

WHAT IS THE LEVEL OF PUBLIC PARTICIPATION IN PLANNING FOR RIVER BASIN MANAGEMENT IN ROMANIA?

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Abstract

The governance through public participation in the decision making process is encouraged by the Water Framework Directive. In order to understand the characteristics of this water governance issue in Romania, our study investigates the public's response to consultation actions during the elaboration of the second cycle of the national River Basin Management Plan. We therefore searched to answer two main questions: i) which actors took part in public consultation actions and ii) what kind of suggestions did they make? The analysis is based on information published in the annexes of the River Basin Management Plan from which we extracted participating actors and their commentaries. We found that, among actors, public authorities were dominant (67%), followed by stakeholders from the economic sector (23%), NGOs (5%) and research and education actors (3%). Only 35% of them brought suggestions, the most active being the public authorities and NGOs. They referred mostly to the Programme of Measures by identifying problems related to various types of water pollution (biologic, by nutrients or priority substances – 41%) and river dynamics (erosion, floods – 25%), together with the necessary measures to be taken. Among methodological issues (16%), some commentaries about the prioritization protocol from the Programme of Measures were made. Even if there were fewer commentaries on governance issues (11%), we found suggestions concerning the necessity to better connect actors to each other and to improve public information/education/awareness. When compared to studies conducted on the same subject in other states of the European Union, we found a similar part of involvement of the public in river basin management (e.g. consultation, proactively involvement of public authorities instead of NGOs). The suggestions brought by the actors appear to be relevant for the river basin management in Romania, therefore higher forms of cooperation between actors from various sectors should be strongly encouraged.

Keywords: public participation, River Basin Management Plan, stakeholders, governance, Romania.

1 INTRODUCTION

Public participation can be defined as integrating non-governmental actors, such as business companies, non-governmental organizations (NGOs), universities, individual citizens in the decision-making process (Ruiz-Villaverde and García-Rubio, 2017). Over the past decades, public participation has been increasingly integrated into decision-making processes concerning the environment and sustainability. In the European Union (EU), under the Water Framework Directive (WFD), Member States must encourage active involvement of all interested parties, and ensure consultation and access to background information used for the development of River Basin Management Plans (RBMPs) (EEA, 2014). In general, for consultation, documents are issued only at the end of the decision-making process (De Stefano, 2010). More precisely, documents are made available to the public for their comments and ideas, based on their perceptions and experiences. The party requesting these opinions is not bound to integrate them into the outcome, therefore the public does not play a decision making role (EEA, 2014). We conclude that the access to information and the consultation within RBMPs represent low levels of public involvement when compared to discussion, co-designing, co-decision making and decision making conducted by the public itself, employed in other circumstances (Ruiz-Villaverde and García-Rubio, 2017).

So far, during the first cycle of the RBMPs, namely RBMPs I (2009-2015), the public participation in water management was considered to be low or very low in several EU Member States, especially in Southern and Eastern Europe. The most critical aspects were found to be the lack of proactive information and the poor quality of active involvement of interested parties (De Stefano, 2010). In Romania, a study performed during the development of the first RBMPs highlighted the necessity for a more active involvement of the public and

stakeholders from the earliest stages of development and cooperation closely with NGOs and local authorities (Drapa, 2015). In this context, our paper aims to update the knowledge in this domain by analyzing the public participation in the second cycle of the RBMPs, namely RBMPs II (2016-2021), in Romania. More precisely, we search to answer two main questions: i) which actors took part in actions for public consultation and ii) what kind of suggestions did they make?

2 DATA AND METHODS

2.1. Completion of the RBMPs II in Romania

Romania is integrated into the international Danube River District, including 11 administrative sub-basins, managed by 11 River Basin Authorities (RBAs), subunits of the National Administration Romanian Waters (NARW). The NARW, under the Ministry of Water and Forests, is the responsible authority for the national implementation of the WFD, and therefore for the elaboration of the RBMPs. Romania has a national RBMP, which is the synthesis of 11 RBMPs – one for each administrative sub-basins and RBA (NARW, 2016). In Romania, the RBMPs II include also a general Programme of Measures, constituting the framework for restoration actions at local scale.

The completion process of the RBMPs II in Romania included two major phases with many activities: i) making available online documents for public information (December 2013), sending flyers to interested parties, disseminating information during various activities (e.g. World Water Day celebration) or publishing articles in the mass media; ii) consulting the public by various means such as email or fax using a semi-structured survey, meetings of the River Basin Committees or other workshops (January-June, August-December 2015) (NARW, 2016). Each of the eleven RBMPs contains annexes about the interested parties taking part in the consultation activities and their commentaries (see RBAAV, 2016; RBAB, 2016; RBABI, 2016; RBAC, 2016; RBADL, 2016; RBAJ, 2016; RBAM, 2016; RBAO, 2016; RBAPB, 2016; RBAS, 2016; RBAST, 2016).

2.2. Analysis of information in RBMPs II

We analyzed the annexes of the eleven RBMPs II in Romania and extracted information concerning public consultation. More precisely, we noted participating actors and their open commentaries. Our analysis ignores the results of the semi-structured survey, because the open commentaries are more complex. Concerning actors, we classified them as follows: central authorities (including also public institutions subordinated to central authorities), local authorities, stakeholders from the economic sector, NGOs, actors from the research and education sector, and mass media.

Regarding their commentaries, we grouped them in three major topics: i) measures to reduce water pollution (biologic, by nutrients or priority substances); river dynamics (erosion, floods); utilities (water supply, sewage treatment); other issues (invasive species, climate changes); ii) methodologies (identification of problems, prioritization of problems, monitoring, definitions of various notions, elaboration of support studies); and iii) governance (legislation, actors, financers, informing the public, raising public awareness). Within this analysis, we quantified the types of actors and of suggestions. We also associated the two kinds of data – which suggestions were brought by which actors. The overall responses of actors per category of suggestions were analyzed by principal component analysis in order to obtain a profile for each type of actor involved in public consultation.

3 RESULTS

Concerning the types of actors participating to the consultation actions for the completion of the RBMPs II in Romania, we found that public authorities were dominant (local – 36.7%, central – 29.9%) (Fig. 1a). The stakeholders from the economic sector represented 23%, while the NGOs formed 5% and the research and education actors 3%. Only 35% of them brought suggestions for the improvement of the RBMPs II during these actions (Fig. 1b).

These suggestions referred mostly to the Programme of Measures (72.6% according to Fig. 2a) by identifying problems related to water pollution (41%) and river dynamics (24.7%), together with the necessary measures to be taken (Fig. 2b). Among methodological issues (16.1%), some commentaries about the prioritization protocol from the Programme of Measures were made. Even if there were fewer commentaries

on governance issues (11.3%), we found suggestions concerning the necessity to better connect actors to each other and to improve public information/education/awareness.

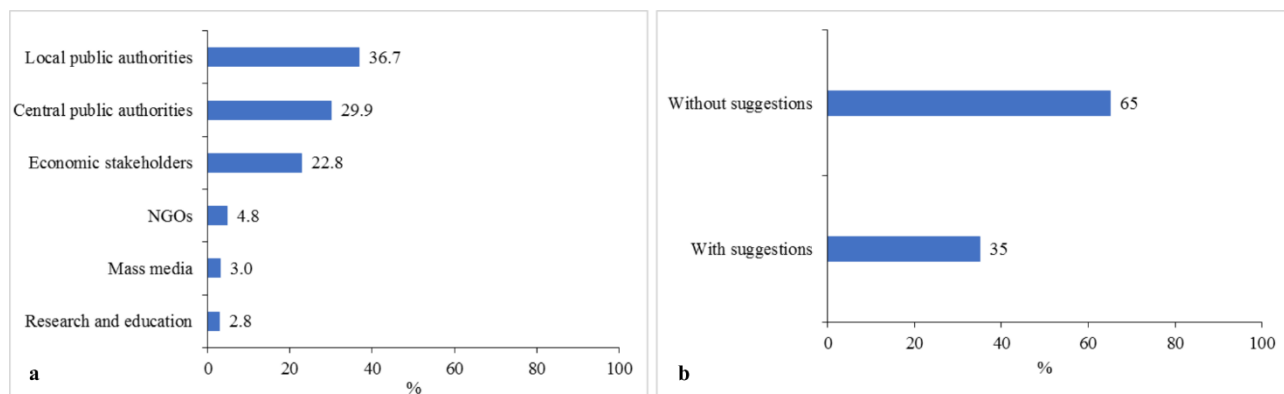


Figure 1. Public involved in consultation actions for completing the River Basin Management Plans II, in Romania: a) types of actors; b) types of involvement

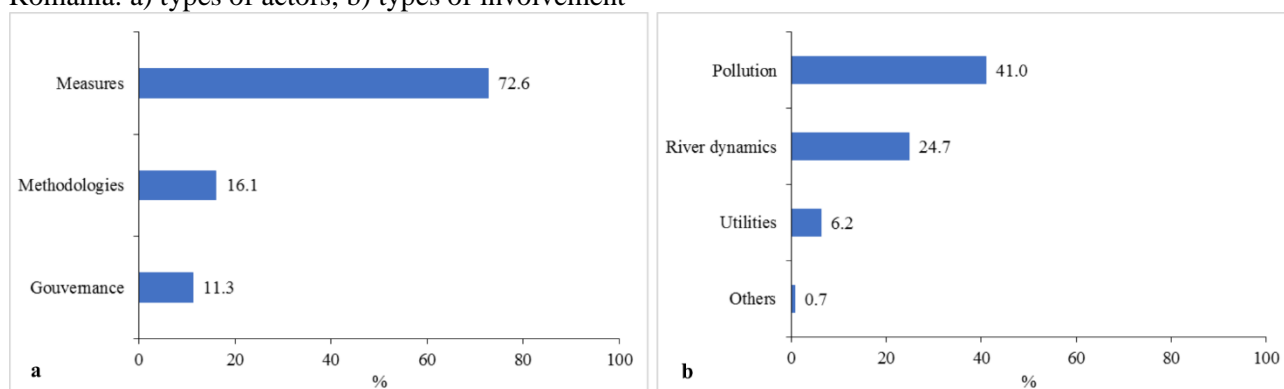


Figure 2. Suggestions made during public consultation actions for completing the River Basin Management Plans II, in Romania: a) main topics; b) types of measures

Most suggestions were brought by public authorities, especially the local ones, followed by NGOs, economic stakeholders and research and education actors (Table 1). The majority of suggestions concerning the measures for pollution, river dynamics, and utilities were made by local public authorities. By contrary, most suggestions concerning methodologies and governance were associated with central public authorities. The NGOs gave a lot of attention to measures regarding river dynamics, while economic stakeholders and actors from research and education focused mostly on measures to diminish the water pollution. Overall, the majority of these responses per type of actor are similar according to the principal component analysis, focusing on measures against water pollution (Fig. 3), which suggests a similar profile of commentaries made by public authorities, economic stakeholders and research and education actors. Only NGOs appeared to have contributed with particular responses due to numerous comments on methodological issues and measures related to river dynamics, which gives them a singular, specific profile among the analyzed types of actors.

Table 1. Synthesis of domains (values in %) per type of actors making suggestions during public consultation actions for the River Basin Management Plans II, in Romania

Suggestions	Local public authorities	Central public authorities	Economic stakeholders	NGOs	Research and education
Measures – pollution	16.1	11.3	1.9	1.9	1.9
Measures – river dynamics	11.8	3.6	0.7	5.8	0.7
Measures – utilities	2.4	1.2	0.2	0.5	0.2
Measures – others	0.0	0.2	0.2	0.0	0.2
Methodologies	1.9	5.8	1.0	5.0	1.0
Governance	2.9	3.4	0.7	1.9	0.7
Total	35.0	25.4	4.8	15.1	4.8

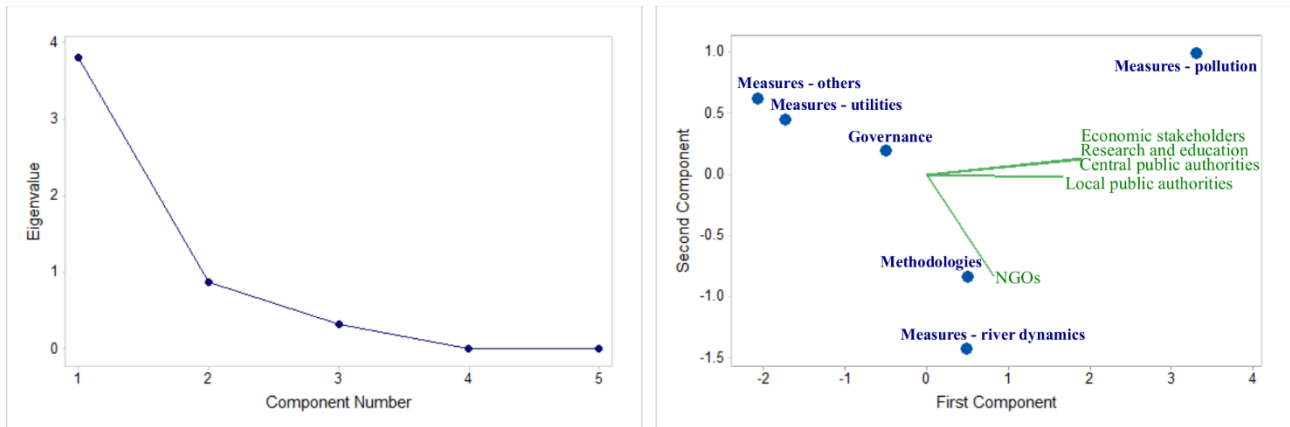


Figure 3. Principal component analysis of comments (in bold blue) per type of actors (in green): a) scree plot of components; b) biplot of the first two components

4 DISCUSSION

Concerning the actors taking part in the consultation activities for the completion of the RBMPs II in Romania, we found that the public authorities played a major role while economic stakeholders and NGOs were less represented. Concerning their suggestions, only one third of them made commentaries, mostly with regards to the Programme of Measures. When compared to the situation of the RBMPs I in Romania (see Drapa, 2015), the public involvement remained at a low level, being characterized by: involvement by consultation, therefore probably giving insufficient consideration for actors' suggestions, and uneven representativeness of actors from different sectors. As a matter of fact, this feature of little variety of actors and minor participation of NGOs appears to be rather common in managing environmental issues in Romania (Manolache et al., 2018, Nita et al., 2018). This finding might be explained by the choice of Romania to respect the requirements of the WFD (Zaharia et al., 2018) and, generally, other EU requirements despite a lower social acceptance.

These characteristics of public participation to river basin management in Romania can also be found in other EU Member States. As example, in previous studies, a survey was applied to water authorities in Cyprus, Estonia, Finland, Germany, Hungary, Ireland, Italy, Luxembourg, and the UK (Nones 2016; Nones et al., 2017), asking for leading national actors and their contribution to the fulfilment of the WFD aims. Similar to findings in Romania, public authorities were considered the main actors, while NGOs and universities appeared to be considered less important in river basin management. Also, according also to Nones (2016), this might be due to the perception of NGOs and universities as “conflictive” actors and, consequently, informed only following strict legal obligations, regardless of their possible contributions in reaching the WFD goals. Moreover, policy planning and implementation concentrated in one central public authority proved to be efficient (Bourblanc et al., 2013) while incorporating the public participation processes was characterized by delays in adopting the decision (Ruiz-Villaverde and García-Rubio, 2017). We conclude that, despite the political context particular to each of these states with regards to the date of joining the EU and the individual requirements of adapting the national regulations to the EU demands, the public participation in river basin management is still underdeveloped.

Regarding the commentaries of the actors consulted in Romania, they appear to be highly relevant. On one hand, the physico-chemical and biological pollution lowers the ecological status of rivers in Romania, while the hydromorphological pressures have a lower negative contribution (Zaharia et al., 2018). Therefore, the measures for water pollution should be a major concern of river basin management in Romania, as suggested by the majority of consulted actors, with the goal of improving quality of life and achieving a sustainable development (Morosanu et al., 2016). On the other hand, river dynamics is a newer EU concern, which developed mostly after the WFD, receiving high consideration from water authorities in other countries (Nones et al., 2017) while being poorly analyzed in relation to stakeholders in scientific publications (Ioana-Toroimac, 2018). Therefore, by their focus on measures for river dynamics, NGOs appear to follow the newer EU trend in water management.

Concerning the overall public participation in river basin management in Romania, some recommendations can be drawn. (1) In the short term, regarding the contribution of actors in our study, the numerous suggestions made for taking measures at local scale could be considered helpful in developing

catalogues of site-specific actions to improve a river's ecological status, as an appendix of the Programme of Measures. (2) In the medium term, the NARW, through RBAs, should invite more actors from the civil society to this kind of consultation activities, as their previous commentaries proved to have been trustworthy and adapted to both local needs and EU requirements. (3) In long term, other forms of involving the public characterized by higher cooperation – such as collaboration and joint actions, as well as other spatial scales should be supported by legal frameworks and agreements (Basco-Carrera et al., 2017).

5 CONCLUSIONS

Our paper contributed to understanding the level of public involvement in river basin management in Romania by analyzing the consultation actions during the completion of RBMPs II. In the context of low involvement framework specific to consultation as form of public participation, in Romania, the public authorities appeared to have been more active by advancing suggestions concerning measures for combating water pollution, a real major issue in river basin management at local scale. Meanwhile, NGOs had fewer suggestions and a particular profile focused on measures for river dynamics and more general methodological issues. This finding suggests the novelty brought by NGOs, reflecting EU environmental trend in water management, which should be a reason for striving for a more active involvement of the public in river basin management in Romania.

The low involvement of the public in river basin management is rather common in EU Member States, as it appears from the scientific publications on similar topics. However, more focused examples at local scale provide good and various lessons to be further applied at larger scales (EEA, 2014). As the difficulty of involving the public at national scale is understandable, we strongly encourage the decentralization of decision-making in water management which could better promote cooperation and joint actions between actors.

REFERENCES

- Basco-Carrera, L., Warren A., van Beek E., Jonoski, A., and Giardino, A. (2017). Collaborative modelling or participatory modelling? A framework for water resources management, *Environmental Modelling & Software*, **91**, 95-110, DOI: 10.1016/j.envsoft.2017.01.014.
- Bourblanc, M., Crabbé, A., Liefferink, D., and Wiering, M. (2013). The marathon of the hare and the tortoise: implementing the EU Water Framework Directive, *Journal of Environmental Planning and Management*, **56**, 1449-1467, DOI: 10.1080/09640568.2012.726197.
- De Stefano, L. (2010). Facing the Water Framework Directive challenges: a baseline of stakeholder participation in the European Union, *Journal of Environmental Management*, **91**, 1332-1340, DOI: 10.1016/j.jenvman.2010.02.014.
- Drapa, A. (2015). Public participation and water management in Romania. In M. Tignino, & K. Sangbana (Eds.), *Public participation and water resources management: where do we stand in international law?* (pp. 30-37). Paris: United Nations Educational, Scientific and Cultural Organization.
- EEA (2014). *Public participation: contributing to better water management. Experiences from eight case studies across Europe*, Report 3, Copenhagen, 58p.
- Ioana-Toroimac, G. (2018). Outcomes of the hydromorphology integration in the Water Framework Directive: a review based on science mapping, *Journal of Environmental Management*, **206**, 1135-1144, DOI: 10.1016/j.jenvman.2017.11.078.
- Manolache, S., Nita, A., Ciocanea, C.M., Popescu, V.D., and Rozyłowicz, L. (2018). Power, influence and structure in Natura 2000 governance networks. A comparative analysis of two protected areas in Romania, *Journal of Environmental Management*, **212**, 54-64, DOI: 10.1016/j.jenvman.2018.01.076.
- Moroşanu, G.A., Dontu, S., Copacenaru, O., Gavril, V., Zaharia, F.A., and Carstea E.M. (2016). Evaluation of the anthropogenic impact on the water quality of Dambovită River. In Gastescu, P., & Bretcan, P. (Eds.), *3rd International conference Water resources and wetlands Conference proceedings*. 8-10 September 2016, Tulcea (Romania) (pp. 91-98). Târgovişte: Editura Transversal.
- NARW (2016). *Planul Național de Management actualizat aferent porțiunii naționale a bazinului hidrografic internațional al fluviului Dunărea*, Ministerul Mediului, București.
- Nita, A., Ciocanea, C.M., Manolache, S., and Rozyłowicz, L. (2018). A network approach for understanding opportunities and barriers to effective public participation in the management of protected areas, *Social Network Analysis and Mining*, **8**, 1-31, DOI: 10.1007/s1327 8-018-0509-y.

- Nones, M. (2016). Is public participation an added value for river basin management?, *European Planning Studies*, **24**(6), 1159-1174, DOI: 10.1080/09654313.2016.1164125.
- Nones, M., Gerstgraser, C., and Wharton, G. (2017). Consideration of hydromorphology and sediment in the implementation of the EU water framework and floods directives: a comparative analysis of selected EU member states, *Water and Environment Journal*, **31**(3), 324-329, DOI: 10.1111/wej.12247.
- RBAAV (2016). *Planul de Management al Spațiului Hidrografic Argeș-Vedea*, National Administration Romanian Waters, București.
- RBAB (2016). *Planul de Management al Spațiului Hidrografic Banat*, National Administration Romanian Waters, București.
- RBABI (2016). *Planul de Management al Spațiului Hidrografic Buzău-Ialomița*, National Administration Romanian Waters, București.
- RBAC (2016). *Planul de Management al Spațiului Hidrografic Crișuri*, National Administration Romanian Waters, București.
- RBADL (2016). *Planul de Management al Spațiului Hidrografic Dobrogea-litoral*, National Administration Romanian Waters, București.
- RBAJ (2016). *Planul de Management al Spațiului Hidrografic Jiu*, National Administration Romanian Waters, București.
- RBAM (2016). *Planul de Management al Spațiului Hidrografic Mureș*, National Administration Romanian Waters, București.
- RBAO (2016). *Planul de Management al Spațiului Hidrografic Olt*, National Administration Romanian Waters, București.
- RBAPB (2016). *Planul de Management al Spațiului Hidrografic Prut-Bârlad*, National Administration Romanian Waters, București.
- RBAS (2016). *Planul de Management al Spațiului Hidrografic Siret*, National Administration Romanian Waters, București.
- RBAST (2016). *Planul de Management al Spațiului Hidrografic Someș-Tisa*, National Administration Romanian Waters, București.
- Ruiz-Villaverde, A., and García-Rubio, M. (2017). Public participation in European water management: from theory to practice, *Water Resources Management*, **31**, 2479-2495, DOI: 10.1007/s11269-016-1355-1.
- Zaharia, L. Ioana-Toroimac, G., Moroșanu, G.A., Gălie, A.C., Moldoveanu, M., Čanjevac, I., Belleudy, P., Plantak, M., Buzjak, N., Bočić, N., Legout, C., Bigot, S., and Ciobotaru, N. (2018). Review of national methodologies for rivers' hydromorphological assessment: A comparative approach in France, Romania, and Croatia, *Journal of Environmental Management*, **217**, 735-746, DOI: 10.1016/j.jenvman.2018.04.017.