

Promoting sustainable food systems in EU's remote rural regions through a place-based knowledge approach

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Abstract: *EU's remote rural areas undergo unique organizational challenges to counteract their geopolitical, economic and environmental constraints and engage in a competitive global food market. A one size fits all recipe to mend specific issues has also proven inefficient and has led policy-makers to acknowledge the importance of promoting knowledge-based systems to promote rural development. This paper explores addressing the difficulties in the design of sustainable food systems in Europe's remote rural areas by adopting a place-based knowledge approach, following a bottom-up study of the Autonomous Region of the Azores in Portugal (ARA). It inquires whether or not such approach can help nest effective and productive spaces for the making of adequate food systems, according to the qualitative research work carried out in Terceira Island, Azores in 2016. Data was gathered in eleven semi-structured interviews to key stakeholders and participatory observation of six events related to the governance of ARA's food system. Premises were structured using a grounded theory approach to discover people's perceptions about the pressing issues in the Region's food regime. The resulting discourse analysis is the cornerstone for this paper's thesis about the relevance of knowledge-based systems for rural development. The cross-linking concept hinting the food-related issues in the analysis was knowledge - whether a lack thereof or a need to further it. Respondents stressed ARA needs to first define a clear food strategy to then develop inclusive and localized knowledge systems that tackle the (in)consistencies and contradictions within the Azores' food system. Specifically, the paper suggests that any coordination and problem-solving efforts in this direction ought to adopt a multi-actor participatory approach and prioritize the role of extension and advisory services to synchronize various learning and knowledge systems.*

Keywords: *place-based knowledge approach, EU's remote rural areas, innovation processes, sustainable food systems*

Introduction

Attempts to develop sustainable food systems in Europe today go beyond concerns on ecological resources and call for innovative ways to address other equally essential issues. Developing innovative solutions to enhance food systems faces diverse tensions across actors and sectors, almost indexing that two parallel, apparently incompatible, flows are taking place in the evolution of food regimes. On the one hand, creating innovation and knowledge across food producing sectors and food value chains has become imperative for regional stakeholders searching for new food production and business opportunities to remain competitive. On the other hand, concerns on environmental, social, political and economic instability put multidimensional pressures on governmental bodies to adopt measures that can guarantee the resilience of communities in rural and urban areas. This has led into “new emerging processes that create new relevant contexts for regional development paths and challenges for policy-makers” (Cavicchi, A. and K., Ciampi Stancova, 2016:2).

Of course efforts toward innovation processes and knowledge systems ought to be contextualized and adapted to specific local needs and capacities, but models and experiences from other situations might be insightful. Alessio Cavicchi argues that “a one size fits all recipe does not exist and the search for a solution implies a wise stakeholders' management. Thus, every territory, every community, every district or rural area, having different characteristics, cultural and economic backgrounds, need to be «discovered» through participatory approaches ...” (ibid.:8). Moreover, the functioning of technology is heterogeneous. While some actors might benefit from specific knowledge system or technique in one way, another might use it differently with an opposite outcome.

This research paper looks into the challenges and opportunities of EU's remote rural areas to develop efficient and sustainable food systems. It exposes the limitation of placing policies and services under the same umbrella across the continent and proposes adopting a place-based knowledge approach to understand and enhance these regions' food systems. Likewise, it examines how such approach could help overcome coordination tensions among diverse actors and sectors, as well as to explore new opportunities for cross-sectoral and transregional collaborations (ibid.:2; Frank W. Geels in Elzen B. et al. 2004:19).

The Autonomous Region of the Azores in Portugal (ARA) serves to exemplify governance issues in these regions. The paper stresses the relevance of considering the Azores' territorial determining factors¹ to better understand ARA's reality and design appropriate organizational tools tailored to meet its food system's needs. According to the analysis developed in ARA's case study (Hernández 2016), it questions if an inclusive and multi-level approach could help regional actors recognize pressing issues and coordinate cross-sectoral efforts toward creative and sustainable solutions for ARA's food system.

This paper inquires whether or not a place-based knowledge approach can help nest effective and productive spaces for the design of adequate food systems in EU's remote rural areas. If yes, what do these efforts look like in practice and what is the role of extension and advisory services in organizing knowledge and innovation processes in the governance of food systems in such regions?

The paper is structured in five parts. It first introduces how data was treated and why it was selected for the purpose of this study; second, it presents the theoretical approach used in this paper by initially situating it within the sustainability debate, exploring its implications to attain systemic transformation and practical solutions and then briefly providing some background information about the case study; third, it exposes the results from data analysis in six sub-categories inferred by deploying a place-based knowledge approach; fourth, it discusses the adequacy of adopting a place-based knowledge approach to assess food systems in EU's remote rural regions; and last, it poses the concluding remarks from this research paper.

Methodology

This paper explores the appropriateness of adopting a place-based knowledge approach in EU's remote rural areas, based on the qualitative data analysis exposing the tensions and conflicts among actors, institutions and discourses shaping the Azores' current food system arrangement (Hernández 2016). Material for discussion in this paper is taken from such bottom-up data analysis on the political aggregation and representation of interests in ARA's food system. This analysis is relevant within the sustainability debate as it encourages to build it up upon people's own perceptions and their place-based understanding of the object. It presupposes that this approach can help define realistic and long-lasting solutions appropriate to tackle each circumstance.

Data was gathered from eleven (11) semi-structured interviews and six (6) events, where notes were taken as participatory observation. The chosen subjects and events were required to meet the following criteria: 1) they needed to be part of any of the multiple levels of ARA's food regime: production, distribution, consumption and management; 2) they had to be 'stakeholders', meaning they must represent a group of people and have an active stake in debates pertaining the food system in the Azores²; and 3) they needed to be willing to answer specific questions concerning this study (this applies only for interviews). Interviews ranged from five to nine questions and sought to discover how research participants saw the dynamics and processes within ARA's food system. Examples of the questions made include: "How does [the association you are part of] guarantee the representation of food

¹ Trujillano et al. 2005:11

² In the case of events, they needed to be 'platforms' where stakeholders would discuss food-related issues in the Region.

producers from all sectors?”, “What is the role of the agricultural regional office toward attaining a strategic food reserve for the Region?”, among others.

Transcripts were intentionally organized to do line-by-line discourse analysis (microanalysis) using *Atlas.ti* qualitative analysis software³. Microanalysis was done in two phases: open-coding and axial-coding. Open-coding consisted of a thorough, focused and intentional reading of each transcript to identify patterns. It was instrumental for breaking data down into discrete parts to examine them closely, compare their similarities and differences and, then, assign a code (or ‘label’). Groups of codes of similar nature and essence were classified into themes, which stood as ‘conceptual names’ explaining what stroke as significant or interesting to respondents. Furthermore, categories were defined to “specify a theme further by responding when?, where?, why?, and how? the phenomenon can occur” (ibid.:119).

In axial-coding, subsequently, themes (also referred to as variables) were contextualized. This implied linking the conditions (micro and macro circumstances), actions and interactions (processes), and consequences (outcomes to interactions) inferred through the themes and the categories “to form more precise and concrete explanations about phenomena” (ibid.:124,127). Axial-coding helped acquire further understanding about the layout of the food system in the Azores: specifically, on how participants interact with the institutions, as well as how they perceived central discourses, intervening forces, and occurring issues in the Azores.

Some of the quotes included in ARA’s qualitative study were selected intentionally and used as examples to support the discussion presented in this research paper.

Theoretical background

Talking about the sustainability of today’s food producing sector means addressing the conflicts between the environment and the development goals. Debates on sustainable food systems bring up current challenges over the long-term viability of the agrifood industry, including its actors, processes and resources. In Europe, conversations on sustainable food systems inevitably questioned the strategies defined within CAP. Yet “the CAP [has played] an important role in maintaining sustainable agriculture across the EU territory and in promoting environmentally and climate friendly practices” (CAP 2011:21), a revision among EU Member States suggested creative alternatives to protect the sector (especially EU farmers and forest managers) from its ongoing volatility. Such alternatives were meant to also assure resilient communities and safeguard Europe’s landscapes and biodiversity:

“Despite the progress that has been made in integrating environmental concerns into the CAP and in introducing environmental legislation at farm level, water quality and quantity, soil quality and land availability are still areas of major concern, together with the question of how to protect, maintain, and further enhance farmland habitats and biodiversity and to enhance the role of agriculture in preserving ecologically valuable landscapes.”

(CAP 2011:25)

The EU Common Agriculture Policy (CAP) has also been reshaped since 2013 to meet the challenges of agriculture today and the future, mainly in response to food security, climate change and rural development concerns. The CAP is now keen in promoting smart, sustainable and inclusive growth through innovation systems that can make agriculture fairer and greener, redeem the position of farmers vis-à-vis other players in the food chain and make the policy as a whole more efficient and more transparent. (The EU explained, 2014:16).

For instance, the concept of “foodscapes” has become a recent concept for the innovation of food systems. With the aim to revitalize rural areas, it bets on local culture, creativity and food tradition and highlights the linkages between novelty, authenticity and locality in food

³ A free trial version of Atlas.ti for Mac (Version 1.0.48) was chosen because of its simplicity.

experiences. Such strategy has the potential to enhance the role of small scale food production and represent a route to more sustainable food systems. Its success lies on the principle that multiple stakeholders, accounting social responsibility and multiple identities can be sat on the table for a common strategy (Ashworth and Kavaratzis 2009 in Cavicchi, A. and K., Ciampi Stancova, 2016:6).

Agricultural and developmental policies in EU's remote rural regions (also known as Outermost Regions (OR) of Europe⁴) undergo specific political analysis. The ORs are regions that have a geographic distance from the European continent. They are usually islands, in a situation of being an enclave, or with challenging topographical and climate conditions, causing them to be removed from the main commercial trade lines, economically dependent on a few products, and therefore with restraints to take full advantage of the European Market.

To face such challenges, the European Commission designed in 2012 an innovative development strategy specific for ORs to fulfill the Europe 2020 Strategy⁵. This Action Plan aims to address the limitations of these regions, which affect their economic, social and territorial development. It encompasses all public policies and seeks to promote smart, sustainable and inclusive growth along five axes: accessibility, competitiveness, regional integration, the social dimension and climate change action.

A place-based knowledge approach

Adopting a place-based knowledge approach could aid unveil the bits and pieces shaping EU's remote rural regions and help address current gaps in the policy tools and actions affecting their rural development and sustainability. This process builds off from a comprehensive study about the actors, dynamics, belief norms, institutions and externalities involved in each specific case to recognize and resolve any ongoing discrepancies. However, for it to be effective and sustainable, this exploration requires a multidimensional and multi-actor approach, which ultimately leads to the innovation of an entire socio-technical system, a so-called system innovation (Barbier M. and Elzen B 2012:87). Effective place-based knowledge systems thrive if they act as “venues for negotiation and mediation”. (Cash D. et al. 2003:8090). Their effectiveness depends on how inclusive and self-reflective they are, acting as platforms for discovering what should be addressed and why, how it can fit best, and who can contribute to developing creative and feasible solutions.

One must bear in mind that systemic changes require transformation at various and simultaneous levels:

“The term system innovation refers to comprehensive regime changes, i.e. changes in prevailing shared rule sets and routines in actor networks governing particular fields of practice. Regime change and system innovation can be induced by mutually reinforcing dynamics at niche level, through the development of unusual, novel practices in protected spaces challenging prevailing rule sets, and at landscape level, through structural developments.”

(Barbier M. and Elzen B. 2012:88)

Innovations in the food system realm refers to transforming the way societal functions are fulfilled, including how food is produced, distributed, and consumed. Yet technology (e.g. resources, policy instruments, exchange channels, communication tools, etc.) plays an important role in fulfilling these functions, the success of such system depends on how the

⁴ Art. 349 of the Treaty on the Functioning of the European Union (TFEU), annexed to the 1992 Maastricht Treaty, defines the specific characteristics of ORs. The ORs include: Guadeloupe, French Guiana, Martinique, Réunion, Saint-Martin, the Azores, Madeira and the Canary Islands.

⁵ The EU2020 Strategy was developed to create the conditions for smart, sustainable and inclusive growth for all Member States in Europe. See: http://ec.europa.eu/europe2020/europe-2020-in-a-nutshell/index_en.htm

developed technology performs and how it is used – namely who gets to participate, how decisions are made and whose interests are considered. To assess this, a place-based knowledge study can help recognize the linkages between technology and social structures and organizations, shedding light into how these artefacts fulfil societal functions.

The Autonomous Region of the Azores (ARA)

The Autonomous Region of the Azores in Portugal is a set of nine volcanic islands⁶ located in the Atlantic Ocean about 1500 kilometres off the Iberian Peninsula in Europe. The Azores is classified as a predominantly rural and underdeveloped region, whose fundamental pillar of the economy is agriculture, an activity highly exposed to damage from natural catastrophes and bad weather. The ARA presents a low population density centred on large-scale cattle farming for milk and meat production. Fishing, on the other hand, encompasses a small-scale artisanal activity that relies heavily on tuna despite its economic potentiality from a vast marine diversity.

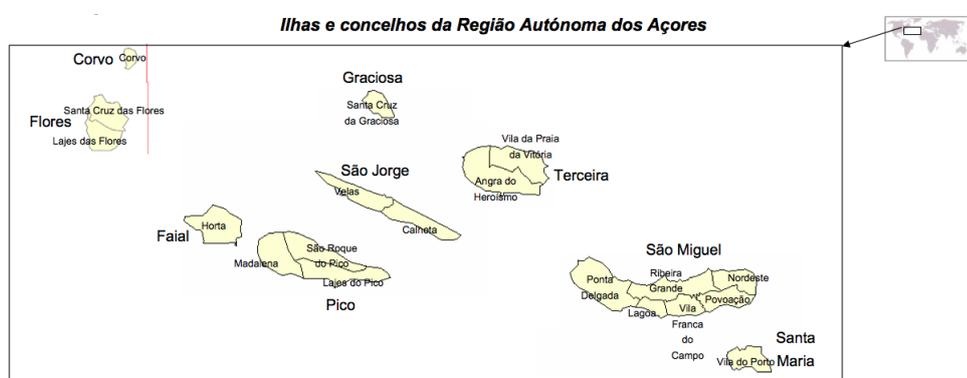


Figure 1: Islands and municipalities in the Autonomous Region of the Azores (ARA)⁷

Milk production has followed quantitative and qualitative efforts and investments in the last 20 years towards the modernization and increasing production capacity of the agro-industry⁸. Today, ARA is responsible for 30% of Portugal's cow's milk production, while the meat chain presented a 384% increase in the volume of cattle slaughtered for export between 2005 and 2012⁹. The fishing sector, in contrast, employs around 500 fishermen, haulers and support staff on the land, plus around 1,000 jobs are generated by the fish processing industry (mainly preserves), the fish marketing chain and maritime and air transport. The tuna processing industry dominates the activity and focuses on export, with little demand for fresh fish (ibid.:27).

Results

A place-based knowledge approach into the Azores case helps infer the organizational challenges and opportunities of the region's food regime. The axial coding developed in the Azores' study (Hernández 2016) shed light about the key concept underpinning stakeholders' concerns regarding ARA's food system: 'knowledge', whether a lack thereof or an urgency to further it, blending all conflicting tensions across sectors and topics. Issues revolved around coordination, specifically on: who should lead the knowledge-making processes, how funding can be attained to do this, and to what extent this is actually relevant. Some of the causing

⁶ The nine Azorean islands are: Santa Maria, São Miguel, Terceira, Graciosa, São Jorge, Pico, Faial, Flores and Corvo.

⁷ From: Região Autónoma dos Açores: Potencial Sectorial (2009:7).

⁸ Source: The outermost regions of the European Union: towards a partnership for smart, sustainable and inclusive growth (2013:21)

⁹ Ibid:22.

roots to this ambiguity might be the fact that there are three (3) levels - working often in isolation from each other - where multiple institutions, discourses and stakeholders interact to give form to the Azores' food system design: i) the globalized food market, ii) the European Union, and iii) the Autonomous Region of the Azores (ARA)¹⁰.

A number of categories taken from Hernández (2016) serve to exemplify the structural issues in ARA's food system and the adequacy of assuming a place-based approach to understand these discrepancies.

(i) Uneven stakeholder participation

Given the relevance of agriculture for the Region, the Regional Secretary for Agriculture and the Environment (SRAA) is responsible for a large portion of the management tasks involving the food-related sector. Unlike the SRAA, the Regional Secretary for the Sea, Science and Technology (SRMCT) holds little stake in food affairs in the Azores. Several aspects could have led to this: first, the Regional Directorate for Fisheries (nested in SRMCT) deals mostly with the fishing industry, namely the selling and distribution of post-harvest activities; second, fishermen and ship-owners' issues are largely dealt independently through each of the islands' associations; third, there is a significant difference in budget allocation between the agricultural and fishing sector (see Table 1); and last, a lack of representation of fishermen in the Region was inferred through data analysis:

"... today is gotten worse because [SRMCT] now includes education, science and technology and has little room for the fishing sector."

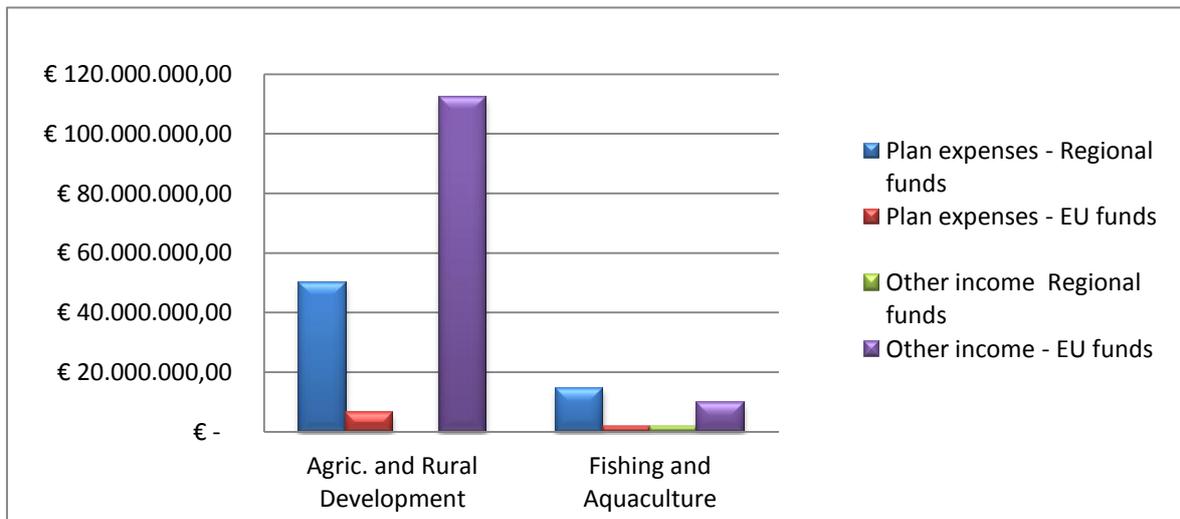


Table 1: Comparison in ARA's budget allocation by departments for 2016, according to the Regional Legislative Decree No. 1/2016/A¹¹

Similarly, most of the initiatives developed in ARA's food system are fostered by institutionalized stakeholders situated in the public sector. This could be due to the strong

¹⁰ The state level (Portugal) was purposely skipped here. It is important to highlight that the Portuguese constitution contains a clause allowing the Azores' governmental autonomy over areas of special interest, including agriculture and fisheries. Other areas, such as foreign affairs, monetary policy and criminal jurisdiction remain in control from Lisbon (Murray (2012) quoted in Alison Neilson 2012:474).

¹¹ The Official Budget for 2016 in ARA, as approved by the Legislative Assembly (discriminated by departments). Three out of the four rural development projects expected for 2016 are agriculture-oriented. From: Diário da República, 1a. serie – No. 5 – 8 January 2016, pg. 63.

reliance on public (regional or communitarian) funds, the Azores' historical predisposition, and/or the impairment to create participatory channels for civil society stakeholders to engage in the collective construction of ARA's food system, among others. Private stakeholders, including large corporations (either from mainland Portugal or abroad), appeared as independent actors controlling the current distribution alleys in ARA with their own suppliers and terms. This leads to a competitive disadvantage by local food producers and the local food industry, and also causes difficulties in synchronizing all food system's processes. Likewise, respondents claimed the opinions and interests of less influential actors, such as consumers and primary food producers, were rarely considered when designing regional programs and policies.

(ii) Subsidy dependence

Promoting a sustainable food system in a competitive international market came up as an ongoing challenge in ARA's political sphere. This results because policies like CAP have paradoxically altered historical land uses at the local level, despite seeking to protect farmers. For instance, farming subsidies tailored for the Azores (such is the "milk package") have privileged certain crops and activities like corn and cattle farming, while leading to the abandonment of others (e.g. sweet potato, beans and vegetables, and activities including fishing), generally traditional, and induced the shortage of local product supplies. A concerning example is the shortage of domestic supply of fresh fish in the archipelago:

"More than 60% of the fish in RAA is exported to either mainland Portugal, the EU or the U.S.A."

Fishing in the Azores accounts for 40% of the total exports from the islands but involving only about 5% of the officially recognized workforce (Rodrigues (2008), quoted in Neilson 2012:498). According to Pouncy, "exporting outputs and performances despite the fact that societal members need and lack access to them suggests a society's stage of development and its levels of political and economic equality". Looking carefully into this arrangement tells us how decisions are made and hints again into an uneven stakeholder participation, "unveiling the where, who, and how are decisions produced" (Pouncy 2012:109).

(iii) Imports-based food system¹²

This category stresses that the current food production scheme encourages and is feasible thanks to the purchase of foodstuffs and food production inputs (e.g. fertilizers, seeds, specialized knowledge, etc.) from abroad to satisfy local needs and remain competitive.

"There is a high dependence from the exterior [...] All raw materials are purchased from outside. They come from the U.S.A., Europe, or Africa... [The percentage of agricultural raw products coming from] ARA is residually, hardly any, because what the Region produces is for export."

Imports were also signalled as a consequence of the small-scale local production in ARA and its export-oriented agrifood industry. Imports take place throughout the entire food chain:

¹² Imports in this context are assumed as goods coming from anywhere outside the Autonomous Region of the Azores, including mainland Portugal and the European Community.

ranging from raw materials to technical expertise. Concerns were revealed with people's opinions on how foodstuffs coming from abroad could be replaced by items already produced locally and industrially¹³. Stakeholders claimed that ARA's food industry must recur to imports because the system's current set-up encourages them.

(iv) Logistics control

This category refers to the management and oversight of factors that allow and ensure the proper production, distribution, and consumption of food in the Region. Factors include control over the means of transportation, which in the case of the Azores are maritime and by air¹⁴, and the distribution chains.

"Transportation is a constraint for distribution, especially in terms of longevity... We must first address the issues with transportation and logistics [if we want to profit], because it takes up to six and seven days for produce to arrive to mainland Portugal."

(v) Paradigm revision

This category refers to the need for a critical and self-reflexive assessment of how the current food regime is constructed in the Azores. Stakeholders themselves claimed this process must include the identification of ARA's food system's shortcomings and ineffective measures, the amendment of the role of actors and legislations, and the reformulation of social and political patterns for the improvement of the system as a whole.

"We must have the courage to accept where we have failed and reflect on how this can change? For this, we need a political will that accepts things need to change."

(vi) Accountability

Statements in this category expressed anxiety over a lack of effective mechanisms to make stakeholders responsible for decisions concerning the food scheme in the Azores. Issues on accountability highlight the difficulties to assure liability and transparency from the regional authorities, which are necessary features for the promotion of a stimulating and participatory system. Yet liability and transparency are essential ingredients for accountability to exist, demanding accountability requires constituents' disposition to engage and participate actively. It is through the promotion of institutions that nourish such relationship based on trust – for example, via extension and advisory services - where accountability can be feasible.

"The Azores is a perfect example [for organizing a food system]. You [Azoreans] must make your leaders accountable."

¹³ According to SREA, Statistics Azores, 2015, out of the total food items purchased in the Azores in 2015: 34% are from ARA, 60% from mainland Portugal and Madeira, and 6% from other countries. Food Purchases by Source Market - Large Commercial Surfaces, Azores – 2015. From: <http://srea.azores.gov.pt/>

¹⁴ According to Neilson (2012:480-482) "air transportation is an important part of the Azorean fish export strategy, as fresh fish are highly perishable and waterborne travel takes a far longer time than transport by air."

Discussion

The qualitative analysis carried out in ARA from a place-based knowledge perspective focused precisely in understanding the interdependence and interrelation of three concepts: institutions (rules), historicity (temporal evolution), and ideas (perspectives) to dismantle the tensions underneath among actors and processes, giving priority to a multi-stakeholder input. Fieldwork data examples describing stakeholders' intake about ARA's food system resemble what David Cash et al. (2003) call a "society missing a critical understanding regarding which kinds of programs, institutional arrangements, and, more generally, "knowledge systems" that can most effectively harness knowledge and technological innovation to attain sustainability" (ibid.:8086). As one respondent pointed out:

"The issue is that ARA does not have a perspective, but instead it only looks at the economy. We do not know what are the deficits, visions, or goals of the region in order to transform what we have or to envision what we want to have."

The quote above reveals that talking about "knowledge systems" refers not only to the production of sound information to understand and improve a specific matter, but on detecting who can participate in this process and to monitor its effectiveness. Adopting a place-based knowledge approach implies measuring the impacts on "how issues are defined and framed, and on which options for dealing with such issues are considered, rather than only in terms of what actions are taken to address specific problems" (ibid.).

In the Azores, stakeholders indexed that an uneven stakeholder participation, the region's subsidy dependence, an imports-based food system, challenges controlling the system's logistics, a necessary paradigm revision, and the need to guarantee accountability, among others follow the absence of a clear strategy at the regional level. Having no collective awareness about what (or 'whose' needs) should be made a priority represents a real handicap in coordinating the system as a whole. This results in actors acting independently and pulling in their own direction. Therefore, an imperative initial step to address the issues within ARA's food system is defining a food clear strategy for the region, namely what are its short, medium and long term goals, as well as defining the steps to attain such purpose. This requires providing a voice to all stakeholders and defining a common objective that can be sustainable, reasonable and inclusive. Similarly, ARA's food system would be able to overcome its inability to assess upcoming challenges and react accordingly once an infrastructure is established to monitor the various processes within and determine the regional assets and shortcomings. The role of extension and advisory services are essential here, as they act like knowledge niches nurturing networking, multi-stakeholder participation and collective decision making.

Policy-making efforts in the Azores would benefit greatly from adopting a place-based knowledge approach to bridge the gaps and incompatibilities between the rule sets governing the different sectors, processes and actors within ARA's food system. Adopting a bottom-up approach to unveil the issues in ARA aided actors speak up about the Region's issues from their own perspective and provide feasible solutions within their capacities:

"We need to work at a regional and multidisciplinary level to reflect on the way we are seeing food. To do so, we must design a transversal policy that sees food beyond agriculture and considers aspects such as transportation, health, the role of consumers, and education."

Conclusions

Adopting a place-based knowledge approach to assess food systems in EU's remote rural regions is a realistic method for enhancing the regions' resilience and promote rural development. Such approach not only serves as a scan of the region's actors, processes, tensions and discourses, but can also help decision makers in ORs understand the dynamics behind ongoing challenges and discover realistic opportunities for the advancement of their food system.

A bottom-up analysis, like the one done of the Azores's food system, was useful to identify what are the pressing issues limiting the success of ARA's food system. Through this approach we could broadly infer that it is the absence of knowledge about who, what and how concerns could be addressed. The inability of the food system in the Azores to self-organize itself could be tackled if efforts focus in identifying the actors, objectives and difficulties that frame it.

Promoting place-based knowledge systems is not only a descriptive process but also an active one. Such approach operates as an organizational tool, discovering the who's and how's and defining a safe and inclusive platform where "venues for negotiation and mediation" meet to define collective objectives. Strategies to promote education, extension and advisory services tailored to specific locations require an investment in time and efforts. They should bear in mind a sufficiently long-term perspective to do an assessment of the process and adapt accordingly to upcoming issues. That means, "it must recognize the slow impact of ideas in practice, the need to learn from field experience, and the time scales involved in enhancing human and institutional capital necessary for carrying out all these tasks" (Cash D. et al. 2003:8090).

The Azores' case study exemplified in this paper served to highlight the relevance of collecting the inherent knowledge embedded on the ground to define operational solutions to address systemic issues. This paper served as a first door to discuss the connection between knowledge systems and innovation processes for the promotion of sustainable food systems. To expand on this new research field, it encourages carrying out further case-based research that allocates the time and resources in investigating what are the actors, discourses and rules of behaviour interested in procuring sustainable food systems, giving an essential role to the adoption of a place-based knowledge approach.

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