



thij
Tourism and Hospitality
International Journal

THIJOURNAL.ISCE.PT
THIJOURNAL.ISCE.PT

ISSN: 2183-0800

TERRITORIAL GOVERNANCE AND SUSTAINABLE DEVELOPMENT IN PERIPHERICAL REGIONS: ECONOMIC AND INSTITUTIONAL CHALLENGES

119

Pedro Oliveira

Polytechnic Institute of Santarém

Oliveira, P. (2020). Territorial governance and sustainable development in peripheral regions: Economic and institutional challenges. *Tourism and Hospitality International Journal*, 15(1), 119-141.

Abstract

This research aims to investigate how territorial governance can induce sustainable development, bearing in mind the challenge of smart growth and lasting employment creation, de-carbonization of economy and touristic valuation of intangible assets embedded in a certain territory. By analysing regional cases of sustainable management (the Tagus wine route and the River Sorraia's Valley hydrographic harnessing), through literature review and direct observation, we argue that the Iberian institutions of education in partnership with scientific and technological poles play a strategic role to foster progress in scientific knowledge about effective solutions against climate change, including the overall sectors of economic activity. Furthermore, those institutions are also crucial to disseminate more environment friendly techniques of production by companies (particularly in micro- and small firms) and social economy organizations. The main point is that only a transparent process of negotiation open to all stakeholders - through creativity, entrepreneurship, spirit of citizenship and intergenerational solidarity - can lead to the maximization of the quality of life of people living in this part of Iberian territory.

Keywords

Sustainable management, Agroforestry system, Territorial governance

Introduction

Taking as geographical reference the hydrographic basin of a transnational river - Tagus River, that runs through Spain and Portugal - and its productive specialization in goods of agricultural origin, we question what collective actions might guide the business and institutional agents in accordance with the local-global mediation in the conception of sectoral public policies, meeting the strategic goals for territorial governance and development (United Nations, 2012).

Considering such river, one of the major ones in the Iberian Peninsula, as an essential natural element for the competitiveness of the regional agrarian economy, with evident impact on the dynamism of the internationalization of agro-food supply chain, very dependent on edaphoclimatic and terroir conditions, the research carried out since 2009, based on a holistic and interpretative case study (Yin, 2014), allowed us to observe the widespread adoption of good practices in terms of innovation and environmental sustainability in various associations/organizations of farmers, as well as in food and wine industries.

To such an extent that currently agro-forestry-silviculture activities are supervised by graduated agronomic engineers and technicians, using the fields to test new varieties of seeds and feedstuffs to match local and global market needs, through a model of sustainable agriculture combining efficient use of water and low carbon emissions, lowering the ecological footprint as much as possible (Climate Technology Centre & Network, 2019).

These observed facts, side by side with discussion of higher education institutions' role for territorial governance effectiveness (in this paper), permit us to propose an empirically suitable strategy of collective efficiency, defined as the competitive advantage derived by clustered firms from local external economies and joint action (Schmitz, 1995). This means that trust between stakeholders and smart designed joint actions can trigger innovation and thus to overstep knowledge transfer barriers for primary activities where micro and small firms are most frequent (Oliveira & Turčinková, 2019; Natário and Oliveira, 2018).

Theoretical Framework

This research finds its theoretical roots in the endogenous (or bottom-up) development approach, explained in the seminal essays of Friedmann & Douglass (1975), Stöhr (1981), Friedman & Weaver (1981). In their perspective, the priority in designing strategies of territorial development must be based in a higher degree of self-determination for rural areas and other peripheral areas in the creation or transformation of existing peripheral institutions towards to promote territorial and social cohesion, aligned with self-determined objectives – rather than primarily using external institutions to promote development based on externally defined needs and standards (from the center-region).

This 'futuristic' (and somewhat politized) view is complemented later with the evolutionist perspective that trust locally constructed, based on the geographical proximity and social interaction, favors collective learning and coordination between economic actors and the various institutions to ensure socially efficient and sustainable management of productive resources; thus, reducing uncertainty either in R&D projects or business and social entrepreneurial activities (Lundvall, 1992; Kirat & Lung, 1999; Boschma, 2005; Tödting & Trippel, 2012; Torre & Wallet, 2013). These territorial embedded activities have repercussion in industrial atmosphere (in the sense of Marshallian Districts), creating knowledge externalities and reducing costs of transaction (Coase, 1937; Williamson, 1975), which not only speeds up innovation but also provides extra-economic benefits related with:

- Communitarian management of land and water - preventing soil erosion and implementing small projects of irrigation and flood prevention, as well as programmes destined to recovery of soils for agricultural use;
- The exploitation of energy resources noncausal of greenhouse effects within the territory (e.g. the case of wind farms);
- the provision of a wide range of collective equipment that serves the needs of local populations in domains ranging from business capacity (within cooperative organizations, namely) to vocational education and training aimed at solving problems of management and engineering processes related to primary and transformation activities.

Territorial Governance

The concept above mentioned can be conceived as "a mode of coordination that aims to integrate productive and institutional mechanisms into local dimensions (geographical proximity 'versus' organizational proximity) and local-global (local proximity 'versus' global proximity)" (Torre, 2014). Territorial governance is an anchor for the cohesion of territorial production systems in a social framework marked by tensions and permanent need for arbitration between different interest groups at local level.

Another useful definition for the purpose of this research comes from Torre and Wallet (2014):

Without being normative, let us define territorial governance as the set of processes and mechanisms through which different parties or actors of various natures (production, association, individuals, representatives of the public or local authorities...) contribute to working out - sometimes through discussion, and sometimes through conflict - common projects for the future development of the territories.

Following this perspective, it can be viewed as the result of the transition from a model of social regulation based on the central role of the State to another based on partnerships and other forms of association between governmental and non-governmental organizations, where the State has only coordination tasks (Oliveira,

2013). Torre and Wallet (2015) state that rural development can become more sustainable through territorial governance once that it:

- makes easier the coordination between heterogeneous groups of actors/stakeholders;
- limits the exodus of qualified and entrepreneurial citizens;
- avoids sterile conflicts;
- promotes consensus on ways to develop (sustainable) territories.

The exercise of territorial governance happens through the collective action of the different actors/agents in the institutions and organizations belonging to civil society, seeking consensus between different views of the world in personal terms, in order to bring about group interest. In this sense, it acquires relevance both the design of a territorial pact (on a markedly political level) and implementation of collective efficiency actions – concepts to briefly explain in the next sections.

Territorial pacts.

According to Antonescu (2015, p. 283),

the territorial pact is defined as a concept of negotiated planning of regional/local development that joins other concerted actions: contracts, the district contracts and the agreement programme, using the bottom-up approach. It is wide network of stakeholders in the territory willing to plan and implement projects impacting on the level of development in local area.

From the European Union policy-makers' perspective (Committee of the Regions, n.d.):

A Territorial Pact for Europe 2020 is an agreement between a country's tiers of government (local, regional, national). Parties signing up to a Territorial Pact commit to coordinate and synchronise their policy agendas in order to focus their actions and financial resources on the Europe 2020 Strategy goals and targets.

In synthesis, the territorial pact is influenced by a complex set of factors, such as: the multiscale governance system, the empowerment capacity of communities, level of self-determination of communities, the market conditions and territorial production infrastructure to respond to such conditions. According to the literature, territorial pacts should become a value-added regional policy instrument as an agreement between the different levels of governance to reconcile their strategic objectives, effectively and efficiently mobilizing the resources of the territorial community.

Collective efficiency.

It is called collective efficiency to the competitive advantage derived from spatial agglomerations ('clusters') of activities by accelerating production, evolution and sharing of knowledge, and allowing greater efficiency in resource use through easier

cooperation between economic agents (Oliveira & Natário, 2016; Jardon & Pagani, 2016).

Joint actions organized and implemented intentionally through strategic alliances and partnerships may induce external economies of knowledge, scale and organization, enabling gains in business competitiveness and defining a path for sustainable growth of production and employment (Schmitz, 1995).

Method

The research methodology was based in literature review, statistical analysis, analysis of official documentation, direct observation and semi-structured interviews with representative bodies of business and non-profit associations belonging to the agri-food and forestry complex of the River Tagus basin. The inferential process is based in triangulation of these sources following the case study procedures as stated by Yin (2014).

Results

Territorial Features (NUTS III)

Our critical reflection addresses the need of preservation of Tagus river ecosystem due to respective importance for the territories located along its banks. This international river comprises the following Portuguese region (Figure 1) – designated according to the nomenclature of territorial units for statistical purposes (level III): Beira Baixa, Alto Alentejo, Médio Tejo and Lezíria do Tejo (European Commission/Eurostat, 2018).

Following the press release by Portugal Statistics about the *Regional Statistical Yearbook 2017*, dated from 20 December 2018, regarding to land use and land cover it is mentioned that:

(...) the forest area was more expressive in central municipalities of the Centro region, extending in a territorial continuum to municipalities located in the Norte region (...) and to the south, to municipalities located in Lezíria do Tejo and Alto Alentejo. Shrubland areas were more relevant in north-eastern municipalities of Mainland Portugal and in the Algarve and the agroforestry systems in municipalities of the Alentejo region, as well as in Alcochete [Metropolitan Area of Lisbon, at the south bank of Tagus River] and Idanha-a-Nova [Beira Baixa].

Analyzing the pattern of productive specialization of some of the targeted regions the following results (Tables 1 and 2) show an agglomeration of agroforestry activities along River Tagus banks.

The wine route of River Tagus (Ribatejo, Portugal).

The main territorial-based issue is the viability of investments in urban-rural spaces, both of material and intangible nature, already carried out or planned collaboratively by institutional, associative and business agents focused on the market valuation of non-transferable and intangible assets – including not only the natural landscape but also built heritage of a region traditionally known as province of Ribatejo amidst the local inhabitants. In other words, it crucial for all interested parts in regional development to take the most of economic and social value from territorial amenities.

An illustrative case is the implemented project designated as Tagus wine route (“Rota dos Vinhos do Tejo”, as pictured in the map below), with its 4 routes: "Gothic treasure", "Bulls and horses", "Border Tagus" and "Manueline treasure" (Figura 2).

Such routes are part of an initiative promoted by Turismo do Alentejo, an organization of public law of territorial scope responsible for the tourism management of Alentejo area (NUTS 2, illustrated at Fig.1).

The respective guide identifies and shows the location of the companies that produce and transform agricultural products with ISO quality and Forest Stewardship Council certifications – e.g. certified wines and olive oil, cork, livestock production (also including bulls and horses) – and gastronomic dishes (Entidade Regional de Turismo do Alentejo/Ribatejo, 2014).

These establishments have their doors open all over the year to host tourists interested to enjoy of entertainment and/or work activities (like horse riding and others illustrated in Figure 3) and enjoy a pleasant staying at manor houses owned by aristocratic families for centuries, offering to guests all the comfort and relaxation.

The Sorraia Valley’s system of irrigation

As a remarkable case of sustainable management of the Tagus River watershed, theme of a first international conference jointly featured by scholars of the University of Castilla – La Mancha (Spain), Polytechnic Institute of Santarém (Portugal) and other Portuguese universities, it deserves to be mentioned the Association of Irrigators and Beneficiaries of the Sorraia’s Valley, one Portuguese affluent of the Tagus River that crosses the NUTS III Alto Alentejo and Lezíria do Tejo .

Using digital technologies to support hydraulic engineering, this association has developed a vast irrigation work, since 1957, which includes the reservoirs of Maranhão, Montargil and Magos, as well as a series of streams, canals and dams, covering a surface area of 16.351 hectares in the Portuguese districts of Portalegre, Évora and Santarém (Figura 4).

In addition to the systematic dissemination of legislation on water resources and hydro- agricultural use, the organization performance has been remarkable concerning to water quality and quantity monitoring by ensuring its supply respecting quotas established through a democratic and transparent process of negotiation between the all

set of interested parties, thus preventing individualistic behaviors in the use of a vital resource for the sustainability of the agroforestry business and agri-food industries established in the territory.

But, from a view point of ecosystem sustainable management and rural innovation boost, the most interesting action led by this same organization is the implementation of a huge and innovating project (Act – *Evaluation system of water and energy efficiency*) which aims to assess the efficient use of water and energy in hydro-agriculture uses¹ (Figura 4).

This example shows how essential it is that all stakeholders interact transparently and constructively in cooperative solutions to prevent any regulatory failures, notably in the application of the arrangements signed by national authorities of the Iberian countries (including controversial issues like building new dams over the Spanish part of Tagus River to supply water to Andalusia and the postponed foreclosure nuclear power plant in Almaraz (Spain), 100 kms upstream of the river border with Portugal (Figure 5)².

Such arrangements have been negotiated over an institutional basis starting with the signature of the *Treaty of Limits* (1864). Since then a few conventions were signed by both national governments as well as a lot of official meetings have taken place, being worth of notice the most recent *Conferences of the Parties* (Table 3).

However, despite the negotiating effort made by the Iberian governments to establish balanced solutions, the reality shows that are insufficient to respond to the problem of extreme drought which has led to a worrying reduction in the water flow of the Tagus River, mainly in Spain.

Besides that, there are pulp mills, paper and tanneries located at the Portuguese territory whose residues have been dumped for decades in the Tagus River and affluent rivers, as well as waste-water from cities along respective banks (from Madrid until Lisbon), seriously damaging international Tagus watershed ecosystem (Araújo et al., 2015).

Furthermore, there is a worrying phenomenon of siltation (i.e. the silt gets laterally deposited on the banks of the rivers), as shown in Figure 6, because of deforestation along its banks, caused by inappropriate overuse of its steeper banks for farming and forest fires.

More precisely Araújo *et al.* (2015; p. 823) state that:

Deforestation can impact the water cycle in many ways. Fewer trees result in less transpiration, which reduces the amount of local rainfall and increases the severity of droughts. These events eventually reduce the amount of available water and the flow of rivers. Less vegetation also creates more runoff, thereby lowering water tables and reducing the amount of water stored in the soil.

¹ The targeted objectives of this project are described at: <https://inovacao.rederural.gov.pt/grupos-operacionais/13-projetos-grupos-operacionais/59-agir-avaliacao-da-eficiencia-da-agua-e-energia-em-aproveitamentos-hidroagricolas> (last access in November 31, 2019).

² See the article “*Nuclear energy sparks major tensions between Spain and Portugal*” at: <https://guests.blogactiv.eu/2017/02/20/nuclear-energy-sparks-major-tensions-between-spain-and-portugal/> (last access in March 24, 2019).

Discussion

Moreover, as biodiversity is a societal challenge in the European Union Horizon 2030 Agenda, it becomes necessary a "new industrial strategy" that defends the adoption of new green technologies and sustainable industrial processes. It is thus up to the education, scientific and technological systems of both countries to work jointly to foster new advancements in scientific and technological knowledge getting more effective solutions for climate change problems. Subsequently, such solutions should be disseminated to the overall of economic activity sectors - particularly micro- and small enterprises - speeding-up innovation at all territorial scales (from local to global).

This dissemination should be expressed into environmentally friendly practices, in coherence with the so-called Circular Economy³, which means to streamline the financing mechanisms of programs to promote R&D in the European Union, particularly at the level of cross-border cooperation.

In this sense, it is important to urgently rethink public policy models defined according to realities largely unknown by regional communities. For instance, at the level of regional development, there exists a centralizing model of supervision of courses offered by the Portuguese system of higher education that lacks strategic orientation for the specific needs of development of peripheral territories.

It is crucial to create better working conditions in respective institutions, giving to researchers and teachers enough motivation to play a socially more active role. To reinforce this concern, it is worth of notice the following statement adapted from a recent scientific and technical report authored by a representative group of researchers and teachers belonging to 12 Portuguese polytechnic institutes (Alves *et al.*, 2019):

(...) there is significant pressure on the evolution and components of public expenditure, with reduced funding for higher education institutions (HEI), there is an increase in pressure on their social function and on the need to account for Society. These issues concern topics such as adjusting society's perceived needs and offering of HEI, the impact of HEI on the labour market and how HEI affects the local and regional economy. However, it is well known that HEI have an impact on local economies and, therefore, act like important mechanisms of regional development (Arbo & Benneworth, 2007; Hermannsson & Swales, 2010; Smith, 2006), providing educational, economic and cultural opportunities that would not otherwise exist (Charney & Pavlakovich-Kochi, 2003).

Through this research it becomes clear that the presence of the public HEI located at NUTS III Lezíria do Tejo and Médio Tejo (Polytechnic Institutes of Santarém and Tomar, respectively) involves a series of non-monetary impacts on the local economy such as better health, low criminality rates and lower dependency on social welfare,

³ The World Economic Forum states that: "A circular economy is an industrial system that is restorative or regenerative by intention and design. It replaces the end-of-life concept with restoration, shifts towards the use of renewable energy, eliminates the use of toxic chemicals, which impair reuse and return to the biosphere, and aims for the elimination of waste through the superior design of materials, products, systems and business models." (WEF, 2019).

acting as “a transforming agent of the reality of the regions and granting access to higher education to young people”.

The sustainability of these institutions will inevitably be due to the recognition of their social value by the various actors able to determine the design of regional policies – namely territorial cohesion policy makers and NGOs. As the community gets the perception of the usefulness of knowledge produced inside such institutions to respond to the environmental challenges, the demand for graduations and services provided is more likely to increase.

Faced with proposals launched by private interest groups involving substantial amount of public funds, with a very significant opportunity cost in terms of public investment and social cohesion – admitting that the construction of more dams on the Tagus River will not solve long-term unemployment, nor social exclusion problems - Iberian universities and polytechnic institutes should act in consortium and decide on their reasonableness under criteria of scientific rigor and impartiality. Now, such posture raises critical challenges: taking Albert Hirschman's fundamental work as a reference, should HEIs become *loyal* to the central government, assuming their *exit* from the negotiation of territorial agenda? Or should they unite their *voice* with groups of local citizens who claim less asymmetries between the central and peripheral regions in collective goods?

About the design of territorialized regional development strategies these institutions must do significant efforts to be heard in regional and inter-municipal governance bodies, contributing with expertise and exemption for the establishment of renewed Territorial Pacts consistent with the socio-economic realities of targeted territories. But, firstly, these organizational actors should learn how to overtake locks regarding dialogue, trust and effective action without political constraints or dominating hierarchical relations. This means that territorial governance and sustainable management will have to be grounded in proximity between economic and institutional players, in a kind of balance between *exit, voice and loyalty* (Hirschman, 1970).

In this way, the populations will have a better awareness of the environmental threats to their quality of life in the present and in the future – such as, for example, the highest frequency of heat waves or extreme drought phenomena - in the Iberian Peninsula.

Furthermore, this greater involvement of universities and polytechnic institutes in democratic processes of public choice is fully aligned with the social and environmental responsibility that populations, in general, are depositing in these entities. Such responsibility will justify a public and private financing model of the higher education sector based on the expected economic, social and environmental impact of its scientific, technological, educational, artistic and sporting products.

This more active role played by territorial HEI in the search for solutions to respond to these societal challenges, in close liaison with policymakers and economic agents, will be a clear demonstration of the virtue of devolution and decentralization. Citing Bresser-Pereira (2004),

In synthesis, decentralization–delegating authority to lower levels–is crucial to managerial public administration. Decentralization is a public

management strategy, but devolution is a political decision with managerial consequences. Decentralization is often decided top-down and is a strategy for increasing the head-offices' capacity to achieve proposed objectives, but devolution is usually a response to demands for more local or regional autonomy to which government officials in the central government reluctantly accede.

Moreover, territorial governance and sustainable management of integrated agroforestry chain value – from agricultural and forestry activities to the transformation of commodities and the distribution of their products by the international markets - might contribute to the decarbonizing of economy, acceleration of innovation and sustainable growth, employment creation and in overall the development of territory (Ferreiro, Sousa, & Oliveira, 2015).

These goals integrated the *EU 2020 Strategy* and its “three mutually reinforcing priorities”: i) “smart growth: developing an economy based on knowledge and innovation”; ii) “sustainable growth: promoting a more resource efficient, greener and more competitive economy”; iii) “inclusive growth: fostering a high-employment economy delivering social and territorial cohesion” (COM (2010) 2020).

Conclusion

From previous discussion it becomes clear that governments (from local to international scales, including multi-tier negotiation) must interact with society in general - particularly with HEI which should analyze rigorously all alternatives regarding natural resources, as the management of an international river and the need of water for intensive agriculture, assessing the respective 'trade-offs' - through a democratic and transparent debate, in a clear expression of active citizenship.

In a systematized manner, as addressed by Oliveira & Natário (2016), largely inspired in a doctoral research (Oliveira, 2013), a robust strategy of collective efficiency for Tagus River watershed shall be based on:

- i. Systematic dialogue within business associations to raise members' awareness about rapid changes in markets and the potential added value by using digital technologies, in partnership with higher education institutions and research centres (through advanced graduation and applied investigation). Such organizational and institutional proximity may induce optimized technological choices and effective management decisions to respond to an external environment full of uncertainty, aggravated by dramatic climate changes and political tensions at global scale.
- ii. Reinforcement of tax incentives to companies that reinvest profits in experimental development through projects in cooperation with producers' organizations, public units of R&D and higher education institutions located in the region. This will help to internalize the market failures inherent to the 'spillovers' of knowledge originated in the scientific and technological system under the umbrella of *Europe 2030 Agenda for Sustainable Development* and

the *Millenium Development Goals* of United Nations⁴.

- iii. Intensification of demonstration actions amid students at secondary and recurrent education levels through direct contact with units of production, showing them a possible professional future inside the rural economy – particularly in information systems and agronomic engineering. Such action may count with the sponsorship of associations of farmers and industrial companies inserted in the agro-forestry value chain.

In a final word, devolution, transparency and balanced process of negotiation open to all stakeholders - triggering creativity, entrepreneurship, spirit of citizenship and long-term view regarding to well-being of future generations - shall lead the region of the Tagus River basin to preservation of respective hydric resources, maximizing the quality of life in a perennial way of those who born, grow, work and live in this vast Iberian territory.

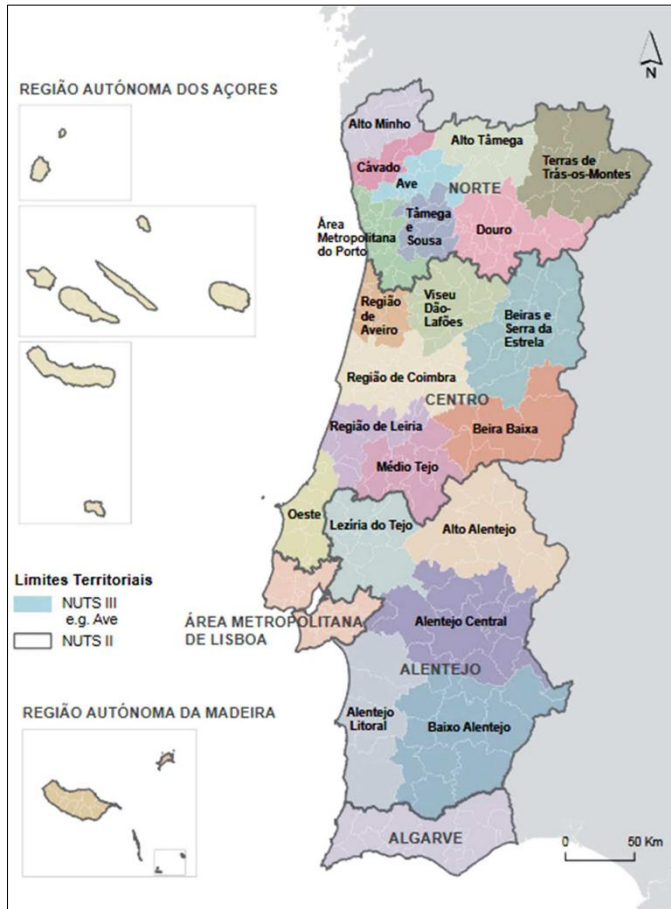
References

- Araújo, R. S., Alves, M., Melo, T. C., Chrispim, Z., Mendes, P. & Júnior, G. S. (2015). Water resource management: A comparative evaluation of Brazil, Rio de Janeiro, the European Union and Portugal. *Science of the Total Environment*, 511, 815-828.
- Alves, P. *et al.* (2019). *Uma abordagem ao impacto dos institutos politécnicos em Portugal 2017*. Lisboa: CCISP.
- Antonescu, D. (2015). Territorial pact in context of Europe 2020. *Procedia – Social and Behavioral Sciences*, 188, 282-289.
- Arbo, P. & Benneworth, P. (2007). *Understanding the regional contribution of higher education institutions: A literature review*. OECD Education working paper 2007/09, Paris: OECD.
- Boschma, R. (2005). Proximity and innovation: A critical assessment. *Regional Studies*, 39(1), 61-74.
- Bresser-Pereira, L. C. (2004). *Democracy and public management reform: Building the republican state*. Oxford Scholarship Online. Available at <https://www.tandfonline.com/doi/abs/10.1080/10967490601185773>.
- Charney, A. & Pavlakovich-Kochi, V. (2003). *University of Arizona research expenditures: Generating jobs, wages and tax revenues in the local economy*. Tucson, AZ: Office of Economic Development, University of Arizona.
- Climate Technology Centre & Network (2019). *General agro-forestry-silviculture and mixed farming solutions*. Available at <https://www.ctc-n.org/technology-library/agriculture-and-forestry/agro-forestry-silviculture-mixed-farming/general-agro>.
- Coase, R. (1937). The nature of the firm. *Economica*, 4(16), 386-405.
- Committee of the Regions (n.d.). *Territorial pacts: Making the most of Europe 2020 through partnership*.

⁴ See the 2030 Agenda for Sustainable Development Declaration, signed in 2015, at: <https://sustainabledevelopment.un.org/post2015/transformingourworld> (last access on March, 31 2019).

- Entidade Regional de Turismo do Alentejo/Ribatejo. (2014). *Roteiros Enogastrónómicos: Da terra à mesa - Ribatejo*. Beja: Turismo do Alentejo, ERT.
- European Commission (2010). *Europe 2020: A strategy for smart, sustainable and inclusive growth*. COM (2010) 2020 final. Available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:2020:FIN:EN:PDF>
- European Commission/Eurostat (2018). *Regions in the European Union: Nomenclature of territorial units for statistics - NUTS 2016/EU-28*. Luxembourg: Publications Office of the European Union.
- Ferreiro, M. F., Sousa, C. & Oliveira, P. (2015, July 16-18). Governance and innovation in rural territories: A network analysis. *Proceedings of the VI Congress of Rural Studies*, pp. 1-20. Available at <http://hdl.handle.net/10400.15/1386>.
- Ferreiro, M. F., Fayaz, S., Reidolf, M. & Sousa, C. (2019). Tradition and innovation: Between dynamics and tensions. *African Journal of Science, Technology, Innovation and Development*, 11(4), 533-542.
- Friedmann, J. & Douglass, M. (1975). Agropolitan development: towards a new strategy for regional development in Asia. In: United Nations Centre for Regional Development (org.) *Growth pole strategy and regional development planning in Asia* (pp. 333-387). Nagoya, Japan: UNCRD.
- Friedmann, J. & Weaver, C. (1981). *Territorio y funcion: La evolucion de la planificación regional*. Madrid: Instituto de Estudios de Administración Local.
- Hermannsson, K. & Swales, J. K. (2010). *Capturing the overall economic impacts of HEIs*. University of Strathclyde, Department of Economics. Glasgow, October 2010.
- Hirschman, A. (1970). *Exit, Voice, and Loyalty: Responses to Decline in Firms, Organizations, and States*. Cambridge (MA), Harvard University Press.
- Instituto Nacional de Estatística/Portugal Statistics (2015). *NUTS 2013: As novas unidades territoriais para fins estatísticos*. Lisboa, INE.
- Jardon, C. & Pagani, R. (2016). Is collective efficiency in subsistence clusters a growth strategy? The case of the wood industry in Oberá, Argentina. *International Journal of Emerging Markets*, 11(2), 232-255. <https://doi.org/10.1108/IJoEM-11-2013-0197>.
- Kirat, T. & Lung, Y. (1999). Innovation and proximity: Territories as loci of collective learning processes. *European Urban and Regional Studies*, 6(1), 27-38.
- Lundvall, B. A. (1992). *National Innovations systems: Towards a theory of innovation and interactive learning*. London: Pinter.
- Natário, M. M. & Oliveira, P. M. (2018). Portuguese SME innovation sources: Trends of the last decade. *2018 Proceedings*, 29, pp. 1-16. Available at <https://aisel.aisnet.org/capsi2018/29>.
- Nooteboom, B. (2000). *Learning and innovation in organizations and economies*. Oxford: Oxford University Press
- Oliveira, P. (2013). *A influência do meio local nas dinâmicas de inovação do complexo agroalimentar do Vale do Tejo: Análise e formulação de estratégias territoriais de ação coletiva*. Doctoral thesis, ISCTE-IUL, Lisbon (Portugal). Available at <http://hdl.handle.net/10071/6378>

- Oliveira, P. M. & Natário, M. M. (2016). Territorial innovation systems and strategies of collective efficiency: The case of Tagus Valley agro-food complex. *European Journal of Innovation Management*, 19(3), 362-382.
- Oliveira, P. & Turčinková, J. (2019). Human capital, innovation and internationalization of micro and small enterprises in rural territory - A case study. *Acta Universitatis Agriculturae et Silviculturae*, 67(2).
- Schmitz, H. (1995). Collective efficiency: Growth path for small-scale industry. *The Journal of Development Studies*, 31(4), 529-566. Available at <https://www.tandfonline.com/doi/abs/10.1080/00220389508422377>.
- Torre A. (2014). Proximity relations at the heart of territorial development processes. In A. Torre & F. Wallet (eds), (2014), *Regional development and proximity relations*, New Horizons in Regional Science, London: Edward Elgar.
- Torre, A. & Wallet, F. (2013). Innovation and governance of rural territories. In E. Coudel, H. Devautour, C. T. Soulard, G. Faure & B. Hubert (eds), *Renewing innovation systems in agriculture and food: How to go towards more sustainability?* Wageningen Academic Publishers.
- Torre, A. & Wallet, F. (2015). Towards new paths for regional and territorial development in rural areas. *European Planning Studies*, 23(4), 650-677.
- Tödting, F. & Tripl, M. (2012). Transformation of regional innovation systems: From old legacies towards new development paths. 52nd Congress of the European Regional Science Association: "Regions in Motion - Breaking the Path", 21-25 August 2012. Bratislava, Slovakia, European Regional Science Association (ERSA).
- United Nations (2012). *Governance and development. Thematic think piece*. United Nations System Task Team on the Post 2015 UN Development Agenda.
- Williamson, O. (1975). *Markets and hierarchies: Analysis and antitrust implications*. Nova Iorque: Free Press.
- World Economic Forum (2019). *From linear to circular – Accelerating a proven concept*. Available at <http://reports.weforum.org/toward-the-circular-economy-accelerating-the-scale-up-across-global-supply-chains/from-linear-to-circular-accelerating-a-proven-concept/#view/fn-11>.
- Yin, R. K. (2014). *Case study research: Design and methods*. Thousand Oaks, CA: Sage.
- Zaman, G. (2015). Cultural heritage entrepreneurship (CHE) – Challenges and difficulties. *Procedia - Social and Behavioral Sciences*, 188, 3-15.



Source: Portugal Statistics (2015, p.17).

Figure 1. Map of the Portuguese territory (NUTS II and III).

Table 1

Location quotients of agriculture activities located in Tagus Valley

Groups of agricultural activities (NACE Rev. 2, Section A)	Relative weight per group in the universe of establishments in the Portuguese Mainland (1)	Relative weight per group in the universe of establishments at Tagus Valley (2)	Location quotient by group of activities ⁵ (2)/(1)
A1.1 – Non-perennial crops	1.11%	2.94%	2.65
A1.2 – Perennial crops	0.62%	0.54%	0.87
A1.3 – Plant propagation	0.02%	0.03%	1.33
A1.4 – Animal production	0.53%	1.26%	2.37
A1.5 – Mixed farming	0.88%	1.22%	1.39
A1.6 – Support activities to agriculture and post-harvest crop activities	0.30%	0.42%	1.41
Total	3.47%	6.41%	1.85

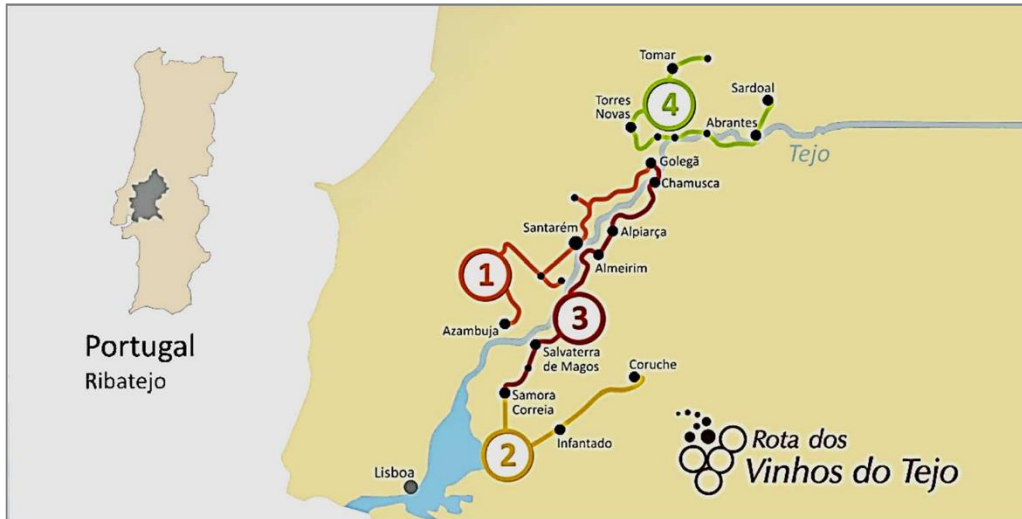
Source: Own calculation based on *Agricultural Census in Portugal* (Portugal Statistics, 2010).

Table 2

Location quotients of agro-industrial activities located in Tagus Valley

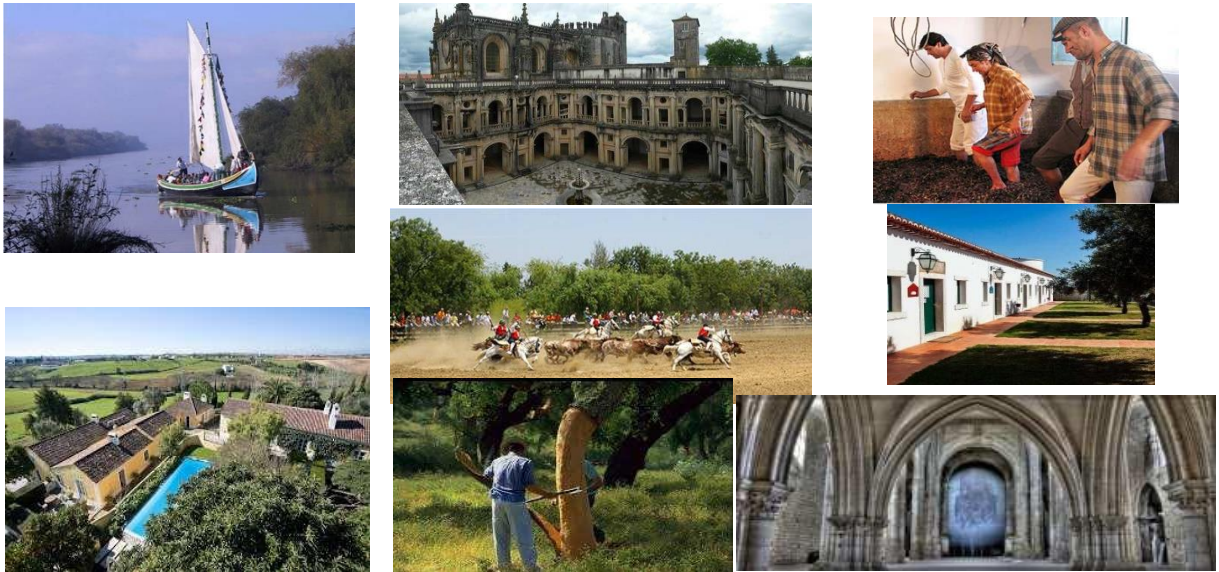
Groups of food manufacturing activities (NACE Rev.2, Section C)	Relative weight per group in the universe of establishments in the Portuguese Mainland (1)	Relative weight per group in the universe of establishments of the Tagus Valley (2)	Location quotient by group of activities ⁶ 2)/(1)
Animal slaughter, preparation and storage of meat and meat products	0.13%	0.15%	1.20
Preparation and storage of fruits and vegetables	0.04%	0.11%	2.94
Production of animal and vegetable oils and fats	0.04%	0.12%	2.70
Dairy industry	0.07%	0.06%	0.86
Processing of cereals and legumes; manufacture of starches, and starches related products	0.03%	0.09%	3.31
Manufacture of bakery products and other flour-based products	1.45%	1.67%	1.15
Manufacture of other food products	0.09%	0.10%	1.13
Manufacturing of feeding stuffs	0.03%	0.10%	3.20
Total	1.9%	2.40%	1.28

Source: Own calculation based on data provided under request by the Office of Strategy and Planning, the Ministry of Labor and Social Security (April 2011).



Source: Adapted from the portal of the Regional commission of Wines of the Tagus. Accessed at (17/11/2019): <http://www.cvrtejo.pt/rota-dos-vinhos-do-tejo/mapa-da-rota/mapa-da-rota:420>. Caption: 1-Gothic treasure; 2-Bulls and horses; 3-Border Tagus; 4-Manueline treasure.

Figure 2. Route of wines of the River Tagus.

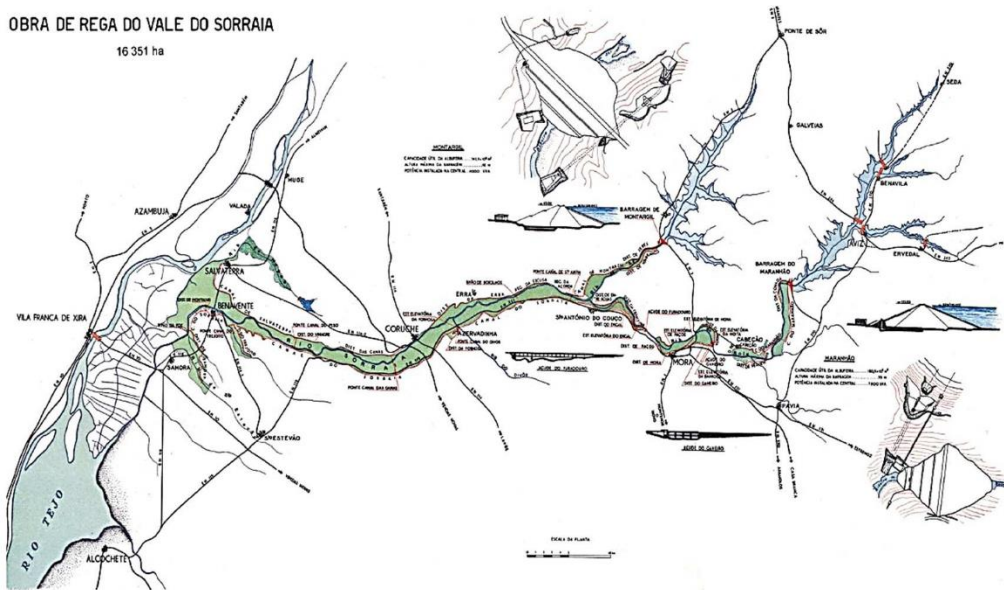


Source: public images downloaded from Google. Caption: 1 - travelling across the Tagus' small islands ('mouchões') in a traditional boat called 'catraio'; 2 - cloister of the Convent of Christ (Tomar), heritage of mankind (UNESCO); 3 - stepping on the grapes in the wine mill ('lagar'); 4 - 'Campinos' guiding the bulls; 5 - rural tourism place (nearby Tomar); 6 - rural tourism place (nearby Santarém); 7 - harvesting of cork (bark of the cork oak, scientifically known as *Quercus Suber*); 8 - Cloister of the convent of Saint Francis (Santarém).

Figure 3. Traditional rural activities and religious heritage in Ribatejo

OBRA DE REGA DO VALE DO SORRAIA

16 351 ha



Source: Association of Irrigators and Beneficiaries of Sorraia’s Valley. Accessed at (17/10/2018): http://www.arbvs.pt/_ZDATA/Obra%20de%20Rega.PNG.

Figure 4. Map of the irrigation work of Sorraia Valley/Vale do Sorraia.

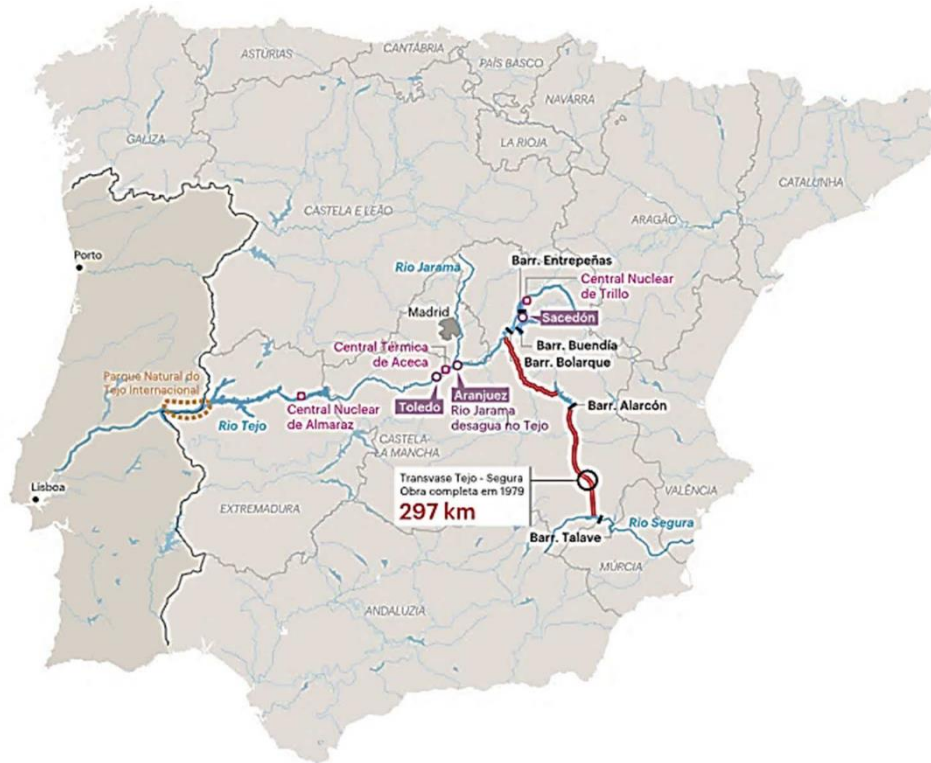
Table 3

Conferences between Portuguese and Spanish Governments since year 2000⁵

	Focus
I Conference of the Parties (Lisbon, July 27, 2005)	The Parties analyzed the balance of the work related to the development of the Convention, focusing on the mechanisms of cooperation in situations of scarcity and drought, and decided to give a special impetus to cooperation on the implementation of the European Union Water Framework Directive (2000/60/EC)
II Conference of the Parties (Madrid, February 19, 2008)	The Parties expressed the willingness to emphasize the importance of the Convention on Cooperation for the Protection and Sustainable Use of Waters of the Luso-Spanish Watersheds, showing their satisfaction with the work carried out and by the progress achieved by the Commission for the Application and Development of the Convention (CADC) since the conclusion of the first Conference of the Parties.
II Conference of the Parties (Oporto, July 20, 2015)	The Parties decided to mandate the CADC to draw up a joint document Management Plans of on the Hydrographic Region (2016-2012) belonging to the international shared basins, aiming to inform the interested public and the European Commission on the progress achieved by Portugal and Spain in this area. In the field of information systems, both decided to carry out the analysis of suitability, in view of the objectives of the Albufeira Convention, of the currently existing hydrometeorological monitoring network and to prepare a joint project for its updating and eventual densification, mobilizing Community funds.

Self-elaboration

⁵ The information gathered in this table was adapted from the internet site of Commission for the Application and Development of the Convention (CADC) On Cooperation for the Protection and Sustainable Use of the Waters of the Luso-Spanish Hydrographic Basins - <http://www.cadc-albufeira.eu/pt/conferencia-partes/>. Besides Tagus River, it should also be taken in consideration the Minho, Lima, Douro and Guadiana as shared rivers between both countries.



Source: Journal “Público”: <https://static.publico.pt/infografia/2017/portugal/tejo-poluicao.svg>

Figure 5. Tagus River in the Iberian Peninsula.



Source: Google Earth.

Figure 6. Image of the Tagus River in Ribeira de Santarém (Portugal).