Shopping, Cooking and Eating function Hungary

Project Summary Report

SusHouse Project

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1 Background information/ Introduction

Hungarian households, as a consequence of pre-nineties socio-economic development and consumption traditions, differ in many respects from the households in the developed Western-European countries. These can be an important factor in the development of the strategies for sustainable households. The transformation towards market-economy resulted in a considerable decrease in GDP, real wages and consumption. After the political transition, within a short period of time (7-8 years) several considerable social and economic changes occurred which compared with the previous situation altered the food-consumption system in many respects. Over the last year (1999) GDP has increased but the inflation is still about 10 percent.

2 The Historical Developments of SCE in Hungarian Households

From the viewpoint of the SusHouse Project, Hungarian food consumption was characterised in the end of the 20th century by the following:

- The level of consumption was relatively high (30 % of income) even compared with international standards.
- The average calorie consumption per capita reached or even exceeded the level of this indicator in countries with developed market economy including EC countries.
- There was and there is a regional differentiation of the households by the settlement types which is less characteristic for Western Europe and results in important differences from the viewpoint of sustainability.
- The consumption of cold meal for breakfast and the consumption of warm meal for lunch is characteristic. For dinner the menu is more diverse but the results show that the consumption of cold meals is characteristic.
- Eating in (two or three times per day), and the every day cooking (53,5 %) are dominant, but the frequency is decreasing. Eating out is at a very low level.
- Food patterns are moving towards healthier nutrition.

2.1 Technological changes

High levels of home-grown fruit and vegetables (20,2 %); 46 % of the households have agricultural land and 30 % have some livestock; 62,1 % of the households have a hobby garden. About one quarter of the households (25.4 %) kill and process pigs at home.

Considerable proportions of households are able to store a bigger amount of frozen food. The main storing place of foods is the refrigerator (97.5 %). The ratio of deep-freezers is high at 72.4 % of households (the average capacity is 200 litres).

Medium size supermarkets have significant role in shopping since 75 % of the Hungarian households purchase food in this type of shop with certain regularity. Purchases in farmers' markets (piazza) also have a significant role at 68.9 %. This ratio in small shops and discount stores is 63% and 62.8 % respectively.

The main selection criteria are availability (distance from home, diverse stock) and financial aspects. Grocers and butchers standout from specialised shops generally with 58 % and 57.4 % respectively. The characteristic of a given settlement is also a determinative element in the selection of different shop types (what kind of shops are in the given settlement). Purchase in different shops is mainly determined by financial factors.

The purchase of daily items was in the large number of small general shops close to flats, which were privately owned. The choice was poor, because storage of highly demanded products (deep-frozen products requiring special treatment) was limited.

Fast food restaurants were almost entirely unknown. The first fast food restaurant chain, McDonald's appeared only in the second half of the 80's and only in Budapest. Other fast food restaurants were not present at all. The Hungarian initiatives failed due to the lack of know how and franchise.

2.2 Contextual Changes

- Re-privatisation and privatisation of *agricultural land,* the elimination of the co-operative land property, the transformation of the co-operatives, the formulation of the *legal circumstances for private farming;*
- Privatisation of food industry mainly with foreign capital investment;
- More than 9,300 food producers are, most of them micro enterprises;
- The *liberalisation of foreign trade*, the appearance of food products from the countries with developed market economy create competition for the exposed, developing Hungarian agricultural market;
- The *food retail network* has changed; the small scale retailer network was purchased by Hungarian or foreign investors and reorganised (e.g. Joker, Hansa, Julius Meinl, Spar); new networks emerged with a completely different new business philosophy and practice (e.g. Penny Market, METRO, Tesco) in the form of shopping centres;
- The appearance of the western *kitchen appliances* in trade and the substitution of the former ones or the purchase of new one from savings (refrigerators, deep-freezers, microwaves).

2.3 Socio-Cultural Changes

The share of self-supplying food consumption increased within the total food consumption. The ratio of consumption from home grown products and products and from the black market was considerable. This went together with the increasing consumption of unhealthy foods.

2.4 Households in Hungary

The 4,011,000 Hungarian households are increasing, while the population is decreasing. The average size of households is 2.5 persons. The majority of the Hungarian households (54.3 %) consist of only 1 or 2 person(s). 26.1 % of the households are "one person household". In 28,2 % of the households there is only 2 persons. Beside these the "3 person household" (19.8 %) and the "4 person household" (17.5 %) is characteristic.

It can be stated that households with one person, with no child, with old person(s), with more educated people, with higher income are more characteristic in Budapest. While households with more persons, with lower educational level, with lower income is more characteristic of the villages, and mainly of the gypsy population. The population of the cities is younger than it is in the capitol or in the villages. The highest ratio of households with child under 14 is in the cities with population under 50,000.

3 Information on the first workshop and its outcome

The Hungarian Shopping, Cooking and Eating (SCE) workshops carried out in three towns of Hungary. We organised the workshops in more places than one because of the difference in the consumption patterns of the habitant and socio-cultural polarisation. Before the real workshops a test-workshop was conducted in Szeged.

3.1 Preparation Stage

The number of potential selected and interviewed stakeholders was 200 altogether. They are represents of the most important current stakeholders from food production (agriculture and food processing) wholesale and retail sector, households, services, local governments, education institutes, researchers, NGOs, etc.) The evaluation of their answers showed about 55 per cent of the asked stakeholders indicated a positive attitude while 20 per cent of them were indifference, 20 per cent of them didn't give positive answer and only 5 per cent of the stakeholder gave negative answer. The attendance of the stakeholders was 15-20 per cent. The communication with them was mainly one way from PRs to stakeholder.

The workshop input documents were the following: project leaflet, part of the Country function report, own household research results, team and research presentation, household consumption, environmental impact of the households.

Table 3.1 General picture about the workshops

Place	Date	Persons	Generated idea
Szeged	29/10/1998 (1 day)	12	36
Budapest	10/12/1999 (1 day)	12	40
Sopron	20/01/1999 (1,5 day)	14	57
Nyíregyháza	27/01/1999 (1,5 day)	8	47

3.2 Results of the test workshop and workshops

The attitude of the participants and consequently the gathered ideas were strongly depended on the present Hungarian living standards. The facilitator before the start of the brainstorming session asked participants not to consider the present living standard, but often they could not so. We are thought very intensively about format of the real workshop and about an imaginable situation.

3.2.1 Stakeholder enrolment

"Time is money. The first aim is the profit." Representatives of producers were about 45 per cent of the participants. The trade and eating in sectors didn't take a part in the workshop. Research institutes and universities and NGO were about 50 per cent.

After the brainstorming session the participants structured the main determinants of future households. Some ideas, as part of the Hungarian model - might be important for the future scenarios:

- Hungarian foods - traditional kitchen;
- food preparation traditions will remain in the future;
- value makes model, spreading information;
- more natural lifestyle;
- shopping is a family program.

3.3 Evaluation

The ideas and the current situation were the basis of the developed Goals-Strategies-Proposals chart. It focused on energy, water usage and kitchen waste as the main important environmental effects of Shopping, Cooking and Eating.

3.3.1 Evaluation from the perspective of the participants

These methods (see above) were unknown practice for the Hungarian agri-food sector except for multinational companies. The groups concluded that as a result of the workshop they were in a better position to make decisions in their households and/or their own companies. In Sopron, the “Association for the environmentally friendly households” alias “Gulash eaters’ club” was born. The attitude of the participants and consequently the gathered ideas were strongly depended on the present Hungarian standard level.

Participants became better acquainted with the environmental effects of the households mainly SCE household function. Sometimes they were surprised by today’s situation and the possible effects on their future life, position etc. Most of the participants were pleased that the SCE team helped them to participate in the next steps of the research process. They asked for the results of the research, the processed experiences of these workshops. *They were interested in the method of scenario building and expressed their readiness to participate on the 2nd workshop phase.*

3.3.2 Evaluation from the perspective of the SusHouse project

- The statistics show regional differences. These differences were not represented by the workshop outputs. The reasons have to be further investigated.
- Stakeholders have to be re-assessed. The interest of the business sphere was very poor. Trade was almost entirely missing. The reasons have to be assessed, it has to be completed by interviews and they should be involved in the next phase.
- It seems that the conservative feature of food consumption disappeared or decreased dramatically. It is conservative only in traditional tastes. People get acquainted with more thousands of food types in the super- and hyper-markets and they try them all. Beside the local demand there is global supply in the food sector, which indicates fast changes.
- The participants of the workshops did not realised that sustainability and healthy food consumption are not parallel. There is a considerable lack of knowledge concerning sustainability (for example nobody mentioned that the food, which was produced in a

sustainable way, is not necessarily healthy) Therefore the formulation of public awareness is extremely important.
- The selection of future stakeholders was restricted mainly to the research sector. People from that sector can be future stakeholders. In their case the main motivating factor is not sustainability but they can be induced to do so. The applied research units of the multinationals also belong to this but at present they consider environmental related actions as inconsiderable ones compared with the profit.

3.4 Outcome: results and important differences between the above two evaluations

- The SCE approach was a completely new one for the participants, most of them profess that the solution of the problem resides in the increasing economic welfare.
- The time horizon of the participants and the researchers were different, thinking ahead with 50 years was unworkable for the participants.
- Too many uncertainties - is it workable?
- We are not able to abstract from the present - differences in creativity. Restricted fantasy. The changes are so fast that the adaptation to this is difficult as well.
- There was positive feedback where we considered the workshops less efficient.

4 Short description of DOSs

Three DOSs were examined and evaluated by the Hungarian team. Each DOS has some proposals as shown in table 4.1.

4.1 Table DOSs and proposals

DOSes	Proposals
DOS 1: Local and Green Diet (LGD)	1. Local sustainable production systems 2. Local "taste bank" restaurant
DOS 2: High-Tech Rural Garden (HTRG)	1. Development and spreading of such product groups which make easy the high-tech production in small gardens 2. Improving services developing supplier chains
DOS 3: Robo-Kitchen High-Tech-Green (RKHTG)	1. Wide production of quick preparation, healthy, functional and environmentally friendly products 2. Intelligent kitchen appliances 3. Development and promotion of monitoring systems for food additive detection in foodstuffs prepared by GMO for the World. 4. New generation of packaging - matters, -techniques -and waste treatment

4.1 DOS 1: Local and Green Diet

Food is supplied from local, organic sources. People purchase food in local street corner shops and local farmers' market to prepare and eat at home. People preferably consume dishes consisting of ingredients with the lowest possible environmental burden.

Households purchase food from local markets and shops because they buy their products from the local growers, but not supermarkets. We do not purchase imported basic ingredients, which can be substituted with local ones. The household shops by bicycles, mainly to the shops near their house. Seasonal products are used in a wide range of our meals. Food processing is just local freezing, storage and preserving by simple technology (like souring). Applying traditional methods for storage (e.g. pit-storage) under more up-to-date, controlled conditions. Aspects of healthy lifestyle are focused on consumption and expressed in chemical free foods. Our kitchen is well equipped and ensures the opportunity of preparing delicious and varied food preserving the nutrients.

Cooking and eating at home are general and eating at work or schools follows this model. Consuming healthy, tasty food, rich in nutritive materials, avoiding unnecessary food that is not vital and often even harmful for the human organism. We consume seasonal products. Restaurants and take-away comply to new values and expectations with local taste-banks to help popularise the traditional dishes of the region.

Selective waste collection and handling is common which is organised by local communities and authorities. The household uses less packaging and non-decomposable polyesters. Recycling biological waste, bio-gas, bio-compost, alternative energy.

Households requires:

- Opportunities for preparing healthy foods (tools, knowledge, recipes).
- Appropriate storage place for selective waste collection individually or groups.
- Local small factories supply shops regularly in every day. Consumers of shops are well known and contemporary. The shop assistant informs consumers about actual prices, the origin and ingredients of goods.

4.2 DOS 2: High-Tech Rural Garden

The majority of the rural households and urban households have hobby gardens suitable for food production. The household's daily routine involves working in the kitchen garden from spring to autumn. Daily working in the kitchen garden is made possible by increased spare time, flexible working time and working from home. Food production in the garden is connected with recreation, practical garden machines and hobby food produced with environmentally friendly high-tech mainly providing the family needs, in case of rural households the surplus goes to the market.

4.3 DOS 3: Robo-Kitchen, High-Tech-Green

It means high quality food system with environmentally friendly and very effective mass production. High-tech appliances equipped households. Programmable kitchen machines can quickly prepare the food while also maintaining their nutrition value. Kitchen appliances have a display to show the actual change in nutrition values of food while it is prepared. The computerised cooking technology is adjustable, controllable and safe. Everybody can prepare his or her favourite dish. People can choose out of many dishes at home, but can go to restaurants or can order food via the Internet.

4.4 Short description of the results of the analysis

4.4.1 Environmental assessment

The environmental assessment used indicators for the assessments. The project main aim is a factor 20 reduction in household environmental impacts. The system border and functional unit are consumed food per year per household. The quantitative assessment of the current SCE function was very complicated, methodologically not really clear, mainly because of missing data. Environmental assessment of the current situation basic requirement and the data structure were methodological also important. It was the base for the qualitative environmental assessment of the scenarios. The qualitative assessment is simpler.

This function is unique in several respects:

- Reducing the amount of food consumed can not reduce the environmental burden of SCE. In our opinion the amount or quantity of food consumed today is more or less the same than the quantity that will be consumed in 2050.
- Within the consumed food quantitative change can be considerable. The determination of environmental benefits as a consequence of using more effective technologies, techniques, alternative energy sources etc. is extremely difficult if it is possible at all.

Realising this anomaly we tried to use a different approach. We created a new flow-charts for modelling and better understanding of different ways of different types (7) of eating such as: consumption of fresh fruits and vegetables, originating from agriculture, home growing prepared, semi-ready, ready to eat, etc.

4.4.2 Economic analysis

The economic assessment used a questionnaire (developed by Simms and Young, 1999) to assess each scenario proposal for economic credibility with help from experts and interviews with experts. The first two DOSs (Local and Green Diet; High-Tech Rural Garden) are "relatives" in the local production but in same time are different in the production systems. As local productions they can more or less competitive to the world-range food production systems. (Probable these DOS's became not the main types of households, "only" complete the households based on world-range food production systems. It depends - of course - on strengths of the future orienting effects of the scenarios.) But the LGD means basically a

market orienting production, HTRG means a hobby production. The competitiveness of LGD can measure on the efficiency, productivity and finally on the product prices oppose the large farm production and multinational food monopolies. The HTRG cannot to compete directly in this side with the monopolies by the lack of output prices of hobby garden products. But there is compete between the spear time by relaxing, recreating by hobby gardening and by work time to earn money for buying of food. One of the other reasons what influences the choice between the world-range and local food productions can more environmental friendly, sustainable production of food and households. The third DOS (RKHTG) focuses on the kitchen technology. The third and fourth proposals of RKHTG DOS are close mainly to the world-range food production systems.

5. Consumer acceptance

For this assessment we applied the methodology of consumer focus group and questionnaires to the Hungarian SCE situation, which was developed by Bode (1999). It meant a quantitative analysis of the questionnaires that were filled in by the participants at the focus groups (mainstream, green, and dynamic) and on the qualitative focus group evaluation. The workshops were organised in July and September at Szeged University College of Food Industry. The scenarios of SCE function were presented verbally and visually, and the consumer aspects have been collected by questionnaires and during discussion in workshops.

5 Some information on the second workshop and its outcomes

This second round workshop was held in Sopron in a very beautiful and calm environment, which was attractive for the stakeholders. The workshop itself lasted about two days. In the first part the project researchers provided information on the essence of the project background and methodology. The expected results of the ongoing workshop were also mentioned to the participants. Most of the participants were previously informed about the project since they attended on the first round of workshops as well. Meanwhile a considerable number of new stakeholders also participated. After the informative part the participants were separated into three subgroups, which was divided into two parts such as back-casting I and back back-casting II.

After the back-casting sessions the participants had a final plenary meeting where they were asked to set up a priority order among the different proposals generated on the previous sessions. The second workshop evaluates the developed DOSs and assessments using back-casting techniques. Resulting priorities were as follows:

- necessary sample project planning, organising on base of the scenarios;
- needs governmental and multinational companies' supplying;
- communicator network building between science-policy-practice;
- result calculation methods application for the successfully sample project;
- spreading of the results;
- thinking over again the factor 20 and the domestic possibilities of the sustainability.

6 Evaluation and policy recommendation

6.1 Project methodology evaluation

The project methodology was continuously developed during the project. The development methods used task leader seemed to be complicate on occasions. This was especially true in the scenario building and visualisation of DOSs in verbal and pictures formats. Most of the PRs were not able to develop the DOSs themselves, wasting a lot of time. This work was a new idea and task in this project with regards to the original Technical Annex in the project plan. On the other hand, this was useful for the development of an interactive communication tool. The result of this project will also provide some answers to the question: How to manage a multifunctional research plan? The project structure and management project was excellent.

6.2 Results of the project

Efficient interdisciplinary project research group. Getting a lot of new knowledge and experiences. The strategically planning involvement the stakeholder for a long time efficient method for other disciplines. The two evaluations (stakeholders and PRs) were in convergence.

The important conclusions of this workshop are:

- future scenarios, which were developed in SCE function, are available;
- requirement of much more communication with the stakeholders;
- to involve the media;
- for continuous two-way communication;
- for small groups of 5-6 persons, with an interdisciplinary knowledge;
- to teach and spread the methodology;
- to spread the results of this research;
- for new evaluation methods for the Hungarian situation.

Literature

Bode, Matthias (1999) *The Guide to the Focus Group Discussion the Example "Clothing Care", Internal Document,* SusHouse Project, Hannover University, Lehrstuhl Markt und Konsum.

Simms, Jonathan, Young, William (1999*) Economic Analysis Questions for Assessing DOS Proposals, Internal Document, SusHouse Project*, Manchester School of Management, UMIST.

Tóth, Klára Szita (2000) *Consumers' Acceptance Analysis of Shopping, Cooking and Eating scenarios, Hungary, Background Report, SusHouse Project*, Szeged University College of Food Industry, Department of Food Technology and Environmental Management.

Tóth, Klára Szita, László Tóth, Zsolt Szekeres, László Szuts, Galbács Zoltán (2000) *Design Orienting Scenarios for Shopping, Cooking and Eating, Hungary, SusHouse Project*, Szeged

University College of Food Industry, Department of Food Technology and Environmental Management.

Tóth, Klára Szita, László Tóth, Zsolt Szekeres, László Szuts, Zoltán Galbács, József Fenyvessy (2000) *Shopping, Cooking and Eating, Hungary, Final Report, SusHouse Project,* Szeged University College of Food Industry, Department of Food Technology and Environmental Management, Delft: Delft University of Technology, TBM Faculty.

Tóth, Klára Szita, László Tóth, Zsolt Szekeres, László Szuts, Zoltán Galbács, József Fenyvessy (1999) *Shopping, Cooking and Eating in Hungary, Country Function Report, SusHouse Project,* Attila József Science University Szeged College of Food Industry, Department of Food Technology and Environmental Management.

Tóth, Klára Szita, Zsolt Szekeres, László Szuts (2000) *Environmental Assessment of Shopping, Cooking and Eating scenarios, Hungary, Background Report, SusHouse Project,* Szeged University College of Food Industry, Department of Food Technology and Environmental Management.

Tóth, László (2000) *Economic Analysis of Shopping, Cooking and Eating scenarios, Hungary, Background Report, SusHouse Project,* Sopron University, Department of Applied Economics.