

## Discussion on the NRP assessment reports "Mobility and motorised transport which fit in sustainable development" and "Culture, consumption and lifestyles"

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### **Introduction**

In this session prof. Vlek gave an overview of the main results of the 11 projects within the subthemes "Consumption and lifestyles" and "Mobility and Transport" of NRP-phase I. Due to time restrictions there was limited time for discussion. During Vlek's presentation some correcting / additional remarks were made. These have been used for finalizing the subtheme reports. Here, only the main discussion items are reported as the main results of the projects are covered fully in the subtheme reports.

### **General remarks**

Vlek started with presenting a few general notions of relevance for both studying Lifestyles and Consumption pattern and Mobility and Transport.

One general notion is the formula commonly used in environmental studies, according to which environmental impacts can be described as the product of Population(P), Economy (E) and Technology(T). Traditionally, policy efforts to restrict environmental impacts have focused on changing technologies used. Given the magnitude of environmental problems the question has been raised whether not also the level of economic activity - both production and consumption - needs to be reduced. Addressing the Population factor is being viewed as difficult for either social or political reasons.

From the perspective of studies on consumption and lifestyles, in addition to the above mentioned factors, it is important to look at how culture (C) and institutions(I) interact with population, economy and technology. They influence population development, consumption needs and technological development.

In studying consumption it is useful to take the so-called production-consumption cycle into account, in which, on the one hand, consumers in turn for wages deliver labour to the production process and at the same time influence production by buying products and services. Both at the production and consumption side there are environmental impacts due to use of land, materials and energy and the production of waste and pollution. Production and consumption are interrelated. Therefore, one should study the environmental effects of consumption and production in an integrated way and not just focus on the consumption side only.

In the context of the issue of Global Environmental Change the study of the human dimensions is relevant for studying:

- the socio-economic impacts and risks of environmental change;
- the causal mechanisms or causes behind human induced environmental changes and
- the human responses to these changes.

Global Environmental Changes generate large collective risks in situations which can be defined as social dilemmas. In these situations it is not rational for individual actors to do what may be rational to serve the interest of all. Needed for handling collective risks are:

- a clear description of the risks and its sources;
- awareness of the risks with major actors;
- an weighting of the risks against the cost and benefits of action
- a perceived need for change leading to an assessment of behavioral alternatives
- setting of risk limits and translated into behavioral objectives
- measures and instruments to change behaviour
- policy implementation and evaluation
- feedback on collective risk reduction and total benefits

### **Lifestyles and Consumption patterns**

On the basis of the research on Lifestyles and Consumption patterns within NRP-I Vlek presented the following conclusions:

- \* there is still a need for an operational definition of lifestyle, not just in terms of behaviour but also of attributes and values;
- \* research into the possibilities for sustainable behaviour is much more promising if natural science, technological and socio-economic expertise is linked in joint research efforts and research planning;
- \* it may be wise for policy makers to associate status and prestige to sustainable consumption, but it should be combined by other policy instruments;
- \* sustainable lifestyles should be promoted by positive, rewarding and attractive policy strategies, emphasizing the "desirable" not the "undesirable";
- \* in research on sustainable lifestyles the meso and micro-level should be addressed condordantly, because of the links between consumption and production;
- \* it seems that much is possible technically if there would be enough problem awareness. Without sufficient problem awareness people will not accept the policy measures and behavioral changes needed to make use of these technological opportunities;
- \* problem awareness depends on "visible" environmental effects of household metabolism (giving feedback on environmental behaviour). Because of the absence of directly visible effects of the impacts of and behavioral response to many global environmental changes this is a very important issue.

### **Discussion**

- \* The question was raised if it was important to distinguish different lifestyles as

these were viewed to be only minor deviations of the overall abundant 'western lifestyle'.

It was replied by Aarts that social research gives insight into the social processes that constitute different lifestyles and how these may change or be changed.

Moll of the University of Groningen responded that in practise lifestyles can be rather easily defined on the basis of two main dimension:, socio-economic status and level of education.

Ester emphasized that from the (theoretical) sociological perspective lifestyles are much more complex than as defined in empirical research. They embrace also different values. The importance of distinguishing different lifestyles is that they are an integrating explanatory variable for different sets of environmentally relevant behaviour.

Vlek remarked that from a policy perspective it is only relevant to make distinctions between different lifestyles as far as these have implications for the use of policy strategies: when people with different lifestyles have to be approached in different ways. From a policy perspective the concept of lifestyles should not only be used in a descriptive way but also in a prescriptive way - exploring desirable sustainable lifestyles.

It was noted that the distinction of different lifestyles can only be of any practical relevance if it is actually possible to clearly define and distinguish these. For that reason it was suggested to make only broad policy relevant distinctions.

- \* In response to the conclusions presented by Vlek van Kreveld of Utrecht University remarked that, as confirmed by the outcome of the NRP-research on private car use, environmental awareness itself is not sufficient to make people change their behaviour. To make people change their behaviour it is e.g. also necessary that people are offered real behavioral alternatives.

Vlek acknowledged that with respect to global environmental change problem awareness is, indeed, only but the first prerequisite for changing human behaviour. However, he liked to stress the importance of problem awareness in response to presentations on technological options often ignoring the question how to bring about the development, implementation and social acceptance of these technologies.

### **Mobility and Transport**

By introduction Vlek stated that, presently, transport is responsible for about 20% of the global emissions of greenhouse gases and constitutes a fast growing source. Not only transport markets in the developed countries are not yet satisfied, also much growth is to be expected in eastern Europe and in industrializing developing countries, like in Asia.

Besides its contribution to the emissions of greenhouse gases, transport is causing many other problems like air pollution, noise and space demands.

An important question is whether all these problems can be solved by better technologies or that the demand for mobility and transport itself should be addressed. Both directions were researched within NRP-I.

After giving an overview of the main result of the research projects Vlek presented the following policy oriented conclusion:

- \* motor car use is a very suitable and attractive mode of transport for citizens, companies and governments alike;
- \* car use is very individualistic, but it is socially and culturally regarded as an obvious thing to do. Restricting car use would provoke strong resistance. One of the important reasons for that resistance is that there is a lack of (socially) acceptable alternatives;
- \* neither personal nor environmental costs are dominant factors in determining car ownership and car use;
- \* private car drivers, commuters and business drivers differ systematically in their environmental impacts and their sensitivity to various policy measures. So for policy makers it is very useful to distinguish between these different target groups;
- \* Future options for more sustainable transport systems seem rather modest: improved car technology, high speed trains and more intensive use of telematics (e.g. regulating traffic).
- \* Changing the demand for mobility should get more research attention. There is little research into the underlying socio-economic system characteristics that provoke the (growing) demand for mobility;
- \* The environmental impacts of, demand for and governmental policies related to air traffic have been neglected in the NRP so far and need more attention.

### Discussion

- \* It was noted that the results of the research seemed rather obvious and not very surprising. Were these outcomes not known already from previous research?  
According to Vlek this is not the case. The research did however confirm the hypothesis that it is very difficult to get people out of their car.  
Van Kreveld added that often results of social sciences seem obvious in retrospect, but were not known or commonly accepted when the research started.  
By illustration Vlek remarked that many measures taken by the Dutch Ministry of Transport are based on assumptions which differ from the conclusion presented here, like approaching car drivers indifferently, focusing policy on the effects of the price mechanism and persuading the public to drive less by public information campaigns without paying due attention to structural causes of the growing demand for mobility and transport.
- \* With respect to the reported lack of change in car driving behaviour it was remarked that in historical perspective a profound decrease in the growth of car use can be detected. The general idea that things remain the same is not well founded.  
Vlek noted that, although such changes can be noticed, these are not enough in the light of the change needed to arrive at a sustainable transport system. While car use may not grow that fast any more, the same does not apply for e.g. air travel which is ever growing faster.

- \* Also with respect to car drivers the question was raised how relevant knowledge of the differences in sensitivity of different car driver groups for policy measures is given the potential contribution of these kind of measures to the reduction of greenhouse gases.  
Cavalini from the University of Groningen remarked that their research clearly stated the relevance of differentiating between different driver groups. As an example he mentioned that while, relatively, business drivers pollute most, measures influencing private car use make a bigger contribution to limiting emissions as private car drivers are responsible for half the total milage driven, including many relatively polluting short trips for which car use is less necessary.
- \* It was asked whether the research also took foreign efforts to cope with growing problems of transportation and mobility into account, like the experiences with restricting car use in Singapore. Their experiences may indicate other ways to approach car use. Furthermore, it was noted that incremental solutions to mobility and transportation problems may postpone real solutions, thereby making problems only worse in the end. Making the present system crash might open the road for more fundamental solutions.
- \* With respect to the research by Midden et. al. at the University of Eindhoven on the effectiveness of emotion-oriented communication compared to cognitive-oriented communication strategies it was remarked that in the United States the use of fear arousal in the communication on global environmental issues eventually backlashes as the stated effects did not occur and were contradicted. So, fear which does not hold works contra-productive.