

# How to manage changes in rural areas in desired directions?

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Wettelijke Onderzoekstaken Natuur & Milieu



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O. Oenema

**Werkdocument 7**

Wettelijke Onderzoekstaken Natuur & Milieu

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# 1 How to manage changes in rural areas?

Currently, there is broad consensus about *the need* for sustainable development in rural areas, but there is less consensus about *the way ahead* and *the role of actors* in managing developments in desired directions. Current trends and developments may cause a risk of unbalance between economic viability, social acceptability and environmental soundness, depending on region and the dominant driving forces. Then the question emerges what can we do?

“How to manage changes in rural areas in desired directions?” was the central theme of a meeting between leading scientists and an interested audience, held in Wageningen at the conference room of Vakschool Wageningen, the Netherlands, on Monday 18 April 2005. The meeting was organized by Wageningen University and Research Centre, within the framework of the program on ‘Exploring sustainable developments of rural areas’ (WOT-385), which is sponsored by the Ministry of Agriculture, Nature and Food Quality. The debate was a follow-up of the Open Space Technology Meeting “EU-25 in transition: Managing innovations in Rural Areas”, held in Castle Groeneveld in Baarn, the Netherlands on 6-7 October 2004.

## Programme

9.30	Registration and coffee
10.00	Role of technological innovations <i>Prof Vaclav Smil, University of Manitoba, Canada</i>
10.45	Role of markets and food chains <i>Dr. Krijn Poppe, Agricultural Economics Research Institute</i>
11.30	Role of governments <i>Dr. Jan van Tatenhove, University of Amsterdam</i>
12.15	Lunch
13.00	Role of vital coalitions <i>Dr. Ina Horlings, Telos, University of Tilburg</i>
13.45	Role of Regional Dialogue <i>Dr. Madeleine van Mansfeld, Alterra</i>
14.30	Tea, coffee
15.00	Debate <i>Led by Dr. Peter Smeets</i>
16.30	Closure

This report briefly summarizes the presentations and the discussion. Annex 1 provides some background information. Annex 2 presents the mind maps of the presentations and of the discussion/debate, that was lead by Peter Smeets (Alterra, Wageningen UR), who also produced the mind maps.

## **2 Role of technological innovations**

Distinguished professor Vaclav Smil (University of Manitoba, Canada) discussed the changes in food production through technological developments and changes in the availability and use of energy from a global perspective. Global food production has kept pace with the increasing demand of the increasing human population during the last century, although the distribution is highly uneven over the globe. Smil's central theme was that the role of technical solutions in increasing food production is generally overstated and the role of energy and fossil fuel is generally understated. Food production has become highly energy intensive. Labour in primary food production and especially in the processing industry has been replaced by energy. Agriculture has become highly dependent on energy and fertilizer nitrogen; the production of nitrogen fertilizer also requires huge amounts of energy.

In the next few decades, easily extractable natural oil and gas resources will become depleted and prices for fossil fuel will likely increase steeply. At the same time, global populations of humans and domestic animals will have increased by 30-40%, requiring 50% more crop production. Achieving a crop production increase of 50% within the next few decades with minimal environmental damage, while prices for fossil fuel go up is a huge challenge indeed. There are opportunities for increasing the use efficiency of energy and nitrogen in food production, but this requires huge efforts. In Smil's view, the solution has to come primarily from smarter eating and less from technological innovations. Smil was not very optimistic about the ability of humans to face the challenges properly and to change consumption patterns. He also discussed the huge changes that currently occur in China, and the consequences of these changes for the other part of the world. He also pointed at the 'success' of the top-down implementation of birth control (one child per family) in China, which would not have been possible in a western democratic world. Such dictator-like implementation might also help changing current trends in consumption patterns in China.

## **3 Role of markets and food chains**

Krijn Poppe (Agricultural Economics Research Institute, The Hague, The Netherlands) discussed the need for new institutional arrangements following the fundamental changes in agriculture and the rural areas during the second half of the 20<sup>th</sup> century. His central theme was that agriculture in general should be seen as a common economic activity. He also argued that transaction costs in agriculture come down when markets replace governmental interventions. He discussed changes in institutional arrangements from the points of view of (i) social theory, (ii) economics of properties, (iii) economics of transactions, and (iv) neoclassical economics. The agricultural sector produces a wide variety of products and these require different organizations, as was explained by examples of the sugar beet and vining peas production and processing. Both, for product-oriented and service-oriented agriculture proper and efficient institutional arrangements can be set-up, with minimal governmental interventions.



## **4 Role of governments**

Jan van Tatenhove (University of Amsterdam, the Netherlands) discussed the consequences of the changing roles of governments in the rural areas for policy making, from an institutional/political point of view. Van Tatenhove started by mentioning three major changes in the rural areas, namely (i) from a mere 'production space' to a space where 'consumption' also becomes important, (ii) dominant influences of environmental problems and importance of nature conservation, and (iii) the changed role of governments and governance, i.e., from central actors to transnational arrangements and new political spaces.

Next, he discussed the growing importance of reflexive policy making and multi-level governance. Reflexive policy making concerns regional-specific self-governance, where the ultimate policy is the result of negotiations of the actors and stakeholders within the specific regions. Self-governance will result in region-specific agreements and covenants. Multi-level governance involves different actors and multi organization level negotiations, and the dynamics of formal and informal practices. The latter was illustrated by a case showing how the regional policy about protecting the European Hamster was influenced by effective coalitions of local green action groups.

## **5 Role of vital coalitions**

Ina Horlings (Telos, University of Tilburg, The Netherlands) also discussed the consequences of current changes in the rural areas for policy making. She argued that changes in rural areas can not be managed in desired directions. There are so many (new) actors in the rural areas, which all exert influences. The diversity of actors requires policies as social learning process, and to be able to influence behaviour, governments and governance need to adapt to the motives and goals of the actors. This requires trust, transparency, openness and reflection.

Horlings emphasized the role of vital coalitions, as a form of interactive decision making among actors. Vital coalitions generate productivity and energy. Such coalitions must include actors from both rural areas and cities, they must attract citizens. Many current relationships in the rural areas hamper co-operation and hamper innovations. Many groups face also difficulties entering current rural policy decision networks. As solution for this state of inactivity, she promoted vital coalitions. Vitality is increasing productivity and is adding extra energy. To illustrate the case, she discussed two projects, two vital coalitions, which have recently started and which involve actors from both rural areas and cities.

## **6 Role of 'Regional Dialogue'**

Madeleine van Mansfeld (Alterra) discussed the role of dialogue as structured process and tool for transition management. Much of her presentation was based on the case 'Regional Dialogue in Noord Limburg', a multi-actor and multi-level project that started in 2000 and that is now in the process of starting a new project cycle. Regional Dialogue in Noord Limburg is based on three pillars, namely (i) innovation, involving designers, scientists and inspirational

leadership, (ii) social support from the rural community to be able to obtain concentration of forces, power and money, and (iii) implementation, involving entrepreneurs, politicians and other important stakeholders. The three pillars are based on a theoretical framework involving (a) knowledge creation, (b) design approach, and (c) social learning. Knowledge creation was explained as an iterative process of sharing tacit and explicit knowledge, and scientific, practical and experimental knowledge so as to stimulate an innovative environment. The design approach was introduced as the vehicle for moving borders, for change. It involves using stories, narratives, pictures, metaphors. Social learning requires interactive working and sharing knowledge.

Van Mansfeld emphasized that the process architecture of Regional Dialogue is not a linear process, but rather chaotic with many iterative feed backs and interactions. The case 'Regional Dialogue in Noord Limburg' has led to 11 innovation strategies and 8 projects. Projects concern for example the organization of a large exhibition to promote the area and the co-operation of large entrepreneurs so as to exchange information and products in regional agro-production clusters, based on the principles of industrial ecology. Clearly, the project in Noord Limburg is now in the implementation phase, and to be able to continue, a new dialogue should start.

## **7 Discussion**

The discussion at the end of the presentations was hampered to some extent by the overwhelming complexity and diversity of the problems in the rural areas. It became clear that we are still in the process of examining and learning the diverse and complex changes in the rural areas. Our understanding of the processes and changes in the rural areas is still limited. Moreover, there is huge diversity in rural areas, and possible solutions for one area cannot be used as blueprint for other areas. Governments may be retreating in some EU-countries, but this seems to be not the universal situation. Hence, our views may also be biased, because of dominant influence of some case studies on our understanding. Clearly, there is a need for more in depth case-studies.

There is some tension between the wishes of regional specific solutions, based on the motives and goals of local actors on the one hand, and the current trends of a globalizing world economy with open markets, increasing food needs, migration and competing claims for scarce resources on the other hand. The big picture is highly complex; rural areas cannot be isolated from the rest of the world. Our analyses and learning should include global and local scales, should be interdisciplinary and should consider the short and long-term changes into account.

Literally, managing changes in rural areas in desired directions is nigh on impossible. As yet, there is limited or no consensus about what desired directions are. Further, wishes and behaviours of consumers and actors change, and the world is changing. Moreover, we have only a limited diversity of instruments for managing. It was noted that the really big changes in societies in the past have come through crises. It was also noted that our memory is short, and that the effects of crises fades away after some time.

For science, there are clear tasks in explaining the need and possible development paths for sustainable development. The need to facilitate experiments and best practices was emphasized. There is also a need for more 'dreams', to explore the full range of options, to

identify the window of opportunities. We should also improve our learning capacity. The picture is complex, the challenge is large.

For governments, there is also a great task, though the role of top-down governing is transforming to regional self-governance. History is rich in good examples where governments have taken the lead in positive developments, on the basis of ambitions, vision and leadership. Clearly, there is need for ambitions, a clear vision and leadership by governments about rural areas.



## Annex 1 Background description

For centuries, the rural areas in Europe have been shaped by farming practices, resulting in a wealth of diverse landscapes. The reshaping of the rural areas has increased greatly during the last decades, involving more and different actors. In many areas, there is an increased competition for land use among agriculture, forestry, nature conservation, industry, housing, and recreation. These competing claims are driven by different economic, social and environmental developments in both the urban and rural areas. In general, food production increasingly has “to compete with and serve” nature conservation, forestry, recreation, living, rest and silence, energy harvesting, water conservation, and biodiversity maintenance.

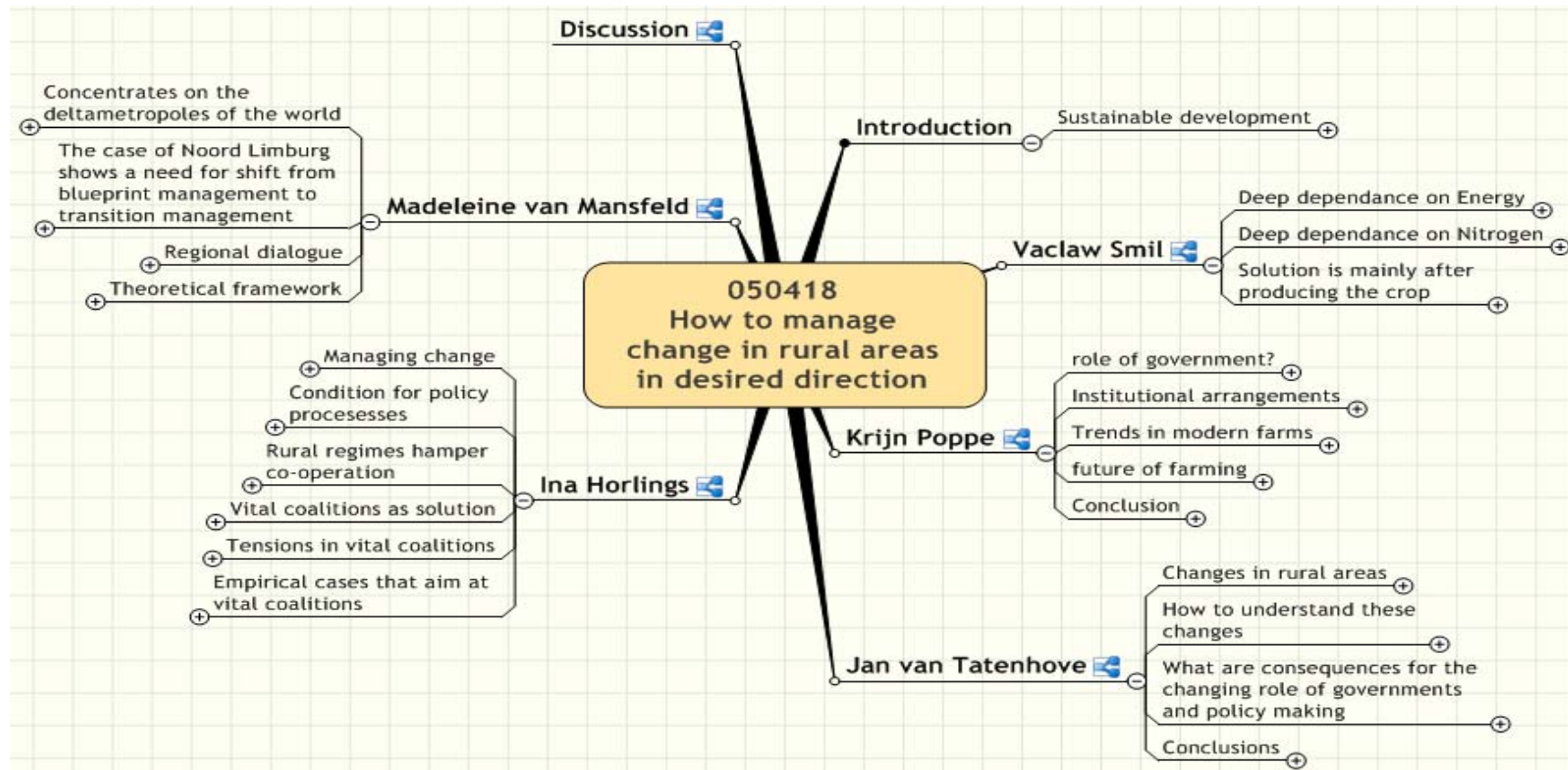
Farming has become less important in economic weight over the last decades. There is also an increasing decoupling of farming as economic activity and farming as rural activity. Economic strong and intensive agricultural production systems concentrate more and more around urban centers, while the production of bulk food is expelled to low-cost areas. The highly intensive systems run the risks of environmental damage and social unacceptability. In agricultural productive rural areas, the landscape is in part ‘reshaped and rationalized’ as a result of the economics of scale and the efficiency of specialization. However, these processes create the risk of losing cultural and social heritage of rural communities. In less favorite areas, there is trend of diversification of rural economies and abandonment. Preservation of landscapes and environmental integrity is believed to be essential for diversification of economies as these make rural areas attractive for citizens to live and recreate.

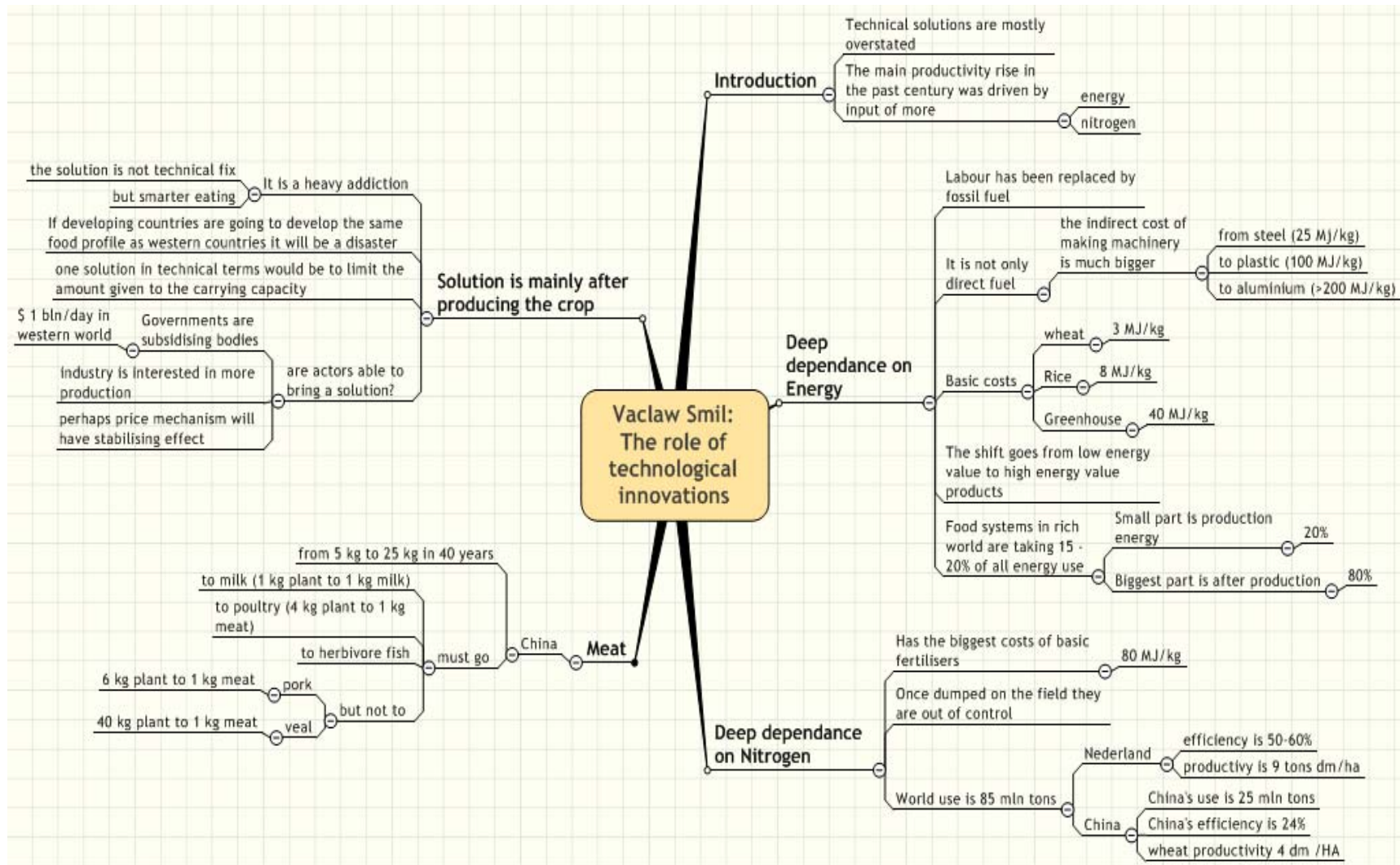
Demographic developments and changes in prosperity and mobility, and in technology, markets and governmental policies are major driving forces for the changes in the rural areas. These interacting forces influence the functioning and ultimately the fate of rural communities. There is a rough understanding of how rural communities respond to changes in driving forces, but it is not always clear why some rural communities are successful and others are not, why some collapse and others not. Throughout history, governments (albeit chiefs, dictators or parliamentary democracies) have directly or indirectly protected and intervened with rural economies, especially during the last decades through agricultural, environmental and rural policies.

Currently, there is a trend of retreating governments and liberalization of markets. New institutional arrangements are needed, as markets alone do not provide sufficient incentives for preservation of nature and landscape, and for safeguarding of animal welfare and food safety.

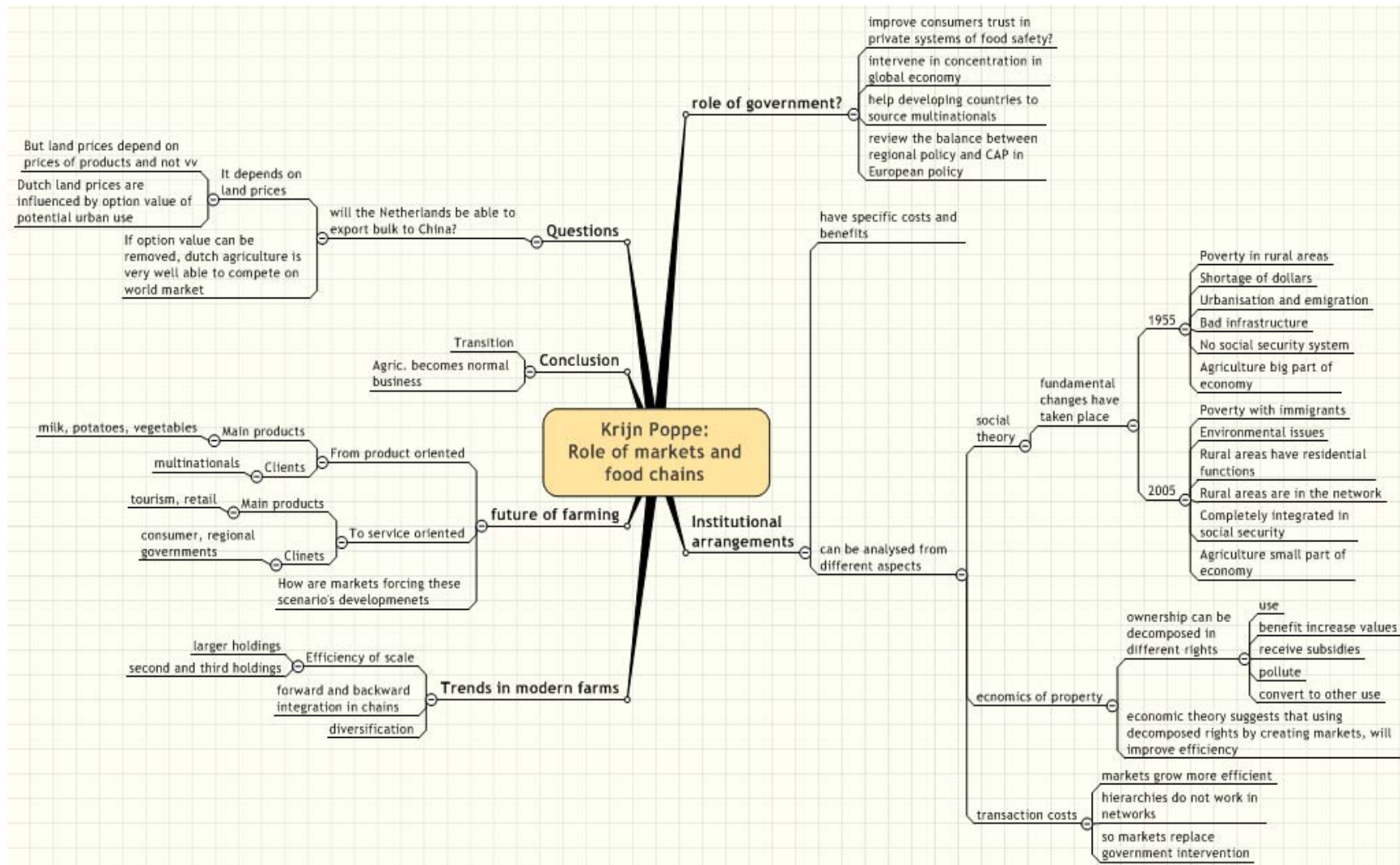


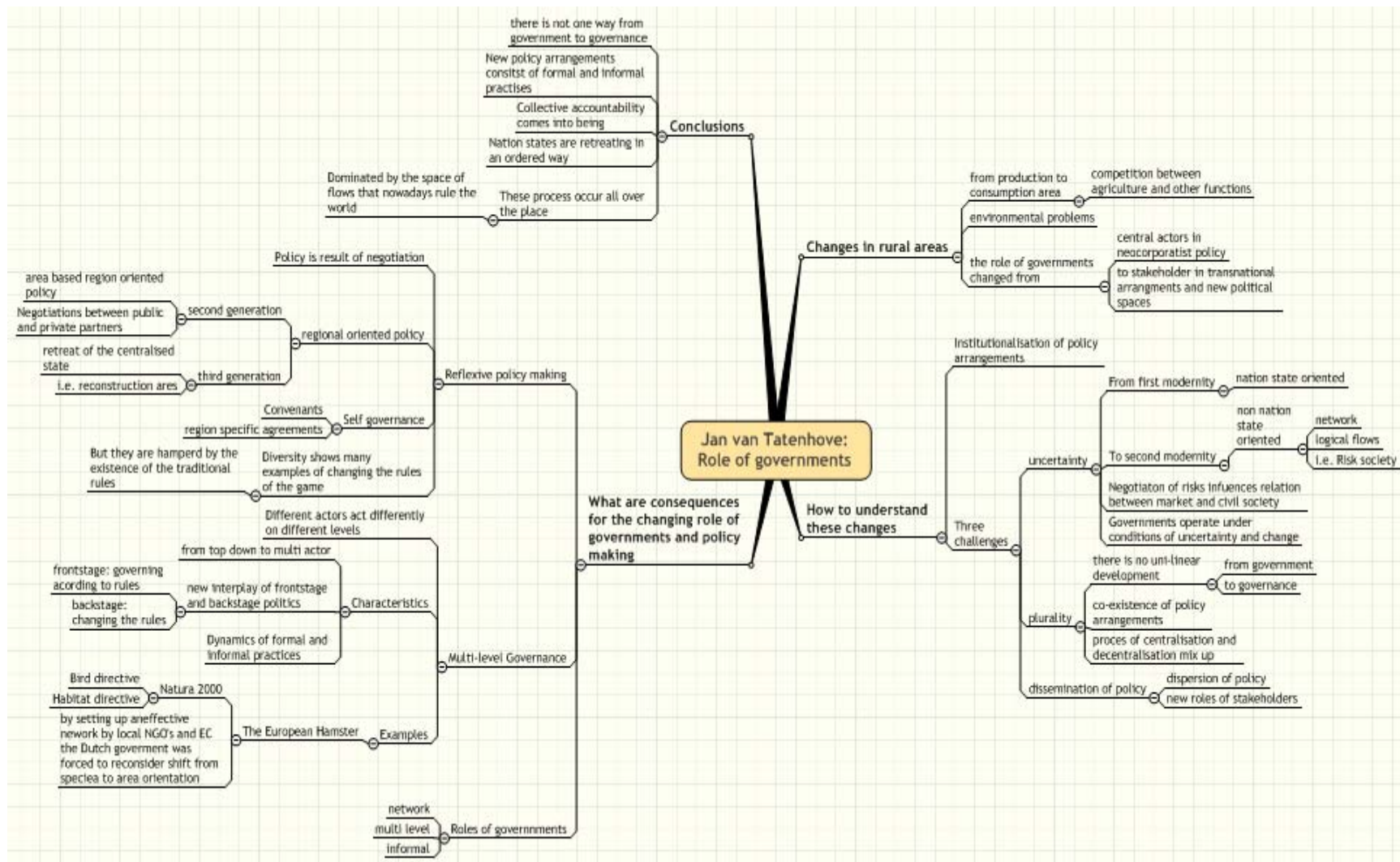
## Annex 2 Mind maps of presentations and discussion

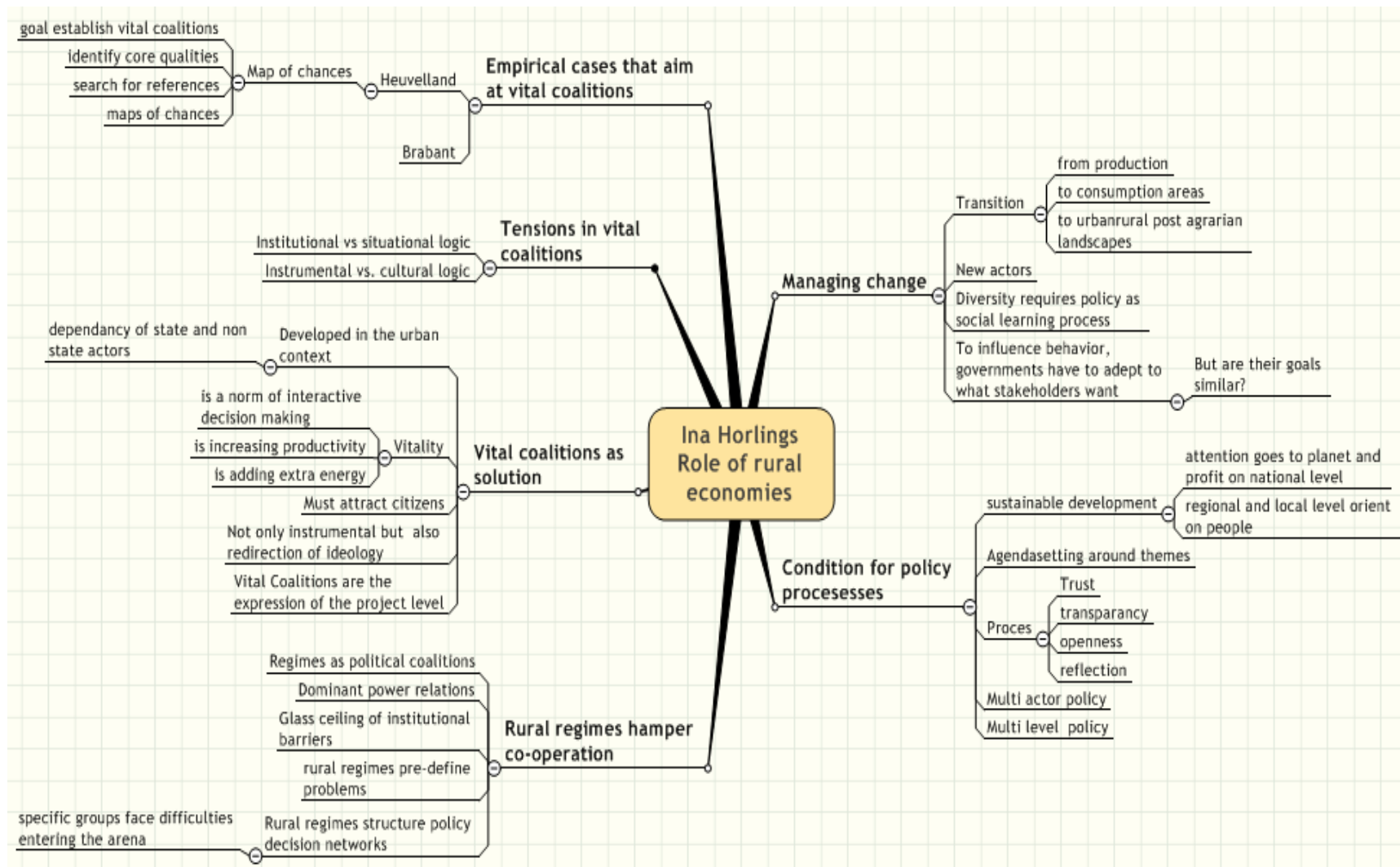


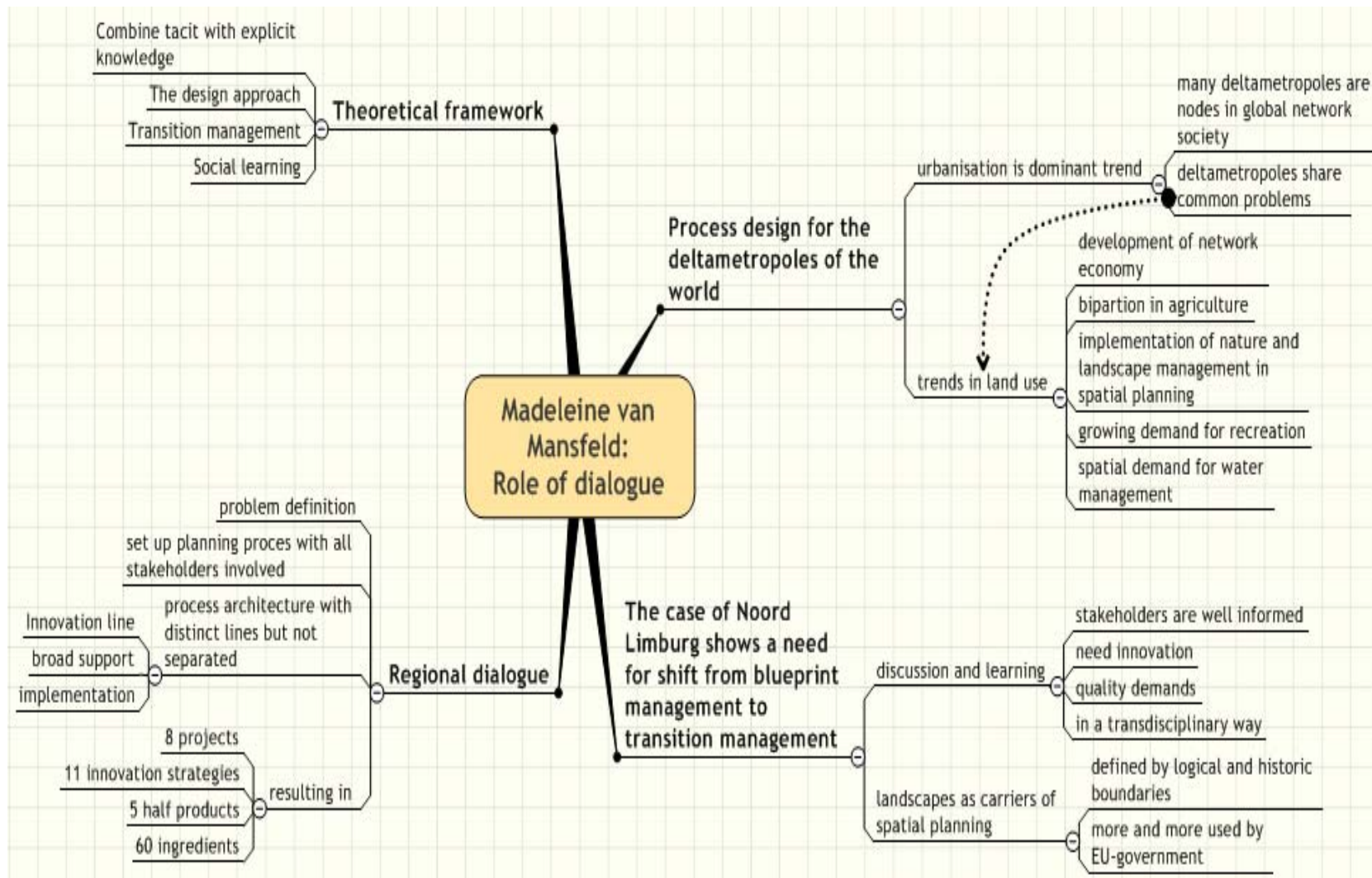




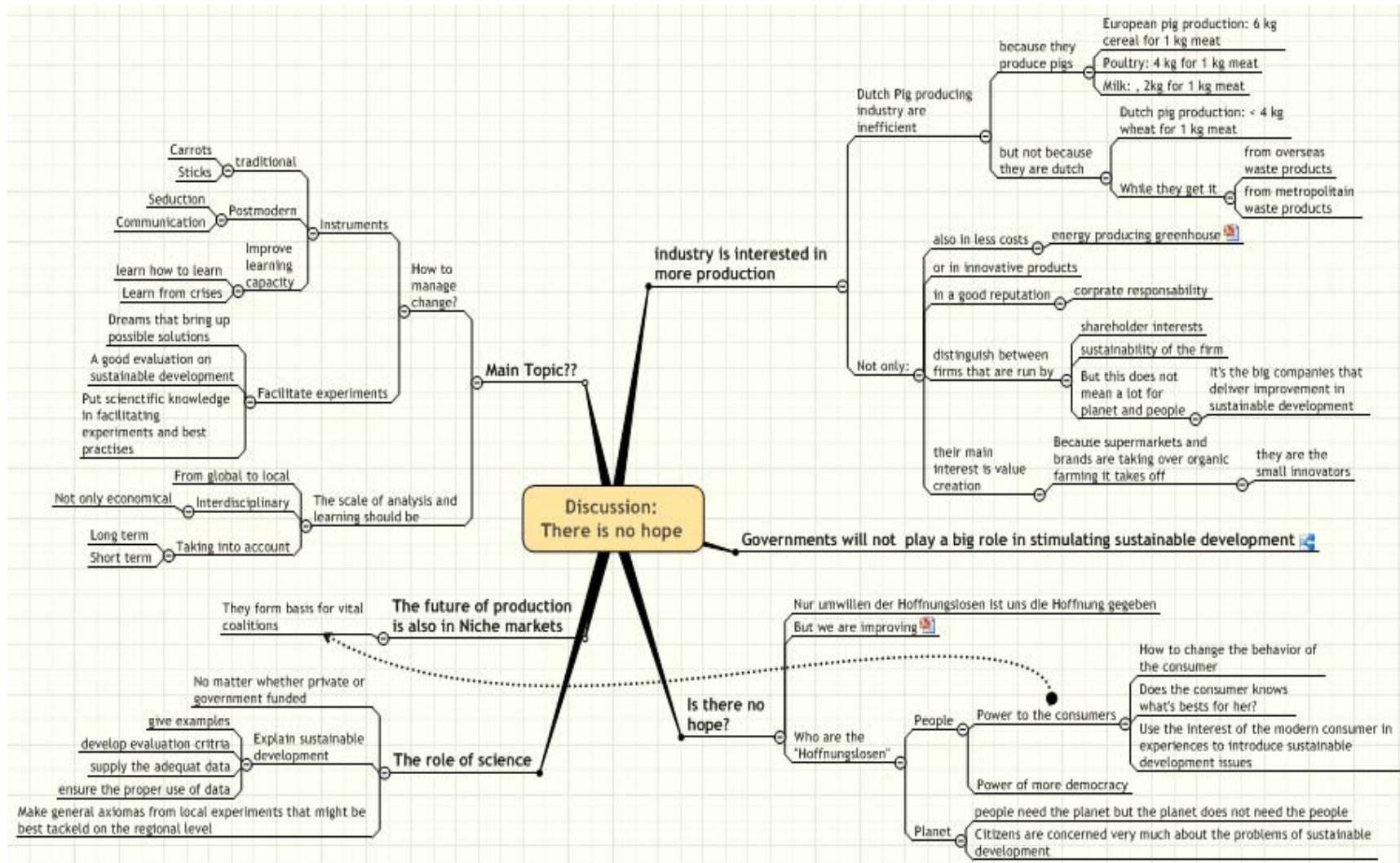


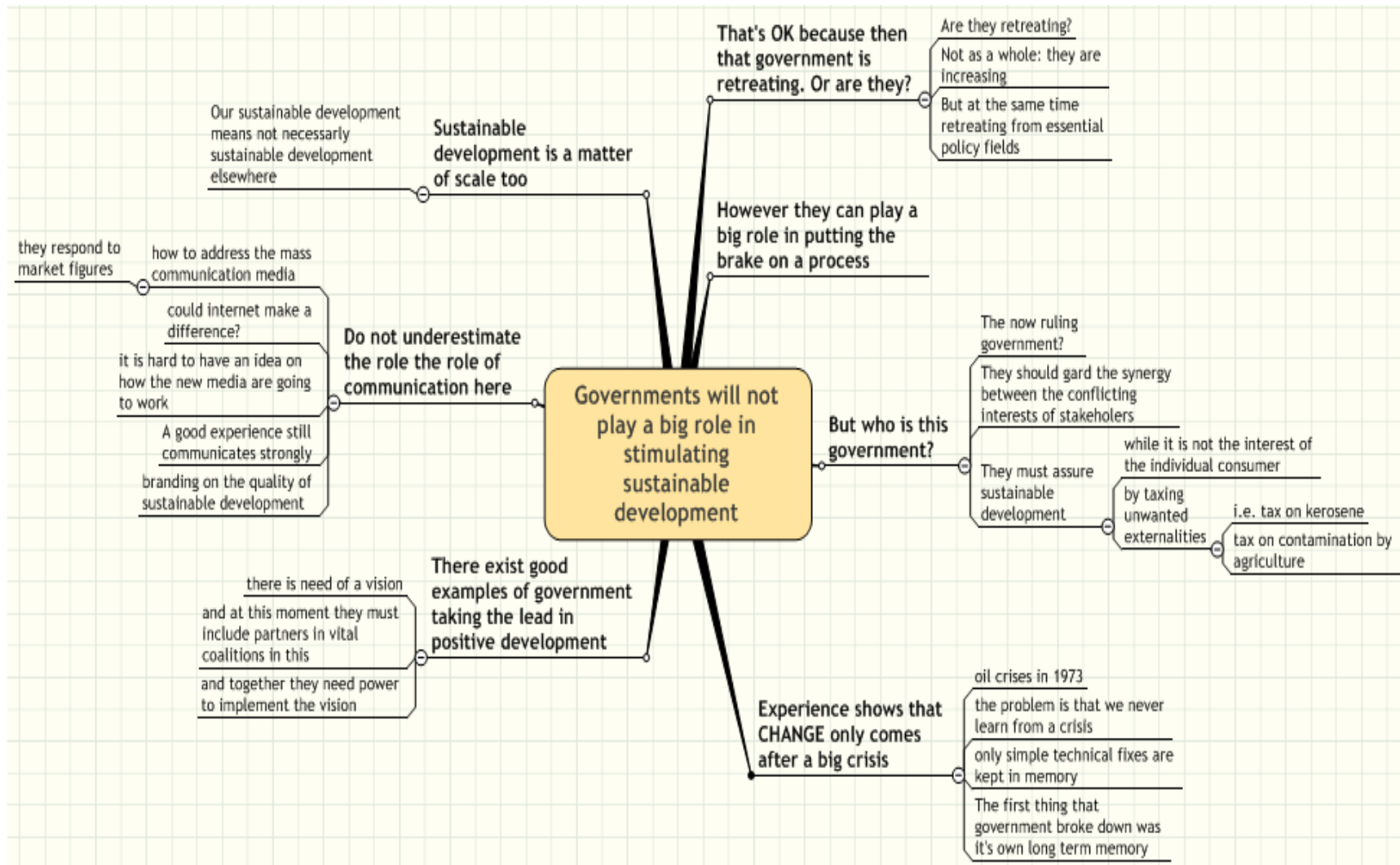














## WOt-onderzoek

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05/2 *Hinssen, P.J.W.*

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05/7 *O. Oenema and J.W.H. van der Kolk*

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