

The importance of citizens' engagement in the implementation of civil works for the mitigation of natural disasters with focus on flood risk in Attica Prefecture (Greece)

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Contents:

- Project presentation
- Communication with the citizens (direct and indirect)
- Examples of citizens engagement
- Conclusions



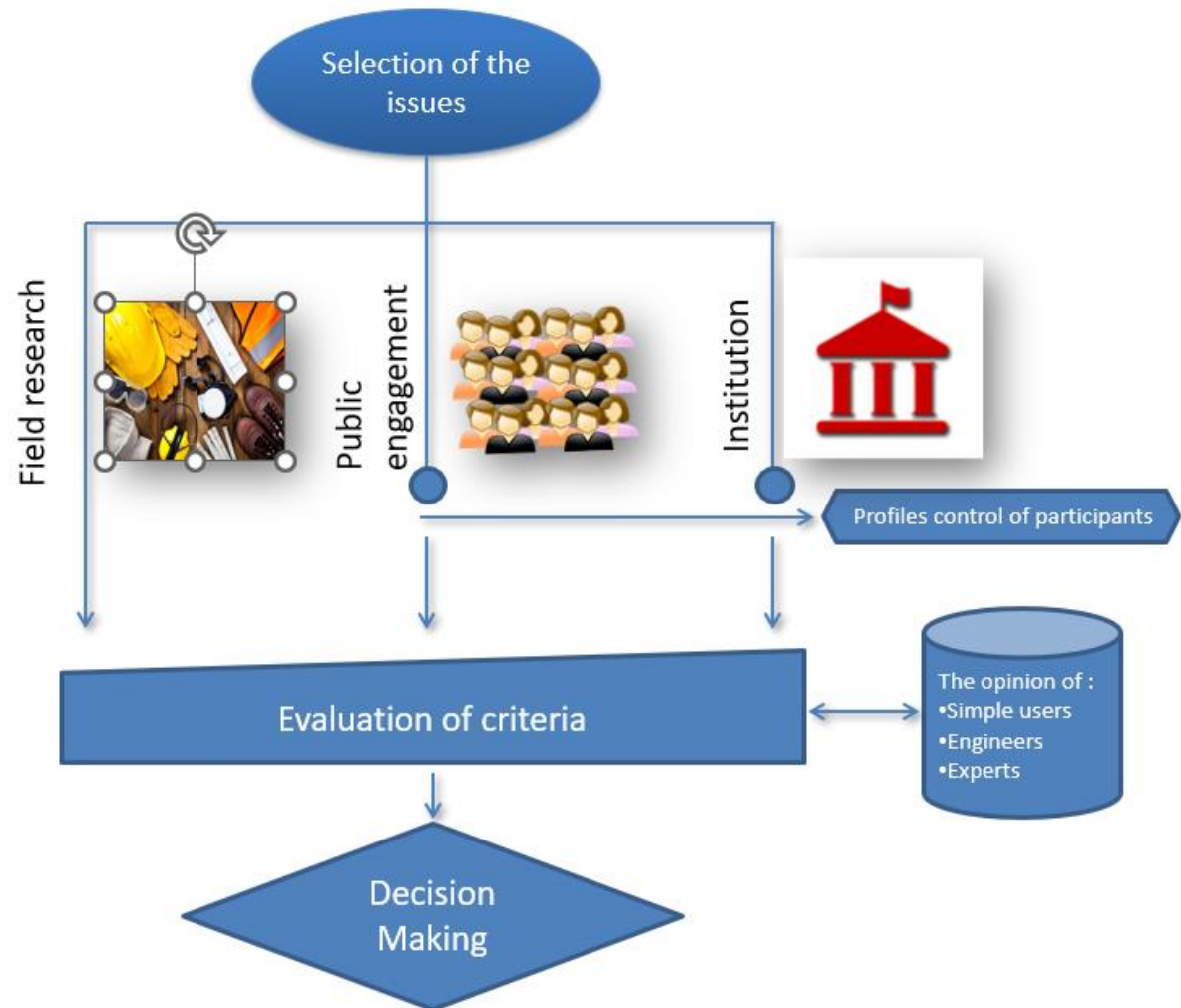
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The research project is "**Earthquake, Fire and Flood Risk Assessment in the Attica Region**", which is a partnership among:

- the Republic Region of Attica,
- the National Observatory of Athens,
- the National and Kapodistrian University of Athens and
- the National Technical University of Athens, (Consultant)



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Along with field research and institution communication, public engagement was implemented.

The combination of the above actions can enhance the engineers' knowledge at the area of interest, and thus, may result in a more efficient design of flood protection works and public works in general, but also, in the public engagement during and after their implementation.



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For the purposes of the project, a rather innovative approach was attempted, regarding the contribution of citizens to the identification of the vulnerable flood areas.

Two courses of actions were taken in order to initiate public engagement in the design process, i.e.,

- (i) the indirect communication with the public through online questionnaires, and
- (ii) the direct communication with the public during field works and by loose-format interviews regarding their experiences.



Local knowledge:

Residents possess intimate knowledge of their neighborhoods, including drainage patterns, flood-prone areas, and past flood events.


Identification of vulnerable areas

- Citizens can pinpoint specific locations that experience frequent flooding or have inadequate drainage infrastructure.

Prioritizing projects

- Community input can help authorities prioritize which civil works projects will have the most significant impact.

Sense of Ownership

- When citizens are involved in the planning and implementation of civil works, they develop a sense of ownership over the project. 

Local knowledge

Designing effective solutions

- Residents can provide insights into the best approaches for flood mitigation based on their experiences with past floods.

Maintain the infrastructure

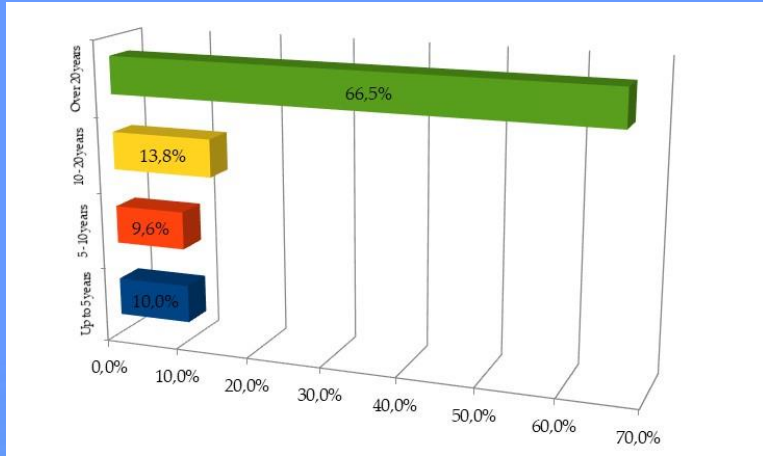
- Citizens are more likely to take responsibility for keeping drains clear, reporting damage, and using flood mitigation measures effectively if they feel involved in their creation.

Spread awareness

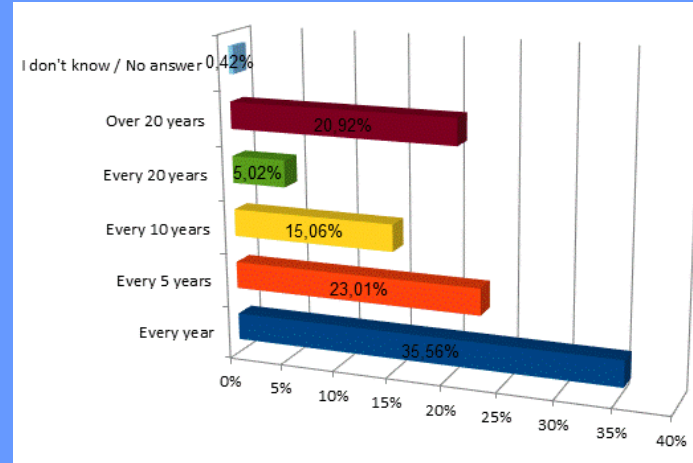
- Engaged citizens can act as multipliers, educating their neighbors about flood risks and promoting preparedness measures.



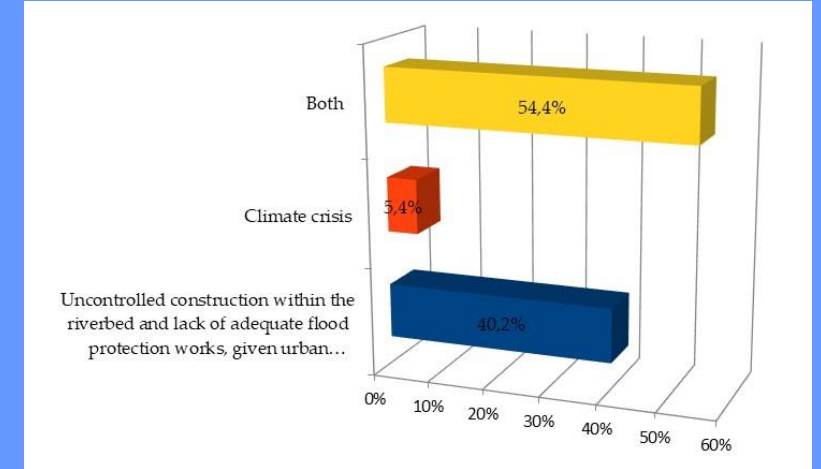
Indirect communication with the public (online questionnaires)



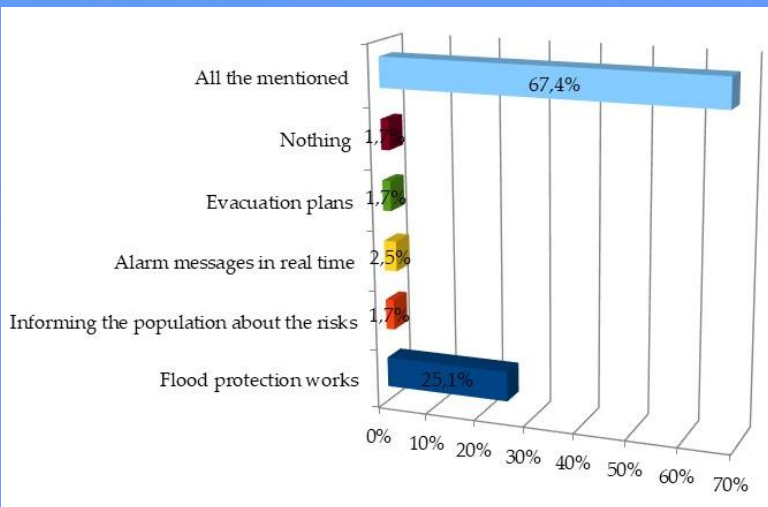
How many years do you live in your area?



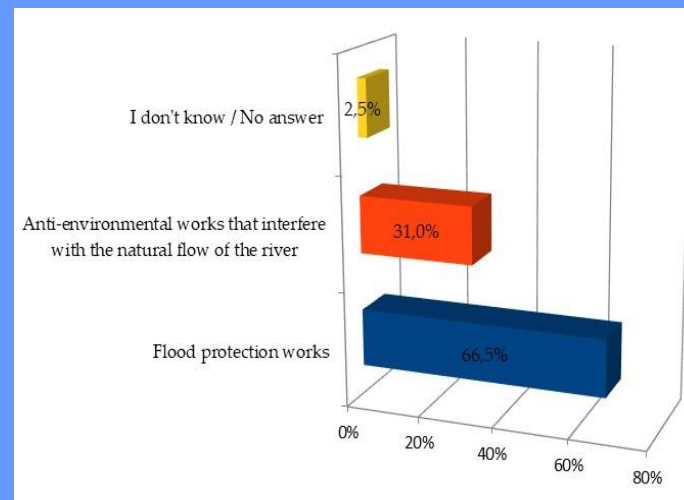
How often would you characterize the flooding incidents in your area?



What, in your opinion, is the main cause of the flooding incidents?



Which measures would you prefer to be taken to decrease the flood risk?



Do you consider the river settlement works as:



Improved Communication:

Citizen engagement creates a two-way communication channel between authorities and the community. This allows for:

Addressing concerns

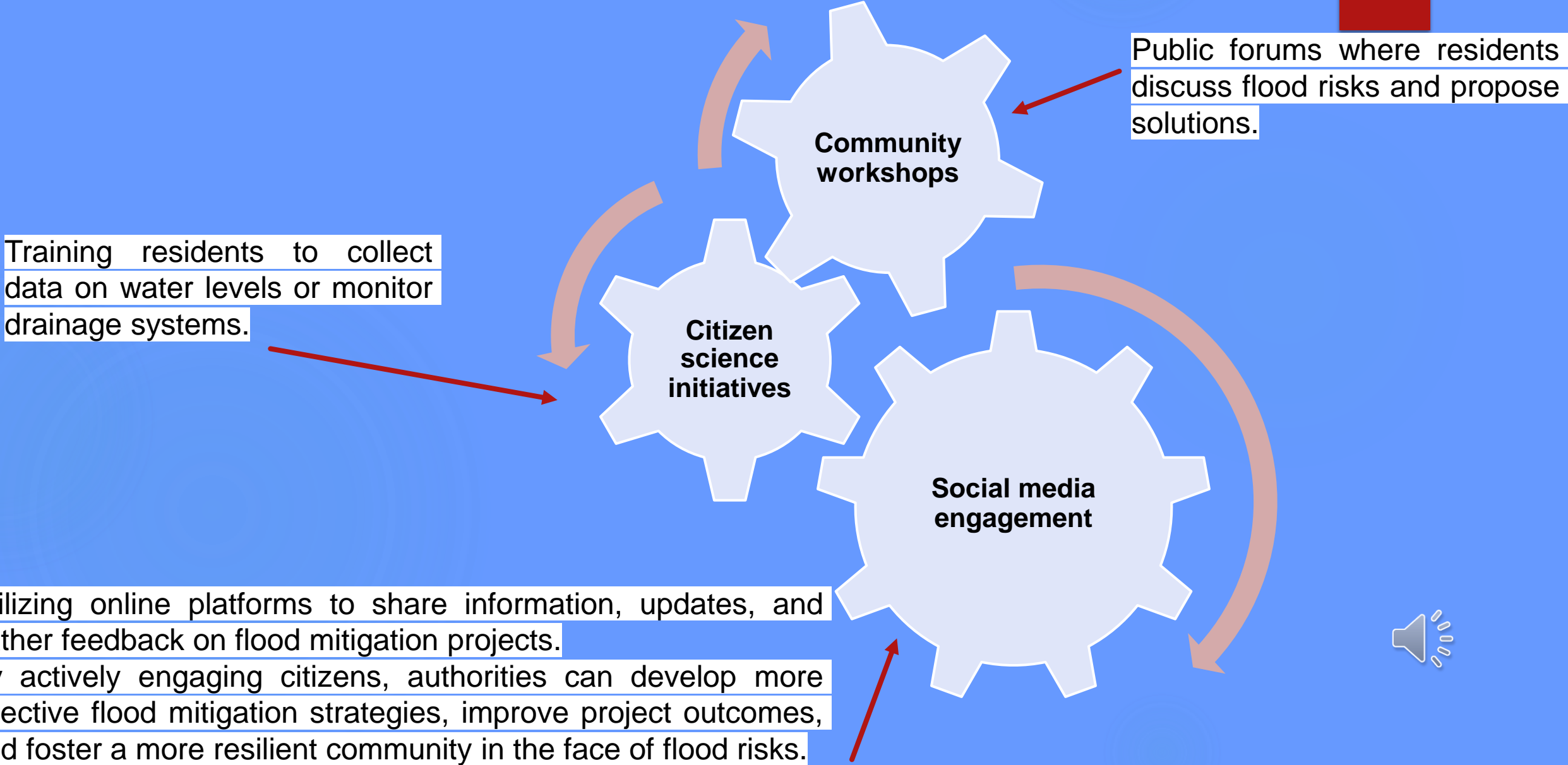
- Residents can voice their concerns about the project's potential impact on their homes and livelihoods.

Transparency and trust

- Open communication builds trust between authorities and the community, leading to better cooperation during project implementation.



Examples of citizen engagement





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Consequently, it is argued that the residents must play an active role in the conception, design and implementation of flood protection works and infrastructure projects, overall.

In general, the implementation of any mitigation measure has as a prerequisite its acceptance by the residents. Their understanding is important, on the one hand, to deal with possible reactions, appeals, conflicts throughout the execution of the project and on the other hand, to ensure that residents are properly informed about the utility of such works and projects.



Conclusions

In order to effectively address the issue and minimize the potential damage caused by floods, it is imperative that citizens actively participate in the implementation of civil works.

By involving the local community, we can harness their knowledge, experiences, and perspectives, which are invaluable in identifying potential risks and developing appropriate solutions. Moreover, citizens' engagement fosters a sense of ownership and responsibility among the residents, encouraging them to actively contribute to the implementation and maintenance of the civil works.

To achieve meaningful citizens' engagement, it is essential to establish clear communication channels between the authorities, stakeholders, and the public. This can be done through regular community meetings, workshops, and public consultations, where individuals can voice their concerns, provide feedback, and actively participate in decision-making processes. Additionally, providing accessible and transparent information about the planned civil works, their objectives, and expected outcomes is crucial to garner public support and trust. Furthermore, educational campaigns and awareness programs should be implemented to enhance citizens' understanding of the importance of their engagement in flood risk mitigation.

In conclusion, citizens' engagement is of utmost importance in the successful implementation of civil works for the mitigation of natural disasters, particularly in addressing flood risk in Attica Prefecture. By involving the local community, establishing effective communication channels, and raising awareness, we can collectively work towards a safer and more resilient region.

Conclusions

The results of this study demonstrate that applying public engagement provides a holistic approach in the process of designing infrastructure projects.

Direct communicating with residents helps in collecting information based on their local experience upon the area of interest. The communication with the public enriches the field research, while also investigating public attitudes on the integration of civil works within the urban area.

It is argued that the residents should play an active role in the conception, design and implementation of infrastructure works and social persuasion is a prerequisite. In general, the acceptance of any civil works by the residents is a prerequisite for their successful implementation, without opposition and delays and with reduced impact to quality of life of local communities.



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