

EUROPEAN SPATIAL RESEARCH AND POLICY

Volume 29 Number 2



https://doi.org/10.18778/1231-1952.29.2.14

NOTES, COMMENTARIES AND REPORTS

Aseem DEUSKAR, Ketevan KHOZREVANIDZE**, Zeynep OZEREN*, Iga PARADOWSKA***

DIALOGUE WITH THE COMMUNITY IN THE PLANNING PROCESS: HOW TO USE THE PARTICIPATORY APPROACH AS A PLANNING TOOL FOR THE COMMUNITY'S BENEFIT?

1. INTRODUCTION

The main objective of a case study and a planning process is to develop a community that safeguards common values and good living conditions for all groups, within the framework of sustainable development. Participatory processes and transparency in urban policies and spatial planning have positive effects on the legitimacy of decision-making processes for the well-being of every member of a community. The good and effective facilitation of public participation in planning is vital in securing

^{***} Iga PARADOWSKA, University of Lodz, Faculty of Geographical Sciences, ul. Kopcińskiego 31, 90-142 Łódź, Poland; e-mail: ul0221854@edu.uni.lodz.pl



© by the author, licensee Łódź University - Łódź University Press, Łódź, Poland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution license CC-BY-NC-ND 4.0 (https://creativecommons.org/licenses/by-nc-nd/4.0/) Received: 07.09.2022. Revised: 20.02.2022. Accepted: 07.09.2022





Frasmus+ This article belongs to the output O1 "European Handbook of Tourism Spatial Planning" of the project SPOT - Sustainable Spatial Planning of Tourism Destinations, granted by European Commission under the Erasmus+ Programme (2019-1-PL01-KA203-064946). | The publication reflects only the position of the authors, and the European Commission and the National Agency are not responsible for the substantive content contained therein or for the use of the information contained therein.

^{*} Aseem DEUSKAR, Zeynep OZEREN, Polytechnic University of Turin, Viale Mattioli 39, 10125 Turin, Italy; e-mails: deuskaraseeeem@gmail.com, s298840@studenti.polito.it

^{**} Ketevan KHOZREVANIDZE, Mersin University, Çiftlikköy, Mersin Ünv., 33110 Yenişehir/ Mersin, Turkey; e-mail: qeti.xozrevanidze.97@mail.ru

well-functioning and efficient planning processes. However, it is also crucial for public participation to be a constant and recurring process, since it is a complex organisation that requires not only time and resources, but also the willingness of the actors. Therefore, the management and sustainability of a participation process require power, communication, and management skills in urban planning activities.

The case study in question acknowledges that the proposed municipal masterplan for Baleal Beach (Portugal) has resulted in conflicts and disputes between the stakeholders, where the lack of communication was severe. In this report, the authors suggest the implementation of a participatory approach in the spatial and urban planning processes overseen by the municipality as a solution to the problems analysed in Baleal Beach.

The report starts with an analysis of the Baleal case study, which includes a site visit and a stakeholder meeting, as well as a literature review to expand the knowledge about participation and community. Therefore, it is followed by a stakeholder analysis to understand the qualities of the actors involved in the process. Furthermore, a SWOT analysis of the implementation of the participation process led by the municipality is conducted to examine the consequences. In conclusion, actionable policies such as public consultation, grievance redressal, accessible disciplinary and scientific information, and creating minor design interventions in public spaces to start the conversation are suggested for an effective and transparent participation process as a planning tool, where the municipality is the key leader and the responsible actor.

2. THEORETICAL AND METHODOLOGICAL FRAMEWORK

A lack of transparency in governance and public participation in the decision-making process is the primary impediment to the implementation of effective planning proposals. According to Jorge *et al.* (2022), in Portugal there is a law that ensures public participation as a principle in public administrative actions and policies concerning land, urbanism, and spatial planning. The practice of the principle of citizen participation in inter-municipal programmes and the municipal master plans is fulfilled by periodic binding public discussions on the proposed plans and programmes. Citizen participation is ensured during the development, modification, alteration, and evaluation steps (Jorge *et al.*, 2022). However, in Baleal, the citizens' reaction to the plan has shown that the current instruments and policies for participation in planning procedure have either not been implemented or have not produced the expected results. This report aims to conduct an investigation and provide recommendations that can help the state apparatus understand the importance of participation. In fact, stakeholder participation is fundamental in planning

service delivery and infrastructure investment with minimal conflict. The inquiry and recommendations proposed have been supported by a literature review of current and best practices, field study, stakeholder analysis, and SWOT analysis.

Participation and community are two words at the heart of the analysis conducted and instrumental in the policy recommendations. Participation is key because it is lacking in the process of spatial planning, but also something that is desired and recommended by international observer bodies (Jackson *et al.*, 2010). Community is of key importance by dint of the conflict it has with the state. More importantly, it must live with the consequences of state actions. The state is sovereign and thus the final authority that decides about whether to implement an agenda either conceptualised by itself or by bodies that give legitimacy to the state.

Participation, on the one hand, has been defined as an action in which there is a sense of sharing or association. It has also been described as an intervention or an instrument to participate in the democratic process of the state (Van Cauwenbergh *et al.*, 2018). It is an indication that a representative democracy operates with the consent of those who elect the representatives. In the case of planning, we can also find examples of people who bring to surface the internal contradiction in the word participation ('part takers') and depart from a process that is deceptive in its conception (Kaika, 2017).

Community, on the other, is the unit through which individuals can claim the liberties that are guaranteed to them in the state framework in which they live (Nancy, 1986). It is necessary for a community to recognise itself beyond the individual and as the subject of the state. It is necessary because through this self-realisation, the community can act as an agent of change to affect state policy.

The Portuguese law requires public participation, in principle. Furthermore, it recommends it on the municipal level for the evaluation and revision of planning documents (Jorge *et al.*, 2022). There is also an educational instrument at the national level that works to inform various stakeholders about planning proposals and mobilise them to action to evaluate development programs. In the Portuguese legal framework the intention is for both participation and community to be active in the governance process. There is also a state portal where people can access policy documents and plans related to specific development proposals.

Participatory planning has also been recommended as a necessary planning tool by international observers. Local Agenda 21 affirmed that the state must involve the community in the decision-making process to ensure sustainable development (Jackson *et al.*, 2010). Although the processes of 'consensus building' and 'community' as mentioned in the UN document have been problematised by various authors, the fundamental conceit has not been questioned (Jackson *et al.*, 2010; Kaika, 2017). The idea of 'community' with respect to territory has been problematised by questioning whether a community can be recognised within a territory. This can then be used to question whether businesses operate within geographical or economic space, while also raising questions related to the effectiveness of administrative

jurisdictions (Jackson *et al.*, 2010). The issues raised relate to the language used in planning documents and the academic literature that analyses them. The chief issue is that of communication, i.e., the inability of the state to communicate with constituents and of disciplinary professionals to communicate with people with highly specific knowledge, but in disciplines other than planning.

Solutions to these problems include better standards of communication, as well as the creation and accessibility of appendices to planning literature, which can help people from different areas of knowledge understand each other. The challenge is for the literature and the planning process itself to become simple enough for everyone to understand (Weston *et al.*, 2013). There are also other means through which communities have intervened in the planning process. This has happened through collective action and an organised and educated citizens. Citizens have participated in the planning process by refusing to participate in it, thus creating a contradiction for the state to resolve. In other cases, people came together to re-examine the legitimacy that they had bestowed on the state. Elsewhere, people chose to collectively become large stakeholders in the state apparatus by buying state resources and becoming investors in the state (Kaika, 2017).

Documented cases of the participatory approach to planning can be found in Spain, where stakeholder workshops were conducted based on stakeholder interest-power dynamic to facilitate a water management project. It resulted in the creation of working groups of stakeholders who would be directly or indirectly affected by the program (Cauwenbergh *et al.*, 2018). Recommendations have been made for the creation of an indicator system that could assess community health and help state actors understand concepts such as belonging and 'social cohesion' (Erdiaw-Kwasie and Basson, 2018). Mapping studies in Zimbabwe and Sweden have been conducted to assess the subjects' perception of a particular space to help planners in a consolatory manner, forming real links between the state and the subjects (Preto *et al.*, 2016).

In conclusion, participatory planning has a legal and principled grounding in the Portuguese law. There is sufficient evidence to suggest that it can be used and it can evolve to work in multiple contexts. In addition, there are examples where people themselves were able to create planning instruments in the absence of state action.

Many research methods were used in the report, enabling a comprehensive analysis. The first and main method used for the research was case study analysis. Crowe *et al.* (2011) argued: "Case studies analysis can be used to explain, describe or explore events or phenomena in the everyday contexts in which they occur." This method was used to identify the main problems in the area. The second method was a literature review. It is used to broaden the knowledge and understanding of an issue. It also specifies which methods can be used in the case and helps to identify, select, and analyse information (Kallet, 2004).

A field visit is a method that requires travelling to the site of analysis. In this method, it is important to take pictures and speak with residents to get an under-

standing of the first-hand experiences at the site of the study (Eden, 2019). During the survey, photographic documentation was collected, which enabled us to prepare a map of the study area. The 'local talking session' took place on 10 May 2022 and was a meeting with local citizens. This helped us better identify the problems and learn more about the area from the citizens' perspective and led to the formulation of the main problems.

A stakeholder analysis is a method that leads to the selection of key stakeholders, i.e., people who will be affected or who are going to affect others. There is a need to identify and categorise them. Power versus interest grids is one of the research tools for mapping stakeholders. They help understand the underlying power dynamics between the state and people, as well as internal contradictions in these groups (Bryson, 2004). A SWOT analysis is a method used to identify strengths, weaknesses, opportunities, and threats. Strong and weak points are identified by examining the aspects of the environment, while opportunities and threats come from outside the environment (Gurel, 2017). These methods were instrumental for the authors in devising policy recommendations. A policy recommendation is a written advice for the authorities or people who are currently considered to have significant influence and power (CARDI, 2012).

3. CASE STUDY ANALYSIS

3.1. Case study area

Peniche is a tourism destination in the western part of Portugal with 27,753 inhabitants and an area of 77.55 sq. km. It has become a popular surfing destination in recent years. There has also been a growth in foreign population from 3.1% to 6.7% over the last 11 years.

The focus of our case study is Baleal Beach, which is part of the Peniche municipality (Fig. 1). It is a unique place with a beautiful view and, as one local resident said, a good place for people learning to surf. The tourism sector is a fundamental economic area for the generation of wealth and employment in Portugal, contributing to the growth and development of many territories, either on the coast, associated with sun and sea tourism, city breaks and golf tourism, or in the interior, within nature tourism, and cultural and cuisine tourism. The locals are content with the fact that tourism growth is occurring, but they are not interested in mass tourism. They would prefer sustainable high-quality tourism where one can also enjoy pristine nature. Many people come to Baleal Beach in caravans, causing heavy traffic in the city during the holiday season. There are also many problems in the spatial development of public spaces.

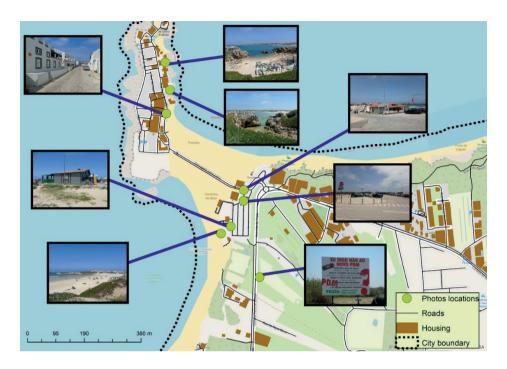


Fig. 1: Photo locations in Baleal Beach Source: own work based on Open Street Map.

The main problem identified in the Baleal Beach area is the lack of communication between the municipality and the inhabitants. Residents want to be heard by the authorities and involved in the development process of their town, but to unite them, they need to find a way that will interest them in this process. As the inhabitants concluded in the 'local talking' session, "it is hard to get everyone talking to everyone." This applies to both relationships: first, between the municipality and its residents; and second, between the residents themselves. There is also a problem with the organisation of spatial planning and transparency of decisions. The conflict was triggered by a new municipal master plan that was launched in 2012. Residents only learned about the planned solutions after it was announced and were not asked about any proposals that they would like to include in the city space. The space should be given to the inhabitants and mostly they should decide what their surroundings should look like. Social participation in this area does not run properly, which creates many misunderstandings.

Considering the proposed plan for Baleal Beach and Ferrel parish, we have also identified the following four issues in this area:

 Conflict related to proposed land use with the relocation of restaurants and parking space by the beach,

- Assignment of land near the beach for the development of hotels and private beaches under their management,
- Issues with dealing with tourists during the high season, such as a lack of infrastructure facilities, or parking and transportation problems between Ferrel and Baleal.
- The inhabitants' fear that the inadequacy of current facilities will put pressure on environmental resources, which are a major selling point for this place.

3.2. Stakeholder analysis

In the Baleal case study, a wide range of stakeholders has been defined and classified into four categories: investors, the government, inhabitants, and civil society. Furthermore, these categories have been divided into subcategories for a better understanding of their power-influence and interest levels on a scale of 1–10. The scores have been assigned based on a socio-economic analysis considering the various groups involved and include the following factors:

- Rights The participatory planning approach requires that there exist legislative instruments [f] that can facilitate such a process. In their absence, they should be created at the national level and structured into various levels of planning governance. The score here depends on the availability of such rights and their implementation in planning governance. The willingness and know-how of the citizens to be able to intervene in planning governance affects how much the different stakeholders identified are 'interested' in a plan's implementation.
- Capital Real and ficticious [g] capital affects both the conception of the master plan and its implementation. The score considers how much the interest of the stakeholders can be translated into power where power is not legally defined.
- Knowledge To be able to intervene in any process, actors must also possess working knowledge of the myriad intricacies of the process itself. Without knowing how one can affect a process, the ability to intervene is significantly reduced. Planning, like any other discipline, has its own vocabulary, which can range from simple to esoteric. It is necessary for actors to be acquainted with it or it must require some education on a community level.
- Culture The ability of citizens to organise and engage with governance depends on the cultural attributes of the group in question. The score is affected by the question 'what is a community?' If concise answers to this question can be given, it is likely that the community will be able to translate its high interest into an ability to affect state policy. The community must be able to organise and create methods of communication in response to state action which will determine their power to interact with the state.

Considering the above parameters, we have classified stakeholders into categories of investors, the government, inhabitants, and civil society. The grades

given to each member of a category class reflect our perception of the power they hold and the interest they may have in a planning exercise conducted by the state. These are in accordance with the considerations made above.

Table 1. Stakeholder analysis

Category	Stakeholder	Characteristics	Power (1-10)	Interest (1–10)
Investors	Landowners	Agricultural land	5	10
		Second homes	5	7
	Local business	Hotels	6	10
	owners	Bars	5	9
		Surfing businesses	7	10
		Supermarkets	5	9
		Restaurants	5	9
		Tourism related	7	10
		Shops (other)	4	8
		Real estate	7	10
	Factories		6	7
	Fishing		4	5
Government	Municipality		10	10
	Regional		10	8
	National		10	6
Inhabitants	Permanent residents	Workers	3	9
	Floating	Second home owners	3	4
	population	Home rentals (long- term tourists)	2	3
		Tourists	1	5
Civil society	Community organisations (local)		6	8
	Community organisations (national / subnational)		7	5
	Community organisations (international)		7	5
	NGOs		7	8
	Academia	Polytechnic of Leiria	8	9

Source: own work.

In addition, the scoring results are shown in the graph and categorised into four groups where each category is represented with a colour. The colour red is used for representing the stakeholders in Investors category, blue for the Government, yellow for Inhabitants, and green for the Civil society category in the matrix.

Most of the identified stakeholders are located on the Manage Closely group, where the stakeholders in the Government category (blue) take the highest scores for both interest and power (Fig. 2). The rest of the stakeholders are mostly located in the Keep Informed group, where the stakeholders in the Inhabitants category (yellow) score the highest interest with the lowest power.

Results of the matrix indicated that Inhabitants and the Government are the key stakeholders for the case study and proposed solutions. Therefore, a broader analysis of these key stakeholders showed that the power and interest scores also vary between these categories. As the result of the analysis, permanent residents from the Inhabitants category and the municipality from the Government category were identified as the final key stakeholders. Lastly, the analysis showed that although these two groups share a similar interest in the proposed project, there is a significant gap in their powers.

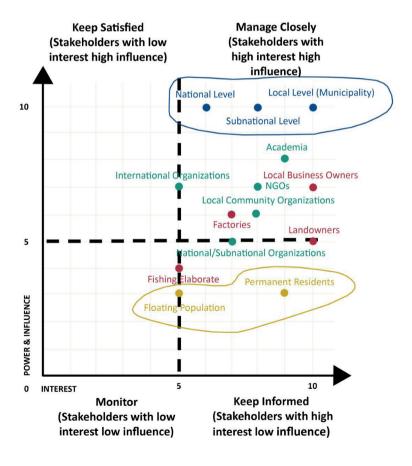


Fig. 2. Stakeholder analysis matrix Source: own work.

3.3. SWOT analysis

A stakeholder analysis showed that focusing on the power dynamics between key stakeholders is crucial for the proposed solution, and, therefore, the municipality, as the most powerful key stakeholder, is suggested to assume the responsibility for the implementation of the participation process to overcome the current conflicts between the stakeholders. Furthermore, the implementation of the participation process as the main strategy in the local government agenda to diversify the power share is seen as the key solution. To understand the benefits and possible consequences of this strategy for the municipality, the SWOT analysis method has been used.

Table 2. SWOT analysis of the participation process for municipality

Strengths	Weaknesses	
- A good way of showing that the municipality	A complex organisation	
cares for its citizens	Requires more resources and funding	
 Democratic way of decision-making 	Requires local authority to share its power	
- Predictive tool for conflicts between the		
stakeholders		
 Involvement of different perspectives 		
(citizen's perspective)		
Strengthening the trust between the authority		
actors and citizens through collaboration		
Opportunities	Threats	
Being a reference / example municipality in	- Challenges of changing the current long-	
Portugal	term strategies (national / regional)	
- Funding opportunities for projects from the	The opposition could exploit the	
European Union	opportunity to reduce political consensus to	
Effective tool for implementing social	the local government	
sustainability for the area		

Source: own work.

According to the analysis, there are various strengths in taking responsibility for leading an effective participation process. Firstly, it is a good way to show that the elected officials care for citizens. It is an indicator of democratic strategic decision-making and can be used as a tool to predict conflicts between stakeholders. It is a useful way for involving different perspectives. Lastly, it is a powerful tool for building trust between the authorities and citizens if the process also involves transparency.

However, there are also multiple weaknesses. It is a complex organisation as the number of actors and the ideas that need to be negotiated increase. Therefore, the process requires more resources such as time and funding, and the success of the participation process depends on the willingness of the municipality to share its power.

There are also some attractive opportunities for the municipality in assuming the responsibility for the participation process. It has the potential to affect the prestige of the municipality in a positive way and lead to it becoming a reference municipality in Portugal. Therefore, the opportunities for funding from the European Union may increase, and it can be used as a means of implementing social sustainability for the future of the area.

Lastly, there are also threats that can be analysed, namely the challenges of changing the current strategies which are long-term documents and the risk of it being used by the opposition to reduce the political support for the local government.

The SWOT analysis has indicated that municipalities claiming to implement the participation process in urban planning will not benefit their communities but also use their own success in the governing process.

4. POLICY RECOMMENDATIONS

The stakeholder consultation revealed that the most prominent issue had been the disconnect from the planning and implementation processes. Stakeholders spoke of the municipality being absent from public discussion and having no space or forum to negotiate or discuss the plan. Considering these issues, we have made the following recommendations addressing the municipality:

- Form a working group with the stakeholders to create an action plan that considers the interests of all interested parties. This provides a way for the municipality to establish a line of dialogue with the constituents and creates a path to transparency in the planning process. It will also help elected officials identify stakeholders with joint or mutual interests. It will help the municipality contact willing investors and other private interests. The working group consultation will enable the municipality to moderate the discussion.
- The composition of the working group should accommodate members of civil society, women, and members of socially and politically marginalised communities. It is necessary for working groups to include people who have held public offices in the past so that they are recognised as community leaders, but also navigate through bureaucracy. There should be adequate representation of voices that are not heard or are silenced due to various social factors. They could also include people who are regular yet temporary residents, such as second home owners and surfers who visit in summer.

- Budgeting concerns for a proposal like this could be met with a PPP model or tie-ups with local businesses. Since the proposal requires funds to cover the expenses the municipality will incur, it will be beneficial to investigate Public Private Partnership models that may help local businesses and start-ups use it as a platform to advertise themselves. This will also attract attention from European bureaucrats since it will count as a resource investment in the local community.
- Impact assessment studies (social and environmental) must be made accessible to the public on the local government website rather than having to retrieve them from the APA website. While conducting these studies is mandatory and it is important to incorporate their findings into development proposals, they must also be made available to the public. They will create a level of trust among people about the scientific process, while providing evidence in support of the planning proposal. It will help investors decide about their investments in a particular component of the proposal. The reliability of informed decision-making reduces risks for investors.
- Provide a glossary and/or information on the terms, concepts, acronyms, and regulations that may not be common public knowledge outside disciplinary practitioners. This step will help not only the constituents but also the public officials who are otherwise not required to know various terms in the planning discipline. It will help readers engage with the document without having to worry about not being able to understand it.
- Ensure information accessibility, as well as a grievance registration procedure to avoid exclusion of people with physical or psychological impairments. The more people can engage with the municipality and the development process, the more likely they would be active voters and responsible citizens. Accessibility creates, beyond a sense of trust, a sense of empathy.
- Stakeholder discussions and comments should be addressed and commented on. The same applies to objections raised against the proposal. It is necessary for constituents to feel that their comments are being received by the authorities and addressed regularly. This will also help the state engage with possible investors and stakeholders who may not have the same level of influence as others.
- Create minor design interventions in public spaces to start the conversation, from small issues to bigger structural problems. While this creates a situation for spending funds, it can also serve to attract sponsors and investors who might see opportunities to enter the conversation through this medium. These interventions can serve as points where stakeholders with different levels of influence and interests can meet and engage in conversations that are more social and less official.



Fig. 3. A proposed form of invitation to public consultations Source: own work.

After analysing all the problems that occur in the area studied and developing some recommendations, we can conclude that participation will play an important role in solving many problems. Authorities must take steps to unite the entire community without excluding anyone. The recommendations are intended for the authorities because their role is to create a space for residents to freely exchange ideas. They also need to encourage people to become more interested in the surrounding space; therefore, we propose to place temporary installations that will spark public discussion about the changes.

Acknowledgments. The authors would like to thank Sara Bonini Baraldi from Politecnico di Torino, and Denis Cerić from the S. Leszczycki Institute of Geography and Spatial Organization, Polish Academy of Sciences for their helpful scientific remarks during the study visit to the research area. We thank Katarzyna Leśniewska-Napierała for her technical help in preparing this report during the publishing process.

REFERENCES

- BRYSON, J. (2004), 'What to do when Stakeholders matter', *Public Management Review*, 6 (1), pp. 21–53. https://doi.org/10.1080/14719030410001675722
- CARDI (2012), 10 guidelines for writing policy recommendations, Centre for Ageing Research and Development in Ireland.
- CROWE, S., CRESSWELL, K., ROBERTSON, A., HUBY, G., AVERY, A., and SHEIKH, A. (2011), 'The case study approach', *BMC medical research methodology*, 11 (1). https://doi.org/10.1186/1471-2288-11-100
- EDEN, G., SHARMA, S., ROY, D., JOSHI, A., NOCERA, J. A. and RANGASWAMY, N. (2019), 'Field trip as method: a rapid fieldwork approach', [in] *Proceedings of the 10th Indian Conference on Human-Computer Interaction*, New York: Association for Computing Machinery. https://doi.org/10.1145/3364183.3364188
- ERDIAW-KWASIE, M. O., and BASSON, M. (2018), 'Reimaging socio-spatial planning: Towards a synthesis between sense of place and social sustainability approaches', *Planning Theory*, 17 (4), pp. 514–532. https://doi.org/10.1177%2F1473095217736793
- GUREL, E., and TAT, M. (2017), 'SWOT Analysis: A Theoretical Review', *The Journal of International Social Research*, 10 (51), pp. 994–1006. http://dx.doi.org/10.17719/jisr.2017.1832
- JACKSON, G. and MORPETH, N. (1999), 'Local Agenda 21 and Community Participation in Tourism Policy and Planning: Future or Fallacy', Current Issues in Tourism, 2 (1), pp. 1–38. https://doi.org/10.1080/13683509908667841
- PRETO, I., MCCALL, M. K., FREITAS, M. and DOURADO, L. (2016), 'Participatory Mapping of the Geography of Risk: Risk Perceptions of Children and Adolescents in Two Portuguese Towns', *Children, Youth and Environments*, 26 (1), pp. 85–110. https://doi.org/10.7721/chilyoutenvi.26.1.0085
- WESTON, J. and WESTON, M. (2013), 'Inclusion and Transparency in Planning Decision-Making: Planning Officer Reports to the Planning Committee', *Planning Practice & Research*, 28 (2), 186–203. https://doi.org/10.1080/02697459.2012.704736
- JORGE, J. P., OLIVEIRA, V., SANTOS, L. L., VIANA, A. S. and MALHEIROS, C. (2022), 'The Spatial Planning System in Portugal', Theoretical Framework Report on European Spatial Planning of Tourism Destinations.
- KAIKA, M. (2017), 'Don't call me resilient again!': the New Urban Agenda as immunology ... or ... what happens when communities refuse to be vaccinated with «smart cities» and indicators', *Environment and Urbanization*, 29 (1), pp. 89–102. https://doi.org/10.1177/0956247816684763
- KALLET, R. H. (2004), 'How to Write the Methods Section of a Research Paper', *Respiratory Care*, 49 (10), pp. 1229–1232.
- NANCY, J. L. (1991), 'The inoperative community', [in] CONNOR, P. (ed.), *Theory and history of literature*, Minneapolis: University of Minnesota Press, pp. 1–42.
- VAN CAUWENBERGH, N., CIURÓ, A. B., and AHLERS, R. (2018), 'Participatory processes and support tools for planning in complex dynamic environments: a case study on web-GIS based participatory water resources planning in Almeria, Spain', *Ecology and Society*, 23 (2). https://doi.org/10.5751/ES-09987-230202