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The Nature of Sustainable Consumption and How to Achieve it

Results from the Focal Topic »From Knowledge to Action – New Paths towards Sustainable Consumption«

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1 A landscape of research around sustainability and consumption

This contribution presents the research landscape on sustainability and consumption (hereafter simply referred to as 'sustainable consumption'), produced as part of the common synthesis development within the focal topic. The aim of this overview is to describe both settled and ongoing research issues around sustainability and consumption, and thus to place in context the work produced by the project groups. The "Landscape of Sustainable Consumption Research, version 2.1" is intended to acknowledge the breadth of current research on sustainable consumption, both within and outside the focal topic – it does not, however, attempt to answer the question of what it means to apply sustainability principles to consumption.

The research landscape is the fruit of several rounds of discussion within the focal topic over a period of some 18 months – discussions that were prepared, moderated and followed up by the accompanying research project. The first section of this article outlines the purpose of the research landscape. This is followed by a description of its development (1.2), its form (1.3) and its thematic focus (1.4); sections 1.5 and 1.6 introduce the research landscape itself.

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1.1   Purpose of a research landscape

Numerous research projects focus on "sustainable consumption" – some remain within one discipline, others are of an inter- and transdisciplinary nature. The researchers belong to diverse scholarly communities and networks and thus their publications are scattered among different journals, publishers etc. It is therefore almost impossible to gain an overview of what has been researched in relation to sustainable consumption and the debates that have taken place on discipline-internal as well as trans- and inter-disciplinary levels. This state of affairs makes it difficult to refer to established results and can give rise to duplication of research projects. Taken together, these circum-stances slow down the common research effort and limit its potential to find practica-ble pathways towards sustainable consumption. A necessary, though not sufficient step towards linking the different areas and establishing a larger picture is a description of past and present research issues around the topic of sustainable consumption.

Coming up with such an overview of research issues was one of the common aims of the project groups and the accompanying research project within the focal topic "Sustainable Consumption – from Knowledge to Action". The result of this synthesis-ing process was a structured landscape of the research field of "sustainable consump-tion" and allows past and present research issues to be located in the overall field. This research landscape was first of all used internally to situate the project groups within the focal topic and to devise common products (in terms of content and structure). The research landscape does, however, also contribute to the wider academic discourse around sustainability and is thus presented here for consideration and discussion: what has been developed here can serve as a resource for planning future research around sustainability and consumption, on both a trans- and an interdisciplinary level.

"Landscape of Sustainable Consumption Research, version 2.1" is meant as a snap-shot (in time) – sketchy and transient in nature – with no claim to completeness. It is our hope that this current presentation, as indicated by the adjunct 'version 2.1', will serve as a springboard for further development. Below we will outline our approach in the mapping of the research landscape, present the results, and indicate where the research conducted by the project groups fits into this landscape.

1.2   Steps in the development of the research landscape

"Landscape of Sustainable Consumption Research, version 2.1" is the product of an inductive, dialogue-based methodology. A conscious effort was made to steer clear of ready-made interpretations of sustainable consumption and to avoid judging between useful and less useful research or evaluating the quality of research.

The first task of the accompanying research project team was the development of version 1.0 of "Landscape of Sustainable Consumption Research". Here, a two-pronged approach was adopted: first, publications were gathered across a range of disciplines, containing the term *sustainable consumption* either in the title or the keyword list; second, the sowiport database[2] was used to analyse some 300 abstracts of research projects (mostly from the social sciences) between 2004 and 2009. Version 1.0 (a diagrammatic compilation of questions in different thematic areas, with explanatory annotations) was subsequently further developed in the course of a synthesis seminar, which was organised for the 39 participants of all project groups and the team of the accompanying research project (see Figure 1). Participants were invited to bring to the seminar three pertinent research questions that were not dealt with in the focal topic. With the help of a framework of several prepared questions, the content of the research landscape was discussed within the individual project groups. The results of these group discussions were brought together in a plenary, where contentious issues were further clarified. The plenary discussions yielded a number of concrete amendments, and in cases where no satisfactory solution was found, the accompanying research project team was given clear instructions to re-examine unresolved issues. As a further aid to discussion, the accompanying research project team collated all the written comments and proposals from the project groups and made them available to all participants.

On the basis of these discussions and further literature searches, the accompanying research project team revised and presented a new version of the research landscape (2.0) to all participating researchers. A separate document, addressing individual suggestions from the synthesis seminar, was put at the disposal of all participants. It contained a description of either how suggestions had been implemented or a justification for the exclusion of those suggestions that had been deemed unsuitable to be taken further.

As a next step, one telephone interview was conducted with each project group with the aim of gathering additional comments relating to "Landscape of Sustainable

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2   The sowiport database (www.gesis.org/sowiport; May 22 2011) contains 13 separate sub-databases. The keywords *sustainable consumption* or *sustainability in consumption* were searched for, both in English and in German. They had to appear in the title and/or in the abstract and no attention was paid to how exactly sustainability was interpreted by the project or publication in question.

**Figure 1: Synthesis seminar participants discussing
the research landscape (November 2009)**

Consumption Research, version 2.0". The interview questions had been sent to the project groups in advance with the request to reach a consensus within the groups on a joint response prior to the scheduled interview. The interview questions firstly concerned the description of the research landscape (intelligibility and comprehensiveness of the comments; terminology; gaps; need for changes); secondly, they referred to the research landscape per se (terminology and intelligibility; research questions that could not easily be placed; questions lacking in precision or specificity; overly detailed questions; unnecessary questions; need for changes); thirdly, each project group was invited to locate their research questions within the research landscape.

Thus, "Landscape of Sustainable Consumption Research, version 2.1" is the product of the above procedures. Sections 1.3 to 1.6 provide a detailed account of the research landscape, and section 1.7 discusses possible applications and further developments. In

an ultimate attempt to consolidate version 2.1 within the focal topic, it was employed as a framework for a conference organised by the team of the focal topic and this article was externally and internally reviewed.[3]

1.3   Scope and form of the research landscape

"Landscape of Sustainable Consumption Research, version 2.1" does not show what research outcomes on sustainable consumption have been reached (current state of research), nor does it comment on which issues should be researched (research needs). It merely indicates where research is actually taking place (or has taken place over recent years). Given these objectives and the inductive methodology chosen, the research landscape presented here is inevitably retrospective in nature and does not attempt to indicate fields of research with a high innovative potential in the future.

It does, however, give an account of which questions are currently considered pertinent (or have been pertinent over recent years) from a research perspective, where gaps in knowledge have been identified and where external funds have been, or could theoretically be, secured. Furthermore, it can serve as a basis for identifying blind spots within sustainable consumption research and indicating areas for further research, e.g. in the form of new research programmes. (One might, for instance, look at the research landscape against the background of socio-political issues.) Finally, it offers a structuring principle for exploiting, reviewing and representing the current state of research at a disciplinary, interdisciplinary and transdisciplinary level. Having identified current and recent research endeavours, this landscape can be used in future years for tracing developments in the field (i.e. for identifying which issues have been added and which ones might have become less relevant etc.). In terms of the common work within the focal topic, this research landscape ought to prove instrumental in structuring the synthesis outcomes, in identifying synergy potentials between the project groups and in developing a common language.

Having employed an inductive and dialogue-based methodology (drawing together existing research at disciplinary, inter- and transdisciplinary levels), the research landscape does not have an underlying theoretical framework; neither has it been tested according to logical principles. It is primarily a representation of existing phenomena,

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3   The steps in the development of the research landscape draw on the types of synthesis development identified and described by Rossini and Porter and presented by Krott, i.e. "project management" (draft and development by accompanying research project team), "group" (discussion and decision-making in plenary) and "negotiation" (discussion within the project groups). (See Defila et al. 2006, pp. 124 ff. for the four types.)

rather than a reconstruction in terms of discourse-analytical principles. References to literature and projects have deliberately been avoided. The selection of literature that could be cited within the limited scope of this contribution would inevitably remain arbitrary. Moreover, occasional reference to the literature and specific projects used for generating (by means of content analysis and abstraction) the questions of the research landscape would not increase the comprehensibility of the results.

The current attempt at capturing and structuring the complex field of sustainability and consumption is neither the first of its kind, nor is it unique. Exemplary in this context – although different in their objectives – are the works of Scherhorn et al. (1997) and Warde (2010). Starting out from a specific interpretation of sustainable consumption, Scherhorn et al. (1997) attempt to identify corresponding needs for research. Warde's (2010) volume brings together various social-science contributions to consumption research, spanning several decades and covering numerous aspects. It does not, however, explicitly focus on sustainability within consumption, nor does it come up with an overarching classification of the topic.

We chose to represent this research landscape by using questions which are representative of relevant research that has been conducted and papers that have been published. We deliberately chose questions rather than statements, because they come closest to expressing the purpose of the research landscape, i.e. it is not meant as an overview of research outcomes, but as an outline of research topics. The questions of the research landscape should, however, not be mistaken for research questions, or issues, as posed in concrete research projects. Instead, they have emerged from a process of abstracting from and summarising project descriptions and publications, and are thus the result of interpretation. The extent of interpretation depends on how explicitly the original project descriptions and publications stated their research issues. The questions constituting our research landscape can be traced to the actual research projects, where the issues are contextualised and combined in various ways. It was not our intention to phrase the questions for our research landscape in such a way as to reflect all the aspects of a project or a publication. Rather, an attempt was made to work out from the real and complex questions asked in projects or publications those aspects that could be phrased as single questions of the research landscape.

This research landscape does not indicate the relative importance and frequency of occurrence of specific topics. However, it does illustrate some of the concrete issues that were investigated: an attempt was made to summarise inductively into one question the various 'distilled' questions (as described above). Where projects and publications dealt with very concrete cases, these were added in brackets as examples. (No claim is made to listing all concrete cases mentioned in research projects.) Since some questions could not be summarised into one overarching question without a

substantive loss of content, the landscape contains more general as well as more specific questions.

The intended, somewhat 'generic' character of the questions contained in the research landscape meant that, whenever possible and appropriate, time and place indications were avoided. Naturally, accounts of actual research projects and publications tend to include such contextualisations. This research landscape does not attempt to ignore them, but neither does it make a point of explicitly referring to them. Notable exceptions are cases where an issue is historical in character (e.g. the development of consumption) or where the time dimension is particularly important in the context of sustainability (future generations). Similarly, exceptions have been made where a spatial location is essential to the nature of the question (e.g. when non-local people's actions have an impact on a specific locality). The same goes for cases focusing on specific actors, gender differences, domains of consumption etc., where examples are added in brackets; examples are only included in the question if they substantially add to its propositional content.

In the wording of the research questions, terminology proved particularly challenging. Generally, the purpose of this research landscape is not to close off theoretical options, but rather to exhibit a certain pluralism; i.e. it is intended to be compatible with a maximum number of theoretical and conceptual frameworks. With this in mind, and given that terminology is always linked to theory, a 'narrowing down' of theoretical terminology has deliberately been avoided. The result is a somewhat terminological fuzziness in the wording of the questions; whenever possible, the questions contain non-specialised (generally intelligible) vocabulary instead of theoretical and discipline-specific jargon. For instance, terms like 'system' or 'discourse' are not to be understood in terms of a very specific system or discourse theory. In the same vein, 'determinants of consumer behaviour' here simply refers to all the factors that influence human behaviour; it does not suggest that human behaviour can be determined according to deterministic principles. Whilst the terminology used in the research landscape needs to be compatible with the readers' specific theoretical and terminological backgrounds, it does not represent them and should thus not be compared with them.

1.4   Thematic focus and structure of the research landscape

Our research landscape focuses on individual and collective consumer behaviour in the context of sustainable development. Consumer behaviour here refers to processes of preference formation, decision-making for or against specific consumer goods (products, services, infrastructures), the actual acquisition of consumer goods, plus

the use or consumption and the disposal or transfer of them. Consumer behaviour as we interpret it also refers to associated processes such as the evaluation of behaviour, norm building and communication. We do not restrict ourselves to research on individual behaviour, but include research on the behaviour of collective actors ('collective' in a broad sense, i.e. the behaviour of organisations or social groups, aggregations of individual behaviour and similar phenomena). Additionally, we included research questions not directly concerned with human behaviour, but with mechanisms, interactions and discourses considered as fundamental to human behaviour. Finally, questions concerned with the sustainability-related impacts of consumer behaviour were also included.

While consumption and production are complementary, they also interrelate with and merge into one another. It is often not possible to draw a sharp distinction between consumption and production. Whether a phenomenon belongs to production or consumption sometimes depends merely on the perspective taken. Nevertheless, in an attempt to separate the two spheres, the research landscape was limited to projects concerned with consumption. Hence, it does not include projects that directly and exclusively focus on the processes and techniques involved in the production of consumer goods. Research on the social and economic effects of production conditions or the consumption of natural resources during production has been included only to the extent to which it was relevant in a sustainability assessment of products. Further questions relating to the production of consumer goods have been included insofar as they include consumers or are situated at the interface between production and consumption (e.g. open innovation research). Excluded are research questions relating to the processes and techniques of waste management, i.e. the disposal of goods that have been thrown away.

The questions and issues that make up the research field of "sustainable consumption" as described above (section 1.3) have been grouped thematically. Here too, an inductive method was used. The emergent research landscape can thus be divided into seven thematic areas (see Figure 2). The questions that shape and structure each area are always indicative of which issues are currently being researched. They do not indicate which area of knowledge a particular project refers to. The questions in the thematic area of "norms/criteria", for instance, do not indicate which norms or criteria should or should not be considered in a project. Instead, they focus on the issues that are being investigated through research in this thematic area. For each thematic area, key questions have been devised that indicate particularly well what types of issues are considered in the area. This (inductive) distribution of issues into seven areas does, of course, not represent the only way of structuring such a research landscape.
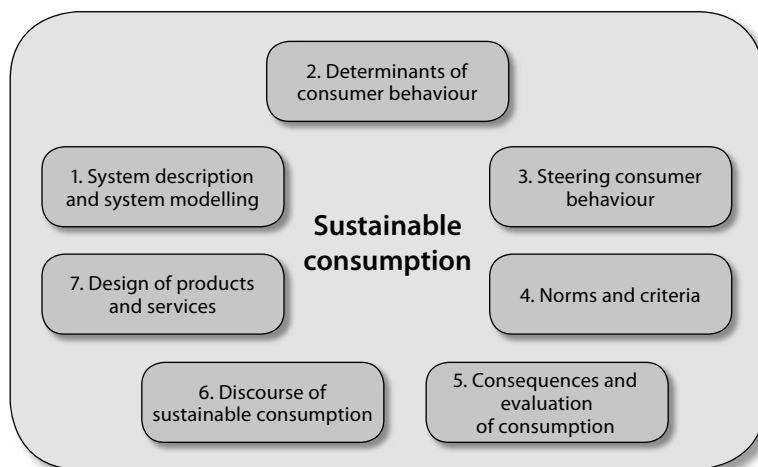
Figure 2: The seven thematic areas of "Landscape of Sustainable Consumption Research, version 2.1"

A thematic area for 'meta research', i.e. 'research into research' on sustainable consumption, was deliberately left out. Accordingly, questions concerned with adequate methods and theories for researching sustainable consumption are not mentioned, the rationale being that, ultimately, such issues are specific to each thematic area and cannot be addressed across all areas of the research landscape (e.g. specific issues relating to the effects and evaluation of consumption or the discourse of sustainable consumption). Thus, the issue of which methods and approaches are appropriate cannot usefully be addressed without considering the other research questions within the research landscape. If it was addressed in isolation, it would lead to abstractions and generalisations removed from the context of sustainable consumption.

1.5   Description of the individual thematic areas

Each thematic area is briefly described below; Figures 3 to 9 and section 1.6 present the questions pertaining to the individual areas and the research conducted in the project groups. The description of each area simultaneously demarcates it from the other areas. However, such a demarcation is only possible up to a certain point. The thematic areas of the research landscape represent analytical categories that have been inductively arrived at. Describing different perspectives rather than discrete phenomena, they all relate to the same 'pre-scientific' phenomenon: sustainability in the context of human consumer behaviour. Each area contains questions that are similar in perspec-

tive, preoccupations and in the scope of their theoretical approaches. The areas are not necessarily found in a pure form within specific research projects. They mirror 'pre-scientific' phenomena (e.g. individual values, group norms and rules of sustainable consumption) that interact with each other in real life but may be treated separately for research purposes. Furthermore – in order to come up with academically rigorous proposals for achieving sustainability in consumption – insights from several areas need to be related to each other. The grouping of the questions into the seven areas of the research landscape is therefore a good option, but not the only possible option for making sense of the whole field.

In each of the seven areas, the generation of systems, target and transformation knowledge is weighted somewhat differently. Therefore, each area comes with an indication of the type of knowledge that usually played the central role in the generation of results. The three types of knowledge referred to here were – as far as we know – first introduced into academic discourse by the Conference of the Swiss Scientific Academies (CASS 1997, p. 15):

◆ Systems knowledge ('knowledge concerning the current situation'): knowledge of structures, processes, statistical variabilities, modes and mechanisms of functioning;

◆ Target knowledge ('knowledge concerning the target situation'): evaluation of current situations, prognoses, scenarios; knowledge of critical levels/criteria/ethical boundary conditions;

◆ Transformation knowledge ('knowledge concerning the transition from the current to the target situation'): knowledge of how to achieve target situations; knowledge of what can promote and hinder transformation; knowledge of how to shape and implement the transition.

Area 1 – System description and system modelling

System description and system modelling	This area consists of issues around the description or the modelling of the consumption system as a whole or of its parts (relations between production, trade, consumption, disposal).

This area is concerned with what constitutes consumption as a social phenomenon and how it can be described. Questions are centred around how consumption emerged, what social functions it fulfils, the various elements of consumption as a social phenomenon (actors, processes etc.) as well as associated functional mechanisms (e.g. in the economic arena) and interdependences. Thus, this area contains questions that – under

different headings – represent a (somewhat abstract) systemic perspective on the phenomenon of consumption. They are concerned with the functioning of the consumption system as a whole or of its parts (e.g. individual domains of consumption). In this area the generation of systems knowledge is primary.

Research devoted to the issues in area 1 (see Figure 3) provides important factual-methodological knowledge for explaining and steering consumer behaviour. Of primary interest are, however, the functional mechanisms and an appropriate description of the overall system and/or its parts. This area can thus be differentiated from other areas in that it does neither focus on understanding individual or collective consumer behaviour (area 2), nor on steering (area 3) or evaluating it (areas 4 and 5).

Core questions

What are the functional mechanisms (global, international, national, subnational) in the consumption system (relations between production, trade, consumption, disposal)?

What are the functional mechanisms of a specific domain of consumption (e.g. home, food)?

Questions

How can the consumption of/demand for certain resources or ecosystem services (e.g. water, energy) be modelled and how can models adequately represent user behaviour?
Project group Change

What types of consumers can be distinguished (in general or in relation to particular domains of consumption)?
Project group Consumer/Prosumer

Are there any systemic mechanisms that work against a sustainability-oriented consumption system?

How do globalisation processes affect
a) the consumption system
b) specific domains of consumption?

What are the functions of consumption in a given society and how can they be described?

What are the systemic effects of individual and collective consumer behaviour?

What influence do consumers have on the mechanisms of the consumption system (consumer power, ecological citizenship)?

What is the influence of complementary currencies on factors relevant to sustainable consumption?

What are the trends of and assumptions about the development of society (e.g. demographic and technological development) relevant to sustainable consumption?

How are consumer behaviour, consumer expectations and the use of natural resources interrelated (e.g. tourism services)?

How did consumption emerge historically and how has it developed?

How can future generations be appropriately included in a description of the consumption system?

How can the provision of certain resources or ecosystem services be described?

How do market mechanisms change when sustainability considerations are taken into account (e.g. by economic actors)?

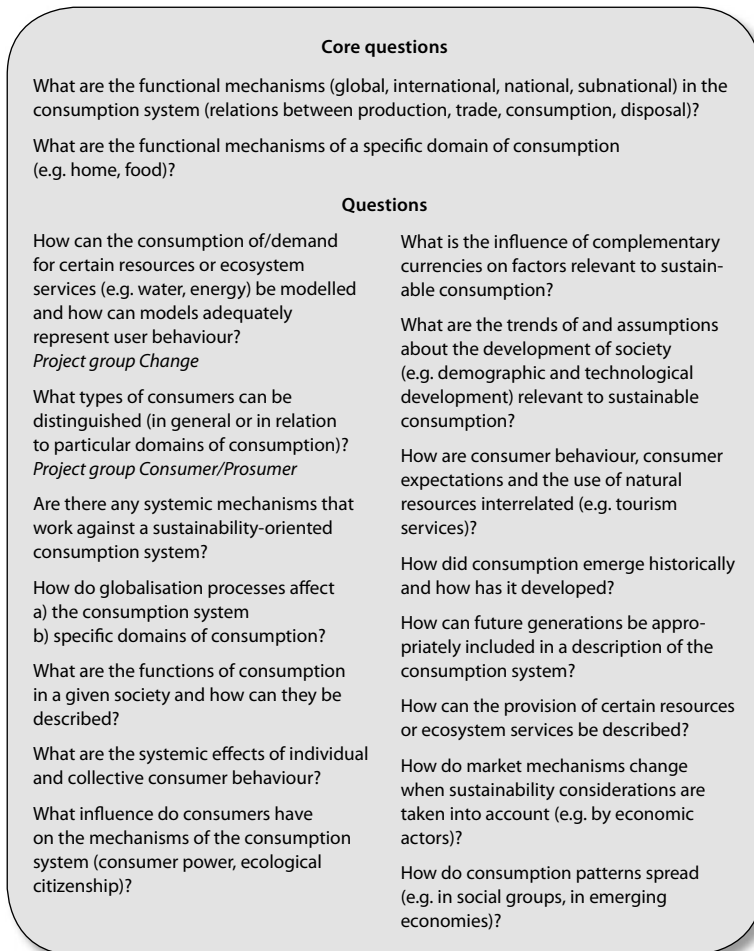How do consumption patterns spread (e.g. in social groups, in emerging economies)?

Figure 3: Questions in area 1 – system description and system modelling