Gunnar Vittersø

Vittersø is educated cand. Philol. with a master in geography from the University of Oslo 1993. He has been employed by SIFO since 1996 where among his work has been the development of a green household budget. He has also been involved in several projects in the field of distribution and consumption of organic food. Vittersø has also participated in an EU-financed project, ToolSust, where he has, amongst other things, studied the significance of environmental information as a tool for altering everyday consumption practices in households.
Summary
This report discusses the significance of environmental information in changing consumption practices in a more environmentally sound direction. It concludes that information is a necessary, but not sufficient tool for changing household consumption patterns. In general, information should be viewed as a long-term instrument. However, in the short run, information seems most effective when combined with other political measures.

Sammendrag
Rapporten tar for seg betydningen av miljøinformasjon i forhold til å endre forbruket i husholdningene i en mer miljøvennlig retning. Den konkluderer med at informasjon er et nødvendig, men ikke tilstrekkelig virkemiddel for å endre etablerte forbruksmønstre. Generelt bør informasjon bli betraktet som et langsiktig virkemiddel. På kort sikt er betydningen av informasjon størst når den kombinieres med andre miljøpolitiske virkemidler.

Keywords
Environmental information, consumption practices, case study, Fredrikstad, green household budget
Environmental Information and Consumption Practices – A Case Study of Households in Fredrikstad

Gunnar Vittersø
National Institute for Consumer Research (SIFO)
Oslo, Norway

Deliverable No. 14
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by

Gunnar Vittersø

National Institute for Consumer Research
P.O. Box 4682, Nydalen, 0405 Oslo, Norway
Preface

This report is the Norwegian deliverable from the work package 3 (WP3) of the European project “The involvement of stakeholders to develop and implement tools for sustainable households in the city of tomorrow (ToolSust)”. The project is financially supported and developed within the Fifth Framework Programme of the European Union, as a part of Energy, Environment and Sustainable Development: Key action 4: City of tomorrow and Cultural Heritage, 4.1.2. Improving the quality of Urban Life.

The project involves five cities in different European countries: Fredrikstad (Norway), Groningen (The Netherlands), Guildford (UK), Padova (Italy) and Södermalm/Stockholm (Sweden). The consortium consists of the following partners:

- IVEM, University of Groningen, The Netherlands
- Department of Sociology, University of Padua, Italy
- Department of Psychology, School of Human Sciences, University of Surrey, UK
- The Environmental Strategies Research Group – ESRG, Stockholm, Sweden
- The National Institute for Consumer Research, SIFO, Norway

One aim of the project is to assess how the households can contribute to improve the present environmental situation. The potential for change is analysed in both a short- and long term perspective. The main innovative aspects of the project is the development of tools for a sustainable development of consumption, and the involvement of stakeholders in this process: identifying goals, develop and test various tools for sustainable consumption and the implementation of these tools in everyday life.

This report concerns the use of environmental information as a tool for short- and long term changes of consumption behaviour. It contains a qualitative
case study of households in the city of Fredrikstad in Østfold County south of the Norwegian capital Oslo. The householders were interviewed in their private homes on two occasions in late autumn 2000/spring 2001 and spring 2002. We are grateful to the participating households for using their time and sharing their experiences with us. The field work was carried out by Nina Methi, Ellen Marie Forsberg and Gunnar Vittersø at SIFO.

More information about the ToolSust project is available at: http://www.toolsust.org/workprogramme/
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Summary

This study examines the significance of environmental information as a measure for changing everyday consumption practices in households. The analysis is based on a qualitative study of ten households in the city of Fredrikstad. As an example of environmental information, we have used “The green household budget” (GHB) which is a tool that combine advice on environmental friendly practices with calculations of the household expenditures from changing these practices.

The study contains two main research questions. Firstly, we ask how easy it is to live as an environmental friendly consumer in Fredrikstad? The second question focus on the role of information in changing consumption practices. We have tested out the GHB among the ten participating households, and also used it as an organising tool in the analysis of different consumption practices.

Theoretical perspectives

Different disciplines within the social science are concerned with the relationship between human consciousness and individual behaviour. Behaviour is often understood as a result of conscious and rational reasoning. Another view is that behaviour is the result of underlying social structures such as social norms and the socio-economic background of the individual. Within these latter perspectives consumption practices are seen as outcomes of routines and habits in everyday life, more than results of individual rational choices.

The rational choice perspective implies an instrumental view on information in the sense that an implicit precondition is that actions primarily are guided by available information. In the everyday life perspective the gap between attitude and behaviour are not first and foremost explained by lack of information. In this perspective explanations are sought in the organisation of daily life, and it is not seen as an exception that consumers often act contrary to
their “rational knowledge” or “reflexive consciousness”. This cognitive dissonance is to a certain extent something that one have to live with, and which is internalised into the daily routines via negotiations, compromises and hereby priorities in the household. One way to bridge the gap between attitude and behaviour, is by thinking of consumption practices as mixtures of the reflexive reasoning of individuals and the routinisation of everyday life. Thus, different consumption practices places themselves on a continuum between the strict rational behaviour and deterministic, habitual practices.

Method
We have carried out a qualitative study of ten households in the city of Fredrikstad. Six of the households are strategically selected from their engagement within a local ECO-team. The other four households are more randomly selected through a local kindergarten. The householders do not represent the “average” citizen, but by this strategic selection of household we have got a thorough picture of the possibilities for living as an environmental friendly consumer in Fredrikstad.

We visited the households twice. The first six interviews took place in the late autumn year 2000. The interviews with the other four were made in the spring of 2001. The themes of the interview guide were selected in accordance with the main subjects of the ToolSust project:
- Purchase and environmental information (clothes, white goods)
- Purchase of groceries (were and how to get there)
- Food (meals, dietary considerations, purchase of organic-, local- and seasonal food, self provision of food, food waste)
- Energy consumption

In the end of the interview the householders were presented for the green household budget. They got the folder and the scientific report from the work with developing the advisory tool. By those who had a personal computer at home, we logged on to SIFOs home pages for a quick survey of the relevant pages: [http://www.sifo.no/english/greenhousehold/](http://www.sifo.no/english/greenhousehold/)

The householders were asked to have a closer look at this information material until the next visit. The second visit to the households was made in spring 2002. Six of the originally ten households joined the second round. The theme of the second round was environmental information, in particular the GHB.
The green household budget
In the GHB we have distinguished between different strategies for changing consumption practices. These strategies are abstract, theoretical constructions, but they are aimed at representing realistic ways of environmental friendly consumption practices (EFCP) in the household. Empirically it is not possible to separate these strategies from each other in a strict sense. But they have an analytical function in ordering different types of EFCP:

Product substitution means for the household to purchase environmentally sound products in stead of “conventional” ones.

Reorganisation. By changing routines and practices in the household one can reduce the environmental impact of consumption significantly.

Reduced consumption. This strategy requires to lower the material standard of the household. This may include to reduce the income level in order to reduce household expenditures. However, it may also mean to alter the time spent on wage labour and time spent in the household. In many cases this is considered as a matter of changing life style.

We have used this categorisation in the analysis of the households that have taken part in this study. However, in this report we have focused on product substitution and reorganisation, and left out reduced consumption.

Product substitution
In relation to product substitution we asked the householders what they emphasised when shopping (like the price, selection, quality, fashion, environment etc.). This question was explicit connected with purchase of clothes and white goods. We also asked similar questions on buying groceries and food. In addition the householders were asked about the knowledge of environmental labels and to what extent they bought products with eco-labels. They were also asked whether they bought organic food or not.

We found that there is a great awareness of eco-labels in general among the householders. Most of the householders recognised both The White Swan, the energy label and the Debio-label (organic food). For the householders the labels make it easier to choose green products when they are available. The energy label that is mandatory on several white goods, was the most widely used label. However, there are some general constraints against product substitution as a relevant strategy for the householders. In general, few products in the Norwegian market are labelled. This goes especially for clothes, but also for food. Besides labelling as an information tool seem insufficient. A
label in itself is often not enough to convince the buyer. Besides, it can be hard to detect the label on the packaging. It is seldom known who is behind the certification, which has serious implications for the trust in the labels. Supplementary information is not always there when needed in the buying situation. The householders have experienced that there is little or no information in the store, and even that the staff lack the sufficient knowledge about the products.

The householders use the energy labelling as a tool when purchasing white goods. However, because there are so many different factors that come into play when purchasing a new appliance, the labelling in itself is not considered as sufficient information. The environmental impacts from production and distribution of food are also a widespread consideration among the householders. However, the purchase is to a lesser degree affected by this concern, because of the poor availability of organic-, local- and seasonal food in the stores. The householders to an even lesser extent considered buying eco-friendly clothes. Some householders expressed that they lacked knowledge about this, and this must be seen in relation to the fact that there are almost no eco-labelled clothes available in the market.

However, this is not to say that the householders did not consider the environmental impact from consumption of clothes. Rather, they had quite clear conception of the impact from their own consumption, not least from clothing. The way one think about these issues may however vary for instance between consumer durables and non-durables. For a white good, which is a rather expensive item that are supposed to last for many years, the whole process of purchasing is rather different from the purchase of clothes and not say the routinised purchase of food. Buying a white good is a much longer and more conscious process. Both the economic and environmental impacts are significant when buying a new washing machine, thus, the motivation to compare different products and actively use the energy label as an information tool is most present.

In spite of these differences between the product groups, we have also recognised that the labelling in general to a great extent are not used, implying that product substitution in many situations, independent of product category, is not the most important strategy. The householders express that durability and repair of products, buy second hand and buy less products are equally important issues to them, as the possibility of buying eco-labelled products.
Reorganisation

Reorganisation of household practices is the second strategy for changing of household consumption that is recommended in the green household budget. The interviews with the householders contained several questions about their practices on important areas such as shopping, food habits, energy saving and waste handling. This has resulted in a huge material which describes a multitude of (different) household practices. In this case we have had a closer look at practices related to food. There are many different practices in a household that in one way or another are related to food. We have grouped these food related practices into three phases relevant for the discussion of environmental impacts of food consumption:

1. Supply of food: purchase and self provision (incl. processing)
2. Consumption of food: preparing the meal, having the meal and dietary considerations
3. Disposal of food waste: throw away or reuse, composting, rest refuse

We have categorised 8 different practices from the material of the Fredrikstad case. These categorises may again be split up in several under-categories. For instance, the category “self provision” includes very different activities such as hunting, fishing and growing fruit and vegetables in the garden.

The analysis of the food practices within the ten households in Fredrikstad gives evidence that consumption means far more than buying of products in the marketplace. By categorising food practices into different phases we have revealed a complex pattern of everyday practices, and by focusing on the re-organisation of the household, we have discovered different possibilities and constraints connected to environmental friendly consumption practices (EFCP). Social conventions, practical matters and the time and space available are all factors that affect consumption practices.

A strong social norm among the householders is to gather the family at dinner time. This norm effects a whole range of other activities in the household. The challenge is to find a practical way of organising this within a quite limited time available after job/kindergarten/school and before going to bed. The point of time is also normatively or routinely regulated. A Norwegian dinner usually takes place between four and six p.m. This has effect on other consumption practices such as shopping and transportation. Because of the time constraint, there are usually no other options than to use the car to and from the store, unless you have some extra time available due to flexible working hours or reduced working time. It seems that to reduce the need for car transport require major changes in the life style of the householders.
Environmental information

One important aim of this report has been to discuss the significance of environmental information in changing consumption practices in households. We tested the green household budget on the householders by presenting them both for the internet pages and the folder that is specially developed at SIFO. The householders were asked to look at the pages and try the calculators in order to evaluate the significance of this information to them. We found that the householders to a little extent used the green household budget. Even the most dedicated environmentalists found it unpractical and had problems to find time for reading the folders or logging on to the internet pages, unless they had a specific problem to solve or look into. Besides, the impersonal feature of these rather abstract tools did not attract the interest of the householders involved in this project. They preferred rather to speak about these issues with friends, colleagues or with their kids who learn much about environmental issues at school.

One conclusion that we draw from studying households in Fredrikstad is that information is a necessary, but not sufficient, precondition for action. Our findings contradict the assumption that with sufficient information, consumers or householders will be able to make the “right” choices in the market place or implement more environmentally sound consumption practices at home. This is not said to undervalue the role of information, rather it is important to bear this in mind when analysing the relevance and effectiveness of information as a political instrument. In this report we have discussed the effectiveness of information (channels) in general, and the GHB in special.

In order to understand the role of information in changing household practices, we have made a distinction between socially embedded and disembedded information systems. Socially embedded information systems are constituted by small, transparent and interpersonal networks, such as family, friends and colleagues at work. However, the present modernity has developed other more disembedded social mechanism that has institutionalised the use of information and knowledge. Symbolic tokens and expert systems are examples of such disembedded information systems which the modern consumer rely on. The field of environmental information is in many ways heavy influenced by both symbolic tokens and expert systems. Environmental labelling schemes, information campaigns, mass media and advisory tools such as the GHB, may all be categorised as socially disembedded information systems. This differentiation between embedded and disembedded information systems has been important in understanding the role and importance of information for changing everyday consumption practices. From our interviews with the
householders we got many examples which indicate that the close interpersonal networks are even more important in disseminating information, than modern communication systems such as environmental labelling and internet (GHB). However, the point is not to compare the two different systems, rather we will argue that these systems must be seen as complementary to each other. Thus, when working out environmental information to consumers, it is important to consider the context of everyday life which it is supposed to affect.

Conclusions

There are several reasons why it is necessary to apply an everyday life perspective on the role of information in changing consumption practices. Firstly, an everyday life perspective is important in order to understand the complex relationship between attitude and behaviour. From the analysis of the householders’ green purchases and food practices, we have learnt that these activities enter into complex patterns of everyday life. Thus, EFCP are not merely the outcome of an individual, reflexive or rational choice, rather consumption practices are results of social conventions, negotiations and priorities made in the household. Secondly, the everyday life perspective is important in understanding how information is disseminated, used and acquired among householders. In general, information faces a lot of barriers in this acquiring process. In the overloaded information society people have become rather selective in their use of information. Again, the socially embedded networks of everyday life seem to be frequently used information channels. Thus, when bringing out information it is advisable to adjust it to the local context as well as the main target groups, preferably in combination with other environmental measures. Due to the social inertia that constrains the process of changing consumption practices, information must in general be seen as a long term instrument. However, when combined with other measures that have a directly effect on consumption, information is both effectively and necessary as a short term measure. Finally the everyday life perspective must not be viewed as a perspective dealing with the small and insignificant environmental questions, rather this perspective can give important contributions to the understanding of the major challenges of sustainable consumption. In spite of increased environmental efficiency, the environmental gains are constantly frittered away by the economic growth in many consumption areas. One of the most pressing issues here is the ever increasing need for transport, and especially private transport. These are normally considered as national, international and global political issues, that involves both technological as well as macro-economic measures. However, these issues should also be viewed from a daily life perspective, because both social conventions as well as the material conditions at
the household level are decisive factors regarding the possibilities for changing the overall consumption patterns.
Sammendrag

I dette prosjektet har vi undersøkt betydningen av informasjon som et virkemiddel for å endre husholdningenes forbruksmønster i en mer bærekraftig retning. Analysen er basert på en kvalitativ studie av ti husholdninger i Fredrikstad. Vi har brukt det grønne husholdningsbudsjettet som et eksempel på miljøinformasjon. Grønt husholdsbudsjett (GHB) er et veiledningsverktøy som kombinerer rådgivning om miljøvennlig forbruk med kalkulatorter for beregninger av husholdningens kostnader ved å legge om forbruket i mer miljøvennlig retning.

Vi har undersøkt to sentrale forskningsspørsmål. For det første har vi ønsket å finne ut hvor enkelt (eller vanskelig) det er å leve som en miljøvennlig forbruker i Fredrikstad. For det andre har vi undersøkt den rolle informasjon har i å endre forbrukernes handlinger. Vi har testet ut det grønne husholdsbudsjettet blant de ti deltakende husholdningene, og også brukt det som et verktøy i analysen av ulike forbrukspraksiser.

Teoretiske perspektiver

Ulike disipliner innen samfunnsforskningen har vært opptatt av forholdet mellom individuelle holdninger og handlinger. Handling er ofte forstått som et resultat av bevisste, rasjonelle valg. Et annet syn er at handlinger er påvirket av underliggende sosiale strukturer slik som normer og den enkeltes sosioøkonomiske bakgrunn. Innenfor dette siste perspektivet ses forbrukernes valg og handlinger som resultat av rutiner og vaner i hverdagslivet, heller enn resultat av individuelle, rasjonelle valg.

Rational choice perspektivet innebærer et instrumentelt syn på informasjon, i den forstand at en implisitt forutsetning er at handlinger primært er basert på den til enhver tid tilgjengelige informasjon. I hverdagslivsperspektivet blir uoverenstemmelse mellom holdning og handling ikke i første rekke forklart på bakgrunn av manglende informasjon, men forklaringer søkes i hverdagsli-
vets kontekst. I et slikt perspektiv er det derfor ikke uventet at forbrukere
handler i motstrid til sin egen rasjonelle eller reflektive bevissthet. Kognitiv
dissonans er noe en i mange sammenhenger må leve med og som internalise-
res i dagliglivets rutiner via forhandlinger og kompromisser i husholdet. En
måte å overkomme gapet mellom holdning og handling på, er å betrakte for-
brukspraksiser som en blanding av individets refleksive bevissthet og rutinise-
ring av hverdagslivet. Vi kan dermed plassere ulike forbrukspraksiser i et kon-
tinuum mellom streng rasjonell atferd og mer deterministiske og rutiniserte
praksiser.

Metode
Vi har gjennomført en kvalitativ studie av ti hushold i Fredrikstad. Seks av
husholdene ble strategisk valgt på bakgrunn av deres deltakelse i en lokal
Øko-team gruppe. De fire andre husholdene ble mer tilfeldig valgt gjennom
ein lokalk barnehage. Disse ti husholdene representerer derfor ikke noe tver-
snitt av Fredrikstads befolkning, men gjennom en slik utvalgsmetode har vi
skaffet oss et grundig bilde av muligheter og begrensninger for å leve miljø-
vennlige i Fredrikstad.

Husholdene ble besøkt to ganger. De seks første husholdene ble besøkt høsten
2000, mens de øvrige fire ble oppsøkt våren 2001. Temaene for den første
besøksrunden ble valgt ut i overensstemmelse med de viktigste temaene i
ToolsSust-prosjektet som helhet:
- inkjøp og miljøinformasjon (klær og hvitevarer)
- inkjøp av dagligvarer (hvor og hvordan komme dit)
- mat (måltider, kostholdsvalg, inkjøp av økologiske-, lokale- og se-
songmessige produkter, matauk og avfallshåndtering)
- energiforbruk

På slutten av hvert intervj presenterte vi det grønne husholdsbudsjettet. Hus-
holdene fikk en brosjyre og den faglige rapporten fra utviklingen av budsjett-
verktøyet. De som hadde tilgang til datamaskin og internett fikk også oppgitt
internetadresse samt at vi i de fleste tilfeller logget oss inn på hjemmesidene
til det grønne husholdningsbudsjetten:
www.sifo.no/gronthushold/

Informantene ble oppfordret til å se nærmere på informasjonsmaterialet fram
til neste besøk. Det andre besøket ble avholdt våren 2002. Seks av de opprin-
nelige ti husholdene deltok i den andre runden. Temaet for det andre besøket
var miljøinformasjon generelt, med spesiell vekt på det grønne husholdsbud-
sjettet.
Det grønne husholdsbudsjettet (GHB)
I GHB skiller vi mellom tre ulike strategier for endring av forbrukspraksiser:

Produkt substitusjon. Kjøpe miljøvennlige varer i stedet for konvensjonelle produkter.

Reorganisering. Ved å endre rutiner og aktiviteter i husholdet er det mulig å redusere miljøbelastningene betydelig.


Det må understrekes at disse tre strategiene er abstrakte, teoretiske konstruksjoner, men ment til å representere realistiske strategier for miljøvennlig forbruk i vanlige hushold. Empirisk er det ikke mulig å strengt skille disse fra hverandre, men de har en analytisk funksjon i å kategorisere ulike typer av miljøvennlig forbrukspraksiser.

Vi har brukt denne kategoriseringen i vår analyse av husholdene som har deltatt i undersøkelsen. Imidlertid har vi fokusert på produktsubstitusjon og reorganisering, og utelatt redusert forbruk fra analysen.

Produkt substitusjon
I forhold til produktsubstitusjon spurte vi hva informantene la vekt på når de gjorde sine innkjøp (slik som pris, utvalg, kvalitet, mote, miljø m.m). Dette spørsmålet ble eksplisitt stilt med hensyn til klær og hvitevarer. Vi stilte liknende spørsmål i forhold til dagligvareinkjøp og mat. I tillegg spurte vi om informantenes kjennskap til miljømerker, og i hvilken grad de kjøpte miljømerkede produkter. De ble også spurte om de kjøpte økologisk mat eller ikke.

Vi fant at det var stor bevissthet om miljømerker generelt blant de husholdene som deltok i undersøkelsen. De fleste gjenkjente både den Hvide Svanen, energimerkingen og Debo-merkingen (økologisk mat). For disse husholdene gjør miljømerkingen det enklere å velge miljøvennlige produkter, når de er tilgjengelige. Energimerkingen, som er obligatorisk på en rekke hvitevarer, var den mest brukte ordningen. Imidlertid er det en rekke barrierer knyttet til produktsubstitusjon som en relevant strategi for husholdene. Generelt er det få
produkter som er miljømerket i Norge, ikke minst på klær og mat. Samtidig virker ikke merking som en tilstrekkelig informasjonskilde for informantene. Det er dessuten vanskelig å oppdage merkingen på produktene. Det er lite kjent hvem som står bak merkeordningene, noe som også påvirker folks tillit til disse ordningene. Utfyllende informasjon er gjerne ikke tilgjengelig når man har behov for det i en kjøps situasjon. Flere informanter har opplevd at det er lite informasjon i butikken, til og med betjeningen mangler i mange tilfeller den nødvendige og forventede kunnskapen om produktene.

Flere informanter oppgir at de bruker energimerkingen når de gjør sine innkjøp av hvitevarer. Men det er mange ulike faktorer som spiller inn ved valg av et produkt, slik at energimerkingen alene ikke gir uttømmende informasjon, og dermed heller ikke er avgjørende for valget. Miljøbelastningen fra produksjon og distribusjon av mat er også et viktig hensyn som våre informanter er opptatt av. Imidlertid er det av mindre betydning ved innkjøp av mat fordi tilgjengeligheten av økologisk-, lokal og sesongmessig mat er svært liten i butikkene. Informantene har i enda mindre grad vurdert innkjøp av miljøvennlige klær. Noen informanter uttrykte at de manglet kunnskap på dette området, noe som også må ses i sammenheng med at det er nesten ingen miljømerkede tekstiler tilgjenglige på markedet.

Dette betyr imidlertid ikke at informantene ikke var opptatt av de miljømessige sidene ved forbruk av klær. Tvrt om hadde de ganske klare oppfatninger av miljøpåvirkningen fra deres eget forbruk, ikke minst fra klær. Måten man tenker rundt disse spørsmålene vil imidlertid variere avhengig av hvilken produktkategori en snakker om, ikke minst er det her forskjell mellom varige og ikke-varige forbruksgoder. For en hvitevare som er en forholdsvis dyr investering og som er forventet å vare en del år, vil innkjøpsprosessen være annet enn for innkjøp av klær, og ikke minst i forhold til innkjøp av mat som ofte er en svært rutinert handling. Innkjøp av hvitevarer er en lengre og mer bevisst prosess. Både de økonomiske og miljømessige konsekvensene ved innkjøp av en ny hvitevare er betydelige, derfor er motivasjonen for å sammenlikne ulike produkter og aktivt nyttegjøre seg av miljøinformasjon svært aktuelt for disse produktene.

På tross av disse forskjellene mellom produktkategorier, har vi funnet at miljømerking i liten grad brukes av våre informanter, noe som betyr at produktsubstitusjon i mange situasjoner, uavhengig av produkttype, er en lite aktuell strategi. Våre informanter uttrykker at holdbarhet, levetid, reparasjon av produkter og det å kjøpe brukt, i en miljøsammenheng er vel så viktig som å kjøpe miljømerkede produkter.
Reorganisering

Reorganisering av husholdsaktiviteter er den andre strategien som foreslås i GHB. Våre intervjuer inneholdt en rekke spørsmål vedrørende husholdspraksiser på områder som innkjøp, matvaner, energisparing og avfallshåndtering. Dette har resultert i et omfattende empirisk materiale med beskrivelsen av ulike måter å organisere et miljøvennlig forbruk i husholdene. I denne rapporten har vi måttet avgrense oss til å se nærmere på husholdspraksiser relatert til mat. Vi har gruppert disse matrelaterte praksisene inn i tre hovedkategorier eller faser som er relevante for diskusjonen om miljøvennlige forbruk av mat:

1. **Forsyning av mat**: innkjøp og matauk (inkludert bearbeiding av mat)
2. **Forbruk av mat**: tilberedning, måltidsvaner og kostholdsvalg
3. **Håndtering av matavfall**: kaste eller utnytte rester, kompostering, restavfall

Vi kategoriserte inntil åtte ulike praksiser fra vårt intervjumateriale. Disse kategoriene kan igjen splittes opp i underkategorier. For eksempel inneholder kategorien ”matauk” svært ulike aktiviteter, slik som jakt, fiske og dyrking av frukt og grønnsaker i egen hage.

Fra analysen av matrelaterte forbrukspraksiser i våre ti hushold i Fredrikstad finner vi at forbruk betyr noe langt mer enn innkjøp av varer i butikken. Ved å kategorisere praksiser relatert til mat i ulike faser, har vi avdekket et komplekst mønster av hverdagslivspraksiser. Ved å fokusere på reorganisering av husholdsaktiviteter, har vi funnet mange muligheter og barrierer knyttet til miljøvennlig forbruk. Sosiale konvensjoner, rent praktiske årsaker samt disponibel tid og rom, er alle faktorer som påvirker husholdenes forbrukspraksiser.

Miljøinformasjon
Et sentralt mål for prosjektet har vært å diskutere betydningen av miljøinformasjon som et virkemiddel for å endre forbrukspraksiser i hushold. Vi testet det grønne husholdsbudsjettet ut på våre hushold ved å presentere dem både for internettssidene og brosjyren som er spesielt utviklet ved SIFO. Husholdene ble spurrt om å titte på internettssidene og bruke kalkulatorene for å vurdere hvilken betydning denne informasjonen har for dem. Vi fant at husholdene i liten grad hadde brukt det grønne husholdsbudsjettet. Selv de mest dedikerte miljøforkjemperne fant dette verktøyet upraktisk og hadde problemer med å finne tid til å lese brosjyren og logge seg inn på internett, med mindre det var et helt spesielt spørsmål de ønsket å finne svar på. I tillegg appellerte ikke internett som et formidlingsverktøy til informantene i vår undersøkelse. Det virket for upersonlig og abstrakt. De ønsket heller å snakke om slike spørsmål med venner, kolleger og med barna som lærer mye om miljøspørsmål på skolen.

En av konklusjonene vi trekker fra å studere disse husholdene i Fredrikstad er at informasjon er en nødvendig, men ikke tilstrekkelig forutsetning for handling. Våre funn står i kontrast til antakelsen om at tilstrekkelig med informasjon vil gjøre forbrukere i stand til å gjøre de "rette" valgene i markedet, eller iverksette mer miljøvennlige handlinger hjemme. Dette sier vi ikke for å undervurdere betydningen av informasjon, men det er viktig å ha dette i minnet når en analyserer effekten av informasjon som et politisk virkemiddel.

For å forstå informasjonens rolle i forhold til å endre forbrukspraksiser i husholdene, har vi laget et skille mellom såkalte sosialt sammenvevde (socially embedded) og sosialt atskilte (disembedded) informasjonssystemer. Sosialt sammenvevde informasjonssystemer er de små, gjennomsiktige, mellommenneskelige nettverkene som dannes i familien, blant venner og kolleger på arbeid. Med moderniteten har vi fått en rekke andre informasjonskanaler i tillegg som har bidratt til å institusjonalisiere bruken av informasjon og kunnskap. Symbolske tegn og ekspertsystemer er eksempler på slike sosialt atskillende informasjonssystemer som den moderne forbruker er blitt avhengig av. Miljøfeltet er på mange områder influert av denne type informasjonssystemer, slik som ulike miljømerker, informasjonskampanjer og rådgivningsverktøy som for eksempel GHB. Denne differensieringen mellom ulike informasjonssystemer har vært verdifull for å forstå informasjonens rolle i forhold til hverdagslivets forbrukspraksiser. Gjennom våre intervjuer har vi innhentet mange eksempler på at de tette mellommenneskelige nettverkene er mer betydningsfulle i å formidle miljøinformasjon, enn moderne kommunikasjonssystemer,
slik som miljømerking og internett (GHB). Men et poeng for oss er ikke å sammenlikne de to systemene, heller argumentere for at disse ulike systemene må betraktes som komplementære. Ved valg av informasjonskanal og informasjonsstrategi er det derfor viktig å ta med i betraktningen den konteksten som informasjonen skal virke innenfor.

**Konklusjoner**
1 Introduction

1.1 Aim of the study

The ToolSust project focuses on the interplay between householders' attitudes and behaviour on the one hand and the national and local environmental policy on the other hand. This case study of ten households in the city of Fredrikstad, relates to the question of who has the responsibility for environmental action: the political authorities, other stakeholders such as industry, commerce, civic society (NGOs) or the individual consumer? Some critics say that when the political authorities during the 1990s first began to focus on consumption as a driving force behind environmental problems, they at the same time made the individual consumer responsible for the situation, and hence changes in individuals' attitudes and behaviour became a necessary prerequisite to solve the environmental problems (Straume 2002).

We agree to the fact that there is a danger of individualization of the environmental politics, and therefore one point of departure for this study has been that the environmental problems can not - and shall not - be solved by the consumers alone. However we believe that the complexities and nature of environmental problems calls upon joint actions from authorities and commercial interests as well as consumers. The question is therefore how political measures enable householders to act in more environmentally friendly ways, and another main question is what are important socially caused constraints against changes in household behaviour?

Here we are at the core of the critics of the environmental policy, both that the political measures in this field are insufficient and that the political influence by ordinary citizens as well as national governments are constantly diminishing (Bauman 1999). This leaves the case of environmentalism in a rather
powerless position, nevertheless we find it important to focus on the relationship between environmental politics and individual action, because in the end it is in the local context that many of these questions have to be solved.

The discussion above raises one important issue about what kind of politics that are carried out in this area. However, it is not our aim in this study to map or discuss the general environmental policy (in Norway), whether it is influenced or governed by principles of individualization / privatisation of the responsibilities or if it represents a more traditional and stronger regulatory command- and control kind of policy.

In this study we have chosen to examine the significance of environmental information as a measure for changing everyday consumption practices in households. Environmental information is here exemplified by “The green household budget” (GHB) which is a tool that combine advice on environmental friendly consumption practices with examples of household expenditures from changing these practices.

1.2 Research questions

In this project we discuss two essential research questions regarding the possibilities for changing the overall consumption in a more sustainable direction. The first question is:

How easy is it to be an environmental friendly consumer in Fredrikstad?

This question deals with the understanding of complex patterns in the social organisation of the household, the different consumption practices and the possibilities and constraints to change these practices. An important aim of this research is to evaluate the meaning and relevance of environmental information for consumers that want to change their behaviour in a more environmental friendly direction. In this regard we have been examining the following question:

What is the significance of environmental information in changing consumption practices?
This question is closely related to the first question, and we want to discuss in what way external tools or measures, like environmental information, affect the households environmental friendly consumption practices.

We have carried out a qualitative study of ten households in the city of Fredrikstad. Six of the households are strategically selected from their engagement in a local ECO-team. The other four household are more randomly selected through a local kindergarten. The householders do not represent the “average” citizen, but by this strategic selection of household we have got a broad picture of the possibilities for living as an environmental friendly consumer in Fredrikstad.

1.3 Readers guide to the report

In chapter two we will present four different theoretical perspectives on environment and consumption in order to discuss the two research question:
- rational choice
- ecological modernisation
- reflexive modernisation
- everyday life perspectives

In chapter three we make a short presentation and discussion of the method used. Chapter four, five and six contains the empirical findings from the interviews with the householders. In chapter four we discuss product substitution as a strategy for reducing environmental impacts from household consumption, while in chapter five we use food practices as example on how the householders may reorganise their activities in order to live more environmental friendly. The role of information in changing consumption practices are discussed in chapter six. Here we evaluate the green household budget as a specific tool. Finally, chapter seven contains a discussion of the main findings from our case study.
2 Theoretical perspectives

One main aim of the WP3 of the ToolSust project is to discuss householders’ possibilities to change consumption patterns and the role of information in these processes. We will make a distinction between perspectives with an understanding or view of consumers and their behaviour as mainly rational or reflexive, and perspectives that to a greater extent understand consumption practices as influenced by underlying general social structures, as we here will call everyday life perspectives. One reason for making this distinction is that the role of information is differently treated within these perspectives. Another reason for presenting different theoretical approaches is that it gives us a possibility to discuss different aspects of environmental behaviour. This is especially relevant to the discussion of the three different strategies for changing of consumption practices that are described in the green household budget. We will discuss this in chapter 2.7 below.

Different disciplines within the social science are concerned with the relationship between human consciousness and individual behaviour. Behaviour is often understood as a result of conscious and rational reasoning. Another view is that behaviour is the result of underlying social structures such as social norms and the socio-economic background of the individual. Within these latter perspectives consumption practices are outcomes of routines and habits in everyday life, more than results of individual rational choices.

One way to overcome this gap between rational-/reflexive- vs. routinised consumption practices, is by viewing consumption practices as mixtures of the reflexive reasoning of individuals and the routinisation of everyday life. Thus, different consumption practices places themselves on a continuum between the strict rational behaviour and deterministic habitual practices (Halkier 2001). This discussion is highly relevant for the issue of environment and consumption, and below we will present different theoretical contributions.
and discuss their relevance for the research questions put forward in this part of the ToolSust project.

2.1 Rational choice

The view of the economic man that makes his rational choices in the marketplace is a strong and well known concept from economic theory. This is also a conception of the consumer that is rather common among different stakeholders such as producers, retailers and authorities (Vittersø 2001). Likewise, as consumers we also like to think of ourselves as rational, economic consumers that make the right choices in the marketplace.

Research on environmental attitude and behaviour has been highly influenced by cognitive theories within social and environmental psychology. The Theory of Reasoned Action developed by Icek Ajzen & Martin Fishbein is one of the most influential in this field (Blake 1999, Halkier 1998). Ajzen & Fishbein states that "(...) the theory is based on the assumption that human beings are usually quite rational and make systematic use of the information available to them" (Ajzen & Fishbein 1980, 5). One major objection against these theories are their limited ability to explain the relationship between attitude and behaviour because of the undervaluing of the social context where actions are carried out (Eden 1993, Spaargaaren 1997, Halkier 1998, Blake 1999, Stø, Strandbakken & Strand 2002).

2.2 Reflexive modernisation

Both Anthony Giddens (1991) and Ulrich Beck (1992) have pointed to that the “modern” consumers or citizens to a greater extent than before act on the ground of their own individual choices. Contrary to traditional societies where individual choices and practices were subordinated to the collective order of social norms, modern consumers to a greater extent make individual choices and build their own life biographies independent of the collective social structures. These developments have profound political consequences both on a societal and individual level.

Giddens (1991) describes this as a transition from emancipatory politics to life politics. By emancipatory politics it is meant the politics of freedom from ex-
exploitation, inequality or oppression (Giddens 1991, 242). These humanistic ideas have been central political issues from the beginning of the modern era. Emancipatory politics acts as a preconditions for development of life politics. While emancipatory politics deals with "(...) conditions which liberate us in order to make choices", life politics "(...) is a politics of choice. While emancipatory politics is a politics of life chances, life politics is a politics of lifestyle" (Giddens 1991, 214). The new freedom of choice and the self as a reflexive project calls upon a greater individual responsibility for our own lives as for the society in general. In essence life politics imply the moral question of “how should we live?” (Giddens 1991, 215).

Like Giddens, Beck describes the paradigmatic changes in the political system. The old political institutions are not longer able to deal with the effects of risk society (Beck 1992, 1994, 6). The disruption of politics opens up new fields of sub-politics and a new political culture is emerging. While Giddens’ concept of life politics is an individual project, but with a collective political potential where “the personal become political”, sub politics cover a range of different fields. This includes the organization of citizens in social movements and protest groups, but more so sub politics imply a politicization of different social institutions such as the judicial system, media and not least science (Beck 1992).

2.3 Ecological modernisation

Ecological modernisation theory (EM) was established in Germany in the early 1980-ties. Its relevance is not only academic, but also political because of its insistency of solving the environmental problems through a modernisation of industry and the political institutions. Through the last decades we have been witnessing an ecological modernisation of many industrial branches in Europe. Solutions are sought by means of a strong regulatory and control politics in combination with new production methods that use clean technology (Mol 1997, Jännicke & Weidner 1995, Weal 1992). In the literature we find a distinction between weak and strong EM. Weak EM imply a primary focus on the technological solutions, so called technical fix. Strong EM means an emphasis on thoroughgoing institutional and social changes (Langhelle 1998). With its focus on production and the political institutions, consumption is more or less neglected within this perspective. Consumers are implicitly perceived as rational actors of the market place. However, Spaargaren (1997) has attempted to link EM with sociological theories of consumption.
2.4 Everyday life perspectives

Another perspective on consumer behaviour is to study consumption practices in the context of everyday life. Here we find contributions from different disciplines within the social sciences such as anthropology and sociology. Whereas the rational and reflexive perspective on consumer behaviour prerequisite a strong relation between conscious reasoning and individual action, the everyday life perspective emphasise that consumption practices are results of routines and habits more than individual action. Bente Halkier (2001) modify this and states that in daily life you will find a mixture of rational, intended behaviour and more routinised practices. That is, we do not act strictly as reflexive, rational individuals because the social norms and structures to a greater extent form the organisation of daily life. Daily life is complex and not structured around the single individual behaviour, but by a complex pattern of social norms and routinised practices. Different motivations for actions often comes in conflict, thus consumption practices are results of negotiations, compromises and priorities within the household.

2.5 The role of information

The rational choice perspective imply an instrumental view on information in the sense that an implicit precondition is that our actions primarily are based on the present available information. If the expected behaviour is not found, one main explanation within this perspective will be lack of information. The following advise will be to give out more and adequate information. This view underlines the impression of consumers constantly seeking information, because decisions mainly are based on the available information (Blake 1999, Eden 1993).

In the everyday life perspective the gap between attitude and behaviour are not first and foremost explained by lack of information. In this perspective explanations are sought in the organisation of daily life, and it is not seen as an exception that consumers often act contrary to their “rational knowledge” or “reflexive consciousness”. This seemingly cognitive dissonance is to a certain extent something that consumers learn to live with, and which is internal-
ised into the daily routines via negotiations, compromises and hereby priori-

ties.

Two recent European studies are of special relevance in this context. Firstly Kersty Hobson’s study of the role of environmental information in questioning household consumption practices (Hobson 2003), and secondly Bente Halkier’s study of young Danish consumers and normative claims for environmental considerations (Halkier 2001). Both studies are influenced by, and using concepts from, Giddens’ structuration theory (Giddens 1984).

Hobson (2003) uses Giddens’ distinctions between practical and discursive consciousness in building a framework for analysing consumption and behaviour. Giddens define practical consciousness as a knowledge about social conditions and own actions that cannot be expressed discursively (Giddens 1984, 375), while discursive consciousness is defined as what actors are able to say about social conditions especially their own actions (Giddens 1984, 374).

Hobson intends to explain the role of information in changing consumption practices, and she argues that these two forms of knowledge mirror the differences between the practices changed and those unchanged by environmental information (Hobson 2003, 104). Hobson evaluated the effects of the British environmental campaign “Action at Home” and found that the practices changed were part of householders practical consciousness before the programme began. These practices were typically unnoticed routines and habits, such as leaving the TV set on stand by and letting the water run while brushing the teeth, that householders had not reflected upon until they read the information material from the campaign. The information brought habits into discursive consciousness, thus started the process of changing behaviour. The previous unquestioned became questioned, as Hobson puts it. At the same time she stresses that also the forms of knowledge represented are of decisive importance in enabling householders to connect individual practice and environmental impact (Hobson 2003, 105). These findings are of interest for our case study, especially because the participating households to a great extent already had gone through this discursive process before they were presented for the green household budget (GHB).

Many practices naturally stayed unchanged after the Action at Home campaign. Hobson considered these practices as typically more complex such as transport use and shopping. Although not changed Hobson argues that the effect of information on these more complex areas can be seen in the rebuilding and realigning of the participants’ discursive consciousness (Hobson
Hobson’s findings are interesting because they point to important aspects of information as a tool; sometimes information can be sufficient to change practices, but other times not. But these findings to a lesser extent explain why some practices change, while other stay unchanged.

The institutionalised and regularised use of information and knowledge is a constitutive element of the present modernity. Following Giddens (1991) modern societies distinguish themselves from traditional societies by developing disembedding mechanism such as expert systems and symbolic tokens. Expert systems “(...) penetrate virtually all aspects of social life in conditions of modernity – in respect of the food we eat, the medicines we take the buildings we inhabit, the forms of transport we use and a multiplicity of other phenomena” (Giddens 1991, 18). Together with symbolic tokens expert systems are what Giddens define as “high trust system”, and can be distinguished from more traditional “low trust systems”, such as family, kinship, mouth to mouth communication etc.

We find this distinction between socially embedded and disembedded information systems as highly relevant for the evaluation of the role of information in changing household practices. The field of environmental information is in many ways heavy influenced by both symbolic tokens and expert systems. Environmental labelling schemes, information campaigns, mass media and advisory tools such as the GHB can all be categorised as high trust disembedded systems. In contrast to such information systems we have the smaller, closer and more transparent interpersonal social systems constituted by family, friends, colleagues at work etc.

2.6 Environmental friendly consumption practices (EFCP)

As already mentioned, in addressing the question of information and its role in changing consumption practices, Giddens’ conceptual framework is highly relevant. However in this project we also address the question of the householders possibility to live environmental friendly. We will present Bente Halkiers’ (2001) extended analytical framework that underlines both the routinized and the reflexive character of daily life.

Halkier has developed an analytical framework where the key concept is experiences, and with three relating subconcepts: practices, interpretations and
interactions (Halkier 2001, 28-31). Halkier argues that experiences are both the basis as well as the result of practices, interpretations and interactions. One particular interesting part relevant for our present research is her distinction of practices into routines and actions. Routines are here understood as the taken for granted activities in daily life and work on the basis of what Halkier describes as “(...) tacit knowledge in the practical consciousness” (Halkier 2001, 29). Actions are activities that to a greater extent are intentionally chosen and based on “(...) reflected knowledge in discursive consciousness” (op. cit.).

Whether we identify consumption practices as routines or actions we must also consider constraints to changing these practices. These barriers can be of different character. Firstly we have the time-space constraints. These constraints imply that householders are able to carry out just a limited number of activities during the day due to the time available and the mobility of the household members. However, more important constraints in our context are the underlying and often institutionalised social norms and conventions.

2.7 Three strategies for changing consumption practices

The ToolSust project focus on the following consumption practices which all have significant impacts on the environment: Waste handling, purchase of environmental friendly products, food practices, transportation in relation to shopping and energy conservation. These household practices are also focused in the present qualitative study (WP3) as well as in the quantitative survey in WP1 of the ToolSust project (Methi et. al. 2002).

In the GHB we have distinguished between different strategies or levels for changing consumption practices. These strategies are abstract, theoretical constructions, but they are aimed at representing realistic ways of environmental friendly consumption practices (EFCP) in the household. Empirically it is not possible to separate these strategies from each other in a strict sense. But they have an analytical function in ordering different types of EFCP:

- **Product substitution** means for the household to purchase environmentally sound products in stead of “conventional” ones.
- **Reorganisation.** By changing routines and practices in the household one can reduce the environmental impact of consumption significantly.
- **Reduced consumption.** This strategy requires to lower, what is often considered as the material standard of the household. This may in-
clude to reduce the income level in order to reduce household expenditures. However it may also mean to alter the time spent on wage labour and time spent in the household. In many cases this is considered as a matter of changing life style.

We will use this categorisation in the analysis of the households that have taken part in this study. But first we will relate these strategies to the previous theoretical discussion.

2.7.1 Product substitution

Product substitution is a strategy that is in keeping with ecological modernisation theory, in the way that with the greening of industry we will have more and more environmentally sound products in the market. However, for consumers there are difficult to find so called green products in the market today. Even though the industry have become greener and cleaner, it is more difficult to recognise these changes on the product level. There are many reasons for this, for instance that the industry have concentrated on emissions (end-of-pipe solutions) and energy saving measures, but in many cases not so much on improvements of the product itself. The globalisation of industry makes the production process complex, with many different sets of production standards. This lack of transparency into the production- and distribution process makes it difficult to trace the environmental “footprints” of different products. This is maybe also one reason why so few products are marketed as “green” products, and thus an important constraint against product substitution as a strategy for people seeking a “green lifestyle” today.

However, industry and governments have done some efforts to lighten the introduction of green products in the market. Environmental labelling is one such measure. Energy labelling of household appliances is another important labelling scheme in the European market. The idea behind such information schemes is as discussed earlier that with sufficient information consumers will be able to make the “right” choices in the market place.

In chapter 4 we analyse product substitution as a consumption practice on the basis of the concepts of routines and actions. In chapter 6 we will discuss the role of information, among others the use of environmental labelling, by distinguishing between embedded and disembedded social systems as presented in section 2.5.
2.7.2 Reorganisation

Consumption is more than buying of products in the marketplace. It also cover activities connected to provision, use and disposition of goods and services (Halkier 2001, 30). Following the green household budget, households are able to reduce environmental impacts in several ways. For important practices focused in the ToolSust project (se 2.7. above), such as transportation and energy use, it is changing of routines and habits rather than product substitution that have environmental significance. In this context we think of different activities such as using public transport in stead of private car, turn off lights, reduce hot water use etc.

Food practices also have significantly environmental impacts. Again the distinction between routines and actions are of highly relevance in analysing daily consumption practices. Routines are per definition stable practices unlikely to change over night. As outlined in chapter 2.6. practices can be restricted both physically in time-space and socially by norms and conventions. Thus, in chapter 5 we will focus on the social norms and conventions behind the daily routines and practices, as well as the organisation of practices in terms of time and space.

2.7.3 Reduced consumption

The third strategy of the green household budget call on the consumers to reduce the overall level of consumption. This household strategy is highly relevant for the overall discussion of sustainable consumption. It relates to the possibility of reducing the resource- and energy use in our modern societies, for instance the debate about reducing the resource use with a factor of four. It also deals with the question of the rebound effect, that is what to do with the money saved from reduced consumption in one area. Is it spent on more resource demanding consumption in other areas?

And it is also a more general and ideological question whether it is possible, and even desirable to reduce the level of consumption in European communities. To what extent is the quality of life dependent on an ever growing material consumption?

We assume that this is a more demanding strategy for households in general because it questions the whole lifestyles of consumers. It does not only require changes in single routines or practices, but questions whether products and services are necessary or not. If reduced consumption is experienced as a
sacrifice or, on the contrary, seen as an unproblematic internalisation into the daily routines, is a subjective matter. But as Halkier (2001) points out, house-holds manage the internalisation of environmental friendly consumption prac-tices (EFCP) in daily routines very differently.

The householders in this study are strategically selected, six of them among ECO-team members. It would have been an interesting research topic to see whether reduced consumption is a relevant strategy for the different house-holders in our case, which in different areas have proven a wide sense of envi-ronmental conscious behaviour. However, this report focus on the two first strategies: product substitution and organisation, while reduced consumption is left out.
3 Method

3.1 Selection of the households

In this case study we have made a strategic selection of households, to get as much relevant information as possible (Flyvbjerg 1991). We wanted to recruit householders that we beforehand knew was interested in and motivated for, changing their consumption. Therefore, the households were selected through Grønn Hverdag, a local NGO in Fredrikstad. We managed to get six households this way, but still wanted some more households. Besides engagement for the environment, we had set no other conditions for the selection of households such as household size, age or type of dwelling. However the six households selected turned out to be families with children, most of them with small children. In addition the six households were more or less connected to the same social network, partly because they had all participated in the ECO-team in Fredrikstad.

To get a broader selection we wanted to recruit new families not belonging to the same network, but we wanted them to have small children so that they were comparable with the others in that respect. We then recruited four more household through a kindergarten in one of the central areas of Fredrikstad. These households turned out to be more or less engaged in environmental friendly consumption practices, as well.
3.2 The interviews

The first round of interviews with the six eco-team members took place in the late autumn year 2000. The interviews with the other four was made in the spring of 2001.

The themes of the interview guide (see appendix A):
- Purchase and environmental information (clothes, white goods)
- Purchase of groceries (were and how to get there)
- Food (meals, dietary considerations, purchase of organic, local food, self provision of food, food waste)
- Energy consumption

The interviews lasted between one and two hours. In the end of the interview the householders were presented for the green household budget. They got the folder and the scientific report from the work with developing the budget. By those who had a personal computer at home, we logged on to SIFOs home pages for a quick survey of the relevant pages: (http://www.sifo.no/english/greenhousehold/ )

The householders were asked to have a closer look at this information material until the next visit. The second visit to the households were made in spring 2002. Before the second visit the participants were reminded of the internet pages and the folder. Six of the originally ten households joined the second round. The theme of the second round was environmental information, in particular the green household budget (see appendix B). The interviews lasted from half an hour to one hour.

The interviews are structured and analysed with help of the software program ATLAS 4.1.

3.3 Reflections on the case study approach

We have analysed the material from the interviews with the ten different households as a single case study, which we may label “householders in Fredrikstad that to a certain extent are engaged in environmental friendly household practices”. However, we could also have chosen to analyse this as a multiple case study, such that each of the ten different householders represented one case.
What we miss by analysing this as one case instead of multiple cases, is the unique story of each of the householders. By decoding the interviews into new sets of analytic categories we miss the special context of the single household, which perhaps would give another and more fully insight into how different householders organise their daily life.

What we gain from analysing the interviews as one case is a clearer focus on the consumption practices that we have selected here, namely product substitution and food choices. What are the householders different opinions and practices on these issues? We also wanted to say something about how the local context affect the householders possibilities for living environmental friendly. In this case we are especially interested in the role of the local stakeholders in the municipality of Fredrikstad. If we did not have had this local contextual aim of the project, we could have chosen a multiple study approach and selected householders from different part of the country and by other criteria, such as socio-economic background, type of dwelling etc.

Another factor that more directly has affected the collected material is the time span between the first and second visit. Because the time span between the two visits was between one and two years, the householders almost “forgot” that they participated in the study. With a shorter interval between the two visits the householders may have more actively followed up our requests on looking into the information material that we handed out. On the other hand this long time span may have created a situation that is more close to a real life situation. In daily life one more occasional receive environmental information, and therefore one also probably more easily forget when and how one receives such information.
4 Product substitution

4.1 Introduction

In chapter 4 and 5 we will focus on the first main research question of the study: *How easy is it to be an environmental friendly consumer?*

In particular we are interested to know to what extent the householders actually buy environmental friendly products. We are concerned with the possibilities and constraints for purchasing such products, and we have been interested in what alternatives the householders have to product substitution as a strategy for environmental friendly consumption.

In analysing the householders product substitution practices we will draw on the theoretical discussion of attitude and behaviour from chapter 2. Following both the rational choice and modernisation theories the householders in this case should be “great supporters” of the product substitution strategy and acting as “political consumers” in the market place. Following the every day life perspective this is not quite that obvious, and product substitution may not always be a relevant strategy. Following Halkiers distinction of consumption practices into routines and action, we know that buying groceries is a rather routinised practice while purchase of other more durable and expensive consumer goods, such as furniture and cars usually require a stronger sense of reflexive reasoning. We believe that whether the buying process is a mere routine or reflected action will effect the householders general attention to the products and the information following the same products.

In the interviews with the householders we spoke especially about buying clothes, white goods (household appliances) and food. We also spoke more generally about environmental products and labelling of such products. During the interview other products like laundry detergents, tissue paper, garden
furniture etc. were also mentioned as relevant in this context. There are different reasons why we wanted to have a closer examination of clothes, white goods and food. We choose clothes because these are products with almost no environmental information attached to them. White goods have a mandatory energy labelling and organic food is labelled, but is hardly available. The products also vary according to buying frequency; food are normally purchased several times every week, clothes more seldom and white goods are just bought once in a while when an old product are broken or for other reasons the householders need a new appliance.

Because we are dealing with the same issues in the interviews with the families as in the city survey, we have a “reference” point in the survey data that can be useful in the coming analysis. Thus we will briefly present the relevant findings from the survey also in the different sections of this chapter (for details on the findings see Methi et. al. 2001, 2002). In the quantitative survey in WP1 there was a section with 3 questions related to environmental information and eco-labelling. The first question dealt with the issue of environmental information and to what extent information concerning environmental issues have any influence on the respondents choice of (grocery) products. We found that in Fredrikstad environmental information has middle or low influence on most consumers when buying groceries. Only about ¼ of the consumers say that they are much influenced by environmental information, while about 35 percent are in the middle category and as much as 40 percent are little influenced by environmental information. However women are significantly more actively seeking environmental products than men; 32 percent of the women states that they are much influenced by environmental information, compared with only 18 percent of the men.

Then the respondents were questioned if they are familiar with any eco-labels. The answers were given without any help, and we found that the White Swan is a very well known eco label in Fredrikstad, while other eco-labels are fairly unknown. 73 percent of the respondents mentioned the White Swan without any help, and 14 percent mentioned Ø-merket/Debio which is the label for organic food. Knowledge of the White Swan showed no gender differences, but age, education and work status had some effect. The younger age groups, higher educated and full time workers scored significantly higher on knowledge of the Swan.

The respondents were also asked about their general trust in eco-labels. About 40 percent have high trust in eco-labels and about 40 percent say they have middle trust in these schemes, so the trust in these labels is rather high among
consumers in Fredrikstad. Summing up: there is a great knowledge of the white Swan but less knowledge of other eco-labels, however, few consumers really take this kind of information into consideration when buying groceries.

These findings still leaves us with some questions. The consumers seems to have knowledge of some labels and not others, but do not to the same extent use the information when shopping. How come? What are the constraints, and in what way is this related to the daily life? The interviews with the householders can give us information about how product substitution is practised in everyday life, which we otherwise (through the quantitative study) do not get.

We believe that the householders in our qualitative case to a greater extent than “ordinary” consumers will make use of environmental labels. Why do these families use them – and when are the householders not using environmental product information? The interview guide contained several questions concerning product substitution. One set of questions circled around the buying situation. We asked what they emphasized when shopping (like the price, selection, quality, fashion, environment etc.). This question was explicit connected with purchase of clothes and white goods. We also asked similar questions on buying groceries and food. In addition the householders were asked about the knowledge of environmental labels and to what extent they bought products with eco labels. They were also asked whether they bought organic food or not.

4.1.1 Awareness of eco-labelled products

During the interviews several other situations and different products besides buying clothes, white goods and food came up. In the following table we have summed up the different products mentioned (including the already mentioned products):
Table 4-1 Products mentioned by the householders in connection with product substitution.

<table>
<thead>
<tr>
<th>Clothes (see 4.1)</th>
<th>White goods (see 4.2)</th>
<th>Groceries</th>
<th>Food (see 4.3)</th>
<th>Car polish (not considering)</th>
<th>Cars (not considering)</th>
<th>Cosmetics</th>
<th>(Garden) furniture</th>
<th>Cat sand</th>
<th>Paint (consider/not consider)</th>
<th>Paper (for printing)</th>
<th>Products with too much packaging</th>
<th>“Ethical products” (no child labour) – Max Havelaar</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>- toilet paper</td>
<td>Car polish</td>
<td></td>
<td></td>
<td></td>
<td>- hair lacquer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- tissue paper</td>
<td>(not considering)</td>
<td></td>
<td></td>
<td></td>
<td>- deodorant / intimate spray</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- napkins (not disposable/fabric)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- (hand) soap</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- washing powder / soft soap (grønnsåpe)</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>- detergents (for dish washing)</td>
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<td>- chlorine</td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td>- Micro fibre cloth</td>
<td></td>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>

When reading this list we must remember that the householders were not explicit asked to mention eco-labelled products. The products listed here came up as a response to the question of what they associated with environmental friendly products. Products were also mentioned more or less spontaneously during the interviews. What the list reflects is that the householders are aware of different environmental products, and especially those with eco-labels. Several of the groceries listed are products labelled with the Swan (toilet paper, tissue paper, washing powder).

One of the householders mentioned that when buying the car they were concerned about the safety and the space in the car, while the environment was not an issue. However, they would never dream of buying garden furniture with wood from tropical rain forests. This attitude may seem paradoxically and inconsistent, considering the vast environmental problems related to pro-
duction and use of cars. However, it is a good example of the many contradictory considerations that householders live with in daily life.

It is a great variation among the householders in how they relate to eco-labelled products. Some are very aware of the labelling and other information on the products, others do not think of it at all when shopping. But typical groceries like washing detergents came up when speaking of “green”/environmental products and eco-labelled products:

Interviewer: What do you associate with environmental friendly products?
Woman: In groceries? Well, it is…to the extent we think about it is probably washing powder. I do not know if it is something environmental friendly about that?
Interviewer: Do you know of any eco-labels?
Woman: The White Swan. We use that Blenda Sensitive. I do not know if it is more environmental friendly, at least is it less perfume in it.
Man: That is with regard to the washing of children’s clothing.

Interviewer: You gather information in different ways on environmental friendly grocery shopping. Do you know of any eco-labels?
Woman: Are you thinking of the White Swan and such? Yes
Interviewer: Do you use it…do you look for it?
Woman: Yes, I believe I look after that, yes. I am thinking of paper and such, then I try to look for the recycled kind.

Green products are frequently associated with groceries like detergents and different paper products. This is probably due to the significant high number of products that are labelled within these product categories. These products are found in most shops, and have reasonable high market shares (>50%) (Methi et. al. 2002).

4.1.2 Purchase of eco-labelled products - why not?

In general, there are few labelled product categories in the market, and one reason for not choosing labelled products is that they are hard to detect:

Interviewer: Do you know any eco-labels?
Man: The White Swan
Woman: The White Swan
Man: I do not know if you call the recycling symbol an environmental label, but at least I know of that.
Interviewer: Have you noticed which products are carrying these labels?
Man: Yes, it is very much on the cardboard packing. Well, I have not noticed that much, either.
Interviewer: And the Swan?
Man: No, I hardly see it anywhere. Well, maybe because I am not very conscious about it.
Woman: You may see it on some like paper products.
Interviewer: Is it something that you direct your purchase after?
Man: No

Although the householders are acquainted with the White Swan and other eco-labels, they not always look for it in the shop. One reason for this is that they do not really expect to find Swan labelled products. Shopping is in many cases a highly routinised activity, thus one look for the items that one is acquainted with and expect to find in the shop.

It is a span among the families from those who are actively seeking alternative products to those who seldom look for them. It can also be differences between the individuals in the families in how aware they are of such products:

Interviewer: But if we exclude food?
Woman: Oh, you think about other products, yes. Yes
Man: At ICA?
Woman: Recycled paper for the computer…they do not have that. But if they had it, then…
Man: Recycled paper?
Woman: There we sin some. We have to tighten up. We are going to buy it the next time. Now we have told you, so we will buy it next time. That is how it works. We have been a bit careless on this.
Man: On all packages with toilet paper that you buy are labelled with three green arrows in a circle, but I wonder if it is just to give us good consciousness.
Woman: No, toilet paper is recycled. It is.
Man: Oh that’s good.
Woman: I know because I look after it.
Swan-labelled products are well known among most of the householders, but it seems that it is not always the only (or even best) criteria for choosing one particular product. We will look more closely on clothes, white goods and food to further illustrate different practices and strategies among householders. As mentioned in section 4.1, we have chosen these products because they are products with different kind of environmental impact, the environmental information vary a lot, as do the buying frequency of these products.

4.2 Clothes

The textile business has for some years focused on harmful substances in clothes, such as the use of PVC and flame retardants (bromine). There has been some media attention from findings of prohibited substances in clothes with negative health impacts, for example that certain textiles have caused allergic reactions on sensitive skin. There has also been a discussion of the environmental impacts from the production of fibres and textiles, especially production of cotton. In spite of this, there are only a marginal number of eco-labelled clothes in the Norwegian market. However, certification bodies such as the Öko-tex, EU Flower, the White Swan, Bra Miljøval and Debio have all set up standards for labelling of textiles and fibres.

During the interviews with the householders we spoke about what were the main considerations when buying clothes. We were interested to know if environmental considerations effected on their purchases, if they considered the way the textiles are produced or had any preferences for different kinds of fibres (natural or synthetic). Two of the householders responded this way when asked whether they consider environmental aspects when buying clothes:

Woman: Is it not fleece that is recycled from plastic things? No, we do not think much about it. What does it really mean; environmental friendly clothes? Here I really lack some knowledge.

Woman: No, I am not always that conscious. I think it lies underneath the whole way of thinking. Because, you can not always think this is not environmentally sound produced and so on. If you should think this way about every thing that you buy, it will become incredibly exhausting.
It is clear that product substitution of clothes is not an obvious strategy for the households. One reason is that there is little information and hardly any eco-labelling of clothes. Not very many had actually sought for eco-labelled clothes. Some reported to have tried, with little success though:

Interviewer: Do you think of the environment when buying clothes?
Woman: I have tried. I tried to buy some organic cotton at Hennes & Mauritz once, but it was really expensive and of bad quality. But I did then in –92. When our girl was newborn, I bought clothes from organically grown cotton. Also to myself. But then I could not find it anymore. It disappeared.

Not surprisingly buying of environmental friendly clothes was in this case not any success. The selection of organic clothes was small, the price was high and the quality poor. Other householders points to that it is almost impossible to find any information on the production of clothes; you neither find it on the clothes or get any information from in the shop.

4.3 White goods

In Norway energy labelling has been mandatory on white goods such as refrigerators and freezers since 1995. The durability of white goods are from eight to 12 years approximately, so these are products that households not frequently buy. For this reason we would think that it will take some time before the labelling scheme are well known among consumers. This is confirmed in the comparative survey from the 5 participating cities in the ToolSust project. Only 7 percent of the respondents in Groningen mentioned the energy label among the eco-labels that they knew of. In the other 4 cities the percentage was zero (Methi et. al. 2002)! However, this does not imply that consumers in general are not interested in environmental information when buying white goods. In another comparative survey of four European countries; Germany, Italy, Norway and Spain, between 56 percent (in Spain) and 93 percent (in Germany) of the respondents states that they sometimes, frequently or always search for environmental information when buying washing machines (Stø et. al. 2002).

As for cloths we asked about what the householders emphasised last time they bought a new white good product. Durability turned out as an important issue
for most of the householders. They have had both negative and positive experiences with such appliances, and these experiences were in many cases decisive in the choice of a new product:

Woman: We bought the washing machine in February.
Interviewer: Did you look for anything in particular?
Man: We were looking for an Aristan. We also had Aristan before, and it lasted for…
Woman: Twelve years.
Interviewer: So you looked for the same brand because of the durability?
Woman: Yes, because of the durability
Interviewer: Was there something else that you also considered?
Woman: The price of course. But we did have an Asco before that was really expensive. It was supposed to last long and be of good quality. But it lasted only four years by us. Then we went back to Aristan, and we kept that machine for twelve years. But it was much cheaper. It cost 4000 NOK and the Asco cost 7000 NOK. It lasted for four years (laughter). It is not always the price, you know.

Another householder also considered other aspects in addition to the durability of the machine:

Interviewer: What did you look for when you bought the dishwasher?
Woman: We looked for a solid machine that should last for some years, not too noisy which used little water and electricity.

One strategy is to purchase on the background of ones own experiences, however in this household they used another strategy:

Man: To find out what model to buy or not, we checked out with a firm that make repairs of white goods and so on. Which models come fast into repair, and which models is it actually not possible to do anything with? It is actually quite important.

However, durability is not the only requirement when purchasing white goods:
Woman: This time I had some specific requirements to the new machine. One thing was that it should be economic and environmentally sound and such things, but I needed one with enough capacity. So, we bought one that for every wash actually contains two kg more clothes than an ordinary machine does.

Woman: (...) At the same time we wanted a machine that washed thoroughly. It had to be good quality because the old one was really....
Man: Humbug
Woman: Humbug (laughter) ... of the cheapest sort that both washed and spin-dried badly. Especially when we do not have a tumble drier and have to dry the clothes indoors, it is required that the clothes are spin-dried thoroughly.

Practical issues connected to the washing process is important while purchasing a washing machine. However, some householders had actually used the energy labelling to compare different types of machines.

Woman: When buying the fridge and the freezer we took some environmental considerations.
Man: We considered the environment and the energy use.
Woman: We compared the energy use of different brands.
Interviewer: Did you get any help in the store?
Man: Yes, especially the freezer was energy efficient.

However, one important constraint against product substitution, not in this case, but reported from other householders, is the lack of information about the energy labelling scheme. One of the householders felt that they actually had to inform the staff in the store and not vice versa.

The energy label give valuable information when purchasing white goods. However, the purchase is usually far from being based solely on this information. There are several other considerations, besides the energy effectiveness of the appliance, that comes into play when buying a white good. In addition the energy label is not the only source of information on resource use and environmental impacts for the householders.

Practical issues such as the volume of clothes, the time used on washing and the methods for drying the clothes can be of decisive importance when choosing a new washing machine. The durability of the machine may be more im-
Product substitution

For some the brand and type is an important indicator, because they have experienced that some brands are of better quality than others. The price may also indicate the quality of the product, but here we also met an opposite argument that there is small differences in energy use among models above average price. Experience with or personal recommendation of certain brands or types of machines, is also valuable information that make the basis for buying white goods.

As seen from the interviews the energy label is not the only, and in many cases not the most important, source of environmental information when purchasing white goods. Especially the staff in the store is expected to have the requested knowledge on this, and the householders report that they sometimes have acted on their advice. At the same time, some of the householders have experienced that the staff really lack knowledge about the environmental impacts of white goods. By the householders, the staff is perceived to have the role as intermediaries of information about the products between the producer and the consumer. This exemplify that disembedded information systems such as the energy label, is not conceived by the householders as to contain sufficient and satisfactorily (enough) information in itself, and that consumers expect to get at least the same, or even more information from the interpersonal contact with the shop assistants. When these expectations are not met, it may in the long run build up a distrust not only of the sales staff or particular stores, but of the whole information- and labelling scheme as such.

In summary, both durability, price, water use and energy use are important issues when buying white goods. The householders did use the energy labelling, but in addition they used several other different criteria to find an eco efficient white good.

4.4 Food

Food is besides transportation and energy use, among the consumption areas with the most serious environmental impacts. The environmental impact is significant both from the production and distribution of food. Organic food is considered to reduce the environmental constraints from production, while
local and seasonal food in general require less transportation. We were interested to know whether the householders considered buying such products, and find out if they saw any constraints and arguments against purchasing them.

The interview guide contained several questions about food, and we asked specific about use of organic food, local food and the use of special food products according to the season. We have made a list, that is not complete, but fairly representative for the items that came up during the interviews (Table 4.2):

<table>
<thead>
<tr>
<th>Table 4-2 Products mentioned by the householders in connection with product substitution of food.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organic milk</td>
</tr>
<tr>
<td>Egg</td>
</tr>
<tr>
<td>Vegetables</td>
</tr>
<tr>
<td>Meat</td>
</tr>
<tr>
<td>Organic pasta</td>
</tr>
<tr>
<td>Organic pasta sauce</td>
</tr>
<tr>
<td>Organic canned vegetables (tomatoes, corn)</td>
</tr>
<tr>
<td>Organic Raisins</td>
</tr>
<tr>
<td>Organic rusk</td>
</tr>
<tr>
<td>Max Havelaar coffee</td>
</tr>
</tbody>
</table>

Organic milk is the most frequent mentioned product in the list. It reflects the fact that it is available in most food shops. Most of the householders have tried the organic milk. Some householders buy organic food regularly (always take the one with organic label). In other households they never buy.

The list also reflect the assortment of organic food in one supermarket chain (Coop), it proves how important this chain is for the distribution of organic food in Norway. We will later on, in chapter 5, see how households also use other channels to provide organic and local food.
4.4.1 Organic food

The market for organic food in Norway is very marginal. Milk, potatoes, eggs and the most common vegetables each have a market share of approximately 1%. Traditionally organic food has been sold directly from the farm or in one special organic food chain, Helios. Today ordinary supermarkets are the main sales channel for organic food, but still Helios and direct sales is important for products like vegetables, fruit, egg and meat.

Because there are few organic producers in the region and also few alternative food stores (health food), ordinary supermarkets are almost the only sales channel for organic food in Fredrikstad. The selection of organic food varies a lot between the different stores.

In spite of the poor availability of organic food, most of the householders report that they have bought such food, at least once. There are great differences in how actively they search for these products. Some always look for it in the store, while other never think of it when shopping:

Interviewer: What do you think about the selection of food at the store where you buy the most?
Woman: It is very good. However it could have been more organic food. I think the organic products are scattered to much around in the store. I wished they were placed more together. I have to run all over the place to look for them.

Interviewer: Are they placed side by side with the conventional products?
Woman: Correct.

Man: You really have to turn them around and look very carefully …
Interviewer: Are they easy to find?
Woman: Yes, when I have become acquainted to it, I know that the organic sweet rusk is here and the conventional is there. The organic sweet rusk is not more expensive than ordinary sweet rusk. It is a bit interesting, we use a lot of that now.

Interviewer: Is there any organic food at the Meny-store?
Woman: Yes they have that Dalsgården (organic) milk and yoghurt.
Interviewer: So you buy it?
Woman: Yes I try to, if I find it.
Interviewer: Are you satisfied with the selection of organic food?
Woman: It could surely have been better.
Interviewer: What do you think of when I say organic food?
Woman: I think of … I have even bought organic milk once!
Interviewer: Have bought other organic food products?
Woman: Maybe. If it has been standing right between some other product,
then I might have, but I really do not know. I can’t remember why I bought
the milk, it is possibly because it was no other milk left.

The quotations above confirms the impression that organic food is not consid-
ered as a real alternative. Even those who actively seek for the products have
problems with finding them in the stores. A paradox is that some of the
householders go to Sweden to shop organic food because the selection is
much better there:

Interviewer: You buy organic food?
Woman: Yes, pasta, canned food, vegetables and fruit. In Sweden they have
a really good selection.
Interviewer: You buy it in Sweden??
Woman: It is a very good selection there.
Interviewer: In Sweden?
Woman. Yes. They are way ahead of the Norwegian stores.
Interviewer: So, you actually buy most of the organic food in Sweden
Woman: Yes, and much because it is so natural that you find it there.
Interviewer: Is it as available as the other food?
Woman: Yes, and very well labelled. It is easier (in Sweden), but of course
when I am out shopping here, as said before, if I have to chose between two
similar products, I will chose the most environmental friendly, definitely.

For those who not actively seek organic food it is just by coincident that they
once have stumbled across a carton of organic milk. Some of the householders
think that organic food is expensive, and besides the poor availability, the
high price is an important constraint against buying organic food.
4.4.2 Local and seasonal food

The householders are aware of both local and seasonal food, and Norwegian products are preferred before Swedish or other foreign products by some of the householders. There are several different reasons why the householders buy local and seasonal food. Some are related to the environment (less transport), others to health and environment (less food additives, less pesticide residuals), some have to do with quality (fresh produce) and some got to do with trust (the local salesman, know the local farmer).

One question is to what extent there is a local distribution of food? We found that the availability of organic food was poor in Fredrikstad, and we believed that this would be the same situation for local and seasonal food as well. In Norway most of the food distribution and retailing are centralised and channelled through only 4 large retailing companies.

The householders mentioned that they have purchased local and seasonal food both in ordinary stores and by local salesmen. However, the purchase from the conventional retailer could be more incidental, as these householders have experienced:

Man: If they have two different types of carrots in the store, one labelled organic but produced in Israel and the other produced by a farmer in Råde (neighbouring municipality), I buy the carrots from Råde.
Woman: Yes
Interviewer: Where do you shop?
Man: We shop at Mega.
Interviewer: Do they have local produce there?
Man: Yes they have. They provide it according to the season, I guess.
Interviewer: Locally?
Man: Yeeeah… but the local farmers do not label their produce. But in Østfold county there are much agriculture, naturally they also sell carrots produced in Østfold.

As we see from the interview the householders believe that the carrots they buy are produced in Østfold, but they can not be quite sure.
Interviewer: Does it mean anything to you where the food is produced?
Woman: Yes, as close as possible.
Interviewer: How come?
Woman: Well, first of all it has to do with the energy use from transportation. It is unnecessary to transport tomatoes from Spain, if you can provide them locally in Fredrikstad.
Man: But how often do you look after this?
Woman: That was not the question (laughter).
Man: No, but when you by a tomato it does not say anywhere whether it is produced in Spain or in Vestfold (neighbouring county).
Woman: No, but even so… What was the question again?
Interviewer: If it meant something to you where the food is produced?
Woman: It does not affect the choice when I buy, because it does not say where the tomatoes are produced.

In this family they express that they want to buy local food, but they do not feel that they have any choice. Another householder buys vegetables from a local salesman, and seem to be more confident that the produce is local:

Interviewer: Do you buy local food?
Woman: I try to buy as much as possible from the vegetable man down the road. He has a stand by the Texaco gas station. He produces most of the vegetables himself, and the rest he purchase from one of the big wholesalers.

Local and seasonal food is to a certain extent available in Fredrikstad. However the main providers are not the conventional retailers, but farm outlets, greengrocers and vegetable sellers (by the road). The local food in retail stores is harder to detect because of little or no information, at least the householders have problem with detecting where the vegetables and fruit are produced. This is an example of different ways of communication between the highly socially disembedded transactions in the retail system and the socially embedded transactions within a direct sale, such as between local producers and consumers (Hinrichs 2000). In the retail system the consumers express that they lack information. Even in situations that there might be available information, it seems that this is not communicated in an efficient way to the customer.
4.5 The householders practices of product substitution

We found that there are a great awareness of eco-labels in general among the householders. Most of the householders recognised both The White Swan, the energy label and the Debio-label. For the householders the labels make it easier to choose green products when they are available. The energy label that is mandatory on several white goods, was the most widely used label. However, there are some general constraints against product substitution as a relevant strategy for the householders. In general, few products in the Norwegian market are labelled. This goes especially for clothes, but also for food. Besides labelling as an information tool seem insufficient. A label in itself is often not enough to convince the buyer. It can also be hard to detect the label on the package. It is seldom known who is behind the certification, which has serious implications for the trust in the labels. Supplementary information is not always there when needed in the buying situation. The householders have experienced that there is little or no information in the store, and even that the staff lack the sufficient knowledge about the products.

The householders use the energy labelling as a tool when purchasing white goods. However, because there are so many different factors that come into play when purchasing a new appliance, the labelling in itself is not considered as sufficient information. The environmental impact from production and distribution of food is also a widespread consideration among the householders. However, the purchase is to a lesser degree affected by this concern, because of the poor availability of organic-, local- and seasonal food in the stores. The householders to an even lesser extent considered buying eco-friendly clothes. Some householders expressed that they lacked knowledge about this, and this must bee seen in relation to the fact that there are almost no eco-labelled clothes available in the market.

However, this is not to say that the householders did not consider the environmental impact from consumption of clothes. Rather, they had quite clear conceptions of the impact from their own consumption, not least from clothing. The way one think about these issues may however vary for instance between consumer durables and non-durables. For a white good, which is a rather expensive item that are supposed to last for many years, the whole process of purchasing is rather different from the purchase of clothes and not say the routinised purchase of food. Buying a white good is a much longer and more conscious process. Both the economic and environmental impacts are significant when buying a new washing machine, thus, the motivation to compare different products and actively use the energy label as an information tool is most present.
In spite of these differences between the product groups, we have also recognised that the labelling in general to a great extent are not used, implying that product substitution in many situations, independent of product category, is not the most important strategy. This is in keeping with another Norwegian study which found that environmental considerations were almost non-apparent when purchasing groceries (Methi 2000). The householders express that durability and repair of products, buy second hand and buy less products are equally important issues to them, as the possibility of buying eco-labelled products.
5 Reorganisation

Reorganisation of household practices is the second strategy for changing of household consumption that is recommended in the green household budget. This strategy can be seen as more demanding than product substitution in many senses. First of all because changing of household routines usually means a great deal of planning, and in most cases it demand more knowledge about the consequences of different actions on the environment. Secondly, as we all know it is in itself hard to change old routines, good or bad habits. This is not only a matter of individual choices or attitudes, but within the household context consumption practices are also affected by social inertia. By this we mean that there are social structures in every day life that constrain the possibilities of changing consumption practices. And lastly, changing consumption practices is not a straight forward process because the altering of one routine may have consequences for other routines and practices as well.

On the other hand we must also be aware of the possibilities for the reorganisation of household practices. Social structures may not only have a constraining effect, but must also be looked upon as enabling householders in changing their practices (Giddens 1984). Reorganisation of household practices often have many positive side effects, and one may gain much in terms of time, money and new experiences. Although more challenging than product substitution, reorganisation is maybe a more interesting strategy for the householders in terms of the environmental and social consequences.

Several of the main themes of the ToolSust project have to do with how we organise the household. Waste handling, food choices (provisioning of food, dietary considerations, purchase and use of organic-, local- and seasonal food) and energy saving measures are all such examples. The consumer survey (WP1) as well as the interview guide for the households (appendix A) contained several questions about these issues.
The findings from the consumer survey points at whenever a measure is well organised, householders in general act environmental friendly. The best example here is waste handling, were the majority of the households in Fredrikstad sorts out glass and paper, while considerable less sort out clothes and food leftovers (Methi et. al. 2001). This means that the households in a few years time has changed their waste handling practice from sorting out nothing/little to sort out large fractions, but still many fractions are put in the same bin.

When it comes to shopping we also see a change in practices, however in a more negative direction towards more shopping further away in shopping centres inside or outside of the town (see Methi et al 2001). Local shops are diminishing and the trend towards shopping in Sweden strengthens the impression that consumers in Fredrikstad travel a lot when shopping. This impression is confirmed when we compare with the five other cities in the ToolSust project. Together with Padova and Guildford consumers in Fredrikstad are the ones that travel most when shopping groceries (Methi et al. 2002).

For energy saving practices we also have some interesting results in Fredrikstad. More than half of the households have installed energy efficient light bulbs and low flow shower heads, and compared to the other four cities Fredrikstad places itself high. But when it comes to changing habits, such as turn off lights when leaving a room or switch down the temperature at night, households in Fredrikstad and Södermalm does this less frequent than in the other three cities (Methi et al. 2002).

It is interesting to see how practices on these three particular areas are both similar and different at the same time. The waste handling systems seems to function well for some of the fractions in all cities and it is not far from being a success story. The city structure and structure of the retail business seems to explain much of the differences in car use between the cities, while the access to rather cheap energy in Stockholm and Fredrikstad compared with the notion of energy scarcity in the rest of Europe, is one important explanation of differences in energy saving practices.

It is tempting to say that with better organisation most consumers will behave environmentally sound. On the one hand this seems like an obvious conclusion, but on the other hand it seems difficult to transfer one success like waste handling, from one consumption area to another and from one city to the other. While a more comprehensive waste handling system seems to have immediate effect on householders practices, it is not certain that a more com-
prehensive public transport system will have the same success. This because waste handling, car use and energy saving have different meaning for householders, and enter into different sets of practices in daily life. To have a better understanding of this it is vital to study the contexts which these daily practices are parts of.

Below we will describe and analyse different sets of household practices related to the main themes of this study. The interviews with the householders contained several questions about their practices on important areas such as shopping, food habits, energy saving and waste handling. This has given us a huge material which describes a multitude of (different) household practices, which also has given us a complex and rich picture of the daily life in (ordinary) households. However, this complexity gives us a need for concentrating the analysis to a limited set of practices. We have decided to have a closer look at practices related to food.

5.1 Food practices

There are many different practices in a household that in one way or another are related to food. We will group these food related practices into three phases relevant for the discussion of environmental impacts of food consumption. These phases are supply of food, consuming food and disposal of food waste (table 5.1):

<table>
<thead>
<tr>
<th>Phases</th>
<th>Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply / provisions</td>
<td>Purchase</td>
</tr>
<tr>
<td></td>
<td>Self provision (incl. processing)</td>
</tr>
<tr>
<td>Consumption</td>
<td>Preparing the meal</td>
</tr>
<tr>
<td></td>
<td>Having the meal</td>
</tr>
<tr>
<td></td>
<td>Dietary considerations</td>
</tr>
<tr>
<td>Waste handling</td>
<td>Throw away or reuse</td>
</tr>
<tr>
<td></td>
<td>Composting</td>
</tr>
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<td></td>
<td>Rest refuse</td>
</tr>
</tbody>
</table>

We have categorised 8 different practices from the material of the Fredrikstad case. These categorises may again be split up in several under-categories. For instance, the category “self provision” includes very different activities such
as hunting, fishing and growing fruit and vegetables in the garden. Below we will have a closer look at how these activities are carried out in the households in Fredrikstad.

5.1.1 Purchase of food

The householders have some conceptions or notions of the ideal way of purchasing food, however, it is of course difficult to follow these ideals in the practical life. Some of the purchasing habits are rather similar between the households, but in other respects we find a greater variation. The central aspects connected to purchase of food is the planning of what to buy, how and when to get to the store and who does the shopping.

It is an ideal that the purchase should be planned in advance. This can be done in different ways, but mostly by writing a shopping list or making a list in one’s own mind before entering the store. It is several reasons for making a shopping list. Mainly it saves time. With a list in your hand you can easily pick the items that you need without hesitating and wonder where to go or what to buy. Writing shopping lists also saves you a lot of extra trips to the store, because it helps you to remember all the essential groceries. The shopping list can also be very economic. If you stick to the list you avoid buying stuff that you really do not need. Some of the householders always made shopping lists others almost never, but for some this way of planning the purchases is something that have changed over the years:

Interviewer: But when shopping, what is important for you? Who is doing the shopping, anyway?
Man: Both of us.
Woman: It is much shorter shopping trips nowadays. That’s because it happens so much in the evenings… We don’t manage the same weekly shopping as we did before… Writing lists and just shopping on Friday.

Interviewer: To have children in the house – has this affected the planning?
Man: Yes, clearly. We are planning much more. Especially when timing the dinners. And we have to have food in the house. We can’t be as impulsive when shopping as we used to be. One can’t just take one or two kids to the store all the time, on the way home from kindergarten, it is too troublesome.
Interviewer: Do you know of someone that do this different from you?
Man: Yes, I guess it is a difference between those with kids and those without. Those with kids do it like us. Those without, do it the way we used to shop. When we lived in Oslo, we had shops just on the other side of the street. We didn’t even plan Sunday dinner. We almost bought it the same day. Then we were not so good at planning, we bought most things on our way home from job. A little now and then. (…) among our friends it is still usual.

To have children seems to have an important effect on the purchase practices, not only the planning but also the frequencies and the time spent on shopping. There is a great variation in how often one visit the shop and how much that are being bought. One model is to plan very carefully so that one can manage with only two (or even one) trips to the store during the week. This was an ideal among many of our householders, however in practice this was not that clear cut. Some did their main purchases two times a week and then supplemented them with smaller trips other days during the week. Others did their purchases more from day to day, this is possible especially if one got a store close to home. One important reason for concentrating the purchases is again not to spend too much time on shopping.

Among the householders car is the most common means of transportation to and from the store. Often the purchase of food is combined with other activities. For instance the shopping was done on the way home from the job, sometimes in connection with collecting the kids in kindergarten. One important reason for using the car is that the goods are too heavy to carry home on foot or by bike. No one mentioned public transportation as a realistic alternative for them, mainly because the time is scarce and there is seldom any bus available. Especially when doing the main weekly shopping the householders used car. Minor shopping during the weekdays is more practicable to do by foot or bike, and some householders with shorter distance to the shop did most of their grocery shopping without car.

During the weekdays most of the householders preferred to do the purchases alone, however some did have the children with them. One challenge for some of the householders, especially those with small children, was to find some free time for shopping. We have already mentioned that this activity often is squeezed in between the job and picking up the kids, or between picking up the kids and preparing dinner. Some even waited to the evening, after dinner, when the children watched TV or were asleep.

Some of the householders want to minimize the time spent on shopping no matter what, also in the weekends. But for others shopping food in the week-
end was more different from shopping during the other weekdays. In the weekend they can use more time, and therefore they do the main weekly shopping on Friday afternoon or on Saturday. Shopping for the weekend also means buying more “luxurious” food for Saturday evening (waiting guests) or Sunday dinner.

This difference in shopping practice also includes differences in which stores to visit. For the main weekly shopping, we found two different strategies. Some of the householders preferred to do the main shopping in stores with a wide selection of food. Then they were sure that they would get all the items on the shopping list. The other strategy was to go to a discount store with a smaller selection, but which saves a lot of money.

One of the households reports that they do the main purchase of food in Sweden. It means that they travel once a month or once every fortnight to Sweden to purchase their basic need for food. Still they have to go shopping 3-4 times a week in the local stores to get fresh food like milk and bread. In the other households they are not regularly going to Sweden. Some never go shopping in Sweden, other travel once or twice a year. These trips are different from the daily shopping in many ways. It is more like a social event where one is travelling with the whole family – or with some friends. The whole atmosphere is more relaxing and less stressing than ordinary shopping.

In summary; purchase of food is to a great extent considered as a necessary activity that shall fit into a tight time schedule, especially for the families with small children. Many of the informants clearly expressed that shopping groceries was not really a very pleasant activity that they enjoyed spending their time on. That was mainly due to the lack of time so that other activities had higher priority. However, buying food during weekends was by some householders perceived as a more pleasant and social activity.

5.1.2 Purchase and product substitution

In chapter 4 we saw that product substitution of food was not a very frequent activity among the householders. Basically because there are few alternatives on the market. The purchasing practices are heavily affected by the scarce time available in the households. It is therefore interesting to see how product substitution affects the purchasing practices. Below it is given to different examples:
Interviewer: Do you always shop in the same store or does it vary?
Woman: It varies a little, because my job is in the same building as an ordinary Spar-store. From time to time I buy something there. When we are really going for a major shopping trip for the week end, we go to ICA. That’s because it is environmental friendly products there. We have to drive extra, it is in the middle of the town and it is bothersome for us. We have two big stores much closer to home, but we drive pass them to go to ICA where they got environmental friendly products. So we have raised the demand on ourselves on this. Earlier we thought: Well it is not that important. We take the closest shop, but then we thought, no ….
Man: We never buy anything on RIMI.

Interviewer: You say that you choose Norwegian products when it is available, but do you wish it was a better selection of Norwegian products here in Fredrikstad?
Man: Yes, why not. But at the same time it has to be a balance here. If it is like you have to go to a special outlet or shop to get hold on the products, then I do not think… we will be that conscious, we do not go for a trip to shop a little here and a little there. Vegetables here and bread there… we go to the grocery store to have the shopping done as fast as possible. So we need to have the products there.
Interviewer: The ideal for you is to have it in grocery stores?
Woman: … That it is on Meny (laughs)
Interviewer: Not in a farm outlet or at a market place or somewhere else?
Man: No, we don’t bother to use time on it.
Woman: Really it also has to do with thinking of the environment. If you ought to drive 5 km to a farm outlet just to buy eggs from free range hens, then much of the environmental aspect is gone.

It is interesting to see how these two householders use the benefits for the environment as arguments both for and against product substitution. The householders in the first example drive extra to get to the store with the most organic products. They value the benefits from supporting organic sales higher than the negative consequences of longer transport. In the other case the householders has come to an opposite conclusion, and find it negative to drive extra just to look up shops and outlets with organic or local food.
5.1.3 Self provision of food

Self provision of food, like growing fruit and vegetables in the garden, gathering mushrooms or berries in the woods, hunting or fishing are all activities that are recommended in the green household budget. These practices can be seen as measures to reduce the environmental impacts from food consumption, mainly due to the reduction of resources used for producing and transporting the food. However, it is not a measure that easily can be adapted to all households and therefore it is also problematic to put this forward as a general measure to reduce environmental impacts. It is clear that access or availability to facilities for gardening, hunting or fishing are very unevenly distributed between households. It is therefore interesting to see if our households in Fredrikstad consider this as a relevant strategy for them, and to what extent they carry out some activities in this field.

Most of the householders live in private detached houses, some live in semi- or undetached houses with own gardens. Even the householder living in a flat reported access to a garden (fruit). This means that most of the households had some fruit and berries in their garden. With some exceptions this was not seen as a major contribution to the provision of food in the household. However, during the summer season the garden can bring a substantial contribution, and some also had enough fruit and berries to store in the freezer for dessert also during winter time:

Interviewer: Are you self provided with anything in the household?
Man: We make our own liqueur (laugh)
Woman: No… (laughter)
Interviewer: That’s in the basement then…
Man: No I do not produce the spirits myself, but I made Gin this year, from juniper berry. Very good, I can recommend it.
Woman: 20 juniper berries. We bought the spirits, we have to say. But we have some strawberries in the garden. It’s enough for dessert during the summer season, but not enough to store in the freezer for the winter. Then we have two currant bushes and one blackcurrant bush. They are rather small yet. We have raspberries for dessert with some ice cream and so on.
Man: We used to gather blueberries in the woods, but not this year.
Woman: That’s mostly because it is a nice activity.

Interviewer: Do you buy food according to the season?
Woman: Yes, fruit and vegetables. In the strawberry season we buy a lot.
Man: But we also have our own strawberries.
Interviewer: You got your own garden?
Woman: Then we have tomatoes
Interviewer: Enough for self provision?
Woman: Yes, we are self provided with tomatoes from July and long into the autumn. We also have plum trees, blackcurrant, currant and gooseberries, which from we make jam.

Family and friends are also sources for supply of fruit and berries. What is common for the householders is that they care for and show interest in the growing of fruit and berries in their garden, and some even grow vegetables like tomatoes. However all together this self provision does not give a major contribution to the overall supply of food in the household. One household was here a special exception. They reported that they had something from the garden in every dinner from May until Christmas, and still plenty was stored in the freezer. The goal was to be self supplied with 50 % of all the vegetables, and during the period of our field research they have reached their goal of 50 % self-sufficiency (and well over).

5.1.4 Cooking and eating

The meal, and especially the dinner, is traditionally very central in family life. It is attended with many conventions and idealistic conceptions. One such conception about the dinner is that it should be a proper meal with all the necessary ingredients, and all family members should be gathered at dinner (Bugge & Døving 2000). It is given an impression (through media) that the eating pattern is radically changing and that the dinner is vanishing as an institution in our daily life. This impression is not in line with new research that find that eating patterns are stable and conventions about the meal are altered very slowly (see for instance Kjærnes et. al. 2001).

The householders in Fredrikstad seem to take for granted that one have dinner every day. One of the householders even make a joke about it which underlines how conventional this is, and that it is really no question about not having dinner at home:

Interviewer: How is a typical dinner in the family?
Woman: Buy a hot dog and have it in the car on the way home (laughs).
The householders have a tight time schedule during an ordinary day, but among all activities that are put on the daily agenda, the dinner has a high priority. Other activities are adjusted so that dinner will be ready in time. Some of the householders express that the dinner is the most important meeting point during the day:

**Interviewer:** Are you usually eating together all of you?
**Woman:** Dinners, yes! It is probably the only meal, although we are gathered at breakfast, but it is done quite fast – the kids get a sandwich … Therefore the dinner is the most important time when we meet.

Some of the householders underlines that dinner has become even more important after having kids:

**Interviewer:** How is a typical dinner here in the family?
**Man:** All three of us together. It is deliberate, as long as you got kids, you have to eat together.
**Interviewer:** Has this changed since… (you got children)?
**Man:** No
**Woman:** Yes
**Man:** Yes, we did eat together before, but we eat even more together now
**Woman:** Yes, because now we eat together every day. As I said, now when we leave the job, we as soon as possible pick up the kids in the kindergarten go home and make dinner to get to eat as soon as possible. It is most practical this way, because she (the child) becomes so extremely hungry and grumpy. Therefore all that counts is to have the dinner ready as soon as possible. It’s like this every day. We are gathered all the three of us, but if we shall do something separately, we have to do it after dinner or after the kid has gone to bed.

Because dinner is so important it is vital to get home as fast as possible after work. This imply that one must not use too much time on picking up the kids, shopping food or any other activity. Some households have arranged this so that the one who get first at home start cooking. The cooking is either fast or more “slow”. However, several of the householders states (some make excuses for) that the cooking usually is rather fast. However this may imply several different things, like:

- The use of ready-made food products
- To wok meat and vegetables together
- To have pasta, rice, or frozen vegetables instead of cooking potatoes and use fresh vegetables

One main purpose behind fast cooking is, as mentioned of one of the householders, to avoid that the kids (and grown ups) get to hungry. Another reason is to have more time eating together, and lastly it gives more time for other activities later on in the evening. Most of the householders stress that the cooking in the weekends are more slow, and that they use more time on dinner then.

5.1.5 Dietary considerations

As mentioned earlier one important convention about the Norwegian food consumption is that it should be “proper” meals, especially the dinner. By this it is meant that the food must be healthy and prepared correctly. The dinner for instance is (almost) always a hot meal, traditionally with meat or fish served with (cooked) potatoes and vegetables. Rice pudding or other types of porridges are also traditional dishes served for dinner. The more modern meal includes pasta and rice, and pizza has also become popular as an alternative in many Norwegian households (Fagerli 1999).

The householders are careful to stress that even though the food is made fast, it is always proper food. As we understand them this means that it is always a hot meal and not sandwiches, usually with fish or meat combined with pasta, rice or potatoes. Some of the householders states that they have fish two or three times a week. Some of the householders report that they prefer to make the dinner from scratch, with as much fresh produce as possible, not ready-made food. Important reasons for this is that fresh produce is considered more healthy, and one avoids all the food additives associated with ready-made food products.

One interesting finding is that several of the householders report that they have changed their diet over the (last) years. There are two important changes; one from red to white meat, while another change is reduction of the total amount of meat. The changes have different reasons. One main reason for eating more white meat like chicken and turkey, is that it contain less fat than red meat, but another reason mentioned by some of the householders is to avoid meat from animals with mad cow disease or foot and mouth disease. The reduction of meat have several reasons:
- it is more healthy with vegetables
- meat is too expensive
- meat is considered too heavy (it fills up the stomach)
- it is more environmentally sound to eat vegetables rather than meat

In one of the households they reported that they had reduced their meat consumption because of a greater environmental awareness in recent years:

Woman: One think that you ought to eat less meat, because…
Man: It is much more energy demanding to produce.
Woman: 90% of the energy is lost when you feed the cow with grain instead of eating it directly.
Interviewer: Have you changed your food habits?
Woman: Yes, we eat much less meat now. My husband used to eat 7 beef-burgers (minced steak) at a time, and now you eat…?
Man: I rather not eat beefburgers, maybe one.

One of the householders stated that it was hard to reduce the amount of meat, especially because there was such a good butcher near by:

Woman: Today it is hard to eat less meat with such an excellent butcher near by. It is so easy and practical to get hold on.

As these examples tell, consumption practices are driven by many different considerations. Even though health-concern is the most important argument for reducing meat consumption in most of the households, the practices are also affected by both practical as well as environmental and social concerns.

5.1.6 Food waste handling

Eight of the ten households in Fredrikstad report that they compost their own food waste. In one of the two other households they had serious plans for this, hopefully getting their neighbours with them to share one common composter. One household had installed a waste disposer in the sink, so they got no food waste at all. We are impressed that so many of the households do compost their organic waste, and it is interesting to know more about why this is such a
common activity among these environmental conscious consumers. Compared with the figures from the consumer survey, these findings are rather extraordinary. In the consumer survey between 20 and 25 percent of the respondents in Fredrikstad reported that they sorted out all food waste. We found the same picture in Guildford and Groningen, while as much as 30% of the respondents in Padova reported to sort out all food waste. Only 5% of the respondents in Södermalm sorted out all food waste (Methi et. al. 2002).

One important motivation to get started seems to be that one get a need for doing something about the increasing amount of waste.

Interviewer: The reason why you started composting, was it because of the reduced fee?
Woman: No, I was so annoyed about all the garbage. We had small kids still using napkins – that’s hopeless. We noticed quite a difference when the children no longer used napkins. Now the dustbin is just half filled every Wednesday. In the future it is supposed to be emptied just every fortnight because we compost.

When the composting practice is well established the householders report other positive side effects that strengthen the composting practice as a natural routine in the household:

Interviewer: What is the reason why you want to compost yourself?
Woman: Well, it reduces the fee with 35%. I think that is the reason, but of course we also get soil that we can use. So this is really fun doing.

Interviewer: So you reduces the waste that much because you compost food waste?
Woman: Yes absolutely. The food waste is a grate share, and also because I have become better to remove plastics and paper and stuff like that. That is the main fraction. (…) Now I even started to remove the packing and leave it in the store… I get so annoyed. When I buy toothpaste for instance I get so much packaging. I think it is ridiculous. What is the point??

Interviewer: What do you do with leftover food?
Woman: We share compost bin with the neighbour. It is a nice meeting place. It function very well. Actually, I have become better at utilizing leftovers. I thought it would be easier to throw away leftovers when I first started composting, but it is really such an effort going out with the bin, so I have actually become better at eating the leftovers. Because the waste be-
comes more visible. You look down in the bin and see all that you have thrown away.

Most of the households have gardens so composting food waste give precious extra high quality soil for flowers, bushes and trees. Composting food waste gives an experience with how much it is possible to reduce the waste, and this gives inspiration to reduce other waste fractions, such as packing, as well. The extra work attached to separating the waste and bringing it to the compost bin may have another positive side effect. One of the householders explain that because of her unwillingness to go outside with the waste, she has begun to save food leftovers for later use instead of just throw it in the waste bin.

This example shows that the householders have both positive and negative feelings towards composting. Some householders report that it is a challenge to have the composter running, and to avoid the process from stopping, especially during the winter time. One female informant is happy that her husband take care of the composting. She is not really fond of doing it herself, although she argue strongly for why they should do it and clearly underlines all the benefits from it. In another household they have stopped composting, because they did not take the old compost bin with them when they moved. It is expensive to buy a new one, because the municipality will not subsidise the bin this second time. Since the husband is reluctant towards the whole idea, the wife is also loosing her motivation. For some of the householders the subsidy from the municipality, 35 % reduction on the tax on waste collection, has not been a decisive motivation for composting. Some of these started long before this measure was established. For other householders this subsidy along with the compulsory course, has been a strong motivation for starting with this activity.

The householders experience from composting have brought about a greater awareness about the composition of the waste and the possibilities to reduce the waste. These findings are in keeping with results from a Swedish study that point to the importance of separating and composting waste in creating an awareness among householders of the significance of the consumption practices for the amount and type of waste produced (Shananan & Säljö 1993, Åberg et. al 1996)
5.2 Discussion

The analysis of the food practices of the ten householders in Fredrikstad gives evidence that consumption means far more than just buying of products in the marketplace. By categorising food practices into different phases we have revealed a complex pattern of everyday practices, and by focusing on the reorganisation of the household, we have discovered different possibilities and constraints connected to environmental friendly consumption practices (EFCP). Social conventions, practical matters and the time and space available are all factors that affect consumption practices.

We have seen that a strong social norm is that the whole family are gathered at dinner. This effect a whole range of other activities in the household. You must find a practical way of organise this within a quite limited time available after job/kindergarten/school and before going to bed. The point of time is also normatively or routinely regulated. A Norwegian dinner usually take place between four and six p.m. (Gronow & Jääskeläinen 2001). This has effect on other consumption practices such as shopping and transportation. Shopping food have become a highly routinised practice, that in many households are carefully planned in advance. Because of the time constraint, there are usually no other options to the use of car to and from the store, unless you have some extra time available due to flexible working hours or reduced working time. It seems that to reduce the need for car transport require major changes in the life style in the household. This is in line with the third strategy of the green household budget, which we have labelled reduced consumption. This may imply to reduce working hours and thereby the household income, in order to create more free time for EFPC in the household. The consequences for the household and the environment of such a change in lifestyle may be significant, and it would be interesting to make this as a subject for further research.
6 Environmental information

6.1 Environmental information measures

We have chosen a rather broad definition of the concept environmental information. In this chapter we will concretise this by putting it in to a national and local context. We will describe four different types of environmental information schemes that have special relevance for the Fredrikstad case. These are:

- Environmental product information schemes (EPIS)
- Environmental campaigns
- Grønn Hverdag (“green daily life”)
- General environmental information (like the green household budget)

In chapter 2 we outlined a framework for analysing the role of information in changing consumption practices. We have differentiated between two systems of disseminating information: embedded and disembodied social systems. While the first refers to close, transparent social systems such as family, friends, school etc, the latter refers to abstract systems of symbolic tokens and experts. In understanding of the effect of information in changing consumption practices, we have to analyse the context of everyday life. This context will be analysed by using the distinction between actions (discursive consciousness) and routines (practical consciousness), and we question how these practices are organised within the frames of time and space in everyday life.
6.1.1 Environmental product information schemes

An eco label (or EPIS), as we have defined it in this project, is a product information tool. It gives environmental information from producers to other producers, sellers and end consumers about the environmental impact of the product. This information can be given in text or by various kinds of symbols, for instance as product labels. The labelling can be voluntary or mandatory. The main idea behind these schemes is to make it easier for interested actors to make eco friendly choices in the market place (Stø et. al. 2002).

The most relevant eco-labels in the Norwegian market are: EU energy label, The White Swan and the Debio-label (Ø-merket for organic food). There have been national campaigns both for the White Swan and Ø-merket, and besides the labels are used by several producers in the marketing of their products.

6.1.2 Information campaigns

Waste handling and energy saving are the two consumption areas (besides eco-labelling schemes) where it has been national or regional environmental campaigns for several years.

It has been different types of campaigns about waste handling. Some campaigns are running more or less continuously, like commercials on TV that encourage people to sort out glass, metal, paper and so on. Other campaigns have been directed to children, for instance in a special TV-show (Kyke-likokos) where the children learn how to recycle and save energy, and through environmental NGOs that have made special clubs for children (Blekkulf). Schools and kindergartens are also involved with these campaigns.

Regional information centres are established to guide households in how to save energy. Some of them have campaigns where they to a discount price (or for free) offer low flow shower heads and energy efficient light bulbs. Some of the centres have even offered free counselling on energy saving measures for private households.
6.1.3 Grønn Hverdag (green daily life)

Grønn Hverdag is a national NGO, with offices in several Norwegian counties. The organisation started its work in 1990, and its main focus is to move household consumption in a more sustainable direction. Grønn Hverdag describes itself as the major network of green consumers in Norway. It consists of both voluntary organisations and individual participants. There are more than 100,000 people that have signed up as a participant. To achieve its environmental goals, it has concentrated on information, development of tools for voluntary organisations and building networks among individuals and families. Grønn Hverdag focuses on two major types of change:

1) A general reduction in the level of consumption
2) Changes in consumption patterns towards more environmentally sound alternatives (http://www.gronnhverdag.no/)

Grønn Hverdag is also engaged in information campaigns described above for instance directed to the children (Blekkulf). Building ECO-teams have been an important effort, and a concept that the organisation develops further. As told earlier 6 of our 10 households have been engaged in the ECO-team in Fredrikstad. In Østfold county Grønn Hverdag was established in 1997. The office is situated in Fredrikstad with one person working full-time.

6.1.4 General environmental information

By this headline we mean different kinds of environmental information that exist in the public space. Environmental NGOs run a lot of activities, among others they publish journals, leave out folders and newsletters and have their own homepages on internet. Newspapers from time to time publish articles about environmental issues. National and local authorities use different channels to reach people with information on waste handling, energy saving, public transport etc. In Fredrikstad local stakeholders like the municipality, the local electricity distributor, the waste management department in the municipality along with local NGOs all actively give out information of various kind (more on this in section 6.2.1).

The above description of some of the main information channels is meant to give a rough picture of the context we are dealing with in this project, and it is in this pile of information that the green household budget shall make itself “visible”.
6.2 Use of environmental information

Environmental information was the main theme of the second interview with the households (see appendix B). We talked generally about where the householders get inspiration and information from. We also let the householders express their opinions about environmental information. The householders were asked to say something about their thoughts of how people in general act on environmental information. Finally we asked their opinions about the green household budget.

6.2.1 Receiving environmental information – how and from whom?

As described earlier several local stakeholders give out relevant information. Some of this information comes regularly and are given to all households in Fredrikstad:

- The municipality issues “Plankebæreren” which is a monthly newsletter. It contains general information from the municipality including environmental information.
- In special folders the waste management department inform about the system for collecting waste; where and when different waste fractions are collected.
- The electricity distributor, Fredrikstad Energi, also issues folders about energy saving measures that are distributed to all households.

Several local stakeholders have homepages on the internet with environmental information. This goes for the municipality (several relevant pages), Frevar (the waste management company), local newspaper (page about car pooling) and local NGOs. The local NGOs have one common internet home page under the umbrella Noahs Park. Until recently all the local environmental NGOs was gathered in one house, called Noahs Park. This house functioned as an information centre.

Besides the local information we have all the other types of information described in section 6.1. In this chapter we will have a picture of how the householders relate to this information. Following questions can help us fill in the picture:

- Are the householders aware what they get and who they get information from?
- Do they actively search for information?
- For what purposes do they use such information?
- What are for them the most important information channels?
- To what extent have they used the green household budget?
- What role does information play to inspire for environmental friendly practices in everyday life?

The householders have noticed environmental information from different senders. The monthly newsletter from the municipality is frequently mentioned as a good source. But many also speak of the folders on waste handling and recycling from the waste management department and information from the local electricity distributor. Those who are members of environmental NGOs also states that they read in newsletters and journals that they receive from these organisations. These householders are also more engaged in activities at Noahs Park. Although Noahs Park is considered well known among most people in Fredrikstad, some of the householders believe that some people perhaps are a bit reluctant to visiting Noahs Park, due to prejudices about environmental NGOs (for freaks and hippies). The municipality have recently opened a service centre – that in the future will be an important channel for information on local environmental issues.

The householders first and foremost use the information from local stakeholders, probably because it is most relevant in their everyday life. We will look more into this further down in the text. First we will briefly describe other relevant information channels, and consider the relevance of the green household budget.

TV is mentioned as a direct and indirect information source. From TV-commercials the householders have got information on for instance waste handling and recycling, but more important the children are constantly updated on waste handling and energy saving through TV programmes. Children get this kind of knowledge not only from TV, but also at school and in kindergartens. Thus, having children keeps you informed about environmental issues. However, the householders wants more focus on environmental issues generally in media, and especially with focus on the success stories and not always disasters and catastrophes.

Other information channels like product information and internet do not seem as the most important information channels. As we learned in chapter 4 about product substitution this is not considered as a central strategy for the households. The householders think that the producers and certification bodies make few efforts in marketing the products or advertising for the labels. Product information are relevant when actually buying a product, and the householders stress the importance of the information and advices that you can get from the staff in the stores. However, here the experiences are rather mixed.
Sometimes the staff is not able to help at all, in other cases they have been most helpful.

The internet is most relevant when there is a concrete question or problem to be solved, and is mainly used by the most active and conscious householders.

It seems that the environmental information that are used among the householders first and foremost relates to concrete activities in the household. The more general level of the information, the less it is used. The local stakeholders seems very important for distributing the information that are relevant for the households. Other stakeholders, like national authorities, are in this context more distant, and here TV rather than internet or other media are considered effective. This leaves the green household budget in a very challenging position. How can one reach the households with this information tool? We will look closer on the householders perceptions of the green household budget.

### 6.3 The green household budget

The householders were presented for the green household budget during our first visit. They got the folder and the scientific report from the work with developing the budget. Those who had internet access at home got the internet address, and we also logged on to SIFOs home pages for a quick survey of the relevant pages.

The householders were asked to have a closer look at this information material until the next visit. Before the second visit we reminded the participants of the internet pages and the folder. As mentioned earlier 6 of the originally 10 households joined the second round.

We found that most of the householders had looked at the folder, but very few had actually used the internet. However, the householders had many opinions both about folders and internet as media for environmental information. Their experiences with the green household budget combined with their more general use of internet and written information (especially folders, leaflets, newsletters etc.), can give us a picture of how different kind of environmental information function in daily life.

Since GHB was used to a little extent by the householders we were curious about why they did not use the tool. We have been seeking two explanations
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on this. Firstly, the content of the GHB may not have been conceived as relevant for the householders. This would be in line with what Hobson (2003) and Myers & Macnaghten (1998) have found from how environmental information work in relation to “ordinary” citizens. However, we would expect that this information should have more relevance to environmental conscious consumers like the ten householders in Fredrikstad. In fact we have looked upon environmental conscious consumers as one of the main target groups for the GHB.

However, we will also seek for another explanation in the context of everyday life. It is maybe not the content of the leaflet or the internet pages that there is something wrong with, rather we ask whether this way of informing consumers is appropriate. To what extent do they get information from these socially disembedded systems like leaflets and internet, and to what extent are other sources of information and inspiration more important. First we will evaluate the GHB as an information tool, then in section 6.4 and 6.5 we will describe other (more) important sources of inspiration and information.

6.3.1 The relevance of environmental information

As already mentioned few of the householders had actually made active use of the GHB. However most of them had read the folder and some had used the tool on the internet. They had got a clear impression of the content of the folder and those who had tried the internet had mainly used the calculators and the information in connection to them.

In general the respondents had only minor objections to the content of the information. On the other hand most of the information was not new to them. This reflection goes especially for the householders that had participated in the ECO-team. Another comment was that the information seemed very much the same as other similar information on the internet. One concrete wish was that the GHB also should contain calculators for the environmental impact of household consumption, not only the economic consequences of changing behaviour. However, several of the householders stated that the information functioned as a reminder and part of the process of increasing their own awareness.

The householders in general agreed to the idea of giving the GHB to a broader public. And it came up several ideas of how to spread this information. We will come back to this later on. As discussed earlier, in light of the many failures of different information campaigns, it is important to discuss the rele-
vance of this kind of information to “ordinary” people. In relation to envi-
ronmental issues the householders do not ordinary people, rather they were selected for this study because of their special experience and interest in these questions. Therefore we can say little directly about how “ordinary” people react on the GHB, however we do find reflections from the householders that are highly relevant in this matter.

We will here discuss two aspects related to the content that can be decisive in how the information is perceived by the receivers. For one there is the rhetoric content of the information (Myres & Macnaghten 1998). The normatively content and moral dimension can be seen as a necessary, but also a rather provoking and moralizing part of the information tool. Secondly, we are concerned with to which degree the content is related to the everyday life of ordinary people.

During the interviews sometimes the householders reflected on one special topic, and stated something like: “We have been a bit lazy on this, we must improve”, or “We haven’t thought about this, we must do something about it next time…” For these householders, the normative content of the information is not conceived as “moralistic” rather as something that inspires and motivate them. They are willing to act upon the new information and change their consumption practices, within reasonable limits. However in many cases the possibilities for change are rather limited, and the normative content of the information might function contrary to its intention:

Interviewer: To what extent gave the folder any important information?
Woman: It gave me some bad consciousness.
Interviewer: In what way?
Woman: In relation to what you are capable of doing yourself, such as making things from basic ingredients, fishing ones own fish, see? I felt a bit at a loss.
Interviewer: Do you feel that the information was negative in that sense?
Woman: No, but when you live in a flat at the third floor you can always have radishes and lettuce in the window box, but it is not all that is granted with the possibilities to engage in self provisioning of food.

Giving someone a bad consciousness from this kind of normative information or advice is perhaps something that is difficult to avoid. But what to learn from this example must be that the advices that are given must take into consideration the everyday practices of ordinary consumers.
6.3.2 Information in everyday life

The green household budget is distributed both as a folder and as an internet tool. Firstly we will consider how the internet version function and try to identify possibilities and limits to the use of internet. At the National Institute for consumer research there is developed two different normative budget tools aimed at households. Firstly you have the Standard Budget on household expenditures which shows expenses for keeping a sensible consumption level in different types of households in Norway today. The budget was developed to calculate the cost of having a certain consumption in a variety of areas of expenses. The standard budget has had an extensive use, not only by private households, but it is also used by social security offices and banks. The green household budget build on the standard budget and give information on the environmental and economic aspects of household consumption http://www.sifo.no/english/greenhousehold/. Both tools are available at the top of the SIFO home page, and they are both equipped with calculators that estimates your expenses.

The standard budget had an average of 2004 hits per month in the year 2002, while the same figure for the green household budget was only 263. Because of their significantly different aims, it is not really fair to compare the two budgets in this way. The standard budget deals with a fundamental issue in all peoples lives; namely our economic and material living standards. The green household budget has a more voluntary character, dealing with the altruistic aspects of consumption. The standard budget also has a longer history. It was first published in 1987, while the green household budget was finished in 1998. However, the relative success of the standard budget probably lies very much in the way it is used and distributed, through social security offices and banks, where it has demonstrated its usefulness in managing household expenditures in every day life. The standard budget is also used in teaching at school.

Although the householders in Fredrikstad were given an explicit demonstration and explanation of were to find the green household budget, just a few had actually logged in to the pages. We discovered both practical and social constraints connected to the use of internet. One material barrier is of course that not everybody have access to internet at home. And we also discovered that even if you in principal have internet connection at home, it may for several reasons be out of use. We found both that the PC-equipment had been out of order and that some deliberately had disconnected the computer from the
internet for periods. Finally some householders suggested that people refrain from using the internet out of economic reasons. It is not a free service, it is actually quite expensive to use internet!

The householders also pointed out social constraints against using the internet. Especially two arguments were put forward. Firstly, it is not very tempting to use the internet at home when you are using it all day at work. Secondly, it is an impersonal way of communication that is OK when you just try to look up some concrete information, but surfing on the net is not considered as an enjoyable pastime that they spend much on:

Interviewer: Now we are going to talk about the green household budget. You do not have access to the internet at the moment?
Woman: No, you know there was some trouble with the computer mouse, so the whole damned thing is standing on the loft at the moment (laughter). I am not really very fond of this medium, you know.

Interviewer: You have used the internet, as far as I know, at least you have made some search. Do you think it is a good way of informing?
Woman: It can at least not stand on its own, but it is a very good medium in that sense that you can put in your CO2 accounts, and I have been reading the home pages of The Norwegian Pollution Control Authority (SFT) about asphalt (…), and I read about hazardous waste. If I am dealing with one issue I log on to the net to check. It is very good in that way. But you can not take it with you and show it to your female friends, or read it in bed. It is a bit lonely. It is between me and the screen.

Woman: (…) The internet is very positive in that way that you can get a lot of information in short time. You can search for information on energy saving and it just pops up, in a way! The negative is that you are communicating with a screen. I do not look upon that as environmental friendly, if you think about the human environment, which also is important. With these net-things we have lost a very important source for direct communication. That is very negative, and not a pro. (…) My best friend was here just a while ago. She is very clever. She is educated within – and work with – environmental issues, so I prefer communicating and talking to her and have her on a cup of coffee rather than sit on the net, see?

GHB is also distributed as a folder, which was read by most of the householders. Folders were in general viewed as a more suitable tool to reach the ordi-
nary consumer. Not everybody got access to internet and the householders consider that one really has to be very interested to look up GHB at the internet. However, there are some important constraints attached to information that is distributed through (snail)mail. People receive all kinds of information through their mail box. Not only newspapers and bills, but also public information and not the least a lot of advertising leaflets and handouts. A steady flow of written information is coming into the house every day. The householders express this very much in terms of an “information overload”:

Woman: It is so much information coming today (…) I just put away lot of the stuff that comes as advertisements and information from the post office and from the bank. I put it away. You can not read everything. There are a lot at work you should read, and in addition you must read the newspapers. I do not think people manage (…) You have to be very selective.

Interviewer: Can you remember that you have received any information related to environmental issues?
Woman: No. Well, it could be that there has come some folders in the mail box, that I actually have thought of as advertising leaflets… (laughter).
Interviewer: So, it could happen that you have overlooked some information?
Woman: No, I try to look after, but of course it may happen that something is slipping through.

Interviewer: Do you think it is too little information?
Woman: Yes

Interviewer: Have you got any information?
Woman: Probably, but when you get it in your mail box, like all the advertising leaflets. I do not think it is the right way to inform. If it is on TV, for instance in a show for children, it is good. Get it in other fora than a folder. I do not think very many read those folders. If it is not an issue that you immediately relate to.
Interviewer: The information disappears in the crowd…
Woman: Yes, I think so. It could rather be given as a short lecture in the kindergarten or at school were you meet (…) TV is the strongest medium. You spoke about the internet, but still not many are searching for such information, so you have to sneak it in other places where people seek information.

The citations above gives an impression that information not always reach people because of an information overload (Klapp 1986) In these examples the information are either overlooked in the big heap, or the householders do
not manage to relate to all different information that they meet during the day. The opportunity to - and motivation for - reading new information is also limited by the priorities of activities and practices in everyday life. There is often no time left for reading information:

Interviewer: To what extent have you used some of the information?
Woman: I have not used it and can not remember any of it. I have looked through it once, but that is a long time ago. I thought that I had to read more from it, but it was never done. And it is the same with all information that comes, it is just like it grows and finally it ends up in a big heap. It is limited what you manage to take in.

And then the time that is left after work is often spent on other activities:

Woman: Well, I try to get away from using the computer. That has of course also to do with the summer time. I have no need to sit inside when I have been 8 hours at work.

The householders have to a limited extent used the green household budget. It is not so much the content as the way of communication that has refrained the householders from using it. Both the folder and the internet was not considered as an ideal way of for them to get information. They rather preferred more socially embedded ways of communication, first and foremost with their friends, but they also pointed at other social contexts were this type of information could be relevant, such as in school, kindergarten and other places were people meet in daily life. Below we will have a closer look at how the householders initially got interested in environmental related issues in the first place. Maybe their stories can offer some insight to the question of how to improve the information about environmental issues?
6.4 Inspiration - from where?

From our interviews with the householders the process of how they have been aware of environmental problems and the care for the nature can be understood in different ways:
- as something that always have been there
- as a process starting in early years
- as a process developing through different stages of life; as adolescent or when having children

For many of the householders the awareness of - or interest for - environmental protection have been inspired by special events in the childhood or later on in life. It may be seen as something that has been a natural part of life when growing up.

Interviewer: Where does this interest come from?
Woman: I don’t know… maybe from my parents.
Man: (…) I really can’t remember that it has not been like this.
Woman (…) We have always had an interest for this.

Woman: I have been interested in this since the day I begun to think. I woke up at once! I have been very fond of the nature all since I was a little girl. Fond of being outdoors. I think it has something to do with that.

Woman: The inspiration to much of the things I do comes from the childhood. The way I was brought up …

These citations points at an early and close contact with nature that has triggered a special awareness or care for the nature. However this can be interpreted that the present attitudes of these householders generates from early stages of life. This interest can be passed from one generation to the next, for example by taking the children out in the nature:
Woman: A certain ecological interest has always been there, I believe (...) We are very fond of outdoor life both of us, and I believe we have a strong belonging to the nature, really (...)
Man: We are a lot out in the nature.
Woman: (...) We have this fundamental attitude that we enjoy being out and we are out as much as possible. We have become even more conscious after we became parents that we spend the time out door, both when we come home from work and in the weekends.

In the everyday context the awareness and care for nature are not so much thought verbally or in writing, but rather passed on through praxis. Practices that are closely related with nature, such as spending time in the woods or by the seaside, gathering berries and growing fruit and vegetables in the garden seems to have been important in stimulating the householders interest in environmental protection from early childhood. Not only the family, but other important local institutions and people such as particular teachers at the school or participation in youth organisations, such as the local scouts, have also for some been important in this process.

Another way that the householders have been inspired during childhood or adolescent is from special events or information that came from outside the local context. One couple have their different stories on this:

Interviewer: Where do your engagement for the environment come from?
Woman: It originates from the book of Erik Damman “The Future in Our Hands” which I read as a 16 year old girl. It made an unforgettable impression on me. I used it in numerous essays later on during my years at school.
Man: The first event that really shook me I remember was in 1970, which was the UN Nature Conservation Year. I was at the cinema and watching all the short films that was about environmental problems. They listed up the hard facts with pictures that showed the state of the environment. The same summer I experienced how my parents just threw empty bottles out of the train window and down in the water. I got the feeling that I could not trust the grown ups. Maybe I was not that engaged at once, but...

In later stages of life having children seems to be an important event. Parenthood seem to trigger a discursive consciousness leading to changing consumption practices. One of the householders puts it this way:
Woman: I got children quite late in my life (...) and my experience with other “adult” mothers is that we are actively seeking information. In that period I consumed more information than ever before, and became a lot more conscious. It has resulted in that I have completely stopped making all that ready-made food that I used before.

Above we have discussed the role of the family in inspiring the householders in early years of their childhood. The family is still an important arena or channel for communication of environmental information. As we have seen as parents they put weight on giving their children positive attitudes towards the environment as well as good experiences with nature. However the communication is not going only one way from the parents to the children. The children actively share information about environmental issues and therefore have direct impact on the EFCP in the household:

Woman: The kids says: Yes, but mama … that is not environmental friendly (...) When we are in the store I ask: Shall we take this one or that one? This is the most environmental friendly, mama.

Interviewer: Do you get any information on this (waste handling)?
Woman: We get a lot from the kindergarten. She (the kid) knows everything about it.
Interviewer: So you got inspired by the kids, or?
Woman: Yes, we are. But it is that, what are they called again … yes, Igda and Pauline. Tom (the kid) is very keen on this now.
Interviewer: In the kindergarten?
Woman: Yes, but also at home we have been reading about them. We produce much garbage, you know.

Interviewer: Is this (waste handling) something that the kids know about?
Woman: Not from me.
Interviewer: From the kindergarten?
Woman: Yes, rather from the kindergarten and TV. They have this “environment-show” called “Kykkelikokos”, you know, where they have this waste handling competition. The kids have just started watching it. (...) I think it is very good. It is good that they have this on the TV shows for children because it effects their attitudes.
6.5 Other sources of inspiration

6.5.1 Friends

While environment is an uncontroversial issue within the family this is not always the same among friends. Here the picture is more ambiguous. In some settings meeting and talking with friends is very important to discuss and solve problems related to environmental friendly practices. Friends are important sources for information and knowledge about environmental issues. This is true when you have a network of dedicated friends that share the same environmental interest as yourself.

In settings were your friends do not share the same interest, bringing up environmental issues can be more problematic. There are several reasons why environmental questions so rarely are on the agenda in such settings. If this is brought up as an issue this can be considered as moralistic in the negative sense of the word. You do not want to offend your friends and give them feelings of guilt for not being environmental conscious. Finally it is not very pleasant to feel that your friends look upon you as some sort of an environmental freak with a very odd life style.

However these experiences with friends can not be generalised, and in some settings it is quite unproblematic to bring up environmental issues. This goes for situations where the householders speak with their friends about specific experiences from daily life. Here we are tempted to use the distinction between product substitution, reorganisation and reduced consumption. Product substitution is seldom an issue because environmental friendly products are hardly available and few have experience with them. Reduced consumption is also problematic to speak about without seeming “moralistic”. However, activities that are related to the everyday organisation of the household, such as composting and energy saving, are themes that are brought up more frequent. Waste handling is something that everybody relates to and have experiences with. Composting is brought on the local agenda both because of reduction of the fee if you compost your own waste, and besides the municipality offer a course in composting. Experiences from this course seem to be a grateful topic to bring about among friends. Energy saving is also a “legitimate” issue
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because this is not only about protecting the environment, but also about saving money.

6.5.2 Professional life

Many of the householders have jobs that in a wider sense is related to environmental questions. This is occupations like teachers, researchers or municipal employees. The job therefore becomes an important source of information and knowledge about environmental friendly consumption practices. Likewise some of the householders refer to their educational background as important. In these kinds of occupations the lunch talks may often circle around environmental issues. The social relations are not as close within a network of colleagues as within the private network of friends. The threshold for bringing up different issues (controversial or not) are probably lower at work than in private life. Besides the householders experience that they are not the only one that are concerned about these issues, but on the contrary also get a lot of information from their colleagues.

6.5.3 Media

The discursive consciousness of the householders makes them, in Halkiers (2001) terms, action oriented. Therefore, they actively search for information for practical use in daily life. When it comes to the role of the media the householders are most concerned about the negative impacts of media. They consider that the media either gives a misleading or a very negative picture of the situation. They recognise that media’s attention to severe catastrophes can bring about a certain public attention, but in their opinion this will not lead to action or changed behaviour among people in the long run. The householders wish that media should focus on the success stories and the possibilities for change. This is seen as more useful in practical life also for the householders themselves. “Kykkelikokos” the TV show for children is given as a good example on how to motivate, not only the kids, but the whole household in environmental friendly consumption practices such as waste handling and energy saving.
6.5.4 Us and them?

We have discussed where from the householders themselves get their motivation. During the interviews we also asked them of what they thought other people usually do, and to what extent other people share the same awareness of environmental questions as themselves. There are mixed opinions about this. One opinion is that environment is a non-issue among most people, while another standpoint is not to make a sharp distinction between “us” and “them”, rather;

Woman: I do not think that I am any better than others, but I think there still is a group of people that do not think like this. Actually I believe that people, if they want to or not, are getting more and more conscious.

There is a more or less expressed consensus among the householders that environmental issues are almost non-existent on peoples daily agenda. However, this is also seen as a slowly moving process in which people are getting more and more conscious about these questions. In this process different stakeholders or actors have a role to play in engaging people, such as the media, schools and kindergartens. Enthusiastic and idealistic people are looked upon as an indispensable asset in motivating common people.
7 Discussions and conclusions

The two special aims of this report have been to discuss the possibilities for environmental friendly consumption practices (EFCP) among householders in Fredrikstad, and the role of information in changing these practices. We have used an environmental advisory tool, the green household budget (GHB), both in the analysis of the EFCP among the householders and in the analysis of information as a tool for sustainable consumption.

7.1 Changing consumption practices - possibilities and constraints

The three strategies of the GHB can throw some new light on the theoretical distinction between reflexive/rational and routinised consumption. Not only because it widens up the concept of consumption to include more than just what happens in the market place, but mainly because it points to that consumers have different possibilities to act dependent on their different roles, whether it is as customers, householders or identity seeking individuals. This can even be extended to other social contexts as we also act as employees, colleagues, friends, etc.

In chapter 4 and 5 we have analysed the role of environmental friendly consumption practices in 10 household in Fredrikstad. The analysis show that these activities enters into complex patterns of every day life consumption practices. Thus we can look upon EFCP as outcomes of negotiations and priorities made in the household.

In many ways rational choice perspectives and modernisation theory reduces consumption to what is happening in the market place. Our findings from the householders practices on product substitution show that consumption is not
restricted to the market place. Even though the actual buying behaviour take place in the store, the decisions of what to buy are often taken from experiences in daily life in the household, rather than from the selection and information in the store. Besides in many cases the needs for services and products is to a great extent taken care of outside of the commercial sphere, such as buying second hand products.

For food practices we see a clear pattern in how householders (have to) make their priorities. The social significance of the dinner is so strong that other household practices are being adjusted to it, like necessary activities such as bringing kids, shopping and preparing dinner. There is little time for any changes in these activities that are squeezed in between work/school and dinner. Thus, using car to and from work, kindergarten and the grocery store is highly routinised, and often any alternative way of transportation are not even reflected upon. In this case it is not only that alternative means of transportation are not available, but the strong social norms and the overall structure of daily life is even more important in regulating the household practices. This point can be illustrated in a different way when looking at the composting practices in the household. We found that this was a widespread activity in the households. The householders had several motivations and reasons for practising it, but the environment was here a rather common consideration. The householders have different experiences with composting household waste but clearly see the benefits from it. Although time consuming and sometimes rather bothersome, most of the householders are not giving up on this activity. This stands in contrast to the time squeeze that they report for instance when shopping. One interpretation is that the composting practice is more flexible because it can be done at hours of the day when there are not so many other pressing activities. In summary, EFCP are not only dependent on the householders reflexivity nor the availability of services and products, but also regulated by social norms and the routinisation of daily life.

7.2 The significance of environmental information

One important aim of this report has been to discuss the significance of environmental information in changing consumption practices in households. One conclusion that we draw from studying households in Fredrikstad is that *information is a necessary, but not sufficient, precondition for action*. Our findings contradict the assumption that with sufficient information, consumers or
householders will be able to make the “right” choices in the market place or implement more environmentally sound consumption practices at home.

Our findings are in keeping with Halkier (2001) who states that consumption practices must be seen both as results of a discursive conscious processes of individuals, and as outcomes of negotiations and priorities among the household members. Consumption practices are not solely guided by individual reflexive choices, but conducted by social constraints and/or possibilities such as social conventions, routines, habits, household economy, etc. Thus, information is not sufficient in itself as a tool to change consumption practices in households.

This is not said to undervalue the role of information, rather it is important to bear this in mind when analysing the relevance and effectiveness of information as a political instrument. In this report we have discussed the effectiveness of information (channels) in general and the GHB in special. We have borrowed Giddens’ (1991) distinction between socially embedded and disembedded systems, in order to distinguish between two different channels or systems which through environmental information is disseminated. This differentiation has been important in linking the understanding of everyday consumption practices with the role and importance of information.

Giddens states that disembedding mechanisms such as symbolic tokens and expert systems penetrate virtually all aspects of social life in conditions of modernity (Giddens 1991, 18), and he describes the disembedding of social institutions as “the second major influence on modernity’s dynamism” (Giddens 1991, 17). We will not draw a direct link between Giddens’ more general view of the development of modernity and the role of information, but we found that socially embedded systems still are very important in disseminating environmental information. From our interviews with the householders we got many examples that indicates that the close interpersonal networks are even more important in this respect than modern communication systems such as environmental labelling and internet (GHB). However, the point is not to compare the two different systems, rather we will argue that these systems must be seen as complementary to each other. However, when working out environmental information to consumers it is important to consider the context of everyday life in which it is supposed to function.
7.2.1 When is information used?

In this study we have made some interesting observations on whether information is used or not. In most cases the use of information vary dependent on the context. Product substitution makes an example on this. We found that the householders to a great extent recognised different detergents as examples of environmentally sound products. In the Norwegian market Swan labelled detergents have a dominating position in the market. This is due to the main producer of detergents, Lilleborg, has positioned itself in the market as leading also in the environmental field, and actively marketed its products along with the Swan label (Throne-Holst 1999). The combination of good availability and massive information and marketing has been an environmental success. The householders in Fredrikstad are to a great extent both aware of the products and of the reasons why they are Swan labelled, and finally they also act upon the information by actually choosing the Swan labelled products at the expense of other detergents. This awareness and practice stands in sharp contrast to how the householders act for instance toward clothes. There is information about the environmental impacts on clothes, and some clothes are labelled, but the availability of this information is much less than for the Swan labelled detergents. The environmental conscious householders in Fredrikstad to a much lesser degree considered environmental issues when buying clothes than buying detergents. However, for clothing other actions such as to refrain from buying and buy second hand was more relevant strategies.

Composting of organic waste is another example on how the householders have used information to get into an environmentally sound household practice. The municipality has offered both a reduction of the fee, subsidy of the compost bin as well as a composting course for those who want to start composting their own waste. Several of the householders had started to compost after the course. The course contributed not only with the necessary knowledge, but functioned also as an important inspiration for the householders to get started. Finally, the composting practice in itself was an experience that lead to other environmentally sound consumption practices and became a topic of conversation in the householders different social networks.

Finally we have the householders use of the green household budget (GHB). Both the folder and the internet pages were to a little extent used by the householders. Even the most dedicated environmentalists found it unpractical and had problems to find time for reading the folders or logging on to the
internet pages, unless they had a specific problem to solve or look into. Besides, the impersonal feature of these rather abstract tools did not attract the interest of the householders involved in this project. They preferred rather to speak about these issues with friends, colleagues or with their kids who learn much about environmental issues at school.

7.3 Information a short term or long term environmental measure?

We want to distinguish between information as a short term and long term measure. From what we have learnt from the analysis of the householders use of information in Fredrikstad; for the short term measures to be effective, the information strategy should take into consideration the everyday life of the householders. We have already mentioned a few examples on this. Information seem most effective when combined with other measures, such as a comprehensive waste separation system, good availability of green products etc. Idealistically speaking information should as far as possible be distributed in the close social network of householders, mainly because these networks are widely used by the householders when discussing such issues, and because there is a high level of trust in these networks among people in common.

Such information strategies can be seen as effective both in the shorter and longer terms. In the short term information may contribute to change some of the routinised practices that not yet has been subdued to discursive conscious considerations from the householders. The ECO-team, which six of the households in Fredrikstad have participated in, seems to function much in this way. Building an ECO-team means to construct a social network in a locality where experiences and information are exchanged between the participants. Other such interpersonal, socially embedded networks, are the work place and the school.

From our findings in the Fredrikstad case we have noticed that the work place is an arena for exchanging information and experiences about EFCP. In the general economic life in Norway the systematic work with health-, environmental- and security issues is becoming more and more comprehensive and new topics are constantly added to this list. Not only issues related to the social and natural environment of the single work place, but also topics with a wider societal interest, are placed on the agenda. One example of this is the governmental program for green purchases within the public administration.
Different forms of environmental information, such as the GHB, could also be relevant to introduce in the context of the work place.

The householders that were exposed for the GHB were not average citizens. Actually, six of them were selected because of their participation within the ECO-team project of Grønn Hverdag. The environmental awareness were for many of the householders rooted in daily life experiences and disseminated through close interpersonal social networks such as family, friends and school. For some of the householders their special awareness of environmental questions dates from early childhood or adolescent. From these findings we may draw a tentative conclusion that influences from early stages of life may have a decisive effect on behaviour later on in life. This is mainly due to the social inertia associated with changing of consumption practices. It is probably not accidental that the householders got their motivation at young age, before established. These householders are not only able to consider the environmental impacts of their behaviour, but also to organize their daily life in accordance with their believes. Habits and routines established at young age may be easier to carry on with later on in life. This is in keeping with findings from national consumer surveys, where older respondents who have experienced both the hard thirties and the wartime, have more environmental sound consumption practices on for instance recycling, than younger generations (Enger 1995, Nyberg 199). This is not necessarily environmentally motivated, rather comes as results of what they have been thought and experiencing during childhood and adolescent.

7.4 Conclusions

An everyday life perspective on the role of information in changing environmentally friendly consumption practices is necessary for several reasons. Firstly, an everyday life perspective is important to understand the complex relationship between attitude and behaviour. From the analysis of the householders green purchases and food practices we have learnt that these activities enters into complex patterns of every day life. Thus, EFCP are not merely the outcome of an individual reflexive process, rather consumption practices are results of social conventions, negotiations and priorities made in the household. Secondly, the everyday life perspective is important in understanding how information is disseminated, used and acquired among householders. In general, information face a lot of barriers in this acquiring process. In the overloaded information society people have become rather selective in their use of information. Again, the socially embedded networks of every day life
seems to be frequently used information channels. Thus, when giving out information it is advisable to adjust it to the local context as well as the main target groups, preferably in combination with other environmental measures. Due to the social inertia that constrain the process of changing consumption practices, information must in general be seen as a long term instrument. However, when combined with other measures that have a directly effect on consumption, information is both effectively and necessary as a short term measure. Finally the everyday life perspective must not be viewed as a perspective dealing with the small and insignificant environmental questions, rather this perspective can give important contributions to the understanding of the major challenges of sustainable consumption. In spite of increased environmental efficiency, the environmental gains are constantly frittered away by the growth in consumption in many consumption areas. One of the most pressing issues here is the ever increasing need for transport, and especially private transport. These are normally considered as national, international and global political issues, that involves both technological as well as macroeconomic measures. However, these issues should also be viewed from a daily life perspective, because both social conventions as well as the material conditions at the household level are decisive factors regarding the possibilities for changing the overall consumption patterns.
References

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Appendix A

Interview guide – first visit

A. General questions

1. In your opinion – what are the most important environmental problems today?
2. Who have the responsibility to do something about these problems?
3. In which areas may the households contribute?
4. Do you think that you yourself has contributed in any of these areas?
5. Do you wish that you were able to do more in sake of the environment?

B. Purchase

1. When was your last shopping trip (not consider grocery)?
2. How is a typical shopping trip?
3. Do you like shopping?
4. What do you emphasise when shopping (e.g. clothes, white goods)
   - prize
   - selection
   - fashion
   - durability
   - environment
   - others
5. Do you ever take environmental aspects into consideration while shopping?
6. Do you believe people in common consider the environment while shopping?
7. How will you characterise an environmental friendly product? Do you have any experiences with such products?

C. Purchase of groceries

8. Where did you last buy groceries?
9. Do you often shop in this store? Other shops?
10. Is it any difference between these stores?
11. Do you like to shop in these stores?
12. How do a typical shopping trip look like?
   - major purchase?
   - planed in advance?
   - Who do the shopping?
   - Is the items you want easy to find?
13. How do you get to the store?
   - car? Is there any alternatives?
14. When do you shop?
   - at what time? what day? how often?
   - How do an ideal shopping trip look like?
15. For how long have you been shopping this way?
16. Do men and women buy the same things?
17. You told that you usually shop like this… but do you know others that do it differently?
18. Do you know any eco-labels? Which?
   - Have you seen them on groceries in the store? Have you bought any?
   - How do you relate to them? Do you use them as a guiding tool?
   - What does eco-labels mean for the environment?
   - Do you know others that buy eco-labelled products?
   - Is there any room for improvements of the eco-labels?
   - Are you satisfied with the selection of eco-labelled products?
   - If not, what can be done to improve the selection?
19. Have you noticed if any stores are concerned about the environment?
   - In what way?
- Does it affect your own shopping habits in any way?
- Is there any room for improvements from the retailers?

D. Food – organic and locally produced food

20. How is a typical dinner in this family?
21. Can you describe a “successful” dinner?
22. Who make the dinner? Is there any differences between working days and weekends?
23. What is important to you when shopping food?
   - prize
   - selection
   - quality
24. Are you satisfied with the food market, considering
   - selection
   - quality
   - prize
   - others
25. Is it special concerns that are important to you when shopping food
   - preferences regarding meat, fish, vegetables or fruit
   - ready made food
   - taste
   - allergies
   - diets
   - ethics
   - environment
26. What do you convey with organic food?
27. Do you buy organic food?
   - if no, why not?
   - if yes, why? are you satisfied with the selection of organic food?
   - do you buy food in other places than ordinary food stores?
28. Does it mean anything to you where the food is produced?
29. Does it mean anything to you if the food is produced locally, nearby Fredrikstad?
   - do you buy such food? If yes, how do you provide these foods?
   - if no, why not?
30. Do you buy food according to the season?
31. Do you have access to a garden, or do you grow anything for own consumption?
32. Do you gather berries or mushrooms in the woods?
   - if yes, what does it mean to you?
33. Do you hunt or fish?
   - if yes, what does it mean to you?
34. What do you do with food leftovers?
35. Is there any special environmental problems attached with food production?
36. Is there any special environmental problems attached to consumption of food.

F. Energy use

37. What kind of energy source do you use for heating?
   - have you chosen the energy source yourself?
   - are you satisfied with this solution?
38. Do you think that you use much or little money on electricity and heating?
   - what is the reasons why you use much/little?
   - has the energy consumption changed over time?
39. Do you have done any measures to reduce the energy use?
   - do you have low flow shower heads?
   - energy efficient light bulbs?
   - do you lower the temperature at night?
40. Is there any environmental problems attached with consumption of energy?
41. Do you feel that you get enough information about energy conservation?
   - have you noticed any information campaigns?
   - have you yourselves actively sought advice on energy consumption?
   - if yes, what do you think of the information that you got?
42. Do you plan to make any energy conservation measures in the future?
G. Closing

43. What do you like to do in your spare time and in the week ends?
44. What would you do with the money if you got an increase in your salary with 5000 NOK a month?
45. Do you have any other important or relevant issues that you want to add, that has not been brought up during the interview?
Appendix B

Interview guide – second visit

A. Generally about environmental information

1. What do you consider as your most important source of inspiration regarding environmental questions?
2. Do you look specially after environmental information?
3. What do you think of the information that you get from the local municipality. Do you have any comments to any of the folders or leaflets that you have got, with respect to the content, design or message?

B. About the others (neighbours, friends, colleagues etc.)

4. Is the environment a subject that are brought up
   - among your friends?
   - among people in common?
   Why – or why not?
5. Do you think that other people you know read or use environmental information in some areas?
   - energy conservation
   - products (eco-labels)
   - foods
   - transport
6. Do you believe that environmental information may change peoples’ attitudes or behaviour? Or is there other factors that to a greater extent affect people?
7. How is the best way of informing people about environmental measures?
C. The green household budget (GHB)

Ask if the householders have used parts of the green household budget
- read the folder?
- looked in the scientific report?
- used the internet pages?

8. Have you used any of the information from GHB? Do you think that GHB gives useful information. Was there any in the information that you have never heard of before, and that you could get use of in the household?

9. Do you have any comments to the content, layout and the design of the internet pages (or folder)?
- Who does it appeal to?
- Does the information seem reliable / correct?
- Is the text too moralising?
- Is it pedagogically written?

10. Did you recommend the GHB to others?

D. Change

11. Have you changed your consumption or any of your routines since the last time we visited you?

12. If Yes, why actually these areas?

13. Do you have any other important or relevant issues that you want to add, that has not been brought up during the interview?