

CORPORATE INVESTMENT AND SUPPORT TO ENSURE FOOD AND NUTRITION SOVEREIGNTY AND SECURITY IN BRAZIL 2020 – 2023

METHODOLOGICAL ANNEX



Fundação

**José Luiz
Setúbal**

METHODOLOGICAL ANNEX

ANNEX I - CREATION AND DEFINITION OF VARIABLES 03

ANNEX II - USE OF CHAT GPT 13

ANNEX III - DATABASE REVIEW 28



CREATION AND DEFINITION OF VARIABLES

To organize and structure this database, unique identifiers were created for each mapped element, ensuring traceability of the information. The identifier “id_emp” was assigned to each company funding or supporting SSAN actions, allowing their linkage to the recorded cases. Meanwhile, “id_ini” was developed to differentiate initiatives from one another. When the same action was carried out by more than one company, its row was replicated in the database according to the number of companies involved, maintaining the same “id_ini” across all rows while varying “id_emp”. This approach made it possible to identify which companies participated in a given initiative without artificially inflating the total count.

Additionally, the “id_mob” identifier was created to group initiatives funded or supported by different companies that, despite having distinct characteristics, were part of the same external mobilization movement. These mobilizations were often promoted by Civil Society Organizations (CSOs) or associations and involved multiple actions under a shared purpose. An example is Dia de Cooperar, organized by the Organization of Brazilian Cooperatives. During this event, different cooperatives funded and carried out various actions, yet all were integrated into the same movement.

Throughout the research period, variables were created and adjusted as needed. When an action did not fit into any existing categories, researchers discussed whether its definition needed to be revised or, as a last resort, whether a new category should be created. This approach was adopted because one of the primary research objectives was to classify actions into a limited number of variables and categories to facilitate comparisons. The variable names were standardized using the SNAKE_CASE format, ensuring consistency in nomenclature and simplifying data manipulation.

VARIABLES RELATED TO THE INITIATIVES

In the variable “Type of Initiative,” the category “Organizational Support” was created to classify actions involving only the donation of money to organizations, without any additional activity. If a corporate action included both the

transfer of unrestricted funds or maintenance of the beneficiary's structure and another activity, this action was classified in another category under the "Type of Initiative" variable but was still marked under the "Institutional Support" variable, which referred to the inclusion of institutional support in the action. This was the case for initiatives that, in addition to donating money, connected family farmers to markets, conducted biodiversity research on farms, or promoted debates on the focus area of the beneficiary organization. For "organizational support" actions, the location of the beneficiary organization's headquarters was considered the location of the action.

The variables "Does the initiative involve commodity production?", "Does the initiative involve the company's customers?", "Does the initiative involve suppliers/cooperatives?", "Does the initiative involve communities where the company is located?", and "Is the internal target audience?" were created after researchers observed that many actions described in corporate reports were directed toward the production chain. The team deemed it relevant to analyze whether food production actions generated commodities (produced and traded in large quantities), whether initiatives involved company stakeholders, and whether they targeted the workforce or an external audience.

The definition of "commodity" used during the research was based on the articles "Commodities Versus Differentiated Products" (Hofstrand, 2019) and "The Economist Explains: What Makes Something a Commodity?" (The Economist, 2017). In agreement with UN human rights rapporteurs, researchers understood water to be a common good, not a commodity. Additionally, according to Law No. 9,433 of January 8, 1997, water is "a public domain good" and "a limited natural resource with economic value".

In addition to actions explicitly indicating customer involvement, this variable also included actions offering services or products to the general public, such as open guides or online events. Actions that did not specify whether the donated products were supplied by customers but mentioned that collection occurred in company stores were also considered as involving customers.

The definitions of the variables "Does the initiative involve suppliers/cooperatives?", "Does the initiative involve communities where the company is located?", "Is the internal target audience?" and "Does the initiative involve children and adolescents?" were refined using the meanings assigned by the Global Reporting Initiative (GRI) to the terms "supply chain," "supplier," "local community," "employee," "worker," and "child." These concepts were taken from the document "*GRI 1: Foundation 2021*"

(2023) and contributed to the precision of the definitions used in this research, ensuring alignment with international standards.

The variables “Does the initiative involve family farmers?”, “Does the initiative involve specific demographic groups?”, “Does the initiative involve economically vulnerable groups?” and “Does the initiative involve children and adolescents?” were based on the review of three reports, “Survey on Food Insecurity in the Context of the Covid-19 Pandemic” (VIGISAN), authored by the PENSSAN Network, and the “State of Food Security and Nutrition in the World” (SOFI) reports for 2021, 2022, and 2023, published by FAO. These documents indicate that certain populations are more exposed to Food and Nutrition Insecurity (FNI), such as residents of rural and peripheral areas, minority groups (e.g., women, ethnic groups, and individuals with low levels of education), people in economically vulnerable situations (e.g., social program beneficiaries), and children and adolescents. Additionally, the VIGISAN reports highlight that family farmers are also among at-risk groups.

For classifying actions under the variables “Does the initiative involve family farmers?” and “Is the action’s objective to strengthen family farming?” the researchers used the understanding of “family farmers” from Law No. 11,326 of July 2006, which establishes guidelines for formulating the National Policy for Family Farming and Rural Family Enterprises

ART. 3 a family farmer and rural family entrepreneur are those who engage in activities in rural areas while simultaneously meeting the following requirements:

- I-** does not hold, under any title, an area larger than 4 (four) fiscal modules;
- II-** predominantly uses family labor in the economic activities of their establishment or enterprise;
- III-** has a minimum percentage of family income originating from economic activities of their establishment or enterprise, as defined by the Executive Branch; (Wording provided by Law No. 12,512 of 2011)
- IV-** manages their establishment or enterprise with their family

§ 1º The provision in item I of the main section of this article does not apply in the case of rural condominiums or other collective forms of ownership, provided that the ideal fraction per owner does not exceed 4 (four) fiscal modules.

§ 2º The following are also beneficiaries of this Law:

- I -** foresters who simultaneously meet all the requirements of the main section of this article, cultivate native or exotic forests, and promote the sustainable management of those environments;
- II -** aquaculturists who simultaneously meet all the requirements of the main section of this article and exploit water reservoirs with a total surface area of up to 2 hectares or occupy up to 500m³ (five hundred cubic meters) of water, when the exploitation is carried out in net tanks;
- III -** extractivists who meet the requirements provided in items II, III, and IV of the main section of this article and engage in this activity artisanally in rural areas, excluding prospectors and panners;
- IV -** fishers who meet the requirements provided in items I, II, III, and IV of the main section of this article and engage in fishing activities artisanally
- V -** indigenous peoples who meet the requirements provided in items II, III, and IV of the main section of Article 3; ([Included by Law No. 12,512 of 2011](#))
- VI -** members of communities that are remnants of rural quilombos and other traditional peoples and communities who meet the requirements provided in items II, III, and IV of the main section of Article 3. (Included by Law No. 12,512 of 2011).”

Thus, only actions explicitly declaring the involvement of family farmers were considered under this variable, excluding actions directed at small-scale farmers who are not classified as family farmers, for instance. Initially, the variable “Does

the initiative involve residents of rural/peripheral areas?” was created. However, during the classification of initiatives, researchers observed that this variable overlapped with information on actions aimed at economically vulnerable individuals, who often reside in peripheral areas, and family farmers, who live in rural areas. For this reason, the variable was removed.

The reports by the PENSSAN Network and FAO also addressed the issue of access to potable water for planting crops and rearing animals, both essential for ensuring SAN. In response, the research team included actions related to access to water in their mapping efforts by adding the variable “Is the initiative’s goal access to water?” Actions providing potable water were considered as food donations aligned with Sustainable Development Goal (SDG) 2.2, which focuses on nutritional security. Actions related to providing water for production could be associated with SDGs 2.3, 2.4, or 2.5, depending on the beneficiaries and the water provision process, which sometimes involved planting native seedlings around water springs or treating the water.

The variable “Is the initiative’s goal the adoption of better practices/business responsibility principles?” was created based on corporate reports indicating that many actions focused on sustainability and social responsibility across the production chain. Examples include actions implementing traceability and supplier certification.

The variables “Social benefit,” “Environmental benefit,” and “Corporate governance benefit” were developed based on the ESG (Environmental, Social, and Governance) framework. Their definitions were informed by the descriptions of “Environmental issues,” “Social issues,” and “Corporate governance issues” found in the *Who Cares Wins* document, a seminal United Nations publication on ESG from 2004. These variables enabled an assessment of the impact of food sector companies on guaranteeing food and nutritional security, particularly as these companies frequently claim alignment with the ESG agenda. Since the definition of “Social” in the document was very broad, adjustments were made to ensure clarity and specificity.

All “organizational support” actions were categorized under the mechanism “Resource donation.” Additionally, the category “Loans and subsidies” was created after reviewing corporate reports that mentioned support actions related to credit acquisition or the provision of low-interest loans for farmers. Regarding the variable “Main mechanism of operation,” the team identified the need to create the category “Production/dissemination/implementation of sustainable practices”

as a more specific derivative of the category “Production and/or dissemination of knowledge.” The key difference is that the sustainable practices category focuses on training and implementing sustainable practices (e.g., supply chain tracking, regenerative agriculture, and waste reuse). In contrast, the knowledge production and dissemination category encompasses a broader range of topics not necessarily tied to sustainability (e.g., community gardening courses, research, scientific conferences, and awareness campaigns).

The variables “Initiative start year,” “Initiative end year,” “Initiative status,” and “Long-term initiative (2 years or more)?” were created based on the understanding that longer-term actions are generally better structured and have greater potential to transform their target area or audience. Collecting this data is essential to understand the impact of private sector-funded actions and their relationship to other characteristics, such as type, objectives, and mechanisms.

These variables were answered based on corporate reports and websites and referred to the initiative itself rather than the year the funding occurred. For example, if a project took place between 2019 and 2023 but was funded by the analyzed company only in 2021, the action’s start year would be 2019 and its end year would be 2023, qualifying it as a long-term initiative. An exception is made for “organizational support” cases, as researchers understood these involved financial support for institutions, forming a distinct type of action. Consequently, for such cases, the four mentioned variables were marked as “n/a” (not applicable).

Initially, the variable “Type of executing organization” had its categories created by the team based on searches in corporate reports and websites. However, the need to differentiate the organizations’ legal status became evident since their trade names often did not reflect their official legal structure. Thus, the categories were revised based on the Registration and Status Certificate of each organization. When this information was unavailable, the category marked was “n/i” (no information).

The characterization of food supply chain links was based on FAO’s 2019 methodology, which segments the chain into “Agricultural production and harvesting, slaughtering, or capturing,” “Storage and transportation,” “Processing and packaging,” “Wholesale and retail,” and “Consumption: domestic and food services.” From this, and after analyzing the collected data, the team opted to use the following division: “Food production,” “Storage,” “Logistics,” “Processing,” “Retail,” and “Consumption.”

Normally, any initiative involving a specific link would be marked “yes” in the corresponding column. A link was considered involved if at least part of the action occurred within it, even briefly. However, “Storage” and “Logistics” were exceptions, as many actions involved these steps but were not aimed specifically at them. For example, retail actions involve storing and transporting food but remain categorized as retail rather than storage or logistics. To avoid distortions, only actions emphasizing storage or logistics as key steps were classified under these variables.

Furthermore, the team decided to classify actions targeting farmer training under “Food production” and those involving general population or consumer training under “Consumption.” Initially, all training actions were associated with the consumption link, given their relation to the dissemination and consumption of ideas. However, training specifically directed at farmers was deemed more related to production, as the focus was not on consumers or academia but on food producers. This classification was subsequently revised.

The “State of operation” variable was answered based on the action’s description. For nationally reaching initiatives, such as large-scale campaigns, training, or online applications, the category “n/a” was used, and all regions were marked. When actions involved cooperative members but did not specify a location, all states where the cooperative operated were marked. For “Institutional support” actions, the location recorded was that of the organization receiving the funding. If the information could not be determined—such as when only the biome was provided—the “n/i” (not informed) category was applied to both the “State of operation” and regional variables.

The SDG variables were rigorously assessed, ensuring that an action was classified as related to an SDG only if it explicitly had that goal. Interpreting the SDGs is not simple, and researchers frequently revisited definitions provided by the UN and Ipea websites, which served as the basis for the following decisions.

The understanding of SDG 2.2 was expanded because its original description focused on a very specific audience. However, since the idea of nutrition was essential, only the first part, which addresses “ending all forms of malnutrition,” was considered.

For SDG 2.3, small cooperative members were also considered small producers. This variable was applied only to actions explicitly mentioning family farmers or small-scale farmers. If this information was not explicit, classification was based

on whether the action aimed to increase the productivity and income of cooperative members and whether the analyzed company was a cooperative consisting of small cooperative members.

SDG 2.4 was considered in cases of actions promoting or ensuring the adoption of sustainable food production practices. These included actions related to both the activities of the funding and/or supporting companies and those carried out by third-party producers and suppliers. Actions aiming to disseminate sustainable production practices were also marked under this variable, such as farmer training on new sustainable techniques or restoring water springs and green areas on properties. Actions supporting producers in obtaining certifications or promoting internal supplier/purchasing policies were also included, as they disseminate sustainable, auditable practices among partners.

Drawing on Law No. 10,831, which defines an “organic agricultural production system as one that adopts specific techniques by optimizing the use of available natural and socioeconomic resources and respecting the cultural integrity of rural communities,” actions involving organic food production were also considered related to SDG 2.4.

Initially, researchers associated all initiatives related to maintaining plant and animal diversity with SDG 2.5. However, after further consideration and based on the SDG descriptions provided by Ipea, the team determined that this variable specifically referred to diversity linked to food production. Consequently, classifications were reviewed, and initiatives not directly related to production were excluded.

Although SDG 2 served as the criterion for mapping initiatives, many were also related to SDG 12. Thus, they were categorized accordingly. SDG 12.2, which addresses sustainable management and efficient use of natural resources, was considered only for initiatives promoting efficient use of natural resources, such as water and land, rather than merely encouraging sustainable management.

Similarly, actions under SDGs 12.3 and 12.5 were distinctly categorized. SDG 12.3 focuses on reducing food loss and waste, while SDG 12.5 addresses waste reduction. Actions aimed at preventing loss and/or waste were linked to SDG 12.3, whereas those involving food or production waste reuse were linked to SDG 12.5. Generally, actions associated with SDG 12.3 involved redistributing food fit for consumption but otherwise destined for disposal, as well as awareness campaigns about waste. Typical SDG 12.5 actions included fertilizer production.

SDG 12.6, which encourages companies to adopt sustainable practices and integrate sustainability information into their reporting, was applied to large and small enterprises, including cooperatives' farms.

Finally, for SDG 12.8, which aims to ensure everyone has access to relevant information for sustainable development, only actions targeting civil society were considered, excluding those aimed at businesses, including small cooperatives. Actions raising awareness among family farmers were marked as "yes."

VARIABLES ON COMPANIES

The variable "Is it publicly traded (listed on B3)?" was created based on the idea that publicly traded companies are evaluated and ranked according to the B3 Corporate Sustainability Index (ISE). Thus, this variable could be used to understand whether there is a difference between the actions financed by companies listed on B3 and those that are not.

The National Classifications of Economic Activities (CNAE) of each company were collected, and the variables "Is it a cooperative?" and "Is it a multinational?" were created to characterize the size and operations of the companies, enabling a comparison of the actions carried out by different types of businesses.

Similarly to the characterization of actions by links in the food chain, variables were created related to the commercial activities carried out by the companies. In addition to the links "Food production," "Storage," "Logistics," "Processing," "Retail," and "Consumption," the variable "Input production" was also created. After studying corporate reports and websites, the team understood that some companies produced agricultural and livestock inputs but only sold them without engaging in food production. Thus, the "Input production" link precedes "Food production."

Furthermore, since all companies store and transport their products, only companies with large silos or those that transported products abroad (e.g., by ship) were considered related to the "Storage" and "Logistics" links. Similarly to the classification of actions, business activities were only associated with these links when they were highly significant.

The variables "Does the company declare that it prioritized combating food insecurity in 2020/21/22/23?" were answered based on the objectives and mission

stated on the companies' websites and reports. These details were collected from explicit declarations regarding their operational pillars, materiality matrix, and supported SDGs for each year. Thus, even if a company did not carry out any action to ensure food and nutritional security (SAN), if it declared SAN as a priority, the variable was marked as "yes," and the reverse was also applied. If no statement of the company's priorities could be found, the category "no" was marked. If no annual report for the company was identified, the option "n/i" (no information) was marked in the column for the corresponding year.

Initially, this variable was generic, questioning whether combating food insecurity was a priority for the company. However, upon analyzing the reports, the researchers noticed that companies' priorities could change over time. For this reason, they decided to separate the data into different variables, one for each year from 2020 to 2023.

USE OF CHAT GPT

In May 2024, the research team began testing Chat GPT-4. To prepare, they completed the course “Introduction to Chat GPT” on Data Camp. Subsequently, they tested both the traditional Chat GPT platform and the Data Analyst version, but decided to use the traditional version after noticing no significant differences in the results. During the testing phase, the team ran 27 prompts (listed below) to map initiatives from seven companies that had already been manually analyzed. These companies were selected because they each had at least five mapped initiatives and provided activity or sustainability reports in open PDF format. More generic and shorter prompts generated more results than those specifically focused on SAN. The team was unable to identify a pattern in Chat GPT’s errors when collecting the data, making it challenging to understand the reasons for the exclusion of corporate initiatives that should have been listed.

In a second phase, four prompts that appeared to perform better in reports from four companies were tested. From the initial group of seven companies, two were chosen for having the highest number of initiatives already mapped manually by the team, and two were selected because all their initiatives manually mapped by the team were also identified by Chat GPT.

Below are the test results with the last four prompts applied to four companies. The “Original Number of Actions” column shows the number of actions manually mapped by the team. The “Original GPT Number of Actions” column displays the number of actions mapped by Chat GPT that had already been previously collected manually by the team. The “Number of Actions GPT Added” column presents the number of actions not previously collected by the team but identified by the tool and which should indeed have been mapped. The same pattern applies to the green columns, which address company certifications.

EMPRESA	ORIGINAL NUMBER OF ACTIONS	ORIGINAL GPT NUMBER OF ACTIONS	NUMBER OF ACTIONS GPT ADDED	ORIGINAL NUMBER OF CERTIFICATIONS	ORIGINAL GPT NUMBER OF CERTIFICATIONS	NUMBER OF CERTIFICATIONS GPT ADDED	BEST PROMPT
A	6	6	9	N/A	N/A	9	②
B	4	4	7	N/A	N/A	0	②
C	17	6	5	2	2	0	④
D	13	11	6	1	1	2	②

The four prompts used in the second phase were as follows:

1 “ Record all the actions, initiatives, projects, programs, campaigns, donations, collections, articulations, partnerships, activities, certifications, fairs, events, training, courses, seals, etc., described in the document. Present the results in a table format where each row represents a unique action, and the columns are, respectively: name of the action cited in the document; full description of the action as stated in the document; the page on which the description appears. ”

2 “ What are the actions, initiatives, projects, programs, campaigns, donations, collections, articulations, partnerships, activities, certifications, seals, etc., described in the document? Present the results in a table format where each row represents a unique action, and the columns are, respectively: name of the action cited in the document; full description of the action as stated in the document; the page on which the description appears. ”

3 “ What are the ‘actions,’ ‘initiatives,’ ‘projects,’ ‘programs,’ ‘campaigns,’ ‘donations,’ ‘collections,’ ‘articulations,’ ‘partnerships,’ ‘activities,’ ‘certifications,’ ‘seals,’ etc., described in the document? Present the results in a table format where each row represents a unique action, and the columns are, respectively: name of the action cited in the document; full description of the action as stated in the document; the page on which the description appears. ”

4 “ Provide all excerpts about actions, initiatives, projects, programs, campaigns, donations, collections, articulations, partnerships, activities, certifications, seals, etc., described in the document. Present the results in a table format where each row represents a unique action, and the columns are, respectively: name of the action cited in the document; full description of the action as stated in the document; the page on which the description appears. ”

The prompt that achieved the best results for three companies was the following:

What are the actions, initiatives, projects, programs, campaigns, donations, collections, articulations, partnerships, activities, certifications, seals, etc., described in the document? Present the results in a table format where each row represents a unique action, and the columns are, respectively: name of the action cited in the document; full description of the action as stated in the document; the page on which the description appears.

**Based on this prompt, the following final prompt was created:**

Identify the actions, initiatives, projects, programs, campaigns, donations, collections, articulations, partnerships, activities, certifications, seals, etc., described in the document. Present the results in a table format where each row represents a unique action, and the columns are, respectively: name of the action cited in the document; full description of the action as stated in the document; the page on which the description appears.



Once the final prompt was developed, researchers created a chat for each company's annual report, attached the open PDF, and submitted the prompt along with it. After receiving the initial response from Chat GPT, they followed up with the prompt, "Can you list more initiatives?" before analyzing the responses. This protocol ensured that the responses were not influenced by previously generated information from Chat GPT and encouraged the identification of additional actions. Based on the generated responses, the team verified in the companies' reports whether the actions should indeed be mapped. Additionally, as described in the Methodology section, the team conducted keyword searches to ensure all actions were identified. The step-by-step process is detailed below.

Finally, researchers attempted to test Chat GPT's ability to categorize initiatives by asking the tool to classify a previously mapped action according to the types created by the team (project, program, campaign, and multistakeholder articulation). However, the results were unsatisfactory, and the attempt was discontinued. The prompt used is shown below, with the action's name omitted.

All prompts used to map the initiatives:

01 “I am preparing a document to assess actions related to food and nutrition security carried out by companies. I would like to map all the actions mentioned in the document and present them with descriptions provided verbatim by the company in the document. The results should be tabulated, showing the page where they appear, the names of the initiatives (actions, projects, programs, campaigns, partnerships, certifications, seals, etc.), and descriptions of the activities. Additionally, include all actions that distribute food, water, and meals, increase farmers’ productivity and income, support the sustainability of territories and plantations, ensure access to food, guarantee people’s nutritional security, among others. All actions related to UN SDG 2 should be mapped”.

02 “You are a researcher from the University of São Paulo preparing a report to evaluate actions related to food and nutrition security carried out by companies in Brazil. The goal is to understand the types of philanthropic actions most commonly undertaken by the private sector. Include all actions that distribute food, water, and meals, increase farmers’ productivity and income, support the sustainability of territories and plantations, ensure access to food, guarantee people’s nutritional security, raise awareness about healthy eating, among others. All actions related to UN SDG 2 should be mapped. Tabulate all the actions mentioned in the document and present them with descriptions provided verbatim by the company in the document, the page where they appear, and the names of the initiatives. These initiatives should be classified in one column as projects, programs, campaigns, or multis-takeholder articulations. In another column, list the specific states where the action was carried out. In another column, indicate which items of SDG 2 the action literally relates to”.

03 “You are a researcher from the University of São Paulo preparing a report to evaluate actions related to food and nutrition security carried out by companies in Brazil. The goal is to understand the types of philanthropic actions most commonly undertaken by the private sector. Include all actions that distribute food, water, and meals, increase farmers’ productivity and income, support the sustainability of territories and plantations, ensure access to food, guarantee people’s nutritional security, raise awareness about healthy eating, among others. All actions related to UN SDG 2 should be mapped.

Present the results in a table format where each row is an action, and the columns are: action name; action classification as a project, program, campaign, or multistakeholder articulation; action description verbatim from the company in the document; page where the description appears; partner organizations in the action (if any); specific states where the action was carried out; and which SDG 2 items the action literally relates to”

04 “You are a researcher from the University of São Paulo preparing a report to evaluate actions related to food and nutrition security carried out by companies in Brazil. The goal is to understand the types of philanthropic actions most commonly undertaken by the private sector. Include all actions that distribute food, water, and meals, increase farmers’ productivity and income, support the sustainability of territories and plantations, ensure access to food, guarantee people’s nutritional security, raise awareness about healthy eating, recover native forest areas and water sources, among others. All actions related to UN SDG 2 should be mapped. Present the results in a table format where each row is an action, and the columns are: action name; action classification as a project, program, campaign, or multistakeholder articulation; action description verbatim from the company in the document; page where the description appears; partner organizations in the action (if any); specific locations where the action was carried out; and which SDG 2 items the action literally relates to”.

05 “You are a researcher from the University of São Paulo preparing a report to evaluate actions related to food and nutrition security carried out by companies in Brazil. Include all actions that distribute food, water, and meals, increase farmers’ productivity and income, support the sustainability of territories and plantations, ensure access to food, guarantee people’s nutritional security, raise awareness about healthy eating, recover native forest areas and water sources, among others. All actions related to UN SDG 2 should be mapped, whether they are significant or not. Present the results in a table format where each row is an action, and the columns are: action name; action description verbatim from the document; the page where the description appears”.

06 “You are a researcher from the University of São Paulo preparing a report to evaluate actions related to food and nutrition security carried out by companies in Brazil. Tabulate all actions that distribute food, water, and

meals, increase farmers' productivity and income, support the sustainability of territories and plantations, ensure access to food, guarantee people's nutritional security, raise awareness about healthy eating, recover native forest areas and water sources, among others. All actions related to UN SDG 2 should be mapped, whether they are significant or not. Present the results in a table format where each row is an action, and the columns are: action name; action description verbatim from the document; the page where the description appears".

07 "You are a researcher from the University of São Paulo preparing a report to evaluate actions related to food and nutrition security carried out by companies in Brazil. Tabulate all actions that distribute food, water, and meals, increase farmers' productivity and income, support the sustainability of territories and plantations, ensure access to food, guarantee people's nutritional and water security, raise awareness about healthy eating, recover native forest areas and water sources, among others. All actions related to UN SDG 2 should be mapped, whether they are significant or not. Present the results in a table format where each row is an action, and the columns are: action name; action description verbatim from the document; the page where the description appears."

08 "You are a researcher from the University of São Paulo preparing a report to evaluate actions related to food and nutrition security carried out by companies in Brazil. Tabulate all actions that distribute food, potable water, and meals, increase farmers' productivity and income, support the sustainability of territories and plantations, ensure access to food, guarantee people's nutritional security and basic sanitation, raise awareness about healthy eating, recover native forest areas and water sources, among others. All actions related to UN SDG 2 should be mapped, whether they are significant or not. Present the results in a table format where each row is an action, and the columns are: action name; action description verbatim from the document; the page where the description appears."

09 "You are a researcher preparing a report to evaluate all actions related to food and nutrition security carried out by companies in Brazil. Tabulate all actions (initiatives, projects, programs, campaigns, partnerships, activities, voluntary actions, actions related to UN SDG 2, certifications, etc.) related

to food and nutrition security, including access to potable water and basic sanitation and sustainable production. Present the results in a table format where each row is a unique action, and the columns are: action name; action description verbatim from the document; the page where the description appears. Note that the same action may be described in multiple paragraphs or items in the document.”

10 “You are a researcher from the University of São Paulo preparing a report to evaluate actions related to food and nutrition security carried out by companies in Brazil. Tabulate all actions that ensure access to basic sanitation, recover native forest areas and water sources, among others. All actions related to UN SDG 2 should be mapped, whether they are significant or not. Present the results in a table format where each row is an action, and the columns are: action name; action description verbatim from the document; the page where the description appears.”

11 “You are a researcher from the University of São Paulo preparing a report to evaluate actions related to food and nutrition security carried out by companies in Brazil. Tabulate all actions that distribute food, potable water, and meals, increase farmers’ productivity and income, support the sustainability of territories and plantations, ensure access to food, guarantee people’s nutritional security and basic sanitation, raise awareness about healthy eating, recover native forest areas and water sources, among others. All actions related to UN SDG 2 should be mapped, whether they are significant or not. Present the results in a table format where each row is an action, and the columns are: action name; action description verbatim from the document; the page where the description appears.”

12 “You are a researcher and are preparing a report to evaluate all actions related to food and nutrition security carried out exclusively by companies in Brazil. Tabulate all actions (initiatives, projects, programs, campaigns, partnerships, activities, voluntary actions, actions related to UN SDG 2, certifications, etc.) related to food and nutrition security, including access to potable water and basic sanitation, sustainable production, and increasing farmers’ income. Present the results in a table format where each row is a unique action, and the columns are: action name cited in the document; full description of the action written verbatim in the document; the page where

the description appears. Note that the same action may be described in multiple paragraphs or items in the document, and capture all available information about the action.”

13 “You are a researcher and are preparing a report to evaluate all actions related to food and nutrition security carried out exclusively by companies in Brazil. Tabulate all actions (initiatives, projects, programs, campaigns, partnerships, activities, voluntary actions, actions related to UN SDG 2, certifications, etc.) related to food and nutrition security, including access to potable water and basic sanitation, sustainable production, and increasing farmers’ income. Examples of actions: food collection, distribution of basic food baskets, training in bio-inputs, among others. Present the results in a table format where each row is a unique action, and the columns are: action name cited in the document; full description of the action written verbatim in the document; the page where the description appears. Note that the same action may be described in multiple paragraphs or items in the document, and capture all available information about the action.”

14 “You are a researcher and are preparing a report to evaluate all actions related to food and nutrition security carried out exclusively by companies in Brazil. Tabulate all actions (initiatives, projects, programs, campaigns, partnerships, activities, voluntary actions, actions related to UN SDG 2, certifications, seals, etc.) related to food and nutrition security. This includes access to potable water and basic sanitation, sustainable production, training of individuals, increasing farmers’ income, food collection and donation of basic food baskets, creation and application of bio-inputs, maintenance of biodiversity, food planting, knowledge exchange, fairs and congresses, among others. Present the results in a table format where each row is a unique action, and the columns are: action name cited in the document; full description of the action declared in the document; the page where the description appears. Note that the same action may be described in multiple paragraphs or items in the document, and capture all actions described in the document. Do not invent actions.”

15 “You are a researcher preparing a report to evaluate all actions related to food and nutrition security carried out by companies in Brazil. Follow these instructions in the order presented:

1. **Adhere to the following rules:**
 - a. Do not invent information;
 - b. Include all actions;
 - c. Do not summarize information; provide the exact description contained in the document;
 - d. Note that the same action may be described in multiple paragraphs or items.

 2. **Following the rules mentioned:**
 - a. Identify all actions carried out by the company. Actions may include initiatives, projects, programs, campaigns, partnerships, activities, voluntary actions, certifications, seals, etc.
 - b. Select actions related to the themes: food and nutrition security, access to potable water, basic sanitation, empowerment, sustainable production, training, SDG 2, hunger, food, organics, reuse, agriculture, farmers, rural producers, productivity, biodiversity, food production, increasing farmers' income, income, food collection and donation of basic food baskets, vouchers, bio-inputs, maintenance of the diversity of animals and plants, production, rural education, cooperativism, cooperatives, agriculture, livestock, seeds, food planting, knowledge production, knowledge dissemination.

 3. **Present the results in a table format** where each row is a unique action and the columns are: action name cited in the document; full description of the action declared in the document; the page where the description appears.”
-

16 “You are a researcher preparing a report to evaluate all actions related to food and nutrition security carried out by companies in Brazil. Follow these instructions in the order presented:

1. **Adhere to the following rules:**
 - a. Do not invent information;
 - b. Include all actions;
 - c. Do not summarize information; provide the exact description contained in the document;
 - d. Note that the same action may be described in multiple paragraphs or items.

2. **Tabulate all actions, initiatives, projects, programs, campaigns, partnerships, activities, voluntary actions related to UN SDGs 2.1 and 2.2 and food and nutrition security.** This includes access to potable water, collection and donation of food and basic food baskets, planting and creation of organic food gardens, awareness and training on food and nutrition, fairs, among others
3. **Present the results in a table format** where each row is a unique action and the columns are, respectively: name of the action cited in the document; full description of the action stated in the document; the page where the description appears.”

17 “You are a researcher preparing a report to evaluate all actions related to food and nutrition security carried out by companies in Brazil. Follow these instructions in the order presented:

1. **Adhere to the following rules:**
 - a. Do not invent information;
 - b. Include all actions;
 - c. Do not summarize information; provide the exact description contained in the document;
 - d. Note that the same action may be described in multiple paragraphs or items.
2. **Tabulate all actions, initiatives, projects, programs, campaigns, partnerships, activities, voluntary actions related to UN SDGs 2.3, 2.4, and 2.5 and food and nutrition security.** This includes training of individuals, increasing producers’ income, empowering vulnerable groups (e.g., women, Black individuals, Indigenous peoples, communities, rural families, etc.), sustainable production, resilient agricultural practices, fairs and conferences, biodiversity conservation, among others.
3. **Present the results in a table format where** each row is a unique action and the columns are, respectively: name of the action cited in the document; full description of the action stated in the document; the page where the description appears.”

18 “You are a researcher preparing a report to evaluate all actions related to food and nutrition security carried out by companies in Brazil. Follow these instructions in the order presented:

1. Adhere to the following rules:

- a. Do not invent information;
- b. Do not omit any actions;
- c. Do not summarize information;
- d. Provide the exact description contained in the document;
- e. Note that the same action may be described in multiple paragraphs or items.

2. Following the rules mentioned:

- a. Identify all actions carried out by the company. Actions may include initiatives, projects, programs, campaigns, partnerships, activities, training sessions, fairs, events, exhibitions, courses, voluntary actions, certifications, seals, among others.
- b. Select actions related to the themes: food and nutrition security, access to potable water, basic sanitation, empowerment of vulnerable groups, sustainable and resilient production, farmer training, SDG 2, hunger, food, organics, reuse, agriculture, farmers, peasants, rural producers, productivity, biodiversity, food production, increasing farmers’ income, income, food collection and donation of basic food baskets, vouchers, bio-inputs, biodiversity maintenance, production, rural education, cooperativism, cooperatives, agriculture, livestock, seeds, food planting, knowledge production, knowledge dissemination.

3. Present the results in a table format where each row is a unique action and the columns are, respectively: name of the action cited in the document; full description of the action stated in the document; the page where the description appears.”

19 “You are a researcher preparing a report to evaluate all actions related to food and nutrition security carried out by companies only in Brazil. Tabulate all actions, initiatives, projects, programs, campaigns, partnerships, activities, and voluntary actions related to UN SDGs 2.1 and 2.2 and food and nutrition security. This includes access to potable water, food collection and donation of basic baskets, planting and creation of organic food gar-

dens, awareness and training on food and nutrition, fairs and events, among others. Present the results in a table format where each row is a unique action, and the columns are, respectively: name of the action cited in the document; full description of the action written literally in the document; the page where the description appears. Note that the same action may be described in more than one paragraph or item in the document, and include all relevant information about the action.”

20 “What actions related to food donations, basic basket donations, hunger relief, and community garden production are described in the document? Present all results in a table format where each row is a unique action, and the columns are, respectively: name of the action cited in the document; full description of the action stated in the document; the page where the description appears.”

21 “What actions related to the donation of organic food, organic food production, nutrition, and awareness about healthy eating are described in the document? Present all results in a table format where each row is a unique action, and the columns are, respectively: name of the action cited in the document; full description of the action stated in the document; the page where the description appears.”

22 “What actions related to agricultural productivity and income of small-scale food producers (including women, Indigenous peoples, family farmers, pastoralists, and fishers) are described in the document? Present all results in a table format where each row is a unique action, and the columns are, respectively: name of the action cited in the document; full description of the action stated in the document; the page where the description appears.”

23 “What actions described in the document were carried out in Brazil and are related to SDG 2.4: ‘By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, help maintain ecosystems, strengthen capacity for adaptation to climate change, extreme weather conditions, droughts, floods, and other disasters, and progressively improve land and soil quality’? Present all results in a table format where each row is a unique action, and

the columns are, respectively: name of the action cited in the document; full description of the action stated in the document; the page where the description appears.”

24 “Register all actions, initiatives, projects, programs, campaigns, donations, collections, articulations, partnerships, activities, certifications, fairs, events, training, courses, seals, etc., described in the document. Present the results in a table format where each row is a unique action, and the columns are, respectively: name of the action cited in the document; full description of the action stated in the document; the page where the description appears.”

25 “What actions, initiatives, projects, programs, campaigns, donations, collections, articulations, partnerships, activities, certifications, seals, etc., are described in the document? Present the results in a table format where each row is a unique action, and the columns are, respectively: name of the action cited in the document; full description of the action stated in the document; the page where the description appears.”

26 “What ‘actions,’ ‘initiatives,’ ‘projects,’ ‘programs,’ ‘campaigns,’ ‘donations,’ ‘collections,’ ‘articulations,’ ‘partnerships,’ ‘activities,’ ‘certifications,’ ‘seals,’ etc., are described in the document? Present the results in a table format where each row is a unique action, and the columns are, respectively: name of the action cited in the document; full description of the action stated in the document; the page where the description appears.”

27 “Provide all excerpts about actions, initiatives, projects, programs, campaigns, donations, collections, articulations, partnerships, activities, certifications, seals, etc., described in the document. Present the results in a table format where each row is a unique action, and the columns are, respectively: name of the action cited in the document; full description of the action stated in the document; the page where the description appears.”

Step-by-step process used for utilizing Chat GPT:

- 01** Download the companies' reports and verify if they are fully accessible. If not, use IlovePDF to convert them via the "Unlock PDF" tool (pay attention to sections that remain inaccessible to GPT).
- 02** Input the prompt and the report into Chat GPT:
"Identify the actions, initiatives, projects, programs, campaigns, donations, collections, articulations, partnerships, activities, certifications, seals, etc., described in the document. Present the results in a table format where each row is a unique action, and the columns are, respectively: name of the action cited in the document; full description of the action declared in the document; the page where the description appears."
- 03** After Chat GPT responds, ask:
"Can you list more initiatives mentioned in the report?"
- 04** Name the chat as "company_year."
- 05** Search for the actions listed by Chat GPT in the corporate report and analyze whether they should be mapped. If they are relevant, map the actions using the descriptions provided in the documents.
- 06** Search the report for the following keywords (in both singular and plural forms): initiative; action; program; project; campaign; partnership; collection; donation; income; input; SDG; food; nutrition; basic basket.
- 07** Select the actions not mapped by Chat GPT and include them in the database.
- 08** Classify the actions.

Prompt for classifying initiatives

(tested but not implemented):

“Classify the action ‘x’ as a program, project, campaign, or multistakeholder articulation based on the following explanation:

Program: The initiative is a program, meaning it is an umbrella for various projects with the same theme and periodicity.

Project: The initiative is a project executed individually and with a specific focus.

Campaign: The initiative is a campaign, typically involving the collection of food, money, or awareness about healthy eating.

Multistakeholder articulation: The initiative creates a space for multistakeholder articulation, fostering engagement among different actors.”

DATABASE REVIEW

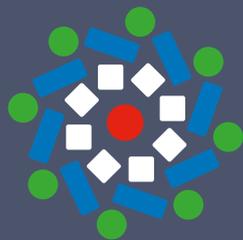
To review the classification of initiatives collected during the research, 30 rows from the database were randomly selected using an online randomizer. The sample included 10 cases financed or supported by each business sector (agribusiness, retail, and food and beverage). A researcher reviewed the classifications of the selected initiatives and identified 39 potential errors across 15 of the 30 analyzed actions, distributed randomly. Among the 23 variables with errors, only three were incorrectly classified in three cases each, while two variables had errors in four actions each. Following this analysis, the necessary cases were discussed and reclassified collaboratively with two other researchers.

Given the high error rate identified, the team decided to review the classifications of all 681 actions recorded in the database. For this, the two researchers responsible for collecting the actions from corporate reports and classifying them reviewed each other's work.

Next, 30 actions different from those previously analyzed were randomly selected and reviewed. In this second sample, eight specific errors were found in seven cases. Of these, only two were related to the same variable, confirming the randomness and low incidence of issues.

Following this step, the following were identified: 1) possible duplicate actions, verified through similar titles; and 2) actions executed or funded in partnership with mapped companies but not included in the partner company's reports. Twelve actions in partnership with mapped companies were found and duplicated in the database while maintaining the ID_ini, and one action was triplicated but executed by different companies, resulting in a unique ID_ini.

Based on these results, the review stage was completed. However, additional adjustments to the database were made during the report writing process, with no significant changes.



Fundação

**José Luiz
Setúbal**