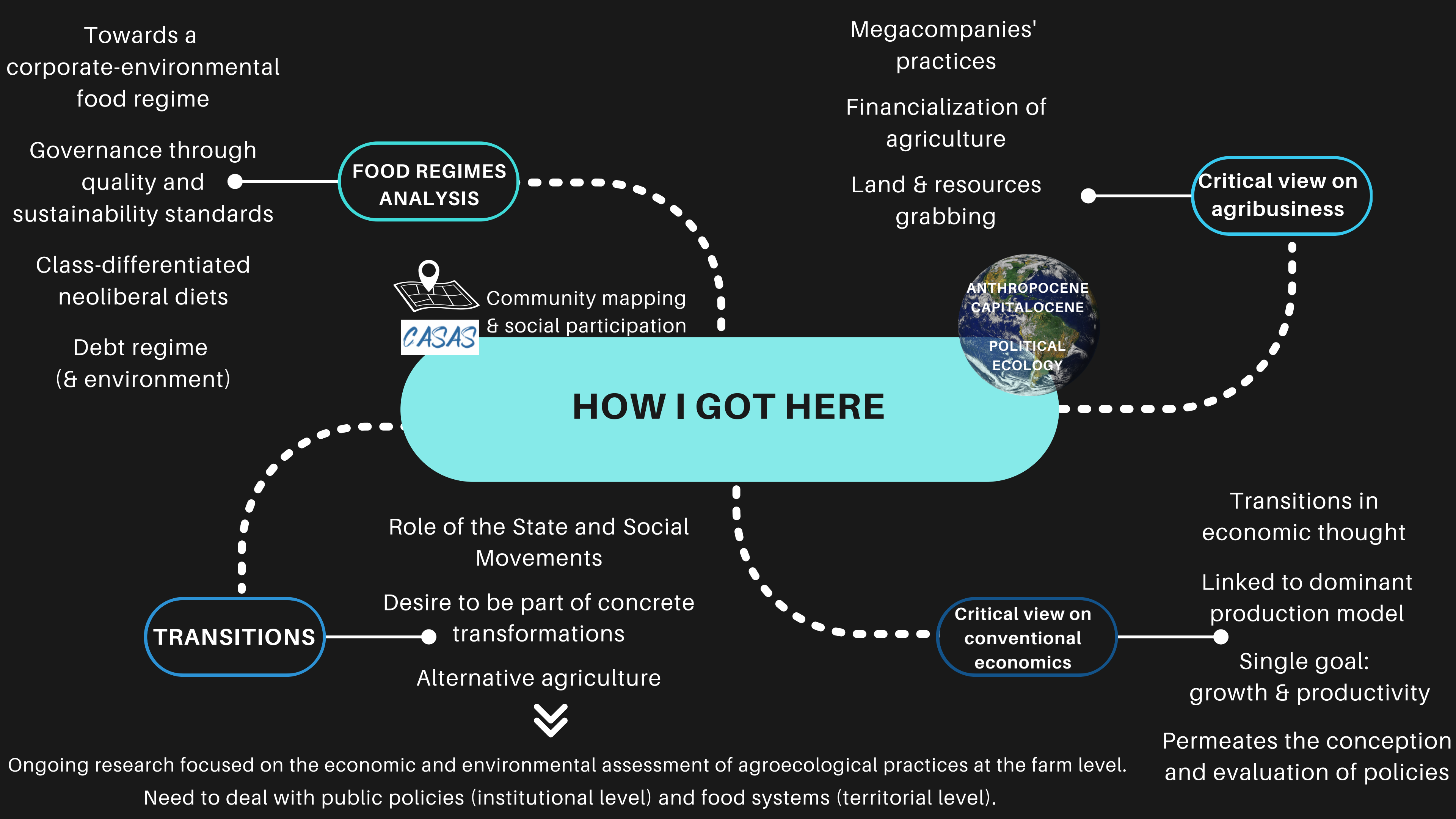


**MULTIDIMENSIONALITY AND PARTICIPATION IN THE  
EVALUATION OF AGROECOLOGICAL TRANSITIONS:  
environmental, socio-economic, socio-cultural and socio-  
political aspects**

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# FIAS-MAK'IT PROJECT INTERCONNECTS TWO LINES OF RESEARCH ON AGROECOLOGICAL TRANSITIONS

**SHARED ULTIMATE GOALS and APPROACH**

**PICT**  
Participatory  
evaluation of  
agroecological  
transitions

**TAFS**  
Analysis of  
food systems'  
transitions  
towards  
agroecology

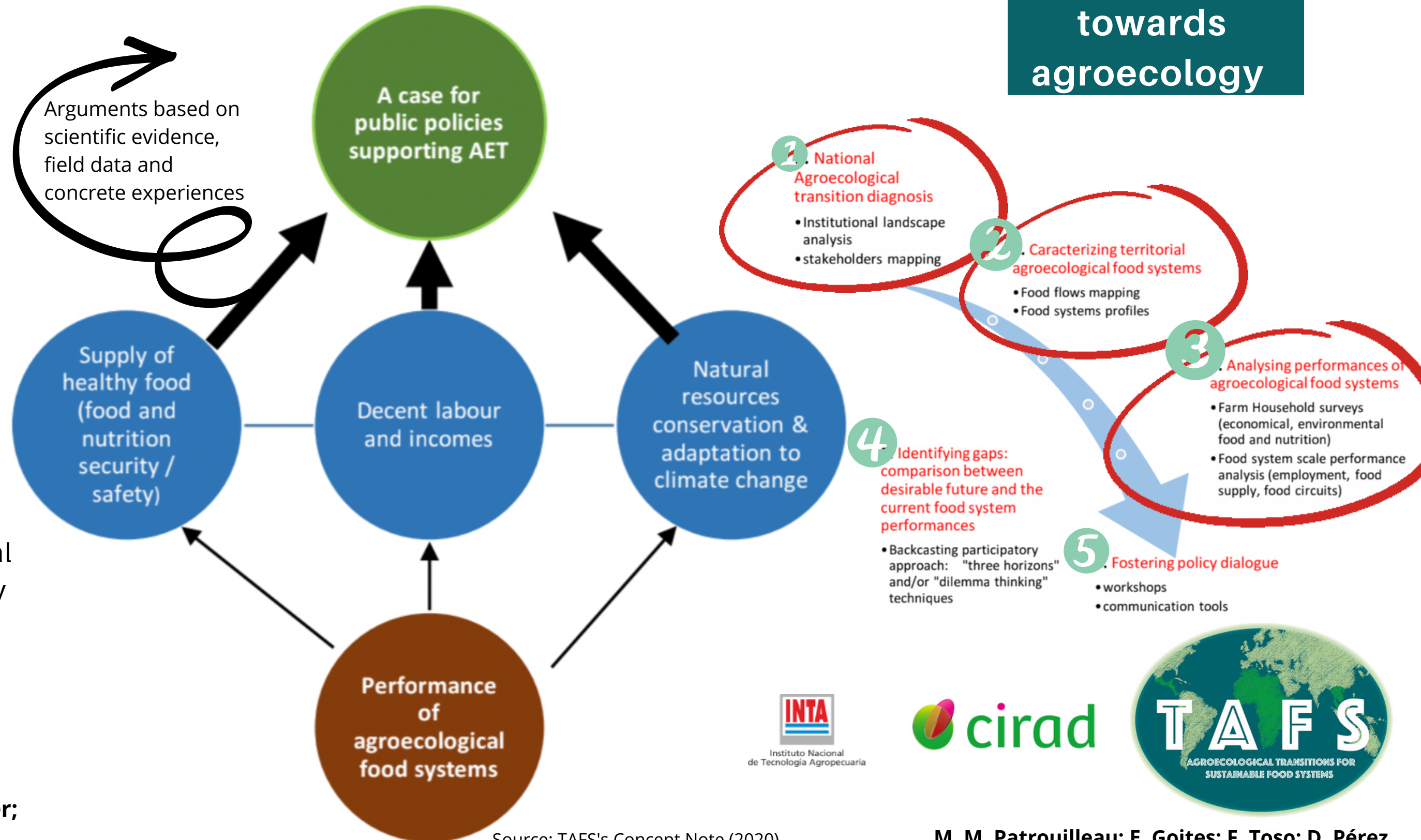
**Also AIMS**

To assess potentialities and limitations of agroecology as a sustainable rural development strategy

To accompany food producers in the self-assessment of performances

**OBJECTIVE**

To analyze productive, economic, social, and institutional transitions from industrial (or traditional) agriculture to agroecology



M. P. Acosta; P. C. Serpe; D. Pérez; N. Tuchsznaider;  
G. Budukiewicz; M. Palumbo

Source: TAFS's Concept Note (2020)

M. M. Patrouilleau; E. Goites; F. Toso; D. Pérez

# THOUSANDS OF UNDER-REGISTERED AGROECOLOGICAL, ORGANIC, AND BIODYNAMIC FARMING UNITS.

The 2018 National Agricultural Census (CNA) indicates that alternative agricultural practices are only present in 2% of almost 250,000 farming units registered.

Organic production continues to grow, reaching an area of 84,328 hectares in 2020. The National Directorate of Agroecology (DNAE) estimates 1,1 million hectares of agroecological production of vegetables, fruits, grains, livestock, and dairy, in units ranging from ¼ to more than 1000 hectares.

Table 1. Farming units practising organic, biodynamic, and agroecological agriculture by region

Region	Organics	Biodynamics	Agroecology
Northeast Argentina	420	41	319
Northwest Argentina	864	75	778
Cuyo	475	68	237
Center	435	152	740
Patagonia	293	51	199
<b>Country total</b>	<b>2.536</b>	<b>408</b>	<b>2.309</b>

Source: Own elaboration based on the CNA 2018, INDEC. Locally managed **Participatory Guarantee Systems (PGS)** are also crucial, as they provide a framework to organize support for agroecological production. There are around 40 PGSs involving 750 families of producers in different development stages, mostly emerged after 2018 (INTA & DNAE, 2022).

# Analysis of Agroecological Transitions in Argentina

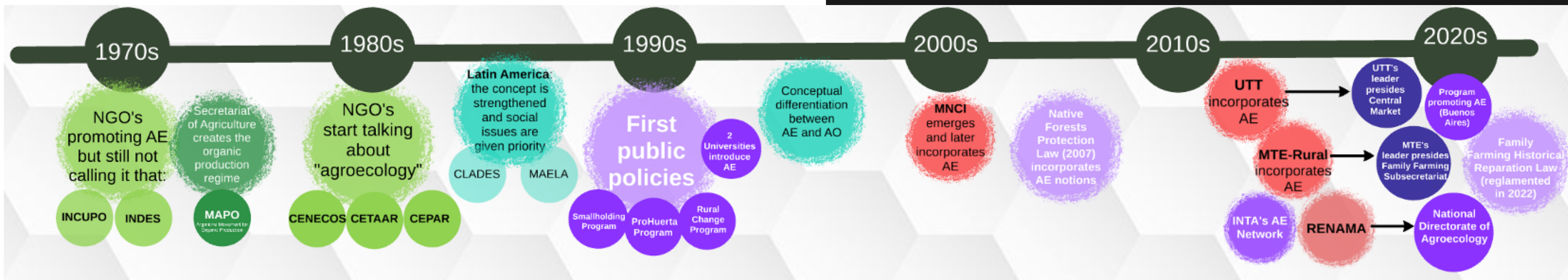
## TAFS Step 1



Agroecological extensive mixed production with polyphytic pasture, Guaminí, Buenos Aires.



Agroecological (intensive) horticulture with insect trap, Concordia, Entre Ríos.



**NO COMPREHENSIVE AGROECOLOGICAL TRANSITION STRATEGY EXISTS. THERE ARE ADVANCES IN PUBLIC POLICIES AT THE MUNICIPAL, PROVINCIAL, AND NATIONAL LEVELS.**

- Many of these developments result from **social pressure against agribusiness**. It is mainly through **conflict** that agroecology emerges and spreads.
- Civil society actors, especially **social organizations**, are fundamental in materializing alternative agricultural **experiences** and transforming public **policies**.

**Table 2: Examples of national, provincial, and municipal public policies (Argentina 1987-2022) that directly or indirectly support agroecology**

National	Provincial	Municipal
<p>1987 Smallholding Program (INTA).            1990 ProHuerta Program (INTA-SAGyP-MDS).            1990 Organic production scheme (SAGyP).            1993 Rural Change Program (SAFCI).            1993-1998 Agricultural Social Program (SAGyP).            1998-2012 PROINDER (SAGyP)            2002 General Environmental Law 25.675.            2002-2006 Differential export tax rates for organics.            2003 <u>ProFeder</u> (INTA).            2005 INTA Strategic Plan incorporates organic production.            2005 INTA National Small Family Farming Program.            2007 Law 26.331 of Native Forests (MAyDS).            2009 SENASA's Family Farming Commission.            2013 INTA's Agroecology Network is formalized.            2013 Creation of an agroecology area and team at SAFCI.            2014 (2022) Law 27.118 Historical Reparation of Family Farming.            2020 National Directorate of Agroecology, DNAE (SAGyP).            2020 PROTAAL Program (SAFCI).            2021 Program for the Biodiversity in Agroecosystems (MAyDS).            2021 Law 27621 of comprehensive environmental education.</p>	<p>2005 Law on chemical and biological products use in agriculture, Córdoba.            2014 (2020) Law promoting agroecology, Misiones.            2015 Environmental Education Program, Formosa.            2016 Law on Biocides, Chaco.            2019 Misiones Provincial Food Sovereignty Program.            2020 Program promoting agroecology, MDA, Buenos Aires.            2020 Law promoting agroecology, La Pampa.            2020 Provincial Environmental Council, Chaco.            2021 Local Sustainable Production Program, Santa Fe.            2021 Law on Family Farming and Popular Economy, Chaco.</p>	<p>1991 Fumigation restriction ordinances (Ord.) appear in several municipalities of Buenos Aires. E.g., in Gral. Pueyrredón, Ord. 18.740 (2008).*            2004 Environmental protection ordinances start to appear in different localities of Córdoba.            2011 Regulation on agrochemicals use, Rosario, Sta. Fe.            2013 Creation of the Sustainable Rural Development Program in Gral. Pueyrredón, Ord. 21296.*            2013 Integral Plan of Productive Soils, Rosario, Sta. Fe.            2017 Ord. bans glyphosate, Rosario, Sta. Fe.            2017 Creation of Metropolitan Agricultural Park, Mte. Vera, Sta. Fe.            2018 Ord. creates PGS, Rosario, Sta. Fe.            2018 Program promoting sustainable agricultural production, Saladillo, Buenos Aires.            2019 Ord. promoting rural and urban agroecology, Mercedes, Buenos Aires.            2022 National Participatory Guarantee Systems first national meeting.            2022 Law promoting of healthy eating.</p>

Source: own elaboration based on Patrouilleau, Sosa Varrotti, Goites, and Toso (2021) and *ad hoc* survey on public policies.

\* Public policies in the territory selected for TAFS-Step 2.

**Table 3: Styles of agroecology development in Argentina**

Types of AE practices	Destination of production	Type and size of production units	Location	Agents	Concepts, visions
<b>Extensive (or "large-scale") agroecology</b>	External and internal market	Mixed production units (crops and livestock), between 50 and 600 ha approx. (depending on the region).	Pampean region; non-core area in Buenos Aires & Entre Rios). Rural & peri-urban.	Professionals from universities, agroecology academic networks, INTA & RENAMA.	<b>A technical vision of agroecology</b> Alternatives to technological packages. Biological and ecological principles. Multiplicity, complex and interdisciplinary thinking. The quest to stabilize costs and yields. The concept of 'living well' and scientific ethics. Value of local and gender issues.
<b>Small-scale agroecology</b>	Self-consumption, local markets and/or social economy domestic markets.	Family, community, and institutional gardens. Peri-urban agriculture. From ¼ to 50 hectares.	Urban and peri-urban areas throughout the country.	ProHuerta, NGOs. Social economy networks, MAELA, MNCI, UTT, INTA (CIPAF).	<b>Political vision of agroecology.</b> Linked to demands for access to land. Food security and sovereignty. Technological sovereignty. Popular education. Participatory certification. Good living.
<b>Organic production</b>	Mainly external (organic) market.	Diversity of units, sizes, and productions.	In the different regions of the country.	International networks (IFOAM, CIAO), Ministry of Agroindustry, MAPO.	Organic markets as an opportunity to add value. Production without synthetic inputs Production certification (standards and quality control)

Source: adapted from Patrouilleau, Martínez, Cittadini and Cittadini (2017).

# Analysis of Agroecological Transitions at the farm and territorial levels

PICT 2019

FIAS-MAK'IT PROJECT / TAFS Steps 2 & 4

## OBJECTIVE

To analyze agroecological transitions based on

a) the **economic, social and political** changes involved

&

the aspects that **favor or hinder** them;

b) the capacity of AE systems to provide **food** to the population and create **employment** at the local level.



Elaboration of indicators:  
inputs for the design of actions.

## SPECIFIC OBJECTIVES

- 1) **Analysis of agroecological transitions** and  
**2** Food systems and actors mapping in Mar del Plata.  
built a **typology** of transition situations.  
(Emergence of hypotheses)  
**2** Typology of different AET processes
- 2) Identify **factors** that hindered or favored them.  
**4** Identification of obstacles and opportunities.
- 3) Estimate their **capacity of food production** and **employment generation** (youth).  
**3** Food system performance.
- 4) Propose a **system of indicators** for differentiated diagnoses of diverse transition situations.
- 5) a) *Test the indicators' re-applicability in other case studies to improve the diagnostic capacity of the instrument.*  
**3** Selection of adapted indicators and methodologies.  
b) *Evaluate these indicators during participatory workshops with producers and institutions.*  
(Emergence of categories)
- 6) Elaborate recommendations to accompany agroecological transition processes.  
**5** Policy dialogue.

During the first quarantine:

1. Literature review of existing methodologies (agroecological transitions and sustainability).

2. Creation of information collection instrument on SurveyMonkey: **interview-questionnaire** that can be applied in **intensive and extensive** agroecological productions (Pampean region, but also in ones).

Between quarantines:

3. Application of instrument at the farm level (mostly intensive productions) and in-depth interviews with key informants.

4. We are currently analyzing the information collected to build the typology and evaluating the use of the open access platform LiteFarm (UBC) for the next field work.

5. We will propose indicators.

40. ¿Qué integrante de la familia realiza las siguientes tareas y cuánto tiempo le dedica?

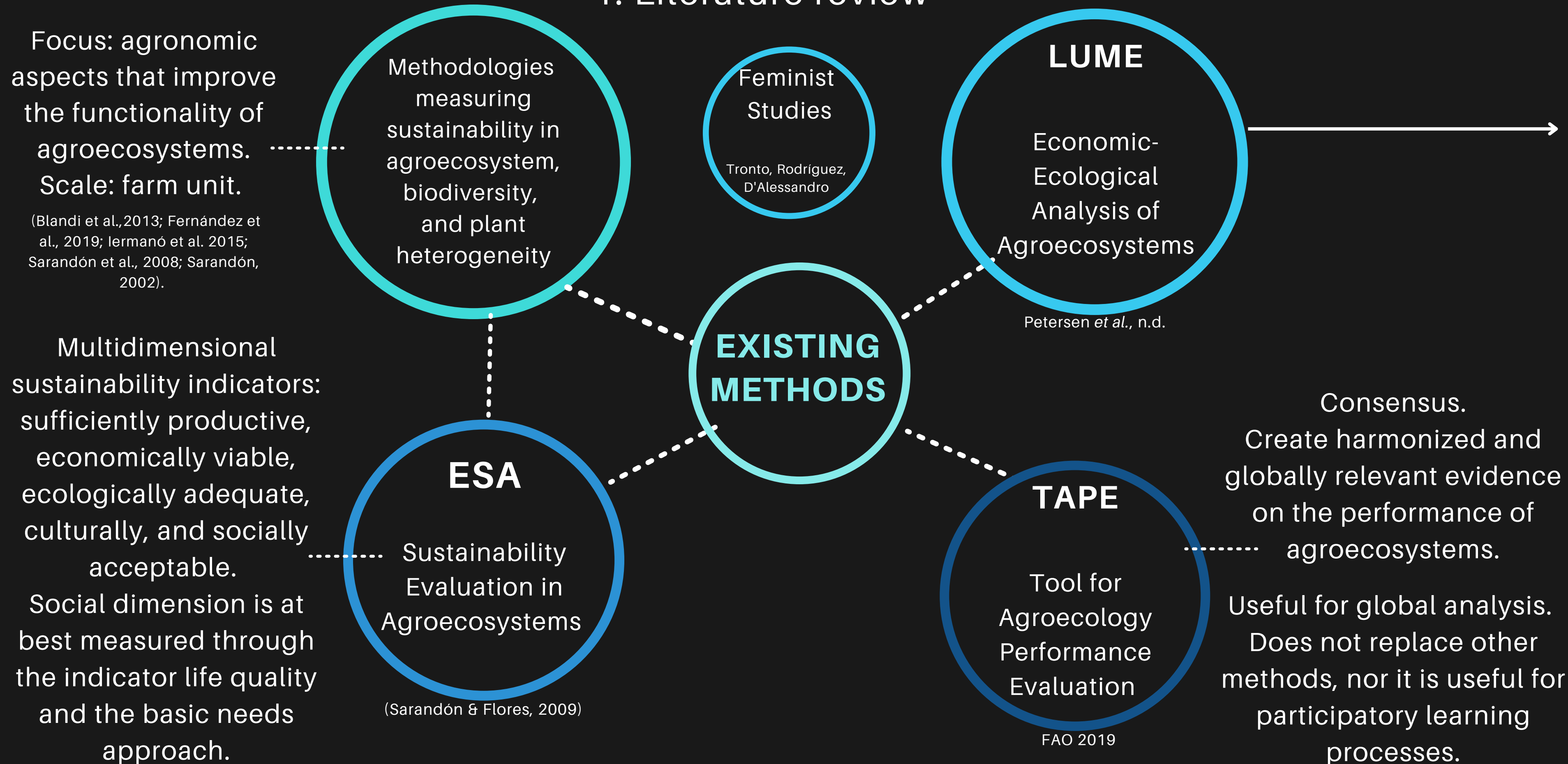
	Jefe	Jefa	Hijo(s)	Hija(s)	Otro miembro de la familia	Personal contratado temporalmente	Personal contratado permanente
Aplicación de bioinsumos y/o insumos químicos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Arreglos (de maquinarias, herramientas, sistemas de riego, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cocinar	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comercialización y vinculación con clientes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Compras de alimentos y artículos del hogar	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cosecha / Clasificación / Empaquetamiento	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Compras de insumos productivos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cuidado de niños/as	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gestión y administración de la unidad predial	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Limpieza del hogar	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Limpieza y mantenimiento del espacio productivo	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Siembra	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Preparación de la tierra (precultivo)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Otras tareas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

41. Generación de trabajo. ¿Cuántos trabajadores/as contrata la unidad productiva?

	1.	2.	3.	4.	5.
Trabajador/a permanente	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trabajador/a temporario	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



# 1. Literature review



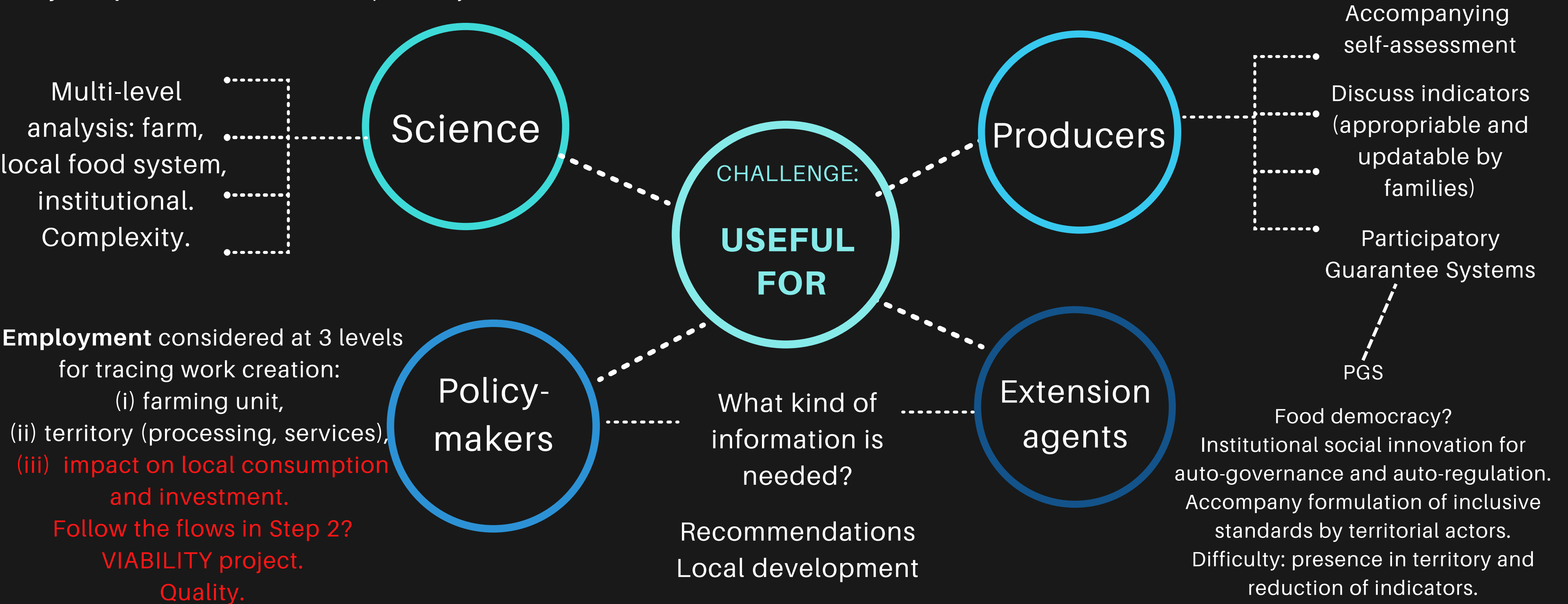
# 2. Instrument

## EPISTEMOLOGICAL APPROACH

Awareness of the limitations of measuring complex phenomena and the tension between the generation of standardized parameters (indicators) and diverse and changing agroecological transition situations.

Empathy towards producers. Explicit how indicators are constructed, i.e.,

- **"gender equity"** (normally, incorporation and participation of women in agroecosystems management, productive decision-making, and political participation), does it imply a double or triple working day for women?
- **"youth prominence"**: child labor positively?



We stated trying and adapting LUME,  
conceived for analyzing the sustainability of agroecosystems because:

- Participatory.
- Not limited to farm-level analysis (territory)
- "Sheds light" on social and power relations.
- Critical economies (Chayanov, political ecology):  
Reveals dimensions of social life (community, political)  
and work (reproductive and self-consumption),  
not considered by hegemonic economic theories.

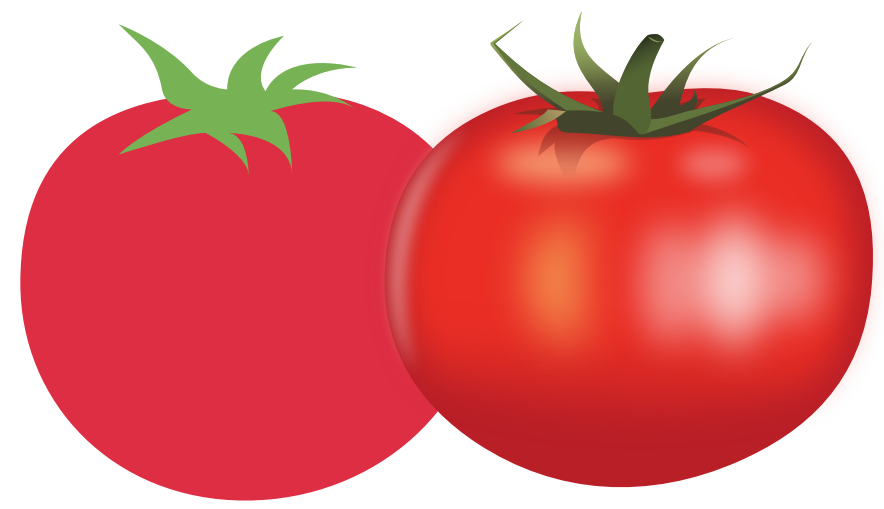


Territorio/ mercados	Participación en la gestión de los bienes comunes
	Aceso a conocimiento
	Integración en espacios político-organizativos
	Acceso a mercados
	Acceso a políticas públicas
	Otros

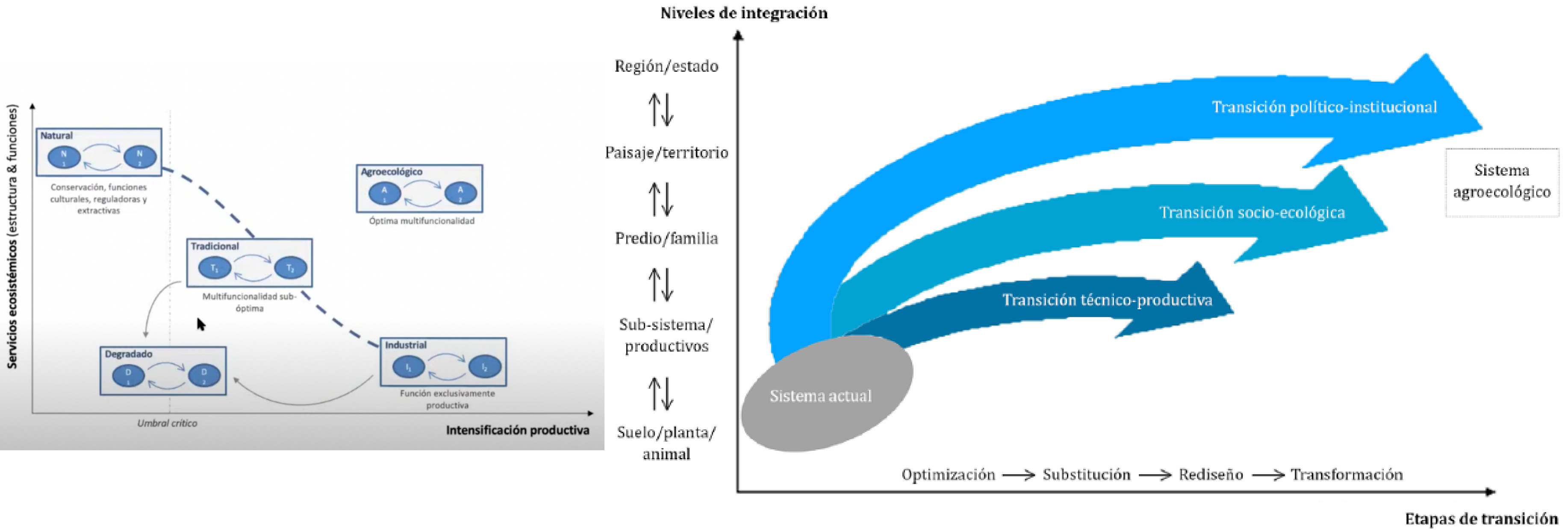
- Agriculture as exceeding commoditized circuits.
- Exceed neoclassical economy measurements (productivity, growth); incorporate indicators beyond that.
- Not only show the labor force directly generating family income, but also domestic and care labor producing goods and services (health, wellbeing, affection).
- Include not only the mercantile sphere, but also self-consumption.
- Consider not only work in the farm, but pluriactivity.
- Consider social engagement activities as extra work.

Operationalize stages Gliessman *et al.* (2007):

- 1) reduce use of inputs;
  - 2) substitution by sustainable practices;
  - 3) redesign of agroecosystems;
  - 4) change of values & aesthetics
- guiding producers & consumers decisions



While considering levels of transitions (Tittonell, 2019) and transition situations:



# 3. Fieldwork

Ord. on agrochemicals  
Territory for TAFS Step 2

Intensive & extensive AE + organics

1 Trenque Lauquen

3 Mar del Plata

1st fieldwork:  
LUME (simple questions + sketch)

3rd fieldwork:  
Survey Monkey

**BUENOS AIRES**  
(Pampean Region)  
**ENTRE RÍOS**

4 Paraná

2 Concordia

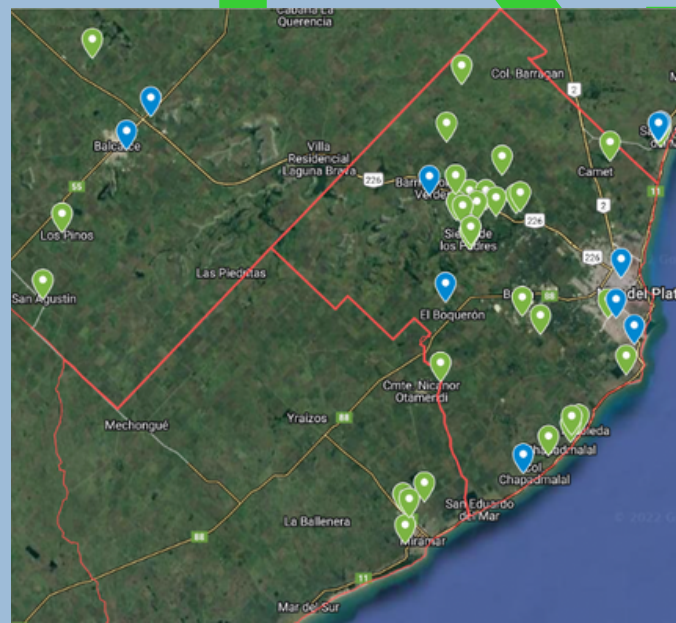
Intensive & extensive AE  
Incipient PGS

2nd fieldwork:  
LUME  
+  
PGS  
+  
Own questions



- Ord. on agrochemicals
- Territory for TAFS Step 2
- Intensive & extensive AE + organics
- Incipient PGS

- Ord. on agrochemicals
- Ord. promoting AE
- Permanent presence
- Intensive agriculture
- Helped with ongoing PGS



# ANALYSE DES TRANSITIONS AGROÉCOLOGIQUES

