



**RESIDENCY IN SCIENCE, TECHNOLOGY AND SOCIETY (CTS)**  
**HABITAT, AGROECOLOGY, SOLIDARITY ECONOMY AND ECO-SYSTEMIC**  
**HEALTH: INTEGRATING POSTGRADUATE AND EXTENSION**

**Andrade . Neder . Tostes . Wiesinieski . Aureliano . Pazos (Orgs.)**



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**HEALTH: INTEGRATING POSTGRADUATE AND EXTENSION**

Brasília, 2023

Liza Maria Souza de Andrade | Ricardo Toledo Neder  
Simone Parrela Tostes | Livia Barros Wiesinieski  
Ana Luiza Aureliano | Valmor Cerqueira Pazos (Orgs.)

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# PRESENTATION

This book aims to present the fundamentals and the basis of the multi professional course in CTS - Science, Technology, and Society in residency (Lato Sensu Graduation + Extension), characterized by a pedagogical practice and educational planning type PEX - research associated with teaching and integrated with extension. The proposal socially and territorially articulates three interdisciplinary themes: Habitat (Housing, Architecture, Urbanism, and Environment in the Countryside and the City); Agroecology (Food Sovereignty, Family Farm, Field, and City Integration); Health (Epidemiological Surveillance, Collective Health, Family Health, Sanitation, Ecosanitation, and Ecological Infrastructure) and a fourth transdisciplinary theme: Associated Work (Solidarity Economy, Training and Education, Occupation, Income, and Solidarity Technology).

The contents of the chapters were developed in the discipline of Special Studies in Technology, Environment, and Sustainability of the Graduate Program of the Faculty of Architecture and Urbanism of the University of Brasília (PPG-FAU/UnB), offered in 2021, integrated into the Extension Course Fundamentals in Science Technology and Society (CTS) - Habitat, Agroecology, Solidarity Economics, and Ecosystem Health, a partnership of the Science Policy Center, Technology and Society (NPCTS/CEAM/UnB) and professors of the Faculty of Architecture and Urbanism (PPG-FAU), the Faculty of Planaltina (FUP), the Faculty of Agriculture and Veterinary Medicine (FAV) and CDS/UnB, the Collective Health course of the Faculty of Ceilândia (FCE), the Faculty of Education (FE) and the Institute of Humanities (IH).

Thus, the process of construction of the Multiprofessional Residency CTS was initiated to form a transdisciplinary epistemological base in Solidarity Technoscience, inserting the University Extension in graduation studies, integrating 15 master's and doctoral students to more than 50 people from social movements, collectives, professional entities, government technicians, researchers and professors from other institutions as well as undergraduate students. The students were organized into working groups in the online meetings by the Teams platform, through which the following themes were discussed: i) solidarity technology, sociotechnical adequacy, and solidarity economy; ii) Freirean education and work; iii) territorial connections, social struggles and networks of solidarity; iv) sociotechnical adequacy for habitat production: spatial patterns in the field and the city; v) sociotechnical adequacy for agroecology and urban agriculture; and vi) ecosystem

health, sanitation, and governance, which make up the contents of the chapters of this book.

In the introductory chapter, it is detailed how the methodological process of structuring the course took place, divided into two parts: 1) theoretical-methodological foundations based on Solidarity Technoscience, forms of Technical Assistance, and the University Extension; and 2) political-pedagogical proposal of the course, including the themes, the territories surrounding the Distrito Federal that will be worked on the course, the curriculum matrix and the general functioning. Then Finally, the expected results and the developments already in progress are discussed.

The essence of the Residency consists in uniting Graduation And Extension in a trans-multi-interdisciplinary character with the vision of university public policy (opposite that of private or official philanthropy) offering vacancies for 35 trans-multi-disciplinary technical agents (managers, urban architects, lawyers, economists, sociologists, social workers, technicians, and engineers, community health agents), of which 28 will receive scholarships, and 14 territorial agents (2 agents from each of the 7 territories of the Distrito Federal and surrounding areas) able to act as multipliers of community initiatives, to provide sociotechnical advice to local entities and to articulate resources, people, entities, tools, and territorial tactics in seven territories surrounding the Distrito Federal in favor of the protagonism of subjects and groups in their daily territories.

The Lato Ssensu Course and the Multiprofessional Residency Extension Program CTS – Habitat, Agroecology, Ecosystem Health, and Solidarity Health (linked to PPG-FAU/UnB and the Extension Decanery – DEX/UnB) are being sponsored by the 2021 ATHIS Notice of the Council of Architecture and Urbanism of Brazil (CAU/BR<sup>1</sup>) and with the parliamentary amendment of Mrs. Erika Kokay, directed to the payment of scholarships.

It also has the support of research and extensionist practices carried out by the Research and Peripheral Extension Group, emerging works within the matter of the project “Habitat production in the territory of DF and surroundings: urban and rural ecosystems and sociotechnical advice”, coordinated by Professor Liza Andrade, with drone images produced by engineer Valmor Pazos Filho, as well as with project “Digital Platform Cooperativism (prototype for seven territories of the Distrito Federal), mapping of actors, agencies and sociotechnical adequacy in rural and urban territories of production of the popular circuits of the economy – a CTS approach”, coordinated by Professor Ricardo Neder. Both projects are funded by the Distrito Federal Research Support Fund (FAP-DF).

Support was received from research and experiences of the Agroecology Center of

UnB, coordinated by Professor Flaviane Canavesi, of the Ecoplanetary project, coordinated by Professor Aldira Dominguez, and the Life and Water project in ARIS, coordinated by Professor Perci Coelho.

The list of modules below has the respective module: professors-coordinators and doctoral tutors of ppg/FAU/UnB of the Fundamentals extension course in science, technology and society (CTS) – Habitat, Agroecology, Solidarity Economy and Ecosystem Health.

**-Solidarity technology, sociotechnical adequacy and solidarity economy** - Professor Dr. Ricardo Toledo Neder - FUP/UnB; Tutor - Lívia Cristina Barros da Silva Wiesinieski;

**-Freirean education and work** - Professor Dr. Raquel de Almeida Moraes - FE/UnB; Tutor - Ana Luiza Aureliano Silva;

**-Territorial connections, social struggles and solidarity networks** - Professor Dr. Perci Coelho de Souza - IH/UnB; Tutor - Letícia Miguel Teixeira;

**-Sociotechnical adequacy for habitat production: spatial patterns in the countryside and in the city** - Professor Dr. Liza Maria Souza de Andrade - FAU/UnB; Tutor - Juliette Anna Fanny Lenoir;

**-Sociotechnical adequacy for agroecology and urban agriculture** - Professor Dr. Flaviane Canavesi - FAV/UnB; Tutor - Natalia da Silva Lemos;

**-Ecosystem health, sanitation and governance** - Professor Dr. Aldira Guimarães Duarte Dominguez - FCE/UnB; Tutor - Diogo Isao Santos Sakai; and

**-Technical Support** - Valmor Cerqueira Pazos - FAU/UnB - master's account FE/UnB.

<sup>1</sup><https://www.caubr.gov.br/athis-edital/>

The course has the partnership of the Nucleation of Residency AU+E UFBA/UnB, the BrCidades Network, the Housing-Advisory Network, the MST, MTST, Fiocruz, Oca do Sol and the following associations in the territories:

- Association of Powerful Women of Santa Luzia - Estrutural City/DF;
- Association of Residents of Santa Luzia - Estrutural City/ DF;
- Association of Residents, Fighters and Supporters of Dorothy Stang Residential - ARIS Dorothy Stang - Sobradinho / DF;
- Nature House in the Sol Nacente- ARIS Sol Nascente - Ceilândia/DF;
- ASPRAFES - Association of Farmers and Farmers FA - Small Rural Settlement William - MST - Planaltina/DF;
- APRACOA - Association of Rural and Artisanal Producers of The Oziel III Settlement - Pipiripau - Planaltina/DF;
- COOPERCARAJÁS - Carajás Agroecological Production and Marketing Cooperative - Brasília/DF;
- Quilombo Mesquita Renovating Association - Quilombo Mesquita - Western City/GO;
- Preserves Serrinha - REDE Association of Preservation and Sustainable Development of Serrinha do Paranoá - Paranoá/ DF; and
- National Coordination of MTST (working in Nova Planaltina - DF) and Coletivo Negro Raiz

## SUMMARY

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# Sociotechnical Adequacy and Solidary Economy



Chapter 01

Authors:

Ricardo Toledo Neder | Lívia Cristina Barros da Silva Wiesinieksi | Emilene Eustachio  
lasmin de Sousa Jaime | Simone Parrela Tostes | Rafael Reis

# SOCIOTECHNICAL ADEQUACY AND SOLIDARY ECONOMY

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**SUMMARY:** This chapter aims to reflect on the solidarity economy from the theoretical fundamentals and the history of public policies aimed at the promotion and inclusion of informal workers. This group of workers had their socioeconomic context affected by the covid-19 pandemic and by the lack of support and efficient public policies of the Federal Government. This chapter is organized as follows: Introduction; section 1 presents a comprehensive picture of public policy for the solidarity economy in Brazil (period 2004-2016), and section 2 presents the picture of the movement for solidarity economy in Brazil (1990-2017). Section 3, called "Analytical vision on the relations between solidarity technoscience and solidarity economy: structuring issues", presents a proposal for analytical consolidation of understanding of how solidarity economy operates in relation to the methodology of research-extension and teaching for sociotechnical adequacy in the context of the popular economy in Brazil and its subordination relations to the State and the formal sector of capitalist companies. Section 4 presents a glossary of practical terms and concepts, useful for teaching and learning in the CTS Residence. In the end, there are two bibliographic sections, one of the references used in this work, and the other, entitled "Small library of self-management, solidarity economy, and solidarity technoscience".

## SOLIDARITY TECHNOLOGY: FOR WHOM AND FOR WHAT?

Ricardo T. Neder

Nothing is so simple and linear when it comes to the production of knowledge in the face of the cultural and anthropological, linguistic, political, and economic-sociological heterogeneity of Latin America. Given that science and technology are already associated with the technoscience of capitalist corporations, we are faced with a finding and provocation by invoking the solidarity dimension of technoscience for our Latin American countries.

This finding requires an interpretation of the area of studies and research gathered in a vast specialized literature that goes by the name of “socio-constructivist” view of science and technology in contemporary societies (Western and Eastern)<sup>7</sup>. It opposes the interpretation model of science(s) and technology(s) as phenomena enclosed in centers of economic power, and its laboratories, research centers, universities and other places where there is a predominance of graduated staff, masters, and doctors who act as ideologues in the act through the mastery of technique.

In its place, in the last 40 years, another view has thrived about the way of doing scientific-technological as a result of complex processes that cross the societies from start to finish uniting reason (of the scientific and technological areas) and experiences<sup>7</sup> under pressure from societal and humanistic, ecological and social and cultural sustainability demands.

Known as The Social Studies of Science and Technology (ESCT), this vision was fundamental to uncover unusual or unsuspected relationships between scientific production, scientists and technologists, and the veiled interests that permeate their daily practices in society. We, therefore, need a critical theory of technology capable of putting into motion another democratic rationalization<sup>8</sup>.

Provocation, on the other hand, because talking about solidarity technoscience is to seek to overcome its company corporate character as a set of sciences and technologies committed exclusively to the new forms of profit extraction from nature and societies.

The notion of solidarity technoscience – developed by the Latin American researcher Renato Dagnino<sup>9</sup> – is used here as one of the theoretical foundations of the research and extension project in graduation studies called Residency CTS – habitat, agroecology, work and ecosystem health. Solidarity technoscience is formally defined as the cognitive result of the action of a collective of producers who act on their work process.

A key point is that by acting like this, this collective is seeking to change the unfavorable socioeconomic context that surrounds it. The main (but not the only) unfavorable condition is that this collective seeks access to the factors of production (material inputs, credit, machinery and equipment, knowledge of markets, promotion, etc.).

The collective also presents a desire to form a social agreement that legitimizes its collaboration partnership or cooperativism. By gradually performing the above conditions, it alters the productive environment that surrounds it; it is guided by two vectors: voluntary and participatory cooperation, and by the conditions of self-management control (of those who do what, for how long, earning x or y).

The sum of these two vectors causes the change in the generated product “which the material gain can be (thus) appropriate according to the decision of the collective (solidarity enterprise)”<sup>10</sup>. This is an intellectual provocation by thousands of researchers in Latin America to support cognitive solutions specific to our societies; solutions that are expressed through the technoscientific base, capable of enabling social policies for large-proportion socio-productive inclusion.

This is a movement for scientific and technological policy in Latin America based on the formulation of CTS studies involving the notion of solidarity technoscience. The results will be important to promote transdisciplinary methodological connections in the matter of technical advice of the future multi-professional residence, in the process of construction.

<sup>7</sup>See, by the way, FEENBERG, Andrew (2009) *Between reason and experience – Essays on technology and modernity*. Preface Brian Wayne - Postscript Michel Callon - Translation, essays and additional notes Eduardo Beira with Cristiano Cruz and Ricardo Neder. Lisbon: inovatec / MIT-Portugal. (363 p.m.).

<sup>8</sup>See, by the way, NEDER, R. T. (org) [2013] – *Andrew Feenberg’s Critical Theory. Democratic rationalization, power and technology*. Brasília. OBMTS/CAPES.

<sup>9</sup>DAGNINO, Renato. (2019) *Solidarity Technology – a strategic manual*. Marília/SP: Ed. Lutas Anticapital.

<sup>10</sup>P. cit. DAGNINO, 2019, p. 18.



## INTRODUCTION

### The popular sectors of the economy under capitalism in Brazil



Figure 2 – Man with work permit certificate card in hand. Source: Citizenship Action (2021).

Everyone shares a certain critical perception, even intuitive, about the fact that we have in Brazil large contingents of the working classes (about 80 to 90 million people, valid by the data on those who were forced to resort to aid during part of the pandemic, from 2020 to 2021) without being able to be hired (with a signed License to Work or not) by the typically capitalist segments of the economy or by the public sector.

Many, in common sense, realize this fact, but do not understand this scenario; how can an economy, so-called capitalist, work with large companies and mega organizations, with a well-structured state, subsist with such chronic economic and social inequality that affects the lives of millions of people of working age through denial of decent work over

most of their lives?

When it comes to sociotechnical projects and programs that work towards these popular segments of the economy, we deal with groups, individuals, organizations and entities that live in the midst of these structural uncertainties.

By relating to these segments in interdisciplinary partnership with colleagues from various areas – Architecture and Urbanism, Popular Technological Education, Agroecology, Natural Sciences, Environmental Management and Public Policy Management of Science and Technology, health, housing, sanitation, food, education among others – there is no way to leave the issue of occupational structure, employment and wage regime aside. The two dimensions (that of interdisciplinary projects and that of the structure of unemployment) end up articulating.

Therefore, it is necessary to identify how it is possible to articulate their demands for employment, occupation and income solutions that fall on the university and public administration, often under hostility from the private business sector.

To understand the above paradox, it is a question of overcoming misunderstandings of common sense and resistance to overcome mistrust of the private sector (and public managers that would use the purchasing power of the State only with companies in the formal sector).

It is essential to insist on the fact that social and solidarity enterprises (EES) are incubation environments for future cooperatives and associations that can enrich the economic fabric as a whole.

Actions on microcredit, sociotechnical assistance, technological, legal, commercial and economic advice, as well as experiences of community creation of Revolving Solidarity Funds, involve strong schemes of popular self-financing, donations and promotion of public entities as well as appropriations of public funds.

Who are we talking about? Following, in Chart 3, we present a classification of the profile of the workforce in Brazil that is in the condition of members of the popular sectors of the economy.

**TABLE 3 - Profiles of The Busy and Underoccupied People's Economy in Brazil**

1. Typical groups of self-employed segments	<p>1.1. <b>Self-employed workers</b> - Correspond to indirect economic production units by self-employed without establishment, and with diverse experience of qualification and schooling (autonomous street vendors, service providers in 480 popular occupations; (a substantial part is something around 70%) of this segment are not individual microentrepreneurs (MEI)<sup>11</sup>.</p> <p>1.2. <b>Self-employed and micro-enterprises subordinated to medium and large enterprises</b> – They correspond to formal or informal production units with workers with or without employment contracts in micro or small enterprises with strong dependency ties to medium and large industrial, commercial, and service enterprises (“outsourced” and subcontracted). According to the research, Brazil had 51.7 million employees in 2015, of which 9.8 million were outsourced. Before the outsourcing law was approved and sanctioned in 2016, what was worth in Brazil was the jurisprudence of the TSE (Superior Labor Court), which prohibited outsourcing the end-activity of the company (a bank, for example, could not outsource the attendants of the cashier. Now, this has become legalized practice. The new legislation allows unrestricted outsourcing. The regions with the highest incidence of this type of labor relationship were the Northeast and North, with 22.7% and 22.4%, respectively. The south of the country was the region with the lowest number of outsourced, proportionally: 16%<sup>12</sup>.</p> <p>1.3. <b>Self-employed, professionals with autonomy and “liberal” professionals</b> - Formal/ Informal production units with self-employed with and without establishment, benefited from legislation as “self-employed professionals” (in general all regulated professionals in the field of health care and medicine, engineering, advocacy, specialized technical services; autonomous work is all activities performed by professionals in a said manner “liberal”), but provides services to companies or people for a specific time, without employment. They are benefited from tax cases and the ease of getting jobs in the digital market. It is a segment regulated by the Internal Revenue Service in Brazil. Workers who are under the previous modalities, are officially classified as MEI – individual micro-entrepreneurs with CNPJ (Brazilian National Registry of Legal Entities). The micro-entrepreneur can only be a legal entity. Must have a maximum of nine employees (trade and services) or 19 employees (industry and construction); the income of the micro-entrepreneur should be limited to R\$ 240,000.00 annually; tax system: he must pay IRPJ, ICMS, COFINS, PIS, CSLL, IPI, etc. and other taxes related to his activities, the declaration of his income and commitments to social security (his and the employees); can pay much of these taxes in a simplified way opting for the National Simple.<sup>13</sup></p>
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2. Groups linked to units of family producers	<p><b>2.1 Units with family workers giving assistance in care</b> - formal productive activities organized by individual workers under cooperative family work directed to the production of their own consumption for the reproduction of the labor force (wife, husband, children, households treated in the official IBGE data as auxiliary family workers, “those people who work in aid of a resident of the household or the relative, without receiving payment” cf.<sup>14</sup>.</p> <p><b>2.2. Worker/Domestic</b> – are basic family economic units that employ workers with or without a contract to provide domestic services. It is data contained by all statistics that this is a segment in which the historical permanence of domestic work is associated with female and black employment. This data is illustrated by the indicators of gender and race participation in the category. In 2018, there were 6.23 million people employed in the country, according to data from PNAD<sup>15</sup>. Of this total, only 457,000 were men and 5.77 million were women, that is, women corresponded to 92.7% of the category. Of the total number of workers, 3.75 million were black and 2.018 million were non-black. Black women, therefore, represented 65.0% of the number of domestic women in the country<sup>16</sup>.</p>
3. Groups with relative autonomy of competition between capitalist enterprises	<p><b>3.1. Production Niche</b> – Formal/informal units with workers with or without establishments linked to market circuits through production units in economic spaces not exploited by the large company, and with a relative degree of independence of competition between capitalist companies, although it is converted by them into a source of profits after proven their viability of production at a great proportion (craft breweries, organic food production, information, and communication technology micro-enterprises).</p> <p><b>3.2. New activities enhanced with evolution 4.0.</b> – Part of a cluster of new activities called “creative economy”, which already existed before the microelectronics revolution 4.0 involving Architecture, Visual Arts, Cinema, Television, Advertising, and other media; Design, Games, Publishing, Music, Fashion, Communication. With the microelectronics revolution, this segment becomes a large breeding barn for workers in general<sup>17</sup>.</p>

**Table 3 – Profiles of The Busy and Underoccupied People's Economy in Brazil.** Source: Systematized by the team.

<sup>11</sup>Available in: <https://www.sebrae.com.br/sites/PortalSebrae/ufs/ac/artigos/atividades-que-o-meipode-exercer,eea753fa67b2d610VgnVCM1000004c00210aRCD>. Access: 1st Dec. 2021.

<sup>12</sup>Aspects of labor relations and unionization / IBGE, Coordination of Work and Income. - Rio de Janeiro : IBGE, 2017. Available in: <https://biblioteca.ibge.gov.br/visualizacao/livros/liv100322.pdf>. Access: 1st Dec. 2021.

<sup>13</sup>Available in: <https://www.contabilizei.com.br/contabilidade-online/trabalho-autonomo/>. Access: 04 Dec. 2021.

<sup>14</sup>Available in: <https://agenciadenoticias.ibge.gov.br/agencia-noticias/2012-agencia-de-noticias/noticias/25066-pesquisa-revela-retrato-inedito-do-mercado-de-trabalho-do-interior-do-pais>. Access: 2 Dec. 2021.

<sup>15</sup>Available in: <https://www.ibge.gov.br/estatisticas/multidominio/condicoes-de-vida-desigualdade-e-pobreza/17270-pnad-continua.html?=&t=series-historicas>. Access: 04 Dec. 2021.

<sup>16</sup>Available in: <https://www.dieese.org.br/estudosepesquisas/2020/estPesq96covidTrabalhoDomestico.pdf>. Access: 04 Dec. 2021.

<sup>17</sup>Available in [https://www.sebrae.com.br/sites/PortalSebrae/segmentos/economia\\_criativa/como-o-sebrae-atua-no-segmento-de-economia-criativa,47e0523726a3c510VgnVCM1000004c00210aRCD](https://www.sebrae.com.br/sites/PortalSebrae/segmentos/economia_criativa/como-o-sebrae-atua-no-segmento-de-economia-criativa,47e0523726a3c510VgnVCM1000004c00210aRCD) and [https://unctad.org/system/files/official-document/ditctab20103\\_pt.pdf](https://unctad.org/system/files/official-document/ditctab20103_pt.pdf). Accessed: 05 Dec. 2021.

From the point of view of the territorial situation, which interests us here more immediately, there are big differences between the popular segments of the economy, if we consider the countryside or the metropolitan regions.

Let's consider the notion of the labor force in the formality (which means having an employment contract, or temporary contracting regime governed by labor laws) and in the informality (without any benefits) used by the Brazilian Institute of Geography and Statistics (IBGE).

Of the universe of people who work in informality, 62.4% are in the countryside, that is, 20.8 million workers without a signed license (private sector employees and domestic workers), without CNPJ and without contribution to official pension (employers and self-employed) or without remuneration (give assistance in family work).

In Brazil, 36% of the employed population is in one of these informal conditions. Informality in the countryside is more present than in metropolitan regions; this just does not happen in the states of São Paulo and Santa Catarina. As for the proportion of this population, the country has 13 states with at least half of its inland workers in informal conditions.

All these locations are in the North and Northeast, and the countryside of Amazonas has the highest percentage, with 71.7% of informal work. The countryside of Santa Catarina has the lowest rate, with 19.4% of its employees in informality.

The Amazonas is also the state with the largest difference of indirect workers in the comparison between countryside and metropolitan regions, followed by Sergipe, Ceará, Piauí, Bahia, and Paraíba.

In addition to unemployment and informality in the countryside, the microdata of Continuous PNAD shows the average income of these sites in the first quarter of 2021. According to the survey, the monthly income of those employed in the countryside is less than half that was received by workers in the capitals of eight states. The average of the country is R\$ 2,291.

In Espírito Santo, for example, while a worker from the countryside received R\$ 1,725, one of the capital earned R\$ 4,653, and the largest difference found, was RS 2,928. Rondônia had the smallest difference, of R\$ 514, where the average income of the countryside was R\$ 1,736, against R\$ 2,250 in Porto Velho.

The lowest monthly gains were concentrated in the countryside of the North and Northeast regions, being the lowest in the Amazonas, with an average income of R\$ 1,016. The countryside regions with the highest yields are in the states of São Paulo, Santa Catarina, Paraná, Rio Grande do Sul, Mato Grosso and Mato Grosso do Sul, all above R\$ 2,000.

The Brazilian State has historically acted against the possibility of autonomous organizations emerging in low-income communities, especially in the countryside regions, in order to achieve the resolution of their economic exchanges as part of community relations.

This resistance must be quickly situated in order to understand what this has to do with the composition of the labor force in so-called market economic relations between capitalist agents and non-formal or pre-capitalist sectors in Brazilian social formation.

We know from the records of economic history that the arising of the classes holding the factors of production in capitalism since the end of the eighteenth century gave way to the protagonists of fundamental conflicts (between capitalists, and between them and the modern working classes) that to this day persist in several countries of the hegemonic center and the semiperipheries and peripheries in the Americas.

During the formation of the capitalist "system-world" (Wallerstein et al., 1997/1998), the emerging economic sectors of the bourgeois market and industrial classes fought among themselves for state control to ensure better advantages in economic relations with foreign markets (access to commodity markets, labor, foreign exchange, customs advantages, exemptions, tolerance for the exploitation of the slave labor force in the past and low-income or casual workers today).

They simultaneously began to engage in relations with the popular struggles of peasants and workers. In Brazil, this picture, although chronologically more recent than what occurred in the capitalist center, is very similar.

Both there and here, however, there is the same process of formation of the center-periphery relations between sectors and economic groups in the country, holders of access to the richest markets (external, in general, as opposed to the internal market).

In Brazil, since the 1930s, there have been important achievements of public legislation on the protection and regulation of hours worked, salaries, absence leave, and prohibition of the work of children and adolescents. They have obtained thanks to the constant pressures of organizations of the urban and rural working classes in the sectors, these rights have been consolidated in a contradictory way – first, in the richest segments of the economic system.

As shown by the data above IBGE (and historically concentrated from the conservative modernization of the post-1964 and decades of expansion of urbanization without urban reforms between the years 1970-2000), a considerable part of the contingents workers with contractual labor relations concentrated in regions close to the municipalities of the capitals (metropolitan areas).



Although the countryside workers of the economy are very distant from the labor relations formalized by the legislation, they present an advantage which is the fact that they are still very close to the community and family relations of the (self)organization regulated by the principles of relations of exchange and reciprocity of the popular sectors of the economy.

It has acquired strength among theorists and political actors in the last three decades in Brazil the view that it is possible to identify networks of cooperation and organization in civil associations, either as planned resistance or as spontaneous social protection to improve the life quality of the poor populations.

These processes occur both in metropolitan and inland regions (the majority, in the meantime, because, roughly, of the 5,800 Brazilian municipalities, 91% are inland, and only 8% are metropolitan).

A recent survey covering the period 2018-2022 in 22 metropolitan regions (Manaus, Belém, Macapá, Grande São Luís, Fortaleza, Natal, João Pessoa, Recife, Maceió, Aracaju, Salvador, Belo Horizonte, Grande Vitória, Rio de Janeiro, São Paulo, Curitiba, Florianópolis, Porto Alegre, Cuiabá River Valley, and Goiânia; in addition to the Distrito Federal and the Integrated Administrative Region of Development of Grande Teresina), used, among other measures, the Gini coefficient (measures the degree of income distribution among individuals in a population, ranging from zero to one).

The study was based only on measuring income inequality at work, whether formal or informal, captured three stratifications of social inequalities: the poorest 40%, the richest 10%, and 50% that are considered intermediate levels.

According to the study, the poorest 40% lost 32.1% of their income, the 50% intermediate lost 5.6%, and the richest 10% lost 3.2%. All metropolitan regions recorded a loss of income for the poorest stratum, with the highest losses in Salvador (-57.4%), João Pessoa (-50.6%), and Rio de Janeiro (-47.6%). The smallest were recorded in Natal (-8.6%), Curitiba (-9.8%), and Florianópolis (-14.4%). The metropolitan region of Porto Alegre, compared to the other regions of the country, is at the intermediate level<sup>8</sup>.

Since the 1990s, social and popular movements, under pressure against the forms of immobilism, now repression of state actors, began to support the communities to organize themselves. This promotion was decisive for them to develop in social and economic terms (CUNHA, 2012).

Studies on the theoretical and historical scenario in which cases of state

intervention are included in partnership with organized sectors of civil society reveal that it is essential to stimulate the collective organization of the poorest and least organized portions of the population, in order to promote its development.

Among these popular segments of the economy, the exchanges are not only economic and go beyond this economic connotation of the employer-employee labor relationship. In general, they are permeated with economic subjectivity because they involve reciprocity (gender, neighborhood, age, experiences, types of commerce, and services based on family relationships) and build up almost an extension of the family, collectively.

These exchanges require different forms of sociotechnical assistance to overcome the barriers and the big personal, family, collective and community sacrifices that the popular segments of the economy face. In their struggle to self-organize, these segments (most of the working classes in the countryside and in the cities) do not have access to the credit and technical promotion that the typically capitalist private sector exclusively dominates.

In order to make an exercise on how to overcome these obstacles of sociotechnical advice (in different chains of goods and services maintained by labor and work of approximately 100 million men and women who make up the popular circuits of the economy), we start from the following assumption: to achieve a high proportion (quantitative) and (geographical) coverage of the size of this IAP (working age population or from 14 to 68 years), we must break the limits and possibilities of a public policy to stimulate cooperativism.

The cooperativism applied to various segments and fractions of the working classes in the popular circuits of the economy (here understood as the positive face of the definition by the exclusion of the informal or non-formal type) is a strategy for the development of sociotechnical advice.

It is based on two main approaches: on the one hand, there is the field of welfare entities that act through incentives to the participation of citizens and their organization with the support of private associations in the field of religious or secular social assistance; since the 1990s, this segment has been renovated by the attempt to professionalize the staff involved in the management of these resources. It is also called new assistance of the foundations and business institutes, in which operates a type of promotion technically identified with standards, results, measures, and indicators of effectiveness and efficacy is known as "third sector methodology" (the main interlocutor of this segment is constituted by an association called GIFE - Group of Foundations and Companies Institutes, which brings

<sup>8</sup>Available in: <https://www.brasilefato.com.br/2020/10/24/desigualdade-nas-regioes-metropolitanas-do-pais-cresce-durante-a-pandemia>. Accessed: 20 Jan. 2022.

together social investors with private corporate funds from Brazil, institutes, foundations or companies).

The new assistance is structured around non-profit organizations fueled by private social investment. This profile contrasts with the welfare entities of the religious and secular fields in the country, identified with subsistence practices and help for charity. Both feed the view that the problem of poverty must be the subject of actions to relieve people of the effects of structural situations of extreme poverty and poverty (absolute or relative), but without leading to a transformation or total overcoming of the conditions from which extreme poverty and poverty arise.

From the 1990s/2000s, in opposition to the dialogical representation between the new and the old assistance, sociopolitical construction in the field of public policies directed to the "solidarity economy" has emerged, in which the collective experiences of an economic organization have come to represent a horizon of possibilities for groups and collectivities of people to associate in order to produce and reproduce livelihoods according to relations of reciprocity, equality, and democracy (CUNHA, 2012).

Lechat (2002) addresses the origins of the solidarity economy; according to academic research, its roots can be traced back to the 19th century, in the process of reaction of workers to successive capitalist crises (economic disputes between large sectors protected by respective European national states throughout the nineteenth century).

Three moments marked this story: the post-Independence phase of 1822, when there were changes in the process of regulating work, in which the protective mantle of craft and arts corporations (community corporations also within an international scope) that maintained control of the most qualified segments of artisans and masters of crafts to the determinations on employment, was completely broken, occupations, qualifications regulated as a corporate power of producers and their workers.

In the 19th century, it is worth remembering, this corporate-community power based on the pact between producers and workers was undermined by the imposition of a competitive pattern. Workers reacted and created a mutual relief society, food counters and production cooperatives.

On the other hand, a second moment stands out from 1873 to 1895, due to the modernization crisis and investments in agriculture and natural resources. Agricultural cooperatives, savings cooperatives, associations, etc. arise. After The Second World War, so-called "Keynesian" recovery proposals were presented, in which the formulation of development policies for generation was employment and increased economic productivity through state intervention; hence, on the other hand, consumer and housing cooperatives

emerged.

It is worth noticing that in the European scenario, the regulated existence of a sector of the economy generally formed by cooperatives and non-profit associations called "economie sociale" (France/Belgium/Netherlands, Italy) is still common in several countries; Gemmenich Oekonomie, or Community economy (Germany); or social economy/economia social (England, Spain, Portugal, Greece).

These sectors were institutionally created and fostered under the umbrella of the so-called Welfare State from the post-World War II period until the advent of neoliberalism in 1983. The Brazilian experiences of strengthening policies to promote and cover popular segments of the economy have their own characteristic brands that cannot be compared with those of Western Europe and the United States of America. That's what the following sessions seek to reveal.

## SCENARIO OF PUBLIC POLICY FOR SOLIDARY ECONOMY IN BRAZIL (2004-2016)

The first government public policy in support of the solidarity economy emerged in Porto Alegre/RS, in 1994, during the government of Olívio Dutra, who was also a pioneer in the implementation of a state policy in the Government of the State of Rio Grande do Sul, in 1999.

This model was the reference base as a historical experience that served as a reference in the implementation of similar policies by other PT rulers before becoming a national public policy under Lula (BITELMAN, 2008).

Through solidarity economy programs, the government began to support the unemployed to set up their own small businesses or cooperatives, so then, gradually, they could gain autonomy through their self-employment, and become independent of minimum income programs, work fronts and other similar social assistance initiatives (SINGER, 2002; PITAGUARI et al., 2012, p. 45).

In the context of the 1990s and the 2000s, public policies focused on the meaning described above were sought with the caveat that the formulation of a new framework of relations between traditional civil social assistance entities and, on the other hand, union and social movements were sought for a revision of the General Law of Cooperativism (CUNHA, 2012, p. 368).

Throughout the decade 2003 to 2013, we saw the clash of these two major

currents mentioned above, traditional civil social assistance entities that did not aim at the socioproductive inclusion of the unemployed, and the trade union and social movement identified with the public promotion for the expansion of social cooperatives in the country, aimed at productive inclusion.

It is worth reminding that the constitution of the field of public policy of solidarity economy (mentioned below only as PPECOSOL) had a remarkable moment that was the first manifestation of the social and trade union movement for the creation of a National Secretariat of Solidarity Economy by the then candidate of the left-wing in Brazil, Luiz Inácio Lula da Silva<sup>19</sup>.

The document was prepared as an open letter signed by 12 national entities and networks that, at different times and levels, participated in the Brazilian Entities groups: Brazilian Network of Solidarity Socioeconomy (RBSES); Alternative Policy Institute for the Southern Cone (PACS); Federation of Organs for Social and Educational Assistance (FASE); National Association of Self-Management Business Workers (ANTEAG); Brazilian Institute of Socioeconomic Analysis (IBASE); Brazilian Caritas (charity); Landless Workers Movement (MST/CONCRAB); University Network of Technological Incubators of Popular Cooperatives (ITCPs Network); Solidarity Development Agency (ADS/CUT); UNIWORK; Brazilian Association of Micro-Credit Institutions (ABICRED); and some public managers who in the future constituted the Network of Managers of Public Policies of Solidarity Economy (FBES, 2022).

At the end of 2002, resulting from the electoral process that culminated in Lula's victory, the Brazilian WG prepared the Letter to the Lula Government entitled "Solidarity Economy as a Political Development Strategy".

That document of dialogue with the future government presented the general guidelines of the solidarity economy and called for the creation of the National Secretariat of Solidarity Economy (SENAES). The preparation and approval of the letter took place during the 1st Brazilian Plenary of Solidarity Economy, held in São Paulo, on December 9 and 10, 2002, with more than 200 people.

In 2003, SENAES was created by Law No. 10,683 of May 28, 2003, and by Decree No. 4,764, June 24, 2003. The National Council of Solidarity Economy (CNES) was established as an advisory and propositional body between society and the government. Paul Singer was

<sup>19</sup>The set of entities and institutions that signed the document expresses a coalition between these two major sectors: social and union movements joined the segments of religious assistance (Catholic Church, predominantly). These were the forces recognized as Brazilian GT. Three articulators stood out in this process: Ademar Bertucci (national advisor of Caritas Brasileira); Dione Manetti (then director of solidarity economy in the government of Rio Grande do Sul); and Sonia Kruppa (then coordinator of the ITCPs Network) (CUNHA, 2012, p. 191).

the first holder of the CNES.

The new Secretariat was implemented in the Ministry of Labor and Employment; from there, we have witnessed attempts to build an institutional place of the solidarity economy in the first Lula government (2003-2007). Its budget support began with the negotiation of the necessary resources for the new PPECOSOL with the Executive /Planalto Palace and at the same time with parliamentary groups of several states. This process culminated in the inclusion of SENAES in the 2004 PPA. With reference to the preparation of the PPA (TO CHECK SENAES BUDGET FIGURES 1st YEAR IN THE PPA (CUNHA, p. 203).

There was great difficulty in these negotiations, mainly due to the resistance of the economic policy area of the first Lula administration; the dominant argument was that the solidarity economy was subordinated to the public policy arrangements of the then Ministry of Labor and Employment, and therefore had no character of productive and economic investment.

Such issues have provoked recurring articulations between the Secretary of SENAES, the Office of the Civil House (José Dirceu) and President Lula. In the midst of these negotiations, the position of the political allies in the Ministry of Labor (led by the PDT) was situated, with little affection to support PPECOSOL with an effective decision.

The construction of SENAES was marked in this period (2003-2006) by more decisive and politically relevant support by all the pressures exerted by the twelve founding entities. In this phase, the creation of a Brazilian Solidarity Economy Forum (FBES, 2022) was formalized.

Since the beginning of SENAES, the option of its team was to strengthen the newly created Brazilian Forum as the main instance of articulation of the diversity of the solidarity economy, since the understanding was that internal contradictions of the FBES threatened its unitary character.

The perception among the actors of the secretariat was that a strong and articulated movement would strengthen public policy itself and contribute to its expansion and institutionalization.

In this sense, it was seen that one of the first actions of the secretariat was to support the Forum foundation, as well as to the activities of strengthening state forums or creation where they did not exist (CUNHA, 2012, p. 235).

A strategic point for the future of PPECOSOL was to identify, in the popular economy, the so-called Solidary Economy Enterprises (EES) as a need for both statistics and recognition of the actions promoted by the Brazilian Solidarity Economy Forum.

This effort was strengthened in the elaboration of the Atlas of Solidary Economy



in Brazil as an integral part of an Information System on Solidarity Economy (SIES). The creation of SIES aimed to raise and disseminate information about solidarity economy enterprises throughout the national territory.

The Atlas had two editions that were made available to the public as "Atlas of Solidary Economy". The first, from the research conducted in 2005, and the second, in 2007 (BRASIL, (c), s/d.). SIES (BRASIL, (d), s/d.) and described in Pitaguri (2010). (PITAGURI, DOS SANTOS, DA CÂMARA, 2012, p. 47).

In the period 2007-2010, the actions of the "Solidarity Economy in Development" Program (PPA 2008-2011) were created. This period was marked by a double movement of tensions and redefinitions in government-civil society relations and social movements.

We have seen the consolidation of SENAES in a position of budget lack, going through a constant crisis of resources; on the other hand, there was more pressure from PPECOSOL's supporters to openly criticize the economic area of the second Lula administration for the difficulties experienced by both SENAES managers and popular leaders (CUNHA, 2012, p. 248).

The criticisms were answered by the government, especially those responsible for the economic area, in the sense of defending themselves by the fact that there was no economic recession, open unemployment and the employment rate of the working class was one of the highest in recent decades. The year 2008 would be particularly difficult for the implementation of policies under the coordination of SENAES, being perceived internally as a "lost" year (CUNHA, 2012, p. 230).

Since the creation of SENAES by Law No. 10,683/2003 and Decree No. 4,764/2003, the operation of a National Council for Solidarity Economy (CNES) was already foreseen. This advisory and propositional body, with the role of creating mediations (recommendations, evaluations, criticisms and representation) between society and the government, had a prominent role to legitimize the recognition of SENAES as part of sectors with political influence in the Lula era.

The Council was led by Paul Singer, the first holder, who sought a broad policy of dialogue and recognition of agents, entities, networks and organizations of the solidarity economy in Brazil (SOUZA et al., 2013).

In addition to understanding the solidarity economy that emerges in Brazil from the 1980s to 2000s, it is necessary to refer to the set of forces previously pointed out around the twelve founding entities.

These various organizations such as churches, unions, educational institutions, social movements, pointed to the existence of alternatives to workers mainly subjected to

the mood of the precarious labor market, without access to policies of requalification and education of young people and adults and especially without access to credit.

One of the characteristics of the solidarity economy movement present in the National Council of Solidarity Economy was precisely to seek formulations that would help workers to play a leading role in four directions:

- cooperation: recognizes common ownership, division of responsibilities and results;
- self-management: the role of the participants in the management of the enterprise;
- economic dimension: it is what drives efforts and brings interests together; and
- solidarity: it is noticeable in the equal distribution of results, in the production of opportunities to improve the quality of life of those involved.

The main characteristic of the movement is, therefore, to propose the development of a popular economy whose economic enterprises should not necessarily escape the employer's economic enterprises. The vision of solidarity economy resides precisely in creating a field of self-management among collectives of work without a boss.

Therein is one of the toughest challenges of the solidarity economy. Solidarity economy activities contribute to the reduction of economic and social inequality through shared management of the means of production and the fair division of labor results.

Two national conferences on solidarity economy were organized in 2006 and 2010, seeking precisely to reveal to the general public that thousands of experiences accompanied by PPECOSOL public policy were a viable reality.

Due to this official promotion, the solidarity economy, organized in cooperatives, associations and forums, was incorporated as public policy in hundreds of municipalities and became the object of study in several universities throughout the country.

The National Council of Solidarity Economy had as its purpose and competences to encourage and promote actions for the engagement of civil society and government in solidarity economy policy; establish guidelines for solidarity economy policy; propose improvement measures for both legislation and for the activities and proposals of the MTE and the National Secretariat of Solidarity Economy; mediate the partnerships established between the civil society entities represented in the council and the SNES; and then, finally, act together with related councils.

Until its dissolution after the 2016 coup, the CNES was composed of 56 members, including: 19 representatives of the federal government, state labor departments and state and municipal agencies to support the solidarity economy; 20 representatives of solidarity economic enterprises; and 17 members of other civil society organizations and social services.

In 2005, in an important study conducted by SENAES through the National Secretariat of Information on Solidarity Economy (SIES), information was collected on solidarity economy enterprises present in Brazil. The research produced two Atlases, one in 2005 and the other in 2007 (PITAGUARI et al., 2012, p. 47).

In 2006/2007, there was a second survey conducted by the National Information System in Solidarity Economy (SIES), solidarity enterprises were a reality in Brazil since the beginning of the 20th century and from 1980 there was a marked growth of organizations throughout The Brazilian territory, as quoted below. The SIES identified 21,859 EES throughout Brazil. Although ventures were found in the early twentieth century, the solidarity economy emerged in Brazil as a movement organized in the 1980s [...] (PITAGUARI et al., 2012).

Until 1980, there were only 468 ESS. From that year to 1990, 1,903 new EES emerged, from 1991 to 2000 8,554 EES were created, and in the period from 2001 to 2007, another 10,653 EES were created (PITAGUARI et al., 2012, p. 47).

Singer (2008, p. 208) highlights equal rights and collective means of production as central elements of the solidarity economy, as well as self-management by saying that

[...] solidarity economy [is] a way of production that is characterized by equality. For equal rights, the means of production are the collective possession of those who work with them - this is the central characteristic. And self-management, that is, solidarity economy enterprises are managed by the workers themselves collectively in an entirely democratic way, which means that each member of the enterprise is entitled to one vote.

In another complementary definition in 2012, Singer apud Pitaguari et al. (2012) defines the solidarity economy highlighting ethical values and citizenship:

[...] solidarity economy can be defined as an open socioeconomic system, based on the values of cooperation and solidarity, in order to meet the needs and desires of material and coexistence, through mechanisms of participatory democracy and self-management, aiming at emancipation and individual, community, social and environmental well-being (PITAGUARI et al., 2012, p. 35).

It can be understood by the above considerations so far that one of the highlights of PPECOSOL's attempt to mobilize public funds (state) by governments (federal, state and municipal) to implement transfer of resources is precisely the constitutional character that ensures its juridical legality.

This legality would ensure, in the view, the necessary coverage for the politicians, managers and civil servants involved to put into practice arrangements for the transfer of resources between the State and civil society entities (NEDER, 2011).

From 2012 to 2014, this was the focus of the work that resulted in the new Framework of Civil Society Organizations (Law No. 13,019/2014). As a result of a commitment by the Dilma administration, the so-called MROSC legitimized the important role of CSOs and social movements in reducing poverty, inequalities and strengthening democracy in Brazil, providing a legal environment for organizations and their relations with the State.

By acting in collaboration with the State, CSOs do not become public entities. They are civil entities, but supported by the new law, which allows to eliminate historical confusions that put them in a fragile situation. This is a response to the organizations' demands to address so-called "bureaucratic criminalization." The universe of CSOs is broad and plural. In Brazil, there are 323,000 civil society organizations that operate in various areas such as culture, social assistance, education, health, sustainable development and in defense of the rights of historically excluded groups, such as people with disabilities, women, Indigenous, traditional peoples and communities, blacks and LGBTs.

CSOs employ about 2.2 million Brazilians, which demonstrates their relevance also to the country's economy and labor market. Civil society organizations participate in the formulation and social control of public policies through councils, conferences and dialogue tables created by the federal government. They are also present in the implementation phase of these policies, such as the "One Million Rural Cisterns program in the Semi-arid", Minha Casa Minha Vida (My House, My Life) or in programs to protect threatened people.

Stimulating the creativity, advances and proximity of the beneficiaries is the element that helps concretizing this important path, still under construction, of the relationship between the State and the citizen, further strengthening democracy. With the new law, while valuing transparency in the application of resources, we advance in the construction of a Democratic State of Law and a free, fair and solidary society.

The law consolidates its own legal regime of partnerships with civil society from the creation of terms of promotion and collaboration in the replacement of agreements, ensuring transparency in the application of public resources, mandatory public call for the whole country, clearer rules and democratization of access to public resources.

The MROSC has national coverage, and its validity has been inserted in the Union, Distrito Federal and State since 2016 - January 2017 in the municipalities. At the same time, the bill for a national solidarity economy policy, unlike the Civil Organizations Framework, has been paralyzed since 2017 (House Bill no. 137, 2017 - no. 4,685/2012, in the House of

Representatives - provides for the National Solidarity Economy Policy and solidarity economic enterprises, creates the National Solidarity Economy System and provides other measures).

In 2018 PLS 292/2018 amended the law 11.947/2009. Thus, the Education Commission approved the PL, which includes ES in the 30% of the preferred share of PNAE resources. In 2019 MP 870/2019 debased SENAES to the undersecretary. Then, there is the fragmentation of policies to support the ES: rural sector for the Ministry of Agriculture - Secretariat of Family Agriculture and Cooperation - and Urban Sector for the Ministry of Citizenship.

On February 12, 2020, the Constitution and Justice Committee (CCJ) approved, in the House of Representatives, the proposed amendment to the Constitution to include the solidarity economy between the principles of the national economic order (Agência Senado). Menu: adds item X to Art. 170 of the Federal Constitution to include the solidarity economy between the principles of the economic order – PEC 69/2019.

## THE SCENARIO OF THE MOVEMENT FOR SOLIDARITY ECONOMY IN BRAZILIAN SOCIETY (1990-2017)

The late 1990s marked the beginning of a major social movement in the country in defense of overcoming the structural conditions generated by unemployment and hunger.

The following timeline allows us to affirm that these events were responsible for the direct pressure of civil society, and social movements for the creation of an area in the federal government, capable of formulating public policy directed to the popular segments of the economy outside the formal labor market.

## Timeline<sup>20</sup> 1/3

### The Action of Citizenship is born.

President: Itamar Franco.

On April 21 - plebiscite: Brazil would remain a presidential republic.

May: Fernando Henrique Cardoso took over the Ministry of Finance.

August: currency is now called Real. Economic instability still frightened the country.

There are two slaughters in Rio de Janeiro: that of Candelária and that of Vicar General.

Alarming levels of indigence - intensifying the poverty situation.

Ipea's map indicated 32 million Brazilians below the poverty line.

"Citizenship Action Letter" (signed by artists and personalities engaged in combating the problem of hunger in Brazil), gave rise to the movement "Action of Citizenship Against Hunger, Poverty and For Life".

The Citizenship Action was launched on April 24 at a great ceremony at UERJ, with the participation of the most expressive names in Brazilian society.

On April 28, the "Rio Committee for Citizenship Action" was created.

### The First Year of Fighting

February to July-Real Unit of Value (URV) began to deploy the Real.

May 1: Ayrton Senna dies.

July: Brazil wins the four-time world soccer championship in the United States.

October: Fernando Henrique Cardoso was elected the 34th President of the Republic.

December: Tom Jobim dies.

The Citizenship Action consolidated its work on several fronts:

- Food against hunger. Work against Misery
- Cinema with citizenship action
- Tribute to Rio
- May 1st - Work against Misery
- State Food Safety Conference
- 1st Meeting of Committees of the State of Rio de Janeiro
- Sun
- Job and income generation projects
- First National Food Security Conference
- Bankers against hunger
- Creation of the Rio Committee Association
- Creation of the National Forum
- Providence Fair
- "Christmas without Hunger" in supermarkets
- Vigília (vigil)
- Christmas Without Hunger 94.

1993

Several events related to the campaign against hunger occurred during the year:

- The River Pedaling Against Hunger
- Show For Life
- 24 Hours in The Fight Against Extreme Poverty
- Art Week Against Hunger
- Swimming Against Hunger, for Brazil
- Nelson Freire performs a concert for the benefit of The Action
- The First Christmas Without Hunger



Figure 3 – Source: Citizenship Action (2021)

1994



Figure 4 – Source: Citizenship Action (2021)

<sup>20</sup>Elaborated from: Citizenship Action. Available in: <https://www.acaodacidadania.org.br/>, and Alternative Policy Institute for the Southern Cone. Available in: <http://pacs.org.br/>.



**One year for the democratization of land**

Fernando Henrique Cardoso assumed the presidency.

Action for Citizenship took the land as the center of its attention - the movement preached "the land to plant and live", disclosing the existence of 200 million hectares of unproductive land.

The mobilization had great support from public opinion and culminated in the "Earth Letter" (1987).

The text, signed by Betinho, encouraged citizens and organized civil society to participate in the struggle for the democratization of the land.

Ten thousand copies of the letter were made and distributed by the Citizenship Action in 1995, in addition to thousands of other copies made and sent throughout society, reaching more than 500,000 signatures delivered to the National Congress.



Figure 5 - Source: Citizenship Action (2021)

**Completing four years**

Massacre of Eldorado dos Carajás: 19 members of the Landless Rural Workers Movement were killed by the Military Police during the government's crackdown and police apparatus. The conflict of matter and the posture adopted resulted in a fake narrative of "confrontation" in Pará; the massacre was part of the struggle for agrarian reform in Brazil.

The Citizenship Action has kept several fronts active:

- Job and income generation projects
- Assistance to the homeless
- National Citizenship Action Forum
- Voto Cidadão (citizen vote) booklet
- New America Workshops
- Plenary Sessions of the Committees
- Rio 2004 - Candidate City
- Joint Effort for solidarity
- 4th vigil
- 4th Christmas without Hunger

**1995**

In that year, the Citizenship Action consolidated its work on several fronts:

- Job and income generation projects
- Meeting of committees of the state of Rio de Janeiro
- National Citizenship Action Forum
- Cry of the Earth
- Prato Fundo Project
- Workshops for the preparation of social projects
- Health Agent Courses
- Solidarity Map
- Plenary
- Il cycling Against Hunger
- Citizenship Gymkhana
- Ball Hunger
- Star Trek against Hunger
- Great Toll
- Vigil 95
- Christmas Without Hunger 95

**1996**

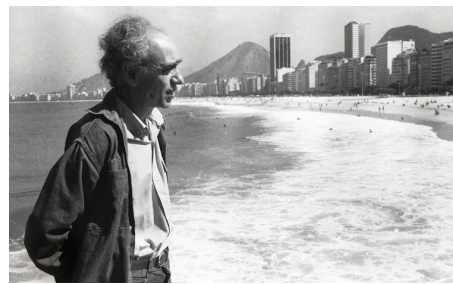


Figure 6 - Source: Citizenship Action (2021)

**1997**



Figure 7 - Source: Citizenship Action (2021)

**The first year without Betinho**

January: re-election amendment was approved.

On April 20th: The Indigenous pataxó Galdino Jesus dos Santos was murdered, by five students in Brasília.

On August 9th, Betinho dies, but the Citizenship Action continued: the challenge was already everyone's.

Several events occurred during the year:

- Survey Children Out of School
- Culture Construction Space
- Profile of beneficiaries of "Christmas Without Hunger"
- Tribute to Betinho - At the 15 days of Betinho's death
- Rio Committee Journal
- Workshops
- Group of day care centers
- Monthly plenary sessions
- Scream of the Excluded
- Betinho's Birthday in Candelaria
- Petrópolis in "Christmas without Hunger"
- 5th Vigil
- 5th Christmas without Hunger

**The year of "CD Brasil são outros 500"**

Fernando Henrique Cardoso was re-elected President of the Republic.

The Palace II Building collapsed in Rio de Janeiro.

The former military policeman Marcos Aurélio Dias de Alcântara was sentenced to 204 years in prison for having participated in the 1993 Candelaria Slaughter, ten other ex-military police officers, accused of participation in the Slaughter of Vicar General, also from 1993, were acquitted by the Justice of Rio de Janeiro.

The Citizenship Action continued its work, always increasing the agenda of challenges:

- Citizens' Faces;
- Citizen Easter;
- May 1st;
- Food campaign for the Northeast and Jequitinhonha Valley;
- Baskets for Macaé;
- Turning Fund;
- Novamérica Offices;
- Pro-Cooperativism Movement;
- Group of day care centers;
- National Citizenship Action Forum;
- Voto Cidadão (citizen vote) booklet;
- Cry of the Excluded;
- Tribute a year without Betinho;
- Journal N'Ação Cidadania;
- Monthly plenary sessions;
- Committee meetings;
- CD Brasil São Outros 500;
- 6th Vigil;
- 6th Christmas without Hunger.

**1998**



Figure 8 - Source: Citizenship Action (2021)

<sup>20</sup>Elaborated from: Citizenship Action. Available in: <https://www.acaoadacidadania.org.br/>, and Alternative Policy Institute for the Southern Cone. Available in: <http://pacs.org.br/>.



### Herbert de Souza Citizenship Action Restaurant Year

Fernando Henrique took over his second term. "Central do Brasil", by Walter Salles, won the Golden Globe in the category of Best Foreign Film.

On March 11: There was the first "blackout", reaching ten states of the South, Southeast and Midwest regions and the Distrito Federal.

Citizenship Action Events of that year:

- Food donation;
- Meeting of young people;
- Literacy courses;
- Joint Effort for the eradication of hunger;
- Novamérica Offices;
- Monthly plenary sessions;
- Cooperatives;
- Herbert de Souza Citizenship Action Restaurant;
- Recycle a Life Campaign;
- The Cry of the Excluded;
- National Meeting;
- Space for The Construction of Culture;
- Click Fome website;
- Rice, Beans and Education;
- "Christmas without Hunger" motorcycle event;
- 7th Hunger Vigil;
- Christmas without Hunger.

### Meeting of culture and socio-solidarity - Alternative Political Institute for the Southern Cone (PACS) - Solidarity Socioeconomy Site

January: a Petrobras leak spilled more than 500,000 liters of oil in Baía de Guanabara in Rio de Janeiro, the worst environmental accident since 1975.

June: a bus line 174 was hijacked by Sandro Barbosa do Nascimento, who held ten hostages for four hours in Rio de Janeiro.

List of activities of the Citizenship Action:

- Space for The Construction of Culture;
- 50 families are selected for the School Scholarship;
- Partnerships of the Bolsa Escola da Ação da Cidadania;
- Cell phone batteries;
- Health agents in STD/AIDS;
- Wings of Citizenship;
- Clickfome wins iBest;
- May 1st;
- Partnership with the Internal Revenue Service;
- Plenary;
- Enough is enough! I Want Peace;
- Peace debate on July 18;
- Literacy course in July;
- Ask for "João e a Rosa";
- Sweater donation Campaign;
- Voto Cidadão (citizen vote) booklet;
- Christmas without Millennium Hunger;
- One km of solidarity against hunger;
- Active Citizenship;

### The beginning of a new century Beginning of lula's government

Explosion of platform P-36 in The Baía de Campos - the balance of eleven dead tankers.

June: Gustavo Kuerten won the three-time tennis championship at Roland Garros.

Deaths: : Mário Covas, Maria Clara Machado, Jorge Amado, Roberto Campos, Cássia Eller among other illustrious Brazilians.

List of activities of the Citizenship Action:

- Census of the excluded
- Rock in Rio III
- Citizenship Action presents challenges for 2001 / 2002 in the area of education, culture and citizenship
- New home
- Anniversary of the Action
- Citizenship Action is one of the Brazilian charities chosen by the Philanthropy Guide
- Click Hunger wins one more iBest / Social Actions
- Space for Construction of Culture presents its first musical
- Adult literacy course
- Washing of the Culture and Citizenship Warehouse
- Political and Social Training Course
- Citizenship Action launches award
- Cycle of debates Society and Citizenship
- Food waste
- Chico Alencar gives lecture on education
- Young people from Casa das Artes da Mangueira attend the show "Menino no Meio da Rua" and exchange experiences in the Culture Construction Space
- Inaugurated the first rooms of the schools of informatics and citizenship
- UERJ invites Action to speak at the Community Leadership Course
- Action at the International Seminar at SESC Rio Arte

Luiz Inácio Lula da Silva is elected, with 52 million votes.

List of activities of the Citizenship Action:

- Donation from the Internal Revenue Service
- Rehearsals for "Menino No Meio Da Rua" (Boy in the Middle of the Street) begin
- Citizenship Action against Dengue
- Reformed Culture Construction Space
- Minister welcomes proposal for action against dengue
- Registration of new committees
- Citizenship Action participates in D-Day against Dengue
- Action discloses results of dengue survey
- II Citizenship Fair
- XI Citizenship Action Forum brings together 23 states
- Plenary celebrates the ninth anniversary
- Philanthropy 400
- Countdown to elections
- Click Hunger wins iBest again
- "Recycle a Life" wins another partnership
- "Menino No Meio Da Rua" (Boy in the Middle of the Street) in the project "Educating the Citizen of the Future"
- Citizenship Action receives tribute in PE
- "Menino No Meio Da Rua" (Boy in the Middle of the Street) is a success
- Citizenship Action receives Top Social Award
- Training of agents in STD / AIDS
- Committees meet to discuss violence and ethical voting
- "Menino No Meio Da Rua" (Boy in the Middle of the Street) is a critical success and goes to Villa-Lobos
- Action participates in the project "Educating the Citizen of the Future"
- Citizenship Action launches "National Campaign for Ethical Vote"
- "Menino No Meio Da Rua" is nominated for the Shell Award
- "Menino No Meio Da Rua" participates in Criança Esperança
- "Campaign for ethical vote" wins the streets of Rio
- Firjan receives citizenship action
- Lama Lawang blesses Culture Building Space
- Maurício Andrade participates in a debate at ABI
- Action launches "Brazil without Hunger"
- First meeting of "Christmas without Hunger - Year 10"
- Participation in the Peace Letter to a Friend program

1999

2000

2001

2002



Figure 9 - Source: Citizenship Action (2021)

- The "Christmas without Hunger" of 2000 stands out for the partnerships;
- National Culture Day;
- Alcione Araújo takes office as president of honor of The Action of Citizenship;
- 1st Herbert de Souza Citizenship Award;
- Federal and Municipal Public Utility;
- Vigil Against Hunger;
- Distribution at CONAB;
- Culture Warehouse.



Figure 10 - Source: Citizenship Action (2021)

- Solidarity Credit
- 1st Christmas without Hunger planning meeting 2001
- Regional Council of Physiotherapy and Occupational Therapy honors Citizenship Action
- National launch of "Christmas without Hunger"
- Prisons against hunger
- ALERJ gives medal to Citizenship Action and citizen title to Maurício Andrade
- Solidarity at sea
- Citizenship Action honors Dr. Ruth Cardoso
- National Kilo Day
- Chain of solidarity for a "Christmas without Hunger"
- Final balance of the "Christmas without Hunger"
- Homeless from the rains



Figure 11 - Source: Citizenship Action (2021)

- Committees receive donations on Children's Day
- Partners take on "Christmas without Hunger- Year 10" launch
- Citizenship Action receives Certificate of Social Merit
- Last plenary session before "Christmas Without Hunger"
- "Christmas without Hunger" receives first donation
- Record in the launch of "Christmas Without Hunger - Year 10"
- Capiba against hunger in CCBB
- "Christmas without Hunger" in all 92 municipalities of Rio de Janeiro
- Partnership with Texaco opens 219 collection stations in "Christmas without Hunger"
- "Christmas without hunger" makes first distribution of food
- Against the hunger of culture in Santa Teresa
- Citizenship Action participates in meeting with Zero Hunger team
- National Kilo Day
- Citizenship Action Sites in the TOP 10 of the iBest Award
- Christmas Citizenship Action for Brazil Without Hunger
- Event in the lagoon mobilizes population for the "0500 against hunger"
- Donation to the homeless of Angra dos Reis
- Citizenship Action begins rice planting in Goiás
- Culture Construction Space celebrates a great year
- 1st Meeting of the Strategic Council of Brazil without Hunger
- "Christmas without Hunger" receives donation from TCO Celular
- Solidarity Bazaar
- Brazil Without Hunger Fund receives donation from Itaú Social Foundation
- Joint Effort at CONAB to assemble the baskets
- "Christmas without Hunger Year - 10": joy and hope of a Brazil without hunger

<sup>20</sup>Elaborated from: Citizenship Action. Available in: <https://www.acaoadadadania.org.br/>, and Alternative Policy Institute for the Southern Cone. Available in: <http://pacs.org.br/>.

At the end of 2002, as a result of the 1st Brazilian Solidarity Economy Plenary, a letter was prepared containing the general guidelines of the solidarity economy and the creation of the National Secretariat of Solidarity Economy (SENAES).

The proposed letter, entitled "Solidarity Economy as a Development Political Strategy", was presented to the Brazilian government by the Brazilian Gt de ES, on the occasion of Lula's election as President of the Republic. (FBES Website). The Brazilian Solidarity Economy Forum (FBES) was definitively constituted in the III Brazilian Solidarity Economy Plenary, in June 2003. As a result of the movement that took place in 2001, preparatory to the 1st World Social Forum (FSM). Pitaguarí Dos Santos, of the Chamber (2012), mentions the role of FBES as "society's interlocutor with SENAES". (SANTOS et al. 2012, p. 46-47).

Figure 12 shows the structure and way of functioning of the solidarity economy in Brazil since the Solidary Economy Enterprises (EES), support and promotion entities and public managers.

## SOLIDARITY ECONOMY IN BRAZIL

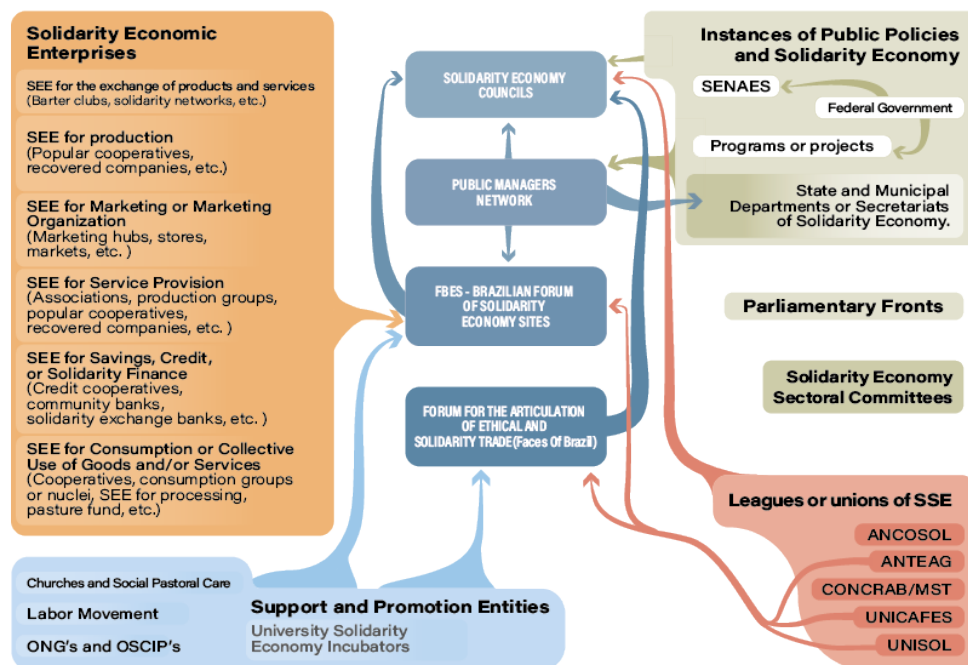


Figure 12: Adapted from FBES (2005)

If the historical data described above were considered, the solidarity economy as a movement would be plausible (CUNHA, 2012). In fact, in the period mentioned before, the organization of the solidarity economy in Brazil seems to have acquired a flow of actions present in the territories that are constituted through social movements, unions, and institutions such as the Catholic Church and the State in its municipal, state and federal instances.

As already mentioned, this process of organization of the Brazilian solidarity economy took place from the 1980s on. According to the text "Solidarity Economy - Another economy at the service of life happens" (CF/2010), in the 1980s the Catholic Church, through Caritas, replicating the economic crisis that was affecting the country, sought to encourage communities by supporting the creation of Alternative Community Projects (PACs).

In the Brazilian scenario, a set of initiatives were presented to support the solidarity economy. In 1990, the Landless Workers' Movement created the Cooperative System of the Settlers (SCA) with organizations at the local, state and national levels.

Universities also mobilized by creating the Technological Incubators of Popular Cooperatives (ITCPs). The Federal University of Rio de Janeiro (UFRJ) was the first to create ITCPs in 1995.

In 1999, the Single Workers' Center (CUT) created ADS - Solidarity Development Agency (SANTOS et al. 2012, p. 44-45).

Lechat (2002) recorded some moments that marked the history of the thought/movement of the solidarity economy in Brazil: in 1993, the Southern Cone Alternative Policy Institute (PACS) organized the I Self-Management Seminar; in 1995, the 7th Brazilian Society of Sociology National Congress took place; in 1996 the III Meeting of the National Association of Self-Management Workers and Enterprises (ANTEAG) takes place.

From the 1st World Social Forum (FSM), held in 2001 at the Workshop of Popular Solidarity Economy and Self-Management, the Brazilian Working Group on Solidarity Economy was born. Initially, the Brazilian WG was composed of different groups and solidarity practices from rural and urban areas. Twelve national entities and networks that, at different times and levels, participated in the Brazilian-GT:

- Brazilian Network of Solidarity Socioeconomy (RBSES);
- Institute of Alternative Policies for the Southern Cone (PACS);
- Federation of Organs for Social and Educational Assistance (FASE);
- National Association of Self-Management Business Workers (ANTEAG);
- Brazilian Institute of Socioeconomic Analysis (IBASE);
- Brazilian Caritas;
- Landless Workers' Movement (MST/CONCRAB);
- University Network of Technological Incubators of Popular Cooperatives (ITCPs Network);

- Solidarity Development Agency (ADS/CUT);
- UNITRABALHO - University and Work;
- Brazilian Association of Microcredit Institutions (ABICRED);
- Network of Managers of Solidarity Economy Public Policies (FBES webSite).

## ANALYTICAL VISION ON THE RELATIONS BETWEEN SOLIDARITY TECHNOLOGY AND SOLIDARITY ECONOMY: STRUCTURING ISSUES



Figure 13: Source: Citizenship Action (2021)

Given the correlations between the popular segments of the economy and the business sectors of the formal circuit, it is essential to represent the complex exchanges between the social subjects of the economy as a whole.

We can situate two ecosystems: one we call the economic-social complex driven by conventional (A) technoscience. The other (B) solidarity technoscience.

The following diagrams present basic elements of complexity that involve the dimensions of sociotechnical, institutional and financial support for workers to constitute cooperatives, association groups, and solidarity economy enterprises.

It is notable the fact that employers in the formal sector rely on self-employed, temporary and precarious in the informal sector to not pay the benefits and salaries guaranteed to the staff of the formal sector; both in Brazil and in high-income economies, this situation is repeated with different characteristics (SCHOLZ, 2016).

Both in the United States and Western Europe and in Brazil, the two stylized segments in diagrams A and B are not separated or divorced from each other. On the contrary, they are merged. DIAGRAM A shows the tendency to support the scientific and technological development of jobs aimed at formal companies inclined to adopt a technological standard fundamentally saving labor.

Diagram B below explores another possible path for the transition from the informal economy to platform cooperatives with solidarity-based economic enterprises. One of the conditions is the adoption of promotional measures and multilevel regulations to consider that employers in the formal sector cannot transfer transaction costs from companies to autonomous, temporary and precarious informal sector.

International experiences (within the European situation) point to solutions through the "individual social security account" (SCHOLZ et al. 2016-2019). In Brazil, this type of social security fund is already being experienced by about 80 million people who received emergency aid during the Covid pandemic 19; all registered in data of Caixa Econômica Federal.

The prerequisite for carrying out the gradual and continuous transition of part of this 80 million to solidarity economy enterprises lies in the massive promotion of cooperatives of all types and key sectors of the popular economy.

To increase the investments in the science and technology system in Brazil – to generate more jobs, with improved qualifications and above average income – these popular segments of the economy are fundamental:

1. Recycling;
2. Construction;
3. Handmade manufacture;
4. Metallurgy and polymers;
5. beekeeping;
6. agriculture, fruit growing, organic and agroecological oil extraction;
7. Feeding;
8. Confection and clothing.



Diagrams A and B describe the conditions for another transition of the popular segments of the economy, which goes through the solutions indicated in diagram A as SOCIOTECHNICAL MANAGEMENT 1 and 2, and as GOALS 1, 2, 3 and 4 in diagram B.

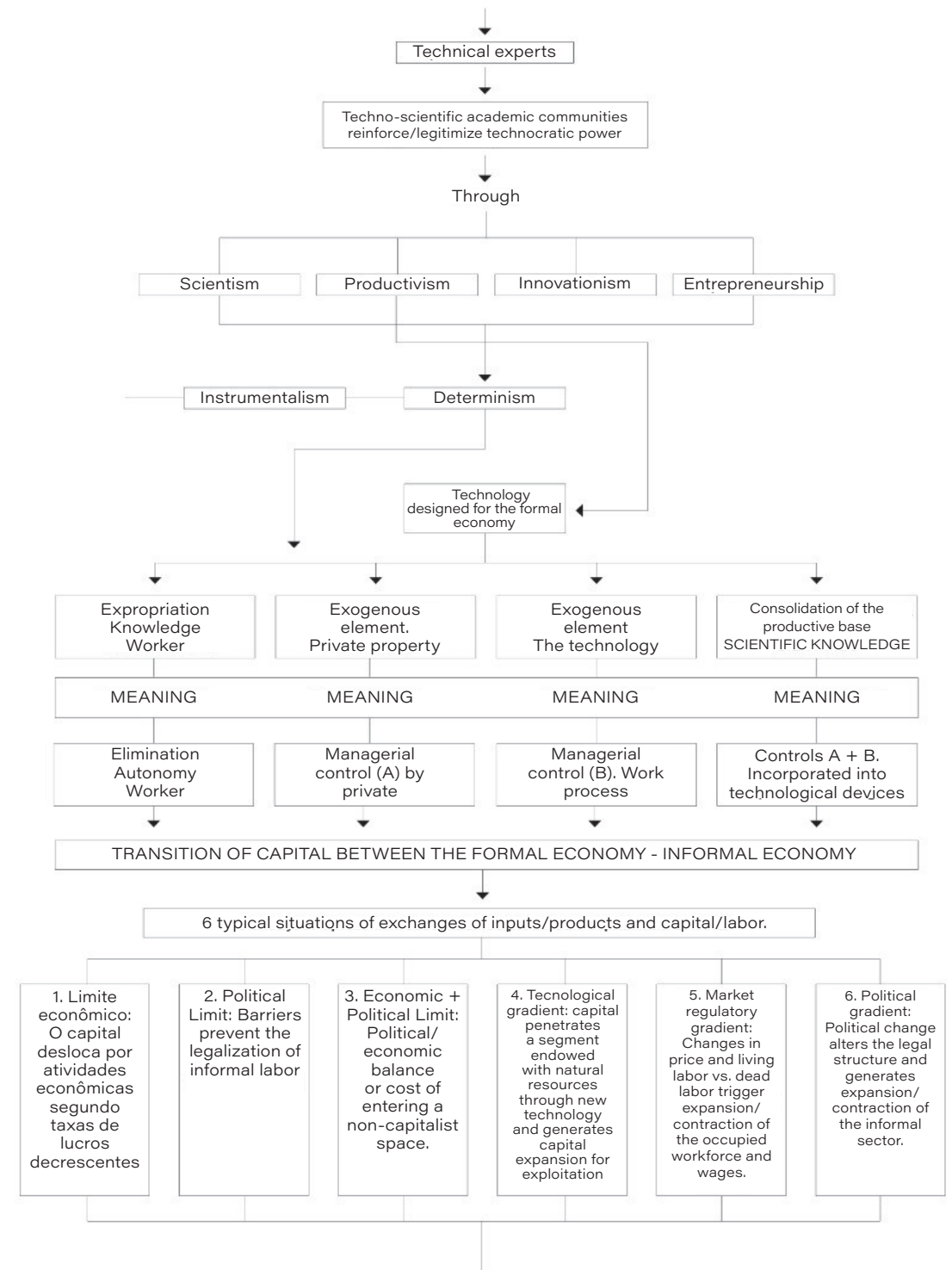
To work with the segments of the workforce previously discriminated, surveys and diagnoses with georeferencing, sociotechnical mapping, identification of their cultural base, functional records and database on the economic environment and its links with the formal economy are indispensable.

In summary, without knowledge of the networks in the territories where these segments of the workforce operate, it is not possible to take any consequent actions for socioeconomic, ecological-environmental and institutional sustainability in the generation of jobs. Crucial is also the knowledge of the local situations of the urban and rural land structure.

DIAGRAM A describes how for-profit companies relate to workers and members of the informal economy segments, and how technoscientific knowledge is used.

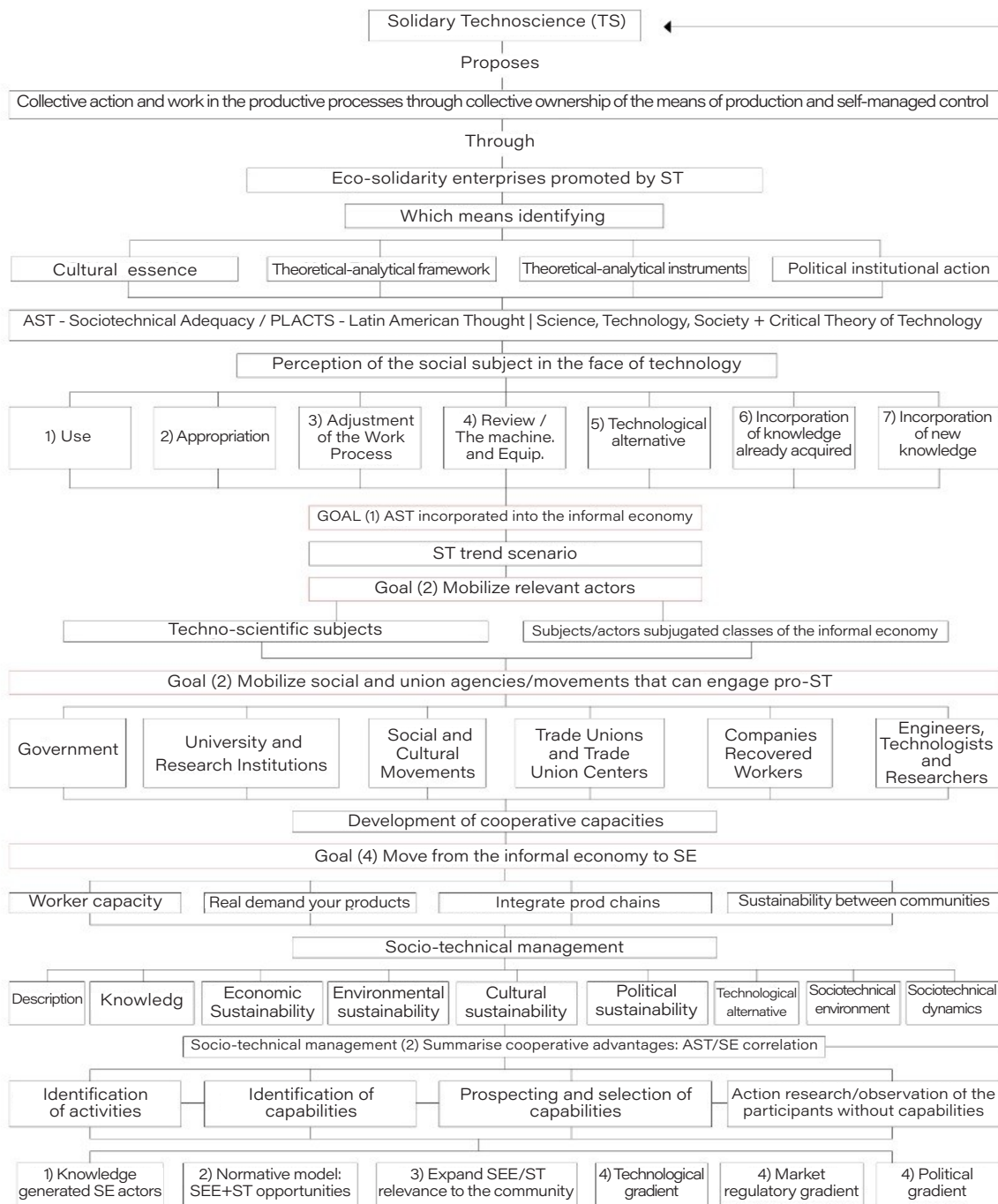
Diagram B describes how the threads between the human, technical, political, economic, cultural power elements and, above all, the relations with the sustainability dimensions, which incorporate other values into the economic system, operate.

DIAGRAM 'A' - ECOSYSTEM OF TECHNO-SCIENCE MOBILIZED AROUND BUSINESSES - (FORMAL SECTOR)





**DIAGRAM B - ECOSYSTEM OF SOLIDARITY ECONOMIC ENTERPRISES THROUGH A MULTILEVEL APPROACH TO IDENTIFY**



Source: DAGNINO, 2004, 2019; NEDER, 2015A, 2015B, 2017, 2018; 2019. Preparation: Ricardo T. Neder

## GLOSSARY - BASIC CONCEPTS TO UNDERSTAND THE RELATIONS BETWEEN SOLIDARITY TECHNOLOGY AND SOLIDARITY ECONOMY

TERM	CONCEPT	AUTHORS
SOCIOTECHNICAL ADEQUACY	It seeks to promote an adequacy of scientific and technological knowledge not only aiming at the technical-economic issue, but encompassing other aspects that involve the survival strategies of the human being, identity of the sociotechnical subject and its relationship with nature, which constitute the relationship Science, Technology and Society.	NEDER, 2015
DECISION-MAKING AGENDA	Originated from the problems brought by social actors. It is a set of problems, demands, issues that the government (political coalition that occupies the executive power of the state apparatus) selects (or is forced to select). It is formed by the particular agendas of the actors (including the government, whose agenda is the coalition government elected due to the correlation of existing forces in society).	DAGNINO, 2016
PRIVATE AGENDA	Set of problems perceived and faced by it when involved with a public policy. In a "normal" policy, it is the materialization of its political project.	DAGNINO, 2016
SOCIOTECHNICAL ARTIFACTS	Material sets that express a cognitive basis derived from some technoscientific knowledge. Artifacts result from sociotechnical relations between human and non-human actors, this last ones understood as endowed with the ability to influence, alter and/or create bonds between human actors.	LATOURE, 2000 NEDER, 2013
SOCIAL ACTOR	Person, group or organization participating in a social game; has a political project; controls any relevant resource; accumulates (or give away) forces in its course and can produce facts to enable your project.	DAGNINO, 2016
SELF-MANAGEMENT	In the context of the solidarity economy proposed in Brazil since the years 1990/2000, self-management is associated with the free organization of producers who organize themselves without a boss, jointly and severally from horizontal relations. Self-management is related to the Marxist criticism of the worker's alienation in the face of the generated product, also called a heteronomous work. Or the opposite which is the typical self-employed self-management work. As a provocation for further research, the human's work and the autonomous work are in constant tension. Where very vertical hierarchical relationships predominate, solidarity self-management relationships can hardly evolve. In general, self-management is a challenge in the face of horizontal requirements to distribute qualifications, specializations, experiences and working time between men and women.	DAGNINO, 2019 SINGER, 2003 TAUILLE, 2001 FRAGTENBERG, 1980

CONCEPTION OF CRITICAL THEORY	It denies the idea of neutrality, disagreeing with instrumentalism. It considers technology to be a carrier of values. It does not accept the idea of the substantivism that capitalist values give immutable characteristics that prevent social change. It considers that technology can be controlled, thus denying determinism.	FEENBERG, 2013 NEDER, 2013 DAGNINO, 2019
DETERMINISTIC CONCEPTION	It understands that technology is an application of science, and maintains the belief of technology neutrality. This technology, when appropriated by the working class, could be used – within the matter of other social relations of production – to build socialism.	FEENBERG, 2013 DAGNINO, 2019
CONCEPTION OF THE SUBSTANTIVISMO	It denies the idea of neutrality, but retains the deterministic conception. In this case, the capitalist values and interests incorporated in the production of technology condition to such a point in its dynamics that they prevent its use in alternative political projects.	FEENBERG, 2013 DAGNINO, 2019
INSTRUMENTALIST CONCEPTION	This conception is in line with liberal, positivist, modern optimism in progress and that technology is the result of a search for truth and efficiency, so the technology would be neutral.	DAGNINO, 2019 NEDER, 2013 FEENBERG, 2013
CONCEPTUAL ANALYTICAL FRAMEWORK(MAC)	The set of concepts, variables, models, stylized facts etc. designed in line with culture to understand and explain reality.	DAGNINO, 2019
COGNITIVE ACTOR MODEL	Set of ideas from which the actor will describe, explain and prescribe the object of politics, its context, and participate in the decision-making process. An actor's cognitive model is sensitive to the influence of other actors. When this knowledge that possesses the dominant actor has a character of "unquestionable truth", the other internalizes their cognitive model.	DAGNINO, 2016
NEOLIBERALISM	Theory of political and economic practices proposes that human well-being can be better promoted with individual entrepreneurial freedoms and capacities within an institutional structure characterized by solid rights to private property, free markets and free trade. Neoliberalism became hegemonic as a type of discourse and began to affect so widely the ways of thinking that it was incorporated into the everyday ways of many people interpreting, living and understanding the world.	HARVEY, 2008

PERIPHERAL COUNTRIES	Critical and Marxist reading of the reproduction processes of underdevelopment in the periphery of world capitalism.	DAGNINO, 2016
PLACTS	Historical description of science and technology policy in Latin American countries implemented from the 1940s to 1980s (Argentina, Brazil, Uruguay, Chile, Venezuela and Mexico). The importance of the current reading on the Placts lies in the fact that from neoliberal reforms in Latin America, after the 1980s, the autonomy and sovereignty of these countries in formulating their own C&T policy has been considerably reduced, whether for the business sector or for the public policies of their national states.	DAGNINO, THOMAS E DAYYT, 1996 VARSAVSKY, 1975 SABATO, 1975 HERRERA, 1975
COGNITIVE PLATFORM	When we look at technology, the first notion of common sense is to take it as a finished device. A second notion of technology reminds us of the idea of capacity or realization of possibilities, desires, wishes, or power. The third notion of technology leads us to ask how, when, and who developed such a device, so this notion is directly linked to the knowledge implanted in the technology. When we talk about cognitive platforms, we refer to this third dimension. Both social technology and solidarity technology are implanted knowledge of people and social groups before they become devices.	NEDER, 2013 DAGNINO, 2019
ANOMALOUS POLITICS	It refers to the science and technology policy defined under a decision-making agenda that does not present proposals for a particular agenda of its own, consistent with the political project of the social actor. Its anomalous character comes from the fact that the content of this decision-making agenda is defined by scientific communities located in other countries, namely four main ones: the United States, Germany, France and Japan.	DAGNINO, 2016
COUNTER-HEGEMONIC PRACTICES	Civil society can be understood as the place of the construction of hegemony. Hegemony does not exist only passively as a form of domination, in this case, there is continued resistance to this process. Therefore, it is necessary to consider the concept of counter-hegemony that is associated with the concept of resistance, thus existing practices that enable a new intellectual, moral and political development of social groups from education.	GRAMSCI, 1978 WILLIAMS, 1977
POLITICAL ACTOR PROJECT	A set of beliefs, interests, conceptions of the world and representations of what life should look like in society, which guides the political action of the different actors involved with a policy.	DAGNINO, 2016
POLITICAL AND CULTURAL PROJECT	Political projects are not limited to strategies of political action, but link broader cultural matrices and transform the cultural repertoire of society. Culture is not a sphere, but a dimension of all institutions – economic, social and political; is a set of material practices that constitute meanings, values and subjectivities. This implies that the power relations between the actors cannot be understood without knowledge of their active "cultural" character, as far as they express, produce and communicate meanings.	DAGNINO, 2016

SOCIOTECHNICAL RESISTANCE	It emphasizes the notion that technoscientific knowledge is the consequence of an attempt – when successful – of a social actor to change a work process to achieve some goal of its interest.	DAGNINO, 2019
TECHNOSCIENCE	A cognitive result of the action of a social actor on a work process, in which, in general, other social actors also act that relate to artifacts, aiming, also in general, at the production of goods and services.	DAGNINO, 2019
CAPITALIST TECHNOSCIENCE	It is interpreted as a fusion between science and technology and regarded as a characteristic of the stage of product development, or of neoliberalism.	DAGNINO, 2019
SOLIDARITY TECHNOSCIENCE	A cognitive consequence of the action of collectively producing on a work process that, due to a socioeconomic context (which thinks of the collective ownership of the means of production) and a social agreement (which legitimizes associativism), which include, in the productive environment, a control (self-management) and a cooperation (voluntary and participatory type), causes a change in the generated product which the material result may be appropriate according to the decision of the collective (solidarity enterprise).	DAGNINO, 2019
SOCIAL TECHNOLOGY	Every product, method, process, or technique is created to solve some kind of social problem that meets the requirements of simplicity, low cost, easy applicability (and replicability) and proven social impact. In the version that was disseminated in the non-specialized and specialized public, social technology comprises replicability of products, techniques and/or methodologies, developed in interaction with the community and representing effective solutions of social transformations.	DAGNINO, 2019
NETWORK ACTOR THEORY	Social agents are never located only in entities, but, on the contrary, an actor is a network shaped by heterogeneous relationships or an effect produced by this type of network.	LATOURE, 2000

Table 4 – Glossary - Basic Concepts To Understand the Relations Between Solidarity Technoscience and Solidarity Economy. Source: Systematized by the team.

## CONCLUSIONS

### Technology and extension-solidarity residence (for whom and for what?)



Figure 14: Source<sup>21</sup>

The news was the maximum  
 From the paradox  
 Extended in the sand  
 Some to be desired  
 Your goddess kisses  
 Others to be desired  
 His ass to free  
 Oh! World so unequal  
 Everything is so unequal  
 [...]  
 Oh! On the one hand this carnival  
 On the other total hunger.

Gilberto Gil

In Latin America, the priority place of action of university extension projects with residence in the territory (ERT) requires institutional promotion, theoretical-praxis awareness, and expansion of the conception of science, technology and society, in addition to the immersion of researchers, students and technical specialists. Immersion, of course, with the popular social classes and employed and unemployed workers – a condition that becomes a key to access to local demands.

In general, this proximity of the university is not a physical issue, as this also does the police, politicians, public administration entities, banks, etc., when they seek to focus on

<sup>21</sup>Drawings, collages, watercolor and acrylic by Paulo Andrade, Brasília, 2018. He is part of a series of works based on reading "Assim Falou Zaratustra", by Friedrich Nietzsche, entitled "O Eterno Retorno", by the artist Paulo Andrade. It consists of works carried out between 1982 and 2016, resulting from collages of postcards, web images and made in size 37cm X 55 cm with screen prints, drawings, watercolors, and acrylic, finally printed in 2018 in Fine Art Print on Canson Rag Photographic 310gr paper. Paulo Andrade (Minas Gerais, 1953) is a designer, painter, graphic designer and consultant in Visual Communication, having exhibited his works individually and collectively in Brasília, Rio de Janeiro, São Paulo, Goiânia, Washington D.C., New York, Costa Rica. He has worked in several newspapers, magazines and publishers in the Federal Capital. It's self-taught.

the territory. It is worth remembering the term “banking education”<sup>22</sup>. It requires closeness, but it means that the teacher sees the student as a bank in which he puts his knowledge. In practice, it means that the student is like an empty safe in which the teacher adds formulas, letters, and scientific knowledge until enriching the student.

In this sense, methods and approaches of the extension itself (which approach banking education) should be problematized, because the conventional extension has a propaedeutic presupposition (initiation in the minimum contents) to apply to learn and then make the content become training for work. Only then does it involve generating income?

This propaedeutic sequence, placed by conventional extension, is due to territories marked by relations of domination and subordination, resistance and struggle of social subjects in constant vulnerability. Such a formal sequence is not feasible for the university to act with the popular layers. If the objective is to develop its own forms of strengthening the chains of goods and services under the institution of solidarity associations and cooperatives (therefore, distinct from the economy of capitalist companies), the way cannot be banking education.

The precariousness of our popular layers requires escaping banking education and adopting a cognitive twist of our conceptions and practices about who and what scientific production is directed at. In other words, it requires the redesign of the research process (RPI) that takes place in a context of coexistence in daily life with the demands placed by the social reproduction of the popular layers.

The RPI – ert’s propaedeutic base – is linked, without separateness or discontinuities, to the social reproduction of focus groups, segments by ethnic groups, neighborhood relations, gender, identities and ancestry of indigenous, Afro-Brazilian peoples and their inter-ethnic confluence with the society of whites of the proprietary classes and holders of the technological means of social reproduction.

The RPI, therefore, requires a curriculum and research agendas with these profiles, fueled by demands from segments historically relegated from their citizenship rights, abandoned in their needs, knowledge and practices; become vulnerable subjects and abandoned by the dominant system. Faced with an oppressive dynamic against the popular layers, conducted by the police apparatus and institutionalized violence, the conception

<sup>22</sup>These terms – banking education and problematizing education – are discussed in “Pedagogy of the Oppressed”, work of Paulo Freire, 1968. It is a geminal contribution to contemporary pedagogy; Freire was in exile in Chile when he completed the book, after persecution by the military dictatorship. It was published in Brazil in 1974. In 2016, “Pedagogy of the Oppressed” is placed as the third most cited by researchers worldwide (70,000 citations, according to the London School of Economics, Science and Politics); Open Syllabus: the only Brazilian work that is the one in the list of the 100 most requested books by universities. V. [www.uol.com.br/ecoa/ultimas-noticias/2020/12/01/o-que-sao-a-educacao-bancaria-e-a-libertadora-formuladas-por-p-freire.htm?cmpid=copiaecola](http://www.uol.com.br/ecoa/ultimas-noticias/2020/12/01/o-que-sao-a-educacao-bancaria-e-a-libertadora-formuladas-por-p-freire.htm?cmpid=copiaecola)

of ERT exposed in this chapter questions the basis of the propaedeutic orientation of conventional extension.

In its place, it proposes to form, learn and reproduce with the segments previously described of the working classes (outside the formal circuit of wage and subordination to capital, and in which forms of survival for work and income are historically marked by the exclusion of all kinds in three popular circuits of the economy, detailed in this chapter).

From the data presented here, the conditions of housing, food, transportation, urbanization and all aspects involving the social reproduction of the popular classes, have followed a pattern that mixes social oppression, political repressive policies and the formation of consumer markets in which fabric of exchanges between the popular circuits of the economy is captured by large companies.

Political responses against this situation are not clearly identified as such but relate to movements and basic organizations that seek, with a lot of difficulties, technical advice and administrative and legal, economic and political-organizational guidance to change the context economic status that surrounds the three circuits of the popular labor market (presented in the first section of this chapter).

All these collectives – generally individuals and family collectives damaged by labor sacrifice, but with knowledge of the surroundings and practical conditions for obtaining income – require access to factors of production (resources, credit, machinery and equipment, knowledge of markets, promotion, etc.).

Talking about access to the means of production may seem like a buzzword, but in the Marxist sense of the term is strictly what it is about. This demand appears in different ways in each of the three segments. Equipment and devices are valued as a factor of production and life (vehicles, engines, data technology, computers, goods and machinery, raw materials): they are part of the needs suffered by the members of these economic segments in the localities.

Research cannot be disciplined, because, if it is, each of the professional fields involved will make partial or segmented readings, without being guided by the problems defined by the actors themselves in negotiation with the university.

The demands transformed into research problems become objects of technoscientific solidary research from the ethics of an epistemological policy committed to the historically excluded. It is worth remembering that multi-professional methods and approaches – and interdisciplinary guidance for practical problems of large companies, corporations and monopolies – are already part of the arsenal of technoscience weapons at the service of capital markets.



It is about overcoming this impulse for commercial domination and the war of Orthodox technoscience in the Northern Hemisphere, through the redesign of the research process through interdisciplinarity. Who first put urgency in the criticism of positivist science, specialism and specialists were the forces of social sciences and humanities, which have always pointed to the risk of technocracy (government dominated by executives, managers and technologists, currently through the intensification of exchanges by the Internet in what is being treated as platform capitalism<sup>23</sup>).

The descriptions and data, historical information and trajectories of the movement through the solidarity economy throughout the years 2000 and 2016 – in parallel with the construction of a launch platform that gained a national identity as “social technology” – presupposes interdisciplinarity for the redesign of the research process (RPI) to work with these social segments in their territories.

The RPI challenges society to reconceptualize, reanalyze and repropose other empirical clippings, the paradigm of linear extension of the offer (ELO), in order to overcome the myth in the traditional conception of progress that guides the foundations of the university. What is ELO? The hegemonic conception of the university’s functioning presupposes that research is considered a precursor, and feeds teaching and extension.

As a result, the research confers certain characteristics and guides the latter. It is taught in academia, and as a rule also in basic education, exclusively the knowledge that resulted from the previous research. It extends – through extension – knowledge not demanded by demands involved in the problems of the contexts in which the extension is concerned:

Included values are extended in technical devices, incompatible with values, with the practices of this context. Dagnino calls this extension an offeret<sup>24</sup>. Knowledge/values/practices committed to the maximization of private profit are extended, compromising the social relevance of the university. In summary, models of society are extended (AULER, 2021, p. 159).

To this notion of offered extension, we can add the idea of its uncritical or linear acceptance by the traditional extension policy. By doing so, we find underlying the myth of progress, which is strongly embedded in the traditional conception of scientific production. Among most of our researchers at the university, the conviction that scientific development (DC) is indispensable because it produces technological development (TD) predominates. This, in fact, is a generator of economic development (ED), which will expand and improve

<sup>23</sup>CASANOVA, Pablo. *The New Sciences and the Humanities. From the Academy to Politics*. 1st ed. São Paulo: Ed. Boitempo, 2006  
<sup>24</sup>DAGNINO, 2010.

the possibilities of society having access to better products and services. Therefore, it will be from this economic development that science and technology will create social development (SD).

This design can be represented as well:

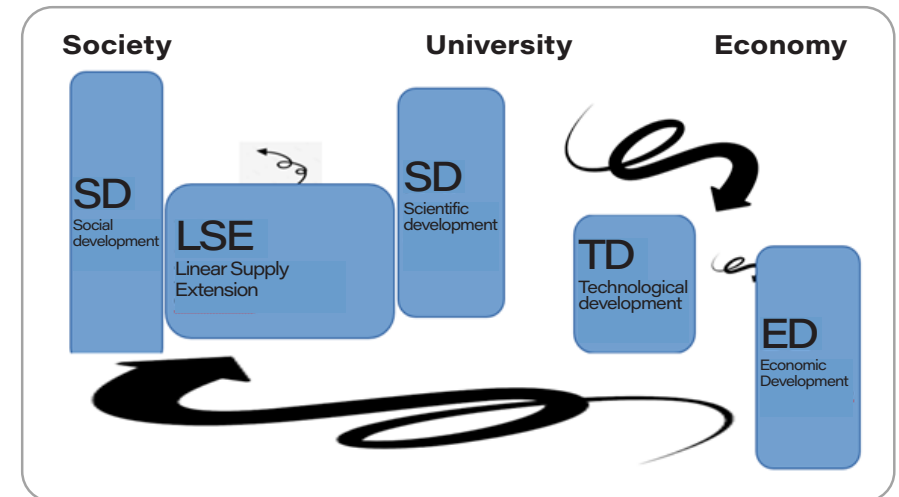


Figure 15: Representation of the bases of the ELO: scientific development (DC) determines technological development, which generates economic development, which creates wealth that will result in social development (SD). Source: (FREIRE, 1977; AULER, 2021: 158-164; DAGNINO, 2010)

Most selfless and valuable colleagues at the university who are dedicated to summing up their research with the extension (one-third, perhaps even less, depending on the disciplinary area and the university) adopt the ELO. Whether because they have a partial critical view of the role of the university, or because they do not take a more daring step in admitting the mythical side of the progress of science and technology in their deterministic connection with economic and social development, or because they think they are highlighting figuratively the validity of funds directed to education, science, and technology.

This scheme of traditional extension is opposed to the counterintuitive notion that the connections between DC - DT - D - DS, instead of being linear, present a complexity marked by the findings of CTS studies - science, technology and society. Science and technology are constructions with the aspect of values of the society that produces them.

That is, the social construction of science takes place assuming values that are overdetermined. The values, in themselves scientific, remain, but to them, they are merged – without the possibility of change, separation, or distinction – with other layers of values (of social class, ethnic subjects, of gender, of territory, of extra-scientific interests of all orders, personal idiosyncrasies of researchers and their collectives)<sup>25</sup>.

The connections between DC - DT - DE - DS acquire and are guided by the complexity of their surroundings in society. Cases such as micro-technology companies born in incubators of controlled companies – by the idea of the profitability of technological innovation – or startups, will be influenced in the context of their projects by the conditions of capital reproduction in segments or chains in which innovation promises to be converted into merchandise<sup>26</sup>.

In the case of solidarity technoscientific projects, which take into account the conditions of social reproduction of the popular classes and workers, a similar situation occurs with a changed signal: family units and workers are always transiting between forms of subordination to the formal sector/wage capitalist nucleus and in the popular circuits of the economy.

The scientific problem is the same. From coherent political decisions to promoting solidary technoscience, infrastructure can be created to generate expanded possibilities of well-being, comfort, sociocultural security, local and regional identities. These are the results of a process that begins with the broader political decisions, determining in these cases – as occurred with the paradigm of startups emulated in Brazil by legislation and regulations created between 1999 and 2015.

The popular movement environments of community values carry out compensatory exchanges, economic exchanges for relations of reciprocity, family and neighborhood ties, in a dynamic of solidarity economy, because they depend heavily on spontaneous associated work.

If it is organized, promoted or emulated by university extension as a solidary economy enterprise, there will be a relationship of symmetry in Brazilian university politics. Internal symmetry, in fact, in the extension policy for residence with solidarity technoscience, given the enormous amount of resources and infrastructure, promoting edicts and staff in the field of incubation of solutions in the paradigm startup. There are, therefore, two paradigms: one hegemonic, and the other counter-hegemonic. The second

<sup>25</sup>By the way, see NEDER, R.T. *The gambiarra and the panopticon. Essays on the morality of technology.* Marília/SP: Ed.Lutas Anticapital, 2019.

<sup>26</sup>V. NEDER, R.T. and MORAES, R. *Where does the university go in the face of science and technology policy in Brazil?* Campinas/Uberlândia: Ed. Sailing, 2017

involves the formation of networks and chains of goods and services through associations and cooperatives governed by the EES.

Based on the data presented here, it is concluded that the Brazilian State – submitted to business interests of all kinds – has made efforts to emerge and mature public and community policies linked to the ESS as possible. By the way, most countries in the capitalist nucleus of the northern hemisphere have 20% to 25% of their economic fabric formed by networks and complex chains of social economy, community economy, the non-profit sector, cooperative economy, producer associations and services that are not formally subordinated to the hard core of capitalist enterprises; this fabric is a buffer to prevent large IAP contingents from being thrown into poverty, extreme poverty or absolute economic abandonment.

Returning to the theme of the new extension, in addition to overcoming these resistances, ERT establishes a relationship of conflict and, at the same time, continuity and cooperation with the traditional extension policy type ELO. Conflict because it requires that extension-residence be put into practice in parallel with current efforts to formalize extension practices in the university curriculum.

Cooperation because this basis of recognition of the extension, in general, will open the door to more structured proposals of action of the university with communities, and above all will allow the opening of public-laboratory policies.

Public-laboratory policies are the institutional matrices applied to attract university researchers to accomplish what the traditional extension cannot do. The dynamics of conventional extension face integration resistance in different specialist fields, especially because the institutional form of awards, stimulus and award of points in the university career for those who make extension is based on personal authorship.

The promotion of extension policies of the rector of IFES in Brazil rewards the professor who extends alone in the university (1 researcher = 1 project), which does not add any benefit to the target audience, the main beneficiary.

How to generate an institutional space to integrate researchers of the exact with social and earth sciences, combined with the action of social assistance and the humanities? There are several modalities of interdisciplinary promotion favorable to carrying out programs and projects of continuous extension. Mobilizing multidisciplinary and interdisciplinary teams – in their root conception – is equivalent to uniting the projects. Its structuring challenges are born from communities, from movements. For the university to leave the commonplace and advance between leaders and social movements, unions and forms of demand for solutions in the field of solidarity technoscience, it is necessary to

have researchers from all areas, overcoming the vision of ELO.

The ELO – when frequented by technologists, engineers, architects, professionals of public and private management, and professionals of the social sciences and humanities in general – oscillates between a fatalistic attitude of neutrality and another of extracting of data and information, which will compose scientific works whose language will be inaccessible to the interviewees and object of research. The following table provides an overview of the differences in approach between ELO and ERT:

ASPECTS OF OPERATION MODE TYPICAL	ELO LINEAR EXTENSION OFERT	RE-PROJECTING/ERT EXTENSION RESIDENCE IN THE TERRITORY
General design posture	Extraction of data and information without returning the results in a language accessible to the subjects and final stakeholders.	Co-learning and co-production of data and associated information, with a prediction of a return methodology that works on the language of the mobilized group.
Type of relationship with target audience	Sporadic visits to apply questionnaires, verify data, and confirm or ratify information.	The experience of researchers takes place in mixed regimes of extension and residence in the same territory
Project schedule	Short-term projects (1 to 2 years)	Medium to long-term projects (up to 10 years)
Heuristic basis of the project (critical theoretical-methodological paths)	Varied design methodologies, oriented to subject x object relationship; clinical research; intervention projects (administrative); operations research.	Different open methodologies and interaction with social subjects; action research, participant research; research by immersion and experience; extension-residence (with experiential internship).
How to return project results	Publication/dissemination of CBT, master's thesis, doctorate or final technical report of restricted access to pairs and the funding agent; development of applications that generate patents or intellectual property rights; registration of products or services that apply to the formation of small and medium businesses; interests driven by profit maximization .	Micro plans and micro projects of local action; FOFO (strategic participatory) planning; regular return workshops for organized groups (focus groups); website, an application available for real-time access of beneficiaries; publication at the university; CBT, master's thesis, doctorate or final technical report with restricted access.
Epistemic political foundation	Separation between conception and execution; seeks solutions to local issues based on knowledge designed and produced on demand from an international agenda.	Seeks to overcome or eliminate the distance between those who conceive (think and research) and those who perform (practitioners and final beneficiaries); the starting point is no longer conventional technoscience (DC and DT), and in its place solutions are sought from available knowledge (AST - Sociotechnical Adequacy).
Link with technological development	It uses, implicitly or explicitly - accepting its assumptions directly or indirectly - technoscience in the linear extension model (DC-DT-DE-DS).	It adopts the perspective of solidarity technoscience: solutions and matrices of problems defined by communities become the starting point for generating research and extension problems that can be development based on knowledge already acquired (AST).

Table 5 – Source: author's elaboration

The arising of the ERT movement in the Brazilian university in the 2000s takes place in the context of convergence between (i) CTA and PLACTS – Latin American Thought of Science, Technology and Society – and (ii) the historical moment in which public-laboratory policies for formatting multiple sectoral actions are sought, to focus them on solidary economy enterprises (SEE) ).

This convergence – wounded by the 2016 coup – is fundamental, as seen throughout this chapter. Firstly because it mobilizes the capacity, energy, and agency potential of the protagonists of movements that postulate solutions that neither capital nor state policies alone can offer to the vast majority of the working classes, in urban and local communities, in metropolitan municipalities (33% of the 5,800) and in the other that are the majority in Brazil, in the countryside and in smaller and medium-sized cities.

A public policy for the ESEs represents diversity, inventiveness, multiplicity and improvisation of solutions from fragmented experiences of the subjects. And it couldn't even be any different! For this, the redesign of the research process (RPI) with the popular social classes and workers is of great importance. It is worth reminding that the theoretical-methodological basis of this redesign is originated from the Freirean notion of generating themes. And how are the generating themes produced?

For Freire (1987), the generating themes result from a thematic investigation-reduction process built in five stages, *pari passu*, between researchers and social subjects:

- a) preliminary survey: this is the recognition with details of the conditions of the social, cultural, political, organizational, economic and access to technical ways through secondary sources and informal conversations with varied individuals, therefore it is a first approach to a data collection;
- b) analysis of situations, choice of codifications that contain lived contradictions and preparation of the codifications that will be presented in the next stage;
- c) decoding dialogues: the researchers return to the site for the decoding dialogues, and - throughout this experience - they obtain the generating themes;
- d) thematic reduction: consists in the elaboration of the program to be developed for an application, in the 5th stage. From an immersion of interdisciplinary teamwork, knowledge necessary for a contextualized

understanding of the themes identified in the previous stage is identified and selected;

e) work in the laboratory and classroom: only after the four previous stages of investigation with the established program and the prepared didactic material, didactic work occurs and the formulation of the research strategy and its consequences for the subjects. It is, therefore, the application of the RPI from this state of the five steps.

Environments where the precarious segments live, whose workers are outsourced, temporary and linked to work for the social reproduction of families, will require intervention strategies specific to each segment. To do so, the groups of researchers need to be open to the modus vivendi in this environment – which operates between the chaos of resistance and the struggle for rights against everyday exploitation; resignation and revolt among millions of people due to the abandonment and non-governmental recognition of their social, cultural, political and economic existences.

At the same time, RPI also means establishing mediations – political, economic, financial, technological and socio-technical – with these more poor and precarious segments of the working classes, usually with few years of schooling to increase the capacity of an agency in search of independence and autonomy, with self-management and associated work. Work of extreme relevance is to distinguish philanthropy – new or old – from research intervention, because most of these communities are victims of state violence and are private by the capital side, which prevents it from legalizing the popular circuits of the economy to not dispute the purchases of the state.

A minority part of the precarious working classes, it manages, with harsh penalties, to find niches and loopholes to acquire goods and services, open its business and operate machines – now that financial capital has discovered the potential of this platform economy via invasive applications on mobile phones. These segments become a network with thousands of street and precarious distributors of goods under the standard imposed by capital. In doing so, these segments become more obedient and faithful to the chains of wholesale and semi-wholesale SMEs – small and micro enterprises that, in turn, live overwhelmed by the intercapitalist competition maintained by large wholesale companies. The system charges its access to technologies that provide it with standardization and standardization, in addition to tax protection, credit and legal access to state purchases, whose notices are written to privilege the “legal” forms of enterprises, throwing all the other

illegality.

This standardization of goods and services is implicit, in turn, as a way of capturing the production chains and popular services, which are common in cities and in the countryside. The lower middle-class people, subjected to salaries and forms of remuneration demeaned by inflation, acquires industrialized products of deplorable quality, cheap per unit, from cookies, milks, pasta and seasonings to durable clothing and consumer goods that integrate the basket of wage goods. All – and everything – in the popular circuits are converted, as a universal rule, into merchandise-workforce and commodity consumers.

Nothing escapes this logic of capital, and when it does not enable this operation ready, creates conditions of chaos by promoting the invasion of these territories through the purchase of real estate assets (land and buildings in peripheral areas as a reserve of future value) and the acquisition of current assets (small networks of local markets operating as SMEs, more valued by large networks).

Such market orientation is promoted as a way to create a local consumer market by the habit in which loyalty – and the lack of alternatives – makes them buyers, as final consumers or intermediaries. This expansion, however, finds locks and barriers. Its movement is governed by two contradictory forces:

a) A movement necessarily leads to unemployment, precarious access to monetary income, hunger in families and the destructuring of traditional popular circuits not subordinated to capital – as imposed by the economic crisis of shrinking state investments, and through the destruction, in 2016, of the social protection network of Bolsa Família and the tripartite social security system;

b) The second contradictory movement is its scope among the popular circuits of the economy: those included are only a tiny part of the 70 million people. Faced with an IAP of 180 million and a formal salaried sector that ranges from 30 to 40 million between crises, there are 140 million left, half of which make up the complexity of the popular circuits of the economy.

For the most part, popular enterprises are – in the millions’ scale – family nuclei that meet favorable conditions to survive this pattern of destruction and uniformity of the markets of products and services, labor, and raw materials. They oscillate between the precariousness and lack of access to credit and technological resources, and the constant danger of pauperism and misery.



Finally, it is worth emphasizing that the popular circuits of the economy need the state budget and the overcoming of barriers to access of economic enterprises in solidarity with four resources:

- credit solutions and tax regulation;
- pension solutions;
- strong and decisive labor standardization;
- institutional purchasing market of the State.

These four fronts of resistance and struggle guide the possibilities of contributing a new extension-residence and its consequences – the posture of working interdisciplinary with the RPI, which means putting the university to carry out the necessary mediations in order to prevent the standardization, regulated by capital, continues generating the periodic destruction of the survival conditions of the various popular segments and throwing millions into the basin of souls of a labor market countered between the work of financial speculators and bankers in the country, with high salaries and the jobs of almost 100 million people whose greatest wealth lies in its workforce.

Faced with the production crises imposed by neoliberalism, with the destruction of labor markets, production and circulation and the precariousness of labor and its relations, the people are left with the struggle for autonomy and understanding of the contradictions experienced by the popular layers.

The solidarity economy is a part of the real economy of the popular circuits of the economy. Knowledge and knowledge – together with the characteristics demanded by the movements to put into practice such immersion in interdisciplinarity – become a requirement of the time, both for the need to cheapest sociotechnical advisories (integrated teams), as well as for the development of co-learning and co-production solutions between (i) the trade union movement and social movements (community, ethnic, indigenous, unemployed); (ii) researchers and technical and scientific staff in general, including and especially those of ITCs. There is a new horizon called the digital platform for solidarity cooperatives.

A technological solution that is coming through solidarity technology is applied in a digital platform controlled by workers' self-management, with the support of researchers and popular leaders when assuming the sociotechnical character. As such, it approaches other workers with the humbling of those who will learn.

Popular experts are valuable for mediating and multi-professional integration of

university researchers; Brazil does not have the experience of working in interdisciplinary teams, as it is sectionalized in professional areas and departments.

The two dimensions – interdisciplinary projects integrating experts and the development of platform cooperativism, self-managed by associations and cooperatives – can contribute to removing millions of families from both structural unemployment (due to technological changes) and unemployment due to insufficient public and private investment.

This is the historical requirement of the university in Brazil today. It is not a question of asking something that the university does not know how to do (generate jobs), but what it knows: to create cognitive and propaedeutic bases of research-extension with residence in order to enable a theoretical basis to converge the attention of specialist areas, combined around social problems that generate research problems, with the search for knowledge and solutions to the ills of structural and conjuncture unemployment.

These two dimensions need to be converged and articulated from a counterintuitive finding. The private sector is no longer interested in expanding the qualification and training of the workforce in the current stage of late capitalism in Brazil (except for the already educated contingents that enter the S system). Its characteristic is to combine growth – when in fact it occurs – without generating new jobs. It is about overcoming the misunderstanding of common sense of the private sector and public managers, affection to use the purchasing power of the State only with companies in the formal sector. It is essential to insist on the fact that social and solidarity enterprises (EES) are incubation environments for future cooperatives and associations that can enrich the economic fabric as a whole. How to do this with the resources of the solidarity technology of the digital platform?

\* \* \*

In recent decades, and particularly in recent years, the imagination of many parts of society, including a portion of institutions and workers themselves, has permeated the idea that changes such as Economy 4.0 in companies have changed the nature of labor relations, leading to considerations about wage earners themselves, as if it were in decline.

For Filgueiras (2022):

companies that identify themselves as “applications” and “platforms” are the current traditional that radicalized this narrative, stating that workers are not their employees, but their customers. It is in this wake that the argument that workers have autonomy, freedom and flexibility to define where, how and when to provide services (FILGUEIRAS, 2022a).

1. This is a scenario devoid of empirical basis, but which is often assumed, even partially, even by those who criticize the poor working conditions in the "applications". Business rhetoric leads to confusion, misinformation and contradictory positions by many institutions – including academia – and workers. It is still common to read and hear the following justifications so that "application" workers do not have their labor rights recognized (via LTW):

- a. "We would be dealing with new employment relationships that do not fall within employment";
- b. Workers (or "entrepreneurs") have more autonomy, flexibility and/or income without LTW;
- c. Labor legislation in Brazil is precarious, does not guarantee good working conditions;
- d. "Application" workers would not like to have the employment bond recognized, and this should be respected.

2. These arguments are not supported, among other reasons because the relations between workers and "applications" are clearly wage-employed, marked by complete subordination that borders on tyranny. They are companies like any other, but that use, among other instruments, a technological tool (the platform / application) to manage production and work. The applications, once privatized, serve as a tool of domination among individuals, and it tends to be all the more brutal the smaller the role of labor law.

3. "Application" workers have lower incomes, longer hours and less rest time, and face greater despotism from employers compared to workers with a signed license.

4. In fact, the LTW is precarious, but it provides for conditions higher than those experienced by these workers – therefore worse without it – and is only a starting point of the dispute, a minimum level from which to fight. On the last argument, it is necessary to reflect a little on what is implicit in its statement. There are fundamental points to question this supposed option of workers because they do not have rights, and the main one is the requirement of non-renunciation (of rights) as the basis of the labor law itself, without which the limits to exploitation tend to disappear, since the "non-want" of workers is promoted by the repression of the labor market. To understand the concrete case of "applications", it is necessary to keep in mind the massification of market discourses and commercial interests at various levels, such as the campaign of a company that spread lies to demobilize the claims of its deliverers" (FILGUEIRAS, 2022a).

Finally, the rhetorical statements of entrepreneurs about supposed changes in labor relations are not new, and neither do they present differences. Outsourcing, cooperatives, partnerships and "buyer" companies have been presented as different phenomena than they are as a legitimization strategy, and have already caused much damage around the world. As the field of work has not faced the premises of these capital strategies, they are being radicalized.

An assumption for a struggle that is more effective, for the field of work, is not to take by appearance the employer's discourse. And, in the specific case of the content of labor relations, it is not assumed that companies are effectively moving away from work management. On the contrary, they seek to deepen new ways, by applications, of controlling workers, and use the rhetoric of remoteness precisely to reduce the chances of limiting exploitation.

Another hypothesis resulting from the previous one is the fact that the popular circuits of the economy (as we call it here) are in considerable numbers in Brazil today, around just over half of the Working Age Population (IAP of 180 million). These are

considerable contingents that do not have a job perspective (with or without platforms) and, therefore, their condition public political demand of considerable dimensions, because they are contingents that have continuous presence as popular circuits. These are segments that cannot be treated as if they were "residual" in the economy, since it is only one, and precarization is part of advantages obtained by the formal sector.

The economic performance of the popular circuits of the economy, in turn, is a generator of occupation, labor and income. Hence the importance of exploring a scenario from which platform cooperativism can be an instrument of social mobility and socioeconomic inclusion of segments here named and conceptualized in six chains of generation of goods and services.

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## Freirean Education and Labor Culture



### Chapter 02

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