

.....

IN THE CLIMATE OF AGROECOLOGY

OCTOBER * 2025 * SPECIAL EDITION

.....



NEWS

Mapping Reveals How Over 500 Agroecology Experiences Are Confronting Climate Change

Initiatives point to real solutions for transforming food systems and call for stronger public policies. Pages 4 e 5

Mapping in Numbers

The agroecology experiences analyzed across all Brazilian states reveal both the challenges posed by climate change and the pathways being created to overcome them. Pages 8 e 9

CITIES

Among challenges, cities present solutions for adaptation as a Response to Climate Challenges

Mapping shows that 37.8% of the initiatives are based in cities. Page 6



Canto da Pedra Garden, Vitória (Espírito Santo) | Agroecologia em Rede Archive.

ENVIRONMENT

Facing Agribusiness Threats, Agroecological Initiatives Strengthen Agrobiodiversity

Beyond being sustainable ways of producing food, agroecological systems place diversity at the center of their practices. Page 7

POLITICS

The Urgency of an Agroecological Perspective on Climate Change

The real solutions remain largely ignored by the State. Page 3

PERSPECTIVE

Agroecology: A Seedbed of Solutions

Agroecology on our land, climate justice on our planet. Page 10

TECHNOLOGY

Social Technologies Transform Territories and Strengthen Family Farming's Resilience

The initiatives affirm the power of the shared management of natural common goods. Page 14

COMMUNICATION

Communication for Climate Justice

95% of Agroecology Initiatives Use Communication to Share Their Work. Página 15

CITIZENSHIP

Incompatible Values

Rethinking Climate Change Beyond Carbon Metrics. Page 13

ECONOMY

The Brazilian Agroecology Economy Towards Climate Justice

To care for the soil, preserve good seeds, cultivate the land, and harvest the fruits. And then what? Page 11

HEALTH

People's and Environmental Health and Popular Health Surveillance Are Part of Agroecological Strategies to Confront Climate Change

A community garden, created both to feed local families and to generate income, has also become a space for sharing reflections and mutual support on issues such as violence, racism, and gender inequality. Page 12

WEATHER FORECAST

No Climate for False Solutions

Agroecology in the territories is a concrete and urgent path toward climate justice. Page 16

.....

Credits

The National Articulation of Agroecology (ANA) encourages the free circulation of this publication. Whenever total or partial reproduction is necessary, please cite **In the Climate of Agroecology** as the source. The electronic version of this document is available at www.agroecologia.org.br, where you can also find complementary materials from the initiative “Agroecology Networks Facing Climate Change: Action Research from the Territories”.

Editorial Coordination

Helena Rodrigues Lopes
Marcelo Oliveira de Almeida

Data Organization, Analysis, and Writing

Helena Rodrigues Lopes
Luísa Melgaço Ferreira Jorge Marques
Marcelo Oliveira de Almeida
André Ruoppolo Biazoti

Text “Agroecology: A Seedbed of Solutions”

Paulo Frederico Petersen

Interactive Map Design

André Ruoppolo Biazoti

Research and Mobilization in States and Regions

Cecile Marie Yvonne Gabrielle Follet
Lívia Silva Santos
Luísa Melgaço Ferreira Jorge Marques
Luiza Carolina da Silva
Valéria Surubi Barbosa

Technical Review

Flavia Londres da Cunha
Morgana Mara Maselli

Copy Editing

Thalita Rody Machado

Illustrations

Beatriz Cancian Silva

Graphic Design and Layout

Ghiulia Cabral Martins

Translation

Revisão Acadêmica

Editorial



There’s a new newspaper on the stands! But before we dive into the stories featured in **In the Climate of Agroecology**, let’s share the story of how this publication came to life.

When the National Articulation of Agroecology (ANA) created its Working Group on Climate Justice and Agroecology in 2023, it was already clear that the movement needed to go deeper in reflecting on how agroecology understands and responds to the climate crisis.

ANA’s Working Groups and Collectives – which bring together organizations, networks, and social movements from across Brazil – are key spaces for exchanging experiences, shaping proposals for collective action, and influencing public policy. Alongside the Climate Justice and Agroecology Working Group, ANA’s structure also includes groups focused on Biodiversity, Women, Youth, Indigenous Peoples, Agroecological Knowledge Building, as well as the National Collective on Urban Agriculture and the Communication Collective.

Each of these spaces emerged at different moments over ANA’s 23 years of history. What they all share is their foundation in self-organized processes that arise from the realities and demands of the territories, always seeking to stay connected to the local context and struggles on the ground.

It was from this collective and territorial perspective that ANA decided it was time to create the Climate Justice and Agroecology Working Group. The group’s first public initiative was the Agroecology, Territory and Climate Justice Mapping, carried out between March and September 2025, with the goal of understanding the current landscape of agroecological actions in the face of the climate emergency.



Working Group on Climate Justice and Agroecology | Agroecologia em Rede Archive.

About the newspaper

This newspaper turns the main results of that mapping into stories – fresh news from more than 500 experiences analyzed through the initiative. These stories reveal how agroecology, as practiced in the territories, has been confronting climate change in concrete and creative ways.

Who leads these actions? Who is driving the climate crisis? What challenges do communities face, and what solutions are they creating? The answers to these questions – emerging from the voices of those who are building agroecology every day – are what you’ll find throughout these pages.

On pages 4 and 5, the cover story offers an overview of the main findings from the mapping. At the center of the newspaper, on pages 8 and 9, a mosaic of graphs and key figures provides a visual summary of the data collected. Together, these sections help us see the bigger picture: one painted with the colors, textures, and creativity of those who make agroecology their way of life across Brazil. In the other sections, each story focuses on a thematic area connected to agroecology, such as cities, economy, environment, citizenship, and communication. Each piece offers a closer look at one part of this complex, interconnected landscape.

In 2025, agroecology and its transformative potential must gain even greater visibility. This is the year of the 13th Brazilian Congress on Agroecology (CBA) in October, and the People’s Summit and 30th United Nations Climate Change Conference (COP30), both of which will take place in Brazil in November.

This newspaper arrives at a crucial moment to strengthen alliances around climate justice from the perspective of agroecology. The data and reflections gathered here can help inform public policies and expand spaces for civil society participation in the climate debate.

Grounded in the realities of the territories, these findings reaffirm a central understanding shared by the movement: Strengthening agroecology in the territories means promoting climate justice on the planet.

The Transformative Potential of Action-Research

The knowledge-building initiatives promoted by the National Articulation of Agroecology (ANA) are grounded in the active participation of those who build agroecology in their daily lives. The aim is that everyone involved in the research process becomes a protagonist in the collective reflections it generates.

By adopting action-research methodologies, ANA seeks to ensure that collective analysis – identifying problems and solutions – can directly contribute to transforming the realities of the territories.

This was also the case for the Agroecology, Territory and Climate Justice Mapping. Developed as part of the project “Agroecology Networks Facing Climate Change: Action Research from the Territories”, the initiative represents an important stage in a broader process of knowledge production.

In short, the project involves two main phases of investigation. The first took place in 2025, with the implementation of a national mapping. The second will unfold between January and September 2026, through a series of collective activities to analyze the actions promoted by five agroecology networks, one in each region of Brazil.

The mapping data were collected through an online form between April and June 2025. In addition to the support of collectives, organizations, and agroecology networks that helped circulate the form in their territories, the initiative relied on a team of five researchers, one from each region of the country, responsible for mobilizing and engaging people to participate.

This team also carried out a preliminary review of the submitted information and registrations to ensure the quality and consistency of the data collected.

As a result, the mapping identified 516 agroecology initiatives, all now available for public access on the Agroecologia em Rede (AeR) platform – a database that already includes more than 4,000 experiences, initiatives, and public policies related to agroecology. For data analysis, 503 experiences were considered, since 13 did not meet all the required criteria. Even so, this significant number represents only a small part of the many hundreds of other agroecological initiatives that exist throughout the country but were not registered.

It is also important to emphasize the self-declared nature of the mapping. All the information was provided directly by representatives of the initiatives that filled out the forms. This approach allowed participants to share their own perceptions about the impacts of climate change and the adaptation and mitigation practices developed through their experiences.

POLITICS

The Urgency of an Agroecological Perspective on Climate Change

While greenhouse gas metrics continue to dominate the global conversation on climate change, the structural causes of droughts, floods, and deforestation are often treated as if they were not part of the same problem. At the same time, the real solutions, those that should be supported and scaled up, remain largely ignored by the State.

In Brazil, according to the 2023 Greenhouse Gas Emissions Estimate Report for Food Systems, produced by the Observatório do Clima, food systems accounted in 2021 for more than 73% of total gross emissions. This means that the dominant ways of planting, harvesting, processing, packaging, distributing, consuming, and wasting food are the main drivers of climate change in the country.

Globally, according to research published in Nature Food (2021), food systems account for about one-third of all emissions. Furthermore, the 2025 report by the International Panel of Experts on Sustainable Food Systems (IPES-

-Food) shows that 40% of petrochemicals (derived from fossil fuels) are used in the food system: 6% for plastics and 34% for the production of chemical fertilizers.

Faced with this reality, large corporations that dominate the global food system have sought to adjust their discourse and products, adopting a supposedly more sustainable posture and incorporating terms such as regenerative agriculture, no-till farming, environmental responsibility labels, energy transition, and carbon markets.

However, as researchers Breno Bringel and Maristela Svampa, from the Eco-Social and Intercultural Pact of the South, have warned, these measures are part of a new geopolitical consensus on decarbonization. In this logic, the Amazon and the Cerrado biomes are expected to remain standing not because they are home to family farmers, Indigenous Peoples, and traditional communities or because they hold an immeasurable biodiversity, but because they

represent massive stocks of carbon.

These so-called false solutions obscure the real causes and responsibilities of the hegemonic agro-industrial food system for climate and landscape transformations, such as deforestation in agricultural frontier regions like western Bahia. Under the advance of this model, nature and traditional knowledge are transformed into commodities.

To denounce the machinery of the dominant food system is also to affirm agroecology: the practices of family farmers and traditional communities that produce diverse, locally adapted foods, guided by seasonality, local inputs, territorial connections, and short supply chains.

As Indigenous thinker Ailton Krenak teaches us, *telling new stories is how we postpone the end of the world*. And in this moment of planetary crisis, agroecology is one of those stories, grounded in life, diversity, and collective resistance.

NEWS

Mapping Reveals How Over 500 Agroecology Experiences Are Confronting Climate Change

Initiatives point to real solutions for transforming food systems and call for stronger public policies

The Agroecology, Territory and Climate Justice Mapping, carried out between April and June 2025 by the National Articulation of Agroecology (ANA), analyzed 503 agroecology experiences that have been promoting adaptation, mitigation, and resilience in the territories in response to climate change. These initiatives – registered on the *Agroecologia em Rede* platform – are led by diverse actors in all Brazilian states, located in 307 municipalities, and involve more than 20,000 people directly in their territories.

From the perspective of the industrial food system, there is a generalized tendency to homogenize processes, practices, and even people, so that everything can be turned into a commodity and circulated through the market.



Agroforests Welcoming Birds and People, Murici (Alagoas) | Agroecologia em Rede Archive.

Yet even within this context, the experiences documented in the mapping demonstrate how agroecology, by insisting on diversity as a guiding principle, brings to the center the multiple forms of life, territories, knowledge, and cultures that share the same ground.

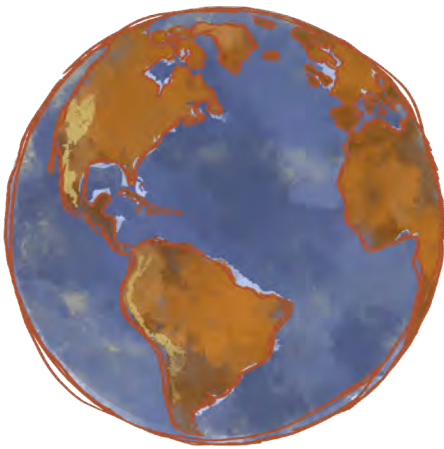
The results of the mapping highlight collective strategies to build food systems based on co-operation, solidarity, and complementarity with nature. One of the key findings relates to the centrality of actions linked to food production, processing, access, and markets. Of all initiatives analyzed, 35% identified these as their main focus, reaffirming agroecology's central role in promoting food sovereignty and food and nutrition security, as well as the democratization

of food systems. These initiatives include, for instance, the creation of new community-based economies through farmers' markets, institutional purchasing programs, partnerships with solidarity kitchens and food banks, as well as systems of exchange and donation of food.

Another 31.4% of the experiences focused on the conservation of agrobiodiversity and territorial coexistence, combining practices of ecological regeneration, such as soil management, Agroforestry Systems (AFS), and the preservation of native and agricultural plant and animal species. The mapping draws special attention to the presence of AFS, which play multiple roles: producing food, reforesting and restoring landscapes, reducing temperature, providing thermal comfort, and absorbing greenhouse gases.

The study also identified a set of knowledge-building initiatives (14.7%), through which communities have been developing their own analyses of the relationship between agroecology and the climate crisis. Health promotion was the main focus of 4.6% of the experiences, emphasizing both human and environmental health. In addition, 2.2% of the initiatives work primarily on solid waste management, and 1% focus on the production of bio-inputs.

It is worth noting that while each initiative identified a primary focus area, their actions are rarely limited to that domain. For instance, food production projects may also develop their own bio-inputs to reduce dependence on external inputs. Similarly, biodiversity conservation practices are often intertwined with health promotion activities, based on the understanding that caring for the land is caring for life.



Lótus Project: The Creative Economy of Women Defending Territories in Conflict with Mining, Minas Gerais | Dayane Tropicacos

Perceptions of Climate Change Impacts

The people leading these initiatives perceive the impacts of climate change in different ways. For 66% of the experiences, the changes in climate patterns have occurred within the past ten years, a short period, but one marked by profound transformations.

Rising temperatures were cited by more than 73% of the experiences, followed by changes in rainfall patterns (70.8%), reduced rainfall (57.3%), decreased water availability (50.3%), extreme rain events (37%), flooding (26%), and increased rainfall (25%).

Changes in native flora composition were reported by 36.2% of the experiences. Regarding health, 34.4% observed an increase in diseases in their territories associated with climate change. Air quality deterioration was noted by 42.9%, especially in large urban centers and mining areas.

The impacts on production are also alarming. 56.3% of the experiences reported a decrease in production, and 48.1% reported crop losses, revealing a scenario of food and nutritional insecurity, not only due to lower food availability but also to declining food quality.



Agroecological Network of Women Farmers (RAMA), Barra do Turvo (São Paulo) | Bruna Massis.



Bem-Viver Agroecology Group, Cacoal (Rondônia) | Leuziene Lopes.

Real Solutions from the Territories

Across Brazil, the mapping shows that communities recognize how their practices contribute to addressing the climate crisis, whether through adaptation, mitigation, or the promotion of climate justice. The most frequent strategies include soil management and conservation (70.7%), water management (42%), diversification of production systems (63%), tree planting and reforestation (56.9%), composting (52.7%), and ecological wastewater treatment (26.2%). Although these practices share common references, each is adapted to the specific characteristics of its territory – including local species selection, agroforestry arrangements, gardens, and methods of organic matter cycling.

The findings clearly indicate that the territories themselves hold the pathways for confronting climate change and ensuring food sovereignty and security. It is along these territorial lines that the State should act, supporting strategies that are inseparably capable of transforming food systems and tackling the climate emergency. Yet only 37.2% of the experiences reported having access to public policies.

In addition to the lack of institutional support, the initiatives face constant threats across the country. Large corporations were identified as major sources of conflict, promoting the use of pesticides (55.5%), monocultures (42.3%), and transgenic contamination (24.5%). Moreover, 221 initiatives reported that agribusiness has intensified the effects of climate change in their territories.

CITIES

Among challenges, cities present solutions for adaptation as a Response to Climate Challenges

Mapping shows that 37.8% of the initiatives are based in cities, revealing how communities organize to build possible futures

The vibrant presence of agroecological initiatives in urban areas was one of the most expressive results of the Agroecology, Territory and Climate Justice Mapping. Of the 503 experiences analyzed, 214 reported being located in urban or peri-urban territories. The data also show that 42.5% of all initiatives work with urban agriculture or directly involve urban farmers in their activities.

These initiatives resist real estate speculation (47%) and the intensive use of pesticides (39%). More than half of those located in urban and peri-urban areas reported worsening air quality (53.7%) as one of the main consequences of climate change, an impact most strongly perceived in Brazil's Southeast region and closely linked to patterns of land use.

The data also confirm the invisibility of urban agriculture, with 67% of initiatives reporting no access to public policies. This finding echoes the reflections made during the 2nd National

Meeting on Urban Agriculture (ENAU), held in Recife (Pernambuco) from July 30 to August 2, 2025. The event brought together over 300 urban farmers from 20 Brazilian states, who shared their experiences and debated the challenges and opportunities for strengthening urban agriculture in the country.

ENAU highlighted the diversity of people and practices involved in urban agroecology across Brazil. These are citizens building resilient cities in the face of climate change, but who are still not properly recognized for the benefits they bring. As Gilda Martins, an urban farmer from Belém (Pará), said during the meeting:

“Talking about urban agriculture is talking about resistance, struggle, and transformation”.

Solutions Emerging from Cities

Despite the many challenges, urban agroecology offers a range of community-driven solutions for climate adaptation. The initiatives mapped demonstrate the power of collective and community-based arrangements for soil conservation and management, as well as the diversification of food production in gardens, community plots, agroforestry systems, and backyards.

Urban experiences also contribute to territorial food networks, integrating production, consumption, and waste management. In waste management, composting stands out as a key practice, promoting nutrient circularity while reducing methane emissions that result from the disposal of organic waste in landfills and dumpsites.

The research also reveals that tree planting in urban areas is an important climate adaptation measure, helping to reduce heat islands and mitigate rising temperatures experienced by residents.

In many territories, these initiatives are led primarily by women in urban peripheries, expressing the power of urban agroecology in promoting climate justice. Among the 214 initiatives located in urban and peri-urban areas, 49 are led by Black women.

One of these is the *Horta Planta Vida* (Plant Life Garden), located in an urban occupation in Belo Horizonte (Minas Gerais). As urban farmer Alexandra Santos explains:

“By transforming a place that used to be a dump, we built a community garden on fertile soil, where healthy food is grown agroecologically. It is consumed, donated, exchanged, and sold both inside and outside the Occupation, generating work, income, food and nutrition security, and environmental recovery”.



Planta Vida Garden, Belo Horizonte (Minas Gerais) | Agroecologia em Rede Archive.

ENVIRONMENT

Facing Agribusiness Threats, Agroecological Initiatives Strengthen Agrobiodiversity

Beyond being sustainable ways of producing food, agroecological systems place diversity at the center of their practices. These experiences conserve biodiversity by caring for a wide range of native and traditional plant and animal species, and by valuing local foods that express the cultures and ecosystems of each region and biome. Among the initiatives mapped, 31.4% identified their main focus as the conservation of agrobiodiversity, including seed banks, nurseries, and practices of coexistence with territories such as fields, forests, rivers, and wetlands. Within this group, Agroforestry Systems (AFS) stand out, representing more than 10% of all experiences.

However, just as these practices are powerful, the threats they face are significant. As many of the experiences denounce, the main threats to agrobiodiversity come from agribusiness, which, through the indiscriminate use of pesticides, monocultures, and genetically modified seeds, puts at risk traditional seeds, soil and water health, and the presence of life – human, animal, and plant alike.

The impacts of climate change further intensify these threats. The mapping revealed alarming perceptions: the disappearance of native plant

species and varieties (36.2%), native animal species (30.4%), and agricultural plant varieties (19.7%). The loss of these species disrupts agroecosystems and results in a profound bio-cultural erosion. In addition, 12.3% of the experiences reported an increase in animal diseases.

Countering the Hegemony

In response to these impacts, agroecological practices for confronting climate change are diverse and deeply rooted in the territories. Seed safeguarding, referring to the conservation of plant varieties adapted to local ecosystems, was present in 37.2% of the initiatives, while the conservation of native animal breeds appeared in 9.2%. The mapping identified multiple forms of safeguarding, including community seed houses, seed festivals, collective multiplication of varieties, and networks of seed guardians.

One example is the *Seeds of Solidarity Mission*, a collective initiative coordinated by 23 organizations under the leadership of the Small Farmers Movement (Movimento dos Pequenos Agricultores, MPA) and its cooperatives. The mission supports peasant communities in Rio

Grande do Sul affected by extreme socio-environmental events. Between 2023 and 2024, it distributed 59,318 kg of corn seeds, 16,140 kg of bean seeds, and 4,800 kg of rice seeds, among others, in addition to providing technical assistance to affected communities.

The study also identified family farming initiatives that promote the breeding of native and locally adapted animal breeds, ensuring animal welfare and healthy, autonomous feeding systems. These stand in contrast to conventional livestock production, which has reduced animal diversity and relies on transgenic feed and industrialized confinement systems that increase the risk of disease.

A powerful example comes from Paraíba's Semi-Arid region, through the initiative *Valuing Women Guardians of Native Breeds in Family Farming*. The project focuses on women and young farmers who care for native animal breeds such as free-range chickens, goats, and sheep. It promotes training workshops on animal feeding and health, and establishes rotating community funds for raising and exchanging native breeds, strengthening both women's autonomy and the resilience of local agroecosystems.



Seeds of Solidarity Mission, Cruzeiro do Sul (Rio Grande do Sul) | Agroecologia em Rede Archive.



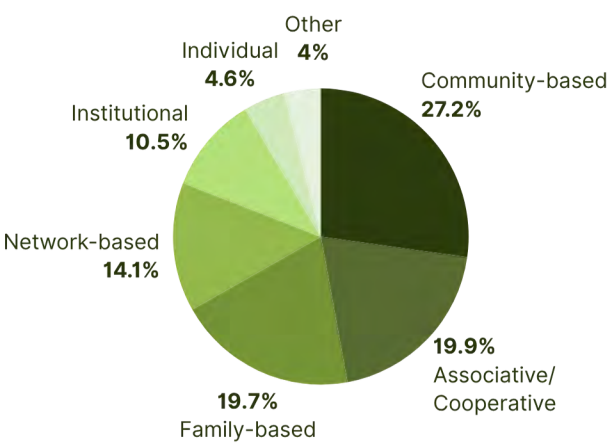
Valuing Women Guardians of Native Breeds in Family Farming, Soledade (Paraíba) | Felipe Teodoro.

MAPPING IN NUMBERS

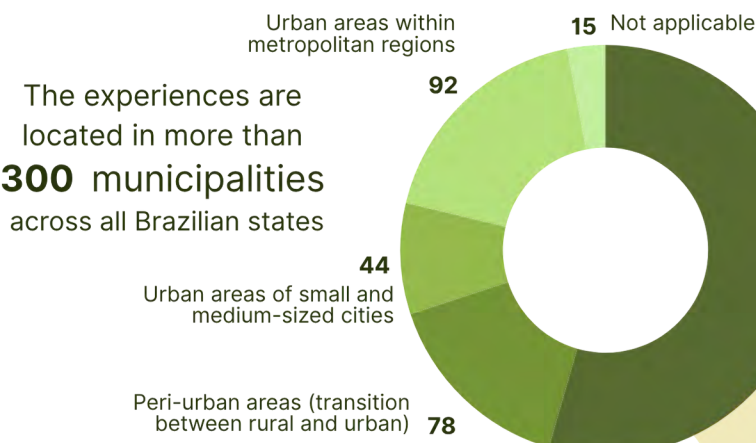
The more than 500 agroecology experiences analyzed across all Brazilian states reveal both the challenges posed by climate change and the pathways being created to overcome them.

* Each experience could select more than one response.

FORM OF MANAGEMENT OF THE EXPERIENCE



LOCATION OF THE EXPERIENCES



PARTICIPATION IN NETWORKS AND ORGANIZATIONS

70.8% ORGANIZATIONS
58.4% NETWORKS



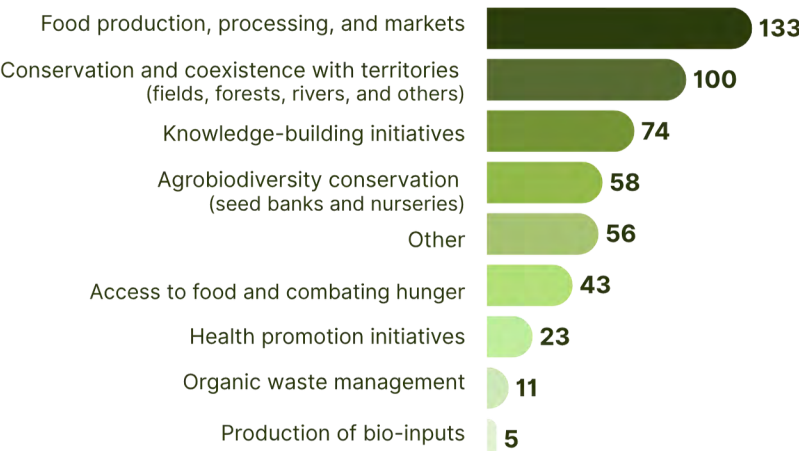
HAS THE ISSUE OF CLIMATE CHANGE BEEN ADDRESSED IN THE TERRITORY?

60% Yes, in an initial way
36.2% Yes, in a consolidated way
3.8% No

* ACCORDING TO THE EXPERIENCES, WHICH PRACTICES THEY DEVELOP HELP CONFRONT THE IMPACTS OF CLIMATE CHANGE?



MAIN FOCUS AREAS OF THE EXPERIENCES



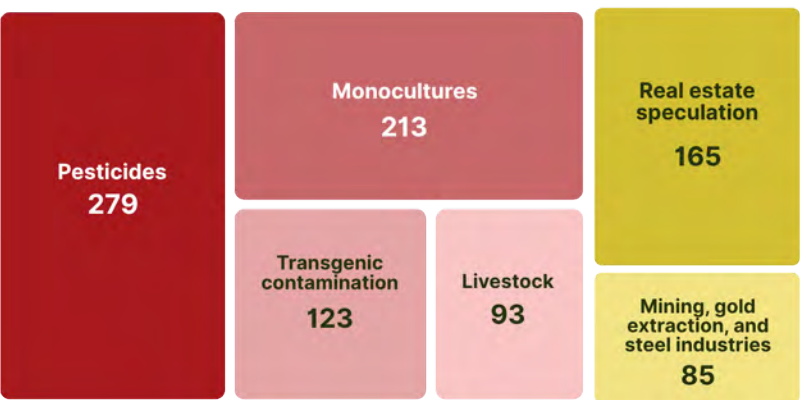
* THEMES MOST IDENTIFIED WITH BY THE EXPERIENCES



* MAIN AGENTS THAT INTENSIFY CLIMATE CHANGE



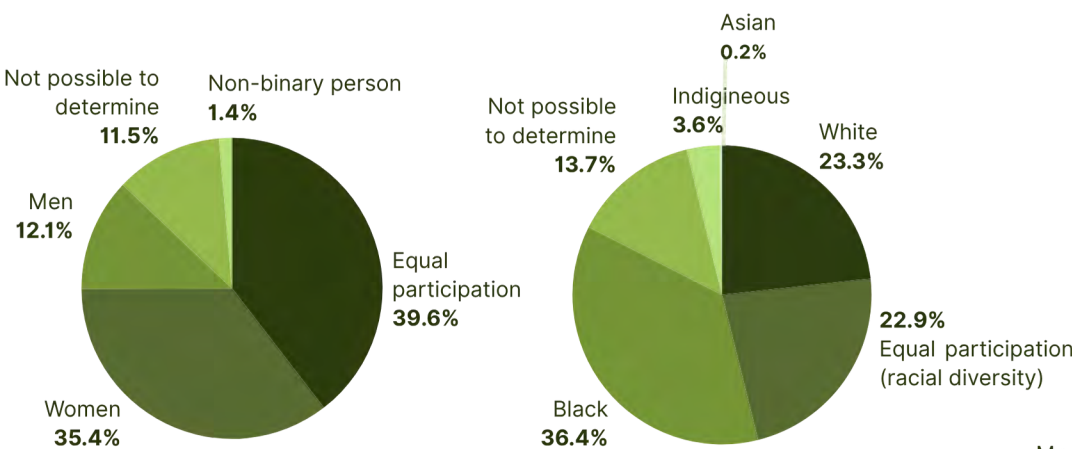
* MAIN SOURCES OF THREATS OR CONFLICTS REPORTED BY THE EXPERIENCES



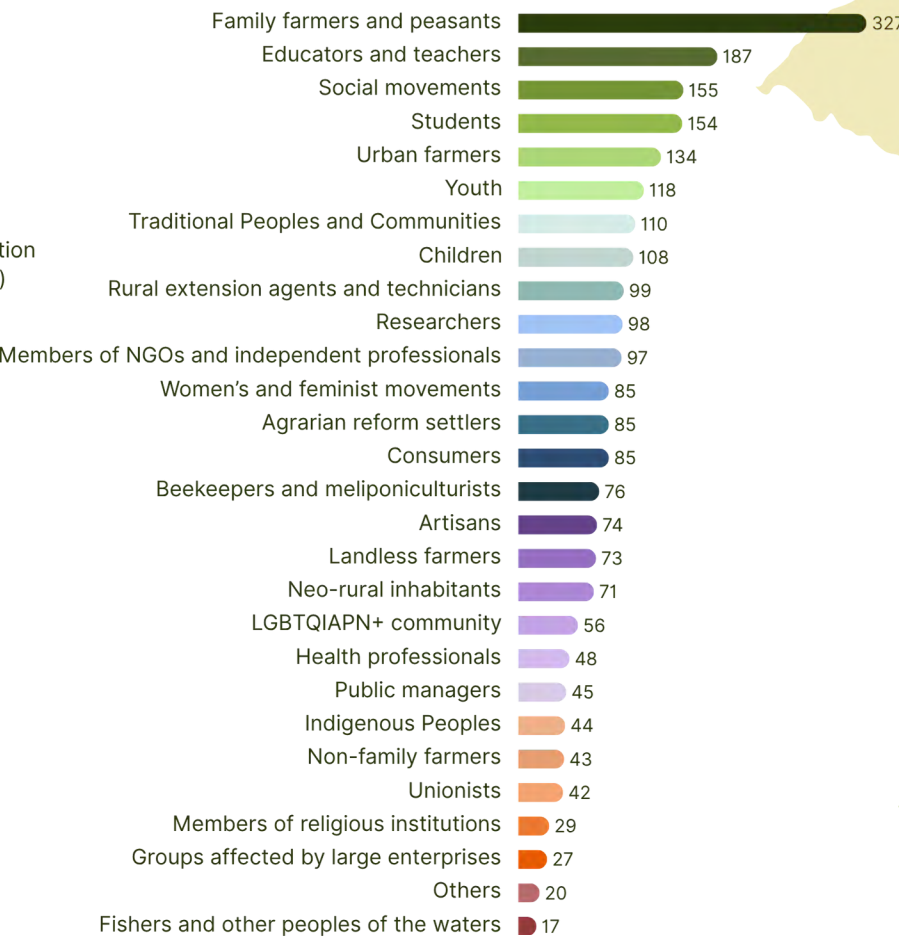
SINCE WHEN HAVE CLIMATE CHANGES BEEN NOTICED IN THE TERRITORIES?

170 For about 5 years
162 For about 10 years
70 For about 20 years
73 Not possible to determine
28 For about 30 years

THOSE RESPONSIBLE FOR MANAGING THE EXPERIENCE



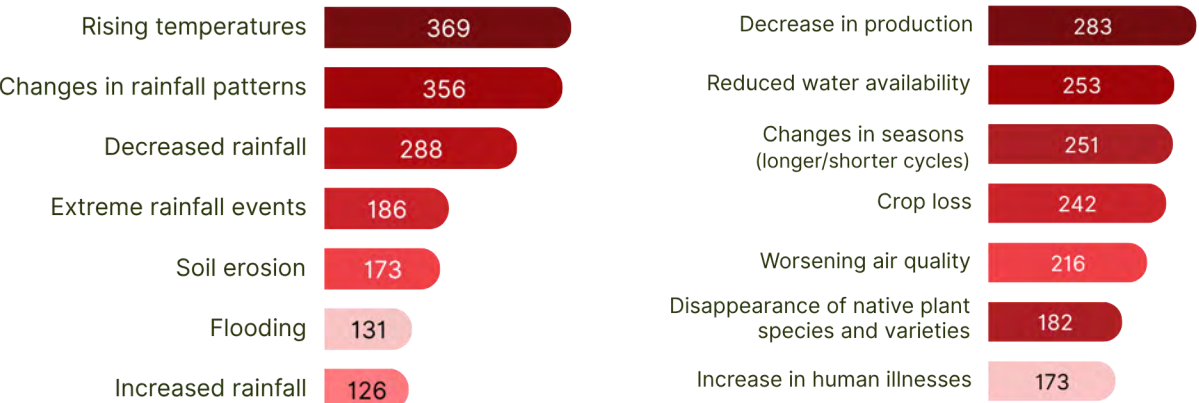
* WHO PARTICIPATES IN THE EXPERIENCES?



* COMMUNICATION ACTIONS OR PRODUCTS DEVELOPED



* MAIN PERCEPTIONS OF CLIMATE CHANGE IMPACTS IN THE TERRITORIES



* MAIN PUBLIC POLICIES ACCESSED





PERSPECTIVE

Agroecology: A Seedbed of Solutions

By Paulo Petersen*

Agroecology on our land, climate justice on our planet. This is the phrase printed on the newest flag added to the colorful line of banners created by the National Articulation of Agroecology (ANA). Together, these flags have become a familiar sight at gatherings and assemblies across Brazil, where each one carries a message that links agroecology to a broader struggle for social transformation. Seen together, they reveal the diverse connections agroecology builds with other social movements committed to overcoming the structures of power that generate inequality and environmental devastation.

By bringing these many struggles together in a single banner line, agroecology shows that these movements can strengthen one another and create a powerful collective voice capable of challenging the hegemony of agrarian capitalism. This strategic articulation between different movements becomes reality when it is woven through a socio-environmental perspective, one that recognizes that social struggles gain political power and mobilizing force when also understood as environmental struggles, and vice versa.

The notion of climate justice highlights the deeply socio-environmental nature of the climate crisis. It points directly to its real causes: the relentless functioning of the same political, economic, and cultural structures that perpetuate social and environmental injustices. The clearest expressions of climate injustice are seen in the everyday lives of the populations most excluded by these structures, those who are the first and most severely affected by local manifestations of global climate change, even though they are not responsible for creating the problem.

The new banner proposed by ANA's Working Group on Climate Justice and Agroecology is precise in affirming the centrality of local solutions for confronting the global crisis. It directly challenges the false solutions promoted by those who control and profit from the dominant system. These are false because they rest on the illusion that global markets – that is, large corporations – could somehow regulate food systems to reduce emissions and adapt to the already inevitable effects of climate change.



The findings from more than 500 agroecology experiences mapped by ANA show where we must look for the initiatives capable of filling this seedbed of real solutions, those that can truly and urgently transform food systems. Though exploratory, the mapping reveals an immense diversity of initiatives created through the mobilization of families, organizations, and civil society networks active in both rural and urban territories across Brazil. With or without public policy support, these experiences demonstrate that the agroecological way of relating to nature to organize production, distribution, and consumption, promotes food sovereignty, food and nutritional security, and collective health. More than that, it creates the real and urgent solutions the planet needs to confront the climate emergency.

*Paulo Petersen is Executive Coordinator of AS-PTA, member of the Executive Nucleus of the National Articulation of Agroecology (ANA), and Special Envoy for Family Farming at COP30.



ECONOMY

The Brazilian Agroecology Economy Towards Climate Justice

To care for the soil, preserve good seeds, cultivate the land, and harvest the fruits. And then what? Where does the food produced by family farmers go? Unlike hegemonic food systems, where the market and profit are often the only goals of production, agroecological systems have multiple destinations for what they produce. They include sales, but also family consumption, donations, and exchanges, reinforcing networks of solidarity and reciprocity. The Agroecology, Territory and Climate Justice Mapping identified the social construction of markets, solidarity economy, and other alternative forms of exchange as central themes for 40% of the experiences analyzed.

Among the initiatives focused on production, processing, and market organization, farmers' markets play a key role, representing 14.5% of all cases. They are essential to agroecology, serving as spaces for exchange of knowledge, cultural appreciation, and access to fresh, healthy, and seasonal foods.

Institutional markets also play an important role in the economy of agroecological food production. Although most initiatives do not yet access public policies, when they do, the main ones are the Food Acquisition Program (PAA) and the National School Feeding Program (PNAE). These programs ensure the provision of healthy food to vulnerable populations and to children and adolescents in public schools across the country.

Another important policy highlighted by the mapping is the Organic Agriculture Law. Among the different ways of guaranteeing product quality, the Participatory Guarantee Systems (PGS) stand out for building regional networks of production, knowledge sharing, and sustainable development.

One example is the *Orgânicos Jequitinhonha* group, formed by family farmers from Alto Jequitinhonha (Minas Gerais). The group currently includes 25 certified families. As

they explain: "Our practices include replacing conventional techniques with agroecological methods such as composting, biological pest control, and the sustainable management of soil and water. All production is free from pesticides and focused on preserving the health of consumers, farmers, and the environment. Beyond promoting health and food security, our products gain added value, allowing us to access public programs such as PNAE and PAA, which pay up to 30% more for organic food."

These experiences contribute to the democratization of food systems, standing in clear opposition to competitiveness, ultra-processed foods, the commodification of food, and the intensive use of chemical inputs and fossil fuels. The economy of agroecology, by contrast, is grounded in reciprocity, the right to healthy food, and short food supply chains. It values seasonality, territorial diversity, and the health of both people and ecosystems.

SPOT THE 7 DIFFERENCES



HEALTH

People’s and Environmental Health and Popular Health Surveillance Are Part of Agroecological Strategies to Confront Climate Change



Urban Seeds, Mossoró (Rio Grande do Norte)
| Layanne Alencar.



At the intersection of gender and food and nutrition security, the women of the Pintos neighborhood in Mossoró (Rio Grande do Norte) have been cultivating pathways toward mental health and collective care. Their community garden, created both to feed local families and to generate income, has also become a space for sharing reflections and mutual support on issues such as violence, racism, and gender inequality. The women report that the rising temperature and the deterioration of people’s health – including heart disease, weakened immunity, and mental distress – are among the most visible local effects of climate change.

Recent research published in *Nature Climate Change* confirms what these women already experience: the increase in global temperature is associated with higher risks to human health and mortality from cardiovascular diseases. The researchers also point out that excessive heat can cause thermal stress, affecting mood, mental health, and work performance.

The promotion of health was the main focus of 23 experiences mapped, particularly those centered on the cultivation of medicinal plants and the use of Integrative and Complementary Health Practices (PICS, in Portuguese). However, the link between health and agroecology extends far beyond this, as 103 experiences identified themselves within the theme of “health care practices and traditional medicine.” These experiences highlight the many interfaces between health, environment, and agroecology, including the emergence of medicinal agroforestry systems.

One example comes from the Paranazinho neighborhood, in the outskirts of Piên (Paraná), where the family of *Sítio Espaço Florescer* is dedicated to the production of agroecological food, seed conservation, and medicinal plants. As part of the Agroecology Seed Network (ReSA, in Portuguese), their work contributes to biodiversity conservation in a time of climatic instability. The medicinal plants they grow are supplied to the Green Pharmacy Program (Farmácia Verde) of the Unified Health System (SUS, in Portuguese).

The work carried out by this family demonstrates the inseparability between human health, healthy food, and a healthy environment, while also showing that these practices can take root in institutional spaces.

This combination of institutionality and community health practices is also reflected in initiatives of popular health surveillance. One such experience, developed through a partnership between the Ministry of Health, the Oswaldo Cruz Foundation (Fiocruz), and the World Health Organization (WHO), focuses on understanding the impacts of climate change in two territories: in Ceará, within the Mundo Novo Indigenous Village of the Potyguara people, where prolonged droughts have become more frequent; and in Rio Grande do Sul, in the Santa Rita de Cássia II settlement, affected by the floods of 2024. The goal is to identify local specificities and shared challenges in order to build a popular surveillance guide, inspiring new strategies for community-based health monitoring and climate adaptation across territories.

CITIZENSHIP

Incompatible Values

Rethinking Climate Change Beyond Carbon Metrics

At least 28 different social groups are involved in the 503 agroecology experiences mapped. They include family farmers, peasants, educators, students, urban farmers, youth, Indigenous Peoples, and traditional communities, among others. The diversity of those engaged is remarkable: 35.4% of the initiatives are led by women, 36.5% by Black people, and 4% by Indigenous Peoples. Black women appear as the main coordinators in 95 experiences (18.9%). When it comes to organization, collective forms of management are a defining characteristic. The mapping identified community management (27.2%), associative or cooperative organization (19.9%), family-based management (19.7%), and networked structures (14.1%) as the most common forms.

From these data, two key lessons emerge. First, that agroecology is collectively built: its meanings and practices are shaped by the subjects who live in the territories, gaining substance and identity as they connect with the specific realities of each place. Second, that solutions to the climate crisis must be guided by principles of diversity, collectivity, and social justice, across class, gender, and race.

Nearly half of the experiences identified community and group organization as a central practice for facing climate change. This shows a deliberate effort to break with dominant imaginaries, which often reduce the climate debate

to carbon measurement and accounting, as the researcher Camila Moreno discusses in her studies on the subject.

The collective construction of knowledge, cited by 268 experiences, emerges as an alternative to this abstraction, reconnecting atmospheric gases with the concrete, everyday realities of climate transformation. This perspective highlights how people are affected by these changes and how they develop strategies for adaptation, mitigation, and justice.

One example comes from the Amazon region, in the municipality of Morros (Maranhão). There, the Association of Rural Workers of Patizal Village, composed of 43 members from ten neighboring villages, created a Socio-environmental Agreement: a territorial management tool that sets out collectively defined rules for caring for common goods.

The farmers participating in this initiative observed that springs and water sources have been seriously affected by the changing climate, due to irregular rainfall, rising temperatures, and declining soil moisture. To respond, they developed environmental protection and soil and water management practices to ensure the continuity of agricultural production and the quality of life in the territory.

In the Cachoeirinha Indigenous Territory, in Mi-

randa (Mato Grosso do Sul), six villages created the initiative Climate Guardians, a youth-led training program that brings together Indigenous leaders, children, and young people to reflect on climate change from both traditional knowledge and scientific dialogue.

As Ariadnny Antônio Cebalio, 18, explains:

“Being a Climate Guardian means understanding and knowing my territory so that I can find logical and meaningful solutions for its well-being”.

And in the words of Alexandre de Arruda Antônio, 16:

“Caring for the climate and the territory is not only the responsibility of those who live here, but of everyone. Nature is our common home and deserves unity and respect”.

From the unique realities of each territory to the collective construction of shared strategies, these experiences remind us that it is impossible to confront the climate crisis individually, or through frameworks limited to quantification, commodification, and the trade of carbon.



Agroecologia em Rede Archive.

Horoscope

Aries
(March 21 – April 20)
Get involved in climate action — your energy can move mountains!

Taurus
(April 21 – May 20)
Eat and share plenty of agroecological food. Nourish the world and yourself.

Gemini
(May 21 – June 20)
Many people still don't know what climate justice means. Use your gift of communication!

Cancer
(June 21 – July 22)
Don't cry! There's still so much hope out there, keep caring for what matters.

Leo
(July 23 – August 22)
You'll shine so bright you might just lead climate action in your territory!

Virgo
(August 23 – September 22)
Done is better than perfect! Don't wait for the flawless climate action, take it to the streets.

Libra
(September 23 – October 22)
Your gift for mediation is essential for building climate justice and cooperation.

Scorpio
(October 23 – November 21)
Use your power of transformation to strengthen a collective cause.

Sagittarius
(November 22 – December 21)
Your determination is key to transforming the world. Use it with care and wisdom.

Capricorn
(December 22 – January 20)
Be patient with others and work hand in hand with your community.

Aquarius
(January 21 – February 19)
Being visionary isn't enough: become a leading voice for climate justice!

Pisces
(February 20 – March 20)
You're not living with your head in the clouds. Plant your feet on the ground and help transform your territory!

TECHNOLOGY

Social Technologies Transform Territories and Strengthen Family Farming's Resilience

Across Brazil, social technologies are being created and multiplied within territories as responses to the many impacts of climate change. Farmers and communities directly experience these effects – rising temperatures, changing rainfall patterns, soil degradation, and desertification – all of which threaten biodiversity, food production, and life itself.

Agroecology responds to this scenario by affirming both the urgency and the power of collective management of nature's common goods. It calls for a break with the notion that water, soil, air, seeds, and forests can be treated as isolated or private resources. Instead, they must be understood as shared elements of life that require care, reciprocity, and collective governance.

The contamination of rivers and aquifers, the disappearance of springs, and the genetic pollution of traditional seeds by transgenic varieties are all interconnected threats that disrupt entire ecosystems. Yet, as the mapping highlights, the impacts of climate change are uneven, affecting the most vulnerable populations and territories first and most severely.

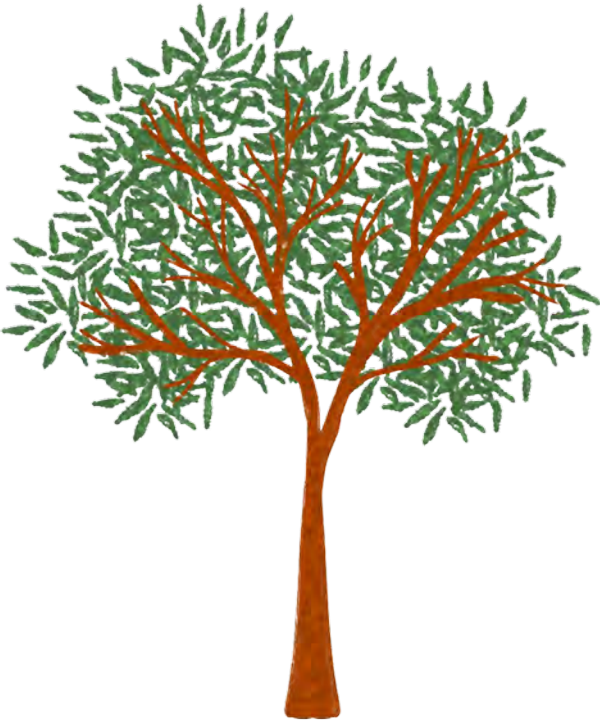
Among the 503 experiences analyzed, 374 reported practicing collective management of land and soil, 331 of water, 303 of seeds, 223 of forests, 223 of woodlands, and 184 of rivers. Other shared natural assets such as lagoons, reservoirs, mangroves, fields, and floodplains also appeared frequently, illustrating the importance of collective care for territories.

Water management, essential to agricultural production and deeply affected by environmental degradation, stands out as a key area of agroecological innovation. The experiences documented include practices such as water conservation and management (42%), ecological wastewater treatment systems (26.2%), banana circle systems (23.9%), rainwater harvesting and cisterns (22.3%), and small barriers and drainage boxes (9.3%) designed to retain and channel runoff.

In Rio Grande do Sul, family farmers have suffered severe losses in agricultural production

due to irregular rainfall patterns, alternating between extreme droughts and intense floods. One initiative in the municipality of Rolante (RS) reports: "The region has a good supply of rivers and springs. However, it has suffered repeated environmental damage, including floods in urban areas, landslides, river siltation, and the destruction of crops by heavy rains." To address these challenges, an extension project led by the Federal Institute of Education, Science and Technology of Rio Grande do Sul (IFRS) – Rolante Campus, is working with local authorities to map springs, identify their conservation status, and assess water quantity and quality. The project implements restoration and protection practices, such as planting native trees to form riparian forests, fencing off springs to prevent animal access, cleaning the sites, and installing structures for filtering and collecting water for various uses on farms.

These experiences demonstrate that social technologies, when rooted in the collective use and care of common goods, generate sustainable and autonomous solutions. Developed through the creativity of communities themselves, they adapt tools, techniques, and processes to local challenges, needs, and contexts. This kind of technology, born from the territories, directly contributes to improving agroecological production, increasing resilience to climate change, and enhancing the quality of life for rural and urban populations alike.



COMMUNICATION

Communication for Climate Justice

95% of Agroecology Initiatives Use Communication to Share Their Work

The importance of communication in strengthening agroecology in the face of climate change was one of the central findings of the Agroecology, Territory and Climate Justice Mapping. Out of the 503 experiences analyzed, 479 reported developing communication practices, and 86% of them considered these actions and materials essential to advancing their initiatives.

When examining the data more closely, several patterns emerge. Among the most common responses were statements that communication contributed by: Promoting awareness of how agroecology helps confront the climate emergency (58.4%); Supporting knowledge-sharing processes (57.3%); Mobilizing more farmers to participate in initiatives (56.7%); Combating misinformation about climate change (41.2%).

The mapping revealed a wide diversity of formats and channels used by agroecological initiatives to

share their work. The growing access to the internet and mobile phones across Brazil in recent decades has made digital spaces, especially social media, important tools for territorial communication. Instagram was the most frequently used platform, cited by 74% of the experiences, followed by WhatsApp (60.2%). However, the research also emphasized that in-person activities remain essential. Community meetings (42.3%) and local markets and fairs (32.4%) were recognized as priority spaces for spreading information and building collective visibility.

In addition to social media and face-to-face events, printed materials such as posters, brochures, and banners were mentioned by 42.1% of the experiences. Another remarkable practice, cited by about 30%, was the creation of networks of community communicators in the territories, expanding the movement's capacity to tell its own stories, in its own words.

The Weight of Misinformation

The responses also revealed how mainstream media and digital misinformation aggravate the climate crisis. Participants identified commercial media outlets (TV, newspapers, radio), websites, and social networks as key actors in distorting or downplaying the reality of climate change.

One of the experiences pointed out that mainstream television often treats extreme events as isolated "climate accidents," avoiding any discussion of the structural causes of these crises. Another recurring observation is that dominant media narratives reinforce the image of agribusiness as synonymous with development and progress, presenting pesticides and GMOs as necessary for food production, while silencing the social and environmental impacts of this model and its direct links to the climate crisis.

Agroecology and Climate Justice

The words in this word search are hidden horizontally, vertically, and diagonally, with no words spelled backward.

O	A	A	A	T	F	C	I	N	A	I	G
A	N	U	G	W	L	T	S	T	O	B	I
M	C	A	R	B	O	N	F	F	A	N	L
I	E	S	O	C	O	R	K	E	D	U	I
T	I	T	F	O	D	A	B	C	A	I	W
I	S	D	O	M	D	P	O	L	P	L	H
G	M	N	R	P	T	D	E	I	T	E	T
A	C	X	E	O	L	N	A	M	A	E	A
T	F	S	S	S	U	N	D	A	T	D	E
I	E	I	T	T	M	G	E	T	I	L	E
O	I	T	R	C	A	L	H	E	O	E	L
N	A	E	Y	T	H	D	A	O	N	I	E

FLOOD

MITIGATION

COMPOST

DROUGHT

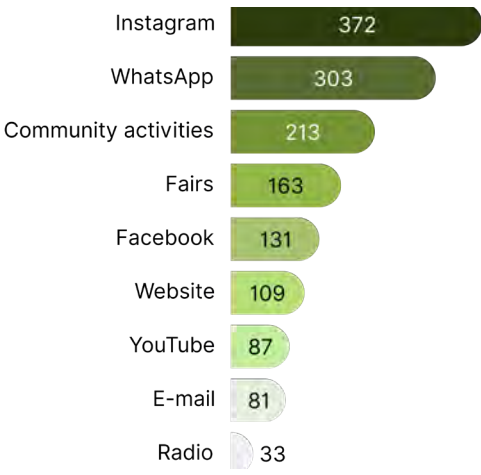
CARBON

CLIMATE

ADAPTATION

AGROFORESTRY

Main communication channels used to publicize initiatives



WEATHER FORECAST

No Climate for False Solutions

Agroecology in the territories is a concrete and urgent path toward climate justice



School Gardens in the Curriculum: Cultivating Environmental, Climate, and Food Education, Rio de Janeiro (RJ)
| Yayenca Yllas.

In the Brazilian social imagination, long periods of drought are usually associated with the Semi-Arid region or the *Caatinga* biome. Yet, the Agroecology, Territory and Climate Justice Mapping challenges this notion by revealing that “water emergency” was also a category used to describe decreasing rainfall in the Pampa biome, in the country’s South. In this region, networks and organizations have been working to implement rainwater collection and storage systems in quilombola communities, showing how water scarcity now affects even territories not historically associated with drought. These daily realities reaffirm the instability and fragility of the planet’s climatic balance.

Regional variations also help break another

misconception: 20.8% of the experiences in the Amazon reported droughts in the region. Temperature rise was the most frequently cited impact overall, reaching 73.4% of experiences. In regional terms, the Amazon (81%) and the Northeast (82%) reported rates above the national average. These same regions, the largest tropical forest and the semi-arid heart of Brazil, also recorded the highest number of perceptions of desertification: 20.8% in the Amazon and 29.1% in the Northeast. When analyzed by biome, the findings are stark: droughts in the *Pampa*, Amazon, and *Caatinga* are now interconnected realities.

Following temperature rise, five main categories point to the transformation of the hydrological

cycle: Changes in rainfall patterns (70.8%); Reduced rainfall (57.3%); Extreme rainfall events (37%); Flooding (26%); Increased rainfall (25%). Changes in rainfall patterns are particularly significant, as they affect both the distribution of rain throughout the year and the frequency of extreme events, disrupting planting calendars, soil fertility, and local biodiversity. These alterations are closely connected to perceptions of soil erosion (34.4%), revealing how the climate crisis impacts the very foundations of agricultural life.

It is not difficult to see that the basis of agriculture itself is being profoundly transformed. Yet, before reaching this conclusion, it is essential to underline a deeper truth: water and soil are the living conditions of agroecological experiences. The mapping shows that people are increasingly distant from water sources (14.3%), that there is an increase in human diseases (34.4%), and that environmental imbalances are visible everywhere, including the disappearance of native plant species and varieties (36.2%).

Being the main driver of climate change in Brazil, the hegemonic food system undermines the territorial solutions built by family farming and agroecology. 56.3% of the mapped experiences reported a reduction in production, and 48.1% reported production losses, indicators of worsening food and nutrition insecurity. This is not only due to a decline in the quantity of food available but also in its quality, diversity, and ecological integrity. As the medical journal *The Lancet* warned back in 2019, the world faces a global syndemic, the simultaneous pandemics of obesity, malnutrition, and climate change. In light of this, the question remains: what more evidence do we need to recognize where the true solutions lie?

ORGANIZED BY



COORDINATED BY



IN PARTNERSHIP WITH



WITH SUPPORT FROM



The digital version of the newspaper **In the Climate of Agroecology** and more information about the project “Mapping Agroecology, Territory and Climate Justice” can be accessed at www.agroecologia.org.br in your browser or by scanning the QR code.