis	Rural housing policy and the development of family farming family farming	Given the contributions and positive impacts of agriculture in rural areas, both economic and social, giving a new perspective to families and helping to implement incomes		
Revista Eletrônica Competências Digitais para Agricultura Familiar (RECoDAF)	The importance of academic research for the development of Family Farming from the perspective of market access	It is encouraged to bring up some aspects that serve as a basis for studies on Family Farming, which, when deepened, will allow the strengthening of the social group. These are the marketing strategies that allow value addition and access to segmented markets or niche markets, which, in theory, pay a better price premium		
Redes- Revista do Desenvolvimento Regional	Articulation of institutional actors in the development of family agriculture in Southwest Goias	A local cooperation network is identified, developing actions in the social, economic, environmental, and cultural dimensions of dimensions of sustainability. The information acquired will be able to subsidize local and regional actions in the implementation of public policies directed to the family farming sector for economic development.		
World Development	Brazilian Agricultural Policy in Africa: Mais Food International and the Meanings and Disputes of "Family Farming"	We contribute from Brazil's agricultural cooperation more broadly, stating that it can be seen as a discursive battleground where the best models and visions of agrarian development and aid are in dispute. In addition to the specificities of Brazil's domestic policy and its agricultural interventions among other countries such as Haiti and Africas.		
World Development	The State of Family Farming in the World	Finally, the difference between Brazil's public policies that focused on domestic consumption, finding a niche for family farmers in a domestic food system dominated by export crops, and in emerging countries like Malawi, measures focused much more on increasing agricultural productivity to enhance food security through resilience to global agricultural input volatility.		

Source: Elaborated by the authors (2021).

Family farming in Haiti lives moments of great precariousness, a reality that can be pointed out as a lack of management or even a management model to create a culture of thought rooted in the formulation of public policies, involving other social actors that can help as the evolution of agriculture (Rover & Munarini, 2010). In addition, it is observed that encouraging the creation of associations, cooperatives can influence behaviors in the collective aspects of the construction of ideas aimed at local, regional and national development.

In this construction, the presence of science is needed to drive new debates in the agricultural area, research that can shape thoughts about new ways of approaching production problems. The diffusion of knowledge to the population would be a breakthrough to help group implementation in the educational and scientific aspect that can have a direct impact on local government measures so that new distribution, production, and marketing plans become matters of interest to society (Pereira & Pupim, 2016).

In this same perspective, scientific investigations always have the ability to popularize the most attractive ideas for development. It can be seen that the presence of international cooperation, technological transfers, and cultural and educational exchanges between students create hope to cooperate in all spheres of the economy, as in the case of family farming development (Silva & De Paula, 2018). Brazil cooperates with Haiti in the sphere of agriculture in order to bring new models of agriculture to the country, in fact the cooperation in question can be called as international agricultural intervention, also involving other emerging countries such as those on the African continent (Cabral et al., 2016).

Still on the model of agriculture, when it comes to Brazil compared to other countries, especially in the case of Haiti, the difference exists precisely for the reasons of agricultural production, in addition to the capacity of production volumes, access to land, crop variety, and sets of public policies that support the development of agriculture. Each country has its particularities in this context, for example Brazil has its public policies based on an agricultural production aimed at export (Graeub et al., 2016). In emerging countries that have difficulties to formulate public policies, or even to maintain debates on the subject, it is noted the lack of support from governments with investments and tax incentives.

# 4. Final Considerations

With regard to the development of family farming, this study considers it to be fundamental for a way out of the economic crisis, because its potential for any country, developed, developing, or emerging, is evident. This is the case of the many published papers that suggest a lack of interest in researching the topic of international cooperation related to Haitian agriculture, especially family farming, as indicated by the results of the 13 papers analyzed.

It is concluded that international cooperations have had a strong impact on the Haitian perspective and can also be considered as efficient strategies to boost economic development based on family farming and reduce hunger in Haiti. The analyzed articles state that agriculture will always be an important part of the countries' economy, even a subsistence agriculture like the Haitian society. Based on these studies, Journals, article title and main contribution to the theme International Cooperation the Haitian economy without international cooperation becomes much more fragile.

In light of the above, it is affirmed that international cooperation is not sufficient in the face of the Haitian situation in the fight against hunger and poverty. For the development of family farming, more actions are needed, such as a development plan against poverty that includes investments linked to technologies, the valorization of science, as well as encouraging cooperation against hunger with social programs to combat inequality in Haiti.

It is evident that there is a lack of scientific production on the subject discussed in this article, and this lack reflects directly on the search for solutions for a possible way out of the crisis in which Haiti finds itself, since research can be considered the soul of progress by pointing to paths of development.

# Research, Society and Development, v. 10, n. 14, e140101421864, 2021 (CC BY 4.0) | ISSN 2525-3409 | DOI: http://dx.doi.org/10.33448/rsd-v10i14.21864

The research has shown the lack of innovations in international cooperation in dealing with crucial issues in the fight against hunger and the development of agriculture. Finally, it is evident that it is impossible to apply the Brazilian agricultural development model in Haiti, and this is justified by the lack or nonexistence of public policies in Haiti.

Finally, for the authors cited above, the debate about the formulation of public policies in Haiti, specifically in the area of agriculture, should be a priority, since in Brazil, for example, this incentive has helped the evolution of agriculture. It is considered that Haiti could begin its plans to boost family farming by implementing programs related to this issue, which would be a concrete step towards the development of Haitian agriculture.

Some suggestions for future work are presented, which could specifically address innovations in international cooperation related to hunger and poverty in Haiti, as well as the impacts of international research on development aspects. Finally, a paper should be presented that can relate the history of cooperation between Haiti and Brazil from the perspective of diplomacy and diplomatic relations.

### Acknowledgments

Our gratitude to the Sustainable Rural Development program of the State University of the West of Paraná - UNIOESTE, for their responsibility in our academic formation, we also thank the Coordination for the Improvement of Higher Education Personnel - CAPES and the National Council for Scientific and Technological Development - CNPq, finally, the interdisciplinary interinstitutional group of research and extension in sustainable development - GIIPEDES

#### References

Annoni, D., & Manzi, M. J. L. (2016). Política migratória brasileira e seus reflexos para os estados da UNASUL: um estudo a partir do tratamento dado pelo Brasil ao caso dos haitianos. *Boletín mexicano de derecho comparado*, 49(146), 61-83. (http://www.scielo.org.mx/scielo.php?script=sci\_arttex t&pid=S004186332016000200061&lng=es&nrm=iso&tlng=pt).

Beaucejour, P. J. (2016). L'agriculture en Haïti. Les Classiques des sciences sociales, Port-au-Prince, p. 17. (http://classiques.uqac.c a/contemporains/Beaucejour\_Pierre\_Jameson/Agriculture\_en\_Haiti/Agriculture\_en\_Haiti\_texte.html#Anchor-Pierre-47857).

Cabral, L et al. (2016). Brazil's Agricultural Politics in Africa: More Food International and the Disputed Meanings of "Family Farming". World Development, 81, 47-60. (https://ideas.repec.org/a/eee/wdevel/v81y2016icp47-60.html).

Correa, P. G. (2012). Desenvolvimento E Cooperação Internacional: Um Olhar Sobre Os Projetos Do Brasil E Estados Unidos Na MINUSTAH. *Meridiano 47 - Journal of Global Studies*, 13(130), 36-43. (https://periodicos.unb.br/index.php/MED/article/view/4504).

Da Silva, J. L. G., & De Paula, M. M. (2018). Articulação dos atores institucionais no desenvolvimento da agricultura familiar no Sudoeste Goiano. *Redes*, 23(1), 92-110. (https://online.unisc.br/seer/index.php/redes/article/view/8465).

Exime, E. (2021). Cooperação internacional na perspectiva da agricultura familiar no Haiti. 163 f. *Dissertação* (Mestrado em Desenvolvimento Rural Sustentável) - Universidade Estadual do Oeste do Paraná, Marechal Cândido Rondon, 2021. (http://tede.unioeste.br/handle/tede/5401).

Exime, E. et al. (2021). Agricultura familiar e desenvolvimento sustentável: uma caracterização da feira do produtor rural no município de Marechal Cândido Rondon - Paraná, Brasil. Pesquisa, Sociedade e Desenvolvimento, 10 (1), e20310111462. (https://doi.org/10.33448/rsd-v10i1.11462).

Gomes, R. M. D. S., & Oliveira, V. D. C. (2015). Cooperação internacional Brasil-Cuba-Haiti: o papel das rádios comunitárias no fortalecimento da mobilização social no âmbito da saúde pública no Haiti. *Ciência & Saúde Coletiva*, 20(1), 199-208., (https://www.scielo.br/scielo.php? script=sci\_arttext&pid=S141381232015000100199&lng=en&tlng=en).

Graeub, B. E. et al. (2016). The State of Family Farms in the World. World Development, 87, 1-15. (https://www.sciencedirec t.com/science/article/pii/S0305750X15001217).

Hébert, N. L. (2018). Living in the yellow zone: The political geography of intervention in Haiti. *Political Geography*, 67(88-99). (https://www.sciencedirect.com/science/article/pii/S0962629817304717).

Pozzati Junior, A. (2015). Cooperação internacional como acesso à justiça nas relações internacionais: os desafios do direito brasileiro para a implementação de uma cultura cosmopolita. Florianópolis. 529 p. *Tese* (Direito)- Universidade Federal de Santa Catarina (ufsc), Florianópolis. (http://www.funag.gov.br/ipri/btd/index.php/9-teses/4007-cooperacao-internacional-como-acesso-a-justica-nas-relacoes-internacionais-os-desafios-do-direito-brasileiro-para-a-implementacao-de-uma-cultura-cosmopolita).

Ministère De L'agriculture, Des Ressources Naturelles & Du Développement Rural (MARNDR). 2011. Politique de développement agricole2010-2025. (http://agriculture.gouv.ht/view/01/IMG/pdf/Politique\_de\_developpement\_agricole-Version\_finale\_mars\_2011.pdf).

# Research, Society and Development, v. 10, n. 14, e140101421864, 2021 (CC BY 4.0) | ISSN 2525-3409 | DOI: http://dx.doi.org/10.33448/rsd-v10i14.21864

Pereira, M. E. B. D. G., & Pupim, E. K. (2016). A importância da pesquisa acadêmica para o desenvolvimento da Agricultura Familiar na perspectiva do acesso a mercados. *Revista Competências Digitais para Agricultura Familiar*, 2(1), 41-52. (http://codaf.tupa.unesp.br:8 082/index.php/recodaf/article/view/21%3B).

Ribeiro, A. A, Lupatini, E. D. O., & Dos Santos, D. G. (2018). Cooperação internacional: doações de medicamentos realizadas pelo governo brasileiro de 2005 a 2016. *Rev Panam Salud Publica*, p. 42 - 67. (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6385995/).

Rover, O. J., & Munarini, P. R. (2010). A política de habitação rural e o desenvolvimento da agricultura familiar. *Revista Katálysis*, 13(2). (https://www.scielo.br/scielo.php?pid=S1414-49802010000200013&script=sci\_arttext&tlng=pt).

Sardenberg, R. M. (2005). Brasil, política multilateral e Nações Unidas. *Estudos Avançados*, 19(53). (https://www.scielo.br/scielo.php?pid=S010340142005000100023&script=sci\_arttext).

Sebestyén, V, Domokos, E., & Abonyi, J. (2020). Focal points for sustainable development strategies—Text mining-based comparative analysis of voluntary national reviews. *Journal of Environmental Management*, v. 263. (https://www.researchgate.net/publication/33983 0463\_Focal\_points\_for\_sustainable\_development\_strategies-Text\_mining based\_comparative\_analysis\_of\_voluntary\_national\_reviews).

Severino, A. J. (2007). Metodologia de trabalho científico. (23a ed.), Cortez.

Sutter, C. (2010). Haiti, país mal dito. Mal-estar e Subjetividade, 10(3), 931-950. (https://periodicos.unifor.br/rmes/article/view/4954/3962).

Williams, A et al. (2011). Bringing a Community Garden to Haiti: Resolving World Hunger One Garden at a Time. Rutgers university libraries, New Jersey. (https://rucore.libraries.rutgers.edu/rutgers-lib/38399/).