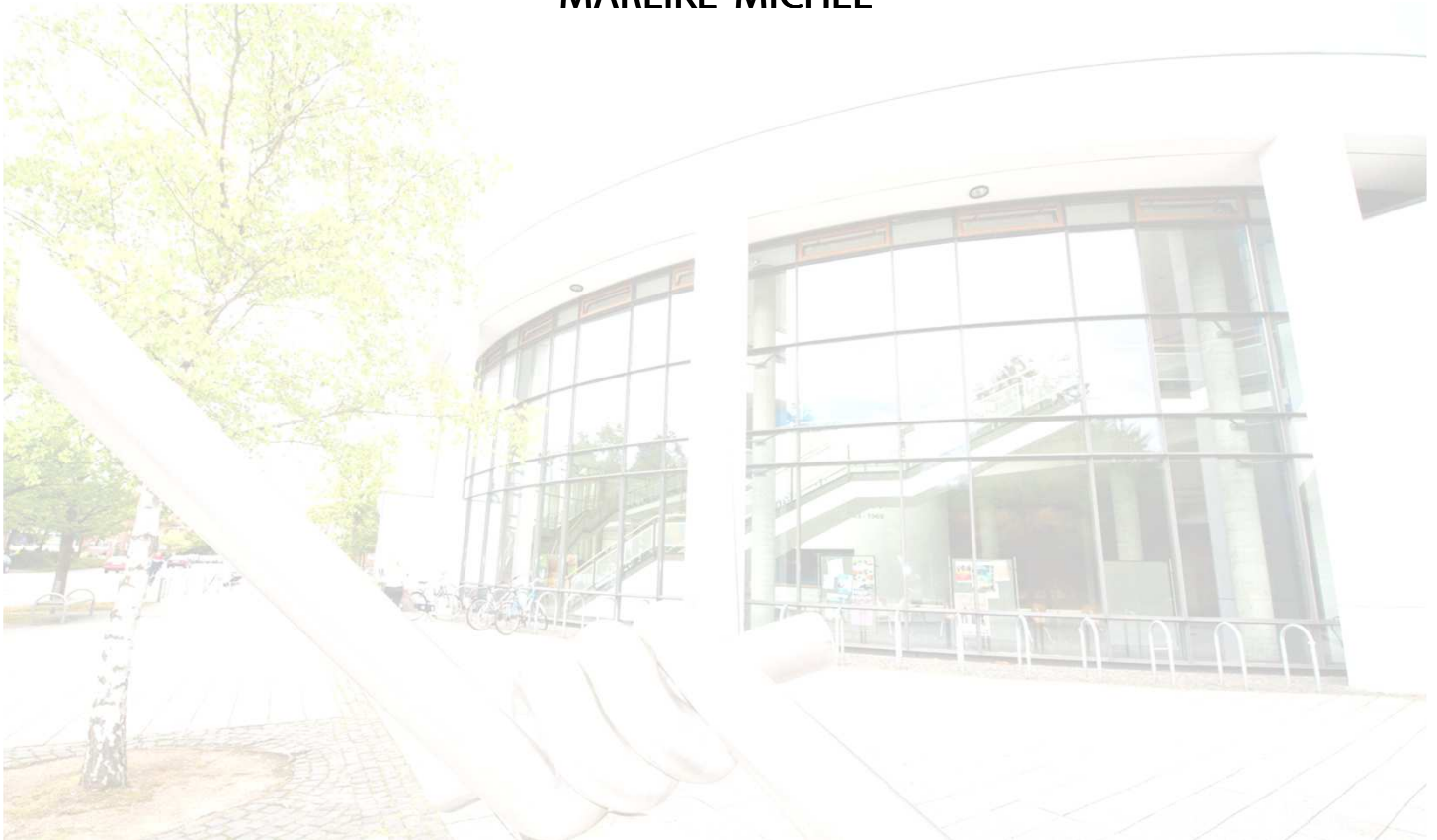


SUSTAINABLE ALIMENTATION OF URBAN MIDDLE-CLASS HOUSEHOLDS IN PORT ELIZABETH (SOUTH AFRICA) EXPLORING ALIMENTARY PRACTICES ON THE CONSUMER LEVEL

MAREIKE MICHEL



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Master's Thesis

**Sustainable Alimentation
of urban middle-class households
in Port Elizabeth (South Africa)**

Exploring alimentary practices on the consumer level

Mareike Michel

Chair of General Business Studies, Management and Sustainability

Institute for Business Administration and Business Education
Carl von Ossietzky University Oldenburg

Supervisor: Dr Irene Antoni-Komar
Co-Supervisor: apl. Prof. Dr Niko Paech

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Abstract

The thesis deals with Sustainable Alimentation of urban middle-class households in Port Elizabeth (South Africa) on the consumer level. The thesis uses an inductive and explorative approach which is based on theoretical as well as qualitative empirical research. The empirical findings build up on eight individual interviews with adult female members of Xhosa- and Afrikaans-speaking urban middle-class households in Port Elizabeth as well as one expert interview (clinical nutritionist).

Firstly, this thesis aims to design a practice-oriented theoretical approach on Sustainable Alimentation that integrates all relevant aspects of the various dimensions and disciplines of sustainable development on the consumer level. Such an approach has to analyse:

- ‘what’ should be eaten in terms of Sustainable Alimentation including aspects of efficiency and consistency (concept of wholefood alimentation);
- ‘how’ and ‘how much’ should be eaten considering aspects of sufficiency (theory of post-growth economics);
- ‘how to investigate’ in what, how and how much consumers are actually eating (theory of alimentary practices, concept of diffusion of innovations).

Building up on this theoretical construct, the thesis also intends to evaluate the extent to which the current alimentary practices of the investigated households follow Sustainable Alimentation and are able to change. In this sense, hypotheses are formulated which contain concrete factors that have to be taken into account for the promotion of changes towards Sustainable Alimentation. In short, the most important findings are the following:

- The investigated households are only slightly consuming sustainable, mostly not driven by a persuasion of sustainable development or altruistic motivations, but by personal utility or external conditions on the supply level.
- Alimentary differences between Afrikaans- and Xhosa-speaking households in terms of the theoretical approach of Sustainable Alimentation are only marginal.
- The early stages of the diffusion process of Sustainable Alimentation are insufficiently initiated.
- The investigated households show a low innovativeness in terms of alimentation.
- Health issues are dominating alimentary practices and drive alimentary changes.
- The socio-cultural embeddedness of superabundant alimentary practices, especially in the case of meat, impedes an orientation towards lower quantities of foods.

- For some foods, the limited availability, declaration and certification of sustainable products impedes an implementation of Sustainable Alimentation.
- For other foods, the limited availability of products that are less sustainable (especially in the case of regional and seasonal food) is automatically forcing some sustainable alimentary practices.
- The investigated households are totally dependent on commercial external food supplies.

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List of abbreviations

ADHD	Attention Deficit Hyperactive Disorder
AIDS	Acquired Immune Deficiency Syndrome
ANC	African National Congress
ATR	African Traditional Religions
BMELV	German Federal Ministry of Food, Agriculture and Consumer Protection (Bundesministerium für Ernährung, Landwirtschaft und Verbraucherschutz)
CSA	Community Supported Agriculture
DAFF	Department of Agriculture, Forestry and Fisheries
GI	Glycaemic Index
INFU	Institute for Environmental Communication (Institut für Umweltkommunikation)
n. d.	No date
n. p.	No page
n. pl.	No place
NP	National Party
PPP	Purchasing Power Parity
RA	Respondent Afrikaans
RE	Respondent expert
RX	Respondent Xhosa
TV	Television
UBA	Federal Environmental Agency (Umweltbundesamt)
WCED	World Commission on Environment and Development

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Chapter 1

Introduction

*“Everyone eats rice
Yet no one knows why
When I say this now
People laugh at me
But instead of laughing along with them
You ought to step back
And give it some thought
Think it over, and don’t let up
I guarantee the time will come
When you’ll really have something worth laughing at”
Ryokan, Zen Poet, 1758-1831
(cit. in Abé/Haskel 1996, p. 158)*

1.1 Problem description and significance

1.1.1 Impacts of alimentation

Although eating is a necessary part of people’s everyday life and at first glance, one might think that there can hardly be anything more natural than eating what nature provides us with, human alimentation¹ can have several negative impacts. The food production and consumption chain – from harvesting, preservation, storage, transport, processing, packaging, trade, distribution, preparation, composition and consumption right up to the disposal of waste materials – has ecological, economic, socio-cultural²

¹ From the socio-cultural point of view, which is used within this thesis, alimentation is defined as all practices that “[...] refer to the ways in which humans use food, including everything from how it is selected, obtained, and distributed to who prepares it, and eats it” (Kittler/Sucher 2003, p. 2). ‘Alimentary’ derives from the Latin word ‘alimentarius’ and means relating to food, nourishment and sustenance (Antoni-Komar 2006, p. 72). There are several other names for this concept, e.g. food or eating habits, foodways, food culture as well as culinary or nutritional practices. The term alimentation is preferred as it is commonly used within recent scientific publications about food-related social practices. Furthermore, the word ‘alimentary’ implies all kinds of cookery compared to the commonly used term ‘culinary’ which is often associated with the haute cuisine (Antoni-Komar 2006, p. 72).

² Instead of taking the commonly used social dimension, this thesis also accounts for the cultural dimension of sustainable development as introduced by the Institute for Environmental Communication (INFU) of the Leuphana University in Lüneburg (Kuhn 2006). As the social and

and health-related impacts (Leitzmann 2003, p. 657S; Brunner 2007a, p. 7; tab. 1). These are, for example, emissions and waste, food insecurity, bad working conditions, soil contamination, biodiversity losses, over-production, alimentary diseases or the destruction of small-scale farms (Brunner 2007a, p. 7; Brunner 2008, p. 279; tab. 1).

Mainly in the western countries, the negative impacts have been exacerbated as human alimentation has drastically changed from the 1950s onwards, generally caused by an orientation towards higher convenience (Koerber/Kretschmer 2006, p. 178). Characteristics of this change are a high intake of fat and proteins (particularly derived from meat), an increased and hastened consumption of highly processed foods (e.g. ready-made or fast food products) and a dependency on external supplies and market structures (Brunner 2003, p. 23; Koerber/Kretschmer 2006, p. 178). Developing countries, particularly those that are characterised by the so called new consumers that have a middle-class living standard³, orientate their alimentation towards western lifestyles as these lifestyles are associated with wealth, status and power. The alimentary practices of the new consumers together with those of the long-rich consumers progressively exacerbate the negative impacts of alimentation (tab. 1). Furthermore, some cultivation methods (especially in the developing countries) have led to many ecological problems, like soil contamination, desertification or biodiversity losses which as a consequence also lead to economic and social impacts, like the close-down of farms, unemployment or poverty (tab. 1).

the cultural dimension of a sustainable development are closely interlinked, this thesis calls it the socio-cultural dimension.

³ The new consumers are described in chapter 2 part 2.2.1.

Table 1: Main problems and aims relating to Sustainable Alimentation

Dimension	Ecological	Economic	Socio-cultural	Health
Main problems	<ul style="list-style-type: none"> • Intensified agriculture • Intensified food processing • Transports 	<ul style="list-style-type: none"> • Feeding the world • Economic structure • Liberalisation and competition 	<ul style="list-style-type: none"> • Poverty and social inequality as reasons for nutritional deficiencies • ‘McDonaldisation’⁴ and lack of autonomy • Unemployment and inhuman working conditions 	<ul style="list-style-type: none"> • Alimentary diseases • Discrepancies in risk assessment • Poor valuation of food
Aims	<ul style="list-style-type: none"> • Resource conservation • Ecological capacity • Conservation and support of biodiversity 	<ul style="list-style-type: none"> • Food security • Innovative and competitive ability of companies • Stable and efficient markets 	<ul style="list-style-type: none"> • Solidarity principle and security of employment • International equity • Strengthening consumer concerns 	<ul style="list-style-type: none"> • Strengthening health • Modification of alimentary habits • Sensual relation to food and enjoyment of meals

Source: Erdmann et al. 2003, p. 63, own translation from German to English

1.1.2 Deficiencies of approaches on Sustainable Alimentation

In order to solve or prevent problems that derive from alimentation, an orientation towards sustainable development is needed. Sustainable development “[...] meets the needs of the present generation without compromising the ability of future generation to meet their own needs” (World Commission on Environment and Development WCED 1987, p. 46). Sustainable Alimentation is an already existing term, but still, it is not commonly used within the alimentary sciences (Schöneberger/Brunner 2005, p. 10). In the 1980’s, several concepts about Sustainable Alimentation were invented and published in Germany (Schöneberger/Brunner 2005, p. 10). Until today, no consensus has been found about a single definition of Sustainable Alimentation which is due to the fact that it is challenging to integrate and interlink all dimensions of sustainable development (economic, ecological, socio-cultural and health-related) on multiple food chain levels and in accordance with all stakeholders (Schöneberger/Brunner 2005, pp. 11f.; fig. 1). Many approaches – common shortcoming of the sustainability discourse – only focus on the ecological dimension of alimentation (Schöneberger/Brunner 2005, p. 11; Brunner 2007a, p. 10). Some scientists try to justify this one-dimensionality by arguing that safeguarding the biophysical basis of human life should be the most important aim (Herde 2005, p. 5). Other scientists want the three dimensions of

⁴ The phenomena of McDonaldisation will be further explained in chapter 2 part 2.2.1.

Sustainable Alimentation to be extended by adding the dimension of health (Leitzmann 1997; Erdmann et al. 2003; Koerber et al. 2004; Schöneberger/Brunner 2005).

There are also different approaches⁵ to the meaning of sustainable development. In the means of sustainable development, it is necessary to change ‘what’ foods are consumed (mainly focussing on efficiency and consistency⁶) and also to rethink ‘how’ and ‘how much’ people should consume (mainly focussing on sufficiency⁷), but some approaches solely focus one of these aspects. Only a few approaches try to integrate all aspects of consumption and at the same time, question the current consumption and production systems.

Furthermore, sustainability issues in alimentation have often been studied with a focus on the production side and less considered the consumer level (Raabe 2006, p. 27; Brunner 2007a, pp. 9f.). As alimentary consumption is directly as well as indirectly influencing all parts of the food chain (from the input side, e.g. buying certified food, up to the output side, e.g. separating waste) the management of both the production as well as consumption level is crucial for a successful implementation of Sustainable Alimentation.

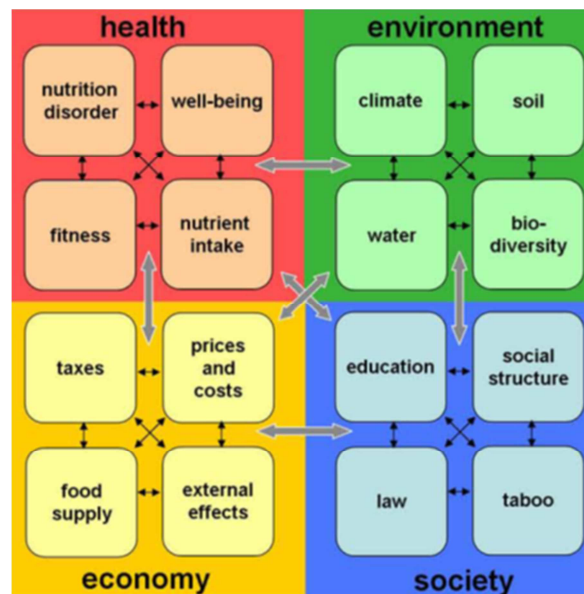
In general, scientific approaches of defining Sustainable Alimentation often lack a combination of the different alimentary dimensions, contain internally inconsistent postulations or have the character of a ‘rag rug’ (Barlösius 1999, p. 20; Hayn/Eberle 2006, p. 36). Concepts that are interdisciplinary, focus on the consumer level and include a socio-cultural perspective are rare, but needed (Brunner 2007a, p. 11).

⁵ A sound overview of different approaches and definitions of sustainable alimentation in Germany is given by Erdmann et al. (2003).

⁶ The efficiency and consistency principles are qualitatively oriented and aim to optimise economic activities and lifestyles through technical, process- and system-related solutions (Paech 2005, pp. 49ff.). The efficiency principle is input-oriented, using technical solutions, and it aims to produce each output unit with the least resource input possible (Bernds 2002, p. 15; Linz 2004, p. 7; Paech 2005, p. 53; Ott/Voget 2008, p. 19). The efficiency principle is the most prevalent and accepted of all three principles as it is the easiest to combine with the current economic system that is oriented towards growth (Linz 2004, p. 8; Winterfeld 2007, p. 48). The consistency principle is output-oriented and aims to combine natural and technical cycles in a way that ideally no waste and emissions are produced, but only inputs which can be reused within technical and natural processes (Bernds 2002, p. 15; Linz 2004, p. 9; Paech 2005, p. 56; Paech 2006, p. 49). Harmful materials should be kept within the technical system in order not to pollute the environment (Linz 2004, p. 9; Paech 2006, p. 49). Renewable, recyclable and reusable resources and products are the main parameters for creating consistent material and energy cycles (Tischner 2007, p. 24).

⁷ The sufficiency principle will be further described according to the theory of post-growth economics in chapter 2 part 2.2.

Figure 1: Dimensions of Sustainable Alimentation and examples of aspects and their interlinkages



Source: Hoffmann/Schneider 2007, p. 1

1.1.3 The socio-cultural practice perspective on alimentation

However, the problem of Sustainable Alimentation is not only about its interdisciplinary theoretical definition. Even if all theoretical aspects of Sustainable Alimentation were defined and agreed on, one might ask: ‘Why not just define universal guidelines for Sustainable Alimentation and adapt the production and consumption activities accordingly?’ The simple answer is that human alimentation is an individual practice and not just an identical procedure of food intake. In this means, food is not only relevant to provide the human body with energy and nutrients, but also to satisfy mental needs (e.g. enjoyment, emotional safety, compensation or self-confidence), cultural needs (e.g. interaction with people that share the same values, norms, customs and taboos) and social needs (e.g. interaction with others and creation of identity, segregation and communication) (Brunner 2008, p. 281). As a result, alimentation is a practice of individuals within a collective socio-cultural structure.

For changing consumers’ alimentary practices towards sustainable development, it is necessary to understand these mental, social as well as cultural aspects as they drive or hamper the Sustainable Alimentation on an individual and collective level and determine if promotion strategies for Sustainable Alimentation will be accepted and successful. In order to understand the socio-cultural drivers and barriers of Sustainable Alimentation, it is necessary to understand how consumers are actually practicing alimentation. Universal guidelines cannot be promoted because consumer practices vary

relating to the specific ethnicity or culture⁸ the individuals belong to and are exposed to external drivers and barriers that differentiate between regions (e.g. rural compared to urban areas or developed compared to developing countries). Guidelines and promotion strategies need to account for different socio-cultural and structural backgrounds and conditions and therefore, need to be adjusted to different alimentary practices. Most existing approaches are based on the postulation of collective non-personalised guidelines and do not take into account that alimentation is an individual practice. As a consequence, promotion strategies were usually successful in educating consumers, but as the strategies were not related to the actual alimentary practices of these consumers, the application of the new knowledge was insufficient.

1.1.4 The specific case of South Africa

A challenging but also important research object for the study of Sustainable Alimentation is the Republic of South Africa⁹. South Africa is characterised by diverse and complex socio-cultural structures (multiculturalism) and is highly influenced by the former apartheid regime and its management of socio-cultural differences. Because of the huge cultural and ethnical diversification, alimentary practices can be assumed to differ enormously. For example, if a specific ethnic group has lived disadvantaged in terms of natural and economic resources and was characterised by poverty for decades, it is more likely to (unsustainably) over-consume as it enters the middle-class, compared to a group of people that has enjoyed a middle-class life standard for a long time. The Xhosa-speaking South Africans (Xhosa) represent a traditional and mainly black South African ethnicity that has suffered under the apartheid regime and has just recently begun to join the urban middle-class. Afrikaans-speaking South Africans (Afrikaners) represent a mainly white South African ethnicity of western (European) origin that has lived a middle- and upper-class lifestyle for several decades.

⁸ There exist numerous definitions of ethnicity and culture. It is beyond this thesis' scope to discuss cultural and ethnical theories in detail, but for its purposes, working definitions are the following: Ethnicity means "[...] belonging to a group that shares the same characteristics, such as country of origin, language, religion, ancestry, culture [...]. Ethnicity is a matter of biological and historical fact and is not changed by the culture in which a person grows up" (Queensland Government 2007, p. 61). Culture can be defined as "[...] what people develop to enable them to adapt to their world, such as language, gestures, tools to enable them to survive and prosper, customs and traditions that define values and organise social interactions, religious beliefs and rituals, and dress, art, and music to make symbolic and aesthetic expressions" (Queensland Government 2007, p. 61). A person adopts a culture and its practices by living in this culture and learning over the course of time through 'enculturation' (Kittler/Sucher 2003, p. 5). Hence, culture is a dynamic condition. As a matter of fact, people that belong to the same ethnicity often share the same culture, but there may also exist several sub-cultures within one ethnic group.

⁹ Enabling an easy readability, 'South Africa' will be used as a short form for the 'Republic of South Africa'.

Moreover, South Africa is the only African country where the new consumers have emerged so far¹⁰ having partly the status of a role model for the westernisation of other African countries, which includes the negative impacts in terms of sustainable development (Burghardt/Schmeisser 2008, pp. 30f.). Particularly the urban regions that are close to the former homelands¹¹ (e.g. Port Elizabeth) are increasingly inhabited by people that have moved from rural to urban areas and belong to the (emerging) middle-class¹². This also leads to the observation that these regions are progressively characterised by western and westernised alimentary patterns and associated impacts. Previous research has not studied South Africa in terms of Sustainable Alimentation from a socio-cultural perspective under specific consideration of the country's past and present.

1.2 Aims, objectives and focus

On the basis of the problem and background mentioned above, the aim of this thesis is to develop a practice-oriented theoretical approach for Sustainable Alimentation and to use this approach for empirically evaluating the extent to which the present alimentary practices of urban middle-class households in Port Elizabeth (South Africa¹³)¹⁴ – through conscious as well as unconscious actions – follow Sustainable Alimentation. Furthermore, the empirical investigation will point out which factors – particularly focussing on socio-cultural aspects – determine current alimentary practices of the investigated households and are influencing, driving or hampering a diffusion of Sustainable Alimentation. Although the aim of this thesis is to be unbiased towards the research objects because literature about the South African cultures may not reflect their actual current alimentary practices, a basic understanding of their alimentary characteristics is necessary as cultures and alimentary practices differ and have their own historical backgrounds which influence current practices enormously. This is the reason why the thesis also aims to figure out which findings about the consumption and alimentation patterns of South African households currently exist in order to have a basis for the empirical research.

¹⁰ In the year 2000, South Africa had a population size of 42 Million of which 17 Million (40 %) belonged to the new consumers having a purchasing power parity (PPP) of 202 billion Dollars (Myers/Kent 2003, p. 4964).

¹¹ Ten homelands were established for different black ethnic groups during apartheid in order to forcibly relocate and separate them from each other and from the white population (Robinson n. d., n. p.). The black groups had to organise themselves under the superintendence of chiefs that belonged to the apartheid regime (Robinson n. d., n. p.). In fact, the homelands excluded black South Africans from South African politics and put them in a disadvantage by geographically and politically excluding them from natural and economic resources, which caused poverty, unemployment, intensified racial separation and discrimination (Robinson n. d., n. p.).

¹² A calculation of South Africa's middle-class is given in appendix 2.

¹³ In order to enable an easy readability, the addition 'South Africa' in the context of the town 'Port Elizabeth' will be left out most of the time.

¹⁴ In order to enable an easy readability, 'urban middle-class households in Port Elizabeth (South Africa)' will most of the time be simply referred to as the 'investigated households'.

Building on the above findings, the thesis aims to generate hypotheses and to address relevant features that need to be taken into account to successfully enhance changes towards an implementation of Sustainable Alimentation among these households. The underlying research subject is Sustainable Alimentation and the research objects are urban middle-class households in Port Elizabeth.

Against the background of the numerous varying cultures and the merger of cultures within South Africa, a particular objective of this study is to find out which cultural peculiarities – under special consideration of South Africa’s cultural history and focusing on Afrikaners and Xhosa – exist relating to alimentation. Exposing these peculiarities shall assist in generating hypotheses that enable the promotion of customised and hence, successful change strategies. The focus on these two out of the eleven different South African ethnicities (Xhosa and Afrikaner) is due to the fact that they are the most predominant in the Eastern Cape; Afrikaans being the third most and Xhosa the second most spoken language in South Africa (South Africa Info reporter n. d., n. p.)¹⁵. Furthermore, these two ethnicities can be assumed to be extremely different. Reasons are that the Xhosa represent a traditional and mainly black South African ethnicity that has just recently begun to join the urban middle-class (new consumers) and Afrikaners represent a mainly white South African ethnicity of western (European) origin that has lived a middle- and upper-class lifestyle for several decades (long-rich consumers). The differences between these two groups are assumed to be greater than those between different black (e.g. Zulu versus Xhosa) or white groups (e.g. Afrikaners versus English). However, the black and white ethnic groups are also very heterogeneous within themselves so that the Afrikaners cannot represent the whole group of white South Africans and the Xhosa will not represent all black South Africans. Nevertheless, focusing on these two ethnicities makes it possible to find out where strong socio-cultural differences between the alimentary practices exist and consequently, how promotion strategies should address cultural differences in South Africa in order to enhance changes successfully. Only approaches that are customised to explicit differences can work in practice. The thesis still accounts for the fact that South Africa is strongly multicultural and that cultures have partly intermingled and sub-divided within the last years.

1.3 Scientific approach and methodology

This thesis’ scientific approach is inductive and explorative¹⁶, building up on a qualitative investigation. Exploration means that “[...] neither the nature nor the dimensions of the topic are well known“ (Kleining/Witt 2001, n. p.) and the particular scientific research topic has not been studied so far in the same or similar manner so

¹⁵ The most spoken language in South Africa is English (South Africa Info reporter n. d., n. p.).

¹⁶ According to Kleining/Witt (2001, n. p.), the term ““explorative” [is used] instead [of the usually used term “exploratory“] in order to characterize [that the] approach [is] active and process-oriented“.

that ideas, a specific theory¹⁷ or specified hypotheses relating to the research field will be formulated after the evaluation of the research, but cannot appropriately be formulated before (Lamnek 1995a, p. 129; Bortz/Döring 2006, pp. 50, 380). This thesis will exploratively generate hypotheses on the basis of the research findings. Explorative research is particularly suitable for socio-cultural approaches as used within this thesis so that the field of research can be studied unbiased and is predicated on the research findings (Glaser/Strauss 1967¹⁸, pp. 1ff.; Lamnek 1995a, p. 223). Furthermore, culture is always an explorative phenomenon and therefore, has to be studied like one (Hörning/Reuter 2004, p. 12). The explorative research is increasingly being used in the psychological, cultural and social sciences and researchers call for a more intense use of this kind of research instead of reflexive interpretations, because an explorative design assists “[...] to overcome problems associated with hermeneutic interpretations“ (Kleining/Witt 2001, n. p.). In the specific case of this thesis’ study an explorative research design is particularly useful as:

- There are no recent studies on alimentation in South Africa from a socio-cultural point of view and with a focus on sustainable development;
- The author is analysing a system and culture that are unfamiliar to her;
- This thesis uses a social practices approach (theory of alimentary practices) and is consequently primarily based on actual practices rather than on theoretical assumptions.

Induction means that only a few specific cases are studied which will generate a general explanation and hypotheses at the end of the thesis (Bortz/Döring 2006, p. 18; Karmasin/Ribing 2009, p. 28). In detail, the thesis uses eight qualitative individual interviews¹⁹ with urban middle-class households in Port Elizabeth which include two different ethnic backgrounds (Xhosa and Afrikaners)²⁰. Qualitative approaches are a useful method to study explorative and inductive topics (Bortz/Döring 2006, p. 50). This is due to the fact that qualitative research is quite unbiased and open towards the interviewees’ individual and detailed explanations of opinions and attitudes (Bortz/Döring 2006, p. 50; Brosius et al. 2009, p. 20). This is very important as the

¹⁷ Nevertheless, explorative research is built up on theoretical oriented assumptions in order to formulate research questions, variables and categories, but these assumptions are not specialised enough according to the specific research field so that they lack information for formulating precise theories and hypotheses that could be proven (Bortz/Döring 2006, p. 356; Geyer 2007a, p. 40).

¹⁸ Glaser/Strauss (1967) call this approach ‘Grounded theory’ as the theory is formulated after the collection and analysis of data.

¹⁹ An additional expert interview has been conducted after the consumer interviews just to better understand the information (particularly experienced external drivers and barriers) given by the interviewees. The restriction to eight interviews is due to the limited means of this thesis. Also see the limitations in chapter 1 part 1.6.

²⁰ The methodology of this thesis’ empirical research (individual interviews) will be described later on within the materials and methods description in chapter 4. At this point, the methodology is mainly focused on the whole thesis in general.

alimentary practices of every interviewee are unique and cannot be known or assumed before.

The theoretical approach that will be developed within the literature review builds up on the concept of wholefood alimentation, the theory of post-growth economics as well as the theory of alimentary practices (partly including Rogers' diffusion concept). These theories and concepts will be further described within chapter 2.

1.4 Research questions and structure of the thesis

This thesis uses an evaluating and framing research question approach²¹: It will frame a theoretical practice-oriented approach of Sustainable Alimentation, evaluate to what extent the present alimentary practices of urban middle-class households in Port Elizabeth follow Sustainable Alimentation and which socio-cultural factors influence a diffusion, and frame hypotheses²² and resulting recommendations on how the practice of Sustainable Alimentation can be brought forward among the investigated households. The thesis aims to answer the super- and sub-ordinate questions as shown in table 2.

²¹ There are five basic types of research questions which either aim to describe, explain, prognosticate, frame or criticise and evaluate a specific topic and which might be combined within one research question (Karmasin/Ribing 2009, p. 23). Evaluating research questions try to evaluate a certain condition on the basis of specific criteria (Kornmeier 2010, p. 59). As evaluating research questions often lead to the formulation of criticism and improvements, it is useful to combine them with framing questions (Kornmeier 2010, p. 55). Framing research questions aim to develop measures that are adequate to solve a certain problem or reach a specific goal (Kornmeier 2010, p. 59).

²² Further information on hypotheses is given in chapter 6 part 6.1.

Table 2: Super- and sub-ordinate questions and structure of the thesis

Super-ordinate research questions		
<ol style="list-style-type: none"> 1. How should a practice-oriented theoretical approach on Sustainable Alimentation be designed in order to integrate all relevant aspects of the various dimensions and disciplines of sustainable development on the consumer level? 2. To what extent do the current alimentary practices of urban middle-class households in Port Elizabeth (South Africa) follow Sustainable Alimentation? 3. Which alimentary factors, particularly focussing on socio-cultural aspects, need to be taken into account to successfully promote changes towards Sustainable Alimentation? 		
Sub-ordinate research questions		
Chapter and analytic approach	Research subject: Sustainable Alimentation	Research object: Urban middle-class households in Port Elizabeth (South Africa)
Chapter 1 Introduction	1	Which are the underlying problems and why is there a significance to study Sustainable Alimentation related to the investigated households, how is the thesis going to handle the above problems and which aims and questions do exist?
Chapter 2/3 Theory (literature review)	<p>Which are the characteristics of ...</p> <ol style="list-style-type: none"> 2.1 Wholefood alimentation? ('What' to eat?) 2.2 A Sustainable consumption theory? ('How' and 'how much' to eat?) 2.3 The theory of alimentary practices? ('How to investigate?') 2.4 As a synthesis of the beforehand generated findings, which are the characteristics of Sustainable Alimentation and how can these be empirically explored? 	<ol style="list-style-type: none"> 3.1. Referring to consumption and alimentation, which are the characteristics of the investigated households? 3.2. Which cultural peculiarities – under special consideration of South Africa's cultural history and focusing on Afrikaners and Xhosa – exist regarding alimentation in South Africa?
Chapter 4/5 Empiricism (qualitative face-to-face inter-views)	<ol style="list-style-type: none"> 4.1 - 4.3 5.1 5.2 	<p>Which materials, methods and focus groups are useful to generate information on how sustainable the alimentary practices of the investigated households are?</p> <p>To what extent does the present alimentary practice of the investigated households follow Sustainable Alimentation?</p> <p>Which factors, particularly focussing on socio-cultural aspects, are influencing, driving and hindering the implementation of Sustainable Alimentation?</p>
Chapter 6/7 Combination of theory and empiricism	<ol style="list-style-type: none"> 6.1- 6.12 7 	<p>Relating to a successful promotion of changes towards Sustainable Alimentation among the investigated households, which hypotheses and inferences result from the theoretical and empirical findings and which recommendations for promoting Sustainable Alimentation result?</p> <p>With regards to a summary of this thesis' findings, which factors have to be critically reflected and which implications result related to a future outlook?</p>

Source: Own

The structure of the thesis is highlighted in table 2. Chapter 2 develops a practice-oriented theoretical approach of Sustainable Alimentation and hence, literature is presented about relevant concepts which complement each other and – in combination – form such an approach. Part 2.1 points out ‘what’ to eat in terms of sustainable development (concept of wholefood alimentation) and part 2.2 describes ‘how’ and ‘how much’ to eat to attain Sustainable Alimentation (theory of post-growth economics). In order know how to investigate these aspects, part 2.3 describes a theoretical approach that accounts for the socio-cultural factors that determine consumers’ alimentary practices and drive or hamper the diffusion of Sustainable Alimentation (theory of alimentary practices, partly integrating Rogers’ diffusion concept). Part 2.4 integrates all three theoretical approaches within a synthesis that serves as a basis for practical investigations as it defines analysis categories, variables and questions. The synthesis is used within the exploration of the investigated households.

Chapter 3 will highlight South Africa’s specific cultural past and present with a focus on issues that are relevant in terms of consumption and alimentation. This way, a basic understanding about the history and recent research findings is gained. A further differentiation between the two investigated South African ethnicities – Xhosa and Afrikaners – will be undertaken.

Having the theoretical foundation, chapter 4 presents the materials and methods used for the investigation. Chapter 5 summarises the results of the underlying empirical investigation. Using the features of Sustainable Alimentation as presented within part 2.4, chapter 5 will point out which characteristics form the alimentary practices of the investigated households. The following chapter 6 will pick up on the results to discuss and conclude hypotheses that can be generated from the findings. Chapter 7 summarises the thesis, critically reflects the underlying approaches, methods and findings and presents an outlook on Sustainable Alimentation in South Africa.

1.5 Limitations

This thesis focuses mainly on socio-cultural aspects of alimentation and is solely focused on sustainable development, but not alimentation in general. Medical aspects (e.g. obesity, health, metabolism analysis) are also partly described, but only to give a broad overview on the current alimentary health status of South Africans. Medical investigations within the field of Sustainable Alimentation might generate different outcomes as they are single-disciplinary and only focus on specific medical aspects of alimentation, but do not account for all sustainability issues. Food security will not be part of this research as this field has been studied numerously and is only one minor aspect of Sustainable Alimentation.

Although Rogers’ diffusion concept will partly be addressed and used within the theory of alimentary practices (referring to the current status of the diffusion process, the consumers’ innovativeness and prevalent communication and information channels), this thesis is not using Rogers’ concept as such and hence, it will only be described where appropriate without giving detailed insights about the whole concept.

The thesis focuses on the consumer level as it is assumed that Sustainable Alimentation can only be implemented, if the alimentary practices of the consumers are well known so that customised promotion strategies that will be accepted by the consumers can be developed. Within this consumer focus, only private households will be investigated, not taking into account institutional communal catering or the gastronomy as this would require different approaches and methods. The thesis will address issues at levels of other food chain parts only if they are mentioned in the interviews and are relevant to understand consumer behaviours (e.g. limited availability of sustainable alternatives).

The thesis does not aim to define concrete promotion strategies as this would exhaust this thesis' means. The thesis only aims to generate hypotheses that will be an adequate basis for the development of promotion strategies in further research. Nevertheless, the generated hypotheses will be generally interpreted regarding possible future promotion strategies. Due to the focus on practices and exploration, the hypotheses will be mainly based on the empirical findings and only take into account findings from the literature review where appropriate. In order to generate unbiased outcomes, research findings and recommendations that have been generated for other cases and countries will not be used as these are not using the same theoretical approach for Sustainable Alimentation, are not comparable to South Africa's specific cultural history and would limit the impartiality of this thesis²³.

Inductive methods can partly be seen as a problematic scientific approach because they are only based on particular subjective cases and do not consistently follow logical orders (Bortz/Döring 2006, pp. 300f.). This criticism becomes even stronger due to the small sample of this thesis. As this thesis does not make the claim of being complete or representative due to the limited means, this critic is minor. Furthermore, as there is a lack of previous studies on this topic and hence, the scientific approach is explorative, only an inductive method is useful to stay unbiased.

All of the thesis' empirical research²⁴ is based on communication with consumers, but not on external monitoring and interpretation of e.g. cooking, shopping, eating procedures or culinary atmospheres²⁵. This is due to the limited means of this research. A further external monitoring which builds up on the generated hypotheses might be useful for future research to generate more objective findings.

²³ This is due to the fact that South Africa is highly characterised by social inequalities that result from the former apartheid regime and from imbalanced consumption patterns around South (Ngobese/Cock 1995, p. 274; Altman et al. 2009, p. 345; Steinbrink 2009, p. 149). Hence, South Africa presents quite a unique case and can neither be adequately compared with the so called developed countries, nor with the developing countries.

²⁴ Critical remarks on the empirical research are further described in chapter 4 part 4.3.

²⁵ Culinary atmospheres will be further described in chapter 2 part 2.3.2.

Chapter 2

Research subject: Sustainable Alimentation

2.1 'What' to eat: The principles of wholefood alimentation

As the concept of sustainable development is very broad and unspecific in terms of concrete courses of action, it is important to define some practical principles that specify which food products should be eaten in terms of sustainable development. 'What' to eat in terms of sustainable development has been defined within the principles of wholefood alimentation, which find broad approval by scientists from several disciplines. In 1993, Leitzmann, Männle and von Koerber put forward a mainly descriptive alimentation concept²⁶ which is known as the Gießener concept of wholefood alimentation (Zimmermann 2004, p. 32). This concept is based on approaches by Bircher-Benner (1867-1939) and Kollath (1892-1970) which called for the consumption of natural food to enhance nutritional values (Zimmermann 2004, p. 34). This concept is deemed to be scientifically justified (Hoffmann 2004, pp. 380ff.; Schack 2004, pp. 10f.). Wholefood alimentation has become increasingly popular²⁷ throughout the past twenty years which is due to the fact that governmental institutions (e.g. German Federal Ministry of Food, Agriculture and Consumer Protection BMELV) as well as books have picked up on this topic and supported its diffusion²⁸ (Schack 2004, pp. 1f.). However, only few people²⁹ are currently practicing wholefood alimentation (Schack 2004, p. 2).

The main aim of this concept is to make alimentation an act of good taste and pleasure (Zimmermann 2004, p. 34). It is based on seven practice-oriented principles and is very suitable in terms of sustainable development as it covers multi-dimensional and interdisciplinary aims like the increase of life qualities and health, the conservation of the environment as well as the creation of fair economic relations and social equity (Leitzmann et al. 1999, pp. 150f.; Schack 2004, pp. 7f.; tab. 3). This is why this concept is often referred to as Sustainable Alimentation³⁰. The seven principles and related advantages are shown in table 3 and are afterwards shortly described.

²⁶ “[...] Descriptive concepts are thought to be ‘neutral’ or value free: They stand up to the rigour of scientific examination” (Heywood 2000, p. 5).

²⁷ Within the federal state of Baden-Württemberg, 77 % of the population stated that they know about wholefood alimentation (Schack 2004, p. 2).

²⁸ Further information on diffusion is given in chapter 2 part 2.3.2 and chapter 6.

²⁹ According to Hess/Flick (1991, pp. 34ff.), only 6 % of the population is practicing a wholefood alimentation in the federal state of Baden-Württemberg (Germany).

³⁰ In order to distinguish this concept from the working theory of sustainable alimentation used by this thesis, the alimentation concept by Koerber et al. will be named wholefood alimentation although it is often called sustainable alimentation.

Table 3: The seven principles of wholefood alimentation and their meanings and (exemplary) advantages

1. Enjoyable and easily digestible foods
<p>Enjoying food, eating in a comfortable atmosphere and eating easily digestible food.</p> <ul style="list-style-type: none"> - Socio-cultural: Increased well-being - Health: Well-functioning metabolism
2. Plant-based foods
<p>Having a lacto-vegetarian alimentation (preference of plant-based food and reduction of meat consumption, particularly red meat)</p> <ul style="list-style-type: none"> - Economic: Lower costs for consumers as the consumption of expensive food (meat) is reduced; saved money can be invested in organic and fairly traded foods - Ecological: Less emissions (CO₂ from production and methane from cattle) - Socio-cultural: Fair distribution of food (e.g. through decreased imports of cheap feed for meat production; less refinement losses) - Health: Better nutrient supply improves health conditions (through higher intake of complex carbohydrates, fibre and secondary plant products as well as less fat)
3. Minimally processed foods
<p>Using raw foods (unprocessed, uncooked, in its natural state) for half of the whole food intake and cooking the other half only slightly. Avoidance of food additives as well as genetically modified and irradiated food.</p> <ul style="list-style-type: none"> - Ecological: Reduced primary energy and water usage and lower emissions (due to less intensive processing methods and less transport between the different processing levels) - Health: Lower usage of substances and technologies that are assumed to threaten a person's health (e.g. genetically modified organisms, preservatives or colourings), higher amount of essential ingredients and health-promoting substances - Economic: Lower costs for consumers and producers (due to lower production costs for processing) - Socio-cultural: Higher sense perception and valuation of food, and due to own processing of foods also trained cooking skills, cooking as a collective experience in families or groups
4. Organic foods
<p>Preference for organic food products</p> <ul style="list-style-type: none"> - Ecological: Less environmental pollution (less primary energy usage and lower emissions, no usage of pesticides and fertilisers, less ground erosion, enhancing natural cycles and biodiversity, restriction of additives and specific technologies like irradiation) - Health: Partly higher nutrient density and higher amounts of secondary plant products (often positively influencing cardio-vascular and cancer diseases), better state of health (due to an eschewal of pesticides and fertilizers, less residues) - Socio-cultural: Higher satisfaction among the organic farmers, and often performance of additional social and cultural services (e.g. therapy and integration of disabled) - Economic: Securing livelihoods (due to higher income of producers) and less unemployment (due to high work intensity, processing on the farm and farmer-to-consumer direct marketing)

5. Regional and seasonal foods
<p>Preference for regionally produced as well as seasonally harvested and sold food</p> <ul style="list-style-type: none"> - Ecological: Less emissions (due to less transportation, less artificial cultivation), less residues (e.g. nitrate and pesticides) - Economic: Strengthening the local economies and rural areas, securing livelihoods (e.g. through networks between all actors along the food chain) - Socio-cultural: Higher transparency and hence higher trust for all actors and lower risk of forbidden practices and scandals - Health: Food has an intensive taste and is high in essential and health-promoting ingredients (harvest in a ripe state), less residues (e.g. nitrate and pesticides)
6. Environmentally sound packaging of foods
<p>Preference of non-packaged food or those that have an environmentally sound packaging</p> <ul style="list-style-type: none"> - Ecological: Less resource and energy consumption and less waste
7. Fair trade foods
<p>Preference of fair trade food products</p> <ul style="list-style-type: none"> - Socio-cultural: Establishment of social services (e.g. schools, hospitals), better working conditions and social insurances, foundation of labour unions, preventing child labour, support of the development potential for disadvantaged producers (especially women and indigenous populations), protection of human rights by supporting social equity, environmental-benign behaviour and economic security - Economic: Improvement of the income situation and wellbeing of producers and securing livelihoods of small-scale farmers in developing countries (by increased access to the market, strengthening the producer organisations, better payment for products [real pricing³¹], allowing a continuous trade relationship, guaranteed purchase quantity, prepayments by the importers) - Health: Prevention of pesticide intoxications of workers - Ecological: Environmental constraints (e.g. drinking water protection, low use of pesticides)

Source: Own, based on Schack 2004, pp. 8f., Koerber et al. 2004, Koerber/Kretschmer 2006, pp. 181ff.

Principle 1: Enjoyable and easily digestible foods

Enjoyment and easy digestibility of food are important as “[...] the healthiest food does not help if it is not accepted” (Leitzmann 2005, p. 754). Foods get accepted if the consumer associates them with positive feelings of enjoyment and easy digestibility, which are mainly influenced by the taste and physical effects of food as well as the setting in which alimentation takes place (Leitzmann 2005, p. 754). As a result, enjoyment and easy digestibility of food have to be seen as one of the most important aspects of Sustainable Alimentation (Koerber et al. 2004, p. 110; tab. 3). Enjoyment is a

³¹ In some cases, the real price of a product is higher than the actual price for which the product is sold. “‘Real’ pricing includes all the additional costs of production, which will include labour, electricity and energy, [certification] and transportation costs [...]” (Choose Organic n. d., n. p.).

mental sentiment which differs between individuals (Koerber et al. 2004, pp. 111f.). The wholesomeness (easy digestibility) of food is also mostly subjectively sensed, although specific foods (e.g. containing high amounts of fibre or omega-3 fatty acids) is known to positively influence a person's metabolism and hence, create a feeling of wellbeing (e.g. no full feeling, less acid reflux) (Koerber et al. 2004, pp. 112f.). An individual should try to analyse his or her body well in order to know which food or alimentary practices suit him or her and which cause negative feelings (Koerber et al. 2004, p. 112)³².

Principle 2: Plant-based foods

Plant-based foods are a source of important health-promoting ingredients (e.g. unsaturated fatty acids or secondary plant products) whereas foods derived from animals usually contains ingredients (e.g. saturated fats, cholesterol) that can cause health problems like cholesterol or rheumatism when consumed in too high amounts (Koerber et al. 2004, pp. 114f.; Leitzmann 2005, pp. 754f.; tab. 3). The preference of plant-based foods also benefits the environment (e.g. fewer emissions from cattle) and the economy (e.g. lower expenses) (Koerber et al. 2004, p. 117; Leitzmann 2005, p. 757). Although consumers should prefer plant-based over animal-derived foods, they should still include the last-named in order to have a sufficient source for vitamin B12 and omega-3 fatty acids (Koerber et al. 2004, p. 314). In general, Koerber et al. (2004, p. 314) specify that fish should only be consumed once a week, meat twice a week and eggs two per person per week.

Principle 3: Minimally processed foods

95 % of today's food products have been processed and contain food additives, but besides the advantages of higher convenience and the prevention of spoilage, important nutrients (e.g. vitamins, fibre and secondary plant products) get reduced or destroyed and huge amounts of energy are used (Leitzmann 2005, p. 757). Additives are also assumed to cause illnesses, like eczema, allergies or nettle rash (Koerber et al. 2004, p. 124). Furthermore, knowledge about self-made or self-processed foods decreases and a dependency on external supplies increases. As a consequence, consumers should prefer to buy and eat raw or minimally processed foods, especially those sold by the producers (e.g. farmers) themselves and consumers should also avoid food additives that go along with highly processed food (Leitzmann 2005, p. 757; tab. 3). In general, one can say that half of a person's food intake should consist of raw food (uncooked, unprocessed and in their natural state) (Koerber et al. 2004, p. 120). Important requirements for the practice of this principle are the availability of less-processed food (problem of

³² As enjoyment and easy digestibility are subjectively sensed compared to the other principles of wholefood alimentation which are based on more objective criteria, this principle is more related to aspects of quality. Quality belongs to the aspect of cutting down within the theory of post-growth economics and hence, will be integrated to this within the synthesis in chapter 2 part 2.4.

seasonality of some foods), knowledge about additives and food preparation as well as time for preparation and enjoyment (Koerber et al. 2004, p. 204).

Principle 4: Organic foods

Conventional agriculture has several negative impacts on soil (e.g. erosion), water (e.g. pesticide contamination), ecological systems (e.g. loss of biodiversity) and air (e.g. greenhouse effect) (Leitzmann 2005, p. 757). If given the choice, consumers should prefer organic food products as their principles “[...] are the preservation and enhancement of soil fertility; raising plants and animals of the region; rotation of crops; production of healthy plants and animals; limitation on the number of livestock; ample running space for animals; minimal usage of fossil energy; and preservation and care of the cultivated landscape” (Leitzmann 2005, p. 757; tab. 3). The consumption of organic food can become a challenge as, for example, bad availability, various and confusing labels as well as higher prices are limiting the consumer’s options for choosing adequate organic alternatives (Koerber et al. 2004, pp. 205f.).

Principle 5: Regional and seasonal foods

As lots of the foods we consume are imported and consumed out of season, high transport and storage costs as well as emissions are caused and some harmful chemicals are used to preserve freshness (Leitzmann 2005, p. 758). There are regional alternatives to imported food products so consumers should switch to these (Leitzmann 2005, p. 758; tab. 3). Furthermore, as seasonal food offers are adequate to cover human physical requirements and enable the preparation of varied and delicate meals, consumers should switch to seasonal food. Important requirements for the practicability of this principle are knowledge about regional and seasonal products as well as the availability of these food products (Koerber et al. 2004, pp. 206f.).

Principle 6: Foods that have an environmentally sound packaging

Although many food products have to be packed for reasons like transport, longer shelf-life, spoilage prevention or shape, the packaging materials lead to high amounts of waste (Leitzmann 2005, p. 758). Consumers should choose food that has an environmental sound packaging which is characterised by, for example, recyclability, reusability, biodegradability or the use of renewable resources. Moreover, as there are several kinds of food (e.g. vegetables, fruits or nuts) which do not have to be packed, consumers should prefer unpacked alternatives of these foods (Leitzmann 2005, p. 758; tab. 3). It is quite challenging for consumers to always consider the right packaging as knowledge about environmental and health-related aspects of different packaging choices is required (Koerber et al. 2004, p. 207). A limited availability, higher prices and reduced convenience hamper the practice of this principle (Koerber et al. 2004, p. 207).

Principle 7: Fair trade foods

Food that is not fairly traded is likely to cause socio-cultural and economic deficiencies, like child labour, insecure markets, discrimination or underpayment. In general, food being labelled fair trade aims to strengthen “[...] the awareness of consumers about the negative consequences of international trade for the producers [and] to use their purchasing power in a supporting way, [to exemplify] partnership in trade employing dialogue, transparency and respect, [to implement] campaigns to change the rules and practice of conventional international trade [and to protect] human rights” (Leitzmann 2005, p. 758). As with organic food, the consumption of fair trade food can become a challenge as, for example, bad availability, various labels and higher prices are limiting the consumer’s options for choosing fair trade alternatives (Koerber et al. 2004, p. 207).

2.2 ‘How’ and ‘how much’ to eat: Post-growth economics and consumption

2.2.1 Consumption trends and growth criticism

High consumption³³ and consumerist lifestyles are mainly characteristic for the developed countries, but during the last decades, the people in the developing countries have progressively joined the consuming society and their consumption patterns became increasingly unsustainable (Brunner 2007a, p. 9). “It is the biggest consumer boom ever known in such a short time [and] the biggest revolution in history” is how Myers/Kent (2004, p. 3) describe what is going on in today’s consuming society. This revolution is brought about by one billion so called ‘new consumers’³⁴ which have emerged in 17 developing and three transition countries (including South Africa) since the 1980s (Myers/Kent 2003, p. 4963). These consumers have climbed up the ladder into the middle-classes (also called the new [urban] middle-classes or new rich) and have the financial ability to not only consume goods to satisfy basic needs, but also to buy some luxuries (Myers/Kent 2004, p. 4; Lange/Meyer 2007, pp. 3f.). In general, the new consumers have decent diets (including a rapidly increased consumption of grain-fed meat), buy fashionable instead of functional clothing, prefer throw-away products instead of unpacked ones and they have their own cars as well as air-conditioned single-family houses (Myers/Kent 2004, p. 4, 10; Brunner 2007a, p. 9). In combination with the consumption patterns of the long-rich consumers, multi-dimensional problems

³³ Consumption derives from the Latin word ‘consumere’ and means to use (up), to utilise, to squander and to expend whereas within our societal understanding, this verb refers to the consumption of products and services (König 2008, p. 13). Consumption consists of the following consecutive steps: Development of needs and wants; search for information; buying decisions and actions; usage of products and services; disposal (Scherhorn et al. 1997, cit. in Brunner 2008, p. 280). One form or rather sub-area of consumption is alimentation. Other sub-areas of consumption are, for example, mobility or energy consumption. In this part, alimentation is implied in the term consumption. Where appropriate, the focus on alimentation will be pointed out specifically.

³⁴ Further information about the precise characteristics of the new consumers are given by Myers/Kent (2004), but cannot be explained at this point due to the limited scope of this thesis.

arise³⁵. These are caused by the consumers' attitude which is described by Myers/Kent (2004, pp. 3f.) as follows: "Since [the people] have found it hard to meet even the most basic needs, their credo has been that more of anything must, by definition, be a good thing. Result: A seeking after ever-greater consumption, indeed limitless consumption". Consequently, the consumptive activities of the new and long-rich consumers are embedded in a system *of* and a belief *in* continuous growth, often regardless of the need for a sustainable development.

In order to get more precise about current consumption trends and to turn to the specific consumption category of this thesis – alimentation – it is helpful to highlight those structural developments and alimentary trends that are often counter-productive in terms of sustainable development (tab. 4): Globalisation leads to mass-produced foods (consumerisation) and causes, for example, the loss of indigenous individuality or a high vulnerability towards global crises; modernisation leads to manufactured foods that are often rationalised and standardised (commoditisation) and has impacts such as the loss of cooking competences; urbanisation leads to a dependency on external producers (delocalisation) and causes, for example, a high vulnerability towards crises; migration leads to adopted foods (acculturation) and causes, for instance, the loss of cultural knowledge.

Table 4: Developmental perspective of food culture

Structural Change	Alimentation Change
<i>Globalization</i> : Local to worldwide organizations	<i>Consumerization</i> : Indigenous to mass-produced food
<i>Modernization</i> : Muscle to fueled power	<i>Commoditization</i> : Homemade to manufactured food
<i>Urbanization</i> : Rural to urban residence	<i>Delocalization</i> : Producers to consumers only
<i>Migration</i> : Original to new settings	<i>Acculturation</i> : Traditional to adopted food

Source: Sobal 1999, illustrated in Kittler/Sucher 2003, p. 12

A result of these developments is the trend of overall deterritorialisation and hastening (taken together as convenience-orientation or McDonaldisation) in terms of the choice of structures and products that simplify alimentation and increase life quality, like sterilely packaged, frozen, ready-made and take-away foods (Lindenberg 2004, p. 1975, Lemke 2007, p. 133; Spiekermann 2008, pp. 21-29; Antoni-Komar/Pfriem 2009, p. 40; Elmadfa/Meyer 2009, p. 181). The trend of McDonaldisation and convenience products is caused by dynamically changing social circumstances that are affecting alimentary

³⁵ These problems will be further described later on on this chapter and have been previously mentioned according to alimentation within the introduction (chapter 1 part 1.1).

practices. The most important changes are a higher orientation towards services, higher work flexibilities (e.g. flexible work time and place) and changes within the households and housing types in a way that one family houses are increasing and the number of people per household is decreasing (Eberle et al. 2004, pp. 3f.). The number of single-person-households, single parents or unmarried couples is also increasing (Eberle et al. 2004, pp. 4f.). Besides, gender relations are changing with emancipated women and stay-at-home husbands so that roles become less definite and more intermixed (Eberle et al. 2004, p. 5). The above trends can partly be counter-productive regarding sustainable development, as social interactions (e.g. cooking and eating together), resources (e.g. time for selection, preparation and cooking), competences (e.g. shared knowledge among household members) and knowledge about what we consume are being reduced so that cultural diversity and identity get lost (Koerber/Kretschmer 2006, p. 178; Antoni-Komar/Pfriem 2009, p. 40). Besides these socio-cultural problems, ecological, health-related and economic issues arise which have been described in part 1.1 and 2.1 (tab. 1; tab. 3).

The previously described phenomena of consumerism and consumption trends are often criticised as they build up on a system of unlimited growth and have negative impacts on various dimensions. Several approaches – mostly focussing on efficiency and consistency – have tried to solve consumption problems, but can be regarded as insufficient as most of them take system structures and growth orientations as given. These approaches are mostly descriptive and only considering a change of products and services within these systems, but not normative changes of the system itself. In the case of alimentation this means that approaches mainly focus on changing the types of food (what) we are consuming (e.g. concept of wholefood alimentation), but neglect an additional focus on a larger, more general issue in terms of the way (how) and the amounts (how much) being eaten. The focus on ‘how’ and ‘how much’ to eat has to be taken into account as alimentary activities – as it is the same with consumption in general – cannot grow unlimited as it will be described in the following.

In most countries, especially those where the long-rich consumers are prevalent and where the new consumers are on a rise, alimentation is embedded in an economic system where growth is paramount and where more consumption is practically always considered a good thing. There are four key arguments against this focus on growth that have been pointed out for many years by ecological economists, cultural scientists and others (e.g. Daly et al. 1989) and have lately again found some strong advocates (e.g. Stiglitz et al. 2009 or Jackson 2009). These arguments will be shortly presented in their general form, followed by the concept of post-growth economics as this would have significant positive effects on consumption and alimentation from a sustainable development perspective.

Firstly, any growth of the economy cannot be unlimited and must hit limits as it is only a subsystem of the biosphere which itself does not grow. This is essentially the same argument used in the original ‘Limits to Growth’ debate by Meadows et al. (1972). Using more than the biosphere can provide might be possible in the short term, but would be happening at the expense of future generations. The effects of an economy outgrowing the potential of the planet are clearly visible. The extent to which this is currently the case can be calculated in various ways as shown by, for example,

Wackernagel/Rees (1996) or Rockström et al. (2009). Ideas as used, for example, within the concept of wholefood alimentation are focusing on dematerialising growth (efficiency) and complete recycling (consistency) to defeat these limits, but they can be shown to be violating general principles of physics, namely the entropy law of thermodynamics, as shown in studies by Georgescu-Roegen (1971). In practice, improvements in efficiency and consistency will often result in a rebound-effect, also known as the Jevons Paradox (Jevons 1866), where consumption actually rises. Rebound effects are mental as well as technical and describe that people start to consume new and additional products and services or higher amounts of established ones (Paech 2005, pp. 111ff.). The effects are caused by, for example, the need for the consumption of additional products (accessories for other products) or a becalmed bad conscience because of the higher environmental compatibility that is reached by making products and services more efficient and consistent (Paech 2005, pp. 111ff.).

Secondly, several studies (summarised e.g. in Jackson 2009 or Victor 2008) show the existence of the so-called Easterlin Paradox which describes the fact that increased (national) income does not automatically lead to increased well-being. Instead, it seems that beyond a certain threshold of consumption or once a certain point of affluence (monetary and material wealth) is reached, well-being actually stabilises or decreases as the disadvantages of growth such as pollution, lost social coherence or increased inequality outweigh its benefits (Max-Neef 1995, pp. 115ff.). This can be shown by composite indicators such as the Genuine Progress Indicator by Talberth et al. (2007) as well as surveys on reported happiness by Layard/Layard (2005) which show that individuals are not getting happier after reaching a certain point of affluence.

Thirdly, cultural critics state that although there is a huge materially and technical progress related to an increased consumption, this does not automatically go along with a positive cultural and intellectual progress and some critics even say that a cultural recession and massification are caused (König 2008, p. 271). Moreover, these critics state a deficit between an advancing civilisation on the one hand and an ethical and moral involvement on the other (König 2008, p. 271).

Fourthly, there seems to be a trend of slowing growth under the current system. Looking at the data for most western countries it gets obvious that growth has been linear, so the growth rates have actually been constantly dropping in the long term trend (Diefenbacher/Zieschank 2009, p. 22). This might be a sign of tendencies towards saturation where the drivers of growth weaken.

2.2.2 A post-growth solution

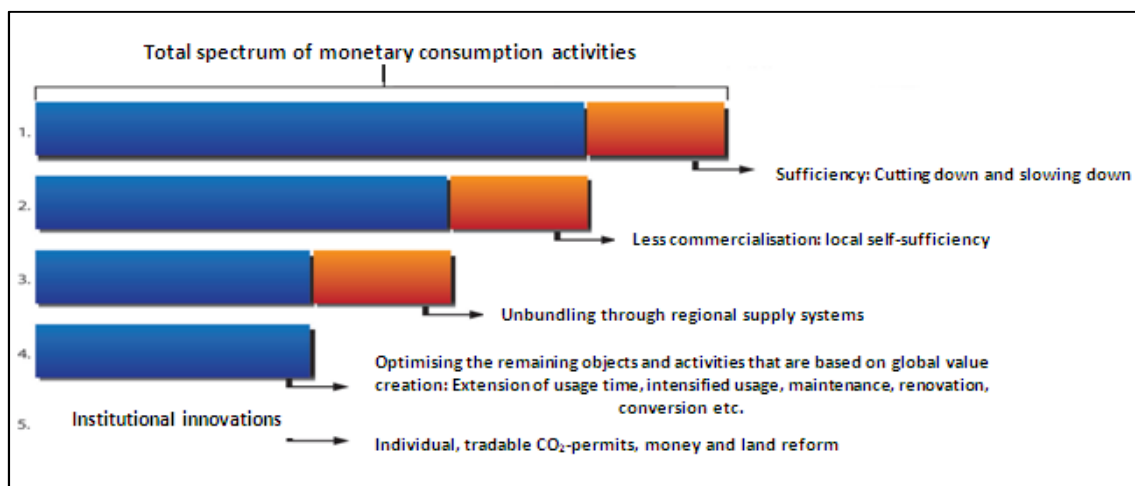
Growth still is the key problem for sustainable development, which is also shown by the recent resource, financial and climate crises (Luks 2007, p. 27; Paech 2009, p. 24). “Making development sustainable means moving beyond narrow, albeit important, concern with economic growth per se, to considerations relating to the quality of that growth” (Munslow et al. 1995, p. 3). The previous part has shown that a rampant consumption of goods and services is not possible in the long run and that socio-cultural problems associated with consumption are endangering consumers’ health in physical

(e.g. obesity and diabetes) as well as mental ways (e.g. decrease of social interactions and oppressive consumption stress). This also means that an approach that is solely technically oriented but neglects socio-cultural facts is not appropriate. Hence, the economic system, including the production as well as consumption side, has to be reconsidered. An applicable approach is that of post-growth economics which questions ‘business-as-usual’-policies and ‘consumption-as-usual’-practices from a mainly normative perspective³⁶ and takes into account technical (efficiency and consistency) as well as cultural issues (sufficiency) (Paech 2009, p. 24; fig. 2). Although this approach is more focused on a general level of consumption, it is applicable to alimentation as alimentary activities are a fundamental part of consumptive activities and hence, alimentation is embedded in the broader system of growth and cannot be regarded in isolation.

According to Paech (2009, p. 26), “an ecologically and socially sustainable economy must be free from all dependency on growth and subsequent pressure for growth, including

- the innovation orientation of modern market economies,
- the present monetary and interest-earning system,
- expectations of high profit,
- external supplies of resources based on a model of global division of labour,
- a culture of unquestioning pursuit of material self-actualisation”.

Figure 2: Five steps towards a post-growth economy: Reduction and reorganisation



Source: Paech 2009, p. 25; own translation from German to English

³⁶ “Normative concepts are often described as ‘values’; they refer to moral principles of ideals [...] and advance or prescribe certain forms of conduct rather than describe events or facts” (Heywood 2000, p. 5).

There are different conceptual strands that – in combination – determine a post-growth economy and can be seen as a response to the previously described developments and trends within the alimentary sector (Paech 2009, p. 26). Altogether, these strands can cut down on the spectrum of monetary consumption activities (fig. 2). In terms of sustainable development, the post-growth approach is mainly based on the (cultural) sufficiency principle (part 1 until 4 in fig. 2), but still – where appropriate – takes into account technical solutions in terms of the efficiency and consistency principles. The sufficiency principle is focused on a quantitative change of economies and consumption by questioning economic growth and claiming a shift and moderation of economic activities and lifestyles (Paech 2005, pp. 49ff.). The underlying question is: “How can ‘overfilled’ life styles and ultimately society as a whole be freed from ‘energy slaves’, consumption and comfort ‘crutches’” (Paech 2009, p. 26). Sufficiency implicates rethinking, changed behaviour, a consumption style that is oriented towards frugality and contentment and is known by slogans like ‘graceful simplicity’, ‘downshifting’ or ‘living well instead of having a lot’ (Paech 2005, p. 91; Winterfeld 2007, p. 48). Superabundant as well as resource-intensive products and services should be abandoned and current consumption styles and needs must be questioned in order to protect the environment and improve consumers’ mental and physical well-being in a time of oppressive affluence (Linz 2006, p. 6; Otto 2007, pp. 54f.).

Terms like cutting down or slowing down are often used to describe changes that are required in terms of consumption and behaviour (Paech 2009, pp. 26f.; step 1 in fig. 2). With the specific emphasis on alimentation, cutting down is focused on an individual self-reflection of needs and wants and mainly means to focus on the quality of food instead of high quantities which are driving consumerist activities, economic growth and related disadvantages. The resulting higher apperception of food and related activities can lead to a higher valuation and enjoyment so that less food is thrown away. Furthermore, the acquirement of knowledge about food in general and the relation of food and health-related, ecological, socio-cultural and economic facts are promoted so that, for example, diseases, social exploitation and environmental pollution are prevented. Consuming quality products can also lead to a higher enjoyment and better digestibility of food and therefore, enhance mental and physical well-being. Quality (e.g. in terms of brand, colour or appearance) cannot be defined objectively as it is based on mental sentiments and personal experiences, but in some cases, certain qualities should be preferred in terms of sustainable development (e.g. organic produce or plant-based food). Although a limited budget can restrict a focus on quality, consumers should reflect on how much food they really need (e.g. in the case of hosting people for celebrations or the intake of too much food leading to health problems). Furthermore, related to the alimentary trend of deterritorialisation and hastening, an orientation towards slowing down is important which means to take time for the selection, preparation and eating of food and to mostly dispense with fast food or dining out. Slowing down can also help to develop or preserve alimentary knowledge and social interactions. Summing up, slowing down helps to loosen from economic growth, related disadvantages and dependencies and can lead to higher physical and mental well-being. The sufficiency principle, including a focus on cutting and slowing down, is the least prevalent and accepted of all three sustainability principles as it is the most

contrary to the current economic system that is oriented towards growth and unlimited consumption and therefore, sufficiency is often associated with asceticism and abandonment (Winterfeld 2007, p. 48). Many consumers are not willing to change their lifestyles towards sufficiency as most of them believe living standards being directly correlated with owning and consuming products (König 2008, p. 277).

Besides that, post-growth is also oriented towards less commercialisation and globalisation in form of a balance of local self-supplies of goods and services and less global dependencies (Paech 2009, p. 26; step 2 in fig. 2). A global dependency implies several disadvantages in a time of crises, like higher prices, unemployment or low salaries (Paech 2009, p. 27). Instead, a local self-supply implies short distances between production and consumption and is socially stable as it encourages and keeps the skills and knowledge on the local level so that these systems are mainly independent of global crises (Paech 2009, p. 27). Examples are “self-work, (urban) subsistence, community gardens, exchange rings, networks of mutual aid, give-away markets, organisations for community use of devices, appliances and tools, etc. [...]” (Paech 2009, p. 27). Post-growth is also oriented towards unbundling. Unbundling focuses on regional economies including regional (food) markets (e.g. open-air or farmers markets), shortened supply chains (food of regional origin) or Community Supported Agricultures (CSA)³⁷ and is therefore closely interlinked with local self-supplies and also relatively independent of global markets (Paech 2009, p. 27; step 3 in fig. 2). Unbundling activities related to alimentation enable a region to be independent from global systems and hence, to be relatively resistant towards crises. Furthermore, the regional supplies imply shorter transport distances and cause lower emissions. Another advantage is that the financial resources mainly inure to the benefit of the region.

Furthermore, material zero sum games are a possibility to optimise production and consumption patterns that cannot be quantitatively cut and slowed down or locally and regionally supplied (Paech 2009, p. 27; part 4 in fig. 2). Material zero sum games arise where already existing materials and products are optimised and used more intensively or for a longer period of time (Paech 2009, p. 27). Material zero sum games hardly apply to alimentation as food products are non-durable goods that are used up at once.

Finally, institutional innovations (e.g. regional currencies with a demurrage charge or tax advantages for regional products) are needed to solve the problem of growth forces that result from the disadvantages of existing systems (Paech 2009, p. 27). Institutional innovations, however, cannot be initiated and realised by individual consumers and hence, are not relevant within this thesis’ research.

Although cultural changes in terms of sufficiency should be predominantly considered, only a combination of the three principles (sufficiency, efficiency and consistency) can ensure sustainable development in the long run. This is because sustainable consumption is not only about ‘how’ and ‘how much’ to consume (consuming less and in a different way: sufficiency), but also about ‘what’ to consume

³⁷ “In basic terms, CSA consists of a community of individuals who pledge support to a farm operation so that the farmland becomes, either legally or spiritually, the community’s farm, with the growers and consumers providing mutual support and sharing the risks and benefits of food production” (DeMuth 1993, n. p.).

(consuming different products and services: efficiency and consistency)³⁸. Furthermore, it has to be taken into account that the theory of post-growth economics shows some limits regarding alimentation. This is due to the fact that alimentation is strongly socio-culturally embedded which also means that existing customs and routines that might be counter-productive in terms of post-growth are currently highly characteristic for some cultures or social groups and as a result, have to be changed very slowly. Otherwise socio-cultural habits might get destroyed and consequently, the mental well-being of the consumers is endangered. The socio-cultural as well as mental importance of alimentation will be described within the following part.

2.3 'How to investigate' in alimentation: The theory of alimentary practices

2.3.1 Alimentation as a socio-cultural practice

After knowing 'what', 'how' and 'how much' to eat in terms of Sustainable Alimentation, it is necessary to read between the lines and point out the meanings and functions as well as the changeability of alimentation in order to know how consumers' alimentary practices can be adequately analysed, evaluated and as a result, be changed. Only the use of the right approach to study alimentation makes it possible to understand reasons behind individual as well as collective actions and subsequently, to find the right ways to change and guide the consumers' behaviours. Finding an appropriate approach also means to understand the strong socio-cultural embeddedness of alimentation as it will be done in the following.

To satisfy basic physiological needs, all animals consume nature's products. Beyond that natural sciences approach to consumption, humans have developed an additional kind which has a socio-cultural motivation. This means that the satisfaction of needs like clothing, housing, eating and sexual reproduction becomes a way of displaying the own personality and of integrating into groups of people (König 2008, pp. 15f.). People need to drink to quench thirst and a hat to protect them from freezing, but it becomes a socio-cultural act, if a person only drinks a certain brand of cool drinks and chooses a hat on the basis of his or her favourite colour (König 2008, p. 19).

Alimentation is in the first place oriented towards physical well-being (Barlösius 1999, p. 9; Brunner 2008, p. 281). As in today's western societies, there is a surplus of food and most people are struggling to limit their food intake in order to stay healthy and attractive, this natural sciences perspective fades into the background. Instead, food consumption gets dominated by several socio-cultural needs and wants, like a certain weight and shape or specific certified foods (Antoni-Komar 2006, pp. 55ff.; Antoni-Komar 2008, p. 14).

³⁸ Also compare figure 8 in appendix 1. This figure is not included within the thesis itself as it is only marginally related to the text.

Table 5: Dimensions and functions of alimentation

Dimension of alimentation	Function of alimentation
Physiological	Providing the body with nutrients and energy to keep the metabolism working
Social	Interaction with others: <ul style="list-style-type: none"> • Creating and living an identity • Integration as well as segregation • Communication
Cultural	Interaction with a group of people that share the same <ul style="list-style-type: none"> • Value and norm system • Customs • Taboos
Mental	Interaction with oneself through <ul style="list-style-type: none"> • Enjoyment • Emotional safety • Compensation • Self-confidence

Source: Own, on the basis of Brunner 2008, p. 281

According to Slater (1997, pp. 8, 24), “consumption is always and everywhere a cultural process [...] [that is] not only [...] organized through consumption practices but also in some sense [derived] from them”. The reason for its socio-cultural embeddedness is that alimentation does not happen isolated on an individual level, but contains multi-dimensional socio-cultural meanings and functions and is integrated in interactions with other people (Brunner 2007a, p. 20; Brunner 2008, p. 281; tab. 5). As a result, alimentation can be understood as a socio-cultural practice (Antoni-Komar 2006, p. 66). This becomes even more obvious by analysing the characteristics of alimentation in terms of institutionalisation, symbols, semantics and myths as well as time, place and social space (Methfessel 2005, pp. 11ff.).

Institutionalisation of alimentation describes routines and structures that direct the individual and collective practices (e.g. using a napkin instead of the sleeve) and after a while, become customs, morals, values and norms (Teuteberg 1979, p. 278; Methfessel 2005, p. 11). Symbols, semantics and myths are concerned with the several inherent meanings and functions of food, which are in general prestige (self-distinction from others), status (socio-cultural identification within groups), fetish and safety (creation of emotional safety and implication of a magic-religious meaning), hedonistic (generation of sensual pleasure through taste, appearance and smell) as well as solely functional

(keeping the metabolism working and the body healthy) (Teuteberg 1979, pp. 169f.). Every food and dish and the way it is selected, prepared, presented and eaten embeds its own symbolic meaning within a certain group of people (Barthes 1982, pp. 65ff.). Being or becoming a member of a group of people means that through a more or less automatic process of socialisation (experiencing this group's customs, behaviours and expectations by eating and drinking with them), the characteristics of this group's alimentary practices will be adopted (Prah/Seitzwein 1999, pp. 122ff.). Within groups of people, food is used to "[...] register and label social boundaries [...] within and between social groups, where intra-group differences of social status, age, gender and more [...] are reflected in and reinforced conventions identifying dishes or foodways deemed appropriate. [...] Contact with another group, however, may well sensitise people to what previously went unnoticed, sharpening alertness to difference" (Murcott 2003, p. 38).

Time, place and social space determine if a food or meal should be eaten (Methfessel 2005, p. 16). Time in the meaning of the structure of meals related to, for example, one meal (starter, main meal, desert), one day (breakfast, lunch, dinner), one year (availability of food in terms of seasonality) or a specific life-situation (e.g. childhood) (Methfessel 2005, p. 17). Places (e.g. marshmallows for campfire), social situations (e.g. turkey for thanksgiving) and social spaces (e.g. curried sausage and fries for construction workers) are influencing alimentation in addition to time (Methfessel 2005, p. 17).

2.3.2 *The theory of alimentary practices*

As alimentation is dominated by socio-cultural factors, it is necessary to use a socio-cultural approach to analyse and evaluate alimentary practices and to be able to make recommendations that enhance changes. Furthermore, as South Africa consists of several different ethnicities and even more cultures and is culturally dynamic due to a continuous differentiation as well as merger of these cultures³⁹, an approach that is only theoretically based and therefore, mainly dealing with past knowledge and a static view on cultures is not adequate to deal with South Africa's specific cultural situation which is highly characterised by changes⁴⁰.

Depending on the specific research question and the researchers understanding of culture, there exist various different approaches to study the socio-cultural embeddedness of alimentation (Hüsken 2006, p. 119). Within the cultural sciences, it is still discussed whether alimentation should be researched from a structural-semiotic (holistic like collectively shared symbols and codes) or a hermeneutic-interpretative point of view (subject-oriented like the interpretation of individual actions) and whether it should be oriented towards discourses or practices (Reckwitz 2004b, p. 3).

³⁹ These reasons will be described in chapter 3 part 3.1.

⁴⁰ This also leads to the need for continuously carried out investigations because the cultural situation in South Africa (and therefore, the alimentary practices) is continuously changing. Accordingly, recommendations and promotion mechanisms also have to be reworked continuously.

Approaches that do not regard alimentation as a practice range from, for example, the concept of homo oeconomicus to homo sociologicus and from mentalistic to textualistic theories of culture⁴¹ (Reckwitz 2004a, p. 42). The concepts of homo oeconomicus and homo sociologicus are insufficient as they solely focus on rational (choice) theory (e.g. highly processed food is preferred over organic food as it is cheaper) and hence, imply lots of contradictions (e.g. hybrid consumption⁴² or different valuation of food products) (Reckwitz 2004a, p. 42; Pfriem 2006, p. 41; Antoni-Komar/Pfriem 2009, p. 41). The mentalistic concepts focus solely on a persons' internal behaviour and the textualistic concepts are only dealing with external signs, symbols, communicative processes and texts, so both concepts do not adequately account for the interaction of the individual and the group as well as the dynamics of alimentary processes (Reckwitz 2004a, pp. 41f.).

A different approach of understanding cultural manifestations is that of social practices. This approach has become popular within the social sciences over the past twenty years, describes observably social practices and analyses the indiscernible cultural drivers of these practices while at the same time accounting for cultural changes (Reckwitz 2003, p. 282; Hörning/Reuter 2004, pp. 9f.; Hüsken 2006, p. 120). The advantage of a social practice approach lies in the illustration of the interconnection between individuals and their cultural system and structures (Hüsken 2006, pp. 120, 122).

Actual alimentary practices have only seldom been studied so far as there was a focus on normative appeals that tried to change consumer behaviours by educating them about the negative effects of consumption in general (Empacher/Hayn 2005, p. 222; Brunner 2007a, p. 10). These appeals assumed that an increased knowledge about sustainability issues on the consumer side would automatically lead to appropriate actions, so they focused on sustainability education (Haan/Kuckartz 1996, p. 104; Glahe 2005, p. 22). Research could prove the fact that knowledge is a necessary, but not sufficient condition to enhance corresponding actions and that although consumers are aware of sustainability issues and want to change their behaviours, they often do not (Schahn 1993, p. 33; Haan/Kuckartz 1996, pp. 104ff.; Gestring et al. 1997, p. 137; Glahe 2005, p. 22). This is due to the fact that people cannot identify with postulated changes if these conflict with the multidimensional meanings and functions that shape their actual practices (Brunner 2008, p. 281). In fact, it is a consumer's specific alimentary practice that determines the way he or she reacts to the postulated and generated knowledge (Bottenberg 1996, p. 70ff.; Rosenstiel/Neumann 1997, pp. 73ff.). So as the normative appeals neglected to consider the actual alimentary practices, they could influence the knowledge of many consumers, but in most cases not their actual consumption patterns (Federal Environmental Agency UBA 2003, pp. 30ff.; Brunner 2007a, p. 10). That is why an approach that focuses on consumer practices is needed

⁴¹ A detailed analysis of the different approaches is not possible within this thesis's scope. For a more detailed analysis of the different approaches see Reckwitz (2004a).

⁴² Hybrid consumption means that a consumer buys cheap (mainly no-name products) as well as high-quality products (mainly branded products) (Dahlem/Lönneker 2005, pp. 62f.).

instead of an approach that is solely geared to consumers' knowledge (Schahn 1993, p. 33; Brunner 2008, p. 282).

There are various approaches to the theory of social practices which differ more or less conceptually (Reckwitz 2004a, p. 40)⁴³. Some regard routines and reproductivity as being resistant towards changes (Bourdieu, e.g. 1979, 1987 or 1989), others emphasise on the unpredictability and openness of routines and reproductivity towards change (Butler, e.g. 1991, 1997 or 2001) (Reckwitz 2004a, p. 41). This thesis considers social practices as a dynamic process that is influenced by several framework conditions like hybridity, contingency and translocality and therefore, tends to subscribe to scientist opinions that postulate the openness of practices. This is why within this thesis and its specific focus on alimentation, the approach of alimentary practices as described by Antoni-Komar (2006; fig. 3) is used in order to analyse and evaluate alimentation and its changeability on the consumer level and to interpret alimentary actions and meanings on the basis of framework conditions like gender relations or health-related alimentary trends.

The theory of alimentary practices is not primarily about the reproduction of culturally based knowledge or a recorded culture that is incorporated in form of routines and is based on, for example, rituals, artefacts, written documents or symbolic codes (Antoni-Komar/Pfriem 2009, p. 42; fig. 3). Alimentary practices deal mainly with the performance (creation, utilisation and transformation) of new knowledge through competences (doing knowledge or doing culture) (Hörning/Reuter 2004, pp. 9f.; Antoni-Komar 2006, p. 68; Antoni-Komar/Pfriem 2009, p. 42; fig. 3). In this sense, 'doing culture' means that alimentary consumption and production processes are based on practical knowledge that is continuously recognised and reflected and, as a response to that, innovatively and creatively reconfigured so as to cope with new circumstances, interpretations, failures or conflicts (Schumpeter 1947; Reckwitz 2003, pp. 294, 319f.; Antoni-Komar 2006, p. 68).

The alimentary practice theory focuses on the collective level and considers individual practices as part of a collective complex of actions (Antoni-Komar 2006, p. 68). By collectively reproducing and transforming culturally based knowledge within a specific group of people, a cultural identity is created (Kittler/Sucher 2003, p. 4; Antoni-Komar 2008, p. 87; Brunner 2008, p. 280). "What one eats defines who one is, culturally speaking and, conversely, who one is not" (Kittler/Sucher 2003, p. 4)⁴⁴. As

⁴³ Examples are Harold Garfinkel's ethnomethodology, Pierre Bourdieu's theory of practice, Wittgenstein's philosophy of languages, Michel de Certeau's analysis on the practice of everyday life, Foucault's practices of the self, Anthony Giddens's structuration theory, Judith Butler's theory of social transformation or Bruno Latour's science studies (Reckwitz 2004a, p. 40). Due to the limited scope of this thesis, these concepts cannot be described in detail. For further analysis see Reckwitz (2004a).

⁴⁴ For example, Jews and Muslims generally do not eat pork, whereas Roman Catholics and Orthodox Christians mostly do (Kittler/Sucher 2003, p. 4). Furthermore, "Raviolis served with roast turkey suggest an Italian American family celebrating Thanksgiving, not a Mexican American family, who would be more likely [...] dine on tamales and turkey" (Kittler/Sucher 2003, p. 4). Another example are African Americans who often eat soul food (mainly pork ribs and greens) just to demonstrate their ethnic solidarity with their ancestors from the South (Kittler/Sucher 2003, p. 4).

the theory of alimentary practices includes all aspects of alimentation, the cultural identity is not only created by ‘what’ one eats, but also by ‘how’ one selects, prepares and eats the food (including time, place and social space) (Kittler/Sucher 2003, p. 4).

The theory of alimentary practices aims to describe how practices emerge against the background of framework conditions like hybridity, contingency and translocality (Antoni-Komar 2006, pp. 58, 65; fig. 3). Contingency means that practical knowledge does not derive from an invariable and fixed set of facts and solutions, but that it is implicit knowledge that is creatively and exploratively generated in relation to the specific circumstances and requirements (Antoni-Komar 2006, pp. 69f.). Contingency emphasises the dynamic that is inherent to culture and hence, to alimentary practices. A specific characteristic of contingency is hybridity in forms of inconsistencies, dissents and ambiguities (Antoni-Komar 2006, p. 70). The translocality of cultural processes derives from the clash and interaction of different cultures in a global and local context and the resulting merger of cultures in various situations (e.g. business interactions, travels, conferences or policies) (Antoni-Komar 2006, p. 71). This is why in today’s globalised systems, ‘doing culture’ becomes ‘doing mixed culture’ (Reuter 2004, pp. 241f.).

The theory of alimentary practices accounts for the interdependent and recursive interactions between the demand and supply side and integrates all processes and actors along the food chain “[...] starting with cultivation and production, through distribution and procurement, up to and including the preparation and consumption of comestibles” (Antoni-Komar/Pfriem 2009, p. 41). Analysing and evaluating alimentary practices on the consumer level also implies to take into account how other actors along the food chain are directly and indirectly influencing consumers’ practices (Portman 2003, p. 95). The meanings and barriers that are produced by these interactions and often require reading between the lines can be analysed by considering the alimentary categories, alimentary formations and culinary atmospheres which are created recursively and interdependently along the food chain (Antoni-Komar 2006, p. 73; fig. 3).

Alimentary categories mainly focus on corporeality and gender (doing gender) and on how these are socially designed, (re-)produced, conveyed and stabilised through alimentary practices and discourses like diets or the consumption of light and fast foods (Setzwein 2004, pp. 260ff.; Antoni-Komar 2006, pp. 75ff.; fig. 3). In this sense, corporeality and gender are not mainly concerned with the natural characteristics a person is born with (e.g. sex, height, skin colour), but with the characteristics a person adopts and creates in interaction with the discourses of its social environment (e.g. weight management, plastic surgeries, culturally evolved female versus male roles⁴⁵) (West/Zimmermann 1987, p. 137; Antoni-Komar 2006, pp. 78f.).

Alimentary formations are concerned with alimentary models and orientations and how these are structured by a certain sensibility (Grossberg 1999, pp. 217f.; Antoni-

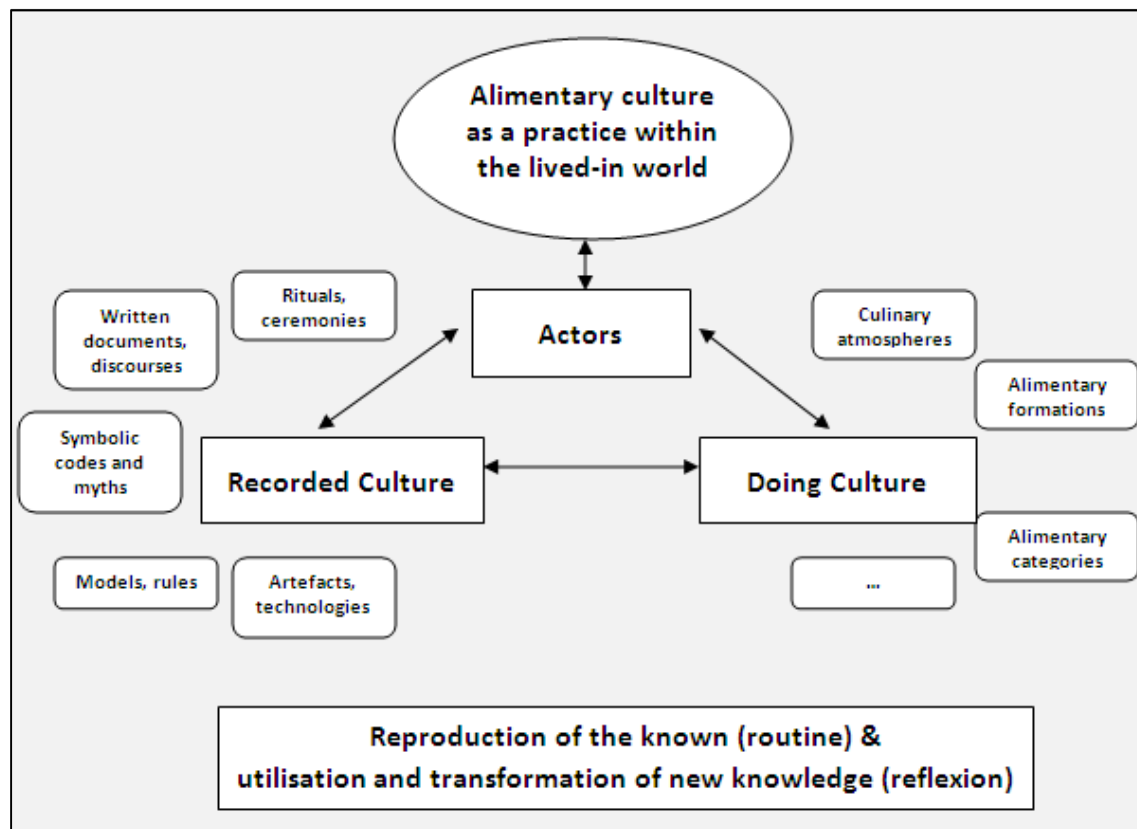
⁴⁵ An example for this is the dominant role men have at barbecuing and the way they are handling it as a public leisure activity and in contrast to that, the dominant role women have within everyday cooking in non-public scenery at home (Setzwein 2004, pp. 59f.). Furthermore, men tend to be seen as masculine when they eat bloody steaks whilst people would have a strange impression about women that like eating those foods (Methfessel 2004, p. 33).

Komar 2006, p. 83; fig. 3)⁴⁶. At a certain point of time, certain groups of people which share alimentary practices with a similar sensibility lead to the creation of an alimentary formation (Grossberg 1999, pp. 217f.). One can also say that alimentary practices rigidify themselves within alimentary formations for a certain period of time (Grossberg 1999, pp. 217f.). An alimentary formation goes beyond a trend as it is a fundamental and holistic orientation, like orienting nearly all alimentary practices towards sustainability. Contrary to that, a trend mostly only covers certain aspects of sustainability, like buying organic food, and is valid for a shorter period of time as it is not as intrinsic as a formation. Figuring out and understanding the drivers or rather sensibilities that lie behind and actually produce a certain formation can greatly assist in the promotion of changes of alimentary practices towards sustainable development (Antoni-Komar 2006, p. 84).

Culinary atmospheres deal with the emotional and sensual level of alimentation that is created and generated at all stages of food production and consumption – particularly through design, marketing, packaging and composition (Setzwein 2004, pp. 323-340; Antoni-Komar 2006, pp. 86f.; fig. 3). Culinary atmospheres are subjectively produced realities as a result of a physical and mental conversion of alimentary aspects with all senses, from both the consumer (e.g. preparation of a dish) as well as the producer perspective (e.g. interior design of sales rooms) (Antoni-Komar 2006, pp. 86f.). Through culinary atmospheres the realities of different actors get connected so that an indirect communication takes place. For example, the packaging of a food product is created by the reality of the food producing company and aims to evoke specific feelings and reactions on the consumer side, whilst the consumer assimilates the signals, senses them in the context of the surrounding place, social space and time and interprets them by creating his or her own reality of the culinary atmosphere.

⁴⁶ Alimentary formations are a contrary approach to the milieu categorisation, as milieus group people on the basis of value orientations and lack the consideration of actual practices.

Figure 3: Alimentary culture as a social practice



Source: Antoni-Komar 2006 cit. in Antoni-Komar 2008, p. 46; own translation from German to English

In order to study the alimentary practices of consumers, it is necessary to investigate into people's everyday life and to highlight how they are actually 'doing' culture. The theory of alimentary practices is highly suitable to point out currently existing practices on the basis of, for example, contingency, hybridity, translocality, culinary atmospheres as well as alimentary formations and categories. Nevertheless, although it is one of its aims, this theory is limited with regard to the illustration of the dynamics of alimentary practices in terms of their changeability. This thesis does not only aim to point out the extent to which the current alimentary practices of the investigated households follow Sustainable Alimentation, but also wants to identify the changeability of these households relating to the adoption of a Sustainable Alimentation in the future. Hence, it is necessary to partly expand the theory of alimentary practices using a concept that enables to account for dynamic changes. Rogers' concept on the diffusion⁴⁷ of

⁴⁷ Diffusion is an adoption process as a reaction to the "[...] recognition of a need or problem, [to] research, development, and commercialization of an innovation [and it follows the] recognition of a need or problem, [...] research, development, and commercialization of an innovation" (Rogers 2003, p. 166). Roger's concept is based on four characteristics: 1. The innovation, 2. communication and information channels, 3. the time of diffusion and 4. the social system in which the innovation takes place (Rogers 2003, p. 11).

innovation⁴⁸ is highly suitable as it enables to point out “[...] the process by which an innovation is communicated through certain channels over time among the members of a social system⁴⁹” (Rogers 2003, p. 5)⁵⁰. Furthermore, this concept takes into account the status of diffusion, the innovativeness⁵¹ of individuals as well as commonly used information and communication channels⁵² including external actors (so called opinion leaders⁵³ and change agencies) that are driving the diffusion process. According to Rogers (2003, p. xviii) “the diffusion of innovations explains social change, one of the most fundamental of human processes”. Partly expanding the theory of alimentary practices with the diffusion concept makes it possible to point out drivers and barriers for the implementation of Sustainable Alimentation with a focus on the diffusion stage and the changeability of consumers. Such a change-oriented approach is even more relevant as South Africa is highly characterised by drastically changed and changing cultures and cultural practices.

Within this thesis, Rogers’ diffusion concept is not used as a single approach, but only as a slight expansion of the theory of alimentary practices in a way that aspects like the diffusion stage of Sustainable Alimentation, the innovativeness of the consumers as well as their commonly used communication channels will be investigated simultaneously with other aspects of the theory of alimentary practices. Further information on the diffusion of innovations is – where appropriate – only described within the discussion part (part 6 in part IV) as this thesis just marginally deals with Rogers’ diffusion concept.

2.4 Sustainable Alimentation: A synthesis

Having explored ‘what’, ‘how’ and ‘how much’ to eat and ‘how to investigate’ into consumers’ alimentary practices, a short synthesis and interpretation of the information described will be given in order to point out specific characteristics that determine to what extent a person’s alimentary practice can be considered sustainable or able to change (tab. 6). This synthesis is not so much focused on creating a theoretical construct of Sustainable Alimentation as this has been done in the previous parts. The synthesis rather aims to point out features of Sustainable Alimentation which built up on this

⁴⁸ Rogers (1983, p. 11) defines innovation as “[...] an idea, practice, or object that is perceived as new by an individual or other unit of adoption”. In this case, sustainable alimentation is the innovation.

⁴⁹ “A social system is defined as a set of interrelated units that are engaged in joint problem solving to accomplish a common goal” (Rogers 1983, p. 24).

⁵⁰ Due to the limited means and scope of this thesis, diffusion theory cannot be described in detail. For further information, see Rogers (2003).

⁵¹ Innovativeness is defined by Rogers (2003, p. 22) as “[...] the degree to which an individual or other unit of adoption is relatively earlier in adopting new ideas than the other members of a system.”

⁵² Communication is “[...] the process by which participants create and share information with one another in order to reach a mutual understanding” (Rogers 2003, p. 18).

⁵³ Opinion leaders usually are cosmopolite, innovative and have a “[...] higher socioeconomic status, more education, and greater [subject-specific] expertise” (Rogers 2003, p. 362).

theoretical framework, but are oriented towards a practical (empirical) investigation. This is also the reason why these synthesised features of Sustainable Alimentation serve directly as categories and variables used for the analysis in chapter 4, 5 and 6.

First of all, one should analyse what the consumers are actually eating, what they know about the characteristics of Sustainable Alimentation and to what extent their present alimentary practices can be considered sustainable and moreover, which external factors may hamper Sustainable Alimentation. This analysis is necessary in order to gain information on the congruence of consumers' practices with Sustainable Alimentation and to point out where needs for change exist, but also to show in which ways these alimentary practices are already quite sustainable and need to be maintained and further supported. The analysis also aims to point out practices that cannot be changed by the consumers as they are caused by externally produced barriers (e.g. availability problems). Afterwards, it needs to be analysed how the consumers' alimentary practices are organised from a socio-cultural point of view. The aim of this analysis is to find out how specific socio-cultural aspects of the consumers' alimentary practices (e.g. routines, models or gender roles) could influence the diffusion chances for and the implementation of an innovative approach, in this case that of Sustainable Alimentation.

On the basis of knowing what the consumers are practicing and how they practice it, it is possible to discuss results, make recommendations and draw conclusions (mainly in the form of hypotheses) about the current congruence of consumers' practices with Sustainable Alimentation, external barriers as well as the socio-cultural factors influencing the changeability of consumers' practices towards Sustainable Alimentation. These conclusions allow for making specific recommendations about the factors that have to be taken into special consideration when planning and implementing promotion mechanisms for Sustainable Alimentation on the consumer level.

Table 6: Analysis categories, variables, theoretical approaches and related questions for an investigation of alimentary practices on the consumer level with a focus on Sustainable Alimentation

Analysis Category	Theoretical Approach	Analysis Variable	Main Underlying Questions
Congruence of consumers' practices with Sustainable Alimentation	Wholefood alimentation	Plant-based food	<ul style="list-style-type: none"> - How often do the consumers eat raw vegetables and fruits, meat, fish, eggs and dairy products? - Which external factors are impeding the consumers to prefer plant-based foods?
		Minimally processed food	<ul style="list-style-type: none"> - What do the consumers know about minimally processed foods? - To what extend and why are the consumers consuming minimally processed foods and which factors are they considering? - Which external factors are impeding the consumers to know about and to consume minimally processed foods?
		Organic food	<ul style="list-style-type: none"> - What do the consumers know about organic food? - To what extend and why are the consumers consuming organic food? - Which external factors are impeding the consumers to know about and to consume organic food?
		Regional and seasonal food	<ul style="list-style-type: none"> - What do the consumers know about regional and seasonal food? - To what extend and why are the consumers consuming regional and seasonal food? - Which external factors are impeding the consumers to know about and to consume regional and seasonal food?
		Foods that have an environmentally sound packaging	<ul style="list-style-type: none"> - What do the consumers know about an environmentally sound packaging of food? - To what extend and why are the consumers considering an environmentally sound packaging when selecting food? - Which external factors are impeding the consumers to know about and to buy food that has an environmentally sound packaging?
		Fair trade food	<ul style="list-style-type: none"> - What do the consumers know about fair-trade food? - To what extend and why are the consumers consuming fair-trade food? - Which external factors are impeding the consumers to know about and to consume fair-trade food?
	Post-growth economics/ Wholefood alimentation	Cutting down, enjoyment and easy digestibility	<ul style="list-style-type: none"> - What role does enjoyment of food play? - What role does an easy digestibility of food play and in which way? - Which criteria are important for the selection of food? - Which importance do food quality and brands have? - Which importance does food quantity has?

Analysis Category	Theoretical Approach	Analysis Variable	Main Underlying Questions
Congruence of consumers' practices with Sustainable Alimentation	Post-growth economics	Slowing down and socialising	<ul style="list-style-type: none"> - How often do the consumers cook warm meals? - Which factors of socialising and time are important to the consumers in regard to alimentation? - How often do the consumers dine out, buy meals externally or consume ready-made foods and for which reasons?
		Less commercialisation and globalisation	<ul style="list-style-type: none"> - How often do the consumers use external supplies (e.g. supermarkets) to satisfy their alimentary needs? - How often and in which ways are the consumers (or consumer groups) supplying themselves with food? - Which external factors are impeding the consumers to supply themselves locally?
		Unbundling and purchase channels	<ul style="list-style-type: none"> - Which purchase channels are used by the consumers to supply themselves with food? - To what extent and why are regional economies and non-commercial networks used by the consumers to supply themselves? - Which external factors are impeding the consumers to use regional supply systems?
Changeability of consumers' practices towards Sustainable Alimentation	Alimentary practices/ Diffusion of innovations	Knowledge about and persuasion of Sustainable Alimentation (Diffusion stage of Sustainable Alimentation)	<ul style="list-style-type: none"> - (What) do the consumers know about or associate with the concept of sustainable development? - (What) do the consumers know about or associate with Sustainable Alimentation? - Do sustainability issues play a role for the selection and preparation of food?
		(Socio-cultural) peculiarities	<ul style="list-style-type: none"> - Which (socio-cultural) peculiarities do exist relating to typical dishes and foods, especially considering differences between weekdays and special occasions?
		Alimentary formations	<ul style="list-style-type: none"> - Which alimentary models or orientations are existent among the consumers? - Which alimentary sensibilities are existent among the consumers relating to established or developing formations? - Which drivers and barriers for Sustainable Alimentation result from the alimentary formations? - Which alimentary disaffirmations do exist?
		Alimentary categories	<ul style="list-style-type: none"> - How are aspects of corporeality in regard to the consumers and their cultures related to alimentary practices? - How are aspects of gender in regard to the consumers and their cultures related to alimentary practices? - Which other alimentary categories do exist? - Which drivers and barriers for Sustainable Alimentation result from the alimentary categories?

Analysis Category	Theoretical Approach	Analysis Variable	Main Underlying Questions
Changeability of consumers' practices towards Sustainable Alimentation	Alimentary practices/ Diffusion of innovations	Culinary atmospheres	<ul style="list-style-type: none"> - How and in which places do the consumers perceive other actors of the food chain and their goods and services? - Which intensions do other actors of the food chain have in regard to their goods and services? - Which drivers and barriers for Sustainable Alimentation result from the created and perceived culinary atmospheres?
		Routines and innovativeness	<ul style="list-style-type: none"> - To what extend and why are the alimentary practices of the consumers traditional or modern? - To what extend and why do the consumers stick to routines, customs, knowledge, recipes and brands and which cultural influences do exist? - How open-minded (level of innovativeness) are the consumers towards new recipes, brands and procedures? - In which ways has the consumer's alimentation changed within the last years and for which reasons?
		Communication and information channels	<ul style="list-style-type: none"> - Which communication and information channels are commonly used by the consumers to gain knowledge on alimentation? - Which are the most important topics for the consumers when informing themselves? - How critical do the consumers handle the information? - Which opinion leaders and change agents are perceived and used by the consumers regarding Sustainable Alimentation?

Source: Own

Chapter 3

Research objects:

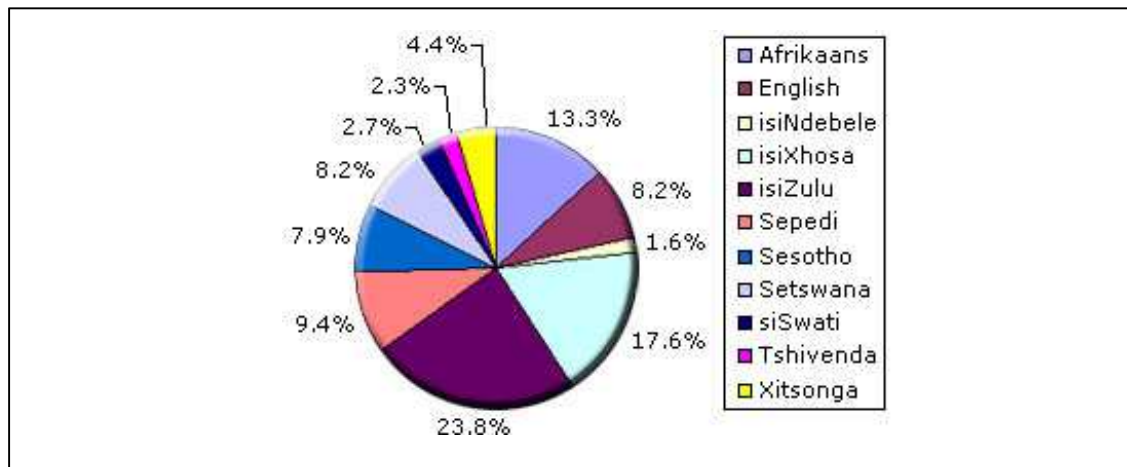
Urban middle-class households in South Africa

3.1 Multiculturalism in South Africa: Cultural intermingling and differentiation

South Africa is located in the most southern part of Africa, shares borders with Namibia, the Republic of Botswana, Zimbabwe and Mozambique as well as the Kingdom of Swaziland and Lesotho, and covers a surface area of 1,223,201 square kilometres (Abdi 2002, p. vii). South Africa's population is made up by more than 47 Million people from diverse origins, cultures and beliefs and eleven officially recognised languages make it a multilingual country (South Africa Info Reporter 2007, n. p.; fig. 4). Nine of the eleven languages are of African origin “[...] reflecting a variety of ethnic groupings which nonetheless have a great deal in common in terms of background, culture and descent” (South Africa Info Reporter 2007, n. p.).

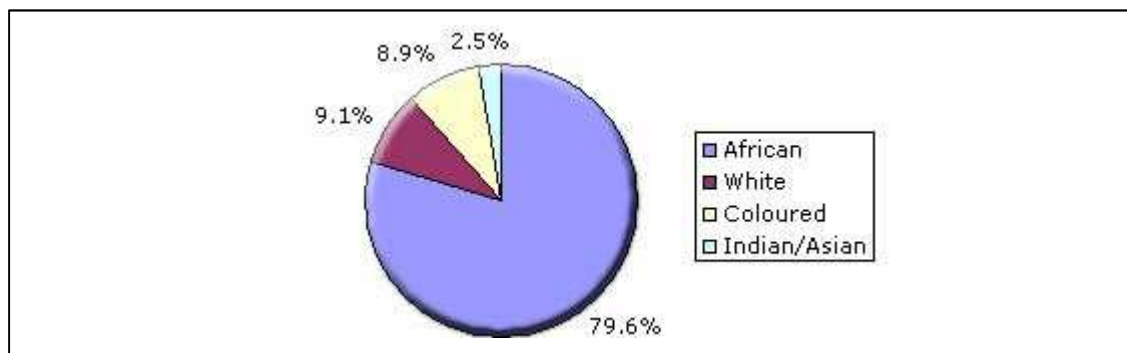
South Africa's population is made up of around 38 Million black Africans (79.6%), 4.3 Million Whites (9.1%), 4.2 Million Coloureds (8.9%) and 1.2 Million Indians/Asians (2.5%) (South Africa Info Reporter 2007, n. p.; fig. 5). Two thirds of these 47 Million South Africans are Christian (Protestant) (South Africa Info Reporter 2007, n. p.). The mentioned categories (Black, White, Coloured, Indian/Asian) are not culturally homogenous, but extremely diverse within themselves (South Africa Info Reporter 2007, n. p.). For example, from a linguistic point of view the Whites can be further divided into Afrikaners and English-speaking people (South Africa Info Reporter 2007, n. p.). Consequently, it is not surprising that South Africa is known as one of the most racially and ethnically complex societies in the world and is also called the ‘Rainbow Nation’ or ‘one world in one country’ (Mayer/Boness 2003, p. 182; Afolayan 2004, p. 9; Burghardt und Schmeisser 2008, p. 28). “With its intersecting races, peoples, and cultures, South Africa is a crossroad of many culinary traditions, dressing styles, and customs” (Afolayan 2004, p. 155).

Figure 4: South Africa's population by language



Source: South Africa Info Reporter 2007, n. p.

Figure 5: South Africa's population by race



Source: South Africa Info Reporter 2007, n. p.

Today's multiculturalism in South Africa has a long and specific history based on settler domination, European colonialism, apartheid and related occurrences like "[...] slavery, forced labor, and incessant human and land exploitation, which were all culminating in tangibly present and emotionally perceptible but "chronically" disturbing schemes of racial oppression and subjugation" (Abdi 2002, p. viii). Past multiculturalism in South Africa was characterised by the way of thinking and acting like "[...] different cultures were to coexist in the country separated, unequal, and with the dominant culture promoted and morally elevated at the expense of "lesser" cultures " (Abdi 2002, p. 76). The main reason for this situation was that for nearly 500 years – beginning with the first European settlers (Portuguese, Dutch, English, French, Spaniards, Italians and Germans) in the 17th century and continuing with the import of slaves (from Africa and Asia) – cultural clashes and transfers have been typical for South Africa (Mayer/Boness 2003, pp. 179, 200). This also included that „racial differences have been important in South Africa ever since the first European set foot in the country" (Vestergaard 2001, p. 20).

Through the former apartheid regime, the white Afrikaners tried to separate the different ethnic groups from each other. This ‘Afrikanerdom’ aggravation of racism included ethnic principles stating that only white Afrikaners were “[...] genuine, distinct people with their own Volksgeist [...], called by god to fulfil its destiny as Christians, as a civilization [...]” (Vestergaard 2001, p. 20) and hence, Christian nationalist values and morals dominated. Although racial differences have been prevalent for hundreds of years, the apartheid regime is considered to have started after the National Party (NP) won the elections in 1948 (Henrard 2002, p. 18). Under apartheid, the regime began to divide South Africans into four groups with a privilege-oriented hierarchy as follows: Whites, Coloureds, Indians/Asians and Blacks (Burghardt/Schmeisser 2008, p. 28). The general distinction between these four groups still exists nowadays, but is not meant to have any privilege-oriented or racist implications anymore. ‘Divide and rule’ was focal to the apartheid policies and its aim was to divide “[...] the non-white population along racial and even ethnic lines” (Henrard 2002, p. 19) and to privilege the Whites and disempower the Blacks. Dividing people in terms of their visual appearance and their ethnicity has mostly hampered a merger of cultures during apartheid⁵⁴.

At the end of the apartheid regime in 1994, the aim was to reinvent South Africa as a democracy and so the puritanical credo was replaced by liberal democratic values, e.g. “[...] the easing of censorship, the legalisation of abortion, the abolition of the death penalty, and protective laws regarding sexual orientation [...], the abolition of different types of discrimination, the freedom of religion, [...] expression [and] association” (Vestergaard 2001, p. 22). The theme of the reigning new African National Congress (ANC) regime is ‘Unity in Diversity’ (Henrard 2002, p. 33). So after separating ethnic groups and their cultures from each other for decades, the current post-apartheid regime tries to unite cultures and further cultural exchange, but also aims to forward an acceptance and preservation of cultural peculiarities. Especially in the urban areas, the former cultures are intermingling and new (sub-)cultures emerge (Burghardt/Schmeisser 2008, p. 31). Still, South Africa is in a stage of reconciliation about the racist occurrences in the past and a cleft between white and black South Africans is still felt (Mayer/Boness 2003, pp. 182f.). But compared to the beginnings of the European settlement and the apartheid regime, cultures have intermingled to a point where it is impossible to divide them in terms of ethnicity or visual nature (Mayer/Boness 2003, pp. 182f.). It has to be taken into account that traditional African ethnicities, like the Xhosa, have westernised rather than the western ethnicities, like the English or the Afrikaners, have adapted to traditional African cultures (Mayer/Boness 2003, pp. 182f.). According to Fadiman (2000, p. 79), black South Africans have developed a chameleon strategy which is based on the theme ‘black hearts and white skins’ in order to adapt to the western cultures and enjoy their lifestyles, but still keep traditional values. “[...] Each urban Black finds him/herself somewhere on a cultural spectrum stretching from the rural (“traditional”) culture to complete Westerners” (Pauw 1994, p. 133). On the other hand, white South Africans try to preserve their cultural identity as well which is – especially within South Africa’s post-apartheid regime – mostly due to the fact that they

⁵⁴ Due to the limited scope of this thesis, a more detailed description of (post) apartheid cannot be given. For further information see, for example, Cloete (1992), Giliomee (2003), Pabst (2008).

represent a minority in terms of policies and population size (Mayer/Boness 2003, p. 183).

3.2 Consumption, alimentation and sustainability

3.2.1 South Africa in general

Although the World Bank classifies South Africa as an upper middle-income country, consumption around South Africa is highly imbalanced and the country has the highest rate of income inequality in the world (Ngobese/Cock 1995, p. 274; Altman et al. 2009, p. 345; Steinbrink 2009, p. 149). Reasons for this are that on the one hand, many South Africans live in the upper-classes and are over-consuming goods and services, and on the other hand, still a lot of South Africans belong to the lower-classes without being able to live a real consumerist lifestyle (Ngobese/Cock 1995, p. 274). The upper-class makes up only 7% of the South African society, but accounts for 40% of the annual income (Steinbrink 2009, p. 149). In contrast, the lower-class makes up 50% of the South African Society, but accounts for only 11% of the income (Steinbrink 2009, p. 149). In the Eastern Cape, this income inequality is even higher⁵⁵ because it contains former homelands (Leibbrandt et al. 2004, p. 111). Nevertheless, South Africa is exposed to global alimentary trends and the middle-class is growing, especially in the urban regions, and accordingly, more people are joining the system of (over-)consumption with its negative impacts.

Almost all literature on alimentation in South Africa has got a medical natural sciences perspective or deals with food security. To name a few, publications about medical aspects of alimentation in South Africa are those by Vorster (e.g. Gibney/Vorster 2000), MacIntyre (e.g. MacIntyre et al. 2002), Steyn (e.g. Steyn et al. 2003) or Kruger (e.g. Kruger et al. 2004). Common topics deal with obesity, overweight, malnutrition or food insecurity. Some recent publications also try to integrate a socio-cultural perspective to medical research, like socio-cultural barriers for the implementation of dietary guidelines (Love et al. 2008), images about body and weight (Mciza et al. 2005), the challenges for government and health professionals resulting from obesity (Kruger et al. 2005) or nutrition knowledge among urban South Africans (Peltzer 2004). Nevertheless, studies and publications on aspects of the theoretical approach on Sustainable Alimentation as described in part 2 have not been included in studies so far. Although there is a lack of literature on socio-cultural issues relating to the sustainability of alimentary patterns within South Africa, some basic research findings can highlight the actual state and allow for some interpretations. In general, one can say that alimentary patterns within South Africa seem to become unsustainable as income levels rise and alimentary trends as well as western lifestyles take over.

“South Africa is a country undergoing epidemiological transition, with communities adopting unhealthy lifestyles” (Peltzer 2004, p. 24). Such unhealthy lifestyles are

⁵⁵ In 2001, 14% of the South African society lived in the Eastern Cape, but only accounted for 8% of the overall South African income (Leibbrandt 2004, p. 111).

characterised by, for example, “[...] smoking tobacco products, being physically inactive and consuming a typical westernised diet [...]” (Peltzer 2004, p. 24) which will lead to widespread chronic diseases including hypertension, diabetes or hyperlipidaemia. South Africa is facing both under- and over-nutrition, including more than half of all females being overweight or obese (Faber/Wenhold 2007, p. 393). Obesity has become very common among all South African ethnicities, whereas black women are more vulnerable (Vorster et al. 1997, p. 32). But still, food insecurity is an important issue for many citizens, especially in the rural areas as there are distributional and accessibility deficits (Altman et al. 2009, p. 345). Nevertheless, South Africa is considered a food secure country (Altman et al. 2009, p. 345).

Information of changed food consumption patterns in South Africa has been published by the Department of Agriculture, Forestry and Fisheries (DAFF). The DAFF (2010, p. 17) compared the first quarter of the year 2010 to the fourth quarter of the year 2007, and as a summary, it can be pointed out that especially the expenditures on meat (+35%), bread and grain (+20%), oils and fats (+22%), potatoes (+34%) as well as coffee and tea (+23%) have increased. Higher prices of these food products may explain partly why the expenditures have increased as much. Nevertheless, a consumption trend towards more meat is obvious and also counter-productive in terms of sustainable development.

Within a study on the estimation of food demand patterns in South Africa, Agbola (2003, p. 663) found that meat, fish and grains are luxury products, whereas dairy products, fruits, vegetables and other foods are basic products that represent necessities in the household’s diet. He also found that an increase in household income is likely to cause a rise of expenditures on meat, fish and grain and a decline of the consumption of dairy products, fruits, vegetables and other food (Agbola 2003, p. 663). According to the principles of wholefood alimentation, this fact has to be seen as counter-productive in terms of sustainable development. Furthermore, demographic characteristics of age, race and gender of the household head as well as urbanisation and family size are influencing food consumption (Agbola 2003, p. 663). Agbola (2003, p. 668) found that the more educated the household head is, the higher is the household’s consumption of meat, fish, dairy products and fruits and the lower the consumption of grains, vegetables and other food. According to gender analysis, “male-headed households are likely to consume more of grains and vegetables and less of dairy products than female-headed households” (Agbola 2003, p. 668), whereas the consumption of meat, fish, fruits and other food is not influenced by the gender of the household head. Moreover, in comparison to families of small size, large families are more likely to consume grains, dairy products and other food, but less meat, fish and fruits (Agbola 2003, p. 668). With a focus on ethnicity, Agbola (2003, p. 668) also found that in comparison to black households, white households greater tend to consume less grains and other food, but more fish, meat, dairy products, fruits and vegetables.

3.2.2 *Traditional African: The Xhosa*

There is a lack of scientific publications about alimentary peculiarities and the dietary status of the Xhosa. Most of the literature is only focussing on black South Africans in general. The following description of black South Africans can partly be seen as appropriate to reflect cultural peculiarities, alimentary implications and the dietary status of the Xhosa as they are the second largest group of black people in South Africa. Furthermore, as there is a lack of information on alimentary peculiarities, general cultural peculiarities will be interpreted relating to their implications on alimentation. Nevertheless, the following information can only serve as a basis and contains limitations relating to the specific scope of this thesis.

The Xhosa are one of the most prevalent traditional African ethnicities and mainly consist of black South Africans (Pabst 2008, p. 25). They have already lived in the Eastern Cape of South Africa since the late 16th century (Magubane 1998, p. 12). The Xhosa have had close interactions with the Khoisan, which are the earliest known inhabitants of South Africa (Afolayan 2004, pp. 11, 14). “The gradual acculturation and progressive incorporation of the Khoisan into Xhosa communities resulted in the emerge of an extremely diverse society” (Afolayan 2004, p. 14). This is also why today, the Xhosa consist of several different sub-groups (e.g. Pondo, Fengu, Cele, and Xesibe) (Harpe et al. 2002, p. 22). In former times, their economy was mainly based on animal husbandry, farming and hunting (Afolayan 2004, p. 14).

Black South African ethnicities have always been characterised by patriarchy (Lemke 2001, p. 9). Under the control of men, black women in former times were responsible for working the land on farming sites, caring for the children and doing domestic work (Lemke 2001, p. 9). During apartheid, women were not only suffering from the unwritten patriarchal laws within their cultures, but also from the deprivation and lacking proration of written laws under the apartheid regime (Lemke 2001, p. 10). “In urban households the basis of patriarchy rested on the economic power of male wages and on migrant men’s superior access to urban resources such as residential rights, accommodation and social services, all of which women did not have access to under apartheid laws” (Bank 1994 cit. in Lemke 2001, p. 10). In contemporary South Africa, the role of women is improving as the government is giving them more rights and is trying to reach gender mainstreaming in practice (Lemke 2001, p. 11). There is a difference between rural and urban women who belong to traditional African ethnicities, like the Xhosa. In rural areas, women mostly do not have a choice, but to accept male dominance whereas in urban areas, women of these ethnicities tend to live a westernised lifestyle in terms of norms and values so that they are becoming more independent over time including the assertion of their rights (Lemke 2001, p. 11). Due to westernisation and the migrant labour system, urban households are female headed more often (Harpe 2001, p. 22). However, within their traditional culture, black women are still mostly seen in the role of mothers and housewives (Lemke 2001, p. 12). That is also why most of the black women in urban areas are powerless within their households if they are dependent on the men’s income and suffer a lack of proper education (Lemke 2001, pp. 11f.).

The above mentioned role and characteristics of female black South Africans are also influencing alimentary practices. As black women are seen in the role of mothers and housewives, they also have responsibilities to feed the family, but as they do mostly not have control over the household's resources, they are dependent on the male household head to supply them with (enough) financial resources for alimentation. Therefore, women are also dependent on the will of men regarding what kind of food is served. This also means that it is not only a matter of the person who is feeding the family to be informed about Sustainable Alimentation and to be willing to consume more sustainable, but also depending on the person providing the financial resources. So it will be difficult for a woman to implement innovative concepts like Sustainable Alimentation by herself, if she is dependent on the male head of household and he is not willing to change alimentary practices.

Puoane et al. (2006, p. 90) also found the following:

- “Older Women:** Women's perceptions about food are centred on satisfaction of family needs. Women see themselves as food providers. Even when food is scarce they see it as their responsibility to eat.
- Older Men:** While men depended on women preparing the food they eat, they see themselves as the person responsible for supporting the family. Men loved tasty food and felt that a meal is not complete without meat, especially red meat.
- Young Women:** Some [of] the young women seemed to be conscious about body weight and therefore very selective about food.
- Young Men:** Young men thought that food made them happy. They enjoyed good food that had been prepared for them. They felt that they could eat anything without restriction, and as long as there was food there, to them it was a party everyday.”

These findings show that gender roles and associated alimentary implications as described before are still prevalent throughout black South African households.

In general, Puoane et al. (2006, p. 91) found that black people associate food with love, acceptance, happiness and humanity. Enjoying as much food as possible and a daily meat consumption are associated with a good socio-economic status, serving of fatty meat is a sign of generosity, sweet foods (e.g. ice-cream, candy) are served for happy occasions like birthdays and being hungry is a sign of being healthy (Puoane et al. 2006, p. 91). Hence, less sustainable food (e.g. meat or sweets) are of high socio-culturally relevance. Higher incomes may increase the consumption of these foods and therefore, make alimentary practices even more unsustainable.

Black South Africans, including the Xhosa, are mostly Christians, but stick to their African Traditional Religions (ATR) as well (Mayer/Boness 2003, p. 186). This means that they still believe in the old ways of deism, spirits, magic, myths and ancestor worship (Mayer/Boness 2003, p. 186). Customs and rituals relating to these traditional beliefs, including specific food and dishes, are still highly prevalent (Mayer/Boness 2003, p. 186). For example, for an initiation ceremony, food is boiled, but no spices are added and during mourning periods, milk and meat are not eaten (Puoane et al. 2006, p. 91).

The move from rural to urban areas seems to lead to a renunciation of the traditional alimentary practices towards a westernised diet. Many black South Africans, including the Xhosa, have moved from rural to urban areas in order to have better employment opportunities and better access to basic services (e.g. education and health) (Puoane et al. 2006, p. 89). According to Puoane et al. (2006, p. 89), the move from rural to urban areas leads to “[...] changes from traditional food to [the] adoption of western diets, [but] it seems that food habits that were internalized during early socialisation are still adhered to”. But Puoane et al. (2006, pp. 91f.) also found that urbanisation has intensified the focus on materialistic things and is assumed to destroy many traditional alimentary values. “Traditional food is largely associated with poverty and consequently, as people move to the city, they change their diet to a typical westernised diet with a high fat content and low carbohydrate intake” (Puoane et al. 2006, p. 92). Furthermore, Puoane et al. (2006, pp. 91f.) found that in urban areas, black people live for themselves or in competition and go out for meals more often rather than sharing food and meals as they did in the rural areas. This, again, shows that alimentary trends are adopted by black South Africans, leading to less sustainable alimentary practices compared to former tradition-oriented times. On the basis of this information and the beforehand mentioned phenomena of ‘black hearts and white skins’, a high hybridity between the outward or public alimentary practices and the inward or personal ones can be assumed. Black South Africans seem to westernise outwardly to a certain point, but keep traditional values and beliefs inwardly. Therefore, traditional beliefs relating to food may be still highly prevalent and deep-rooted. This means that although many black people may seem to be highly westernised outwardly, it is important to analyse the actual alimentary practices as these may stick to routines derived from traditional values and beliefs.

The trend of westernisation and the rise of incomes, leading to a higher consumption of status food like meat, are also reflected by the current dietary status of black South Africans. The amount of females being overweight or obese is very high, especially in urban areas (Faber/Wenhold 2007, p. 398). Puoane et al. (2006, p. 93) even call it an ‘epidemic of obesity’. Further widespread diseases are type 2 diabetes mellitus, hypertension and hyperlipidaemia (Peltzer 2004, p. 24; Puoane et al. 2006, p. 89).

3.2.3 *Western roots: The Afrikaners*

The Dutch people, later also known as Afrikaners or Boers (farmers), were the first Whites that began to settle South Africa (the Cape) in the 17th century (Afolayan 2004, p. 18; Pabst 2008, p. 33). From that point on, they were constantly involved in ethnic conflicts, first with the Englishmen, later on with black South African tribes and finally, the apartheid regime came into being until it was brought to an end in 1994 (Pabst 2008, p. 35)⁵⁶. In former times, the Afrikaner economy was mainly based on farming and animal husbandry (Afolayan 2004, p. 18).

⁵⁶ Due to the limited scope of this thesis, a more detailed description of Afrikaner history cannot be given. For further information see, for example, Cloete (1992), Giliomee (2003) or Pabst (2008).

As early as 1990, four years prior to the end of the apartheid regime, Brink (1990, p. 19) stated that

“Afrikanerdom or the Afrikaner volk or the Afrikaners simply do not exist as a separate, identifiable group any longer. There are, however, different groups or fragments of Afrikaners, or Afrikaans-speaking whites. Some regard themselves as the Afrikaner volk, others simply as Boere, others as South Africans and others again as Afrikaans-speaking Africans”.

This again shows that the different South African cultures, especially the Afrikaners, are not to be seen separately as they have greatly converged. This is also caused by the fact that “the political, economic and regional differences were too significant to form a solid basis of common identity and culture” (Cloete 1992, p. 46). Still, there are several aspects of recorded culture that are mostly internalised by all Afrikaners. An important aspect are role-models that are hardly contemporary or apt (Cloete 1992, p. 47). A still inherent picture of women is, for example, “[...] independence, heroism, personal initiative, physical well-being and a faithfulness to old traditions, the latter being characterised in qualities such as virtue, moral sensibility, political independence and a love of free institutions” (Brink 1990 cit. in Cloete 1992, p. 47). This is also why in former times, white Afrikaner women were expected to fully concentrate on these characteristics and to let other duties, including cooking, be done by Indian and black people. This circumstance is well described by Brink (1988, p. 582) saying that

“the Afrikaner women, in my view, is a privileged species, unique on earth. We enjoy the limitless freedom at time granted us by cheap, intelligent, black domestic help. So we can select the titbits and specialize in entertaining, or designing clothes, or studying, or gardening, becoming a connoisseur in silver, and making our own pots or poetry for Christmas ... I blame the men for it. They like it that way. The more idle their wives, the more successful they obviously must be. Most have remained totally unliberated, living the way their ancestors did - complaining about the government, hunting up north, or telling racist jokes in clouds of braaivleis⁵⁷ smoke”.

This quotation by a white Afrikaner woman leads to several assumption referring to the alimentation of the Afrikaners in general. Although white Afrikaner women were encouraged to develop intellectual skills, be creative and care for their community, the household work – including cooking – was meant to be done by Indian and black people. It can be assumed that the Indian and black servants had the duty of selecting and buying food. There may have been orders by the man or woman of the household, but nevertheless, the servants interpreted and translated the orders on the basis of their own recorded culture so that the alimentary practices within white Afrikaner households must have become a merger of different cultures resulting in translocality and ‘doing mixed culture’.

The recent change of lifestyles among white Afrikaners is mainly caused by the end of the apartheid regime (Vestergaard 2001, p. 19). Some of these people, the heterodox ones, are open-minded towards the new social circumstances (Vestergaard 2001, p. 19).

⁵⁷ Braaivleis is an Afrikaans term and stands for meat that is grilled during a barbeque (a braai).

Others, the orthodox ones, resist change and stick to their old values (Vestergaard 2001, p. 19). As many of the collective symbols of the white Afrikaners were connected to racial discriminations, the old symbols disappeared as post-apartheid policies came into being and this “[...] had a radical impact on the reproduction of collective Afrikaner identity” (Vestergaard 2001, p. 23). Although the change in symbols was mainly not affecting alimentary issues, they can be assumed to have an overall impact on alimentary practices. For example, white Afrikaners, especially the orthodox ones, may use one of the remaining areas of life (e.g. alimentation) which has not been changed through post-apartheid policies so as to keep Afrikaner traditions (e.g. only cooking typical Afrikaner meals).

As the Dutch settlement in South Africa was motivated mainly “[...] by the need to ensure regular supply of fresh food for the sailors and merchants in their long journeys from Europe across the Atlantic and Indian Oceans to and from Eastern destinations” (Afolayan 2004, p. 162), food has always been an important issue for Afrikaners. The Dutch settlers tried to cultivate fruits and vegetables (e.g. pumpkin, sweet potatoes, cucumber, beetroot, apples and radish) that were also growing in the Netherlands, but at the same time explored the local plants (e.g. yellow-flowered sorrel as a source of vitamin C for the prevention of scurvy) (Afolayan 2004, p. 162). After a while, the Cape was a huge flowering garden that supplied the Dutch settlers and the passing ships with a big variety of different European and African food (Afolayan 2004, pp. 162f.). Later on, cattle, sheep, pigs, hares and goats were also raised at the Cape so that a sufficient meat supply was ensured and dependencies on the Khoisan were abandoned (Afolayan 2004, p. 163). After a while, culinary peculiarities of the French, Italian, British, German and Malay⁵⁸ settlers influenced the Afrikaner cuisine (Afolayan 2004, p. 164). Today the alimentary practices of white South Africans – including Afrikaners – can be summarised as being typical western although the dishes are of different origins (Asian, European and African) and hence, are translocal (Vorster et al. 1997, p. 29).

There is a lack of scientific publications about the dietary status of Afrikaners. Most of the literature is only focussing on black South Africans and only few is considering white South Africans, but not differentiating between ethnic groups among Whites. The only available information about the dietary status of white South Africans is that just a small percentage is suffering from food poverty⁵⁹ (only 3%) (Rose/Charleton 2001, pp. 383ff.). Furthermore, the rate of obesity is growing among all South African ethnicities (Vorster et al. 1997, p. 32). Stunting among white primary school children only occurs seldom (0-12%) and Afrikaner children have the highest growth rate in comparison with other ethnicities (Vorster et al. 1997, pp. ii, 8). In particular, white Afrikaner boys and girls were found to be the tallest and heaviest among 16-year old children (Vorster et al. 1997, p. 9). Consequently, it can be assumed that Afrikaners have a sufficient energy and nutrient intake, tending to over-consume food so that diseases are supposable.

⁵⁸ ‘Malay’ is often used synonymously for all cultures from East India and Middle East.

⁵⁹ “A household is defined to be in food poverty when monthly food spending is less than the cost of a nutritionally adequate very low-cost diet. [...] Higher food poverty rates [are] found with decreasing income, increasing household size, and among households in rural areas or those headed by females.” (Rose/Charleton 2001, p. 383).

Chapter 4

Materials and methods

4.1 Qualitative interviews

As mentioned in part 1.3 (part I), the research of this thesis is based on eight individual qualitative face-to-face interviews with urban middle-class households in Port Elizabeth⁶⁰ as well as one expert interview (clinical nutritionist)⁶¹. Each interview was attended by two persons, the interviewer and the interviewee, and took between 30 and 60 minutes. The interviews were oral and taped with a digital voice recorder. They were conducted by the author herself in Port Elizabeth between the 15th of April and the 30th of June in 2010.

The interviews used a problem-oriented approach that was based on a non-standardised manual⁶². This approach was highly suitable as a non-standardised interview manual consists of formulated questions and narrative stimuli without having fixed response categories (Flick 2005, pp. 134f.; Brown 2010, pp. 231, 308; Onwuegbuzie/Leech 2010, pp. 882f.). This way, the interviewer could interact with the interviewee in a way that further answers and explanations were stimulated and the questions could be adjusted to the knowledge that is generated by “[...] the processes, the participants’ experiences, the complexity, and [this helps] to address context, emotions, values and cultures” (Brown 2010, p. 231). This interview technique is also called soft non-directive (Bortz/Döring 2006, p. 239). It aims to interpret and judge individual cases within a specific location and context (Brown 2010, p. 231; Onwuegbuzie/Leech 2010, pp. 882f.). This technique was highly appropriate for this thesis’ research as on the one hand, previously defined information as described in part 2.4 needed to be gained, and on the other hand, alimentary practices vary among different cultures and the interviewer analysed an unfamiliar culture and country so that an adjustment of questions was very likely to be needed.

It is relevant that a problem-oriented interview is combined with a short questionnaire about the socio-demographic characteristics of the interviewee which is handed out separately to the actual interview in order not to disturb the narrative continuity (Dieckmann 2009, pp. 542f.). The socio-demographic data assists in further interpreting results and in assuring that the interviewee fits to the certain focus group.

In order to test if the manual is mostly able to adequately assist the interviewer in generating the information needed for answering the research questions, a pre-test

⁶⁰ Date, time and socio-demographic characteristics of the interviewees are given in table 7 appendix 4.

⁶¹ Information on the expert is given in appendix 3.

⁶² The manual that was used to interview the households is given in appendix 6, the manual that assisted in interviewing the expert is given in appendix 7.

interview⁶³ was conducted (Häder 2010, pp. 387f.). The evaluation of the pre-test showed a few potentials for improvement which were incorporated into the manual.

One expert interview⁶⁴ was additionally carried out in order to gain further knowledge on the interviewee's information, especially about external drivers and barriers, and to integrate the influence of other food chain actors, which is necessary within an alimentary practice approach. The expert interview was mainly focused on the supply of sustainable food products and the information and communication channels that are used in South Africa relating to Sustainable Alimentation.

Interviewees within qualitative research are typically chosen because of their specific characteristics and functions as a representative of a specific group of people (Strauss/Corbin 1996, pp. 148-168; Wagener 2005, p. 49). In the case of explorative research, the interviewees can be selected randomly within the focus groups (Bortz/Döring 2006, p. 71). This is why the interviewees within this thesis' research were only selected on the criteria of belonging to the focus groups, but not because of further characteristics (e.g. health conditions, shopping behaviours or existing knowledge). The restriction to a focus group that shares the same characteristics is seen as necessary in order to make the interview findings comparable with each other. The focus group had the following characteristics:

- Four households belong to the ethnic group Xhosa, four to the ethnic group of the Afrikaners⁶⁵.
- The interviewee is an adult female.
- Interviewees were born in South Africa and have a South African Citizenship.
- The interviewee's households consist of at least one adult and one child under the age of 18.
- The interviewee's head of household has a monthly income between R 4,000 and R 25,000 and the entire household a monthly income between R 4,000 and R 50,000 which means that these households belong to the South African middle-class⁶⁶.
- The interviewees live in the urban parts of Port Elizabeth.

⁶³ Carrying out pre-test interviews helps to prove if the interview manual and conditions are adequate to match with the interview's objective (e.g. time restrictions, space, understanding and language, information content) (Dieckmann 2009, p. 442).

⁶⁴ Information on the expert is given in appendix 3. An expert is a person that has a sound knowledge on a specific topic (Gläser/Laudel 2004, p. 10). In contrast to the problem-centred interview, it is the expert's knowledge on a specific topic and not the expert's personal biographic information that is relevant to the interviewer (Flick 2005, p. 139). Hence, the expert is not relevant as an individual, but as a representative of his expert group, so the information that should be given by the expert is more limited compared to the problem-oriented interview and hence, the adherence of the manual's content and structure is more important (Meuser/Nagel 1991, p. 448; Flick 2005, p. 139).

⁶⁵ Reasons for focussing on Afrikaans- and Xhosa-speaking people have been described in chapter 1 part 1.2.

⁶⁶ The calculation on which these numbers are based is given in appendix 2.

The reason for only choosing interviewees that are born in South Africa and have a South African citizenship is that the time of socialisation within a specific social group or system influences alimentary practices strongly. In the case of South Africa, apartheid is one of the specific circumstances that have influenced social practices enormously.

All interviewees shared similar life situations as they were female adults living in a household with at least one child under the age of 18. This is regarded as an important criteria in the selection of interviewees as changes in life situations are often followed up by changes in alimentary practices (Brunner 2007a, pp. 23ff.; Brunner 2008, pp. 289ff.). An important change lies in the birth of and life with a child, because alimentation becomes more altruistic in a sense that the parents – particularly women – try to be orientated towards the children's preferences and their physical well-being (Geyer 2007b, p. 27; Jelenko 2007a, pp. 51f.).

All interviewees were women as they usually share the same characteristics and roles regarding alimentation. For example, women are responsible for everyday alimentary issues in most families. Differences in the alimentary characteristics between women and men have also been proven by several investigations (Jelenko 2007b, p. 83)⁶⁷. Although differences between male and female roles would have been interesting to investigate on, the limited number of interviewees would not have allowed for a proper analysis of gender issues. Nevertheless, gender issues can also be partly targeted by interviewing females only.

On the geographical level, the urban region of the town Port Elizabeth in the Eastern Cape of South Africa was chosen as it is the commercial capital of the Eastern Cape, the second oldest city of South Africa and is characterised by a rapidly developing economy (Anonymous 2005, n. p.)⁶⁸. Consequently, Port Elizabeth is highly suitable for the analysis as it may combine long-established traditional as well as modern and globalised consumption and alimentation patterns.

The focus on urban South Africans is due to the fact that alimentation differs across urban and rural residents, especially in South Africa. Urban residents are mostly dependent on external food supplies and do not have a direct contact to the food-producing agricultural activities in rural areas (Brunner 2007b, p. 131). The contrast between rural and urban areas is even higher in South Africa compared to European countries like Germany, as the population density in South Africa is much lower and the transition from urban to rural areas is more drastic and not as smooth as in Europe. Moreover, there are alimentary trends in urban areas that differ from those in rural ones (Brunner 2007a, p. 138). Urban households tend to be more westernised which is mostly due to the fact that the people mostly work outside their homes, have less time resources for cooking and are less braced by a close social family network in which

⁶⁷ Women are characterised by a more restraining and passive attitude towards alimentation whereas in this sense, men are mostly lusty and active (Jelenko 2007b, p. 83). These attitudes are expressed by women focusing on health and beauty and selecting passively on the basis of rationality and by men wanting to satisfy hunger and enjoy food, selecting actively on the basis of feelings (mainly taste) (Jelenko 2007b, p. 83).

⁶⁸ Further reasons for choosing Port Elizabeth and the Eastern Cape according to the former homelands have been described in chapter 1 part 1.1.4 and chapter 3 part 3.2.1.

alimentation is characterised by mutual assistance. Hence, the consumption of convenience foods is more common within urban households. Furthermore, there is a broader range of activities and places to eat out in urban areas which also affects alimentary practices (Brunner 2007b, p. 140).

Lastly, this thesis research focuses on middle-class South Africans. This is due to research findings which have shown that consumption patterns and alimentary practices vary across different social classes (Warde 1997 cit. in Brunner 2007a, p. 22). The middle-class is also often referred to as the consumer class because the resource use and direct as well as indirect emissions caused by this class are very high (Hertwich/Katzmayr 2004, p. 3). Moreover, the alimentation of lower classes is healthier than that of higher classes (Deutsche Gesellschaft für Ernährung e.V. 1996/Mennel et al. 1996/Ralph 1998 cit. in Brunner 2007a, p. 22). According to McIntosh (1996, p. 102) “[...] those of higher standing in the class order more likely enjoy food in sufficient amounts and of sufficient quality to possess not only a desirable lifestyle but also good health“. As a result, different social classes consume different food in a different way so that the alimentary practices across the social classes vary which is due to the different underlying conditions (e.g. financial and time resources, level of education) (Barlösius 1995 cit. in Brunner 2007a, p. 23)⁶⁹. The focus on the middle-class is also due to the fact that the so called new consumers mainly belong to these classes and that a minimum income is assumed to be necessary in order to buy food that fulfils certain aspects of Sustainable Alimentation.

4.2 Transcription and evaluation of the interviews

The interviews were recorded and transcribed by the author in a way that repetitions, non-necessary filling words and paraverbal expressions (e.g. laughter) were left out and that personal information, names of brands, supermarkets or restaurants were not disclosed⁷⁰. This approach for transcription was used because for the analysis of the research questions, the content of the interviews was relevant, but linguistic features or concrete names and companies were not. According to Strauss (1991 cit. in Flick 2005, p. 253), only information that is relevant in terms of the research question should be transcribed.

The transcribed interviews were analysed using a qualitative content analysis⁷¹ which aims to objectively and systematically structure and cut down on the transcribed

⁶⁹ Still, the cultural system in which the consumers are embedded (e.g. gender roles, infrastructure, rituals) is not always correlated with social classes as consumers that share the same culture and alimentary practices can belong to different social classes (Brunner 2007a, p. 23).

⁷⁰ The transcribed interviews can be requested by contacting the author via email: Mareike.Michel@uni-oldenburg.de.

⁷¹ A qualitative content analysis begins with encoding the transcribed interviews. The encoding process consists of four central steps: Determining different variables and categories, decomposing the transcript into small analytic units, reviewing the transcript according to relevant information, allocating the information to the variables and categories (Gläser/Laudel 2009, pp. 197f.). After encoding the rough data, an extraction process is undertaken in which

information (Holsti 1969, p. 14; Gläser/Laudel 2009, p. 200). The transcribed interviews were encoded⁷² in a deductive way which means that the different variables and categories for analysing the information were determined on the basis of the underlying theories⁷³ and not afterwards on the basis of the interviewee's information (inductive) (Bortz/Döring 2006, p. 330; Flick 2009, p. 409)⁷⁴. This is due to the fact that the aspects of Sustainable Alimentation have been described before and are seen as relatively fixed so that these aspects formed the analysis categories in order to find out if the interviewee's characteristics match or differ.

4.3 Critical remarks

There are several basic aspects that can influence the outcome of an interview positively as well as negatively. These are, for example, the interviewer's rhetorical skills, the interviewee's form on the day, the intonation of a question, individual interpretations of questions and answers, or the tendency to give answers that are assumed to be right or conform to the author's opinion⁷⁵. Such general aspects are taken into consideration, but will not be separately announced within this part. The aim of this part is to highlight the factors that were specifically relevant in respect of the particular nature of the underlying research.

During the interviews, English language was used, but this was neither the mother tongue of the interviewer (German), nor the interviewees (Afrikaans and Xhosa). As a consequence, some misunderstandings might have occurred although in general, the communication between the interviewer and interviewees worked very well.

Nearly all interviews were partly interrupted by telephone calls or visitors, although the location of the interviews was mainly a closed office room or a private house. Furthermore, most interviews took place during working hours or rather breaks of the interviewees. The interviewees were not able or willing to arrange appointments within a more private atmosphere. As the surrounding and time were mostly not private, the interviewees might have been less relaxed and still focussed on work so that they might have been less able to fully project their thoughts to alimentation.

Another deficit of this research is that in the end, it became obvious that the two ethnicities were different within the socio-demographic data⁷⁶, although they all

specific information is abstracted from the encoded text and interpreted afterwards in order to only have that information which is relevant for answering the research question (Gläser/Laudel 2009, pp. 199f.). In the following steps, the extracted information is mostly paraphrased, inspected for contradictions and repetitions as well as finally arranged for the use within the research thesis (Flick 2005, pp. 280f.; Gläser/Laudel 2009, pp. 201f.).

⁷² The filled in coding schemes are presented in appendix 8.

⁷³ The underlying theories have been analysed within the literature review in chapter 2.

⁷⁴ The underlying analysis categories, approaches and variables are shown in table 6 in chapter 2 part 2.4.

⁷⁵ An overview on relevant influence factors is given by Hopf (1978, pp. 100ff.); Meuser/Nagel (1991, pp. 449f.), Lamnek (1995b, pp. 102ff.), Flick (2005, pp. 143ff.), Möller (2007, p. 40), Dieckmann (2009, p. 441) and Gläser/Laudel (2009, pp. 187ff.).

⁷⁶ The socio-demographic data is presented in table 7 in appendix 4.

fulfilled the characteristics described in part 4.1 (part III). For example, the Xhosa interviewees were mainly single whereas the Afrikaner interviewees were all married. Hence, the households of Xhosa interviewees mostly included only one adult, whereas the households of the Afrikaner interviewees consisted of more than two adults. The Afrikaner interviewees have experienced more formal education compared to the Xhosa interviewees. These differences might slightly affect the results in some cases, e.g. regarding knowledge about sustainability issues, the shopping budget and the focus on brands and quality as well as the social interactions of alimentation. Nevertheless, the differences are only minimal and therefore, can be assumed not to have affected the overall results, conclusions and recommendations of this study.

Although the theoretical approach of Sustainable Alimentation as synthesised in part 2.4 (part II) also focuses on culinary atmospheres as a connection between consumers and different other parts of the food chain, this thesis' empirical research does not integrate these. This is due to the fact that an investigation on culinary atmospheres requires a detailed analysis of all food chain actors, their products and services. Due to the specific scope and limited means, this thesis solely focuses on the consumer level and only integrates aspects of other food chain parts, if these were pointed out by the investigated households themselves or by the expert.

Chapter 5

Results: Status quo and factors influencing changeability

5.1 Congruence of consumers' practices with Sustainable Alimentation

5.1.1 Plant-based food and socio-cultural peculiarities

Regarding the consumption of preferably plant-based food, nearly all interviewees consume an adequate amount of fish, eggs and dairy products, whereas the consumption of meat (mostly daily) is far too high compared to the principle of wholefood alimentation as described in part 2.1. These results are shown in table 9 in appendix 8. Only one Xhosa interviewee consumes an adequate weekly amount of meat. Therefore, the meat consumption of the interviewees needs to change towards a lower meat intake in order to become sustainable.

Analysing the consumption of plant-based food also requires a further look on socio-cultural peculiarities regarding typical dishes and food consumed as shown in table 10 in appendix 8. According to the Afrikaner interviewees, typical and traditional dishes are, for example, *bobotie*⁷⁷, *biltong*⁷⁸, *sosaties*⁷⁹, *boerewors*⁸⁰, meat balls, lasagne, cottage pies, *bredies* (stews), pasta, *kerries* (curries), stir fry and a side usually contains (yellow) rice, potatoes, salads and mixed vegetables. Due to the specific history of the

⁷⁷ “*Bobotie* is a traditional ground meat loaf, preferably made from ground lamp, flavored with curry powder, butter or oil, onions, garlic, and turmeric, and topped with a custard when baked. The topping is made from ingredients such as breadcrumbs, milk, lemon rind and juice, egg, salt, black pepper, apricots, apple, sultanas [...] and almonds” (Osseo-Asare 2005, p. 72). Its origin can be traced back to the Malay that have been brought to the Cape as slaves and servants.

⁷⁸ *Biltong* is a salted and spiced form of dried meat made from various kinds of animals (Osseo-Asare 2005, p. 73). It is usually eaten as a snack or used within stews (Osseo-Asare 2005, p. 73).

⁷⁹ “The word *sosaties* is made from the two Malay words, *sate* or spiced sauce, and *sesate* meaning skewered meat. It is a popular dish for a barbeque or *braai* [...], and the marinade commonly mixes the flavors of onion, chili, garlic, curry, and tamarind. Sheep, or mutton, is a favored type of meat, although ostrich or pork can be used. Recipes call for a kind of fat, such as bacon or fat slivers from around sheep’s kidneys, to be threaded on the skewers with the meat, perhaps with plumed, dried apricots and onions from the marinade, before grilling them” (Osseo-Asare 2005, p. 72).

⁸⁰ “[*Boerewors* is] literally farmers’ sausage (from the Afrikaans word *boere* meaning farmers and *wors* meaning sausage). Poet and food writer Louis Leipoldt claims the French Huguenots brought the recipe to the Cape, but other believe it was German settlers, experts in sausage making, who introduced them. These sausages are traditionally made from minced meat such as beef or lamb, *spek* (pork and/or beef fat), spices (such as coriander seeds, cloves, salt, black pepper, nutmeg, allspice, and brown sugar), vinegar or wine (as a preservative), and sausage casings” (Osseo-Asare 2005, p. 72).

Afrikaners in South Africa⁸¹, these dishes are of different origins (Asian, European and African) and hence, they are a mixture of different alimentary influences. This is why the origin of the typical Afrikaner dishes can be described as being translocal⁸², although the alimentary practices themselves are westernised⁸³ in terms of, for example, highly processed or convenience foods. To sum up, a typical Afrikaner dish usually contains meat, vegetables and a starch side. The Afrikaners also have the saying

“[...] ‘rys, vleis, aartappels’ that is basically [...] they like their potatoes, they like their rice, they like their meat, they like their veggies. [...] So if you look at a normal Sunday meal, for example, you will have a roast potato, you will have rice, you will have meat and you will have, say two or three different veggies. So it is a rather full plate that you will have” (RA4⁸⁴).

Another Afrikaner interviewee agreed on that saying “[the Afrikaners] like a plate with two starches and veggies and lots of meat. They are big meat consumers, fatty meat. [...] They like fatty food” (RA3). Regarding the high meat consumption, one Afrikaner interviewee said “we are South Africans, we love meat” (RA1). The importance of meat also becomes clear as the interviewees said that it is typical for Afrikaners to have a braai with lots of meat, particularly for special occasions and on the weekends (tab. 11 in appendix 8). As a result of the above statements, meat, proteins and cooked food in large quantities are a fundamental component of an Afrikaner dish and of social interactions (like the braai). Plant-based foods, particularly raw fruits and vegetables, do not play such a big role as presented in table 9 in appendix 8.

As shown in table 10 in appendix 8, typical meals of Xhosa families are, for example, Ulusu (tripe of animals), Umngqusho (samp⁸⁵ and beans), Umvubu (salad made from mealie meal⁸⁶, water and sour milk) and in general, a main meal includes meat (various kinds), fish, pasta, a starch side (e.g. rice, potatoes, mealie meal or samp) and vegetables (e.g. potatoes, beans, carrots, peas or green salad). Xhosa people eat a lot of mealie meal as it has a strong cultural traditional background within the Xhosa ethnicity (RX3). For special occasions and on Sundays, Xhosa people also like to braai meat, make salads and have a different variety of foods (tab. 11 in appendix 8). Moreover, Xhosa people put a lot of effort in the preparation of Christmas food, which is very European (e.g. salads with mayonnaise and dressing) (RX1). As a result, the alimentary practices of the Xhosa are also becoming more translocal and influenced by western lifestyles.

⁸¹ The specific aspects of the Afrikaner history have been described in chapter 3 part 3.1.

⁸² Translocality has been described in Chapter 2 part 2.3.2.

⁸³ See chapter 3 part 3.2.3.

⁸⁴ RX stands for ‘Respondent Xhosa’ and indicates that the ethnic background of the interviewee is Xhosa. RA stands for ‘Respondent Afrikaans’ and indicates that the ethnic background of the interviewee is Afrikaans. The following numbers indicate the number of the interview. RE stands for ‘Respondent Expert’ and indicates that the interviewee is an expert for alimentation. Most of the statements relate to the whole family of the interviewees, although presented mostly in the singular form.

⁸⁵ Samp is made of the coarse flour of white maize.

⁸⁶ Mealie meal is a dish that is made of the fine flour of white maize.

According to one of the Afrikaner interviewees, the Xhosa have

“[...] bad eating habits. [...] They do not include the five basic groups that a person should eat in a day. [...] But it has to do with the budget. [...] They do not buy meat like we do. They buy bones and pieces of fat on it. [...] There is hardly ever any meat on there” (RA3).

In the past, the Xhosa have also been more restricted in terms of budget and that is why specific cheap foods were consumed most of the time. These foods then have become traditional and are also often used nowadays.

“With us [Blacks] there is a lot of children in the family we grew up, so it is not always a lot of money [...] to spend. So your parents will prefer to cook something that will suit the whole family. Samp is one of the foods we grew up with, because it is cheaper. [...] I would still like to eat it because I am used to it” (RX3).

So as with the Afrikaners, the Xhosa consume large quantities of food, especially meat and animal proteins, and they furthermore tend to (over-)cook their food. Social interactions and traditions⁸⁷ (e.g. having parties or a ceremony) also play an important role for these alimentary characteristics. These findings are supporting the description within the literature review in part 3.2.2. Besides, the alimentation of the Xhosa seems not to be fully balanced as they lack variety and mainly build up their diet on meat and mealie meal. As with the Afrikaner interviewees, plant-based food does not play such a big role for the Xhosa.

There are some alimentary differences between the various cultural ethnicities within South Africa, but according to two Xhosa interviewees, Xhosa people and Afrikaners are mainly eating the same (RX1 and RX3). Another Xhosa interviewee added that the only difference is that Afrikaners do not eat mealie meal very often (RX2). The above results also show that the components of a meal and the amounts of food consumed are quite similar comparing the Afrikaners and the Xhosa, although the combination of the foods within traditional dishes is differently. In general, the alimentary practices in present South Africa can be seen as culturally intermingled. “It is so intermingled, we do not think of ourselves as Afrikaans, they are English. You have got friends, you have got families of both languages” (RA1).

5.1.2 Minimally processed food

As shown in table 9 in appendix 8, all interviewees do not eat a lot of unprocessed food (raw vegetables or fruits). The only raw foods consumed on a daily basis are fruits. Another important aspect in terms of a Sustainable Alimentation is the reduction of foods that contain additives. All except of one Xhosa interviewee knew about at least a few food additives and are trying to avoid most of these. Some of the interviewees, mainly the Afrikaner women, said that they are avoiding specific additives due to health reasons, but other interviewees, mainly the Xhosa ones, were not able to explain why

⁸⁷ Mealie meal is a dish that is made of the fine flour of white maize.

they are avoiding certain additives. In general, the interviewees try to avoid tartrazine⁸⁸, aspartame⁸⁹, artificial colourings, sweeteners and preservatives due to health reasons like an Attention Deficit Hyperactive Disorder (ADHD), diabetes or because they think it causes coughing and itchiness in the throat. As a conclusion, one can say that the knowledge about and preference of minimally processed foods is only basic among the Afrikaner and Xhosa interviewees. A need for further knowledge about food additives and their possible impacts is necessary.

5.1.3 Organic food

As presented in table 8 in appendix 8, all interviewees have heard about the label organic, but only the Afrikaner interviewees were able to name characteristics of organic food. These interviewees related the label to the abandonment of chemicals, pesticides and insecticides, a different packaging as well as natural modes of farming (e.g. fewer animals). Some interviewees furthermore assumed these products to be more expensive.

Only four of the eight interviewees said that they have bought or once in a while are buying organic food. Reasons for buying organic food were special occasions or a limited availability of other options, a more attractive appearance compared to alternative food products or health reasons like eczema. All interviewees said that they are neither buying organic food purposively in terms of sustainability benefits, nor on a regular basis.

An important barrier for the consumption of organic food in South Africa is the availability of products and certificates that the consumers can trust. The expert said that there are a few South African companies providing health stores with organic food, but that these food products are not certified as there is no certificate or label for organic food in South Africa that is accredited by a third party, like the German 'BIO'-Label⁹⁰. "There is a company [...]. Some of their food is organically grown, but they do not have an organic packing facility⁹¹" (RE). Asking her if she trusts the companies whose organic produce she is selling she said "well, we have no choice. [...] There is no alternative. We are doing it because you know it is the best, but you are not quite sure if

⁸⁸ "[Tartrazine is] a synthetic yellow azo dye found in fruit squash, fruit cordial, coloured fizzy drinks, instant puddings, cake mixes, custard powder, soups, sauces, ice cream, ice lollies, sweets, chewing gum, marzipan, jam, jelly, marmalade, mustard, yoghurt and many convenience food together with glycerine, lemon and honey products. [...] Tartrazine appears to cause the most allergic and/or intolerance reactions of all the azo dyes, particularly amongst those with an aspirin intolerance and asthmatics. [...] In conjunction with Benzoic acid (E210) tartrazine appears to create an over-activity in children"(UK Food Guide n. d. a, n. p.).

⁸⁹ "Aspartame is an intense sweetener, approximately 200 times sweeter than sugar. It has been used throughout the world in soft drinks and other low-cal or sugar free food [...]. It is known by the name NutraSweet, aspartame or E951. Despite being widely used 75% of the adverse reactions to food additives that were reported to the US Food and Drugs Administration have been concerning aspartame" (UK Food Guide n. d. b, n. p.).

⁹⁰ See figure 9, 10 and 11 in appendix 5.

⁹¹ See figure 9, 10 and 11 in appendix 5.

they being upfront with you” (RE). Asking her about the possibility of pesticides and genetically modified contents within these organic products she replied “We actually do not know” (RE). She also added “Our organic meat seems to be a problem. I am not quite sure whether it is actually organic or not” (RE). Furthermore, RE said that the food in the normal supermarkets labelled organic is not accredited and verified by a third party, but seems to be arbitrarily declared as being organic. “It is because it is a catch phrase at the moment and they charge ten Rand extra [...]” (RE). The consumption of organic food among the investigated households is low, but it has to be taken into account that this circumstance is highly affected by the external barriers as described above.

5.1.4 Regional and seasonal food

As presented in table 8 in appendix 8, all Afrikaner and Xhosa interviewees knew which foods are typically grown and produced in the Eastern Cape of South Africa and they also knew when specific foods are in season. The interviewees mainly preferred to buy local and seasonal food because these products are cheaper and they find them fresher as the food has not been transported so far. Most of the interviewees also added that actually, regionality and seasonality are not important for their selection of food, but that they automatically consume regional and seasonal food as other less sustainable options are not available. Only one Afrikaner interviewee said that she purposely tries to consume regional and seasonal foods because she assumes them to have a better quality.

To sum up, the knowledge about regional and seasonal food is very good among all interviewees. The consumption of these foods can also be regarded as being very good in terms of Sustainable Alimentation as the interviewees mainly consume regional and seasonal food. Nevertheless, this is not caused by an awareness of sustainable development, but the restricted availability of alternatives with comparable prices and qualities.

5.1.5 Environmentally sound packaging of food

All Afrikaner interviewees and one Xhosa interviewee knew aspects of an environmentally sound packaging as shown in table 8 in appendix 8. They named biodegradability, a lower use of plastics and tins as well as recyclability, reusability and biodegradability as aspects of an environmentally sound packaging.

Only one Afrikaner and one Xhosa interviewee said that they do look for an environmentally sound packaging when they are selecting their food. The Xhosa interviewee said that the aspect of reusability is most important to her. The Afrikaner interviewee described her choice for environmentally sound packaging as follows:

“If I have a choice between two cereals exactly the same, but one is in a box and one in a plastic bag, I will rather go for the box, than for the plastic bag. Because I feel the box is better for the environment, is better than the plastic bag for example” (RA4).

Summing up, the Afrikaner interviewees were more aware of sustainability issues regarding the packaging of food compared to the Xhosa. Nevertheless, only two of the eight interviewees do sometimes look for an environmentally sound packaging when selecting food products. One interviewee said that she sometimes finds it hard to know which is the most environmentally sound packaging and that she has to use her common sense or her personal opinion (RA4).

5.1.6 Fair trade food

Except of one Afrikaner interviewee, all interviewees did not know about the food label fair trade and said that they are not consuming such food products (tab. 8 in appendix 8). The Afrikaner interviewee who has heard about the label did not know any of its characteristics. She is not buying fairly traded food products. The lack of knowledge and sensibility for such food labels becomes quite obvious by RA1 replying to the question of knowing the label fair trade “What the heck is that dreading label?” Referring to the fair trade label for food products, the expert said that she knows about this label, but that it is not sold in Port Elizabeth and maybe also not within the whole of South Africa. Consequently, the interviewees do not have the choice to buy fair trade food which also hampers and awareness and education process.

5.1.7 Cutting down, enjoyment and easy digestibility

The interviewee’s characteristics according to the principles of cutting down, enjoyment and easy digestibility are shown in tables 11 and 12 in appendix 8. For seven of the eight interviewees, an easy digestibility of food was important. Six of these interviewees were able to concretely define how they interpret easy digestibility for themselves and how or rather what they eat to feel well with their metabolism. Examples are low Glycaemic Index⁹² (GI) foods, low calorie foods, all-bran cereals, fruits and milk products, high fibre foods and a reduction of fatty foods, fat cooking methods and red meat as well as the amounts generally consumed.

For all interviewees, enjoyment of food was very important. Most of them also argued that having children in the house makes it indispensable to serve food that is enjoyed by them because otherwise, they would refuse to eat it. Closely related to enjoyment is the quality of food. Seven of the eight interviewees said that quality in general is also important to them. The most important quality aspects were the freshness and taste of food as well as low fat contents, sell-by dates and well-known brands⁹³.

⁹² “Per gram of carbohydrate, food with a high glycemic index (GI) produce a higher peak in postprandial blood glucose and a greater overall blood glucose response during the first 2 h after consumption than do food with a low GI. Despite controversial beginnings, the GI is now widely recognized as a reliable, physiologically based classification of food according to their postprandial glycemc effect” (Foster-Powell 2002, p.5).

⁹³ The relevance of brands and routines will be further described in chapter 5 part 5.2.2.

Only one Xhosa interviewee was not very quality oriented and said that “as long as it is not getting you sick, we eat it” (RX2).

Although quality is said to be of high importance for seven of the eight interviewees, prices and the value for money mainly determine what is bought and eaten in the end and that certain things will be bought because of their quality, other things because of their price and that it is always depending on the food item (e.g. fresh meat or canned beans), if they go for quality or price. All interviewees were very price-conscious about food products.

“It must be good quality, very good quality, and the price must be right” (RA1). “I buy my bulk at [a specific supermarket] and then I will buy special luxury items at [a different supermarket]. [...] I like the meat at [that one supermarket], because they are cheaper than the ones at [the other supermarket]” (RA2).

Furthermore, some of the interviewees shop at a fruit and vegetable supermarket which sells fresh food products (partly including dairy products and meat) and offers special prices for big quantities⁹⁴.

“When I have money to do that bulk [shopping] I go to [the fruit and vegetable supermarket] because they always have these specials, like if you buy apples, you buy three packets for 10 Rand. [...] You buy juice there, mince in bulks [...]“ (RX1).

The importance of quantity over quality has also been pointed out by the Afrikaner interviewees. “It is a disgrace not to have enough food. And it is a question sometimes of too much food. You cannot have just enough, it must be plenty” (RA1). Another Afrikaner interviewee said that for Sundays “[...] it is a rather a full plate that you will have” (RA4). Serving a huge variety and large amounts of food for special occasions and guests is very important for the Afrikaner interviewees, not only because they strive for it, but also because of external expectations. According to the Xhosa interviewees, it is also typical for Xhosa families to eat unhealthy amounts of food, especially meat.

“I am trying to be honest. [...] We eat a lot of meat, instead of taking a piece and [...] just one spoon of rice, you dish three” (RX3). “Because when you eat, you will eat, let us say a sheep, you will eat the full half leg of a sheep alone. And then I mean that is not healthy. [...] You cannot eat meat over like a half of a leg of a sheep alone. Because [...] I have noticed people that still continue eating too much meat and too much proteins” (RX1).

None of the interviewees said that they are trying to quantitatively cut down on smaller amounts of food with a higher quality instead of buying special offers of bulk only because of good prices. Instead, as the example of shopping at the fruit and vegetable market shows, getting as much food as possible for the financial budget seems to be dominating, although in a few cases, quality is preferred (e.g. butcher). The expectation and the custom of providing too much food are counter-productive in terms

⁹⁴ The fruit and vegetable supermarket is specialised on fresh food, but farmers are not selling their goods there directly (RA1).

of cutting down quantitatively. Nevertheless, as the interviewees were also focused on easily digestible, enjoyable and quality food, there is a good basis for promoting cutting down mechanisms, although the extreme price consciousness will make it hard to change consumer behaviours. The problem of preferring low prices over quality has also been pointed out by the expert saying “Especially in this town, everybody is governed by bugs, how much something costs” (RE).

5.1.8 Slowing down and socialising

The interviewee’s characteristics relating to the principle of slowing down and socialising are shown in table 10 in appendix 8. Most of the interviewees said to cook a warm meal for themselves and their family once a day. Nevertheless, the interviewees also mentioned to experience a limited time budget for cooking so they do not invest a lot of time for it during weekdays. The interviewees mostly said that on normal working days, they usually cook meals that are easy in preparation and do not take much time. One interviewee added that “in the week, it is a bit chaotic. [...] It is not a social gathering as such, because in the week we are running around. [...] But on the weekends I spend more time for cooking” (RA2). Another interviewee said that her sons are only having snacks during the day because they are not at home and that they mostly do not eat until the evening when she cooks (RX4).

The cooking and eating of the main meal mostly takes place at the homes of the interviewees as they stated to be restricted in going out for meals because of limited financial resources, although they would like to go out more often. The interviewees go out for meals or have take-away food between once a week, twice a month and once a month. The interviewees are mostly going to fast food or family restaurants. One interviewee said “[We are not eating out] as often as we would like, because of financial restraints. [...] I suppose we would have it more if we have more money” (RA1). One Xhosa interviewee said that during the first week of a month when she gets paid, she goes out for a meal to a fast food restaurant (RX1). Only two of the interviewees said that their family is not going out for meals on a regular basis.

Although time is limiting cooking activities during the week, the interviewees try to socialise and cook as best as they could in regard of the limited time resources. Special arrangements are not made to make cooking and eating a harmonic and slowed down act as a balance for the hectic everyday life. Nevertheless, hastening and separate individual food intakes of family members are not common. One Afrikaner interviewee even cooks together with her husband and her son. A few interviewees also mentioned that they like to have people around to cook for them and eat together. Only one Xhosa interviewee said that social interactions related to alimentation are not important for her (RX2). To sum up, the alimentary practices of the interviewees are not purposively oriented towards slowing down, but they are also not directed towards hastening or deterritorialisation although time resources for alimentation are regarded as being limited. However, it has to be taken into account that it is mostly due to the limited financial resources that the interviewees are not using external food services more often.

5.1.9 Less commercialisation and globalisation

None of the interviewees supply themselves by growing their own food or practicing animal husbandry so that they are not living subsistent, but are fully externally dependent as shown in table 13 in appendix 8. Animal husbandry would be hard to realise as the interviewees live in the urban part of Port Elizabeth, not having enough space to house animals or grow plants on a large scale. Nevertheless, some private gardening would be possible. Furthermore, the interviewees do not participate in any alternative local self-supply systems like community gardens or exchange rings. They did not know about any of these systems or activities in their town. The expert also did not mention any such systems or structures to be existent in Port Elizabeth (RE). Moreover, during the interviews it became clear that the interviewees' alimentary practices are becoming more westernised and oriented towards global trends and are therefore turning away from a local orientation⁹⁵. As a result, the consumers and the whole alimentation system in the urban part of Port Elizabeth are commercialised and progressively dependent on external supplies.

5.1.10 Unbundling and purchase channels

The purchase channels and unbundling characteristics of the interviewees are shown in table 13 in appendix 8. The interviewees are buying their food in supermarkets relatively close to their homes, only once in a while they drive a bit further within Port Elizabeth to get some specialties. None of the interviewees stated to buy food at a local open-air or farmer's market, but only from supermarkets. Only two interviewees had heard about a farmer's market in Port Elizabeth, but did not know any details and said not to shop there. One reason they pointed out is that they want to do most of their shopping at one go and close to their homes, that they do not know where the farmers and open air markets are or how often they take place, and that they have to look for their expenses and their time budget.

For fresh produce, most of the interviewees said to go to a fruit and vegetable supermarket which sells fresh food products and offers special prices for big quantities. Some further stated to go to specialty stores (the butcher) to buy meat. Only two interviewees said that they sometimes buy potatoes from women that are selling those at a stand near the streets. But one Xhosa interviewee also said that these people buy the food at bigger markets so what the stands near the streets are actually selling is also not self-produced and consequently, not in accordance with an unbundled system (RX1).

To sum up, the interviewees do not unbundle their alimentary activities and there is no recognisable trend towards unbundling. As a consequence, their alimentation is totally dependent on external supplies. This is on the one hand due to a lack of knowledge about alternatives and their advantages, and on the other hand due to a lack of offered alternative supply systems. The lack in offered purchase alternatives (e.g. open-air markets) was confirmed by the expert.

⁹⁵ See chapter 5 part 5.2.2 for the description of current lifestyle orientations (modern versus traditional) of the interviewees.

“Only recently in the last year has the town we live in, Port Elizabeth, started an open-air market [...]. And it is not just organic food that is sold there. Various other stalls with natural paint and natural make-up and various other goods are offered to the public. But again it is a small market and it is a slow process to educate the public” (RE).

Nevertheless, consumers could invent their own local supply-systems and regional economies, starting with, for example, exchange rings or CSA.

5.2 Changeability of consumers' practices towards Sustainable Alimentation

5.2.1 Knowledge, persuasion and practice (diffusion status)

As shown in table 8 in appendix 8, all interviewees except of two had heard about the concept of sustainable development, but only one Afrikaner interview was able to name detailed aspects. Three out of the eight interviewees had heard about sustainable (or rather ecologically and socially friendly) alimentation or related labels and were able to describe further aspects. These were the label organic, free-range chicken and eggs, modes of farming were fewer animals are kept, the abandonment of hormones and genetically modified organisms as well as an environmentally sound packaging. Only one Afrikaner and one Xhosa interviewee stated to consider sustainability related to alimentation. The Afrikaner interviewee said that she tries to buy free-range chicken and eggs and the Xhosa interviewee explained that she looks for the reusability of packaging and prefers products that contain recipes so that she does not have to buy a recipe book.

In general, the interviewees said that from their point of view, ecological and social issues of alimentation do not play an important role for South Africans, but that there is a trend towards higher awareness. One interviewee added

“I am sorry to say, I do not think [social and environmental issues regarding food and eating are] very important at all. We are very ignorant. It is the same with recycling. We still got a lot to learn there. But I think that is also a question of making the public aware, [...] educate the people a bit more. So I do not think we are the ‘up to standard’ and myself included. We know that there is something there that we should do, but we do not actually invested in that yet. So we are guilty” (RA1).

To sum up, except for two, the Afrikaner and Xhosa interviewees did not have a sound knowledge about or persuasion of the concept of sustainable development or a practice of Sustainable Alimentation.

The expert mentioned insufficiently declared food signs and packaging as an important external barrier for the knowledge about and the practice of Sustainable Alimentation. She said, for example, that the food packaging is not providing sufficient information on the ingredients (especially additives) and the suitability for certain groups of people and that the origin of the products or information on the environmental friendliness of packaging is not well declared. So it is difficult for the consumers to compare products and to know which foods are of regional origin, which packaging is

environmentally sound, or to know about food additives and to make informed decisions. One interviewee also mentioned a limited availability to hamper her to buy sustainable food products.

5.2.2 *Innovativeness*

The interviewees had quite different opinions about the traditionality or modernity of their own culture (Afrikaner or Xhosa) and that of the other interviewees (Xhosa or Afrikaner) as shown in table 11 in appendix 8. Two of the Xhosa interviewees said that nowadays, the alimentation of the Xhosa is a mixture of modern and traditional influences.

“There is nothing traditional about our food. We almost eat everything. [...] I was never in the rural areas. I know nothing about life in the rural areas [...] I only read about it from the books. [...] I only saw it when I go and visit. [...] So I am not quite familiar with what is going on there. [...] I am more westernised, I am more in the city. [...] So definitely it is going to be modern” (RX4).

Differing to that, the other two Xhosa interviewees said that from their point of view, the alimentation of the Xhosa is completely traditional, partly also caused by the limited budget that hampers trying new foods and dishes. One Xhosa interviewee also said that the traditionality has to do with the fact that alimentation has a strong socio-cultural embeddedness in the form of ceremonies.

“When we celebrate those cultural traditional things, like slaughtering goats and believing in that. [...] I make an example. My mother is a traditional healer. And then I used to see when we visit other places, maybe they will say, if there is a problem with a kid, maybe this kid is over [...] not five years old, maybe she is my age, but this woman is still [...] peeing in bed when she is asleep. [...] And then when we have this believe that [...] you need to slaughter a goat for that child and then everybody will eat that goat and then will invite people. Sometimes there are this traditional ceremonies you do not have to invite people, people will come when they see that we cook outside and they see the smoke and then they come to honour this traditional ceremony. It is then when if you are a neighbour, you are coming to my house during that traditional thing, you come and honour it. Nobody is invited [...]. And then [...] you will hear ‘Why are we slaughtering the goat?’ and then they explain for everyone, before everybody get the share of the meat. And then, after that, we believe that the child will stop peeing in the evening. [...] And [...] believe that meat, you do not have to make it fancy, when you eat it. You do not put spices and all that, you just put salt and water and cook it. And when you put spices and all that other things, herbs and things, you are changing the whole thing, you are making it a meal, a normal meal. Because that one is not a normal meal, [...] it is medicine” (RX1).

Consequently, alimentary traditions are still prevalent and important along the Xhosa. This could also be pointed out within the literature review in part 3.2.2. Most of the Afrikaner interviewees supported the opinion that the alimentary practices of the Xhosa are very traditional.

“And also the way they cook, the way that they prepare. And even if they have a stove in their house, I have seen them throwing out the stoves, cooking outside on the fire. It is the way they are. It is the way they eat. I have seen black people in very high positions. [...] And when they get together they go to the black pot with the porridge and then they eat with their hands and that is typical” (RA3).

The traditionality of the Xhosa is also getting obvious by analysing their ties to practices that have been prevalent during their childhoods in the form of, for example, customs, recipes or brands. All Xhosa interviewees stated that they use recipes from their ancestors very often, but that they only once in a while try new recipes that have been suggested to them by friends or that have been advertised⁹⁶. They admit that they mostly stick to what they have grown up with.

“I do not have time to cook samp, but it is my favourite dish because of my culture. [...] I used to eat it when I was a child. [...] I would still like to eat it because I am used to it [...] You stick on what you know best. You are always afraid of trying new stuff, until maybe you hear it from a friend. [...] So you do not just change your [...] rice to buy some other brand [...] without knowing how this one will taste. [...] Traditional was the most important to me, to be honest” (RX3).

Most of the Xhosa interviewees were also focused on brands that they know well, because they associate them with their childhood or they are sure about what taste and quality they will get when they buy a well-known brand.

“[...] I never try the other brands and differentiate the difference between. [...] I do not know [that one supermarket’s] brand so why should I buy [that] brand? Because maybe I would not like [that] brand and what is going to happen to the rest? Throw it away or give it to someone? So I rather stick with what I know” (RX4).

Only one Xhosa interviewee said that she just got one recipe from her grandmother that she is still using, but that she is mostly using the recipes that her friends and colleagues are suggesting to her (RX1). She said that she likes to try new recipes and food and that she is not cooking like her family used to cook during her childhood.

As a consequence, the Xhosa can be assumed to be basically traditional and routine-oriented in their alimentary practices, although they are partly open-minded towards new innovative practices and products if they have been suggested to them or are low in price.

Two of the Xhosa interviewees were of the opinion that the alimentation of Afrikaners is more modern. One explained this saying “[...] because they can afford [it], they can try new recipes and eat them [...]” (RX2). Only one Xhosa interviewee thought that the alimentation of Afrikaners is more traditional. Contrary to what most of the Xhosa interviewees said about the Afrikaners, most of the Afrikaner interviewees themselves have the opinion that their alimentation is more traditional and that they stick to what they know. Only one Afrikaner interviewee said that the alimentation of

⁹⁶ The communication and information channels used by the interviewees are further described in chapter 5 part 5.2.3.

Afrikaners is more modern. Most of the Afrikaner interviewees said that they sometimes or often use recipes and brands which they know from their mothers or grandmothers, but also occasionally try new recipes. However, two of the Afrikaner interviewees added that although they use established recipes very often, they eat very differently compared to their mothers or do not stick to certain brands.

To sum up, the Afrikaner interviewees are also very traditional in some cases and stick to routines and knowledge, but seem to be slightly more open-minded towards new innovative practices and products compared to the Xhosa interviewees.

Besides, alimentation of the interviewees has appeared to be hybrid which means that on the one hand, they buy products that are cheap (mainly no-name products), and on the other hand, they are very focused on specific brands and high quality products. This also depends on the food item, as meat is often said to be food where quality is more important, and it furthermore depends on routines and experiences, as the interviewees have adopted specific preferences from their childhood.

5.2.3 Information and communication channels

The interviewees stated to use different communication and information channels to gain knowledge on alimentation as shown in table 14 in appendix 8. As popular ways to inform themselves they named printed and web-based magazines, articles and books, institutional information (e.g. Heart Foundation South Africa⁹⁷) and advertisements, especially on TV. Most important is interpersonal communication (word of mouth) by talking to or emailing with relatives, friends, colleagues, doctors and dieticians. The most important topics are new recipes and the improvement of health conditions⁹⁸. This has also been confirmed by the expert. It became obvious that external information gets accepted and implemented quite uncritical, meaning that there is less critical reflection on the externally provided information and that different information sources are not compared. This gets quite clear by one Xhosa interviewee saying

“Let us say apples, I select [...] the green ones that is going to make my teeth nice, I believe that the green apples they make teeth nice, then I eat it. But I do not like the taste of the green apples. But I eat it because I want to make my teeth look nice. I have that believe because they do advertise on TV. Sometimes you look in the TV and you say ‘Oh that has got this [...] and that, that could help me, let me go and buy it’” (RX1).

The information gained by the interviewees is passed on to family and friends and the interviewees also give advices to others on the basis of their private research.

5.2.4 Alimentary formations

There are no detectable alimentary formations among the interviewed Afrikaner and Xhosa women, but there is a trend towards more healthy lifestyles as shown in table 14

⁹⁷ See online <http://www.heartfoundation.co.za/>.

⁹⁸ The relevance of health issues will also be described in chapter 5 part 5.2.4.

in appendix 8. The interviewees have mostly changed their lifestyles within the past 15 years because of health reasons and they also want to change their alimentary practices in the future. The sensibility which causes these past changes and future trends and might lead to a formation afterwards is mainly derived from personal, relatives' or friends' health conditions which are typically (over-)weight, heart problems, high cholesterol levels or diabetes and also include aspects of outward appearance (e.g. beautiful teeth or skin). Described examples for a more health-conscious alimentation were low GI foods, fewer additives like tartrazine, less (red) meat and animal proteins as well as more vegetables and fruits. Some of the interviewees' health-related alimentary changes are described below.

RA1's husband was diagnosed with diabetes and that is why she did a lot of research about diabetes and alimentation in order to serve him the right food. RA1 herself is overweight and is also trying to change her alimentation in order to lose weight. Moreover, she has a problem with her blood sugar. These are the reasons why she is talking a lot to her female friends about alimentation and low GI foods. Furthermore, her stepdaughter has got ADHD so she is avoiding some food additives.

RA2 has a diabetic daughter and that is why her whole family, except her husband, is not eating sugar at all and she avoids buying high glucose or condensed food. RA2 also said that she and her husband have always been health conscious and are still trying to improve their health condition.

RA3's husband had a triple bypass and that is why her family has changed alimentary practices a lot. RA3 and her husband both have high cholesterol levels and therefore, adjust their diet to their specific needs (e.g. fewer eggs). RA3 herself was on a diet a few months ago because of being overweight and she has lost 12 kg. Nowadays, RA3 is cooking very healthy and strives to have a greater variety of food (especially meats) and she is also trying to avoid high amounts of fat. Furthermore, she tries to limit the amount of meat, especially red meat, because she thinks that this will boost her health.

RX1 has a daughter who was diagnosed with an Acquired Immune Deficiency Syndrome (AIDS) and her uncle died because of bad eating habits. That is why she says

“It is very important, eating, especially now that we are getting these diseases. I personally believe that, like let us say you have got this kind of disease, because now there is this AIDS, I believe that you must like have a backup of eating balanced diet and then use the [...] medicines. [...] I think [...] it can boost you nicely if you can have enough balanced diet, like carbohydrates, nutrients and minerals, everything. Like South Africans, they have a tendency of, let me say the once that come from poorer families, are the once that get mostly diseases, because of poor eating habits. [...] My daughter is HIV positive. You know that I am concerned of eating balanced diet now that she is HIV positive. [...] So I am more and more and more cautious of this eating wisely balanced food. [...] Like at one stage my uncle died. And then I discovered my uncle could have not died if he was eating a balanced diet because he was a person who was using too much smoking and not eating at all, like for days. [...] So I have that in mind that he destroyed his body without any foundation, there was no foundation in his body like things that could built his blood cells and all that. [...] Because the cells of the body [...] thy need to be fed”. She further added “I do buy things that I see that this

is going to be good for my cholesterol, but I do not have cholesterol. Just to prevent myself”.

However, it also has to be taken into account that South Africans may be very health-conscious, but that this trend can have limits. For example, one Afrikaner interviewee said that she once went to a friend’s place and they served a pizza that was so healthy in terms of the amount of green vegetables being used that she actually did not like it (RA1). She thinks that these people hardly eat anything wrong because of their health-consciousness and that they do a lot of research, take vitamins and other supplement pills (RA1). This Afrikaner interviewee does not strive for such an alimentation, although she is trying to improve her alimentation based on health concerns.

Other important aspects that caused shifts within the alimentation of the interviewees are changes within the family (birth of children, moving out from the parents place, (re-)marriage and the like) or the move from rural to urban areas. Again, these changes are not to be seen as a formation, but may be relevant side conditions and sensibilities leading to formations in the future and therefore, have to be taken into account when promoting changes towards Sustainable Alimentation.

5.2.5 Alimentary categories

Alimentary categories, especially corporeality and gender roles, are very important to understand alimentary practices. The current connection between corporeality and alimentation of the investigated households is partly pointed out by the health-orientation described within the previous part. This part is analysing which peculiarities exist within these households in gender issues (tab. 14 in appendix 8).

All interviewees said that a female member of the household, mainly themselves, is responsible for buying and cooking the food. Only for special occasions men are cooking. These occasions are mainly the braais when meat is grilled outside. It seems as if it is kind of a conscious as well as unconscious ritual to demonstrate masculinity and status. This fact has been well described by one Xhosa interviewee. She said that when Xhosa people, especially the men, have a party, they consume and enjoy ‘fun food’, which contains different kinds of meat, like a head of a sheep or a cow, that they do not normally cook in their houses (RX1). She also said that Xhosa men like to eat out and buy food (e.g. fast food and junk food like chips). She added that although women are responsible for cooking the daily meals within Xhosa households, mainly men are preparing and cooking food for special occasions like braais or parties.

Apart from these quite traditional alimentary roles, general changes in gender roles within South African households are occurring. These have been well described by one Afrikaner interviewee.

“And also the country has changed, the condition of working mothers. In the past the mothers did not work, they were there for the children and for the husband and they cooked and they cooked and they cooked and they were in the kitchen. Nowadays the mothers are working. They get home six ‘o clock. Then they must quickly prepare a meal or what do they do? They drive to [a fast food restaurant]. So it is a much more

fast food type of thing. [...] People do quick meals where they can sit in front of the TV and have their supper. They do not sit down with the families, with good quality food” (RA3).

As a result, the role of women being responsible for the selection and preparation of food has changed towards a higher dependency on external supplies and knowledge (e.g. convenience and fast food). A less strict separation of gender roles, mainly caused by the limited time resources of the women, has also been described by one Afrikaner interviewee who said “[...] we also like to cook together and sometimes my son helps me for cooking [...]” (RA1).

Chapter 6

Discussion and conclusion: Framework conditions for the promotion of Sustainable Alimentation in South Africa

6.1 Generating hypothesis

As this thesis is based on explorative and inductive research, its final aim is to generate hypotheses⁹⁹ that build up on the theoretical and empirical findings. These hypotheses shall assist further research in developing theories about and designing promotion strategies for Sustainable Alimentation in South Africa. Within this thesis scope the aim is to generate hypotheses of association that mainly focus on the causes and effects of findings and – where possible – state correlations among variables. This way, the research field gets broadly defined and allows for further more detailed investigations on the specific nature of causes, effects and their correlations, and also serves as an adequate basis for the generation of promotion strategies that are able to attach to the causes of problems. All hypotheses postulated within the following parts aim to describe a status quo of causes and effects, but are also further defined within a short explanation that follows the hypotheses and regards the requirements for possible promotion strategies.

⁹⁹ Hypotheses are statements about the correlation of at least two different variables or characteristics (Dieckmann 2009, p. 124). They relate to an actual situation, are universally valid, can be formulated as a conditional clause and can be falsified (Bortz/Döring 2006, p. 4). The aim of hypotheses is to explain ideas or findings and to serve as a basis for further, more specific and focused research (Häder 2010, p. 39f.). According to Weathington et al. (2010, pp. 72ff.), four types of hypothesis exist within the behavioural and social sciences. These are: “(1) estimation of population characteristics, (2) correlation among variables, (3) differences among two or more populations, and (4) cause and effect” (Weathington et al. 2010, p. 72). The second and fourth type of hypotheses can be summed up as hypotheses of association as these show correlations between causes and effects (Takona 2002, p. 174). For further explanation of hypotheses see Bortz/Döring (2006).

6.2 Multicultural communication (hypothesis 1)

Afrikaans- and Xhosa-speaking urban middle-class households in Port Elizabeth (South Africa) are homophilous, if their alimentary practices are compared using the theoretical approach of Sustainable Alimentation.

As a conclusion of comparing all results within chapter 5, it turns out that only marginal differences between the alimentary practices of Afrikaners and Xhosa in terms of the theoretical approach of Sustainable Alimentation¹⁰⁰ exist and that these are constantly getting reduced. The Afrikaner interviewees have a slightly better knowledge about foods that are organic and environmentally sound packaged, do inform themselves a bit more about alimentation related to health issues, are partly more health-conscious and the typical meals of the two ethnicities differ although the combination of food is mainly the same. Hence, these two ethnicities can be regarded as being homophilous¹⁰¹ in terms of a Sustainable Alimentation. Although the socio-cultural background of these ethnicities is extremely different, the knowledge and practice of Sustainable Alimentation, the used purchase and information channels, the criteria, types and procedures of food selection and consumption as well as alimentary formation and alimentary categories are very similar. These practical findings dissent to the assumptions about differences of alimentary practices between the two ethnicities made in the beginning, but they are supporting the theoretical findings described in chapter 3, as westernisation, globalisation, fast pace (hastening and convenience) or price-consciousness are determining the alimentary practices of the investigated households and cultures are constantly intermingling. Having the background of South Africa's specific historical and cultural past and facing the pursuit of 'Unity in Diversity' instead of 'Divide and Rule', it seems indispensable to – as far as possible – use promotion mechanisms that simultaneously address the cultural ethnicities and do not culturally distinguish. This would neither be efficient in terms of financial resources, nor contribute to a shared alimentary reality between the different ethnicities, as it would hamper discussions about Sustainable Alimentation, comparisons of practices, the assistance of each other with information and the feeling of being united and equal regardless of past happenings. As a result, the following hypothesis and recommendation do not distinguish between the investigated ethnicities, but take them together as urban middle-class households of Port Elizabeth.

¹⁰⁰ It has to be taken into account that using a different theoretical approach might lead to a different outcome in terms of the two groups being not homophilous. This hypothesis is only focussed on criteria related to the theoretical approach of sustainable alimentation as described in part 2.4 and used in chapter 5.

¹⁰¹ "When two individuals [are homophilous and] share common meanings, beliefs, and mutual understandings, communication between them is more likely to be effective" (Rogers 2003, p. 306).

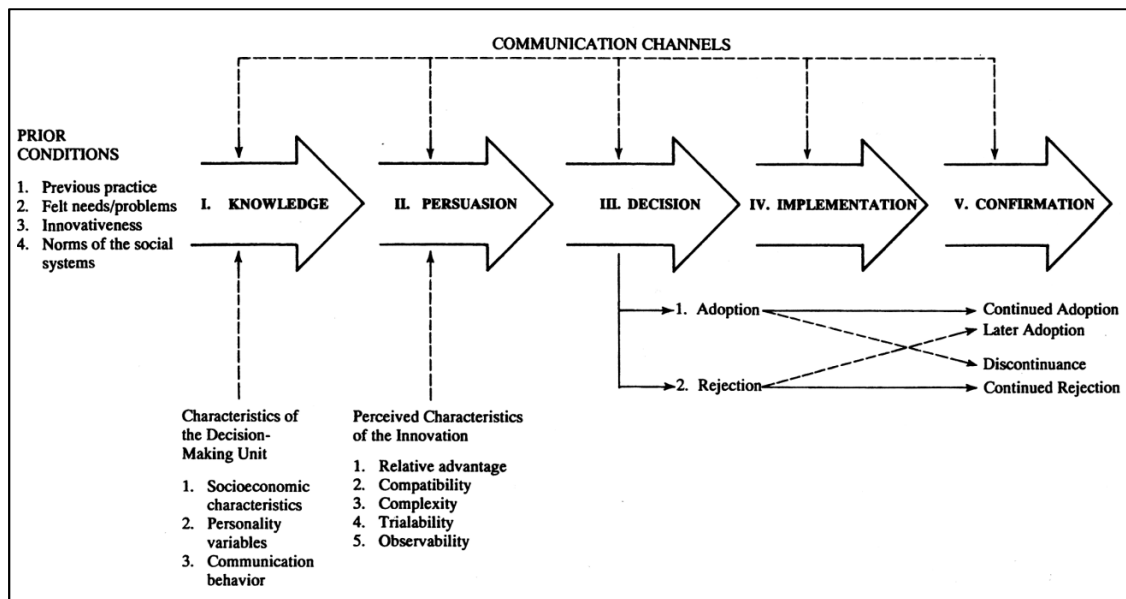
6.3 Status of the diffusion process (hypothesis 2)

As the early stages of the diffusion process of Sustainable Alimentation are insufficiently initiated and accomplished among urban middle-class households in Port Elizabeth (South Africa), the implementation of Sustainable Alimentation is insufficient as well.

Actions, products or services related to the concepts of sustainable development and Sustainable Alimentation are innovations which require diffusion in order to be successful. The process of diffusion is separated into five certain consecutive steps as shown in figure 6¹⁰². Prior conditions of these steps are, for example, felt needs and problems as well as changed norms of social systems. These conditions are the triggers for the initiation of the diffusion process which is promoted via communication channels. In order to enable a decision for as well as an implementation and confirmation (adoption) of Sustainable Alimentation, knowledge about and a persuasion of the concept need to be existent. As described at various points within part 5.1 (chapter 5), the concepts of sustainable development and Sustainable Alimentation are not diffused among the investigated households, which is due to a lack of knowledge about these concepts and related actions, products or services. The persuasion stage has mostly not even been reached so that conscious actions do not result. The interviewees did not feel needs, problems or claims from changed norms of the social system and hence, did not perceive an innovation as such or a significance to change alimentary practices in terms of the innovation. Although the investigated households felt health-related needs to change their alimentation in a sustainable way, these needs were not driven by other factors of sustainable development (socio-cultural, economic or ecological issues). Therefore, it is hardly surprising that so far, Sustainable Alimentation is not practiced among the investigated households. These circumstances show that promotion mechanisms for the adoption of Sustainable Alimentation among the investigated households first of all need to educate about the innovative concept itself, show practical examples (e.g. of other countries or role models) and explain the relevance of Sustainable Alimentation (creation of felt needs and problems). It is highly relevant to attach information to the existing alimentary practices so that the needs, problems and advantages are perceived on the individual level, which is necessary because as explained in part 2.3.2, research findings of other authors proved that knowledge about sustainable development is not sufficient to drive changes, if this knowledge is not related to the individual situation.

¹⁰² This process consists of five stages: (1) the knowledge stage, “[...] when the individual is exposed to the innovation’s existence and gains an understanding of how it functions; (2) persuasion, when the individual forms a favourable or unfavourable attitude toward the innovation; (3) decision, when the individual engages in activities that lead to a choice to adopt or reject the innovation; (4) implementation, when the individual puts an innovation into use; and (5) confirmation, when the individual seeks reinforcement for an innovation-decision already made but may reverse the decision if exposed to conflicting messages about it” (Rogers 2003, pp. 216-217).

Figure 6: Innovation-decision process and communication channels



Source: Rogers 2003, p. 170

6.4 Level of innovativeness and compatibility (hypothesis 3)

The alimentary practices of urban middle-class households in Port Elizabeth (South Africa) are characterised by a low innovativeness that hampers a diffusion of Sustainable Alimentation.

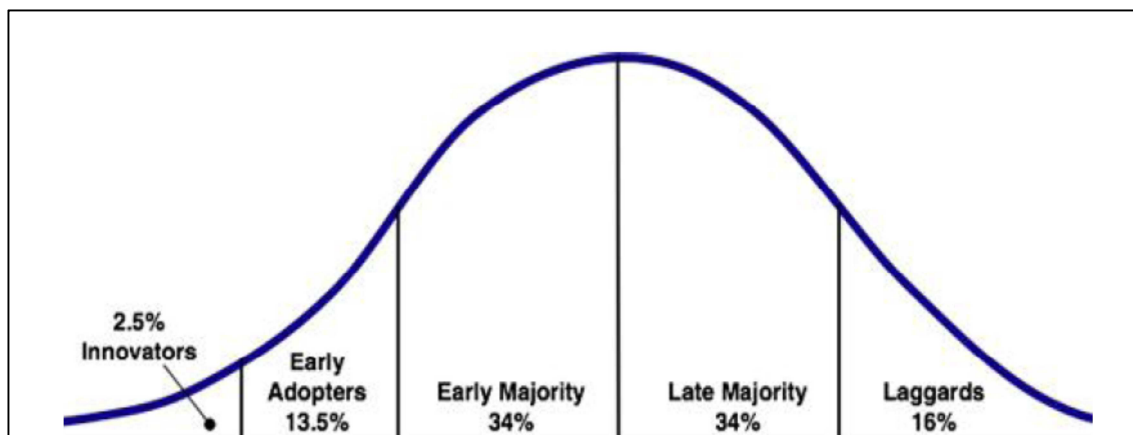
For the diffusion of an innovation it is of high relevance to know about the innovativeness (or rather the openness for an innovation) of individuals. An important factor determining a person's level of innovativeness is the compatibility of the innovation which means "[...] the degree to which an innovation is perceived as being consistent with the existing values, past experiences, and needs of potential adopters" (Rogers 2003, p. 17). The compatibility also determines the point of time when the individual is likely to adopt the innovation (fig. 7). The more the alimentary practices of an individual are led by traditionality (e.g. existing routines, values or past experiences), the more likely they will belong to the late majority¹⁰³ or laggards¹⁰⁴ of adopters

¹⁰³ Rogers (2003, p. 22) characterises the late majority as individuals that are "[...] of relatively lower socio-economic status, makes little use of mass media channels, and learns about most new ideas from peers via interpersonal communication channels". Furthermore, Rogers (2003, p. 284) states that the late majority adopts because of an economic necessity and peer pressures and that the norms of the social system must favour the innovation prior to the adoption of the late majority. "Their relatively scarce resources means that most of the uncertainty about a new idea must be removed before the late majority feel that it is safe to adopt" (Rogers 2003, p. 284).

¹⁰⁴ According to Rogers (2003, p. 284), the laggards "[...] point of reference [...] is the past. Decisions are often made in terms of what has been done previously, and these individuals interact primarily with others who also have relatively traditional values. Laggards tend to be suspicious of innovations and of change agents".

(Rogers 2003, pp. 283ff.). Regarding alimentation, the investigated households showed a concentration on traditions, routines and self-established certainties in most terms, but they were also open-minded to try some new (innovative) food products and procedures when they have been suggested to them or were convincingly advertised. Moreover, their alimentary practices were highly restricted by financial resources. Consequently, the investigated households can be assigned to the late majority and be assumed to have a low level of innovativeness.

Figure 7: Adopter categorisation on the basis of innovativeness



Source: Rogers 2003, p. 281

In the specific case of the investigated households, the above conclusions imply that promotion strategies should go along with price incentives as a high price-consciousness and restricted financial resources are prevalent. Furthermore, the promotion of Sustainable Alimentation should attach to existing traditions, beliefs, routines and certainties in order to allow for an initiation of diffusion. These might be, for example, commonly used recipes, products, brands or supermarkets. Although this also means accepting that the postulations of Sustainable Alimentation will be fulfilled less completely and much slower, it is necessary not to overstrain the households with new and alien expectations as these would be counterproductive because the households might feel scared and hence, refuse to change and insist on existing practices. Giving the investigated households the feeling that the innovative postulations of Sustainable Alimentation go along with already established habits and trends also means to consider existing alimentary formations and categories, cultural peculiarities as well as preferences in communication channels. The relevance of these aspects in the case of the investigated households will be described within the following hypotheses.

6.5 Communication channels, opinion leaders and change agencies (hypothesis 4)

Innovative alimentary practices diffuse among urban middle-class households in Port Elizabeth (South Africa) through practice-oriented mass media advertising or interpersonal communication, including opinion leaders like dieticians or doctors and related change agencies.

The interpersonal face-to-face communication of the investigated households mainly takes place between individuals that are homophilous and close to each other in terms of social relations (e.g. family and friends). An interpersonal communication is particularly suitable for diffusion processes that are in an early phase (knowledge or persuasion process) as it is the case with the investigated households (Rogers 2003, p. 217f.). In order to supply the consumers with information on Sustainable Alimentation, individuals (so called opinion leaders) who are characterised by a social accessibility and interpersonal (peer) networks and as a consequence, can “[...] serve as role model[s] for the innovation behaviour of their followers” (Rogers 2003, p. 27) should be appointed. In the case of the investigated households, these opinion leaders were doctors and dieticians which were consulted because of health issues. Change agencies, like the Heart Foundation, further assist in informing the households.

Moreover, mass media (such as radio, television, newspapers and the like) and especially advertisements were used as an information source by some of the investigated households. Mass media are particularly suitable for diffusion processes that are in early stages (knowledge process) as it is the case with the investigated households (Rogers 2003, p. 18). “[Mass media] enable one or a few individuals to reach an audience of many” (Rogers 2003, p. 18). As the investigated households do not show a critical reflection of the advertised information, it is of high importance to ensure that the public available information on alimentation is sound and verified by appropriate institutions (e.g. Health Foundation) or experts (e.g. doctors or dieticians) so that it is less probable that the consumers are supplied with wrong information that they spread to friends, relatives or colleagues.

6.6 Alimentary formations as stepping stones (hypothesis 5)

Urban middle-class households in Port Elizabeth (South Africa) are interested in and persuaded of some sustainable alimentary practices only because these are related to health sensibilities.

In order to support a successful implementation of Sustainable Alimentation within the investigated households, the consumers need to gain knowledge about and have a persuasion of this innovation. Related research as well as information and communication processes are needed to educate the households and enhance the diffusion process. The information and communication processes should attach to the households' currently experienced needs and problems (prior conditions). At the moment, these needs and problems are highly focused on health issues that are related to personal experiences and advertisements. This health-consciousness can be assumed to lead to an alimentary formation in the future. Change strategies and related information and communication processes should attach to the existing health sensibility and use it as a stepping stone in order to awaken the households' interest and make them open-minded towards the broader concept of Sustainable Alimentation, including further socio-cultural, economic and ecological issues. These further aspects can step-by-step be brought forward without demanding too much of the households in the beginning. Especially because of the low innovativeness of the investigated households, a step-by-step process that initially focuses on familiar sensibilities and issues is important. The most important issue for the investigated households is the improvement and preservation of health conditions, including diabetes, obesity, high cholesterol levels or heart burn.

6.7 Gender roles, separated schedules and slowing down (hypothesis 6)

As the role of women in urban middle-class households in Port Elizabeth (South Africa) is changing and the time and space separation of the family members' schedules is increased, alimentary practices become more hastened, deterritorialised, externally dependent on products and services and are less characterised by socialisation, so that a slowdown is hampered.

Within the investigated households, the role of women had changed compared to former times. The women were all working full time, mostly independent of men income and they were responsible for all alimentary issues (shopping, selecting, preparing and cooking the food). Furthermore, the Xhosa women were single and therefore, were responsible for all household duties (e.g. cooking, earning money or keeping the house in shape). As in former times, patriarchy was prevalent so that women were mostly only working as mothers and housewives and were supported by their families and husbands, they had the time resources to intensively think about which food they should select and cook and also to prepare more time-consuming meals and make alimentation a social gathering. Nowadays, the investigated women experience limited time resources, especially during weekdays when they are working, and as a result, they have less time

for alimentary issues. In combination with the schedules of other family members (e.g. husband or children), which are mostly separated in terms of time and place, it becomes difficult for the households to find enough time to eat together, to enhance social interactions and to be thoughtful about what is eaten in which way. In contrast to that, external supplies and services (e.g. convenience and fast food) get more important to assist women in reducing the time pressure on everyday duties like alimentation. The changed role of women and the development of separated family schedules are counter-productive in terms of a slowed down life related to alimentation and also in terms of being more thoughtful about food products and the importance of enjoying and experiencing food. In order to slow the current alimentary practices of the investigated households down, it is necessary to provide practical information on the health-related (e.g. the health-promoting ingredients), socio-cultural (e.g. the improvement of family relationships), ecological (e.g. less emissions and waste) and price advantages (e.g. less fuel or food costs) of Sustainable Alimentation. Although alimentary practices should be characterised by time taking, self-preparation and a relaxing atmosphere, alimentation cannot always be slowed down (particularly on weekdays), if there is not enough time for generating meal ideas that are in line with Sustainable Alimentation. Therefore, the education about the benefits of slowing down needs to be combined with practical information that help the households to use their time resources efficiently. This information should provide ideas and instructions on the selection, preparation and cooking of sustainable meals. For example, recipes could include shopping lists with information on prices (or price comparisons) and on where all the ingredients can be bought at one go. This information could be included in the supermarket leaflets, newspapers or other printed media and particularly in the form of advertisements. This way, the households are provided with practical information on the implementation of Sustainable Alimentation which they can easily cut out and use directly. As the information sources (leaflets and the like) are rich in variety and provided in regular terms, the households will always have them at hand. Furthermore, as the information is up-to-date it will also contain special offers and currently available foods (e.g. seasonal and regional food). Several further promotion mechanisms are expedient and possible, but cannot be addressed at this point due to this thesis' limited means.

6.8 Meat and minimally processed plant-based food (hypothesis 7)

Urban middle-class households in Port Elizabeth (South Africa) are hampered to consume more minimally processed plant-based food as within these households, the cooking and consumption of meat is determined by socio-cultural factors of masculinity, traditionality, routines and hospitality.

For special occasions, especially those where guests are hosted, meat is cooked in large amounts and usually by the men of the households. This is due to the fact that meat is associated with masculinity and status (especially wealth) as well as traditional dishes (e.g. bobotie or Ulusu). This socio-cultural embeddedness of meat is hampering a consumption of preferably plant-based food. Changing socio-cultural characteristics and

particularly traditional customs and symbols is hard as these are deep-rooted and embedded within a broad and complex system of social interactions and individual positioning within social groups. A drastic and rapid change in the consumption of meat cannot be expected, but some changes towards a lower consumption of meat are possible. First of all, different kinds of meat have different ecological impacts. The consumption of less red meat and the focus on a greater variety of meats (e.g. chicken or pork) could be fostered to reduce negative ecological impacts like methane emissions. Nevertheless, the investigated households already show a tendency towards a lower consumption of red meat and a supplementation by, for example, chicken. Furthermore, the consumption of minimally processed plant-based food is very low among the investigated households, which is mainly caused by routines in regard to the prepared dishes and their ingredients. Promotion strategies should consider both facts: The high consumption of meat and cooked food and the low consumption of minimally processed plant-based food. In order to account for the household's customs, traditions and routines and to still change alimentation towards sustainable development, the traditional and existent recipes could be modernised by ingredients, preparation methods and possible side dishes. In this specific case there has to be a differentiation between the Xhosa and the Afrikaners as they have different traditional dishes and therefore, also differing recipes. As an example for a sustainable change of recipes, the amount of meat used for a bobotie could be reduced and replaced by also using soy mince and the side dish could make up a bigger amount in relation to the meat, also containing raw vegetables, like salad, peeled carrots, cucumbers or pepper. This way, traditional dishes that contain meat can be maintained so that the households will show a high acceptance of changes. Nevertheless, awareness campaigns on the health-related and ecological impacts of meat production and consumption should be initiated in order to relate the promoted (recipe) changes to the concept of sustainable development and to enhance a reconsideration of existing practices. Changes to the present relation between meat and masculinity are hard to influence externally, but a changed attitude towards meat on the broad societal level could automatically lead to a shift in men's appreciation and consumption of meat.

6.9 Superabundance and cutting down (hypothesis 8)

Cutting down on low food quantities and high qualities is hampered because of the socio-economic embeddedness of preferring low prices and high quantities over high qualities as well as the socio-cultural embeddedness of food superabundance of urban middle-class households in Port Elizabeth (South Africa).

From a socio-economic perspective, the investigated households are extremely price-conscious as they want to get high quantities as well as qualities for little money. This is mainly caused by their limited financial resources, but nevertheless, as the investigated households belong to the middle-class they have a sufficient income to allow for the (partial) consumption of quality food products (e.g. organic food). Sometimes, the households focus on quality foods which are characterised by specific brands or which

are found to be enjoyable and easily digestible, but quality seems to be less important in comparison to quantity and moreover, quality is not associated with ecological, socio-cultural or economic aspects of food. The focus on quantities is obvious as the investigated households feel an internal desire and external expectance to eat and serve food in high quantities, especially for special occasions. This is due to the fact that from a socio-cultural perspective, the investigated households regard food as a status symbol as well as an expression of politeness towards guests. This has also been proved by the findings of Puoane et al. (2006, p. 91) as shown in part 3.3.2. Therefore, the investigated households are not quantitatively cutting down on their food consumption towards higher qualities food. Changing socio-cultural characteristics and particularly traditional customs and symbols is hard as these are deep-rooted and embedded within a broad and complex system of social interactions and individual positioning within social groups. A change of the households' orientation towards low prices can mostly be achieved by educating them about the quality of sustainable food products and related advantages for the household (e.g. better health conditions or less regional unemployment). This way, the households will appreciate the quality of specific sustainable food products even more because they can relate the quality to individual and communal advantages. A higher appreciation of sustainable food products can lead to a higher willingness to pay for quality food instead of using the same amount of money to buy high quantities of low quality foods which are not associated with such advantages. The same way, the superabundance that is characteristic for the alimentation of the investigated households could be reduced. A reason for this is that on the one hand, the appreciation of the food may lead to a greater enjoyment of and awareness about what is eaten, and on the other hand, high quantities of food as a status and politeness symbol could be replaced by serving high quality products which also symbolise others that these households only serve best products for themselves and their guests.

6.10 Disadvantage of external barriers (hypothesis 9)

Some currently existing external barriers, namely the limited availability and insufficient declaration and certification of sustainable food products, hamper specific sustainable alimentary practices of urban middle-class households in Port Elizabeth (South Africa).

The best volition to implement Sustainable Alimentation (decision stage of diffusion) is useless and unsuccessful, if required products and services are not available, trustable or identifiable. In the investigated town Port Elizabeth, external barriers for the generation of knowledge and persuasion as well as the implementation of Sustainable Alimentation are prevalent. Organic food is neither certified, nor trustworthy, fair trade food is not available, additives and related health warnings are insufficiently declared, and origins of food (regionality) as well as the environmental friendliness of packaging are not disclosed. These are the reasons why the investigated households are mostly not able or willing to consider or implement Sustainable Alimentation. There are several possibilities to achieve a better declaration, comparability and trustworthiness of

sustainable food products. Declarations of ingredients, related health issues and origins of products could be forced by law and certificates for organic and fair trade food as well as environmentally friendly packaging could be introduced and awarded by third parties. The information on and certification of food products should include further explanations as currently, the consumers do not have the relevant knowledge to interpret most of the information that is related to Sustainable Alimentation (e.g. the meaning of the label organic).

6.11 Advantage of external and internal Barriers (hypothesis 10)

Some currently existing external and internal barriers, namely the limited availability of some less sustainable food products and a limited budget, drive specific sustainable alimentary practices of urban middle-class households in Port Elizabeth (South Africa).

External barriers are not only hampering Sustainable Alimentation, but also driving it. Due to a limited availability of alternatives for regional and seasonal food, the investigated households are automatically fulfilling the regionality and seasonality principle of wholefood alimentation. As globalisation and commercialisation are also found within the South African alimentary sector, imported, trans-regional and unseasonal food will sooner or later be available for the households. The changes in availability can be assumed to lead to a lower consumption of regional and seasonal food because of the offer of cheaper, more attractive or exotic alternatives. Interventions should be planned in advance to the changes in availability, for example in the form of an education about the individual and communal advantages of regional and seasonal food. Furthermore, the consumers should get a positive feedback for their already existing conformance with the regionality and seasonality principles, so that they are encouraged to maintain related alimentary practices.

There are also internal barriers that automatically force a higher conformance with a Sustainable Alimentation, but these may change in the future leading to negative impacts for the practice of Sustainable Alimentation. If the incomes of the urban middle-class households in Port Elizabeth rise further, alimentary practices might become less slowed and quantitatively cut down, less unbundled and less localised. This is due to the fact that the investigated households named their limited financial resources to be a restraint for using external food products and services more often. Furthermore, the literature review in part 3.2 also highlighted the correlation between wealth, income and status related to an unsustainable Alimentation in terms of a higher usage of external supplies as well as an increased consumption of meat and food in general. A higher use of external food products and services could, for example, lead to less social interactions, more hastening, a higher consumption of unsustainable fast and convenience food, more emissions and waste due to transport and packaging, a superabundant alimentation or a greater dependence on external knowledge and competences. A high meat and food consumption is also counter-productive in terms of a sustainable development. Furthermore, economic growth is driven. These outcomes

are counter-productive in terms of Sustainable Alimentation. Interventions to prevent such outcomes have been named within previous hypothesis parts, in particular hypothesis six and eight. In general, it is important to promote the various qualities of sustainable practices and food products so that the consumers are willing to spend their money for these products and partly dispense with consumerist activities like eating out.

6.12 Commercial dependence (hypothesis 11)

Due to alimentary trends, less individual initiative as well as a lack of knowledge and offered alternatives, the alimentary practices of urban middle-class households in Port Elizabeth (South Africa) are currently totally dependent on commercial external food supplies.

The investigated households are totally dependent on commercial external food supplies by supermarkets. This is caused by a lack of knowledge about, availability of and initiative for alternatives (e.g. CSA) as well as the adoption of alimentary trends (e.g. globalisation or commercialisation). Driving the households' alimentary practices towards unbundling, local as well as less commercialised alimentary practices requires an education about the problems of growth and external dependencies as well as knowledge about practical alternatives (e.g. growing own food, animal husbandry or CSA) and an encouragement to invent and use those (e.g. providing related structures or naming advantages like lower costs or healthier food). For example, governments or consumer groups could supply households with community gardens and information on farming, or advantages for regional food markets could be generated, such as lower taxes on products and services of regional origin or on minimally and non-processed food.

Chapter 7

Summary, critical reflection and outlook

The first aim of this thesis was to develop a practice-oriented theoretical approach on Sustainable Alimentation, because although this is an established term, an appropriate approach that accounts for all facets of the concept of sustainable development has not existed so far. A practice-oriented approach integrates all alimentary activities and all sustainability principles, beginning from ‘what’ to eat including efficiency and consistency in terms of the concept of wholefood alimentation, up to ‘how’ and ‘how much’ to eat including sufficiency in relation to the theory of post-growth economics. Such an approach is also defining ‘how to investigate’ into what, how and how much people are eating by using the theory of alimentary practices and expanding it partly by some aspects of Rogers’ diffusion concept. Only a combination of all previously mentioned approaches allows for a nearly all-embracing analysis and evaluation of alimentary practices with a focus on Sustainable Alimentation. Using them as single approaches, they are only able to point out specific fragments of a person’s alimentary practices, but combined they add together and are able to account for the socio-cultural, economic, ecological and health-related challenges of sustainable development. The generated approach on Sustainable Alimentation takes into account that alimentation is a social practice that is strongly dominated by socio-cultural factors (e.g. symbols, rituals, innovativeness, opinion leaders or customs) and which is not only repeating a recorded culture, but also recognising, reflecting and reconfiguring processes on the basis of practical knowledge (doing culture). It is necessary to study alimentary practices among different cultural groups, regions, countries or even continents, because changes can only be adequately promoted and will be accepted, if one knows ‘what’, ‘how’ and ‘how much’ certain groups or individuals consume. Promotion strategies that are only based on scientific or historical knowledge, but neglect sensibilities as well as internal and external barriers or drivers will not be broadly accepted by the consumers and hence, will not enhance the diffusion process of Sustainable Alimentation.

Although it is also the consumers’ responsibility to change long-established practices in order to favour sustainable development, it is important to respect and maintain socio-cultural peculiarities as these are crucial elements of a person’s life and therefore, his or her mental well-being. Sustainable development is not only about the protection of nature, resources and animals, but should also consider individual needs for well-being, because otherwise, the concept fails its mission “[to meet] the needs of the present without compromising the ability of future generation to meet their own needs” (World Commission on Environment and Development 1987, p. 46). As well-being is not only determined by the availability of an adequate amount of food to keep the body working, but also by a mental satisfaction regarding the types of food and the way we eat, it is indispensable to adjust the concept of Sustainable Alimentation to the

consumer's specific mental and socio-cultural needs. In the case of the investigated urban middle-class households in Port Elizabeth, the consumption of meat, the importance of traditionality, the specific alimentary categories (e.g. working women), the restrictions through external barriers (e.g. lack of fair trade food) as well as the specific history (apartheid regime and multiculturalism) have to be respected, taken into account and integrated within promotion strategies, because otherwise, the concept of Sustainable Alimentation will not diffuse among South African consumers. It is of high importance to guide the consumers with caution and to enable the first steps of the diffusion process (knowledge and persuasion stage) to be adequately fulfilled instead of expecting huge changes to be implemented rapidly among individuals that show a low innovativeness. A good preparation and foundation is the key for long-lasting and effective success. In the case of this study, this means to take time for the analysis of existing alimentary practices and to enable a perception, understanding, knowledge and persuasion of Sustainable Alimentation among the investigated households.

Another aim of this thesis was to evaluate the extent to which the present alimentary practices of the investigated households follow Sustainable Alimentation and to define hypotheses containing concrete factors that have to be taken into account for the promotion of changes towards Sustainable Alimentation. As a result, one can say that the alimentary practices of urban middle-class households in Port Elizabeth are only slightly sustainable. The existing sustainable alimentary practices are mostly driven by alimentary trends (e.g. low GI food), external barriers like a bad availability of imported or cold-stored food, and personal conditions causing health-consciousness. Persuasions of sustainable development or altruistic motivations were not existent. This also causes many unsustainable alimentary practices, like a superabundant consumption of food, especially meat, and an irrelevance of socio-cultural, ecological and economic aspects relating to food products. Referring to possible promotion strategies in the future, it is of high importance to account for the low level of innovativeness among the investigated households. In general, a rising awareness about positive issues and the relevance of Sustainable Alimentation (e.g. health-promotion or reduced dependency on external supplies and crises), customised implementation strategies and a better availability, declaration and certification of sustainable food products is needed in order to generate options as well as a trust in these foods so that the diffusion of this innovation is promoted.

This thesis' research is only a first attempt to scan the research objects in their basic alimentary characteristics and to find peculiarities that have to be taken into account in order to promote successful changes. Further research is necessary to fully understand the households' alimentary practices and the drivers and barriers that lie behind them. Moreover, as South Africa consists of eleven different ethnicities, it is important to investigate other ethnicities as well and to study how the move from rural to urban areas or the change in social classes affects alimentary practices. It is also quite surprising that only marginal differences between the Xhosa and the Afrikaners could be highlighted. On the one hand, this finding can be explained by specifically focussing on Sustainable Alimentation instead of comparing alimentary practices in general, but on the other hand, a different way of questioning and investigating (e.g. external monitoring or purchase logs) may be useful for further research so to find more detailed differences.

As Sustainable Alimentation is not just an issue of the consumers, other parts of the food chain as well as their interactions and interlinkages with the consumers need to be studied. Only the cooperation of all actors can guarantee a successful diffusion of Sustainable Alimentation. For example, if sustainable food products are not advertised well (e.g. environmental friendliness of packaging) or if the food supply does not allow for sustainable alternatives (e.g. no farmers markets or fair trade food), the consumers are hampered in thinking and consuming sustainable. This has also been the case with the investigated households.

One should not neglect the financial and time effort as well as the skills that are needed to study alimentary practices of various different groups of people. It has to be questioned at which point the outcome still justifies the effort. After a number of qualitative investigations have been carried out and the alimentary practices of a certain group of people are quite well shaped and explored, it might be reasonable to switch to more standardised quantitative research methods which require less effort (e.g. questionnaires). Investigations could also be combined with other aspects of the consumers' everyday life that are closely related to sustainable development, like energy consumption, waste management or mobility.

Trying to describe an outlook about what will happen with the research subject and objects in the future, it can be assumed that although a sensibility and knowledge will be generated among South African households, alimentary practices become more unsustainable as globalisation and alimentary trends are continuously taking over, leading to (commercial) dependencies, more imported and cold-stored food products, diseases, a higher convenience orientation and overconsumption. This assumption is made because similar changes have been observed in other countries and the interviewees mainly showed a positive attitude towards these trends as they related them to convenience, wealth, status, well-being and quality. Facing these developments, an immediate advancement of the diffusion process of Sustainable Alimentation is needed so that westernised structures are not overly internalised in alimentary practices and changes will be easier to promote and implement. Nevertheless, if the developed countries – which often act as role models for the developing countries in terms of lifestyles – do not change their alimentary practices drastically towards Sustainable Alimentation, the developing countries cannot be expected to do it differently as they see themselves in the position of being allowed and also partly expected to reach the western prosperity and life standards. In this sense and facing the fact that consumption and alimentation is becoming more and more westernised, the approach of post-growth economics becomes even more relevant as it questions the current innovation-orientation, the striving for endless economic growth (which has proven to be problematic in the long run) as well as existing types of production and consumption.

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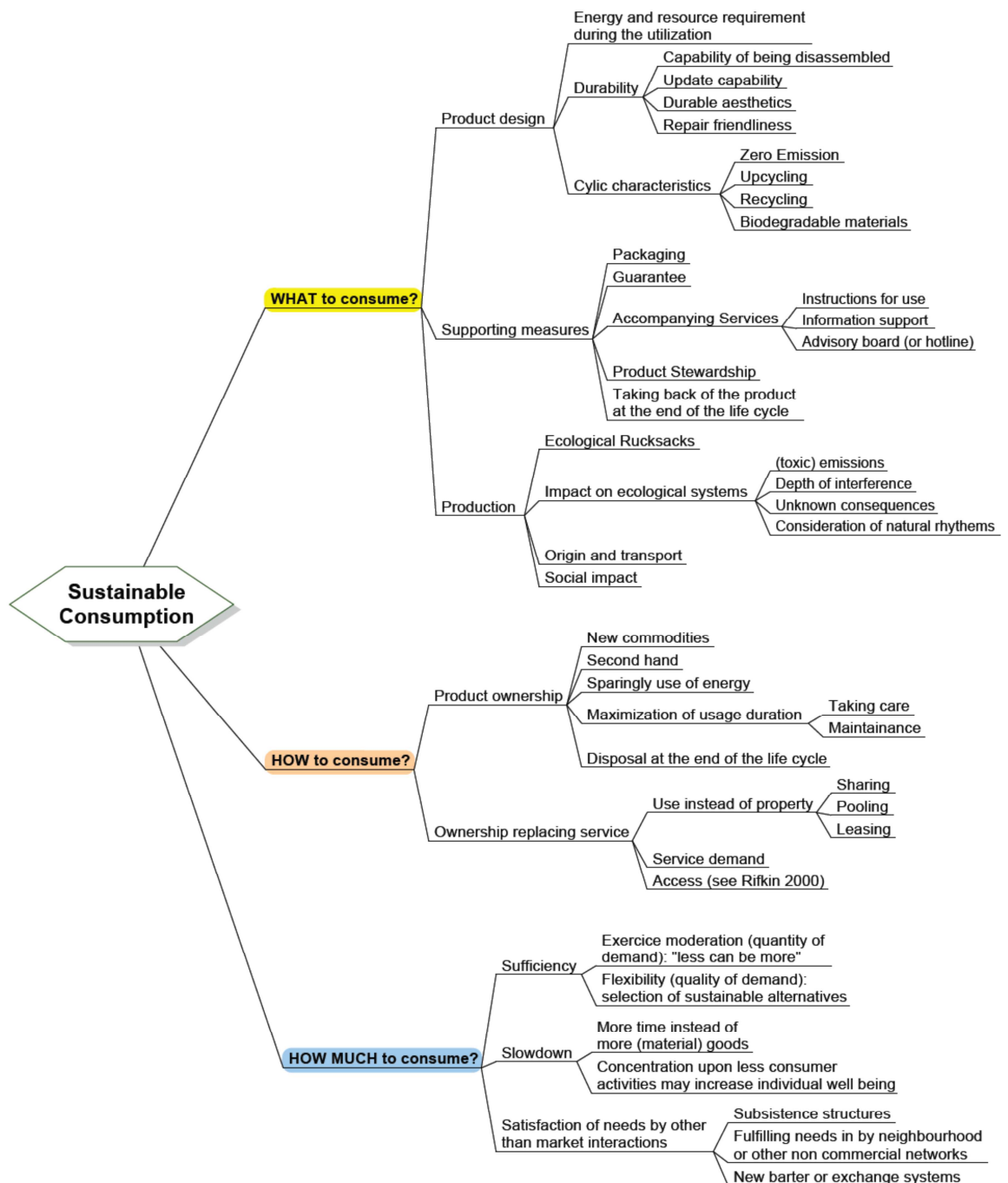
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Appendix

Appendix 1: Aspects of sustainable consumption

Figure 8: Sustainable consumption: What, how and how much



Appendix 2: Own calculation of South Africa's middle-class

Usually the median of a country's income is calculated to define the middle-class. The median divides the income into two parts (Federal Ministry of Finance 2008, n. p.). The next step is to calculate the margin of deviation (70% below and 150% above the median) (Federal Ministry of Finance 2008, n. p.). The two calculated numbers define the lower and the upper range of the middle class (Federal Ministry of Finance 2008, n. p.). In the case of South Africa, such a calculation seems to be pointless as the generated numbers do not reflect the actual middle-class in urban areas. This is due to the fact that South Africa shows the highest income inequality in the world (Ngobese/Cock 1995, p. 274). The reason for this is that on the one hand, many South Africans live in the upper-classes and are over-consuming goods and services, and that on the other hand, still a lot of South Africans belong to the lower-classes without being able to live a real consumerist lifestyle (Ngobese/Cock 1995, p. 274). The only adequate numbers for defining a South African middle-class seem to be given by Aardt and Coetzee (2010). Their numbers are updated and highly suitable for urban areas where the income (and at the same time also living expenses) are higher. Nevertheless, for the specific case of South Africa "it is not clear what parameters should be used to define the middle class, nor where the 'middle' actually is" (Eighty20 2007, p. 3).

Aardt and Coetzee (2010, p. 3) divide South Africa into six social classes. Two of these are the emerging and the middle middle-class. These two classes are appropriate for analysing the urban South African middle-class within this thesis scope as they cover both the new consumers (the new or emerging middle class) as well as the long-established middle-class.

Aardt and Coetzee (2010, p. 3) define South Africa's emerging and middle middle-class as follows:

Emerging middle-class: Annual household income R 50,000 – R 300,000

Middle middle-class: Annual household income R 300,000 – R 500,000

Calculating the monthly entire household income means to divide these numbers by 12 (for 12 months = 1 year):

Emerging middle-class

Lower range: R 50,000 / 12 = R 4,166. 67

Upper range: R 300,000 / 12 = R 25,000

Middle middle-class

Lower range: R 300,000 / 12 = R 25,000

Upper range: R 500,000 / 12 = R 41,666.67

Consequently, this thesis focuses on Afrikaners and Xhosa that have a monthly entire household income between R 4,000 (rounded down) and R 50,000 (amplified rounded up). Taking into account that some households only consist of one employed person and that the entire household income is typically generated by two employed persons, this

thesis uses another constraint for defining the middle class. This constraint implies that the head of the household should not earn more than R 25,000 as this would make up half of a middle-class household's income.

Appendix 3: Information on the interviewed expert

The expert interviewed was Mrs Greta Store. Mrs Store agreed in describing her profession and health shop as well as using her real name within this thesis. Mrs Store owns and runs a health shop named 'Health Matters'. "Initially Greta obtained a diploma in Radiography and later went on to obtain a diploma in Clinical Nutrition. Greta is a Chairman's Club member of Aim South Africa and is dedicated to helping others achieve better health in an ever deteriorating environment" (Health Matters n. d. a, n. p.). Mrs Store described herself and her profession during the interview as follows: "I am a clinical nutritionist. I received a Diploma from the Academy of Nutrition in Western Australia. Basically, I would say that I started this because I felt that women today did not know the alternatives that were available. And if they were available [...] they were very expensive. [...]". "Health Matters is a personalized health shop situated in Walmer, Port Elizabeth. Operating since 1998, Health Matters supplies whole-food products and supplements at affordable prices. Home of a network marketing team for Aim South Africa, the company best known for its BarleyLife green juice product, Health Matters are also distributors in the Eastern Cape for Bio Flora, SuperSalve, Down To Earth African Potato Cream, Electro Colloidal Silver from Phuza Health and Reverse Osmosis Water Purification Systems. It carries a distinct range of products to cater for most ailments and specializes in helping people make lifestyle changes" (Health Matters n. d. b, n. p.). The physical address of Mrs Stores shop is 108a Prospect Road, Walmer, Port Elizabeth, 6070, South Africa.

Appendix 4: Interview date, time and socio-demographic analysis of interviewees

Table 7: Interview date, time and socio-demographic characteristics of the investigated households

Interviewee Nr. → Characteristic ↓	RX1	RX2	RX3	RX4	RA1	RA2	RA3	RA4
Date and time of interview	04.05.2010, 2.00 – 3.00 PM	05.05.2010, 7.30 – 8.00 AM	12.05.2010 1.00 – 1.45 PM	13.05.2010 2.00 – 2.45 PM	04.05.2010 9.00 – 10.00 AM	05.05.2010 3.00 – 3.30 PM	10.05.2010 5.00 – 6.00 PM	11.05.2010 10.00 – 10.45 AM
Gender	female	female	female	female	female	female	female	female
Age	43	30	42	38	48	38	52	38
Marital Status	Divorced	Single	Single	Single	Married	Married	Married	Married
No. of children living in the household	2	1	1	2	1	2	2	2
Age of children living in the household	21, 14	7	16	18, 10	16	12, 8	17, 14	11, 7
No. of adults (including interviewee) living in the household	1	5	1	1	2	4	3	2
Age of adults living in the household	43	64, 60, 33, 30, 25	42	38	50, 48	40, 38, 69, 61	53, 52, 77	38, 38
Born in South Africa	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
South African Citizenship	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mother tongue	isiXhosa	isiXhosa	isiXhosa	isiXhosa	Afrikaans	Afrikaans	Afrikaans	Afrikaans
Religion	Christian	Christian	Christian	Christian	Christian	Christian	Christian	Christian
Years of experienced formal education	13	13	15	16	16	19	17	17
Type of degree currently hold	Diploma	No Degree	Bachelor of Commerce	Diploma	Bachelor Bibl. (Librarianship)	Library Degree	Bachelor of Administration	Master of Commerce
Present job	Financial Officer	Security Officer	Accountant	Administrator	Librarian	Sr. Information Librarian	Human-Resources Advisor	Lecturer
Monthly income of head of household (in Rand)	4,000 – 8,000	4,000 – 8,000	8,001 – 15,000	4,000 – 8,000	8,001 – 15,000	15,001 – 25,000	15,001 – 25,000	15,001 – 25,000
Monthly income of entire household (including income of all household members, state pension, child benefits, other welfare payments and the like)	4,000 – 8,000	4,000 – 8,000	8,001 – 15,000	4,000 – 8,000	8,001 – 15,000	25,001 – 35,000	35,001 – 50,000	35,001 – 50,000

Source: Own

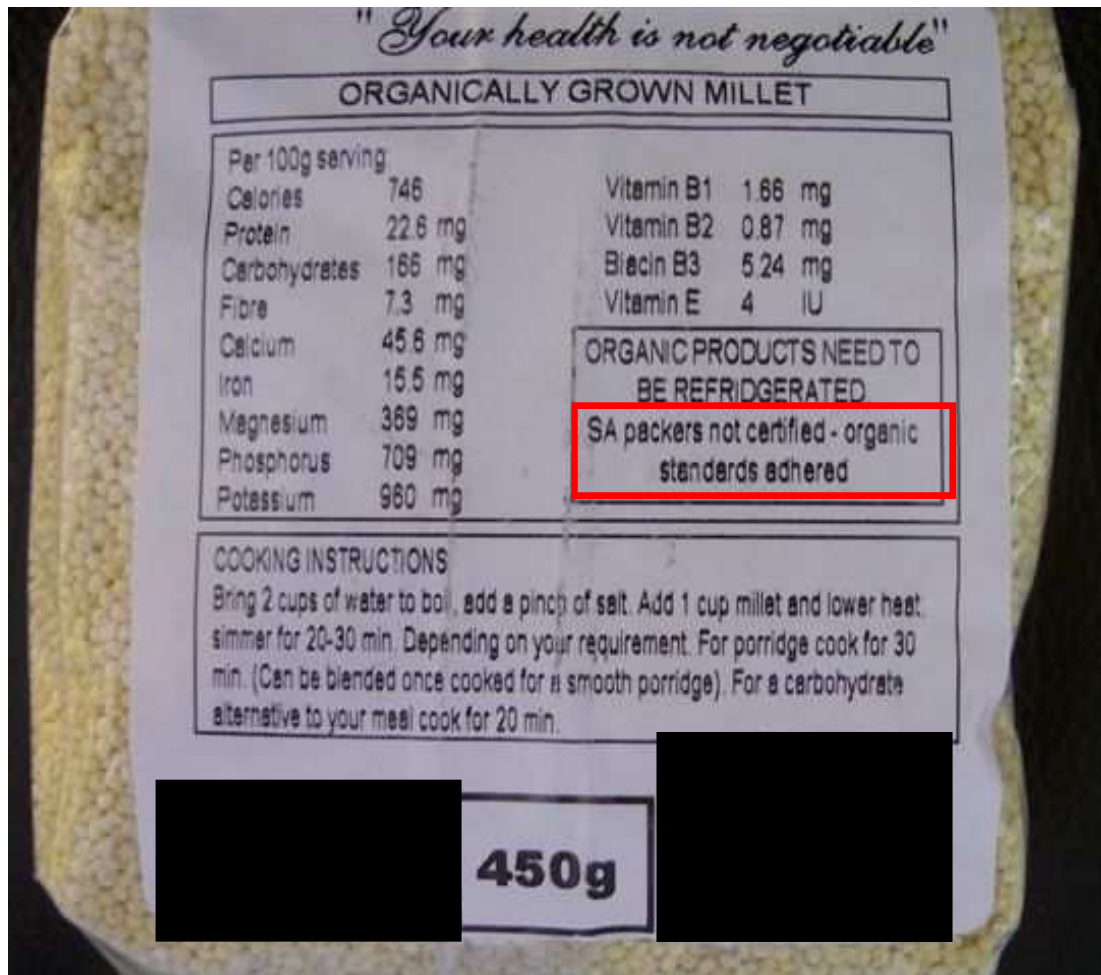
Appendix 5: Examples for non-certified organic products sold in South African health shops

Figure 9: Organic millets not displaying a certificate or label



Source: Photo made by the interviewed expert - Greta Store - in 2010. She granted the permit to publish this photo within this thesis

Figure 10: Organic millets not displaying a certificate or label and showing that South African packers are not certified



Source: Photo made by the interviewed expert - Greta Store - in 2010. She granted the permit to publish this photo within this thesis.

Figure 11: Organic sugar not displaying a certificate or label



Source: Photo made by the interviewed expert - Greta Store - in 2010. She granted the permit to publish this photo within this thesis

Appendix 6: Interview manual urban middle-class households in Port Elizabeth (South Africa)

Part 1: Icebreakers and description of purpose

Icebreaker questions

Hello Mrs. X. My name is Mareike Michel as you already know and I am here for interviewing you. Thank you very much for taking some time.

How are you and how was your day?

Are you enjoying today's weather?

Description of interview purpose / Permission of taping

I am a student from Germany, the University of Oldenburg. Oldenburg is a town in the north of Germany. Here in Port Elizabeth I am conducting research for my Master's thesis. I would like to find out more about the consumption and eating behaviours of the South Africans. In particular, I would like to find out how your culture, religion and everyday life influence your food selection and preparation. This will assist me in evaluating how environmentally and socially friendly your food and eating behaviours are. My research is not medical, but socio-cultural.

If possible, please answer my questions.

Please let me know if you do not understand a question, then I can explain it to you.

I would like to tape our interview and use it for my Master's thesis. I will respect the confidentiality of all information, not disclosing personal information in a recognizable form. Is it ok for you, if I tape the interview and use your information for my Master's thesis?

You will have to speak into this recorder.

Do you have any questions so far?

Part 2: Alimentation knowledge and practice

Organisation of shopping and of importance of food and eating

Within your household, who is primarily shopping and cooking food?

In case of housekeeper:

- What are her/his duties and responsibilities?
- Which rules do you set for e.g. recipes, supermarket, type of food, costs etc.?

How important are food and eating in your life?

Is it more important for you to get a full stomach and keep the body working or does it also has a strong socio-cultural role for you?

Sustainable Alimentation principle: Enjoyment and easy digestibility

Which importance does enjoyment and taste of food have for you?

Which importance does an easy digestibility of food have for you?

Communication and information

How do you inform yourself about eating and food?

With whom are you talking about alimentation?

Please look back on a situation where you have talked to someone about food and eating. To whom did you talk, what was it about and what was the reason?

Did this talk influence you and if yes, how?

Meal composition and cooking

Do you cook warm meals every day?

Is there any food you do not eat?

What kind of food and for which reasons?

What meal do you usually cook on normal weekdays?

What meal do you usually cook for a special day, e.g. a birthday?

If you think about close friends of yours, what is typical about their food and eating behaviours?

Do you often use recipes that you know from your mother or grandmother?

Do you sometimes try new recipes or food?

Do you go out for a meal very often?

To which places do you typically go and what kind of food do you order?

Sustainable Alimentation principle: Plant-based foods

How often do you eat raw vegetables and fruits (uncooked, unprocessed and in its natural state)?

How often do you eat meat?

Which kind of meat do you eat most?

How often do you eat fish?

How many eggs do you eat per week per person also including the dishes you prefer?

How often do you eat milk or milk products like cheese, yoghurt, cream?

Food buying and selection

Where do you usually buy your food?

How about specialty stores like butchers, farmers markets, open air markets, health stores?

When you shop for food, which criteria are important for your selection of food?

If you think back to your childhood, have these criteria also been important for your parents?

Which aspects do you think make up the quality of a food product?

Which importance do food brands and labels have for you?

Do you often buy food and brands that you know from your childhood?

Environmental and social issues of food and eating

Do you know any labels for environmentally or socially friendly food products?

– Which?

– Do you buy food having these labels on?

Have you ever heard about the concept of sustainability or rather “sustainable development”?

– What do you understand by a “sustainable development”?

– What do you think sustainable development in terms of food and eating could be or which aspects might be important?

Do environmental or social issues play a role for your food selection and eating habits?

– In which way?

– Why?

Sustainable Alimentation principle: Fair Trade products

Have you heard about the food label “fair trade”?

– What do you understand by this label, which aspects do this specific foods have?

– Do you know where to buy food that is labelled “fair trade”?

– Do you buy/have you bought food labelled “fair trade”?

– Why not? or Where, which kind of food and how often?

Sustainable Alimentation principle: Organically produced foods

Have you heard about the food label “organic” or “organic agriculture”?

– What do you understand by this label, which aspects do this specific foods have?

– Do you know where to buy food that is “organic”?

– Do you buy/have you bought food labelled “organic”?

– Why not? or Where, which kind of food and how often?

Sustainable Alimentation principle: Products with environmentally sound packaging

Do you know or can you imagine what an environmentally sound or environmentally friendly packaging of food is? (An environmentally sound packaging means e.g. that the packaging is biodegradable, refundable, reusable, low in mass and volume and the like.)

When you buy food, do you look for such a packaging of the food?

– Which aspects are most important to you and why?

– How do you know if a product has these aspects?

Sustainable Alimentation principle: Minimally processed foods

Do you know or can you imagine what food additives are? (Additives are substances added to food to preserve flavour or improve its taste and appearances. Additives are e.g. artificial colouring, sweeteners, stabilizers, thickeners.)

When you buy food, do you look for food that does not contain such additives or only in a low amount?

- Which additives do you avoid?
- Do you know where to buy food that does not contain these additives?

Sustainable Alimentation principle: Regional and seasonal food

Which food is typically grown and produced in the region of Port Elizabeth and in the Eastern Cape?

When you buy food, do you specifically look for food that is grown and produced in the Eastern Cape?

- For which reasons?
- Do you know where to buy food that is from the Eastern Cape?

At this time of the year (autumn) which food is seasonal in South Africa?

When you buy food, do you specifically look for food that is seasonal?

- For which reasons?
- Do you know where to buy food that is seasonal?

Change and aims of food and eating habits

If you think back 15 years, did your alimentation change?

- In which way?
- Why?

Do you think your personal alimentation could improve in some ways?

- In which ways and why?
- Are you planning to do this?
- How?

Do you have any aims for the future referring to your alimentation?

- Which are these?
- Why?

Perception of cultural food and eating habits

Do you think that your culture and your religion are influencing your alimentation?

In which way?

Xhosa

- What are the Xhosa people typically eating and what is special about their food and eating behaviours?
- If you think about the food and eating habits of the Xhosa, do you think they are more traditional, based on knowledge and customs, or more modern, based on trends?

Afrikaans

- What are the Afrikaans people typically eating and what is special about their food and eating behaviours?
- If you think about the food and eating habits of the Afrikaans, do you think they are more traditional, based on knowledge and customs, or more modern, based on trends?

South Africans in general

- If you think about South Africans in general, what are they typically eating and what is special about their food and eating behaviours?
- - What do you think, which importances do environmental and social issues have for South Africans referring to their food selection and eating behaviours?

Part 3: Socio-economic status and other personal variables

Finally, I would like to know some formal information about you. They will help me to evaluate and interpret the interview. Could you please complete this short questionnaire? It will only take you a few minutes.

Part 4: Farewell

Finally, I would like to know some formal information about you. They will help me to evaluate and interpret the interview. Could you please complete this short questionnaire? It will only take you a few minutes.

Thank you very much for taking time and participating in this interview. Your information will help me a lot in writing my Master's thesis. If you have any questions, don't hesitate to ask me. I will also give you my email address and mobile number for the case of further queries. I wish you all the best and have a nice day.

*Appendix 7: Interview manual expert**Part 1: Icebreakers and description of purpose***Icebreaker questions**

Hello Mrs Store. My name is Mareike Michel as you already know and I am here for interviewing you. First of all, let me thank you very much for taking some time. Your assistance in my research is highly appreciated.

How are you and how was your day?

Description of interview purpose / Permission of taping

I am a student from Germany/the University of Oldenburg. Oldenburg is a town in the north of Germany. Here in Port Elizabeth I am doing research for my Master's thesis. I would like to find out more about alimentation and consumption styles of South Africans. In particular, I want to find out how sustainable or rather environmentally and socially friendly these consumption styles are. I have already interviewed eight people. Four of them were Afrikaans speaking, four were Xhosa speaking. I asked them about their customs referring to the purchase and preparation of food. My master thesis is focussed on the consumer level of Sustainable Alimentation, but I also like to find out which drivers or barriers consumers are faced referring to the supply. That is the main reason why I have chosen to interview you as an expert in this field. Do you have any further questions relating to my research and our interview?

If possible would you please answer my questions? Please let me know if you do not understand a question, then I can explain it to you.

I would like to tape our interview and use it for my Master's thesis. Is it ok for you, if I tape the interview and use your information for my Master's thesis? Referring to the referencing of this interview, can I use your name and your profession or do you prefer to remain private and being referenced through a pseudonym?

You will have to speak into this recorder.

Part 2: Information about "Health Matters" and expert's profession

First of all, I would like you to tell me something about yourself, your profession and your business.

*Part 3: Supply side of food products and how the consumers are affected***Distribution channels**

Which distribution channels do exist for food in South Africa?

Which distribution channels are predominant and why?

Communication and information channels

Which communication and information channels are typically used by institutions and companies to inform the consumers about food products and alimentation?

What do you think about the communication and information about food offered by companies and institutions?

Are there any topics which you would say are currently predominant?

Which information and communication channels are typically used by consumers to inform themselves about food products and alimentation?

Do you think that the South African consumers have a good knowledge about alimentation?

What do you think should be done to improve or change the knowledge and practice of South African consumers in terms of food selection and eating habits?

Label for food products

Which labels for environmentally and socially friendly food products do exist in South Africa?

- Are these labels proved by third parties and officially accredited?
- What do you think about the communication, information and illustration of these labels, particularly in terms of the consumer's understanding of issues?
- In relation to non-labelled products, how many labelled food products are sold in the supermarkets?

Have you heard about the label "fair trade" for food products?

- Do you know if food products with the "Fair Trade" label are sold in South Africa?
- Why are there no such food products sold or only rarely sold?

Do you think that there is a trend within the South African society to consume more organic food products?

- How have things changed up to now?
- Which problems do you associate with the organic label and organic food?
- Which chances or advantages do you associate with the organic label and organic food?

Which importance do food labels have for the South African consumers?

- Which aspects might prevent consumers to buy food labelled with the beforehand mentioned labels?
- Which aspects might stimulate consumers to buy food labelled with the beforehand mentioned labels?

Food packaging

In terms of environmentally friendliness, what do you think about the food packaging in South Africa?

Additives

What do you think about additives used in food sold in South Africa?

- Do you think that consumers are aware of the characteristics of food additives?
- Do food additives have a certain image in South Africa?

Regional and seasonal food

What do you think about the offer of regional food in South Africa?

- Does South Africa import lots of food products?
- Which food products are typically imported?
- Do you think that consumers are aware of the environmental and social aspects of seasonal food?

What do you think about the offer of seasonal food in South Africa?

- Are all fruits and vegetables available throughout all seasons?
- Do you think that consumers are aware of the environmental aspects of seasonal food?

Eating habits

Which importance do Fast and Convenience Food have for South Africans?

Which importance do health aspects have for South Africans referring to alimentation?

Which importance do environmental and social aspects of food have for South Africans?

In general, what do you think is special about the South African food consumption and eating behaviours?

Environmental and social Awareness

What do you think about the knowledge of consumers in terms of sustainable development, environmental and social issues in general?

What do you think about their knowledge on these aspects referring to food and alimentation?

From your point of view, which role do environmental and social issues of food and alimentation play for South Africans?

Tradition versus modernity

Do you think that the South Africans consumers stick to their traditions referring to food and eating habits or are they open-minded towards new knowledge, products and behaviours?

Do you think there are differences between Afrikaans and Xhosa speaking people?

Part 4: Farewell

Thank you very much for taking time and participating in this interview. Your information will help me a lot in writing my Master's thesis. If you have any questions, don't hesitate to ask me. I will also give you my email address and mobile number for the case of further queries. I wish you all the best and have a nice day.

Appendix 8: Coding schemes

Table 8: Knowledge about, aspects and practice of as well as barriers to the concept of Sustainable Alimentation and some principles of wholefood alimentation among the investigated households (continued on following pages)

Analysis variable	Interviewee	Knowledge (Yes/No)	Aspects named (Yes/No)	Practice (Yes/No)	Aspects (Text)	Practice (Text)	Barriers (Text)
Sustainable Development	RA1	Yes	No	-/-	-/-	-/-	-/-
	RA2	No	No	-/-	-/-	-/-	-/-
	RA3	Yes	No	-/-	-/-	-/-	-/-
	RA4	Yes	Yes	-/-	Ensure that our children and their children can have exactly what we can have. Not abusing our resources.	-/-	-/-
	RX1	Yes	No	-/-	-/-	-/-	-/-
	RX2	Yes	No	-/-	-/-	-/-	-/-
	RX3	Yes	No	-/-	-/-	-/-	-/-
	RX4	No	No	-/-	-/-	-/-	-/-
Sustainable Alimentation/ Labels for sustainable food	RA1	Yes	Yes	No	Label organic and free-range eggs. Modes of farming where they do not have a lot of chickens.	-/-	-/-
	RA2	No	No	No	-/-	-/-	-/-
	RA3	No	No	No	-/-	-/-	-/-
	RA4	Yes	Yes	Yes	Abandonment of hormones and genetically modified organisms. Free-range chicken and egg products. Environmentally sound packaging.	She tries to buy free-range chicken and eggs.	Not always available.
	RX1	No	No	No	-/-	-/-	-/-
	RX2	No	No	No	-/-	-/-	-/-
	RX3	Yes	Yes	Yes	Reusability of packaging. Recipes on the back of the packaging so that she does not have to buy recipe books.	Reusability of packaging. Recipes on the back of the packaging so that she does not have to buy recipe books.	-/-
	RX4	No	No	No	-/-	-/-	-/-
	RE	-/-	-/-	-/-	-/-	-/-	Insufficiently declared food signs and packaging.

Analysis variable	Interviewee	Knowledge (Yes/No)	Aspects named (Yes/No)	Practice (Yes/No)	Aspects (Text)	Practice (Text)	Barriers (Text)	
Minimally processed foods	RA1	Yes	Yes	Yes	Potassium preservatives that cause allergic reactions. Additives that cause cancer. Tartrazine	She avoids tartrazine because of her daughter having ADHD.	-/-	
	RA2	Yes	Yes	Yes	Sweeteners, colourings.	She favours but also avoids specific sweeteners because of her daughter being diabetic.	-/-	
	RA3	Yes	Yes	Yes	Preservatives, tartrazine	She avoids tartrazine because she thinks it causes her coughing and itchininess in the throat.	-/-	
	RA4	Yes	Yes	Yes	Tartrazine, aspartame.	-/-	-/-	
	RX1	Yes	Yes	Yes	Tartrazine, artificial colourings.	She avoids artificial colourings because of her children's health.	-/-	
	RX2	Yes	Yes	Yes	Sweeteners.	She does not like sweeteners and hence avoids them.	-/-	
	RX3	Yes	Yes	Yes	Colourings	-/-	-/-	
	RX4	Yes	No	No	-/-	-/-	-/-	
	RE	-/-	-/-	-/-	-/-	-/-	-/-	-/-
	RA1	Yes	Yes	No	Abandonment of chemicals, pesticides and insecticides and natural modes of farming. More expensive.	-/-	Organic is not freely available and expensive.	
Organic foods	RA2	Yes	Yes	Yes	Compared to non-labelled food, organic food grows differently, has a different packaging and does not contain artificial substances or hormones.	She sometimes buys organic food for special occasions or due to bad availability of other options.	-/-	
	RA3	Yes	Yes	Yes	Abandonment of chemicals, pesticides and insecticides and natural modes of farming. More expensive.	She does not buy it purposefully, but only when it looks more attractive than other products.	-/-	
	RA4	Yes	Yes	No	Abandonment of chemicals, pesticides and insecticides and natural modes of farming.	-/-	Choices are very limited due to bad availability within the supermarkets.	
	RX1	Yes	No	Yes	-/-	She buys it seldom.	-/-	
	RX2	Yes	No	No	-/-	-/-	-/-	
	RX3	Yes	No	Yes	More expensive.	She buys it seldom.	-/-	
	RX4	Yes	No	No	More expensive.	-/-	-/-	
	RE	-/-	-/-	-/-	Bad availability of products and certificated foods the consumers can trust. Only a few South African companies provide health stores with organic products, but these are not certified. There is no label or certificate for organic food in South Africa. No accreditation by a third party. No choice to choose other organic products within South Africa.	-/-	-/-	

Analysis variable	Interviewee	Knowledge (Yes/No)	Aspects named (Yes/No)	Practice (Yes/No)	Aspects (Text)	Practice (Text)	Barriers (Text)
Environmentally sound packaged foods	RA1	Yes	Yes	No	Recyclability, biodegradability, poisonous plastic bags.	-/-	-/-
	RA2	Yes	Yes	No	Lower use of plastics and tins; higher recyclability.	She buys it automatically as she consumes a lot of unpacked fresh food.	-/-
	RA3	Yes	Yes	No	-/-	-/-	-/-
	RA4	Yes	Yes	Yes	Recyclability.	She prefers a box instead of a plastic packaging.	Sometimes find it hard to know which packaging is the best and then she has to use her common sense or personal opinion.
Fairtrade foods	RX1	No	No	No	More expensive.	-/-	-/-
	RX2	No	No	No	-/-	-/-	-/-
	RX3	Yes	Yes	Yes	Reusability.	Reusability.	-/-
	RX4	No	No	No	-/-	-/-	-/-
	RE	-/-	-/-	-/-	-/-	-/-	-/-
	RA1	No	No	No	-/-	-/-	-/-
	RA2	No	No	No	-/-	-/-	-/-
	RA3	No	No	No	-/-	-/-	-/-
	RA4	Yes	No	No	-/-	-/-	-/-
	RX1	No	No	No	-/-	-/-	-/-
	RX2	No	No	No	-/-	-/-	-/-
	RX3	No	No	No	-/-	-/-	-/-
RX4	No	No	No	-/-	-/-	-/-	
RE	-/-	-/-	-/-	-/-	-/-	-/-	Not sold in Port Elizabeth or even the whole of South Africa.

Source: Own

Table 9: Frequency of consumption of different food groups differentiated between ethnicity and interviewees

Analysis Variable	Xhosa		Afrikaner	
	Interviewee	Frequency of consumption	Interviewee	Frequency of consumption
Raw vegetables	RX1, RX2 = RX3, RX4 =	once in a while never	RA1 = RA2, RA3 = RA4 =	daily three times a week once a week
Raw fruits	RX1, RX2, RX3, RX4 =	daily	RA1, RA2, RA3, RA4 =	daily
Meat	RX1, RX4 = RX2 = RX3 =	daily twice a week four times per week	RA1, RA2, RA3, RA4 =	daily
Fish	RX1, RX3, RX4 = RX2 =	once a week twice a year	RA1, RA2, RA3, RA4 =	once a week
Eggs	RX1, RX2, RX3, RX4 =	two per week	RA1, RA2, RA4 = RA3 =	two to five per week two per week
Dairy products	RX1, RX3 = RX2, RX4 =	daily once a week	RA1, RA2, RA3, RA4 =	daily

Source: Own

Table 10: Social peculiarities, slowing down and socialising among the investigated households

Interviewee	Socio-cultural peculiarities		Slowing down and socialising			
	Typical dishes		Cooking warm meals	Eating out / Buying meals / Convenience food	Socialisation and time	
	Weekdays	Weekends / Special occasion				
RA1	Bredies (stews), bobotie, meat balls, cottage pies, bekkuit (rusks), kerries (currys).	Braai, boerewors, pork chops, chicken sosaties, lasagne, roast, roosterkoek, roosterbrood, salads, biltong.	Once a day.	Once a week. Restaurant. Once a month. Fast food.	The family cooks together. Food is important for social interaction.	
RA2	Stir fry, mixed vegetables, rice, pasta, lasagne, bobotie, salads.	Salads, different kinds of meat, leg of a lamb or leg of a pork, special deserts.	Once a day.	Seldom. Family restaurants. Often. Stir fry packets for the meat, frozen vegetables.	During the week it is chaotic, but on the weekends it has a social impact and she spends more time for cooking, then they also visit socially. During the week she cooks meals that do not take a lot of time.	
RA3	Meat with two vegetables and a starch, salads, fruit.	Spätzle and Stroganov with a salad, eating out at a restaurant, braai.	Once a day.	Twice a month. Restaurants. Once a week. Fast food.	She likes having friends around for meals.	
RA4	Pastas with meat, different kinds of meat, stew.	Breakfast: Variety of breads, muffins, cold meat, cheese and cereals. Supper: Macaroni or lasagne, salads, bread roll, small little pastries and sausages, braai.	At least five times per week.	Once a week. Fast food or restaurant. Sometimes: Pre-packed ready-to-cook fish.	The family is always sitting together to have the meals. During the week she cooks meals that do not take a lot of time.	
RX1	Mealie meal, rice vegetables and Ullusu (tribe of animals like a sheep, beef, chicken), Urngqusho (sarrp and beans), Urnvubu (south African salad made from mealie meal, water and sour milk).	Hot Dogs, braai, fast foods, liver European salads.	Once a day.	Twice a month. Fast food.	Alimentation is closely related to cultural and social customs. For ceremonies, many people will join. She likes people coming over to her house to eat together.	
RX2	Starch (rice or pap), vegetables, meat, Urngqusho (sarrp and beans).	Different kinds of salads; meat (lamb, pork, mutton and fried chicken).	Once a day.	Very seldom.	-/-	
RX3	Pasta with mince, sarrp and beans, fish.	Salads and grilled meat, braai.	About five times per week.	Once a week. Fast food. Once a month. Restaurant.	Alimentation does not have a strong social or cultural meaning.	
RX4	Potatoes, sarrp and beans, vegetables, rice, meat (chicken, pork, beef or lamb), pasta with mince, Ullusu (inside of animal meals).	Different meat and vegetables, salads.	Once a day.	Twice a month. Restaurant.	She has dinner together with her children.	

Source: Own

Table 11: Cutting down, enjoyment, easy digestibility and innovativeness among the investigated households (continued on following page)

Cutting down, enjoyment and easy digestibility / Innovativeness (1)												
Criteria for food selection			Quality			Quantity			Brands		Recipes	
Currently	Compared to childhood	Currently	Compared to childhood	Quantity	Currently	Compared to childhood	Currently	Compared to childhood	Established recipes from parents etc.	New recipes		
Draw between quality and price, depending on the product.	The same	Freshness, low fat, sell-by date.	The same.	Too much food is consumed, especially meat.	Sometimes it is important, depending on the product.	Still buys some brand she knows from her childhood.	Often	Often	Often	Sometimes		
Draw between quality and price, depending on the product.	Different	The look of the food itself.	Different.	She buys bulks of food, family eats to big portions, South Africans eat too much.	Not important	Still buys some brand she knows from her childhood.	Often	Often	Often	Seldom (especially for Christmas)		
Fat content, price, look of the food itself.	Different	Freshness, cleanness, low prices.	The same.	Too much food is consumed, especially meat.	Not important	Still buys some brand she knows from her childhood.	Often	Often	Often	Seldom		
Sell-by date, freshness, low fat.	The same	Low fat, alimentational values.	The same.	Too much food is consumed, especially meat.	Sometimes it is important, depending on the product.	Often buys brands she knows from her childhood.	Often	Often	Often	Over the weekends		
Price, health promoting, taste.	Different	Health promoting.	Different.	Too much food is consumed, especially meat and proteins and at dinner time. She buys bulks of food and looks for special offers where she can get high quantities for little money.	Important	Often buys brands she knows from her childhood.	Seldom	Seldom	Seldom	Sometimes (especially for Christmas)		
Sell-by date, canned food.	Different	Taste.	Different.	-/-	Not important	Seldom buys brands she knows from her childhood.	Most of the time	Most of the time	Most of the time	Very seldom		
Taste, brands.	The same	Brands.	The same.	Too much food is consumed, especially meat and on weekends.	Very important	Often buys brands she knows from her childhood.	Often	Often	Often	Often		
Brands.	The same	Brands.	The same.	They always have huge amounts of food especially on weekends and for special occasions.	Very important	Often buys brands she knows from her childhood.	Often	Often	Often	Sometimes		

Cutting down, enjoyment and easy digestibility / Innovativeness (2)					
Interviewee	Self-reflection about traditionality and modernity of own ethnicity	Opinion about traditionality and modernity of the other ethnicity (Xhosa or Afrikaans)	Enjoyment	Easy digestibility	
RA1	Traditional	Traditional	Very important	Very important - Avoiding fatty foods and using low fat cooking methods. - Reduces the intake of red meat.	
RA2	Modern	Traditional	Important	Important, but no specific criteria	
RA3	Traditional	Traditional	Very important	Important: - Smaller portions at night	
RA4	Traditional	Traditional	Relevant in some cases	Very important - Low GI - Low calories.	
RX1	Mixed	-/-	Very important	Very important - Allbran, dairy products and fruits.	
RX2	Traditional	Modern	Important	Not important	
RX3	Traditional	Modern	Very important	Very important - High fibre.	
FX4	Modern	Traditional	Very important	Important - High fibre.	

Source: Own

Table 12: Commercialisation, globalisation, unbundling and purchase channels among the investigated households

Interviewee	Less commercialisation and globalisation / Unbundling and purchase channels					
	Self-supply	Supply and purchase channels	Regional economies	Non-commercial networks	Knowledge about alternatives	
RA1	No	Supermarket, Fruit and Veg, butcher.	No	No	No, has only heard about a farmer's market.	
RA2	No	Supermarket, Fruit and Veg, butcher.	No	No	No	
RA3	No	Supermarket, butcher.	No	No	Yes, has heard about a farmer's market in Port Elizabeth.	
RA4	No	Supermarket, Fruit and Veg.	No	No	No	
RX1	No	Supermarket, Fruit and Veg.	No	No	No	
RX2	No	Supermarket.	No	No	No	
RX3	No	Supermarket.	No	No	No	
RX4	No	Supermarket.	No	No	No	

Source: Own

Table 13: Communication and information channels, alimentary formations and alimentary categories among the investigated households (continued on following pages)

Interviewee	Communication and information channels				Alimentary formations	Alimentary categories		
	Information channels	Opinion leaders	Change agencies	Sensibilities and disaffirmations	Shopping	Cooking	Peculiarities	
RA1	<ul style="list-style-type: none"> - South African magazines and articles. - Internet. - Mainly interpersonal (female friends). 	Dietician	-/-	<p>Health:</p> <ul style="list-style-type: none"> - Avoiding red meat. - Husband has got diabetes. - Weight problems. - Cutting out carbohydrates. - Low GI - She has got low blood sugar. <p>Affirmation:</p> <ul style="list-style-type: none"> - Food that is too healthy (including too many vegetables) and therefore does not have a good taste. - No affirmations due to cultural or religious reasons. 	Herself	Herself and her husband, sometimes her son helps.	Male family members help with cooking.	
RA2	<ul style="list-style-type: none"> - Internet. - Magazines. - Mainly interpersonal (female friends). 	Dietician	Heart Foundation	<p>Health:</p> <ul style="list-style-type: none"> - Daughter is diabetic so the whole family eats diabetic. <p>Affirmation: None.</p>	Herself	Herself	-/-	
RA3	<ul style="list-style-type: none"> - Magazines, books. - Mainly interpersonal (female friends). 	Doctor Dietician	-/-	<p>Health:</p> <ul style="list-style-type: none"> - Husband had a triple bypass. - Losing weight. - Less fat. - Bigger variety of meat, less red meat. - She and her husband have cholesterol. - Fewer eggs. <p>Affirmation: None.</p>	Herself	Herself	Mothers are working and do not have a lot of time for cooking so that fast foods are preferred.	
RA4	<ul style="list-style-type: none"> - Magazines, journals. - Mainly interpersonal (female friends and her sister). 	-/-	-/-	<p>Health:</p> <ul style="list-style-type: none"> - Ensuring the children's health. - Anorexia of her sister's daughter. - Low GI - Low in calories. <p>Affirmation: None.</p>	Herself	Herself	-/-	

Interviewee	Communication and information channels				Alimentary formations	Alimentary categories		
	Information channels	Opinion leaders	Change agencies	Sensibilities and disaffirmations		Shopping	Cooking	Peculiarities
RX1	- Emails. - Mainly interpersonal (female friends and her sister).	Dietician	-/-	Health: - Her uncle died of bad eating habits. - Her daughter is diagnosed with AIDS. - Prevention from diseases. - Enhancing health and attractiveness. - Weigh consciousness. - Takes vitamin pills. Affirmation: - Chinese food (e.g. dog meat). - Indian food (too spicy)..	Herself	Herself	Men cook meat outside the houses for parties when many people are together and it is a social gathering. Men have specific procedures for the cooking. Men enjoy partying and eating out, especially fast foods.	
RX2	- TV. - Advertisements. - Magazines.	-/-	-/-	Affirmation: None	Her sister	Her sister	-/-	
RX3	- Books - Mainly interpersonal (friends).	Doctor Dietician	-/-	Health: She is diabetic. Affirmation: None	Herself	Herself	-/-	
RX4	- Mainly interpersonal (colleagues and friends).	Doctor	-/-	Health: Her son has eczema and therefore she is advised to serve him organic food. Affirmation: None	Herself	Herself	-/-	

Source: Own