A comparative overview of participation and consultation processes in Regional (Climate Change) Adaptation Action Plans: an opportunity for participatory governance

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Abstract

Environmental disruptions due to Climate Change impact public health through the increase in diseases, agricultural production through soil erosion and flooding, freshwater abundance and quality, biodiversity, energy production and demand and the frequency of extreme weather conditions and consequent physical disasters.

Taking Climate Change adaptation measures requires evaluating the impact on environmental and socio-economic sectors based on the vulnerability of each Region. Regional Adaptation Action Plans (RAAP), as strategic tools for systemic adaptation action planning, define the sectors (agriculture and livestock production, forests and forestry, biodiversity – ecosystems, fisheries and aquaculture, water resource and water ecosystems, coastal zone land use, tourism, energy demand, transport infrastructure, public health, human-made environment, cultural heritage) and the geographical territories of priority for these measures.

According to current legislation (Ministerial Decision 11258/2017), during the RAAP drafting/establishment stage as well as the implementation stage, public consultation is prescribed in order: a. to maximize participation and consent of all Stakeholders and b. to take into account the Stakeholders assessments of Climate Change impacts on their activities. This research comparatively examines the consultation procedures and tools used during the RAAP drafting/establishment stage. This review not only aims at evaluating these tools but also at suggesting additional, to ensure that, in the 7-year long implementation stage prescribed by law, the maximum possible participation and consent of all Stakeholders is achieved, providing an opportunity for multilevel participatory governance.

In this context we suggest the employment of a Human Development Model which can assist Stakeholders in tracking Climate Change impacts on their activities and recognizing interactions of impacts between sectors through a systemic view. This systemic view could further

contribute to the maximization of Stakeholders' participation and consent during the RAAP implementation stage.

Introduction

The global discussion has shifted, in the past years, from acknowledging Climate Change towards declaring national commitments for tackling Climate Change, a shift that indicates the magnitude of this problem. Dealing with the consequences of Climate Change requires a twofold action plan: mitigation measures that contribute to the reduction of the intensity of the problem and adaptation measures that enhance protection from the adverse effects of the problem.

This research sets out to comparatively review the consultation procedures followed during the RAAP drafting/establishment stage, since they are strategic tools for systemic adaptation action planning. Each one of the RAAPs, requires the assessment of Climate Change impacts on environmental and socio-economic sectors, based on climate trends and vulnerability, in order to determine and prioritize the relevant adaptation actions in need.

Ministerial Decision 11258/2017, titled "Specification of Regional Climate Change Adaptation Plans" which are described in article 43 of Law No. 4414/2016, specifies the RAAPs' standard requirements and content. Firstly, the Decision specifies that the goals and the compatibility of each RAAP with the National Strategy for Adaptation to Climate Change must be analyzed, along with other existing or under drafting regional plans. Secondly, the regional characteristics and data of the natural and human-made environment are described: climate, weather, bioclimatic, geomorphological, spatial, geological, tectonic and soil characteristics, surface and underground water data, ecosystem structure and function, protected areas, types of coastlines and sea rise rate, cultural heritage, current spatial planning framework and land use, socio-economic context, environmental and construction infrastructure and finally the major environmental pressures.

Subsequently, according to available data and climate projections based on regional climate models, the trends in climate variables are analyzed. This analysis breaks into three different time scale scenarios, short (up to 2030), mid-term (up to 2050) and long-term (2100) and more than one emission scenarios (Representative Critical Pathways 2.6 - stringent mitigation scenario, 4.5 & 6.0 – intermediate and 8.5 –scenario with very high GHG emissions, Figure 1)

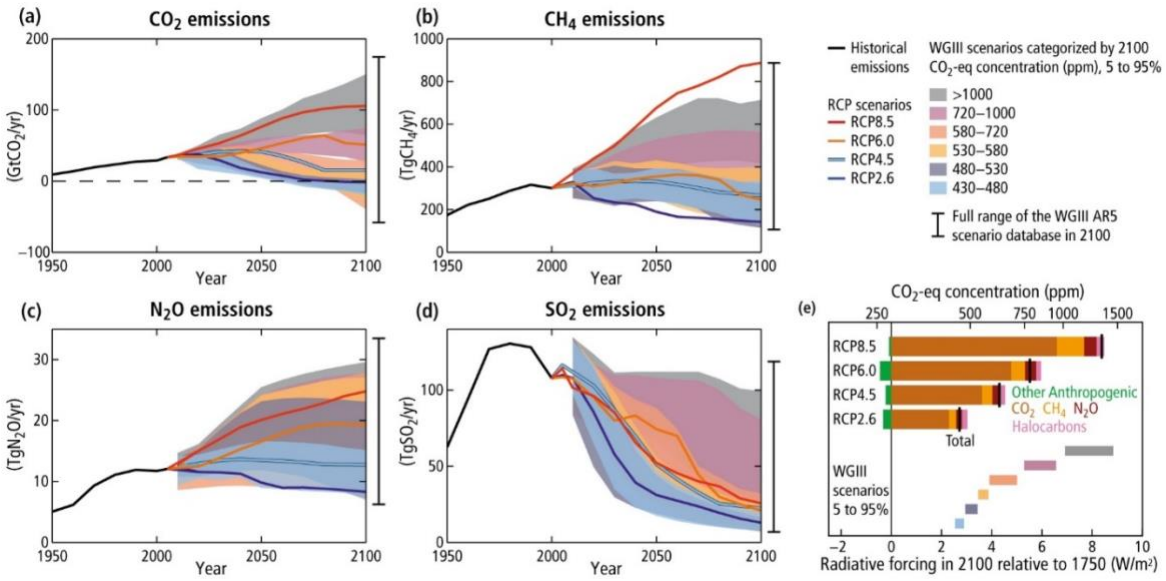

Figure 1. Emission scenarios, IPCC, (source: https://ar5-syr.ipcc.ch/topic_futurechanges.php)

Based on the data described, the assessment of the regional climate trends is performed (Figure 2) and the vulnerability of different sectors and areas is examined. A sector's vulnerability to Climate Change is perceived as the degree to which a system is susceptible to, and unable to cope with, adverse effects of Climate Change (IPCC, 2007) and the sectors reviewed are those described in chapter 4 of the National Strategy for Adaptation to Climate Change (Ministry of Environment and Energy, 2016): agriculture and livestock production, forests and forestry, biodiversity – ecosystems, fisheries and aquaculture, water resource and water ecosystems, coastal zone land use, tourism, energy, construction and transport infrastructure, public health, human-made environment, mining industry and cultural heritage.

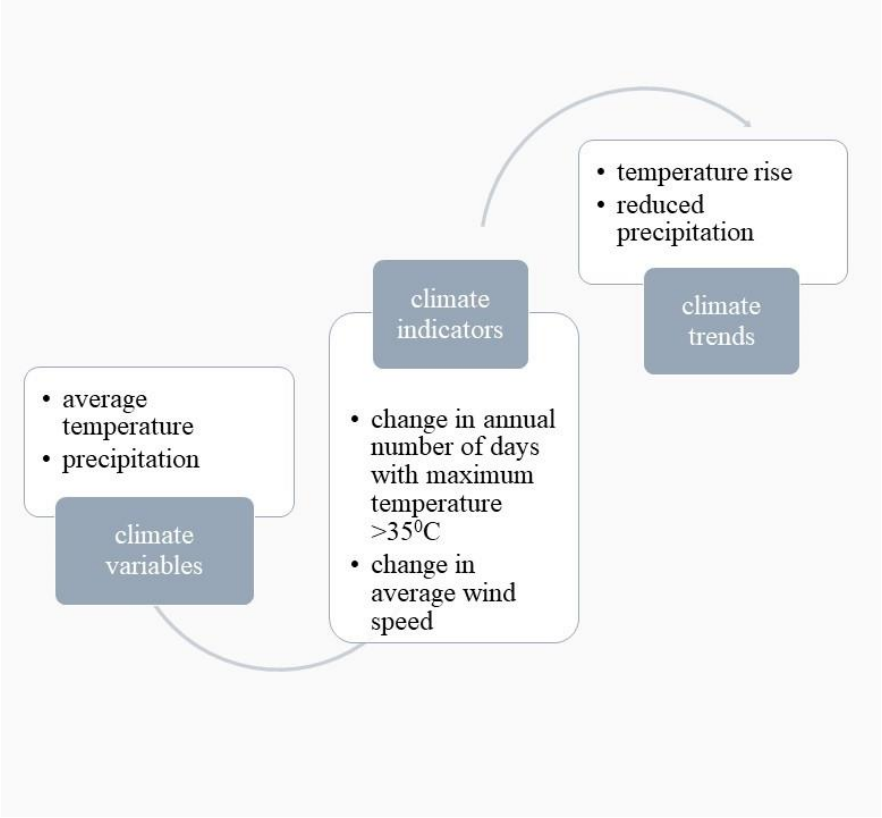

Figure 2. The evaluation of the expected climate trends in the study area is the result of the analysis of the climate indictors which are assessed by basic climate variables

Estimating the vulnerability, the possible impacts on the high priority sectors are assessed for each Region, focusing on their probability of appearance, their extent and intensity, their complexity based on direct or indirect mechanism of appearance and simple or complex components, their appearance time perspective, duration and recurrence, irreversibility or minimization ability and their intraregional and cross border characteristics. The final stage of drafting aims at proposing measures and actions (administrative regulations, reports, pilot research studies, public works, procurements, monitoring, warning, public information actions, motives, recompenses) for the sectors and the geographic areas of priority, by examining their inclusion in existing policy (e.g., Disaster risk management policy) and the compatibility and complementarity with other regional plans (Regional Waste Management Plan, Water Management Plan, Flood Risk Management Plan, Regional Framework of Spatial Planning and Sustainable Development). The measures proposed aim at either avoiding Climate Change impacts (prevention and readiness) or, if possible, at minimizing the intensity and extent of impacts and at their recovery.

During the RAAP drafting/establishment stage as well as the implementation stage, public consultation is prescribed to maximize participation and consent of all Stakeholders (public administration, scientific community, producers, public society, and vulnerable groups, e.g., population vulnerable to floods.) Public consultation's objective, at A and B level of local authorities (Municipalities and Regions), is to enhance accountability in development planning, operational programming, reforms, and financial management (Law No.4555/2018)[1] and it was made obligatory under the Kallikratis Programme (Law No. 3852/2010). At the national level, public consultation is conducted on draft legislation through the related website[2] in the context of Open Government and currently complies with article 61, Law No. 4622/2019.

Until now, the standard practice of public consultation applied by the majority of local authorities (A and B level) consisted of organizing information days/workshops, attended mostly by institutional representators and with limited public society attendance. In most of the cases the results of such practices are poor in regard to the expected goals and the main purpose of public consultation. Unfortunately, such practices lead to disdain of relevant actions and of social participation and undermines social unity. (HALDLG (EETAA), 2020)

Nevertheless, public consultation can provide a platform for public discussion between the public society and the Stakeholders affected directly or indirectly by implemented policy. Although the basic condition for an effective consultation is the corresponding will of the organizing authorities to collaborate with the Stakeholders, careful examination and selection of the appropriate public consultation techniques can significantly contribute to the result. Based on this assumption we examine ways of more effective public consultation during the RAAP drafting/establishment stage, to ensure maximum participation and consent of all Stakeholders, providing an opportunity for multilevel participatory governance.

Maximum participation and consent of all Stakeholders prerequires the understanding of the problem of Climate Change (at least its main characteristics) on the one hand and its impacts on different human activity sectors on the other. From this perspective we suggest a Human Development Model (Boikos, 2020) that can contribute to developing a systemic view of the

[1] Article 78: Municipal Consultation Committee, Article 105: Regional Consultation Committee, Article 107: 4-year Operational Programmes, Annual Action Programs for Municipalities, Article 176: 4-year Operational Programs, Annual Action Programs for Regions, Article 189: Discussion and approval of municipal budget, Article 190: Discussion and approval of regional budget

[2] http://www.opengov.gr

relevant problems and their impacts, but also to assist planning and accepting solutions that can simultaneously satisfy various demands and reduce complexity of the relevant problems.

Climate Action is goal 13 of the 17 Sustainable Development Goals (UN, 2015), but also many more adaptation and mitigation actions for Climate Change are included in several of the 169 SDG targets (e.g., 1.5: "Build resilience to environmental, economic and social disasters", 4.A: "Build and upgrade safe and inclusive schools", 11.5: "Reduce the adverse effects of natural disasters" et alia). We claim that SDGs describe and include global issues and the best part of current human activity. The Human Development Model (HDM) has been shaped through a transdisciplinary theoretical approach and research that concluded into 3 major categories of the model: Nature, Society, Knowledge. After examining the content of the 169 SDGs targets 9 subcategories where formed, shown in Table 1.

Table 1. Categories and subcategories of HDM (Boikos 2020)

CATEGORIES	SUBCATEGORIES		
Nature	Human life	Resource & Waste	Ecosystems
Society	People	Governance	Institutions & Organizations
Knowledge	Human capacity	Education	Research & Development

The HDM (Figure 3) has already been successfully used: a. for categorizing, assessing, and prioritizing of SDGs targets, b. as a systemic view for SDG relevant problem solving, c. as a tool for mapping interlinkages (positive synergies and negative effects) in SDGs' implementation and it is planned to be used as a development planning tool that is assumed to reduce complexity between the interlinkages mentioned above.

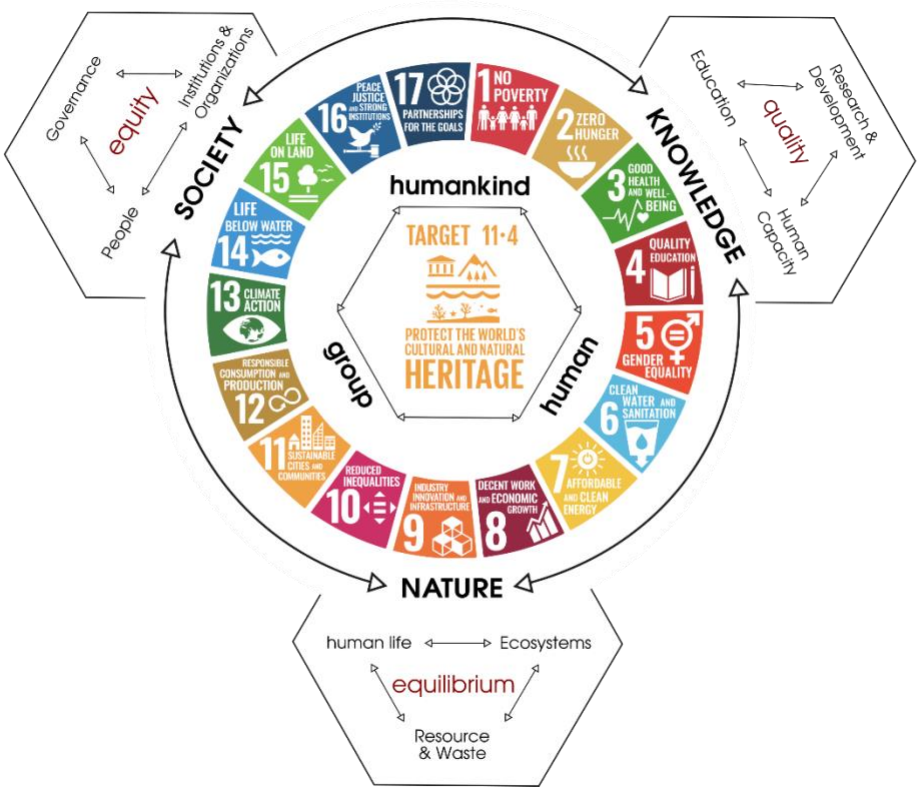

Figure 3. The Human Development Model (Boikos 2020)

Methodology

The research was conducted by searching the websites of the 13 Regions of Greece for documenting the consultation procedures during the RAAP drafting/establishment stage. The research aimed at:

1. Documenting the institutions noted to participate in the RAAP public consultation.

2. Tracking the digital pathway the website user must follow to find the consultation section (digital traceability of consultation)

3. Comparatively review the consultation techniques and ways of information exchange (accompanying texts, call for consultation, comment period, information days) .

4. Exploring the results of public consultation procedures conducted.

5. Documenting the actions prescribed into the RAAP texts for public consultation at the implementation stage and examining the suitable consultation techniques so as to propose ways of

achieving horizontal and vertical participatory governance during the RAAP implementation stage.

Results

The main categories of Stakeholders involved in the consultation process during the RAAP drafting/establishment stage were:

- Decision makers with institutional responsibility and are involved in the Climate Change adaptation process (Ministries, Decentralized Administration, Region, Regional Units, Municipalities and their services).
- Experts - specialists, i.e., scientists, research organizations, educational institutions, non-governmental organizations, chambers of commerce or other specialized bodies in the wider public sector.
- Public society and vulnerable groups

During the RAAP drafting stage, public consultation mainly assisted the contractor's report working group in gathering data for the report. The data were gathered by sending requests and contacting a wide range of institutions and services of the local administration (A and B level), other bodies in the wider public sector, experts and specialists, research organizations, NGOs, and chambers. The requests were sent following a process of mapping Stakeholders that affect and are affected by Climate Change (Stakeholder mapping). As an example, the municipalities technical services were asked to give information about completed, on-going or planned construction works on their territory, that are relevant to Climate Change, natural disaster risk management, and everything relevant to Climate Change adaptation. The data collected are studies, action plans, planned construction works, geospatial data, vulnerabilities, and literature related to Climate Change and can support the RAAP report working group for the analysis of the vulnerability of different geographical areas and sectors of the economy of each Region, for the assessment of the immediate and long-term impacts of Climate Change and for the proposal of measures and actions for adaptation to Climate Change. Furthermore, during the RAAP drafting stage, technical meetings were held to present the interim deliverables to the RAAP Acceptance and Monitoring Committee, to local authorities and the wider public sector, and any relevant working groups.

During the establishment/endorsement stage, the organization of a information day was recorded in some Regions in order to inform citizens and Stakeholders about the expected climate trends in their Region, about the climate vulnerability analysis and the immediate and long-term impacts of Climate Change in the sectors and geographical areas of priority, and about the adaptation actions and measures in order to actively participate in the final formulation of the RAAP. Following the workshop, the electronic public consultation on the RAAP was published on the website of each Region or on the website of the relevant Special Management Service. The results of the research on the digital traceability of each consultation are presented in Table 2.

Table 2. Results of consultation digital traceability

Number of Regions	**Tracking point of consultations on the website**
4	Menu “News” and submenu “Consultation”
2	Menu “News”
3	Menu “Consultations”
1	Menu “For the Citizen” and submenu “Consultation”
1	Menu “Open Governance” and submenu “Consultations”
1	Menu “Region Gazette” and submenu “Consultations”
1	Menu “News”, submenu “Press releases” and submenu “Consultation”

It is also recorded that the consultations comment duration ranged from fifteen days to one month and the wording used mainly called for everyone's assistance and response in order to formulate proposals to more effectively prepare the Region for Climate Change adaptation. According to the legal framework (MD 11258/2017), the requisite accompanying document for conducting an online public consultation is the non-technical summary of the RAAP, which summarizes the content of the study using a non-technical vocabulary so that it can be understood by the general public. In particular, it is required to describe in a concise manner and without specific technical terms at least the following:

- The essential requirement of elaborating the RAAP.
- The main measures and actions proposed in the RAAP, the necessity of their implementation and their compatibility and interrelation with other broader policies and plans of the Region.

- The feasibility for the participation of different social groups in the implementation of the measures/actions.
- The way of monitoring the implementation of the RAAP.

The results of the research regarding the realization of information days and the use of the non-technical summary of the RAAP are presented in Table 3 below.

Table 3. Results of the applied requisite accompanying document and the realization of information days for the conduct of the online public consultation

Number of Regions	Online public consultation procedure
2	Completed draft of the RAAP, non-technical summary
3	Completed draft of the RAAP, information day
1	Non- technical summary, information day
5	Completed draft of the RAAP
2	Completed draft of the RAAP, non- technical summary, information day

It is worth noting that the general instruction was that the Stakeholders' comments should be submitted by formal letter or by e-mail. However, two Regions used a public consultation form with fields for comments on the measures, the budget, and general comments, and two Regions used two types of questionnaires:

- Questionnaire suitable for Stakeholder Consultation, addressed to any citizen, association, NGO, initiative interested in Climate Change issues in the Region and ways to address them.
- Questionnaire suitable for Administration Consultation, addressed to all the official actors directly or indirectly involved in Climate Change mitigation and adaptation issues.

Regarding the effectiveness of the public consultations that took place in the thirteen Regions, in terms of quantity and quality of comments, it was not possible to assess the results as the commenting process was not publicly disseminated and therefore this research could not locate it.

Consultation during the implementation stage of the RAAPs aims at participation in the monitoring of their implementation, so that an exchange of information and knowledge between

the Stakeholders and the Region is possible. After reviewing the content of the RAAPs the public consultation process at this stage, in general terms it is encountered as follows:

- Establishment of a Regional Committee formed by the A and B level of local authorities to monitor the implementation of the RAAP. It is proposed that this committee will meet twice a year and the results will be presented through the thematic webpage of the RAAP.
- Establishment of an interdisciplinary committee responsible for consultation and exchange of information in relation with the monitoring of the implementation of the RAAP.
- Establishment of a Regional Climate Change Monitoring Mechanism, which will support the identification of demands, assess data, acquire solutions, and raise awareness on Climate Change through citizens' interaction.
- Annual workshop involving decision-makers and representatives of other public and private sector bodies (universities, scientific organizations, NGOs).

The review of the appropriate consultation techniques in order to formulate a set of proposals to achieve horizontal and vertical participatory governance during the implementation stage of the RAAPs, is analyzed in the next section.

Discussion

Contemporary social and environmental problems are characterized by complexity, as a number of interdependent factors are involved in understanding and solving them (UN, 2019a). Therefore, solutions are not obvious, simple to formulate and easy to implement. On the contrary, in order to be effective and sustainable, they must emerge through the participation of all Stakeholders, who have the relation and the responsibility to synthesize the many different perspectives (UN, 2019b). As acknowledged in the National Strategy for Adaptation to Climate Change (MEEN, 2016), the process of adaptation to Climate Change requires an integrated, multidisciplinary approach with cross-sectoral measures designed and implemented by various national and regional actors. Furthermore, it is a continuous and long-term process which is associated with the different aspects of the economy and society and therefore requires a strategic approach, early planning, and close cooperation between Stakeholders.

However, given the highly specialized information and terminology provided in a draft RAAP, and taking into account that, based on the results of this research, five Regions did not use the non-technical summary in the supporting documents of the consultation and that seven Regions

did not organize an information day, it is demonstrated that the foundation for an essential form of participation, which is the provision of comprehensible information, is demolished (only 3 out of 13 Regions used a non-technical summary and an information day). Therefore, the public consultation process adopted by Regions approaches the characteristics of an ad hoc type of participation, which aims to acquire information and knowledge around a specific issue at a particular period of time, characterized by an occasional and non-permanent condition (Stratigea, 2015).

Given that the Climate Change adaptation actions and measures outlined in the RAAP are not only based on technological solutions and infrastructures but also on social contribution and active participation of different Stakeholders, it is necessary to recommend participation techniques that will ensure a meaningful involvement. The main objectives of a meaningful participation are to improve the formulation of measures and interventions for Climate Change adaptation, ensuring that they are based on experiential knowledge and practical factors combined with scientific evidence, to make planning widely accepted, to raise awareness on Climate Change -related topics and to democratize decision-making processes.

In order to bring forward proposals for a more effective consultation in the implementation stage of the RAAPs, the main categories of consultation described in the Consultation Guide for Local Authorities of the Hellenic Agency for Local Development and Local Government (2020) were explored. The categories are distinguished according to the level of involvement (level of participation) of the Stakeholders, the thematic area of the consultation, its scope, and the level of impact on the population. With regard to the degree of involvement criterion, the types of consultation proposed are the “exchange of views” where Stakeholders express their opinion on specific planning proposals by the authority organizing the consultation, and the “participation – involvement” where Stakeholders are invited to participate in a discussion to assess needs and identify related issues. In addition, as the thematic area of the consultation is the formulation and the implementation of the measures of the RAAP, the consultation techniques utilized should be similar to those utilized for the acceptance of a new policy and the adoption of a local change process with a significant level of impact and an extensive application field (Figure 4).

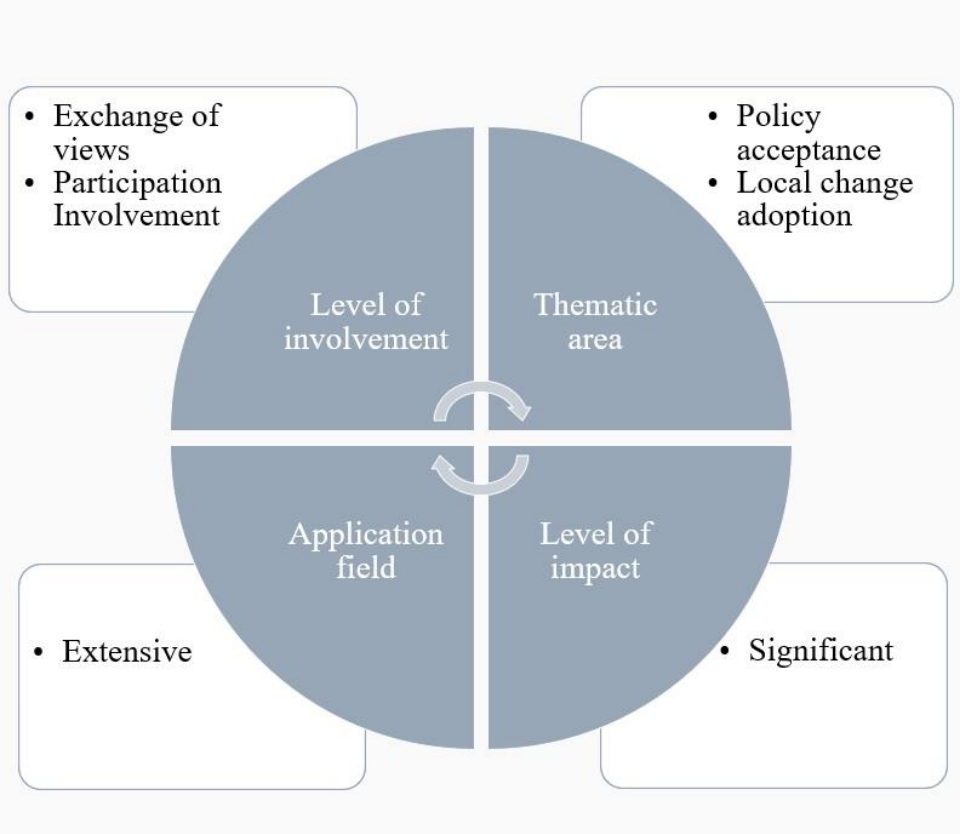

Figure 4. Suggested categorization for the public consultation procedure of the RAAP

Based on the above categorization, the most appropriate consultation techniques are proposed, as follows: Focus Groups, Citizens' Panels, Joint Field Surveys (Citizen Science), Public Assemblies and Community Vision. The participatory method of Focus Groups is a qualitative research method for making inquiries or for examining the dimensions of a problem which require an in-depth understanding that cannot be achieved by quantitative methods. The aim of this method is to engage participants in a consultative role, seeking to collect different views. It is a structured dialogue process, which focuses on a pre-selected topic of discussion (focus) and takes place between individuals of a specific group, who have been selected on the basis of certain criteria. The application of this method ensures the acquisition of more information, comparing to other methods, within a short period of time, contributing to the enrichment of the existing knowledge that is used to effectively plan problem solving (Stratigea, 2015).

It is imperative to establish permanent citizens' panels as climate crisis is deteriorating, where designated representatives meet several times a year to discuss issues thoroughly. The citizens who form the panel receive testimonies and ask questions to experts and study the issues

and data available to them. The results of their discussions form recommendations to the Administration and citizens consider they represent their interests effectively. The composition of the panels is based on the best possible participation of all social groups, giving priority to the most vulnerable.

Nowadays, Citizen Science approach amplifies the implementation of informal Environmental Education activities where citizens are informed and trained to contribute to environmental data monitoring, collection and processing programs. In Greece, this approach has been used mainly by organizations such as the Hellenic Ornithological Society with the project "Managers Network for monitoring important bird areas"[3], the Association for the Protection and Welfare of Wildlife ANIMA with the project "The National Network of Wildlife Observers"[4] and the environmental organization WWF Greece (World Wide Fund for Nature) with the project "Take the green in your hands"[5].

Public assemblies are meetings for gaining information on specific issues, which are open to the general public, and officials present issues thoroughly to promote discussion. It is a useful process when dealing with issues of particular interest and allows for an in-depth problem consideration, leading to a strong network of relationships and contacts when properly coordinated. This technique can create the right conditions for the implementation of the Community Vision technique, whereby a shared vision for the future of a Region is co-developed. The main objective is to listen to as many and varied ideas as possible, emphasizing cooperation and teamwork, and as a result the success of the process depends on the experience of the facilitator.

In this discussion, it is stressed that the above consultation techniques can become more effective, if they are assisted by a theoretical and methodological framework for acknowledging and assessing the relevant problems, the sectors of human activity involved, but also for planning or accepting the optimum solutions for solving the relevant problems and the areas and sectors of intervention. The Human Development Model includes a 4-step problem solving methodology as well as a methodology for mapping interlinkages between feasible solutions to these problems. Although HDM has been developed in the context of solving Global Issues (UN, 2020) and

[3] https://old.ornithologiki.gr/page_in.php?sID=173&tID=2589
[4] https://www.wild-anima.gr/paratiro/
[5] https://greenspaces.gr/

implementing SDGs, it is stressed that it could scale down in a local or regional level. Besides, local SDG action is a crucial aspect for their implementation.

The 4-step problem solving strategy consists of: 1. recognition of the problems and their context, 2. prioritization of problems categorized in Nature and subcategories, 3. clarification of the Elements of Circumstances (What is the problem? Who is affected? Who can solve it? In which sector should we intervein? When should we act? How can we succeed based on capacities and limitations?), and mapping interlinkages among different implementation actions and interventions suggested.

The methodology for mapping interlinkages among SDGs targets could be applied in mapping suggested RAAP measures and actions, both synergies and negative effects among measures-targets. This process can contribute to the prioritization of measures with the most positive synergies or with the least negative effects. For example, in such a way, the cost, the time scale and the environmental impact of a hydraulic work, and that of an educational program for citizens education in water management, could be coestimated.

Regional Adaptation Action Plans could lay the foundation for a multilevel participatory governance. Multilevel governance secures cooperation between the two levels of local authorities, Municipalities and Regions, and advance regional and local development, and social unity. By adding participation to multilevel governance, the ecosystem of active citizenship and public consultation is formulated. RAAPs' multilevel participatory governance has a potential for horizontal and vertical cooperation, where, if the appropriate participation techniques and governance mechanisms are correctly applied, it could lead to effective RAAP implementation through continuing consultation, review, and update.

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