



NONAM summer school

Horsens case- Stakeholder involvement plan

Yuan Zheng; Patience Mguni; Emmanuel Pagneux

Introduction

The overall objective of the stakeholder involvement plan, which is referred to this task, is to facilitate adaptation of the Horsens municipality to climate change. In concrete terms, a package of coping measures should be adopted at the end of the participatory process. Although the time frame given in the task refers to 20 years in the foreseeable future, we--- as a compulsory part of the competent authority (leading agency), who is entitled the legal mandate to facilitate implementation of stakeholder involvement and ultimate performance of the outcome of the adaptation plan--- will not confine ourselves to the predefined time frame due to that climate change will unequivocally go beyond this temporal scale. In consequence, we distinguish the terms of “adaptation” and “adaptive management”, with the former regarded a snapshot spotted in a long timeline while the latter deemed as the entire process along the timeline. Adaptive management could involve the process of “learning from each adaptation”. The list of strategies identified suitable now should not be considered exhaustive accordingly. Another reason why we would not limit ourselves is that we would like to put our fingers upon adaptation strategies belonging to the “no regrets” approaches, which are prepared to react to climate risks in concerted efforts with other socio-economical and political uncertainties that might come along in the future.

Knowledge needed and uncertainties

Climate change effects are uncertain in multiple ways. Firstly, the phenomenon itself is inherently variable (aleatory uncertainty). Secondly, there is epistemic uncertainty mainly due to imperfect knowledge. To project the impacts of future climate effects, knowledge in the following fields are needed:

- Interactions between oceans and atmosphere
- Meteorological processes (i.e. temperature, precipitation, wind, radiations, etc.)
- Hydrological processes:
 - mechanicals (water levels and discharge in rivers, sea level, groundwater table)

- chemicals (e.g. pollution)
- Cascading effects, e.g.:
 - Primary production (availability of resources)
 - Species migration (vegetal especially)
 - Modification of erosion regimes
- Socioeconomic impact on human development

Currently we have incomplete knowledge in both the natural science and social science domain. Governance and scales issues have to be addressed (jurisdictional and institutional dimensions but also psychological and societal dimensions). Engineering and planning solutions have to be elicited.

In the physical aspects of climate change, the following is needed (not exhaustive):

- A better understanding of interactions between oceans and atmosphere is also needed.
- Relation between runoff/discharge and the spatial extent, velocity, depth, duration of flooding needs to be established (flood hazard maps); at this condition only, flood risk mapping and flood risk zoning can be performed. Cf. European Directive on the management of flood risks
- Pollutant dispersion and accumulation
- Openness of natural systems
- Duration, rhythm, and reversibility of changes (hysteresis).

Another example is the lack of confidence in predicting key economic and social variables.

Last but not least, uncertainties arise as a result of heterogeneous knowledge frames held by multiple stakeholders. A good illustration is the fierce debate as to whether climate change is taking place and the cause of the event when the topic of climate change first tried to squeeze itself into the political agenda. The media in particular played a salient role in establishing conflicting themes centering on these issues, which reflected different interests of the stakeholders. Scientists who took the initiative to propagate climate change issues could not reach an agreement in the first place, which led to the prominent “dueling scientist scenario” appeared in the media. This has inevitably led to confusion and poor understanding of the public’s perception about climate change issue, rendering mitigation and adaptation even more difficult. Nonetheless, the worst part of the story rests in that the public are not just passive message receivers. They process a surprisingly huge amount of information quickly and selectively guided predominantly by their beliefs and worldviews, which are neither under control nor easily accessible.

As science progresses rapidly, epistemic uncertainty has been tackled effectively. Ambiguities have been reduced to some extent on the ground that scientists have at least managed to reach

the consensus that anthropogenic climate change is occurring. The public starts to get a better understanding of the issue seen from numerous surveys' results despite a few discrepancies. Yet, more ambiguities need to be clarified by getting an idea of what the problems count more for the public and what the risks the public conceive of. If there is a position reserved for climate change problems in their everyday life, acceptability of climate-related policies is likely to be elevated. Moreover, education can be another possible way to change their attitudes, which requires strenuous endeavors from scientists to ameliorate their skills of risk communication, i.e. delivering uncertain knowledge. The wise strategy to we recommend here is to be honest and avoid the science jargons. Try to relate the knowledge to the personal experiences of stakeholders to enhance the pertinence.

Stakeholder involvement

In the stakeholder involvement plan, it is essential to use different participatory methods at the different stages, for different stakeholders who also have different participatory levels. For the general public (or the non-core stakeholder) it may be sufficient to use public information provision or events, depending on the size of this stakeholder. Surveys may also be used if there is time and resources for post-processing. For policy makers, scientific experts, municipal officials, farmers as well as insurers and others with a direct and vested interest in the outcomes of the process (the core/organised stakeholders), we would advocate for the use of workshops, in-depth interviews and surveys.

The whole stakeholder involvement process should last a maximum of three years with an allowance for feedback loops along a longer time period. As a basic guideline, the problem identification and information provision stages should each last two months; the knowledge gathering stage may take up to six months; the proposal, testing and revision stages may take up to two years in total; while the decision-making stage where the final adaptation plan is adopted may take two months. It is important to expect and be aware of the feedback loops between the stages in the process as these may also add to the time it takes to move from one stage to the next.

Three years (recurring) is a potentially long time in professional and social terms, therefore it is important to be aware of the risks of stakeholder burn-out (loss of interest) before the process has run its course. One key aspect in this case is the stakeholder analysis. A stakeholder analysis that is done with the political and economic realities of the case in mind will ensure that we are aware which stakeholders to involve at which stage of the process, how to involve them as well as their motivations and level of power.

In such a scenario, the design of the participatory process itself becomes crucial to the success of the process as well as maintaining the interest of stakeholders all through the process. One way to avoid burn out may be to control and design the flow of information between and to stakeholders in such a way as to avoid information overload. Another way to avoid loss of interest would be to ensure that each stakeholder feels a level of ownership of the process and solution, this can be done by transparency in the information flow, managing the expectations of the different stakeholders, engagement based on democratic principles, and avoiding having the process hijacked by more powerful stakeholders.

As such, one of the major challenges to a successful stakeholder process lies in doing the stakeholder analysis right by choosing the right people to involve in the stakeholder process. There is a delicate balance between the number of people to be engaged and their pertinence to the process. There may also be other challenges posed by communication barriers between stakeholders based on professional and social difference. Another major challenge is the amount of resources available to facilitate the process which may place a financial constraint on the process.

Integration of stakeholder involvement in policy decision-making

One of the main headaches to the organisers of a stakeholder process is in ensuring that the results of the stakeholder process are substantively used to guide final decision-making and are not ignored. One way of ensuring this would be to find a niche within the existing institutional and policy framework and power structures, i.e. municipal planning process, Water Framework Directive etc and situating the participatory process within these structures or as a shadow to these structures. This may help in highlighting the relevance of the process to those who work within those power and institutional structures. In the meanwhile, it is also advisable to identify potential “champions” who have wide personal and professional connections across the institutional structures and who are able to garner support for the process or at least make the process visible to the final decision-makers.

Conclusion

To sum up, stakeholder participation is a seemingly formidable process yet indispensable to fuel the policy making process of climate change issues, which may be irritatingly uncertain but will have far-reaching consequences due to its cross-scale nature. Yet the process is achievable and may

succeed if designed properly and planned according to the reality in which it is to take place. Where it does succeed, the benefits are significant.