

## Article

# Is There a Place for Indigenous Peoples and Local Communities in Climate Change Policy and Governance? Learnings from a Brazilian Case

Luciana Iocca <sup>1,\*</sup>  and Teresa Fidélis <sup>2</sup> 

<sup>1</sup> Department of Environment and Planning, University of Aveiro, University Campus, 3018-193 Aveiro, Portugal

<sup>2</sup> Research Unit on Governance, Competitiveness and Public Policies (GOVCOPP), Department of Environment and Planning, University of Aveiro, University Campus, 3018-193 Aveiro, Portugal; teresafidelis@ua.pt

\* Correspondence: lucianaiocca@ua.pt

**Abstract:** The specialized literature, leading organizations, and international law, like the Paris Agreement, have increasingly recognized the relevance of Indigenous Peoples' and Local Communities' contributions to climate change adaptation. Despite this, few studies have investigated how their rights are considered in relevant public policies and decision-making processes. This article explores how the rights of protection and participation of Traditional Peoples and Communities are incorporated in climate- and environment-related public policy documents and examines how community members perceive their engagement in the drafting of those documents and their implementing agencies. For this purpose, it uses a Brazilian traditional community as a case study and undertakes a content analysis of a set of plans and programs applying to its territory and a series of interviews with local members. The findings reveal that while there are a few references to Traditional Peoples and Communities in the diagnosis parts of the plans and programs, they are scarce in substantive parts like objectives and measures. In addition, those references rarely relate to traditional knowledge. These results are also visible in local plans. Moreover, community members appear to feel poorly protected from climate change impacts, misinformed about these plans and programs, and overlooked when it comes to the insertion of their traditional knowledge of climate action measures into these plans and programs. The poor recognition of the protected status of these peoples and communities in the context of climate change highlights the need for a more sensitive and robust design of climate and environment-related plans and programs, ensuring the incorporation of their valuable contributions and traditional knowledge. Further efforts are required to acknowledge this gap and to better bridge the translation of international law into national and municipal plans, and programs, and effectively involve Traditional Peoples and Communities.

**Keywords:** Indigenous Peoples; local communities; traditional communities; traditional knowledge; climate change governance; participation; perception



**Citation:** Iocca, L.; Fidélis, T. Is There a Place for Indigenous Peoples and Local Communities in Climate Change Policy and Governance? Learnings from a Brazilian Case. *Land* **2023**, *12*, 1647. <https://doi.org/10.3390/land12091647>

Academic Editor: Wei Lang

Received: 18 July 2023

Revised: 15 August 2023

Accepted: 20 August 2023

Published: 22 August 2023



**Copyright:** © 2023 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

## 1. Introduction

Climate change literature recognizes that more effective responses to climate change include local solutions and inclusive choices [1–3], with rights-based approaches and special attention to the most vulnerable groups [4], like the Indigenous Peoples and Local Communities (IPLC). Traditional knowledge has also been pointed out as a privileged source of information and resources for better design of adaptation actions [5–7] and biodiversity preservation [8,9].

In light of these findings, international organizations are paying increased attention to IPLC and their knowledge, given the growing concern about the interaction between climate change and human rights [10,11]. The relationship between human rights and the environment is mentioned in several United Nations legal instruments, such as the

Stockholm Declaration [12] and the Rio Declaration [13]. In framing human rights in climate policy, reinforced by UN Human Rights Council resolution 48/13 [14], it is recognized, for the first time, that having a clean, healthy, and sustainable environment is a human right. In addition, it is recognized in Resolution 48/14 [15] that the most vulnerable segments of the population, including IPLC, are most acutely affected by environmental and climate damage.

The intersection between climate change and human rights is also expressly addressed in the preamble of the Paris Agreement [16], which reinforces the duty of states to respect and promote human rights when taking climate action. This agreement is the first binding climate instrument to mention the importance of considering the relevance of indigenous, traditional, and local knowledge in adaptation actions [17,18]. In this context, the Paris Agreement represents a relevant international instrument for seeking that the rights of communities and their traditional practices in the face of climate impacts are duly respected. The following extract underlines this point:

“Parties acknowledge that adaptation action should follow a country-driven, gender-responsive, participatory and fully transparent approach, taking into consideration vulnerable groups, communities and ecosystems, and should be based on and guided by the best available science and, as appropriate, traditional knowledge, knowledge of Indigenous peoples and local knowledge systems, to integrate adaptation into relevant socioeconomic and environmental policies and actions, where appropriate.”

(Article 7, 5, to the Paris Agreement [16])

The relevance of IPLC to environmental governance is widely recognized in the literature, e.g., [9,10,19]. Recent studies have highlighted that the land management practices of these social groups are responsible for some of the planet’s largest remaining areas of biodiversity [8,20]. Other studies suggest that giving IPLC guarantees of rights over their territory can strengthen the preservation capacity of these spaces and contribute to achieving the Paris Agreement’s goals [21]. The new Global Biodiversity Framework [22], which reinforces the importance of nature-based solutions to climate change, also recognizes the relevance of IPLC and their respective knowledge, as can be seen in the following article:

“The Framework acknowledges the important roles and contributions of Indigenous Peoples and Local Communities as custodians of biodiversity and as partners in its conservation, restoration, and sustainable use. The Framework’s implementation must ensure that the rights, knowledge, including traditional knowledge associated with biodiversity, innovations, worldviews, values, and practices of Indigenous Peoples and Local Communities are respected, documented and preserved with their free, prior and informed consent, including through their full and effective participation in decision-making, in accordance with relevant national legislation, international instruments, including the United Nations Declaration on the Rights of Indigenous Peoples, and human rights law. In this regard, nothing in this framework may be construed as diminishing or extinguishing the rights that Indigenous Peoples currently have or may acquire in the future.”

(Section c, 7, a, pg. 5, to the Kunming-Montreal Global Biodiversity Framework [22])

Despite this, the formal inclusion of IPLC in the negotiations of international agreements on climate and other environmental matters remains a long-standing call of these social groups. In the Conference of the Parties to the Convention on Biological Diversity 2022<sup>1</sup>, debates have underlined the difficulty in enforcing the rights of traditional communities to their territories and their legacy as guardians of biodiversity and the maintenance of ecosystems [23].

The specialist literature has highlighted the greater sensitivity of IPLC to the adverse impacts of climate change [4]. However, previous research has mainly focused on studying

vulnerability, risk perception, and adaptive capacity and, more rarely, on how rights guarantees have been conferred to communities [24]. Clarifying what role plans and programs play in the protection of territory-related values and how IPLC interpret the status of their protection and participation in these documents is critical to better understanding climate action's political and normative dimensions and how to bring about improvement, if necessary. Furthermore, an 'insider' account can only be provided by those who experience the problems, contributing to identifying viable policy interventions [25].

Given the diverse range of its IPLC, as well as its abundant biodiversity, Brazil offers an indisputable research laboratory for this subject. Brazil is at the top among the 18 megadiverse countries, hosting between 15% and 20% of the world's biological diversity [26]. The richness of its biodiversity is closely tied to the presence and stewardship of IPLC within these regions [8], despite the exclusionary and violent process of occupation of the Brazilian territory since the colonial period and the marginalization of these peoples and communities [27,28].

In Brazil, Indigenous Peoples are defined as communities formed by individuals of pre-Columbian origin and ancestry who identify themselves and are identified as belonging to an ethnic group whose cultural characteristics distinguish them from the national society (Law n. 6.001/73—Statute of Indigenous Peoples). The term 'Traditional Communities' is used to refer to non-indigenous communities, which have a way of life that is based on traditional practices, and comprise several legally recognized social groups, among them the *Quilombola* communities, traditional communities with a historical connection to Brazilian slavery and the post-abolitionist period [27,29].

Brazilian legislation also uses the term Traditional Peoples and Communities to broadly refer to Indigenous Peoples and Traditional Communities, considering their common characteristics. This term is used in this article to refer to Indigenous Peoples and Communities recognized for their traditional practices in Brazil. This definition is contained within the National Policy for the Sustainable Development of Traditional Peoples and Communities, and reads as follows:

"Traditional Peoples and Communities: culturally differentiated groups that recognize themselves as such, that have their own forms of social organization, that occupy and use territories and natural resources as a condition for their cultural, social, religious, ancestral, and economic reproduction, using knowledge, innovations, and practices generated and transmitted by tradition;"

(art. 3°, I, Decree n. 6.040/2007—National Policy for Sustainable Development of Traditional Peoples and Communities)

Following centuries of oppression, invisibility, and struggle for recognition, the cultural and territorial diversity of the Traditional Peoples and Communities in Brazil was officially acknowledged through the Federal Constitution of 1988 [28]. The Federal Constitution also recognizes specific rights of Indigenous Peoples and *Quilombola* Communities to their traditionally occupied territory [29]. Traditional territories in Brazil were constituted over decades and, in some cases, centuries of effective occupation, providing historical weight to the territorial claims of Traditional Peoples and Communities [27]. In this context, this article studies how the protection and participation rights of Traditional Peoples and Communities have been considered in formulating the objectives and measures of plans and programs related to climate change and environmental management in Brazil. It also explores how members of these communities interpret their interactions with these documents and the institutions that are to implement them. This paper focuses on answering two questions, namely, (i) how Traditional Peoples and Communities have been included in the elaboration of objectives and measures of climate and environmental management plans; and (ii) how traditional communities perceive their level of protection and participation under these plans.

The term 'plans and programs' is used in this article to refer to the set plans and programs on climate and environmental management, such as water resources management

and nature conservation. The study of public plans and programs is relevant because these documents have the potential to translate general law principles into concrete objectives and measures for the protection of people and territories, as they coordinate the interaction between the major systems of functions in society (e.g., science, politics, economics, and law) [30]. At the same time, it cannot be ignored that these documents are the result of correlations of various forces [31,32] and can have their quality affected, for example, by pressures from economic groups [33] and property interests [34], among others. In other words, the dominant value set and the processes of dividing human activities impose conditions on legal norms [31], and subsequent policy making.

This paper deepens the knowledge of how climate change and environmental management plans and programs address the rights of Traditional Peoples and Communities. It employs content analysis of relevant documents and conducts interviews with members of a traditional community to gain insights. The following section will provide more details on the approach.

## 2. Methodology

This section describes the methodology used in this study. Firstly, a description of the case study is presented. Secondly, an analytical model is designed to investigate the integration of Traditional Peoples and Communities in climate action and environmental management plans and the perception of Traditional Communities about climate change and their sense of protection. Thirdly, the documents considered for analysis are presented, as well as the profile of the interviewees and the analysis process of the replies to the interviews.

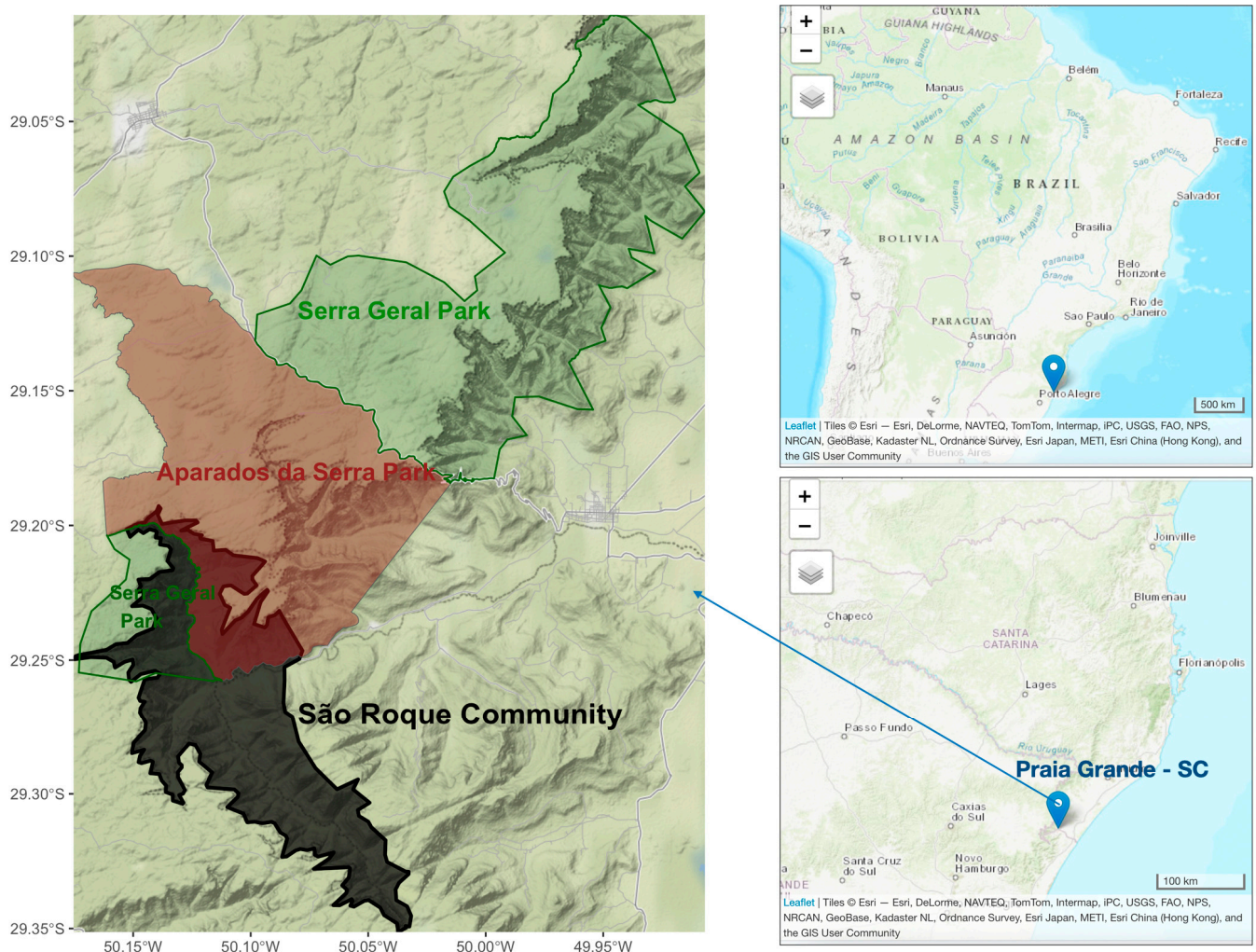
### 2.1. The Case Study Considered

The study focused on a traditional community in Brazil, the *Quilombola Community São Roque*. This community has a specific way of creating, doing, and living based on traditional knowledge, with an identity relationship with the territory traditionally occupied [29]. The history of the *São Roque Quilombola* community's formation, uncovered through anthropological research using documentary analysis and oral history, traces back to the 19th-century slavery period in Brazil. During this era, enslaved individuals and escapees migrated from the mountain regions to cultivate coastal floodplains and plains, leading to the development of their distinct social and territorial dynamics rooted in day labor exchanges, communal use, and cooperation [35].

The *São Roque* community is located in the municipality of Praia Grande, the country's southern region, which has an estimated population of 8270 people [36] and is 1941 km from the national capital, Distrito Federal. Approximately 26 families reside in the traditional territory, a total of 88 people [36]. The community is in a subtropical climate zone, exhibiting considerable climatic variations attributed to its geographical heterogeneity, including plateau and coastal plain [37]. Studies projecting climate change scenarios in Brazil indicate a tendency toward wetter conditions and significant increases in extreme rainfall, particularly in the country's southern region. This includes an elevated occurrence of flooding events [38,39]. Access to the community, located 20 km away from the urban area, is by unsealed road, in precarious conditions, and without the availability of public transportation (see Figure 1).

The community's territory is partially overlapped by the *Aparados da Serra*, created in 1959, during a period of military dictatorship, and *Serra Geral*, created in 1992, National Parks, candidates for geopark classification by UNESCO. The overlap corresponds to approximately 2668 hectares, about 36% of the delimited community territory and 8% of the total area of the parks, which occupy approximately 27,550 hectares [40]. Brazil has approximately 3583 *Quilombola* communities officially recognized as traditional communities [41]. In Brazil, there are seven *Quilombola* communities with territory overlapped by national parks, including the *São Roque* community [42]. The choice of a community with territory overlapped by a national park is justified by the relevance of studying how the creation

of nature protection areas, essential for climate balance, has been sensitive to the rights of traditional communities.



**Figure 1.** Location of the case study in Brazil. Source: <https://journal.r-project.org/archive/2013-1/kahle-wickham.pdf> (accessed on 28 March 2023).

The National System of Nature Conservation Units (SNUC) (Law No. 9.985/00) establishes the criteria for creating, deploying, and managing conservation units in Brazil, which are managed by the Chico Mendes Institute for Biodiversity Conservation (ICMBio). Conservation units fall into two typologies: integral protection units, which aim to maintain ecosystems without anthropic changes, including national parks, and sustainable use units, which aim to balance nature conservation with the sustainable use of some natural resources [29]. According to the terms of the SNUC (Article 42), the overlap of integral protection conservation units with traditional territories is prohibited, and there is provision for the potential compulsory relocation of traditional communities. In contrast, the National Policy for the Sustainable Development of Traditional Peoples and Communities aims to resolve or minimize conflicts arising from implementing integral protection conservation units within traditional territories.

Studies relate that the overlap has generated many conflicts between the *São Roque* community and the park management body [29,35]. These conflicts are mainly related to administrative restrictions, such as the prohibition of new plantations and the removal of vegetation [40]. These restrictions have significantly impacted the community's livelihoods and way of life [35,40]. Since the Brazilian Federal Constitution of 1988 (Art. 68 ADCT),

*Quilombola* communities have been granted property rights to their territory. The *São Roque* community gained official recognition in 2004 when it was granted the certificate of self-recognition. In 2005, the process for recognizing, delimiting, demarcating, and titling its territory was initiated but has not yet been completed [27]. The community only plants for subsistence due to the lack of regularization of the territory, which prevents the expansion of plantations.

Wood is the predominant material in the construction of houses in the community (see Figure 2a). Most are old buildings with a lack of maintenance, which causes gaps in the walls that contribute to air entry and, consequently, to thermal discomfort in winter. Some community members still live in structures made of plastic, which they call “shacks”. Some houses have no electricity and no access road, only open trails in the middle of the forest. The community preserves the traditional way of production and harvesting (Figure 2b).

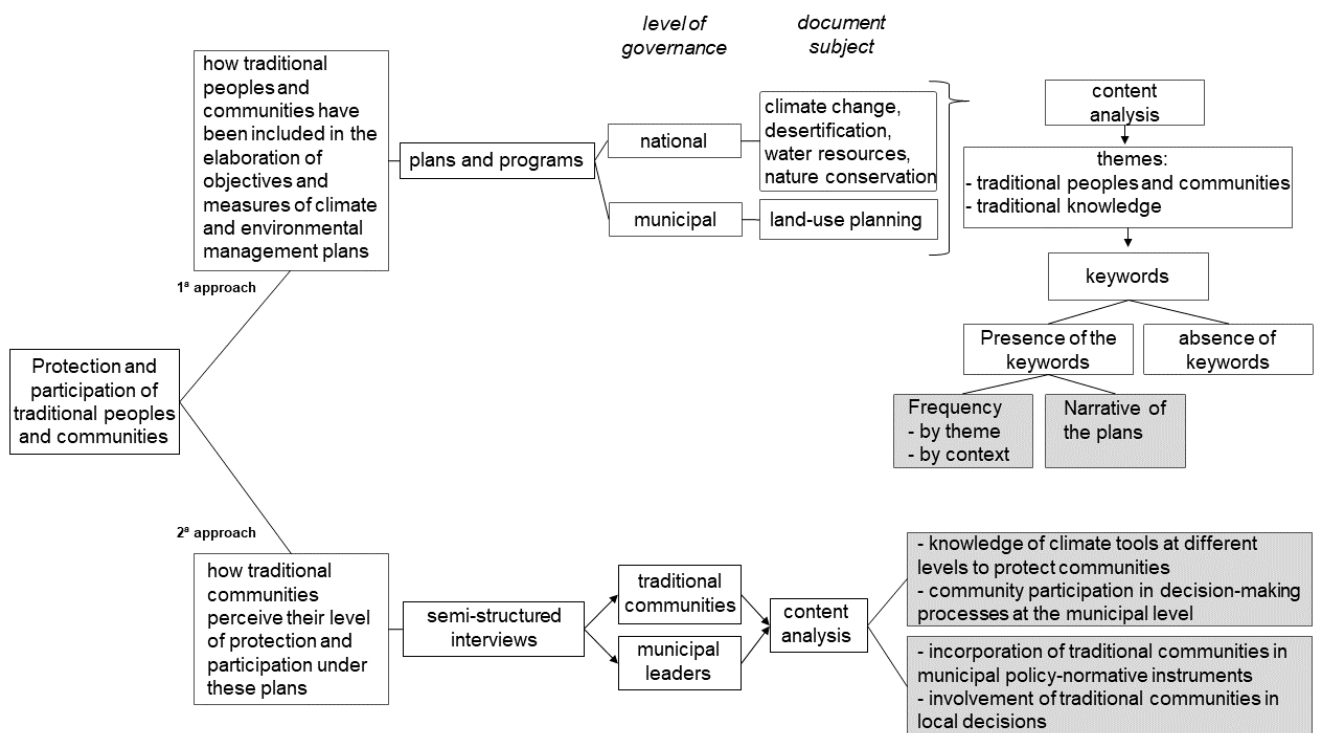


**Figure 2.** (a) A house in the *São Roque* community; (b) traditional harvest practices.

### 2.2. Analytical Model for Plans, Programs, and Interviews

The analytical model created for this study is summarized in Figure 3. It comprises two approaches, one focusing on studying the contents of plans and programs, and the other centered on interviews for studying the perceptions of Traditional Peoples and Communities regarding their sense of protection against climate change.

In the first approach, this analytical model applies to the content of plans and programs on climate change and environmental management (desertification, water resources, nature conservation, and land-use planning). These are considered because they establish strategies, objectives, and measures for environmental protection, climate change adaptation and mitigation, and zoning or land-use control measures, which may directly or indirectly affect Traditional Peoples and Communities and their associated territories. It covers two levels of governance, namely, national, and local. At the national level, overarching policies and measures are defined, while at the municipal level, there is closer proximity to people and territories during policy implementation. In addition, cities are recognized as drivers of transformative actions in response to climate change [43], especially regarding their ability to address the sectoral, demographic, spatial, and ecological challenges of climate change and extreme disaster risks [44].



**Figure 3.** Model for analysis of plans, programs, and interviews.

Under this analytical model, the plans and programs are submitted to content analysis [45], which involves identifying, counting, and comparing keywords, following interpretations based on the underlying context. This analysis aims: (i) to assess the protection conferred by the documents to peoples and traditional communities and their territories; (ii) to assess whether involving communities in decision-making is a concern; and (iii) to assess the attention of plans and programs to the contributions of traditional knowledge to climate actions and environmental management. To respond to the research question, two overarching topics are considered in the analysis, namely, Traditional Peoples and Communities and traditional knowledge. Subsequently, a set of keywords are searched for each of those topics. The selection of keywords representative of these themes is based on the GEOBASE Subject Index and the authors’ personal experience with the common terminologies used in legal documents pertaining to Traditional Peoples and Communities in the country under study. Table 1 summarizes the terms by topic.

**Table 1.** Topics and keywords.

Traditional Peoples and Communities	Traditional Knowledge
Indigenous peoples	Traditional knowledge
Traditional community	Indigenous knowledge
Indigenous territory	Traditional practice
Traditional territory	Traditional activities
Indigenous lands	

The analysis uses the following steps:

- I. Frequency of terms by topic in each plan;
- II. Frequency of terms by the context of each plan, namely, in the diagnosis (the framework or context of the issue addressed in the document), in the actions established (the framework of objectives and actions adopted by the document), and in the actors to be involved (the actors involved in the process of implementing the actions adopted by the document).

The frequency calculations<sup>2</sup> are performed using the following formulae:  
Frequency by thematic area

$$F = \sum \frac{\text{number of times the key words are mentioned in the document}}{\text{total number of words in the document}} \times 100$$

Frequency by context

$$F = \sum \frac{\text{number of times the keywords are mentioned in each context}}{\text{total number of keywords identified in the document}} \times 100$$

Searches also included the words ‘indigenous’, ‘knowledge’, and ‘traditional’, in consideration of the fact that the individual words that make up the terms of interest may be mentioned separately in the documents. If a term is used explicitly concerning Traditional Peoples and Communities, that relationship must also be recorded.

For the second approach, the perceptions of traditional communities were studied through semi-structured interviews. This allows the study of the subjects’ lived experiences while maintaining a certain degree of control by the researcher over the dialogue [46]. The interviews were submitted to content analysis in order to interpret the content of their messages [45,47] through a systematic classification process of coding and identification of themes or patterns [48] brought by the interviewees [49,50] (see Figure 3). The interviews were conducted with resident people of different gender and age. In addition to the previous interviews, the municipal leader was also interviewed to identify how Traditional Peoples and Communities’ concerns are integrated into municipal plans and programs and their involvement in the decision-making processes at the municipal level. Municipal decision-makers play a central role in addressing climate change [44]. This is because the local level is where the impacts of climate change are most apparent and where transformative responses can have the most significant effect [51]. Moreover, given the contextualized nature of risks, it is at the local level that different types of knowledge, practices, and experiences are more easily integrated [52]. In Brazil, according to the City Statute (Law No. 10.257/2001), urban environmental sustainability goals and guidelines, including the preservation and protection of the environment, must be integrated into local planning documents, and aligned with promoting democratic governance.

### *2.3. Plans and Programs Analyzed, the Profile of the Interviewees, and the Process of Analysis of the Replies to the Interviews*

A set of plans and programs covering the community was analyzed based on the typologies described in the model (Table 2). For the national level, documents related to climate change, desertification, water resources, and the management plan of the preservation areas where the case study’s traditional community is located were included. For the municipal level, only the master plan was examined, as it is the primary document with the potential to impact traditional peoples, communities, and their territories directly or indirectly. All the analyzed documents were effective at the time of writing this study.

The analysis of the documents was supported by the use of MAXQDA software, version Analytics Pro 2020. In the presentation of results, the developed analyses are synthesized in graphics. The results of the document analysis are also cross-checked with the information obtained from the interviews.

The analysis of the documents was supported by the use of MAXQDA software, version Analytics Pro 2020. In the presentation of results, the developed analyses are synthesized in graphics. The results of the document analysis are also cross-checked with the information obtained from the interviews.



**Table 2.** Plans and programs analyzed.

Level of Governance	Plans and Programs	Year
National	National Plan of Adaptation to Climate Change	2016
	National Action Program to Combat Desertification	2005
	National Water Resources Plan	2022
	Management Plan for the <i>Aparados da Serra and Serra Geral</i> National Parks	2019
Municipal	Master Plan of Praia Grande	2016

The implementation of the interviews considered the good practices for research, guaranteeing the interviewees informed, unbiased, and voluntary participation [53] with the signing of a Term of Consent [54]. The confidentiality of the interviewees' identities was guaranteed through identification codes, and the interviews were accompanied by observations and notes in a field diary, an auxiliary instrument for interpreting the collected data [49]. The research is based on 20 interviews conducted with representatives of different family clusters, particularly those residing within parks. Most participants were between 40 and 70 years old. The interviews were conducted in Portuguese one person at a time between 2018 and 2019. The average length of the interviews was 25 min each.

The questions of the interviews focused on the perception of climate change, the vulnerability of the territory, knowledge about the legal and public policy documents related to climate change at the international, national, and local levels, and the guarantees of protection and participation of Traditional Peoples and Communities. Table 3 synthesizes the categorization factors used to support the analysis of the replies to the interviews. Interview results were subjected to conventional content analysis, in which categories were derived directly from respondents' answers [48]. After reading all the material, the interviewees' responses were grouped for each question in the interview script and regrouped based on the themes or expressions used by the interviewees. Existing categories were identified, refined, and reorganized to arrive at the final categories. This process allowed for the identification and interpretation of respondents' perceptions. The categorization and analysis process were performed with the support of MAXQDA software, version Analytics Pro 2020.

**Table 3.** Categorization factors were used to support the analysis of the replies to the interviews.

Objectives	Interviewees' Expressions	Pre-Categorization	Final Categorization
Identify respondents' understanding of climate change at the global level.	"time-shifted" "weather out of control" "winter in summer"	Temperature increase Period and length of seasons Extreme events Global Warming	Perception of climate change -misunderstanding -understanding: causes
Identify the perception of respondents regarding the impacts of climate change on the territory.	"heavy frosts" "the bean is late" "the river has less water"	Difficult to predict the weather Harvest uncertainty Loss of production Alteration in the landscape	Impacts on the territory -non-existent -existing:temperatures river volume uncertainty of the seasons damaged crops
Identify the perception of respondents about their relationship with the territory and the role of traditional knowledge in adapting to climate change.	"like in the old days" "like my father and grandfather" "respect nature" "lose everything" "don't have insurance for anything"	Ancestral practices Preservation Limitation of traditional knowledge for adaptation Absence of insurance	Traditional knowledge and adaptive capacity -sufficient- insufficient

**Table 3.** *Cont.*

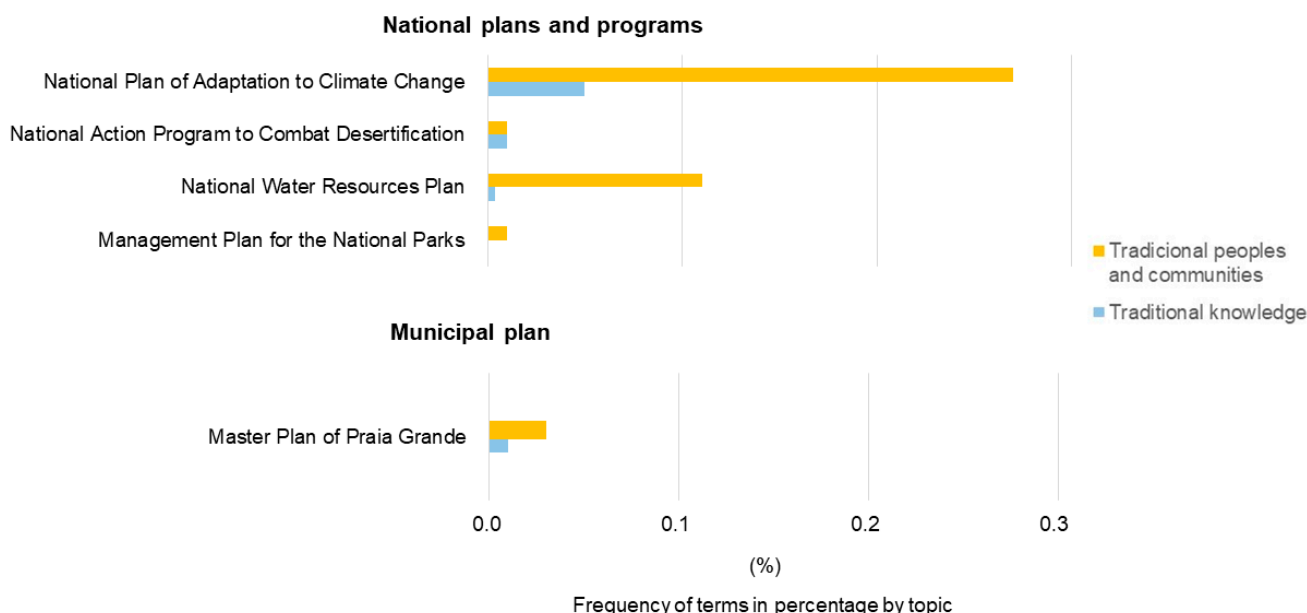
Objectives	Interviewees' Expressions	Pre-Categorization	Final Categorization
Identify respondents' knowledge of climate tools at different levels to protect communities.	"don't know" "never heard of" "only on paper"	Existence and understanding of plans and programs Protection	Climate treaties, plans, and programs: -do not know -know Insufficient or does not protect
Identify respondents' perceptions of their participation in the decision-making process and creation of local climate policies.	"not this subject" "very little" "We have never been called" "We don't exist"	Relationship with the municipal government Guarantees of participation	Participation -non-existent

The presentation of results includes transcripts of the interviews. These highlight the consistency between the textual evidence and the interpretation performed. To preserve the identity of the research participants, the interview parts cited in this paper identify only the gender through the letters M (man) and W (woman), followed by the age.

### 3. Findings

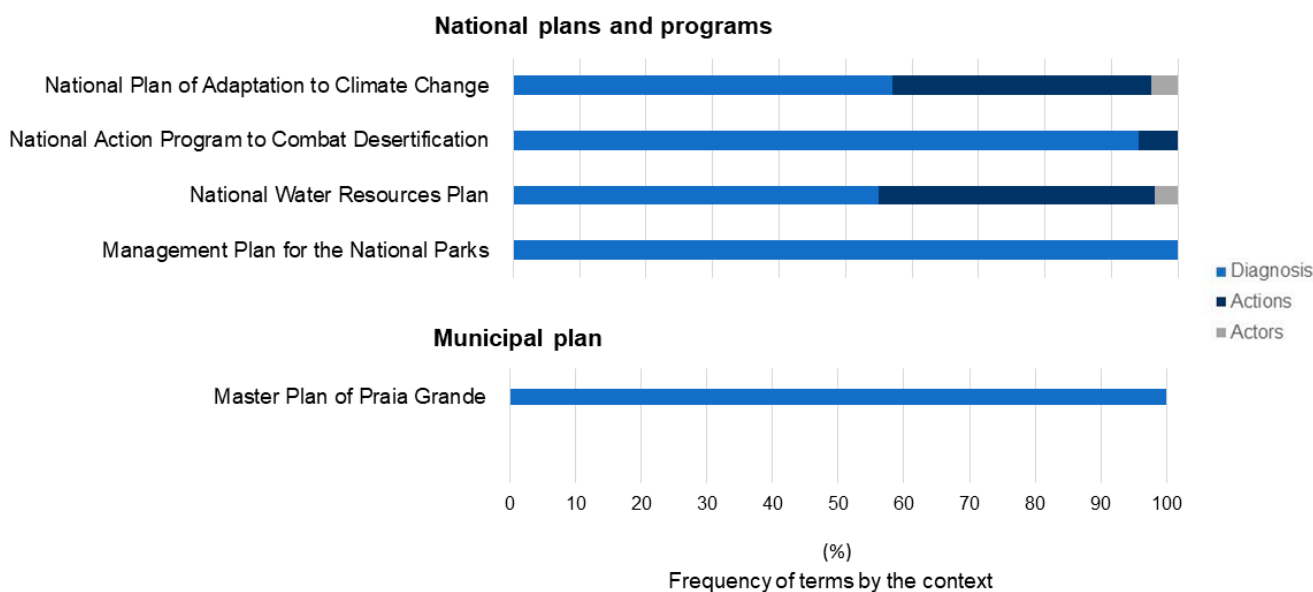
#### 3.1. Traditional Peoples and Communities in Plans and Programs

The analysis of terms included in the plans and programs is represented in Figure 4. The results reveal that the climate plan shows the highest consideration for Traditional Peoples and Communities, followed by the water resources plan. However, the attention given to traditional knowledge is relatively lower. The nature conservation plan shows a lower number of references to these communities or their knowledge. At the municipal level, references to themes remain residual.



**Figure 4.** Attention to Traditional Peoples and Communities and traditional knowledge in plans and programs.

The analysis of the inclusion of terms by context of the documents is presented in Figure 5.



**Figure 5.** Integration of Traditional Peoples and Communities and traditional knowledge into the context of plans and programs.

The results reveal that the terms are primarily concentrated in the diagnosis context, with few or no mentions related to actions for protecting and involving communities or valuing traditional knowledge. The involvement of Traditional Peoples and Communities as key actors in the implementation of the plans is virtually non-existent. Despite the higher expectation of actions at the municipal level due to their closeness to territorial specificities, the terms found in this document do not go beyond the diagnosis.

The subsequent paragraphs assess the integration of Traditional Peoples and Communities and their knowledge within the documents' narratives. Table 4 outlines crucial phrases from each plan that underscore the interpretations highlighted in the analysis.

The National Plan of Adaptation to Climate Change refers to reducing the vulnerabilities of Traditional Peoples and Communities in its objectives and guidelines. However, it does not refer to specific actions, deadlines, or indicators for their achievement. Moreover, it recognizes traditional knowledge's relevance for biodiversity preservation and adaptation but only mentions indigenous participation. Additionally, the plan highlights information gaps on vulnerability, climate change perception, and adaptive practices of Traditional Peoples and Communities.

In its diagnosis, the Desertification Combat Program highlights the role of traditional peoples in conserving natural resources and the limited use of traditional knowledge in desertification studies. Among its actions, it establishes the strengthening of family farming and the implementation of policies for the protection and regularization of traditional territories. No references related to participation are observed.

The Water Resources Plan outlines guidelines for the participation of traditional peoples in managing hydrographic basins in their territories. Moreover, it includes among its guidelines the promotion of ongoing dialogue between different forms of knowledge and the strengthening of attention to traditional knowledge in basin revitalization projects. However, the plan lacks specific goals or actions to implement these guidelines.

Compared to other plans, the Parks Management Plan and the Municipal Master Plan of Praia Grande show less attention to Traditional Peoples and Communities. Notably, the Parks Plan does not recognize the *São Roque* community as traditional.

**Table 4.** Selection of transcripts of the plans and programs analysed <sup>3</sup>.

Plans and Programs	Selected Transcripts
National Plan of Adaptation to Climate Change	<p>“Spatially analyze the climate risk of Traditional Peoples and Communities living in the 10 priority territories” (p. 32, vol. 1)</p> <p>“To recognize, make visible and enhance the contribution of Indigenous territories and Peoples, with their knowledge, technologies and traditional practices of occupation, use and management of natural resources, for the conservation of biodiversity, for the containment of deforestation, for the maintenance of the balance of climatic conditions and for the formulation and implementation of public policies for adaptation and mitigation of the effects of climate change.” (p. 161, vol. 2)</p> <p>“To ensure the participation of Indigenous Peoples in decision-making and discussion processes, the development and implementation of policies related to the theme, [...] and in other forums and instruments related to climate change and payment for environmental services.” (p. 161, vol. 2)</p>
National Action Program to Combat Desertification	<p>“Implement programs focused on education and continuing education for the training of campers, settlers, Indigenous People, <i>Quilombola</i> communities [...], aiming at the development of environmentally sustainable agricultural practices.” (p. 102, VII)</p>
National Water Resources Plan	<p>“Promote the effective participation of Indigenous Peoples and representatives of traditional populations in institutional boards and arrangements.” (p. 65)</p> <p>“Ensure broad social participation in the processes of elaborating water resource plans, [...] guaranteeing the participation of Indigenous Peoples and Traditional Communities.” (p. 113)</p> <p>“Respect and reinforce the experiences and knowledge of Indigenous Peoples and Traditional Communities in the projects of the revitalization of hydrographic basins;” (p. 181)</p>
Management Plan for the <i>Aparados da Serra</i> and <i>Serra Geral</i> National Parks	<p>“A curious fact about the ethnic diversity of this plan region is related to the history of the <i>Pedra Branca</i> or <i>São Roque</i> Community, in the municipality of <i>Praia Grande</i>. [...] Historically, there has been a fear among the descendant generations of these first settlers about keeping personal records and family data that could be used for the rescue of this rich historical-cultural heritage. However, there are still some residents with typical traces of black origin, who claim to be descendants of former runaway slaves.” (p. 15, vol. 1 e 2)</p>
Master Plan of <i>Praia Grande</i>	<p>“The Rural Macrozone is divided into the following units, according to its delimitation and characterization: [...] <i>Quilombola</i> Area—Plot of land where the remaining community of the <i>São Roque Quilombo</i> is settled.” (art. 32, IV)</p>

### 3.2. Perceptions of Traditional Communities

The section provides a detailed analysis of how the *São Roque* community interprets its involvement in these documents and implementing agencies. These results are derived from the interpretation of the interviews presented in Table 3.

The content analysis of the interviews shows that community members often associate their observations about climate change with temperature variations, uncertainties about the seasons, and changes in the landscape, especially changes in river and lake levels. Most respondents related climate change or the speed with which it has occurred to human activity in the environment.

*“When I was young, the seasons were all within the normal range, winter, summer, and fall. Today, everything has changed; it is so mixed that no one understands it anymore.”*

(M, 71) <sup>4</sup>

Interviewees report that the vulnerabilities that they recognize in their territory are primarily related to uncertainties regarding planting time. Moreover, they reported that traditional knowledge has been insufficient to avoid production losses, directly impacting the community's livelihoods. Interviewees stressed the need for technical support and assistance from public authorities to increase adaptive capacity.

*"Who lives in the countryside, especially the small farmer, feels it, because a series of agricultural products will not produce with this uncontrolled climate."*

(W, 65)

*"Technicians rarely visit our community, and we have not had the opportunity to study for this, we just use the old method, and then we do not achieve much."*

(M, 65)

The analysis of the communities' perceptions about the existence and content of the laws, plans, and programs shows that most respondents were not aware of the existence of the Climate Conventions. This is also true of national and municipal documents. Interviewees reported that they do not believe in laws or plans protecting their rights, referring to them as political promises, since economic interests always guide political decisions. Furthermore, the *São Roque* community claims that their participation at the local level is non-existent. They referred to the lack of recognition of the community's contributions to environmental preservation and classified the treatment they receive from the municipal government as discriminatory.

*"These are promises! It is sad because there is much talk and little action, very little! Then we see on TV that they promise, promise... they are a bunch of liars! What they promise does not even get here."*

(W, 58)

*"The community receives discriminatory treatment because we are here, struggling to conserve and survive. The governments sometimes say that these kinds of people do not give income to the government; they do not make money. Nevertheless, we contribute to public health and the preservation of nature, and no one sees this. Unfortunately, the municipal government has always governed with its back turned to us."*

(M, 47)

The analysis also shows that the relationship with the National Parks can be divided into two historical moments. The first, relating to the creation of the parks, was considered conflictive and imposing by the community. Conversely, the current relationship was classified by the community as "friendlier" characterized by enhanced dialogue and a concerted effort to align conservation objectives with the community's rights and way of life. However, the community stress that the many restrictions on productive activities are still barriers to reconciling the traditional way of life and the goals of the parks. Respondents also expressed concerns regarding creating a Geopark<sup>5</sup> in the region, especially as they were being excluded from the process.

*"They persecuted us a lot, they would not let us work. Now it stopped a little, now we can plant."*

(M, 40)

Additionally, it should be noted that interviewees reported being less concerned about climate change due to their focus on other pressing issues.

*"The community has always preserved and does not know how to live without nature around us. However, how will we discuss climate change and not even have a piece of land to build a house? The Constitution says we have rights in a territory of almost 8 thousand hectares, but that is only on paper."*

(M, 47)

Analyzing the interview with the municipal leader also provides relevant information. For example, the leader of the municipality of Praia Grande mentioned that municipal norms and public policies do not incorporate concerns related to traditional communities. On the contrary, the municipal leader stressed that he disagreed that traditional communities should receive differentiated treatment within the municipality. Furthermore, the municipal leader was not sensitive to climate issues. According to him, environmental and economic problems should receive equal attention. He also pointed out that it was unfair that rich countries, which destroyed their forests, should demand that other countries preserve theirs.

A cross-analysis between policy documents and the *São Roque* traditional community's perceptions, using the analytical factors previously considered, is summarized in Table 5. The results show that the limited incorporation of Traditional Peoples and Communities and their knowledge into climate and environmental plans reflects the community's perception of these instruments and the agencies responsible for their implementation.

**Table 5.** Analysis of documents versus the perceptions of the traditional community of *São Roque*.

Analytical Factors	Topics in Plans and Programs	Topics in the Interviewees' Perception
Protection of Traditional Peoples and Communities	Limited attention to Traditional Peoples and Communities	Do not feel protected against the adverse effects of climate change
Participation of Traditional Peoples and Communities	Participation in the implementation of documents is residual	Participation at the local level is non-existent
Recognizing and using traditional knowledge	Limited recognition of traditional knowledge	Lack of recognition of community contributions to environmental conservation

In synthesis, the analysis showed that climate and environmental plans and programs had not leveraged the protection and participation of the *São Roque* community.

#### 4. Discussion

Overall, the analysis revealed limited attention to the rights of Traditional Peoples and Communities in the plans and programs examined. Furthermore, the case study emphasizes that this limitation extended to the perception of community protection and its traditional knowledge regarding their territory. The community members do not feel protected from the impacts of climate change and negatively evaluate their interaction with the local government.

The incorporation of Traditional Peoples and Communities and traditional knowledge is minimal, as it does not translate into actions and targets in most documents. These results contradict the expectation that Brazil would more easily incorporate the provisions of international treaties into its plans, especially the Paris Agreement and the Convention on Biological Diversity since it legally recognizes IPLC <sup>6</sup> [27,55]. In addition, Brazil is a signatory to other international treaties in which it also assumes the commitment to protect these peoples and communities [56], such as the Indigenous and Tribal Peoples Convention, 1989 (No. 169)—ILO <sup>7</sup>. This result shows that more than legal recognition of Traditional Peoples and Communities may be required to guarantee the protection of these groups and their territories. It is recognized that the incorporation of such topics in older plans is comparatively more limited. However, it is argued that these plans, being crucial for climate change, should have been revised to align with the Paris Agreement's recommendations.

While the climate plan shows more significant attention to the Traditional Peoples and Communities and their knowledge, references are predominantly found in the diagnosis, the less substantive part of the document. The limited incorporation of traditional

knowledge in creating climate strategies was referred to in the fifth IPCC report [57] and highlighted in case studies in other countries, e.g., [58–60]. This paper aligns with the existing literature by demonstrating that Brazil is not an exception regarding the identified limitations. Furthermore, the results highlight that these limitations extend to environmental management documents. Notably, these documents must effectively address climate-related issues or adequately protect Traditional Peoples and Communities and their territories in a coordinated manner. The limited attention to Traditional Peoples and Communities and their knowledge may stem from various factors, including the age of the plans, the recent inclusion of IPLC in international climate policy [18,61], insufficient IPLC data [43], the marginalization of traditional knowledge [58,60,61], and the historical and social context of the country, particularly regarding the recognition of IPLC rights. Further studies can contribute to a better understanding of these factors in each context.

The results obtained from the analysis of the documents are directly related to the perception of the traditional community of *São Roque*. The interviews revealed several key points. Firstly, the community is not familiar with international treaties or climate plans. Secondly, they do not feel adequately protected against the negative impacts of climate change. Lastly, their evaluation of participation in decision-making processes is not positive. Recognizing the interaction between climate change and human rights has strengthened the focus on traditional communities and their territories [10,15]. Additionally, the Paris Agreement reinforces this interaction and ensures the realization of IPLC rights. However, advances in the formal aspect have not been observed in the material reality. The lack of community knowledge about their rights in the face of climate change raises concerns. This suggests potential challenges in implementing the Paris Agreement, which emphasizes the duty of States to protect and involve IPLC in climate action.

The community also reported a need for more appreciation of their role in preserving the natural landscape and its biodiversity. The interviewees reported they were dissatisfied with the repressive measures taken by the public authorities, especially concerning certain traditional practices. In contrast, the appreciation and encouragement of good practices remained absent, which is close to the results of other studies [62–64], which highlight the lack of recognition of traditional knowledge contributions. Our results also highlight that the community recognizes the existence of power relations, reproduced at different levels of decision-making [30,65], that determine which actors and forms of knowledge are legitimate.

The need for recognition of the role played by Traditional Peoples and Communities also has implications for land use. When reflecting on the objectives for designating an area to be protected and in light of the growing recognition of the contributions of traditional knowledge to biodiversity [9,66,67], a harmonious relationship between the traditional community and protected area management was expected. However, in the case studied, this relationship is divided into two historical moments, a conflictive past, marked by actions defined as repressive and authoritarian, and a present that seeks to build a space for dialogue. These results show the difficulties in aligning conservation agendas with the well-being of local communities and protecting their traditional practices [68–70]. The lack of communication and trust in the municipal leader aggravates this scenario. Furthermore, it illustrates that conflicts stemming from territorial overlaps can fundamentally be political, especially when the law authorizes the recategorization of the protected area [70].

The results of this study also highlight that despite acknowledging the impacts of climate change on their territory, the climate issue emerges as a peripheral concern for the community. This aligns with the findings of studies conducted in other countries, e.g., [64,71,72] that focus on the study of vulnerabilities. The failure to recognize climate change as a priority reveals two essential issues. First, vulnerability in climate change cannot be considered or analyzed in isolation from other biophysical and socioeconomic factors [73,74] that condition or aggravate it. Second, although not cited as the most significant concern, climate change acts as an aggravating factor [71,75] or multiplier of the issues highlighted by communities. The scale of communities and climate phenomena

can also explain their relative importance in climate action. At local-scale levels, the importance of global climate patterns tends to be outweighed by livelihood and adaptive capacity issues, for example [65]. Another relevant point when reflecting on vulnerability is that it is not born purely in the context of climate change [71]. Studies relate that vulnerability has political and structural dimensions produced from unequal, pre-existing contexts and relations between social groups [31,76] and is not an innate or acquired characteristic. In the same vein, studies have highlighted that adaptation actions do not always consider only climate change [74,77,78]; many efforts are undertaken as a solution to other vulnerabilities. In the case under study, the entire process of historical formation in Brazil provides a consistent explanation of the concerns of the *São Roque* community, especially those related to subsistence and permanence in the territory. Brazil was one of the last countries to abolish slavery but, like many others, was not able to fully consider the freed black people. The absence of titles to traditional territories makes it difficult for *Quilombola* Communities to access specific public policies and the financing of public or private institutions to develop subsistence activities [79]. In addition, it contributes to creating or aggravating socio-environmental conflicts [27,29]. In this regard, the country's development policies have failed to reduce the social and economic inequalities that today increase the vulnerabilities of these social groups to climate change. Thus, understanding that the limitations and obstacles to protecting traditional communities may be essentially political [25,76] is relevant in building climate actions that meet human rights.

It is important to note that this study does not assess instrument quality, adequacy, implementation, or effectiveness. The chosen case study only encompasses a small set of legal and policy documents addressing environmental issues, Traditional Peoples and Communities, and only one traditional community in Brazil. Additionally, the article does not examine internal and external factors influencing the application of these documents. Nevertheless, this study provides valuable information that enhances our understanding of how the rights of Traditional Peoples and Communities are incorporated into Brazil's climate and environmental management plans and programs. It adds data from one country to the existing literature on climate change and Traditional Peoples and Communities.

Furthermore, the in-depth interviews revealed important information about how community members interpret their protection status and participation in climate and environmental management documents. Therefore, this study can serve as a reference for future studies in other traditional communities in Brazil to identify if there is a deficit of effective protection of these communities. Ultimately, the insights gained from this research can help inform policymakers.

## 5. Conclusions

This study evaluated whether climate and environmental management plans and programs incorporate the protection and participation rights of Traditional Peoples and Communities in Brazil. In addition, it studied how members of a traditional community interpret their interactions with these documents and the institutions that implement them. The findings reveal that while there are a few references to Traditional Peoples and Communities in the diagnosis parts of the plans and programs, they are scarce in substantive parts of the documents like objectives and measures. They also reveal a need for more attention paid to traditional knowledge. These results are also visible at the local level. Moreover, community members need to be more informed about the plans and programs aimed at safeguarding their rights and feel they need to be protected against the adverse impacts of climate change.

The poor recognition of the protected status of these groups in the context of climate change and environmental management highlights that the design of plans and programs needs to be more sensitive to cultural aspects, attentive to different vulnerabilities, and more robust in the face of the contributions of traditional knowledge. In other words, the plans and programs, which contribute to the governance and protection of these territories, should expressly respect and attend to the importance of the knowledge of these social



groups. In this regard, creating a system to monitor the implementation of the principles and provisions of climate and environmental management treaties for subsequent legislative and planning processes is highly recommended. The aim is to strengthen the coherence between documents and ensure the greater involvement of Traditional Peoples and Communities in the different associated decision-making levels. Furthermore, this study also identifies a potential deficiency in terms of effectively protecting Traditional Peoples and Communities in Brazil. Consequently, future measures should prioritize enhancing the knowledge and access of Traditional Peoples and Communities to climate information.

Expanding this study to other contexts in Brazil and other countries could enhance the findings. Further research is needed on safeguarding Traditional Peoples and Communities and their territories using diverse methodologies. This may involve studying communities' specific and comprehensive involvement in various environmental management policies, considering their significance in addressing climate change. Additionally, investigating co-management cases of territories and the level of attention given to traditional communities and their territories can provide insights into the extent of protection experienced in such circumstances.

**Author Contributions:** Conceptualization, L.I. and T.F.; methodology, L.I.; validation, L.I. and T.F.; formal analysis, L.I.; investigation, L.I.; writing—original draft preparation, L.I.; writing—review and editing, L.I. and T.F.; supervision, T.F. All authors have read and agreed to the published version of the manuscript.

**Funding:** This research was funded in part by the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior—Brazil (CAPES)—Finance Code 001.

**Data Availability Statement:** All the data are available within this manuscript.

**Conflicts of Interest:** The authors declare no conflict of interest.

## Notes

- <sup>1</sup> The Conference occurred in Montreal, Canada, from 7 to 19 December 2022.
- <sup>2</sup> The compound keywords are counted as two words for frequency calculation purposes. The calculation used to estimate the attention given to the thematic axes does not disregard prepositions. However, since this is a systematic option, the results are compared.
- <sup>3</sup> The authors translated the original Portuguese text.
- <sup>4</sup> The authors did the translation of the original interviews into Portuguese.
- <sup>5</sup> UNESCO World Geoparks are unified geographical areas where sites and landscapes of international geological significance are managed based on a holistic concept of protection, education, and sustainable development. Available at: <https://pt.unesco.org/fieldoffice/brasilia/expertise/earth-science-geoparks> (accessed on 15 March 2023).
- <sup>6</sup> See Article 68 of the Transitional Constitutional Provisions Act of the Federal Constitution of 5 October 1988 and Articles 215, 216, 231, and 232 of the Federal Constitution. Available at: [http://www.planalto.gov.br/ccivil\\_03/constituicao/constituicao.htm](http://www.planalto.gov.br/ccivil_03/constituicao/constituicao.htm) (accessed on 20 March 2023).
- <sup>7</sup> Convention 169 of the International Labour Organisation (ILO) concerning Indigenous and Tribal Peoples in Independent States is currently the most up-to-date and comprehensive international instrument on the protection and guarantees of participation of traditional peoples and communities and is a binding treaty ratified by Brazil on 25 July 2002. Full access to the document is available at: [https://www.ilo.org/brasilia/convencoes/WCMS\\_236247/lang{-}{-}pt/index.htm](https://www.ilo.org/brasilia/convencoes/WCMS_236247/lang{-}{-}pt/index.htm) (accessed on 20 March 2023).

## References

1. Pandey, R.; Kumar, P.; Archie, K.M.; Gupta, A.K.; Joshi, P.K.; Valente, D.; Petrosillo, I. Climate Change Adaptation in the Western-Himalayas: Household Level Perspectives on Impacts and Barriers. *Ecol. Indic.* **2018**, *84*, 27–37. [CrossRef]
2. Race, D.; Mathew, S.; Campbell, M.; Hampton, K. Understanding Climate Adaptation Investments for Communities Living in Desert Australia: Experiences of Indigenous Communities. *Clim. Chang.* **2016**, *139*, 461–475. [CrossRef]
3. Torres-Slimming, P.A.; Wright, C.J.; Lancha, G.; Carcamo, C.P.; Garcia, P.J.; Ford, J.D.; Harper, S.L. Climatic Changes, Water Systems, and Adaptation Challenges in Shawi Communities in the Peruvian Amazon. *Sustainability* **2020**, *12*, 3422. [CrossRef]

4. IPCC. *Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*; Pörtner, H.-O., Roberts, D.C., Tignor, M., Poloczanska, E.S., Mintenbeck, K., Alegría, A., Craig, M., Langsdorf, S., Lösschke, S., Möller, V., et al., Eds.; Cambridge University Press: Cambridge, UK; New York, NY, USA, 2022.
5. Bahadur, A.V.; Ibrahim, M.; Tanner, T. Characterising Resilience: Unpacking the Concept for Tackling Climate Change and Development. *Clim. Dev.* **2013**, *5*, 55–65. [[CrossRef](#)]
6. Bruneniece, I.; Klavins, M.; Climate Change Governance; Knieling, J.; Leal Filho, W. (Eds.) *Climate Change Management*; Springer: Berlin, Heidelberg, 2013. [[CrossRef](#)]
7. Mashizha, T.M. Adapting to Climate Change: Reflections of Peasant Farmers in Mashonaland West Province of Zimbabwe. *Jambá J. Disaster Risk Stud.* **2019**, *11*, a571. [[CrossRef](#)]
8. Ellis, E.C.; Gauthier, N.; Klein Goldewijk, K.; Bliege Bird, R.; Boivin, N.; Díaz, S.; Fuller, D.Q.; Gill, J.L.; Kaplan, J.O.; Kingston, N.; et al. People Have Shaped Most of Terrestrial Nature for at Least 12,000 Years. *Proc. Natl. Acad. Sci. USA* **2021**, *118*, e2023483118. [[CrossRef](#)]
9. Janardhanan, N.; Nishioka, S.; Zusman, E. Eco-Resurgence for Asia: Invoking Indigenous Knowledge and Philosophy to Shape Economic Recovery and Sustainable Living. *Inst. Glob. Environ. Strateg.* **2020**. [[CrossRef](#)]
10. Boyd, D.R. *Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment*; Seventy-Fourth Session; General Assembly of the United Nations: New York, NY, USA, 2019.
11. Ford, J.; Maillet, M.; Pouliot, V.; Meredith, T.; Cavanaugh, A. Adaptation and Indigenous Peoples in the United Nations Framework Convention on Climate Change. *Clim. Chang.* **2016**, *139*, 429–443. [[CrossRef](#)]
12. United Nations Environment Programme. *Stockholm Declaration: Declaration on the Human Environment, Adopted by the United Nations Conference on the Human Environment, Stockholm, 16 June 1972*; United Nations: Stockholm, Sweden, 1972.
13. United Nations. *Rio Declaration on Environment and Development, Adopted by the United Nations Conference on Environment and Development, Rio de Janeiro, June 1992*; United Nations: Rio de Janeiro, Brazil, 1992.
14. UNHRC. Resolution 48/13. The Human Right to a Clean, Healthy and Sustainable Environment. In Proceedings of the Resolution adopted by the Human Rights Council, Geneva, Switzerland, 8 October 2021.
15. UNHRC. Resolution 48/14. Mandate of the Special Rapporteur on the Promotion and Protection of Human Rights in the Context of Climate Change. In Proceedings of the Resolution adopted by the Human Rights Council, Geneva, Switzerland, 8 October 2021.
16. Nations, U. *Framework Convention on Climate Change (2015) Adoption of the Paris Agreement, 21st Conference of the Parties*; United Nations: Paris, France, 2015.
17. Savaresi, A. Traditional Knowledge and Climate Change: A New Legal Frontier? *J. Hum. Rights Environ.* **2018**, *9*, 32–50. [[CrossRef](#)]
18. Shea, M.M.; Thornton, T.F. Tracing Country Commitment to Indigenous Peoples in the UN Framework Convention on Climate Change. *Glob. Environ. Chang.* **2019**, *58*, 101973. [[CrossRef](#)]
19. Williams, T.; Hardison, P. Culture, Law, Risk and Governance: Contexts of Traditional Knowledge in Climate Change Adaptation. *Clim. Chang.* **2013**, *120*, 531–544. [[CrossRef](#)]
20. Garnett, S.T.; Burgess, N.D.; Fa, J.E.; Fernández-Llamazares, Á.; Molnár, Z.; Robinson, C.J.; Watson, J.E.M.; Zander, K.K.; Austin, B.; Brondizio, E.S.; et al. A Spatial Overview of the Global Importance of Indigenous Lands for Conservation. *Nat. Sustain.* **2018**, *1*, 369–374. [[CrossRef](#)]
21. Walker, W.S.; Gorelik, S.R.; Baccini, A.; Aragon-Osejo, J.L.; Josse, C.; Meyer, C.; Macedo, M.N.; Augusto, C.; Rios, S.; Katan, T.; et al. The Role of Forest Conversion, Degradation, and Disturbance in the Carbon Dynamics of Amazon Indigenous Territories and Protected Areas. *Proc. Natl. Acad. Sci. USA* **2020**, *117*, 3015–3025. [[CrossRef](#)]
22. CDB. *Kunming-Montreal Global Biodiversity Framework*; CDB: Montreal, QC, Canada, 2022.
23. Guillot, L. The Clash between Indigenous Rights and Nature Preservation. *Politico* **2022**. Available online: [www.politico.eu/article/cop-15-montreal-biodiversity-the-clash-between-indigenous-rights-and-nature-preservation/](http://www.politico.eu/article/cop-15-montreal-biodiversity-the-clash-between-indigenous-rights-and-nature-preservation/) (accessed on 15 May 2023).
24. Iocca, L.; Fidélis, T. Traditional Communities, Territories and Climate Change in the Literature—Case Studies and the Role of Law. *Clim. Dev.* **2022**, *14*, 537–556. [[CrossRef](#)]
25. Löf, A. Examining Limits and Barriers to Climate Change Adaptation in an Indigenous Reindeer Herding Community. *Clim. Dev.* **2013**, *5*, 328–339. [[CrossRef](#)]
26. UNEP. *Megadiverse Brazil: Giving Biodiversity an Online Boost*. In *UN—Environment Programme*; United Nations Environment Programme: Nairobi, Kenya, 2019.
27. Little, P.E. Territórios Sociais E Povos Tradicionais No Brasil: Por Uma Antropologia Da Territorialidade. *Anuário Antropológico* **2004**, *1*, 251–290.
28. Poets, D. Settler Colonialism and/in (Urban) Brazil: Black and Indigenous Resistances to the Logic of Elimination. *Settl. Colon. Stud.* **2021**, *11*, 271–291. [[CrossRef](#)]
29. Iocca, L.; Fidélis, T. Comunidades Tradicionais e Unidades de Conservação: Desafios Jurídico-Normativos Na Sobreposição de Territórios. In *Caderno de Estudos em Direito Ecológico Insurgente E Pensamento Decolonial*; Habitus: Florianópolis, Brazil, 2020; pp. 61–92.
30. Beunen, R.; Assche, K. van. Contested Delineations: Planning, Law, and the Governance of Protected Areas. *Environ. Plan. A* **2013**, *45*, 1285–1301. [[CrossRef](#)]
31. Flores, J.H. *A (Re) Invenção Dos Direitos Humanos*; Fundação Boiteux: Florianópolis, Brazil, 2009.

32. Carballido, M.E.G. Repensando Los Derechos Humanos Desde Las Luchas. *RCJ—Rev. Cult. Jurid.* **2014**, *1*, 75–105.
33. Fankhauser, S.; Gennaioli, C.; Collins, M. The Political Economy of Passing Climate Change Legislation: Evidence from a Survey. *Glob. Environ. Chang.* **2015**, *35*, 52–61. [[CrossRef](#)]
34. McDonald, J.; McCormack, P.C. Rethinking the Role of Law in Adapting to Climate Change. *Wiley Interdiscip. Rev. Clim. Chang.* **2021**, *12*, e726. [[CrossRef](#)]
35. Fernandes, R.C.; Bustolin, C.; Teixeira, L. Relatórios Antropológicos: A Comunidade Quilombola de São Roque. In *Quilombos no Sul do Brasil: Perícias Antropológicas*; NUER/UFSC: Florianópolis, Brazil, 2006; Volume 3, pp. 131–185.
36. IBGE. *Censo Demográfico 2022*; IBGE: Brasília, Brazil, 2022.
37. MMA/ICMBio. *Plano de Manejo dos Parques Nacionais de Aparados Da Serra e Da Serra Geral*; MMA/ICMBio: Brasília, Brazil, 2019.
38. Correa, W.D.S.C.; Soares, W.R.; Aylas, G.Y.R.; Reis Junior, N.C.; Marengo, J.A.; Chou, S.C.; Nobre, C. Avaliação Das Simulações de Temperatura e Precipitação de Um Subconjunto de Modelos Do CMIP6 Para o Brasil. *Derbyana* **2022**, *43*, e774. [[CrossRef](#)]
39. Medeiros, F.J.; Oliveira, C.P.; Avila-Diaz, A. Evaluation of Extreme Precipitation Climate Indices and Their Projected Changes for Brazil: From CMIP3 to CMIP6. *Weather Clim. Extrem.* **2022**, *38*, 100511. [[CrossRef](#)]
40. Spaolone, M.B. Desamparados Nas Grotas Do Estado: Os Contratempos Da Sobreposição Entre o Território Quilombola de São Roque e Os Parques Nacionais de Aparados Da Serra e Da Serra Geral. *Ruris* **2013**, *7*, 33–56. [[CrossRef](#)]
41. Brasil Fundação Cultural Palmares. *Certificação Quilombola*; Fundação Cultural Palmares: Brasília, Brazil, 2023.
42. MMA/ICMBio. *Diagnóstico e Plano de Ação Para a Gestão dos Conflitos Territoriais*; MMA/ICMBio: Brasília, Brazil, 2012; pp. 1–109.
43. IPCC. *Climate Change 2022—Impacts, Adaptation and Vulnerability—Chapter 6: Cities, Settlements and Key Infrastructure*; Cambridge University Press: Cambridge, UK; New York, NY, USA, 2022. [[CrossRef](#)]
44. Hughes, S.; Chu, E.K.; Mason, S.G. *Climate Change in Cities: Innovations in Multi-Level Governance*, 1st ed.; The Urban Book Series; Springer International Publishing: Cham, Switzerland, 2018.
45. Krippendorff, K. *Content Analysis: An Introduction to Its Methodology*; SAGE Publications Inc.: Los Angeles, CA, USA, 2019.
46. Minayo, M.C.S. *Pesquisa Social: Teoria, Método e Criatividade*, 30th ed.; Vozes: Petrópolis, Brazil, 2011.
47. Elo, S.; Kyngäs, H. The Qualitative Content Analysis Process. *J. Adv. Nurs.* **2008**, *62*, 107–115. [[CrossRef](#)]
48. Hsieh, H.-F.; Shannon, S.E. Three Approaches to Qualitative Content Analysis. *Qual. Health Res.* **2005**, *15*, 1277–1288. [[CrossRef](#)]
49. Franco, M.L.P.B. *Análise de Conteúdo*, 4th ed.; Liber Livro: Brasília, Brazil, 2012.
50. Bardin, L. *Análise de Conteúdo*, 5th ed.; Edições70: Lisboa, Portugal, 2010.
51. Espíndola, I.B.; Ribeiro, W.C. Cidades e Mudanças Climáticas: Desafios Para Os Planos Diretores Municipais Brasileiros. *Cad. Metrópole* **2020**, *22*, 365–396. [[CrossRef](#)]
52. Tavares, A.O. Referenciais e Modelos de Governança Dos Riscos. In *Riscos Naturais, Antrópicos e Mistos. Homenagem ao Professor Doutor Fernando Rebelo*; Mateus, M.A., Ed.; Departamento de Geografia, Faculdade de Letras, Universidade de Coimbra: Coimbra, Portugal, 2013; pp. 63–83.
53. Vanclay, F.; Baines, J.T.; Taylor, C.N. Principles for Ethical Research Involving Humans: Ethical Professional Practice in Impact Assessment Part I. *Impact Assess. Proj. Apprais.* **2013**, *31*, 243–253. [[CrossRef](#)]
54. Harding, A.; Harper, B.; Stone, D.; O'Neill, C.; Berger, P.; Harris, S.; Donatuto, J. Conducting Research with Tribal Communities: Sovereignty, Ethics, and Data-Sharing Issues. *Environ. Health Perspect.* **2012**, *120*, 6–10. [[CrossRef](#)]
55. Boyd, D.R. *The Right to a Healthy Environment in Brazil: Amicus Curiae Brief from the United Nations Special Rapporteur on Human Rights and the Environment*; STF: Brasília, Brazil, 2020.
56. Hanna, P.; Vanclay, F. Human Rights, Indigenous Peoples and the Concept of Free, Prior and Informed Consent. *Impact Assess. Proj. Apprais.* **2013**, *31*, 146–157. [[CrossRef](#)]
57. IPCC. *Climate Change Summary for Policymakers*. In *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*; Cambridge University Press: Cambridge, UK; New York, NY, USA, 2014.
58. Mantyka-Pringle, C.S.; Jardine, T.D.; Bradford, L.; Bharadwaj, L.; Kythreotis, A.P.; Fresque-Baxter, J.; Kelly, E.; Somers, G.; Doig, L.E.; Jones, P.D.; et al. Bridging Science and Traditional Knowledge to Assess Cumulative Impacts of Stressors on Ecosystem Health. *Environ. Int.* **2017**, *102*, 125–137. [[CrossRef](#)]
59. Stefanelli, R.D.; Castleden, H.; Harper, S.L.; Martin, D.; Cunsolo, A.; Hart, C. Experiences with Integrative Indigenous and Western Knowledge in Water Research and Management: A Systematic Realist Review of Literature from Canada, Australia, New Zealand, and the United States. *Environ. Rev.* **2017**, *25*, 323–333. [[CrossRef](#)]
60. Makondo, C.C.; Thomas, D.S.G. Climate Change Adaptation: Linking Indigenous Knowledge with Western Science for Effective Adaptation. *Environ. Sci. Policy* **2018**, *88*, 83–91. [[CrossRef](#)]
61. Belfer, E.; Ford, J.D.; Maillet, M.; Araos, M.; Flynn, M. Pursuing an Indigenous Platform: Exploring Opportunities and Constraints for Indigenous Participation in the UNFCCC. *Glob. Environ. Polit.* **2019**, *19*, 12–33. [[CrossRef](#)]
62. Grothmann, T.; Petzold, M.; Ndaki, P.; Kakembo, V.; Siebenhüner, B.; Kleyer, M.; Yanda, P.; Ndou, N. Vulnerability Assessment in African Villages under Conditions of Land Use and Climate Change: Case Studies from Mkomazi and Keiskamma. *Sustainability* **2017**, *9*, 976. [[CrossRef](#)]
63. Lynch, A.H.; Adler, C.E.; Howard, N.C. Policy Diffusion in Arid Basin Water Management: A Q Method Approach in the Murray–Darling Basin, Australia. *Reg. Environ. Chang.* **2014**, *14*, 1601–1613. [[CrossRef](#)]

64. Petheram, L.; Zander, K.K.; Campbell, B.M.; High, C.; Stacey, N. “Strange Changes”: Indigenous Perspectives of Climate Change and Adaptation in NE Arnhem Land (Australia). *Glob. Environ. Chang.* **2010**, *20*, 681–692. [[CrossRef](#)]
65. Brugnach, M.; Craps, M.; Dewulf, A. Including Indigenous Peoples in Climate Change Mitigation: Addressing Issues of Scale, Knowledge and Power. *Clim. Chang.* **2017**, *140*, 19–32. [[CrossRef](#)]
66. Ellis, N.R.; Albrecht, G.A. Climate Change Threats to Family Farmers’ Sense of Place and Mental Wellbeing: A Case Study from the Western Australian Wheatbelt. *Soc. Sci. Med.* **2017**, *175*, 161–168. [[CrossRef](#)]
67. Hudson, A.; Vodden, K. Decolonizing Pathways to Sustainability: Lessons Learned from Three Inuit Communities in NunatuKavut, Canada. *Sustainability* **2020**, *12*, 4419. [[CrossRef](#)]
68. Bonilla-Moheno, M.; García-Frapolli, E. Conservation in Context: A Comparison of Conservation Perspectives in a Mexican Protected Area. *Sustainability* **2012**, *4*, 2317–2333. [[CrossRef](#)]
69. Kaimowitz, D.; Sheil, D. Conserving What and for Whom? Why Conservation Should Help Meet Basic Human Needs in the Tropics. *Biotropica* **2007**, *39*, 567–574. [[CrossRef](#)]
70. Foppa, C.C.; Barreto, G.C.; Quintanilha, F.; Neto, V.; Pereira, R. A (Re) Categorização de Unidades de Conservação e Suas Implicações Aos Modos de Vida Tradicionais Traditional Livelihoods. *Desenvolv. Meio Ambient.* **2018**, *48*, 343–366. [[CrossRef](#)]
71. Bunce, A.; Ford, J.; Harper, S.; Edge, V.; Team, I.R. Vulnerability and Adaptive Capacity of Inuit Women to Climate Change: A Case Study from Iqaluit, Nunavut. *Nat. Hazards* **2016**, *83*, 1419–1441. [[CrossRef](#)]
72. Monirul, A.G.M.; Alam, K.; Mushtaq, S.; Clarke, M.L. Vulnerability to Climatic Change in Riparian Char and River-Bank Households in Bangladesh: Implication for Policy, Livelihoods and Social Development. *Ecol. Indic.* **2017**, *72*, 23–32. [[CrossRef](#)]
73. Ford, J.D.; McDowell, G.; Shirley, J.; Pitre, M.; Siewierski, R.; Gough, W.; Duerden, F.; Pearce, T.; Adams, P.; Statham, S. The Dynamic Multiscale Nature of Climate Change Vulnerability: An Inuit Harvesting Example. *Ann. Assoc. Am. Geogr.* **2013**, *103*, 1193–1211. [[CrossRef](#)]
74. Sherman, M.; Ford, J.; Llanos-Cuentas, A.; Valdivia, M.J.; Bussalleu, A. Vulnerability and Adaptive Capacity of Community Food Systems in the Peruvian Amazon: A Case Study from Panaillo. *Nat. Hazards* **2015**, *77*, 2049–2079. [[CrossRef](#)]
75. Veland, S.; Howitt, R.; Dominey-Howes, D.; Thomalla, F.; Houston, D. Procedural Vulnerability: Understanding Environmental Change in a Remote Indigenous Community. *Glob. Environ. Chang.* **2013**, *23*, 314–326. [[CrossRef](#)]
76. Scoville-Simonds, M.; Jamali, H.; Hufty, M. The Hazards of Mainstreaming: Climate Change Adaptation Politics in Three Dimensions. *World Dev.* **2020**, *125*, 104683. [[CrossRef](#)]
77. Berrang-Ford, L.; Ford, J.D.; Paterson, J. Are We Adapting to Climate Change? *Glob. Environ. Chang.* **2011**, *21*, 25–33. [[CrossRef](#)]
78. Jha, S.K.; Mishra, S.; Sinha, B.; Alatalo, J.M.; Pandey, R. Rural Development Program in Tribal Region: A Protocol for Adaptation and Addressing Climate Change Vulnerability. *J. Rural Stud.* **2017**, *51*, 151–157. [[CrossRef](#)]
79. Almeida, A.W.B. Territórios Quilombolas E Conflitos: Comentários Sobre Povos e Comunidades Tradicionais Atingidos Por Conflitos de Terra e Atos de Violência No Decorrer de 2009. In *Cadernos de debates Nova Cartografia Social: Territórios Quilombolas e Conflitos*; UEA Edições: Manaus, Brazil, 2010; pp. 317–350.

**Disclaimer/Publisher’s Note:** The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.