LIVING WITH CLIMATE CHANGE

Synthesis report - Working Group Living with climate change - TTNS 1st cycle

In terms of vulnerability to higher sea levels, Belgium ranks tenth worldwide (Climate Central, 2014). Within the TTNS working group 'Living with climate change', representatives from the quadruple helix (policy, industry, science, citizens) reflected together on the main concerns that stand in the way of a viable and safe coastal zone by 2050. These concerns were subsequently linked to specific action items, applicable to different organisational levels. The following report summarises the main concerns and action items.

1

POLICY

A changing coastal climate and rising sea level have direct and indirect consequences for the food supply, the safety (material and physical damage), the local and national economy and the social welfare of the coastal zone. In order to deal with these major societal issues, an integrated vision of the problem and a **knowledge-based approach** to adaptation and mitigation are called for. This **integrated vision** is currently difficult to achieve due to a fragmentation of competences, a lack of specific instruments, an ambiguous communication and participation strategy, a fragmentation of funding possibilities for research and the lack of a long-term vision.

A possible solution is to develop an integrated approach to policy initiatives, because an adaptation strategy that stands alone cannot be successful. In addition, the current consultation and coordination structures do not sufficiently focus on the impact climate change will have on the coast and the sea. Therefore the working group is suggesting a binding **cooperation agreement** between the various governments, focusing on climate adaptation on the coast and the sea. This should facilitate cooperation between

the various governments, research institutes, private partners and residents in relation to the effects of climate change on the coast. The structure of the cooperation may be similar to that of the Coast Guard cooperation, in which the powers are also fragmented among various governing bodies and where the main responsibility is to strive for a good cooperation.

Furthermore, it is desirable to develop a **long-term strategy to monitor the effects of climate change** on the Belgian coast and to quantify the effects of possible measures. A first step is to coordinate ongoing research and to assess the gaps in the monitoring. It is also necessary to look beyond the traditional research institutions; industrial parties that are active on the coast and at sea can also make their contribution. The results of this integrated monitoring approach will be made publicly available and can then contribute optimally to political decision-making processes at different geographical levels. A **programmatic approach** to research resources, involving a Coast, Sea and Scheldt Programme, is a possible approach that can help to reduce fragmentation. This can be part of the formal cooperation agreement or included by a coalition of policy bodies.

► *Core message policy:*
Set up a formal cooperation agreement between the different governing bodies with regard to climate adaptation for the coast and the sea.

2

INDUSTRY

In **cooperation** with scientists, the government and citizens, the industry is calling for the development of economically profitable, sustainable and flexible (adaptable and multifunctional) projects and technologies of the future. The government is requested to guarantee the necessary resources and to create a framework that integrates the various stakeholders. The intention is to 'learn by doing' and to work with **transition scenarios**. All stakeholders show their willingness to work with nature because the so-called '**ecosystem services**' are essential to create ecological and social win-win situations. One of the modus operandi is to focus on drawing up and implementing 'pilot projects' in the field in

order to test ideas, identify knowledge gaps and stimulate a broad support base. For example, the working group is proposing a large-scale pilot project in which coastal protection alternatives are combined with attention for the optimal **integration and support of important user functions** (nature, tourism, healthy/resilient ecosystem). This for the purpose of testing, integrating and expanding the current knowhow as well as creating public support (see working group report for details of the pilot project). In the development of future (pilot) projects, the feasibility of a 'citizen science' component will be explored, as this can play a powerful supporting role in the creation of **public support**. In addition to investment incentives and the opportunity to subject concepts to practical tests, the importance of the availability of tailor-made and qualitative scientific knowledge and monitoring capacity is also emphasized. The success of future social developments also has the greatest chance of success if the **cross-fertilisation of knowhow** between industry, government, science and citizens is intensified and optimised.

► *Core message industry:*
Learning by doing. Pilot actions in the field are needed to sharpen our knowledge of how to deal with the consequences of climate change and to stimulate new insights through co-creation (with the quadruple helix).

3

SCIENCE

In order to provide the government, research institutions, industry and the general public with the best possible information about climate processes, **earmarked financial means for scientific research and monitoring** are of paramount importance. More comprehensive scientific insights into the theme, tailored to the end user, can better respond to the specific needs of the various stakeholders and thus create both efficiency gains and support. Support from the climate fund can be an instrument here. In addition to adequate financial and capacity support, the **transfer of scientific insights** to the various stakeholders (science, industry, policy and citizens) must be expanded and optimised. Thanks to structural funding and an improved information flow, strong efforts can be made to reduce the current climate uncertainties. Furthermore, comprehensible science communication is considered to

be one of the most important conditions for achieving broad **problem recognition** and a powerful, supported climate mitigation and adaptation strategy.

► *Core message science:*

Science needs to transfer better and be tailored to the needs of interest groups. Adequate financial and capacity support should stimulate this.

4

SOCIETY

The consequences of rising sea level and a changing coastal climate are not limited to the coastal zone. Society as a whole is faced with far-reaching changes in social behaviour that require a high degree of **awareness**. This transition towards informed and empowered citizens needs to be tackled pragmatically and **rationally**, although within a sense of urgency. From contact with individuals who are not in touch with the problem in their daily lives, it is clear that the "why" question comes up repeatedly and that they fear they will lose their acquired quality of life. However, there is a clear **willingness** to be part of the debate and (local) decision-making processes.

In order to reduce the gap between the often-complex perceived science and the non-specialist citizen, we propose that the social sciences play a role in the awareness-raising process. In addition, including climate change at an early stage in the **final terms of education** can provide insight into the issue and promote well-founded opinion-forming. Also, communication should focus on the **benefits of the measures**, an element that can be strongly communicated through visible pilot projects or visual media. Finally, the importance of **climate ambassadors** should not be underestimated. Famous Belgians and so-called 'influencers' can help to bring the theme closer to the citizens and thus increase support.

► *Core message citizens:*

Closing the gap between knowledge and perception among the wider public by working on the coordination of scientific views, education and communication on climate change.

The entire working group report of 'Living with climate change' will be made available in the Spring of 2020 on http://www.thinktanknorthsea.be/