



## **Sustainable Consumption Transitions Series**

### **Issue 2**

SCORAI Europe Workshop Proceedings  
Bridging Across Communities and Cultures Towards Sustainable Consumption

SCORAI Europe Workshop  
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# Introduction to the workshop

## ***The problem***

We are witnessing across countries and communities the ongoing evolution of several unsustainable consumption trends. A majority of people aspire to continuous accumulation of wealth and possessions without considering the social or environmental impacts of their daily activities, yet an increasing minority is attempting to limit the negative impacts of their consumption practices in favour of more “sustainable” lifestyles. Frequently, people who decrease their earnings and the material dimensions of their lives experience improvements in overall quality of life. While all actions taken by households to reduce environmental impacts may not always be effective (such as the perceived benefits of recycling or buying more so-called “green” products), concerted attempts to identify alternatives to the mainstream fascination with consumer culture are becoming increasingly pervasive. Examples of these tendencies to seek out and foster more sustainable lifestyles are being advanced in academic debates and being pursued in communities, policy arenas, and the private sector.

If our global society is seeking a more equitable sharing of global resources, the challenge may be less about better environmental management and more about finding ways to bridge between the scientific and practical knowledge that already exists about sustainable lifestyles, what experiences are already taking place in practice, and mainstream consumption practices. A key concern of this workshop is to understand how existing trends can be explained and illustrated both theoretically and empirically, as well as how experiences and insights from one context can be brought to others, thereby spreading more sustainable ways of living across communities and cultures.

## ***The challenges this presents***

One main challenge for understanding how more sustainable forms of consumption come about is theoretical and relates to the way that existing changes in consumer behaviours and practices can be explained. Until recently, the vision of the individual consumer driven by rational decision-making processes has dominated the policy arena, drawing from natural sciences, cognitive science, psychology, and mainstream economic approaches to understanding human nature. Today, more emphasis is being placed on shifting the focus away from so-called individual consumer choices towards new research approaches, including social practice theory, institutional and ecological economics, and the study of innovation in sociotechnical systems. How to shift cultural sensibilities to favour intrinsic values is also being debated (e.g., sense of community, affiliation and self-development) to identify pragmatic ways to move away from materialistic values that are predominant in modern global consumer society.

The second challenge is in uncovering what nudges or levers could help duplicate existing efforts that have proven successful in reducing consumption patterns. In the policy arena, carrot-and-stick-thinking remains dominant. Based on rational choice models, it is assumed that information combined with monetary incentives or disincentives suffice to support more sustainable consumption. Policy makers face the challenge of balancing consumption reduction with concerns about harming key industries or compromising gross domestic product. It may therefore come as no surprise that little progress has been made thus far on the policy front: the growth credo is still intact, now fashionably gowned in “green”. Yet certain initiatives launched and supported by the public sector, NGOs, and private interests have also been effective in facilitating incipient sustainability transitions, whether through reconfiguring infrastructure and city services, or introducing new technologies and engaging with community advocacy groups. There are, however, lessons that remain to be learned about how successes in one city or region

might be translated to other geographic contexts. Insights can also be gleaned beyond Europe, looking eastward and southward to so-called developing countries and emerging economies.

### ***The goal and main theme of the workshop***

This workshop aimed to explore how we can better comprehend existing changes towards more sustainable forms of consumption, as well as how such efforts could be replicated across different communities and cultures. We took a broad reading of “communities and cultures” to include varying geographic and social contexts, but also different types of interest groups, from the business community to civil society, from households to the public sector. We are additionally confident that useful insights can be gleaned from different consumer segments, not solely the middle classes but “bottom of the pyramid” consumers or the elites as well. The question of power is also highly relevant here. This workshop therefore benefited from contributions that shed light on learning processes and collaboration experiences that bridge between different types of groups—from everyday people to political leaders, researchers and the business sector.

# Chopsticks, fingers, forks and knives: Individual cultures in the context of global consumption

## A summary of inspirational, introductory stories

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Eating is a central element of most societies - everyone needs food – yet it is produced and appreciated in a variety of ways.

In Mankon, Cameroon, the food would come mainly from the subsistence family farm, supplemented by meat traded by barter with a hunter or the village butcher. In Boston, USA, most items on the table would come from a supermarket; to save time, some of them would be pre-cooked before being brought home. In Ganpatipule, India, I sat on a fallen tree trunk in the host's compound and used my hands to eat rice and curry, served on banana leaves. In Tokyo, Japan, my hands ached for the first two weeks but, thanks to my colleagues, in restaurants after work I eventually learnt to appreciate my noodles, using chopsticks to slurp them in. In Freising, Germany, the choreographed elegance of the fork and the knife allowed me to enjoy my steak.

In all these varied contexts, food consumption is a cultural and social affair, not an individual function. To approach sustainable consumption through changing individual actions is to dislodge it from everyday reality.

Perhaps behaviour in relation to food is indicative of the differences in perception we have towards consumerism. In Kyoto, Japan, the *motainnai* - "waste not" - culture means it is rude to serve more food than one can finish; empty your plate and you are a wonderful guest. In Beijing, China, to empty your plate means you're still hungry, obliging your host to serve more until there are leftovers; a generous host would serve you all your needs and more. In Hanoi, Vietnam to have imported food on your table shows your status and calls for admiration. In Kiskunfélegyháza, Hungary, to have a slice of the local mangalica pork on the table and a bottle of palinka, the local schnapps, couldn't make you any more enviable.

As the consumer society sets in, the leaves that were used in serving food in traditional feasts are now being replaced by disposable plastic plates; chopsticks are no longer enough, worldly sophistication and consumerism must be shown through a mastery of the fork and the knife; meat is no longer a reward for a fine hunt, and the butcher is giving over to the meat farmer.

Our narratives of consumption are almost always backed by numbers and graphs. We need chapters of story-telling, zoomed in pictures of idiosyncrasies, understanding of emotions and sentiments, only to begin to understand why cultures are so persistent, and ironically consumerism seems to be encroaching mercilessly.





# **Structures in Communities**

# Food Consumption Habits and Urban Allotment Gardens: Case Study of Riga, Latvia

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## ***Introduction***

One of the defining elements of the concept of sustainable development is “needs” (WCED, 1987), and not “wants”. In Maslow’s pyramid, food is defined as one of the primary needs (Maslow, 1954). Similarly, sustainability can also be considered as being synonymous with self-sufficiency, which with respect to food means locally grown food (e.g. food miles (Paxton, 1994)) or self-grown food.

Ecovillages are places where sustainable living is brought into everyday practice. (Trainer, 2000). One of the central the overarching goals of ecovillages is creation of sustainable community – a balance across environmental, social and economic realms (Mapes and Wolch, 2011). In relation to the issue of consumption this entails growing food as much as possible within the community bio-region (Global Ecovillage Network, s.a.).

Regarding research on local food Franklin (Franklin et al., 2011) indicates that the local food movement also has its detractors; in particular it is claimed these activities disregard the needs of low-income consumers (Hinrichs 2000). Often, these critiques have centred on the argument that the vast majority of local food initiatives appeal only to those with the financial means to participate. As a result, these initiatives have been labelled as elitist, exclusive, and inequitable (Delind 1993, Hinrichs 2003, DuPuis and Goodman 2005). Growing some of your own food addresses the previous concerns –self-grown food is local and financially feasible for everyone who is willing to invest time and labour and has land available. Additionally, research on sustainability in small towns defines four key elements: food, organic, slow; environmentalism; entrepreneurship and creativity (Mayer, Knox, 2010).

Since the “garden city movement” family allotment gardens have been the traditional place in cities to grow food, especially by the less well-off members of society (Mumford, 2007; Rutherford, 2004; Mougeot, 2006; Deelstra & Girardet, 2000). In recent years urban gardening has been included as an aspect of ecological and urban sustainability strategies (Mendes et al., 2008). Urban gardening is now used as an innovative element of urban regeneration schemes (Lovell, 2010). Furthermore, urban gardening reduces reliance on processed and imported food thereby reducing social, environmental and economic costs related to transportation (9 billion £/year in Great Britain (AEA Technology Environment, 2005)).

In several cities urban gardens (most often communal gardens) are used to foster social inclusion and environmental regeneration and are included in neighbourhood development strategies (Glover, 2003). However, elsewhere and, particularly, in eastern Europe, over the last few decades undeveloped urban land, including urban allotment gardens, have been under increasing development pressure.

At the same time, in assessments of urban sustainability, for example, using the European Common Indicators, sustainable consumption is measured on the basis of the application of sustainability management schemes and standards, as well as the energy efficiency of appliances (A+; A++) and the purchase and use of environmentally friendly products (EC, s.a.). In relation to



food these measures in no way reflect the contribution of local food or self-grown food to urban sustainability.

In Latvia, especially in medium and small towns, it is still quite common to grow food in home gardens or in allotment gardens and to prepare jam and vegetable preserves for the winter. However, as an urban lifestyle and the pursuit of a “western” standard of living increasingly becomes the norm, allotment gardens in Riga and other cities in Latvia are being rezoned for commercial development. New supermarkets complexes are becoming the prime supplier of a wide range of largely imported foodstuffs to consumers, but provide a very limited selection of locally produced fresh food.

The goal of the research was to probe food consumption habits and use of allotment gardens in the context of urban sustainable consumption and self-sufficiency.

## ***Research Context and Methods***

The research was undertaken in Riga, the capital of Latvia, and consisted of two parts: a study of allotment gardens through an analysis of development planning documents and a survey of allotment garden users.

An analysis was undertaken of policy and development planning documents and archival material to identify changes in land use policies, plans and practices in relation to green space use, including allotment gardens. Changes in allotment garden land use during the last century were documented.

### **Distribution and Classification of Allotment Gardens in Riga**

In Riga there is a three tier classification of allotment garden leases: short term (1 year lease); medium term (2-3 year lease); long term (4-5 year lease). Data presented here are based on 2011 lease agreements.

Additionally, there are two other classes of allotment gardens: unsanctioned allotment garden territories (allotment gardens that have lost their official status, but are still used or allotment gardens that have been created without official approval, and allotment garden territories with an unclear status (allotment garden territories that are not under the jurisdiction of the municipal government) within the jurisdiction of the Freeport of Riga or that are located on private property. Some of these allotment gardens have legal status (i.e. a lease agreement is signed with the landowner or the institution that manages the property), but a majority of allotment gardens, for various reasons, are used without official approval (the land manager or landowner does not intend the land to be used for allotment garden purposes or allotment garden users themselves do not wish to sign a lease agreement, to avoid paying a rent).

Other territories have an unclear status as insufficient data is available to make a clear determination or the allotment gardens are distributed randomly and thus do not demonstrate a clear grouping of allotment gardens. The largest group of allotment gardens with an unclear status is located in the territory of the Freeport of Riga and lands reserved for the Freeport of Riga. One year leases are signed with these allotment garden users. However, not all allotment garden users sign leases with the Freeport of Riga and thus they use allotment gardens without charge.

## **Interviews**

Structured interviews were conducted with allotment garden users to identify allotment garden uses and characteristics, allotment garden values and issues that hamper use. The structured interviews were based on a written questionnaire. The interviews were carried out in allotment gardens. Respondents were selected using a stratified proportional random approach. In each

allotment garden territory, 5-10 allotment garden users were interviewed, the number of interviewees being proportional to the total number of allotment garden plots.

The target group for the interview was persons 15 years and older who use allotment gardens for recreation, have lease agreements or use allotment garden belonging to relatives or friends or use allotment gardens unofficially. A total of 206 people were interviewed. The interviews were undertaken between 15 July 2012 and 07 September 2012.

Structured interviews with residents of Riga that do not use allotment gardens were undertaken with the goal of understanding attitudes towards allotment gardens and functional values of allotment gardens, as well as the reasons why people may not use an allotment garden.

Respondents were selected on a stratified proportional random basis. Interviews were undertaken in seven neighbourhoods. Selection of respondents was based on the area of green space per person based on the Riga Development Plan (2006-2018) map titled "Public natural vegetation and plantings per one inhabitant" and their location in relation to large green space areas.

Neighbourhoods with differing characteristics in relation to the previously mentioned variables were selected. In each neighbourhood 30 residents were interviewed - in total 210 persons. The target group was persons of 15 years and older that live in multi-story residential dwellings, who presently do not use an allotment garden. Persons that do not use allotment gardens because their allotment garden was liquidated were not interviewed. The interviews were undertaken between 10 September 2012 and 02 October 2012.

## **Survey**

A survey was undertaken among residents of Riga to understand food consumption habits of different generations. The survey was posted on [www.facebook.com](http://www.facebook.com) and [www.draugiem.lv](http://www.draugiem.lv). The survey was active between 04 January 2013 and 18 April 2013.

Following the receipt of responses those age groups for which data was under-represented were supplemented through a process of random selection. A total of 124 responses were received. The number of responses received per age group was as follows:

- age group 15-20 years old, 25 respondents or 20% of all respondents;
- age group 21-40 years old, 52 respondents or 42% of all respondents;
- age group 41-60 years old, 20 respondents or 16% of all respondents;
- age group 61-80 years old, 18 respondents or 15% of all respondents;
- age group +80 years old, 9 respondents or 7 % all respondents.

Although the total number of respondents and the number of respondents in each group is relatively small to generalize about the overall food consumption habits of residents of Riga, nevertheless the received responses do show trends which can be verified in a statistically significant survey.

The results of the present survey have not been compared with similar surveys elsewhere. Until now research on this thematic has been very fragmentary and sporadic and this is the reason for the initiation of the European COST Action TU1201 "Urban Allotment Gardens in European Cities – Future, Challenges and Lessons Learned" to ensure research in this domain is more coordinated and can contribute to better urban policy-making.

## Results

### The Development Trends of Allotment Gardens in Riga

In Riga, between 1995 (population 840 000) and 2011 (population 700 000), the number of allotment gardens decreased by 30%, from 32 000 to 9782. This was related to land privatization and denationalization and rezoning of land for development purposes. In 2011 the total area of allotment sites was 329 ha. There were 33 allotments per 1000 households (Figure 1).

Due to spatial marginalization of allotment sites towards the administrative boundary of Riga allotments are becoming less accessible particularly to those who most wish to use them. The policy of the municipality to lease allotment gardens on the basis of short-term agreements (in 2011 53% of allotment plots had a 1 year lease agreement) has decreased allotment garden use. Furthermore, it has taken away motivation from allotment users to have a long-term view with respect to use and upkeep. As a result, many former allotment garden users have stopped using their allotments and increasingly allotments are inadequately maintained and are seen as degraded territories by the wider community. Decreasing use of garden plots within allotment garden communities and, for example, reduced maintenance of perimeter fencing is increasing security concerns (personal and property) for remaining allotment users. Low user-ship (in some cases only 3% of all allotment plots in an allotment community are leased), combined with security concerns, in turn, increasingly discourage potential users. However, demand for allotment gardens in centrally located allotment garden communities remains high.

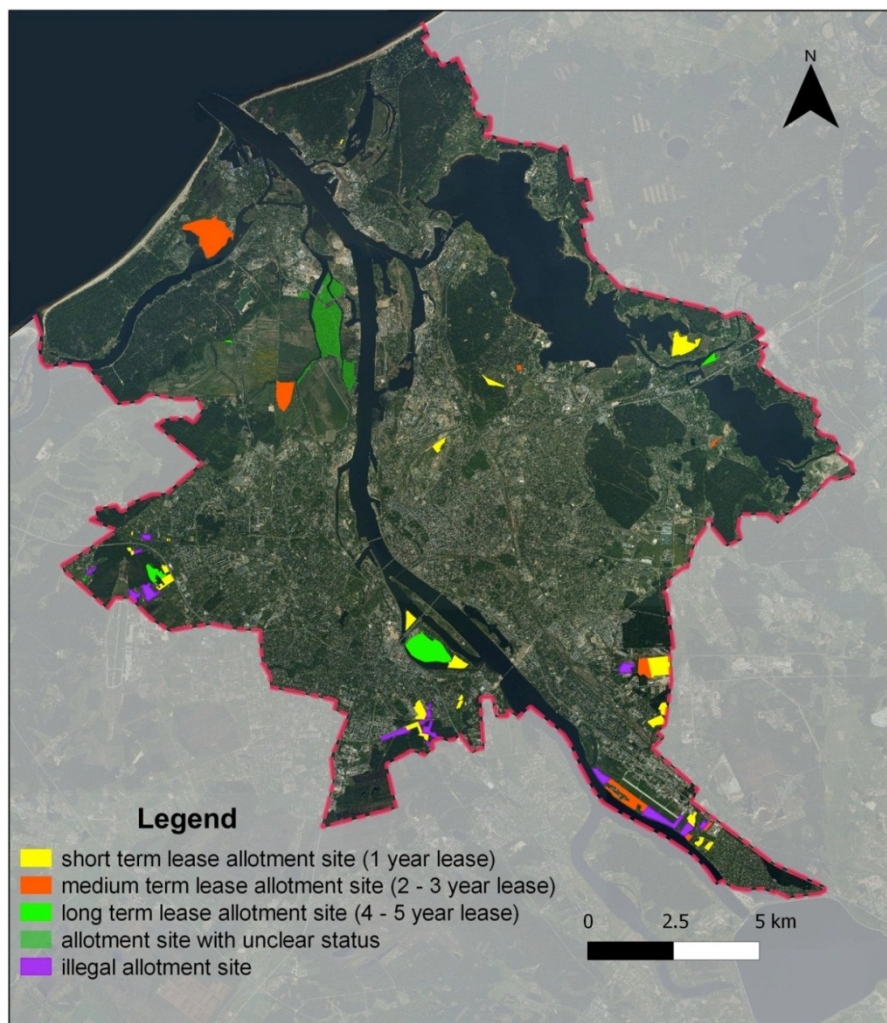


Figure 1: Distribution of allotment gardens in Riga in 2011.

Urban residents of Riga still use allotment gardens to grow produce. However, recent land use policy and planning decisions, which give preference to redevelopment of allotment garden territories coupled with the negative effects of short term allotment leases, are increasingly eroding this longstanding tradition.

The results of the survey of allotment garden users in Riga in 2011 show that the main benefits of allotment gardens as seen by users are the provision of self-grown fresh produce, being in the outdoors and in contact with nature and the opportunity for active recreation within the city. Allotment gardens are particularly important for people living in multi-storey apartment buildings, families with children, residents with low incomes and persons with limited mobility (the disabled and persons with health problems). Urban gardening is very popular amongst seniors.

Figure 2 illustrates the proportion of self-grown produce in the total food consumption during the summer season. For 46% of respondents self-grown produce constitutes more than 50% of their consumed food during the summer season. For 1/5 (21%) of all respondents home-grown produce constitutes 5% - 15%, for 17% of garden users self-grown produce and fruit constitutes 45-55%, for 11% garden users between 25-35%, but for 10% of respondents self-grown produce does not exceed 5% of consumed food. All those respondents who do not eat self-grown produce have only very recently started to use an allotment garden – less than one year ago.

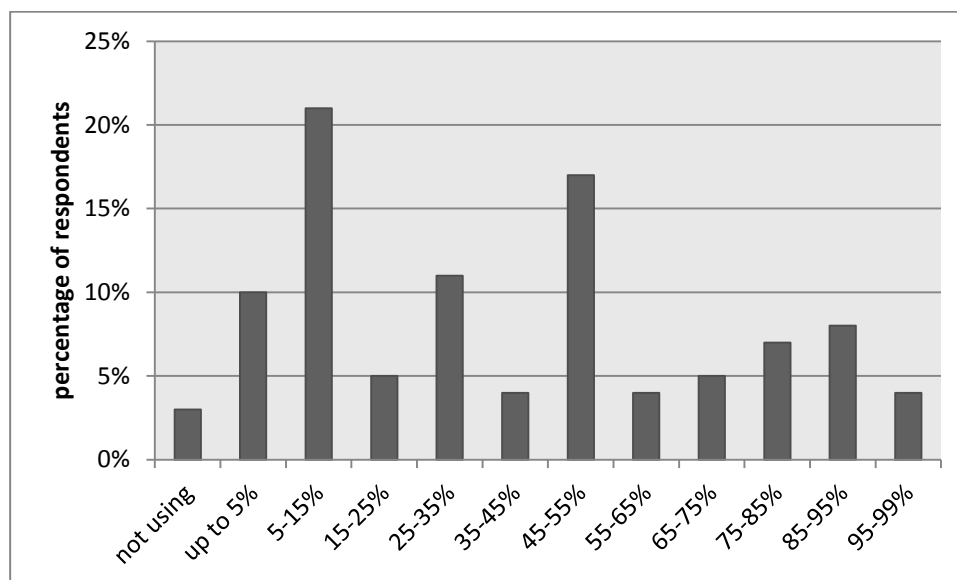


Figure 2: The share of self-grown produce in total food consumption in summer season

Urban gardening provides benefits not only to gardeners, but to the whole community. The majority of respondents who are not allotment garden users have a positive attitude towards allotments. According to survey results, the main reasons that make allotments unattractive to potential users is poor accessibility of allotments (35% of respondents) and short-term lease agreements (5,6%) as shown in Figure 3. The majority of respondents believe that existing allotment areas should be preserved, but under the condition that allotments are better maintained to improve their outward appearance.

Almost half the respondents indicate that the reason for not having an allotment garden is due to the existing obstructive policies of the municipal administration towards allotment gardens. Making city development planning more supportive of allotment gardens would serve to encourage both former and potential new users.

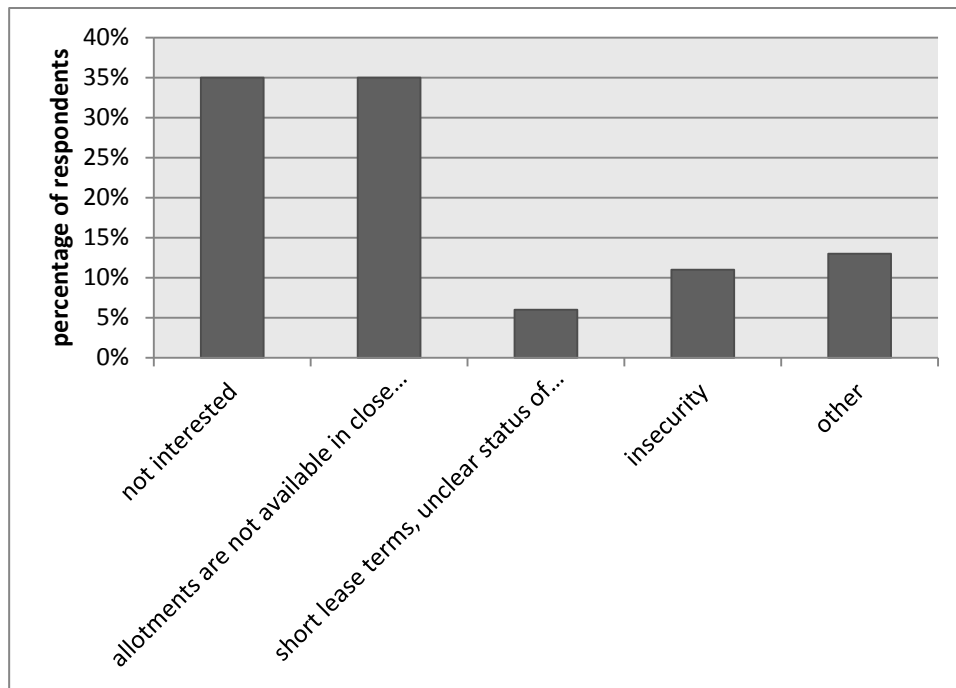


Figure 3: Reasons for not using an allotment garden

### Food Consumption Habits in Riga

The survey of Riga residents regarding their food consumption habits shows that local food is an important criterion for a majority of respondents and increases with age (Figure 4).

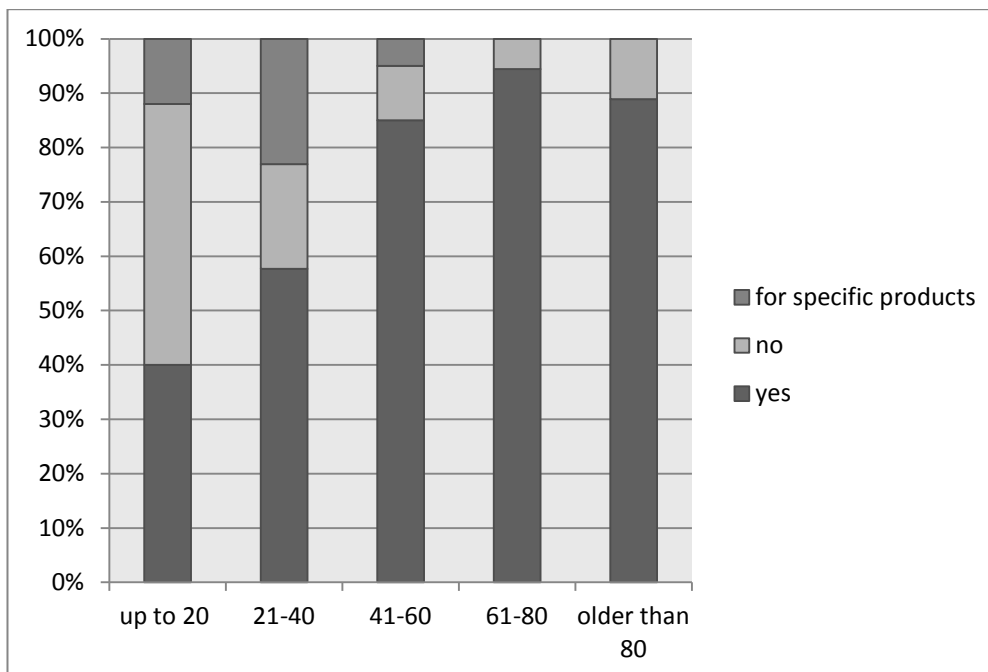


Figure 4: Source of food as a food selection criteria

In relation to the purchase of food products younger people typically buy food in supermarkets, small shops and ecoshops, which in Latvia carry a minimum selection of local food. On the other hand older residents more often buy food from traditional markets and directly from farmers (Figure 5). Purchasing food products at traditional markets, including meat, fish, fruits and

vegetables does not guarantee that they are of local origin. Dairy products are an exception. Customers wishing to purchase locally grown food at traditional markets must be aware of this fact and need to purchase their food carefully. The reason for such dishonesty on the part of vendors sometimes stems from the fact they know local products are valued, but products from elsewhere in Europe sometimes have a much lower wholesale procurement price than Latvian products due to farmers in Latvia receiving smaller EU subsidies.

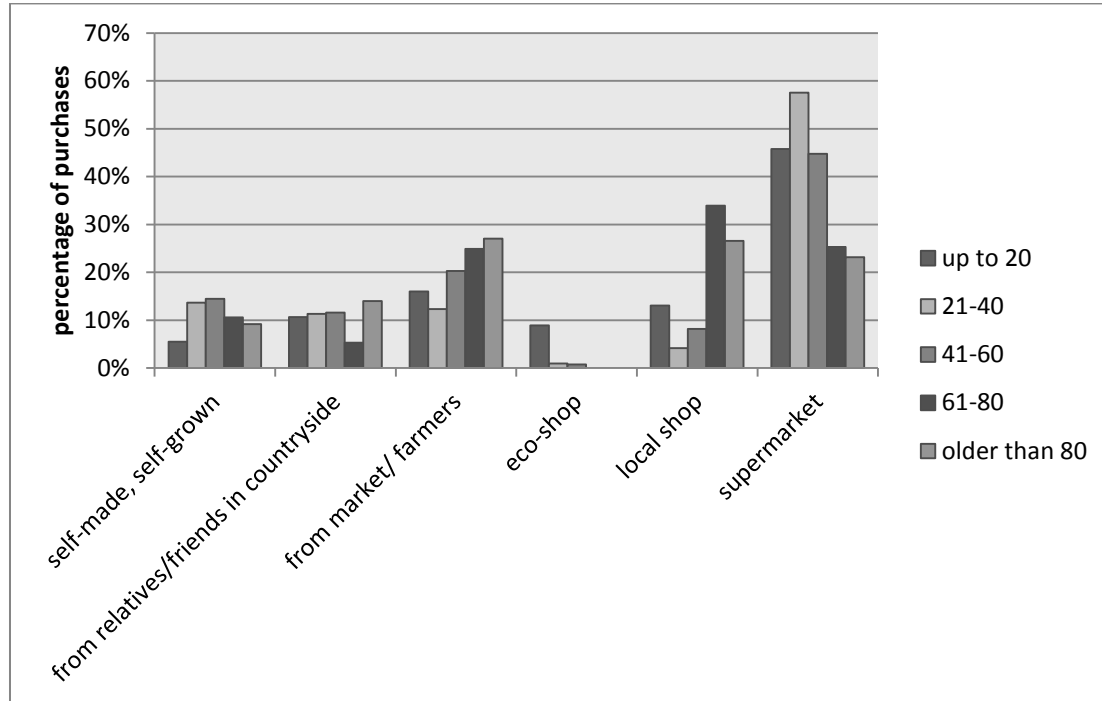


Figure 5: Food purchasing habits of different age groups.

Table 1 shows the sources of food products. It should be noted that a significant portion of some products are self-grown or obtained from relatives living in the countryside. Most frequently products such as dairy products, bread and cereals and eggs are purchased in supermarkets, whereas honey is typically obtained from local producers. A significant number of respondents (40-47%) indicate that fruits and vegetables are self-grown. The tradition of preparing jams and vegetable conserves for the winter is still practiced by 38-47% of respondents in Riga.

Table 1: Sources of different food products

	Self-made/ self-grown	From relatives/ friends in country- side	From market/ farmers	From eco- shop	From local shop	From super- market
fruits, berries and jams	47%	37%	37%	6%	13%	52%
vegetables	40%	35%	45%	6%	11%	48%
canned vegetables	38%	20%	6%	1%	7%	52%
honey	16%	46%	40%	5%	4%	9%
fish	10%	10%	46%	2%	6%	48%
eggs	6%	15%	20%	4%	20%	68%

	<b>Self-made/ self-grown</b>	<b>From relatives/ friends in country-side</b>	<b>From market/ farmers</b>	<b>From eco-shop</b>	<b>From local shop</b>	<b>From super-market</b>
sausages, meat products	6%	2%	27%	2%	18%	60%
meat	4%	6%	43%	3%	16%	50%
bread and cereals	3%	2%	9%	5%	27%	78%
dairy products	1%	2%	23%	3%	27%	81%

## ***Discussion and Conclusions***

Results from a comparable study undertaken in a residential neighbourhood in the town of Cesis in Latvia (pop. 16500) reveals that 77% of those surveyed have a garden next to their house that they use to grow produce and that 4% of respondents grow produce in a garden located elsewhere. 50% of those that grow some of their own food indicate that they do so because they can rely on the quality, whereas 40% indicate that homegrown food is cheaper (Treimanis, 2011). Results of a survey undertaken in 2010 in the village of Malpils (pop. 2000) indicated that 82% of respondents grow some of their own food, 72% of surveyed households prepare jams, 67% grow vegetables for consumption in the winter and 65% prepare vegetable conserves.

It should be pointed out that in the same survey in Malpils in response to a question on sustainable consumption in the context of the European Common Indicators 41% of respondents indicated that they are not interested in purchasing sustainable products which was explained by a lack of information, insufficient justification and the higher cost of these products (Murasko, 2010). This suggests that growing your own food is viewed as part of a way of life or an economic necessity without really recognizing the relevance or contribution of their actions to global sustainability. On the other hand sustainable products are oriented to consumption and do not provide an opportunity to reflect self-provision of food or the contribution of local food products to sustainability.

In the future, in the context of the COST Action TU1201 „Urban Allotment Gardens in European Cities – Future, Challenges and Lessons Learned”, the results of the present study regarding allotments will be compared with results from similar studies elsewhere in Europe.

In Latvia, the tradition and practice of tending allotment gardens and self-provision of food are comparable with the principles of food self-sufficiency of eco-villages and also indicates the existence of good “capital” for implementing sustainable consumption which should not be lost. The municipal administration of Riga has a crucial role to play in ensuring that long-term policies to support allotment gardens are enacted, including measures to improve the overall quality of allotment gardens and to satisfy demand for allotment gardens close to users.

Although the survey of eating habits of residents in Riga does not yield statistically significant results, it does provide meaningful insights regarding certain aspects of food consumption. Residents prefer self-provision or locally produced food such as honey, fruit, berries and preserves, as well as vegetables and vegetable conserves and fish and meat. The source of food products is a more important consideration for older residents. As 70% of respondents in the survey of eating habits in Riga indicated that they had allotment gardens, which is very high, a supplementary survey is required with a much larger sample to confirm actual allotment garden usage and to better understand the eating habits of those residents that do not use allotment gardens.

Presently, self-provision of food, consumption of locally produced food and accessibility to allotment gardens are not used as criteria in existing sustainability assessment frameworks such as the European Common Indicators and the EU Sustainable Development Indicators. Furthermore, the EU Sustainable Development Indicators and the Sustainable Development Indicators of Latvia are oriented to growth and less to self-sufficiency (EC, 2009; LR Saeima, 2010).

In the EU and Latvia sustainable development indicator sets a reduction in consumption is frequently interpreted as a negative trend thus making the overall vision regarding resource consumption misleading. As long as GDP as a major indicator for macro-economic activity does not reflect environmental sustainability and well-being and society does not adequately value natural and human resources and until more comprehensive indicators are developed which better take into account social and environmental aspects, striving for economic growth will be the main cause of resource overconsumption (Abolina et al., 2011).

The introduction of indicators related to self-provision of food and consumption of locally produced food into official statistics could act to motivate policy-makers in Riga to view allotment gardens and self-provision of food not simply as a historical residual of "backwardness" and a solution to be invoked during times of crisis, but as an indicator of sustainable consumption wherein Latvia could demonstrate good performance. In the long-term this issue is of importance since for young people local food is becoming a non-issue.

## ***Overall conclusion***

In Latvia, the tradition and practice of tending allotment gardens and self-provision of food are comparable with the principles of food self-sufficiency of eco-villages and indicates the existence of good "capital" for implementing sustainable consumption which should not be lost. Increased policy support for local food production and urban allotment gardens would contribute to sustainable consumption including self-sufficiency.

## ***References***

- Abolina K., Kazerovska K., Zilans A., Klavins M., (2011). Monitoring Resource Consumption and Anthropogenic Substances in the EU and Latvia, Management of Environment Quality No. 6, Vol. 22
- AEA Technology Environment (2005). The validity of Food Miles as an indicator of sustainable development: final report. Department for Environment Food and Rural Affairs. Available at:  
<http://archive.defra.gov.uk/evidence/economics/foodfarm/reports/documents/foodmile.pdf>
- Deelstra, T., Girardet, H. (2000). Urban agriculture and sustainable cities. In: Bakker et al. (eds.) Growing cities, growing food, urban agriculture on the policy agenda. Feldafing, DSE, 99–117
- Delind, L.B. (1993). Market niches, "cul de sacs", and social context: alternative systems of food production. Culture and Agriculture, 13 (47), 7–12
- Dupuis, E.M. and Goodman, D. (2005). Should we go "home" to eat?: toward a reflexive politics of localism. Journal of Rural Studies, 21 (3), 359–371
- European Commission (2009) Sustainable development in the European Union: 2009 monitoring report of the EU sustainable development strategy (Brussels, European Communities), available at:  
[http://epp.eurostat.ec.europa.eu/cache/ITY\\_OFFPUB/KS-78-09-865/EN/KS-78-09-865-EN.PDF](http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-78-09-865/EN/KS-78-09-865-EN.PDF)
- European Commission (s.a.). European common indicators. Available at:  
[http://ec.europa.eu/environment/urban/common\\_indicators.htm](http://ec.europa.eu/environment/urban/common_indicators.htm)



- Franklin, A., Newton, J. and McEntee, J.C. (2011). Moving beyond the alternative: sustainable communities, rural resilience and the mainstreaming of local food, *Local Environment* Vol. 16, No. 8, Routledge, 771–788
- Global Ecovillage Network (s.a.). Dimensions of an Ecovillage. Available at: <http://gen.ecovillage.org/index.php/ecovillages/4pillarsofsustainability.html>
- Glover, T. (2003). Community garden movement. In Christensen, K. & Levinson, D. (eds.), *Encyclopedia of community*. Thousand Oaks, Sage Publications, 264 – 366
- Hinrichs, C.C. (2000). Embeddedness and local food systems: notes on two types of direct agricultural market. *Journal of Rural Studies*, 16 (3), 295–303
- Hinrichs, C.C. (2003). The practice and politics of food system localization. *Journal of Rural Studies*, 19 (1), 33–45
- Lovell, S. T. (2010). Multifunctional urban agriculture for sustainable planning in the United States. *Sustainability*, 2 , 2499 – 2522
- LR Saeima (2010) 'Latvijas ilgtspējīgas attīstības stratēģija līdz 2030. gadam' (Latvijas Republikas Saeima), available at: [http://www.latvija2030.lv/upload/latvija2030\\_saeima.pdf](http://www.latvija2030.lv/upload/latvija2030_saeima.pdf)
- Mapes J., Wolch J. (2011). 'Living Green': The Promise and Pitfalls of New Sustainable Communities. *Journal of Urban Design*, Vol. 16. No. 1, 105–126
- Maslow, A (1954). *Motivation and personality*. New York, NY: Harper
- Mayer, H., Knox, P. (2010). Small-Town Sustainability: Prospects in the Second Modernity. *European Planning Studies* Vol. 18, No. 10, Routledge, 1545-1565
- Mendes, W., Balmer, K., Kaether, T., Rhoads, A. (2008). Using land inventories to plan for urban agriculture: experiences from Portland and Vancouver. *Journal of the American Planning Association*. 74 (4), 435 – 449
- Mougeot, L. J. A. (2006). *Growing better cities: urban agriculture for sustainable development*. Ottawa, IDRC/CRDI
- Mumford, L. (2007). The Garden City idea and modern planning. In: Larice, M., Macdonald, E. (eds.) *The urban design reader*. New York, Routledge, 43-53
- Paxton, A. (1994). *The Food Miles Report: The dangers of long-distance food transport*. SAFE Alliance, London, UK. Available at: <http://www.sustainweb.org/publications/?id=191>
- Rutherford, H. (ed.) (2004). *Land use and society, geography, law and public policy*. 2nd edn. Washington D. C., Island Press
- Trainer, T. (2000). *The Global Ecovillage Movement: the Simpler Way for a Sustainable Society*. *Social Alternatives* Vol.19 No.3, 19-24
- WCED (1987). *Our Common future*. Oxford: Oxford University Press

### Unpublished works

- Murasko, A. (2010). Assessment of Malpils municipality sustainability using European common indicators (in Latvian). Bachelor thesis, University of Latvia
- Treimanis, A. (2011). Living Environment Quality Assessment of Rupniecības street neighbourhood in Cēsis town (in Latvian). Bachelor thesis, University of Latvia

# Curbing the Consumption of Distance?

## From practice theory to the empirical investigation of everyday travel

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### Abstract

People's everyday mobility both shapes and reflects a wide range of social practices. This paper contributes to current debates on sustainable mobility by critically examining the potential advantages and drawbacks of re-conceptualising everyday travel as a set of practices that involve the 'consumption of distance'. It argues that treating people's physical mobility as consumption, that is, as a socially and culturally significant practice with considerable economic and ecological impacts, opens up fruitful avenues for understanding prevailing patterns of unsustainability in the private transport sector. Initially, the paper proposes that an explicit focus on the linkages between consumption and physical mobility can address current gaps in social-scientific transport research related to the dominance of actor-centric models to human behaviour. Importantly, the consumption-centred practice approach to everyday mobility outlined in this paper is particularly sensitive to the interrelation of practices and their effects on people's action. This ability to capture the social situatedness of everyday travel such as commuting to and from work presents an important and promising departure from more conventional approaches to sustainable transport that currently dominate the transport policy arena in many European countries.

The second part of the paper draws on a recent case study of commuting practices among employees of a large organisation in the West of Ireland and their responses to a workplace-based intervention aimed at encouraging the adoption of more sustainable mobility practices. This research is part of large-scale EPA-funded project on consumption, environment and sustainability on the island of Ireland ([www.consensus.ie](http://www.consensus.ie)). Its results reveal the vital importance of people's social and material context for the adoption of new mobility practices. This in turn has significant implications for current transport policy in Ireland (and elsewhere), much of which remains wedded to changing individuals' behaviour through economic and technological tools. On a methodological level, the case study demonstrates how a meticulously operationalized practice-theoretical framework and its subsequent exposure to rigorous empirical scrutiny can provide new answers to long-standing questions regarding the nature of human behavioural change. The paper ends with some reflections on employing a practice-theoretical approach to the study of everyday mobility.

# **Monitoring and evaluating for sustainable communities: making meaning from diversity?**

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## **Abstract**

In the UK local community action has of late been positioned as playing an important role in fostering resilience to climate change and meeting national-level greenhouse gas emission reduction targets. Indeed, there now exist hundreds of local/community groups that aim to decrease collective resource consumption through diverse social and environmental interventions. While previous research into these groups has often focussed on barriers and drivers to action, there is now a growing interest in groups' capacities for, and uses of, monitoring and evaluation (M&E) processes and tools. In response, this paper discusses ongoing action research funded through the UK Higher Education Innovation Fund, which aims to co-produce M&E processes and tools with a sample of UK low carbon community and Transition Initiative groups. It outlines the challenges groups and indeed the 'movement' faces when attempting to understand and account for impacts. Specifically, it draws on debates about the need to scale-up and/or replicate 'niche innovations'—such as those being undertaken by some community groups—critically examining the feasibility of these arguments through the lens of M&E.

# Discussant Contribution

## Structures in Communities

*Anna Davies*

The three papers in this session addressed divergent issues of mobility, food growing and low carbon communities. They also focused on different issues related to the challenges experienced by experimental interventions in sustainable consumption niches. Heisserer and Rau addressed the conceptual frameworks that might help understand current practices of [un]sustainable consumption in the mobility arena through the operationalization of a 'practice' lens; Abolina et. al., explored the decline of sustainable practices in terms of local food growing in cities, while Hobson et al. focused on the challenging issue of how to indicate the worth of community-based contributions within the low carbon arena.

Despite the different sectoral and conceptual foci of the papers three common themes can be distilled for further investigation. These are:

- the **spatiality** of the activities undertaken in the name of disrupting unsustainable practices of supporting already sustainable practices – the fields of possibilities outlined by Heisserer and Rau, the spaces for growing in Abolina et al., and the communities of practice in Hobson et al.
- the ongoing processes of **negotiation** that pervade all such experimental and provisional interventions through attempting to catalyse modal shift, or access and availability of locally sourced food, or mechanisms for communicative action within low carbon communities
- enduring and persistently **uneven patterns of power** and influence to **govern** changes within the contexts of mobility, food growing and low carbon communities, including the ways in which governance in these areas of practices are multiscalar and multisectoral in their expression.

Ultimately, all papers speak to tricky questions of how to support the positive, but also sometimes only provisional, shifts in consumption practice that interventions can illicit. Does the practice lens, which reveals the complexity of shaping forces affecting what we do and how we consume, provide any pointers for transitioning to more sustainable pathways? What can be done to activate younger generations to engage in the grow-your-own cultures of the older generations? How should the impact of low carbon communities (that goes beyond reduction in carbon dioxide emissions to include improving social cohesion, community capacity and even self-worth) be captured and communicated?

# Discussion Report

## Structures in Communities

*Skaidrite Dzene*

### ***Emerging general topics***

Throughout the discussion, various statements were made about the importance of policy intervention to foster more sustainable practices. It was argued that sustainable consumption ideas should involve low or no costs. S. Lorek pointed out the challenge of getting good ideas and initiatives to the market. M. Sahakian emphasized the importance of understanding value systems and their measurement. B. Tuncer raised the question of how to break barriers or enforce motivators for more sustainable consumption. The scaling-up and scaling-out of promising policies and practices were important issues throughout the discussion.

### ***Main discussion points on the paper by Abolina et al.***

The author started the presentation with the rhetoric question, why Latvians would need to learn about allotment gardens from western European countries such as the United Kingdom, when this tradition has existed in Latvia for a long time already. However, the tradition to grow fruit and vegetables in allotment gardens is no longer widely established. The fact that sustainable development indicators in Latvia do not include self-efficiency is seen as one of the main political barriers to strengthen allotment gardens. The author stated that the only stakeholders researchers are communicating with are municipalities but there is no communication with policy makers. Researchers are asked by municipalities to do research proving to the government that the development of allotment gardens is valuable and that people are ready to work for free in their garden. In general, the self-provision of food is seen as something of value. M. Csutora commented that nowadays in Hungary it is a new and positive trend to have self-grown food. L. Akenji added that, in Japan showing a connection to the land is valuable.

Asked about systemic policy interventions, the author stated her preference in avoiding big systems, arguing that the most important goal should be that people are content with what they do and how they spend their time. Her Hungarian colleague asserted that it is important not to be dependent on big systems.

A. Davis underlined the importance of communication between generations to learn knowledge and skills from previous generations, who in the Latvian case were more prone to growing their own food.

### ***Main discussion points on the paper by Heisserer and Rau***

The problem tackled in the paper is: how to move away from current consumption patterns in the mobility domain through a social practice theory approach? The dominant commuting practice in Ireland is car-based and the car is seen as the only viable means of transportation to meet daily mobility needs. What people do and what daily routines they

engage in depend on their social context. There is a need to move away from individualism, taking into account that the concept “one size fits all” is not working.

The author remarked that to move from theory to practice is the major challenge. It is important to understand practices as the performance of particular tasks for need fulfilment and this is well reflected in this study.

Asked about policy makers’ involvement in the research, the author explained that the main actors included were students and the business sector. However, there was interest from policy makers to be involved as well.

For this kind of project, longitudinal research is important and ideally community engagement would be part of the process. Unfortunately, project funding was only available for research but not for engagement.

### ***Main discussion points on the paper by Hobson et al.***

The author began by emphasizing that the work presented is part of a knowledge exchange project with the aim of working with local community transition networks, focused on energy issues. The research will continue in June and July 2013, after which more information will be made available. In the United Kingdom, hundreds of diverse local/community groups exist with the aim of decreasing collective resource consumption through diverse social and environmental interventions. The focus of the paper was on monitoring and evaluation processes, or more specifically how Low Carbon Community Groups can begin to gauge their impact, not only based on electricity consumption but also less tangible goals, such as group learning. One issue that was raised was how communities felt that policy is developed without community consultations, resulting in policy decisions based on rather limited information.

A. Genus asked about what kinds of norms were being developed within the practices of these communities, and M. Sahakian suggested that these norms might be difficult to quantify and qualify. This led to a discussion around the need to understand regulatory aspects across cultures, including policies, but also values and norms. There was also some discussion around the need to better network between transition towns. The author stated that it is difficult to measure socio-cultural impact and that researchers will have to strike a delicate balance between understanding local values, while not wanting to influence them.

# III

**Values &  
Visions**

# Are Green Consumers Happier Consumers?

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## Abstract

Previous research indicated that life driven by intrinsic values tends to be more fulfilling than life driven by material values. Green consumerism can be regarded as a special case of 'modern life spirituality', which may be chosen not just for the sake of the environment, but also for the feeling of „doing good”. Thus, green consumption may involve voluntary sacrifice and mental payback at the same time. The paper scrutinizes the association between subjective wellbeing and pro-environmental consumer behaviour. Empirical results are based on a representative survey of 1012 respondents. Our findings indicate that green consumers are actually happier than those not acting green. Thus green consumerism is likely to contribute to subjective wellbeing. The level of confidence in behaving in an appropriate way, as well as potential financial gains also matter. Results can provide a valid basis for further studies on the main predictors of a happy, satisfied and sustainable life.

## Introduction

A number of researchers suggest that spiritually or intrinsically motivated people, on average, have higher subjective wellbeing than those not believe in such values. (Colón-Bacó 2010, Diener 2002b) Acting on personal beliefs, making a positive difference in the world can be regarded as sacrifice by some, but seems to be a precondition to live a fulfilling life for others. You don't need to be religious, though, in order to enjoy such personal benefits. “Doing good”, acting on “personal beliefs” can be regarded as wider sense spirituality, requiring sacrifices on the surface, but offering spiritual compensation in the deep.

Kasser et al. (1995), Kasser and Ryan (1996), as well as Ryan et al. (1999) claim that intrinsic goals and motivation reveal a higher level of wellbeing than extrinsic drivers (see also Rijavec et al. 2006). They also point out the possible destructive nature of financial goals (Nickerson 2003) that belong to extrinsic drivers. In a large sample representative empirical survey Martos and Kopp (2012, p.566) found that while the orientation toward extrinsic goals may contribute to the present mood and satisfaction, they may bring along personal costs in the long run. In case of „meaning of life”, importance of negative aspirations proved to be a negative predictor of happiness. In contrast, the pursuit of intrinsic life goals may indiscriminately support wellbeing (Kasser 2002).

Green consumerism can be regarded as an intrinsic goal, a special case of modern life spirituality, which may be chosen not just for the sake of the environment, but also for the feeling of „doing good”. Although it cannot replace all functions of traditional spiritualism, including social support, belief, set of rules, etc., it can still lend meaning to life. Thus, sacrifices made for the environment in terms of green consumption does not inevitable reduce subjective wellbeing.

Consequently, we can suppose that green spirituality may be a significant factor also in sustainable lifestyles as the psychological need of “doing good” obviously results in more sustainable attitudes and actions while strengthening the confidence of the individuals to



behave in an appropriate way. Higher level of that confidence may reflect in higher level of future commitment to further pursue a pro-environmental lifestyle. On the other extreme, misinterpreted rational thinking assumes following materialistic self-interest and does not allow for “doing good” without compensation. This way it might accelerate ecological degradation, by giving preference to consumer society and a highly materialistic culture.

Pro-environmental behaviour is sometimes used as a proxy for sustainable consumption. Brown and Kasser (2005) studied the link between ecologically responsible behaviour and subjective wellbeing. They found that people living according to voluntary simplicity principles have lower ecological footprint and higher level of life satisfaction. Their sample was, however, very limited and specific (200 middle- and high school Caucasian students in the US). Veenhoven (2004, p.1) suggested that “a shift to sustainable consumption involves a minor reduction in happiness, at least, temporarily, but that we can live quite happily without that luxury”. He found that heavy energy users were happier in the Netherlands; however, he admitted that the association between the two variables proved to be weak with high variance. Csutora (2012) found that although “green” consumers not necessarily show up a reduced footprint compared to “brown ones”, the former are definitely happier than the latter. Thus green consumption may indirectly increase the subjective wellbeing per footprint ratio as it contributes to the increase of subjective wellbeing at an assumed level of footprint. The discussion, however, halted with this single statement and did not go further in analysing the link between life satisfaction, happiness and consumption patterns. Life goals and values do matter, resulting in varying levels of subjective wellbeing with the same level of ecological footprint.

Nevertheless, in a consumer society it is not evident how consumption is linked to the deeper meaning of life. Consumer society lends strange “spiritual” meaning to consumption. As Hankiss (2005, p. 160) describes this phenomenon:

*The vast internal space (interior) is the target of our weekend, as the church functioned for our predecessors. The shopping center is the perfect human world, our own universe, internal and intimate space, which is defended by not only a cupola and the walls but also the concentric galleries, shop windows and shops, full with everything what is desirable, seductive and familiar in a man-made world. The “constant flow of attraction” surrounds us with a safety sphere woven of colors and lights. In this world there is no show and sleet, no rainstorm and drought, no winter and summer, day and night; nothing reminds us of painful caducity.*

Peterson et al. (2005) made a differentiation between ‘full life’ and ‘empty life’, based on three different orientations of people to happiness: pleasure, engagement and meaning (Seligman 2002). They found that “an orientation to pleasure is not as strong an individual predictor of life satisfaction as orientations to engagement or to meaning. But neither is pleasure irrelevant to life satisfaction, because it represents value added to a life rich in engagement and meaning” (Peterson et al. 2005, p. 37). Actually, ‘full life’ is rich in orientations to happiness, while a generally low level of all those three orientation categories results in an ‘empty life’.

Regarding happiness studies, the concept of positive psychology (Seligman and Csíkszentmihályi 2000, Seligman 2002, 2006) has drastically changed research in social psychology. Positive psychology – as opposed to ‘traditional’, pathology-dominated psychological discipline – focuses on positive subjective experience, positive individual features, and positive institutions in order to improve quality of life and enhance happiness. Corral-Verdugo et al. (2011) surveyed the correlation between happiness and sustainable behaviour, as an addition to the ‘positive psychology of sustainability’, considering both the positive predictors and the positive (mainly intrinsic) consequences of sustainable behaviour (p. 101). In their research frugality, equity, altruism and pro-ecological behaviour resulted to be predictors of the construct called ‘sustainable behaviour’, while ‘sustainable behaviour’ was significantly associated with happiness as a possible positive intrinsic consequence. Bouckaert et al. (2008) also argue with

the positive impact of frugality on sustainable lifestyles and promote the reintroduction of frugality into the economy. They state that “although for religious ethics frugality is a spiritual virtue, for nonreligious ethics it is a rational virtue to enhance happiness” (p. 4). Spiritually based frugal practices are very important as they “may lead to rational outcomes such as reducing ecological destruction, social disintegration and the exploitation of future generations” (p. 23).

Csikszentmihályi (1993) argues with the need of transcendent personalities who are able to reach higher complexity without increasing entropy, while living a differentiated and integrated life at the same time, showing up a high level of spirituality. Interestingly, Csikszentmihályi connects this transcendent and constantly evolving self with evolution, stating that for the survival of mankind and further positive (meaning not destructive) evolution, striving for complexity and spirituality is crucial. Green consumerism definitely includes transcendent elements as striving for a more sustainable living needs sacrifice, looking beyond the sole interests of the individual, thinking and acting for the social good and the survival of mankind.

Cohen et al. (2010) call for transformation toward an alternative paradigm will entail a new understanding of human well-being, one that is sustainable, equitable, and capable of fulfilling individual and societal aspirations for a “good and ethical life.

The purpose of this article is to explore whether the links pro-environmental behaviour and increased subjective wellbeing suggested by relevant literature could be traced in an empirical survey.

### ***Research model on linking pro-environmental consumption to subjective wellbeing***

The main assumption of the paper is that green consumerism can be perceived as a special form of intrinsic drivers. We define green consumerism as a set of behaviour patterns which aim at realizing sustainable lifestyle both in consumer behaviour and in other everyday life actions. From the point of view of green consumerism and sustainable lifestyles, spirituality should be defined in broader terms, not restricting the concept to religious meaning. According to Tanyi (2002, p. 506)

*spirituality is a personal search for meaning and purpose in life, which may or may not be related to religion. It entails connection to self-chosen and or religious beliefs, values and practices that give meaning to life, thereby inspiring and motivating individuals to achieve their optimal being. This connection brings faith, hope, peace, and empowerment. The results are joy, forgiveness of oneself and others, awareness and acceptance of hardship and mortality, a heightened sense of physical and emotional wellbeing, and the ability to transcend beyond the infirmities of existence.*

In this sense belief in environmental values and the feeling of inclination to act in an environmentally pro-active way is a kind of “spirituality”. There are different ways how “green spirituality” may spur green consumerism while increasing subjective welfare at the same time:

- by giving meaning to life, thus becoming intrinsic life goal for certain individuals. This way sacrifices made for green consumerism may pay off in terms of increased subjective wellbeing. This approach is fulfilling to those open to spiritual values. Higher sacrifice may even result in higher spiritual payback in terms of feeling caring about making the world a better place. High sacrifice actions, e.g. travelling by train instead of flying suppose strong belief in green values.
- green behaviour, when built on social norms, results in a decreased level of perceived personal sacrifice. The impact of social influence on individual behaviour has been assessed in both the theory of reasoned action and theory of planned behaviour.

Individuals may act upon their subjective norms, i.e. their perceptions on what behaviour they are expected to follow by their family, friends and the society (Ajzen 2005). Even the same action in concern may be felt less painful if others are required to do the same action. Sacrifices are more likely to be assessed as reasonable if everyone is affected and the number of free-riders is limited. Members of a society are willing to follow social norms even when it assumes major individual offering, ranging from wearing uncomfortable clothes of prevailing fashion to joining the army and even risking one's life. Modifying social norms, however, goes beyond the principles of voluntarism and requires structural changes in terms of value system, regulation, infrastructure and incentives. In the longer term, an increased level of social cohesion, belongingness, participation and increased leisure time provide further payoffs (Lorek and Fuchs 2011). Certain individuals may find emotional payback in behaving the "right way", while others may assess the pressure of required behaviour stressful.

- Certain environmental measures offer financial payback, especially energy saving actions and investments. You don't need to be a 'green believer' in order to adopt them, although mental payback might also be missing for the same reason. Buying LED bulbs and energy efficient appliances do pay-off. Double-dividend of green purchasing may or may not be possible as motivation crowding theory suggests that extrinsic motivators such as monetary incentives can undermine intrinsic motivation (Fiorilla, 2011).

*Table 1. Sustainable consumption and its potential payoff*

	<b>Green values</b>	<b>Green social norms</b>	<b>Financial payback</b>
Perceived sacrifice	High to low	Moderate to low	No regret or low regret
Payoff	Spiritual payoff of "doing good"	Feeling social support for following accepted norms, for "behaving the right way"	Financial gains may result in higher satisfaction
Voluntarism	Voluntary	Varied level of social pressure	Either voluntary or forced by coercive financial situation
Confidence in green values	Very important	Less important, belief in following social norms dominates	Not important
Examples	Reduced use of car	Separating waste	LED or CFL bulbs, supplementary insulation
Potential	Limited to certain psychographic types	Mass market	Mass market

According to Eurobarometer 365 (2011) 66% of Europeans separate most of their waste at average with certain nations scoring well above 70%. Thus, separating waste can be regarded as a social norm that many Europeans follow regardless of the sacrifice involved. Arbuthnot (2011) notes that environmental concern has become a social norm and that it is difficult to translate this concern into actual behaviour. Using the car less was however accepted by no more than 20% of people at average according to the same survey, thus can be regarded an action involving major sacrifice and requiring strong commitment towards green values.

More interestingly, Markowitz and Bowerman (2011) found that majority of American express positive attitude towards reducing the level of consumption. This study suggests that probably a reduced level of consumption might be acceptable to if the society as a whole is involved. At the same time different potential policy initiatives received mixed support in the same survey.

Each of the above mentioned ways of green behaviour might result in increased level of wellbeing. The purpose of our survey was tracing such positive payoffs in subjective wellbeing of green behaving individuals. Positive welfare gains, even when they are merely spiritual and mental, could feed some optimism towards the easiness in switching to more sustainable consumption patterns.

## ***Empirical survey on green consumerism and spirituality in Hungary***

### **Sample characteristics**

The basis for our empirical analysis is a survey of 1012 respondents which was implemented in 2010. The sample is representative for the Hungarian adult society in age, gender (55% woman, 45% man), education (16% higher education, 33% high school, 27% vocational school, 24% graduate school), income, and settlement (17% Budapest, 12%: county centres, 38%: smaller towns, 33%: villages). The surveying method was personal inquiry, where sampling started with selection of the settlements, followed by application of the random walking method to find respondents. Surveying one person over 18 years in each household was based on the Leslie Kish keys (Kish 1949, 1965). The most important questions of the survey covered lifestyle, food consumption and travelling habits, equipment features of the household, as well as reported contemporary and future attitudes to sustainable lifestyles (results are summarised by Csutora et al. 2011 and Zsóka 2011). Attitudes to spirituality were asked in different forms: directly and indirectly through main priorities in life for individuals.

### **Wealth and wellbeing, spirituality and wellbeing**

The following part summarizes our empirical results. First, the impact of wealth and spirituality on wellbeing is presented. Based on the ambiguous research results of the literature, we tested the impact of income level on wellbeing. We found an existing but rather low and not fully linear correlation between household income and the two features of wellbeing: life satisfaction and happiness. As the correlation is not linear, it means that – especially in the case of happiness – higher income level does not necessarily result in a higher level of happiness. Money itself cannot make us happy.

On the other hand, spirituality and happiness are expected to be in a strong positive correlation. Here we also found an ambiguous picture, but one tendency was clear: those who take spirituality seriously are definitely happier and more satisfied with their life than those who follow their spiritual belief only superficially and casually.

### **Environmental awareness and spirituality**

Environmental awareness is measured through pro-environmental activities and attitudes to sustainable lifestyle. The list of pro-environmental lifestyle patterns follows the structure of the Eurobarometer survey (European Commission 2008). The most popular sustainable lifestyle patterns are waste separation, the use of environmentally friendly modes of transport and the reduction of energy and water consumption, while product-related activities – like the choice of local products, products with eco-label, or local stores for purchase are much less frequent. Unfortunately, the total level of sustainable lifestyle is generally low in the sample: 2.15 pro-environmental actions were taken on average from the 8 listed behaviour patterns; 21,5% of the respondents did not even indicate one single activity.

Figure 2 indicates that the relationship between spirituality and environmental awareness is significant: reportedly atheist people and those who refused to answer the question about spirituality have pursued significantly less pro-environmental activities than people who reported to be spiritual in their own way or religious.

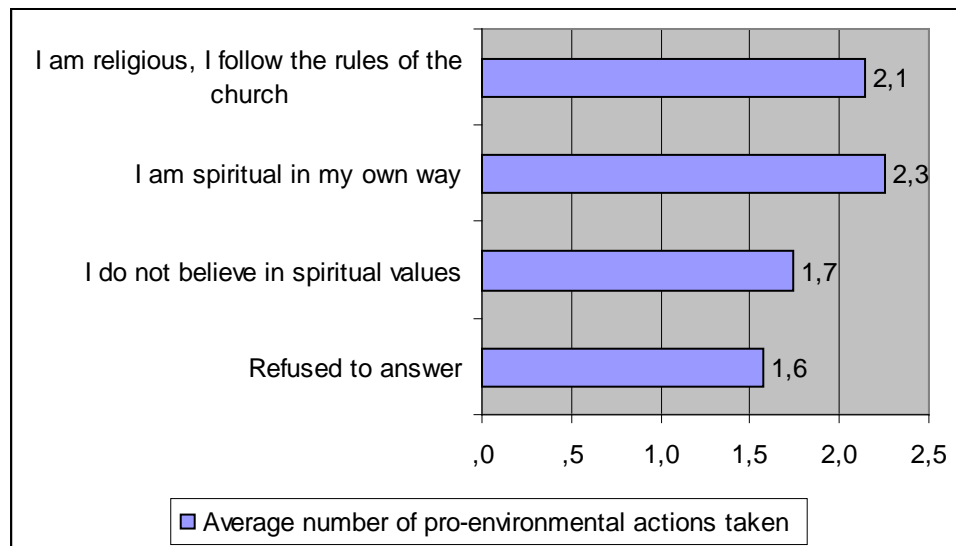


Figure 1: Spirituality and the intensity of pro-environmental action

Oneway ANOVA analysis strengthened this outcome: people who take their spiritual commitment and belief more seriously pursue significantly more environmental activities on average than those who are less committed or do not believe in spiritual values at all.

### Environmental awareness and happiness

Before presenting and explaining the correlation between environmental awareness and happiness, variable transformation and a controlling test for income were necessary in order to provide a reliable evaluation on results. The number of pro-environmental activities chosen could get values from 1 to 8. The number of people adopting 5 or more actions and also giving response to the income questions was too low, for carrying out statistical analysis, so categories 5-8 were merged into one category, meaning 5 or more activities.

Table 2: Number of pro-environmental activities and happiness

DescriptiveStatistics

Dependent Variable: All in all, how happy do you feel you are?

Pro-environmental behaviour	Mean	Std. Deviation	N
,00	5,90	1,878	118
1,00	6,54	1,727	72
2,00	6,36	1,846	105
3,00	6,99	2,025	71
4,00	7,02	2,169	45
5,00	7,30	1,895	33
Total	6,50	1,949	444

The number of adopted pro-environmental activities as well as the level of subjective wellbeing showed correlation with per-capita income, thus carrying out a covariance analysis as controlling for the income effect was crucial for meaningful analysis (Table 1).

According to this analysis people adopting 3, 4, 5 or more activities seem to be significantly happier than those not adopting any, or just 1 or two. Pro-environmental behaviour explains 5.7% of variation in the level of happiness level, which seems to be reasonable. A similar analysis was carried out for pro-environmental behaviour and life satisfaction. The pattern was somewhat similar to those of happiness, but much weaker, explaining only 3.3% of variance.

If we look at the relationship of pro-environmental lifestyle and happiness from a reverse point of view (based on a oneway ANOVA analysis where  $F=5,358$ ;  $p=0,000$ ), we find that happier people pursue significantly more pro-environmental actions than their less happy counterparts, except the unhappiest group whose behaviour is similar to the happiest ones. Correcting the results again for the income level, it becomes obvious that in the deeply unhappy group several people are in such a bad financial situation that for them a resource-saving lifestyle is much more a necessity than a result of conscious choice and green attitude.

### Motivation factors and future commitment to sustainable lifestyle

One of the main challenges of the mankind today is whether society is open for a behavioural change for more sustainable lifestyles or not. Obviously, current green consumers seem to have significantly higher willingness to take further actions towards sustainability (Figure 3).

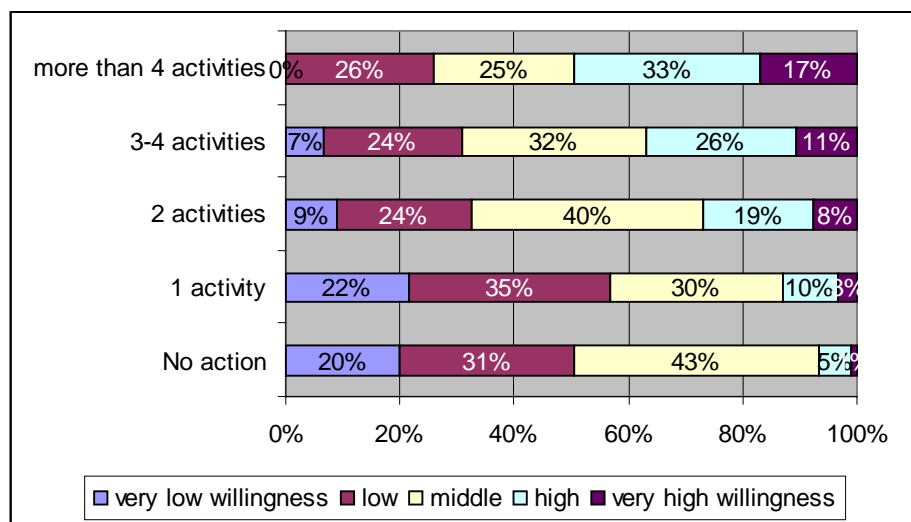


Figure 2: Current pro-environmental activity and future willingness to change behaviour

However, it is important, which are the most important motivation factors behind sustainable attitudes for the future. We found that in general terms, most unhappy people reported to be the least motivated intrinsically to follow pro-environmental behaviour in the future. A deeper analysis refines this general picture. First we identified three main components of future pro-environmental behaviour (KMO: 0.799, Bartlett Test of sphericity value: 1672, explained by the main components: 62%): energy consumption, travelling and buying consumer goods, and physiological needs (like reducing meat consumption or heating temperature). A cluster analysis (Ward method, including 815 respondents) based on those components resulted in 5 clusters, providing different motivations for behaviour change.

The members of the group which reported to be open for all kinds of change (197 respondents) are happy and satisfied over the average and are overrepresented in higher education and higher income categories. Those who are primarily willing to take energy-saving actions (67 respondents) in the future are indifferent for physiological changes but refuse buying less consumer goods or switch from car to public transport. They are satisfied with their current life, come from middle-class families and are aware of eco-efficiency gains. People who are ready to take steps in their physiological needs (69 respondents) show very low willingness in the other two identified components of change. Their education and income level is low on average; they

are neither happy nor satisfied with their life. Physiological change seems to be a must for them, not an environmentally conscious decision. On the contrary, the biggest group (294 respondents) categorically rejected the change in physiological habits while their attitude regarding the other two components corresponds with the sample average. They are satisfied with their life, their mean happiness and income level is equal to the average. The members of the fifth cluster (188 respondents) are indifferent and/or poor people, who are lagging behind in their future willingness regarding all the three components of environmentally conscious behaviour. Their motivation is differentiated (hence the name of the cluster): indifferent respondents are wealthy enough but they do not care about behaviour change, while for poor people some of the behaviour patterns are not relevant (they do not have a car which they should give up or they have modest consumption habits anyway, etc.). However, independently from the income level, the cluster members are unsatisfied with their life over the average and are neither too happy nor unhappy.

The cluster analysis revealed that happiness over the average positively reflects in the willingness to change behaviour toward more sustainable lifestyles while life satisfaction has a more ambivalent impact on those attitudes. Intrinsic motivation seems to be basically important, although sometimes extrinsic elements (low income level specifically) function as necessity for change.

## ***Discussion***

Clear signs for the positive correlation between intrinsically motivated environmental awareness and subjective wellbeing have been found in our survey (see also Brown and Kasser 2005 for comparison). This correlation is stronger for happiness and weaker for life satisfaction. Our survey represents the Hungarian society which makes the formulation of general conclusions possible. However, as in case of every empirical research, limitations should be considered as well. The survey method provides the opportunity to measure interconnections between variables; however, clear casualties are difficult to establish. Furthermore, the level of subjectivity is very high in case of questions connected to individual wellbeing. People are assumed to define and perceive life satisfaction, happiness and spirituality quite differently for themselves which is a frequent limitation of "happiness studies".

Control variables were also built in to avoid misleading conclusions (e.g. future willingness to take pro-environmental activities has shown the intrinsic motivation for environmental awareness). Some questions had to be cleaned from the distortion of their "irrelevance effect", especially in cases where household income had a significant effect on responses. The most evident example for this phenomenon was car ownership: the question regarding the attitudes towards less frequent car use was simply not relevant for the poorest people as they do not possess a car. During the analysis, we tried to eliminate the impacts of those limitations.

## ***Conclusions***

The paper provided insights into the wide and partly uncovered area of interactions among happiness, life satisfaction and green consumerism, supported by a survey representing the Hungarian society. Green consumers proved to be happier at average when income as a control variable was introduced. Thus green behaviour seems to contribute to subjective wellbeing, refuting the assumption that sacrifices made for the future would inevitable reduce our present level of subjective wellbeing. Strong belief in green values or strong social norms driving individuals towards green actions may also lead to increased level of perceived happiness. Thus, green consumers seem to be happier.

People at the two extremes of happiness ranking tend to act environmentally friendly over the average, but the reasons behind are obviously different. Very happy people strive for a sustainable life from an intrinsic motivation which is reflected in their high willingness to act

environmentally friendly in the future. Very unhappy people, on the other extreme, seem to be forced to live a modest life for financial reasons but if pro-environmental behaviour was their own choice they would not go for it (their future willingness to act was lower than the average). They adopted pro-environmental actions producing financial savings.

Results can provide a valid basis for further studies on the probably biggest challenge of mankind today, seeking the main predictors of happy, satisfied and sustainable life, for the sake of our physical survival and spiritual health.

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## ***References***

- Ajzen, I. & Fishbein, M. 2005. The influence of attitudes on behavior. In Albarracin, D.; Johnson, B.T.; Zanna M.P. (Eds.), *The handbook of attitudes*, Lawrence Erlbaum Associates.
- Arbuthnott, K. D. 2011. Sustainable consumption: Attitudes, actions, and well-being commentary. on the article by Markowitz & Bowerman. *Analyses of Social Issues and Public Policy*. DOI:10.1111/j.1530-2415.2011.01258.x
- Bouckaert L., Opdebeeck H., Zsolnai L. 2008. 'Why Frugality?', in Bouckaert L., Opdebeeck H., Zsolnai L. (eds): *Frugality: Rebalancing Material and Spiritual Values in Economic Life*, Peter Lang, Oxford, 3-23.
- Bouckaert L., Zsolnai L. 2011: Spirituality and Business, in: Bouckaert L. and Zsolnai L. (eds.): *The Palgrave Handbook of Spirituality and Business*. Palgrave Macmillan, 3-10.
- Brown K.W., Kasser T. 2005: Are Psychological and Ecological Wellbeing Compatible? The Role of Values, Mindfulness, and Lifestyle. *Social Indicators Research*. 74, 349-368
- Cohen, M.J.; Brown H. Sz.; & Vergragt P.J. 2010. Individual consumption and systemic societal transformation: introduction to the special issue, *Sustainability: Science, Practice & Policy*. 6.2.
- Colón-Bacó, Enrique. 2010. The Strength of Religious Beliefs is Important for Subjective Well-Being," *Undergraduate Economic Review*: Vol. 6: Iss. 1, Article 11
- Corral-Verdugo V., Mireles-Acosta J., Tapia-Fonllem C., Fraijo-Sing B. 2011.: Happiness as Correlate of Sustainable Behavior: A Study of Pro-Ecological, Frugal, Equitable and Altruistic Actions That Promote Subjective Wellbeing, *Human Ecology Review*, 18 (2), 96-104.
- Csikszentmihályi M. 1993. *The Evolving Self: A Psychology for the Third Millenium*, New York: Harper Collins
- Csutora M., Tabi A., Vetőné Móznér Zs. 2011. Analysis of the ecological footprint of Hungarian households. In: Csutora M. (ed.): *Economics of ecological footprint (in Hungarian)*, summary of studies for the project "Sustainable Consumption, Production and Communication", supported by the Norwegian Fund, AULA, Budapest, 27-38.
- Csutora M. 2012. One more awareness gap? The behaviour-impact-gap problem. *Journal of consumer policy*, 35 (1), 145-163.
- Diener, E. and Don Clifton. 2002a. "Life Satisfaction and Religiosity in Broad. Probability Samples." *Psychological Inquiry* 13: 206-09
- Diener E., Biswas-Diener R. 2002b.: Will money increase subjective wellbeing? A literature review and guide to needed research. *Social Indicators Research*, 57, 119-169.
- European Commission 2008. Attitudes of European citizens towards the environment, Report, Special Eurobarometer, [ec.europa.eu/public\\_opinion/archives/ebs/ebs\\_295\\_en.pdf](http://ec.europa.eu/public_opinion/archives/ebs/ebs_295_en.pdf)



- Fiorillo, D. (2011) Do monetary rewards crowd out the intrinsic motivation of volunteers? Some empirical evidence for Italian volunteers, *Annals of Public and Cooperative Economics*, 82: 132-165
- Hankiss E. (2005): *Az ezerarcú én*, Osiris, Budapest
- Kasser T. 2002. *The High Price of Materialism*, MIT Press, Cambridge, Mass.
- Kasser T., & Ryan R.M. 1996. Further examining the American dream: differential correlates of intrinsic and extrinsic goals. *Personality and Social Psychology Bulletin*, 22, 280–287.
- Kasser T., Ryan R. M. 2001. Be careful what you wish for: optimal functioning and the relative attainment of intrinsic and extrinsic goals. In Schmuck P. & Sheldon K. M. (Eds.): *Life-goals and wellbeing. Towards a positive psychology of human striving* Seattle: Hogrefe and Huber, 116–131.
- Kasser T., Ryan R. M., Zax M., Sameroff A. J. 1995. The relations of maternal and social environments to late adolescents' materialistic and prosocial values. *Developmental Psychology*, 31, 907–914.
- Kish, L. 1949. "A Procedure for Objective Respondent Selection within the Household", *Journal of the American Statistical Association*, 44, 380-387.
- Kish, L. 1965. *Survey sampling*. John Wiley and Sons, Inc., New York
- Lorek, S., Fuchs, D. 2013. Strong sustainable consumption governance – precondition for a degrowth path?, *Journal of Cleaner Production*, Volume 38, Pages 36-43
- Markowitz, E.M and Boweman, T. 2011. How Much is Enough: Examining the Public's Beliefs About Consumption. *Analyses of Social Issues and Public Policy*. Online. DOI: 10.1111/j.1530-2415.2011.01230
- Martos L., Kopp M. 2011. Life Goals and Wellbeing: Does Financial Status Matter? Evidence from a Representative Hungarian Sample, *Social Indicators Research*, Volume 105. pp. 561-568. DOI:10.1007/s11205-011-9788-7
- Nickerson C., Schwarz N., Diener E., Kahneman D. 2003. Zeroing in on the dark side of the American dream: a closer look at the negative consequences of the goal for financial success. *Psychological Science*, 14, 531–536.
- Peterson C., Park N., Seligman M.E.P. 2005. Orientations to happiness and life satisfaction: the full life versus the empty life. *Journal of Happiness Studies* 6, 25–41
- Rijavec M., Brdar I., Miljkovic D. 2006. Extrinsic vs. intrinsic life goals, psychological needs and life satisfaction. In Delle Fave A. (Ed.), *Dimensions of wellbeing. Research and intervention*, 91–104.
- Ryan R. M., Chirkov V. I., Little T. D., Sheldon K. M., Timoshima E., Deci E. L. 1999. The American dream in Russia: extrinsic aspirations and wellbeing in two cultures. *Personality and Social Psychology Bulletin*, 25, 1509–1524.
- Seligman M.E.P. 2002. *Authentic Happiness. Using the New Positive Psychology to Realize your Potential for Lasting Fulfillment*. New York: Free Press. A Division of Simon & Schuster, Inc.
- Seligman M.E.P. 2006. *Learned Optimism. How to Change Your Mind and Your Life*, New York; Vintage Books.
- Seligman M. & Csíkszentmihályi M. 2000. Positive Psychology. An introduction, *American Psychologist*, 55 (1), 5-14.
- Székely A. 2008. Religiousness in Hungary between 1995 and 2006. Relationship between religiousness and the number of children. Religiousness and spiritual-healthy status (in Hungarian), in: Kopp M. (ed.): *Magyar lelkiállapot 2008*, Semmelweis Kiadó és Multimédia Stúdió
- Veenhoven, R. 2004. Sustainable consumption and happiness, <http://mpira.ub.uni-muenchen.de/11279/>
- Veenhoven, R. 1991. Is happiness relative? *Social Indicators Research*, 24, 1-34.
- Veenhoven R. and Hagerty M. 2006. Rising Happiness in Nations 1946–2004: A Reply to Easterlin, *Social Indicators Research*, 79, 421-436.

- Zsolnai L. 2010. Ethics needs spirituality, in: Nandram S.S. and Borden M.E. (eds): Spirituality and Business. Exploring Possibilities for a New Management Paradigm, Springer, Heidelberg, Dordrecht, London, New York,.
- Zsolnai L. 2011. Taking Spirituality Seriously. In: Zsolnai L. (ed.): Spirituality and Ethics in Management, Springer
- Zsóka Á. 2011. Contemporary environmental awareness and willingness to act for the future. In Csutora M. (ed.): Economics of ecological footprint (in Hungarian), summary of studies for the project "Sustainable Consumption, Production and Communication", supported by the Norwegian Fund, AULA, Budapest, 54-76.

# Creating Space: from learning to shiftshaping

## Contributions from CONSENSUS backcasting experiments

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### **Introduction**

It is widely recognized that current techno-economic and communicative policy responses to environmental crises have achieved only marginal advancements and are often criticized for their narrow understanding of the social world and the complex forces shaping consumption patterns (Jackson, 2005; Hinton and Goodman, 2009; Shove, 2010). It is these conditions that have stimulated a coalescing of views across disciplines to adopt a more systemic and forward-thinking (future-oriented) approach in conceptualizing and promoting sustainable consumption (Shove, 2003; Spaargaren, 2003; Elzen et al., 2004; Southerton et al., 2004). This research views the daily consumption of water and energy as a set of social practices situated within socio-technical systems that comprise a cluster of elements, 'including technology, regulations, user-practices and markets, cultural meanings, infrastructure, maintenance networks and supply networks' (Elzen et al., 2004, 3).

Within the 'transition management' and 'system innovation' fields, collective visioning techniques are often proposed as a practical means for developing holistic sustainability solutions considering these broad socio-technical elements (Jegou and Manzini, 2000; Vergragt, 2000; Sondejiker et al., 2006; Diaz-lopez et al., 2009). Examples of the application of visioning processes exist in a range of fields including energy planning (McDowall and Eames, 2006), city planning (VEIL, 2010), water resource management (Brandes and Brookes, 2010) and sustainable lifestyles (Vergragt, 2000; Carlsson-Kanyama et al., 2008). While foresight methods of scenario planning and forecasting develop likely or possible scenarios based on the extrapolation of current trends, backcasting is typically based on the creation of normative or desirable future scenarios as it is argued that drawing from current trends, actions, responses is unlikely to yield transition inducing innovations (Dreborg, 1996). The research reported in this paper applies a particular variant of backcasting termed 'practice-oriented participatory backcasting' (for brevity it will be referred to as CONSENSUS backcasting for the remainder of the paper), which involved the co-creation of 'Transition Frameworks' for sustainable washing, eating and heating practices.

An outline of the CONSENSUS backcasting approach is detailed in Figure 1 and described below. The intricacies of recruitment, iteration and evaluation are fully elaborated elsewhere (Doyle and Davies, 2013; Doyle, 2013)<sup>1</sup>. Once the parameters of the current problems with the practices of heating, eating and washing were established through a review of best available data and policy interventions and informed by the results of the CONSENSUS lifestyle survey, visioning workshops were held with invited stakeholders from public, private and civil society sectors.

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<sup>1</sup> Extensive analysis and categorisation of the variants of backcasting has been conducted by a number of researchers such as Dreborg (1996), Green & Vergragt (2002) and Vergragt (2005) amongst others. Details of all outputs from the CONSENSUS research project, a four-year interdisciplinary multi-institutional project funded by the Environmental Protection Agency's STRIVE Programme 2008-2013 are available from <http://www.consensus.ie>.

These workshops - through processes of brainstorming, clustering and voting - formed the basis of alternative scenarios for meeting the needs of the identified practices more sustainably in 2050. The scenarios were then evaluated by the participating stakeholders and through qualitative sustainability indicators and citizen-consumer workshops held across Ireland. Each practice of heating, washing and eating was addressed separately, but through identical backcasting procedures. Promising practices were distilled from these evaluations and a final backcasting workshop, again with diverse stakeholders, conducted. This final workshop focused on the creation of short-, medium- and long-term interventions that might support the development and expansion of those promising practices. These ideas, along with possible barriers and key agents (institutions and actors), were collated into a final 'Transition Framework' document and disseminated.

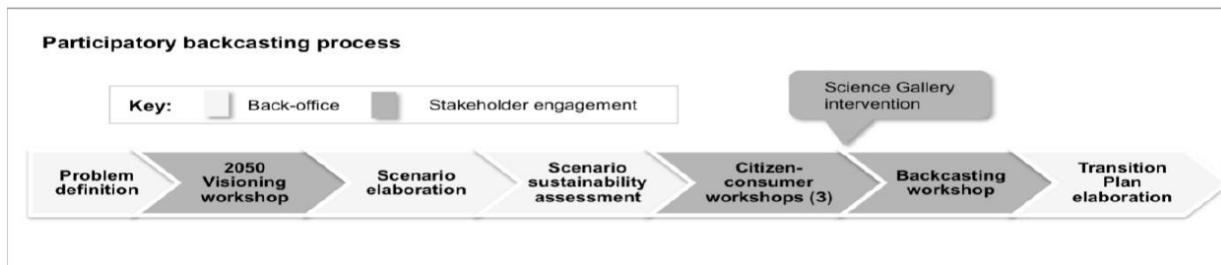


Figure 1: CONSENSUS backcasting process

A fundamental feature of the backcasting process was the participation of stakeholders from civil, public and private sector backgrounds in creative and transition planning workshops at the beginning and end of the research process. As emphasized in work by Meadowcroft (2009), Quist (2007) and Vergragt (2000) stakeholder involvement in visioning, such as described above, may help generate greater support for transitional practices and certainly provides opportunities for interdisciplinary engagement, interaction and learning amongst stakeholders who may rarely have the opportunity to meet in their daily work environments. However, as Jungk and Mullert (1987, 72) state, 'the success of a [visioning] workshop is not ... to be measured solely in terms of the schemes or catalogues of proposals it generates but also by how it subsequently affects the participant's minds and behaviour'. More ambitiously, some practitioners of the visioning method suggest that through the technique 'learning processes not only occur on the cognitive level, but also with respect to values, attitudes and underlying convictions' (Quist and Vergragt, 2006). Such learning, sometimes called 'higher-order' learning, might lead to problem and goal redefinition, helping to widen perceptions about potential solutions and policy options. On a professional level, changes in mindset may be provoked allowing space for new ideas, including behavioural or procedural alternatives to take root (see Dreborg, 1996).

The remainder of this paper reviews the experience of the CONSENSUS backcasting process in terms of the reported learning of participants. Some thoughts on the relationship between these individual experiences and the contribution of the CONSENSUS backcasting process to wider system transformation are presented. Finally, tentative thoughts are developed regarding the identification and role of shiftshapers who will be essential in translating the CONSENSUS backcasting experiment from its bounded beginnings and individual learning outcomes into a more systemic transformation.

### ***Spaces for sustainability learning***

While others have identified catalytic effects of backcasting experiments for stimulating first and higher order learning (van de Kerkhof and Wierczorek, 2005; Brown et al., 2003), there has been less attention to the spaces that such experiments might provide. Yet, physical, temporal and cognitive space that offered the possibility for sustainability learning was provided for

participants through the CONSENSUS backcasting experiments. For example, those who participated had to be physically present at the time of the workshop and all participated in some capacity (and often multiple capacities) through the brainstorming breakout groups, through reporting ideas, merging themes or voting on preferred ideas. The process entailed the participants moving into new physical spaces, a phenomena which can itself assist the process of thinking beyond the constraints of everyday work routines and intellectual horizons. However, while it is presumed that participating in visioning workshops can lead to learning, either through new insights into policy options (sometimes called single loop, first-order or lower order learning) or through new insights into the problem itself and basic assumptions of stakeholders (double-loop, second-order or higher order learning) (see van de Kerkhof and Wieczorek 2005), there is little reflection in the existing literature as to how such learning is embodied in the participants experience of the process. In response, an overview of participant experiences of the CONSENSUS backcasting process is considered here. The participants were provided with evaluation forms at the end of the visioning and backcasting workshops and were invited to comment on their experiences. In particular they were asked whether they felt novel ideas were developed (first order learning), whether they had been stimulated to think about sustainability in different ways (second order learning), and what their future commitment to the backcasting process as a form of transformational governance practice might be. The responses to these questions are summarised in the following sub-sections<sup>2</sup>.

### **Liberating spaces**

The freedom from the constraints of the present, both in terms of work and life practices that the future-orientation of the CONSENSUS backcasting process provided for participants was considered to be a key benefit and a key driver for learning. For example, one participant found the process 'a way of breaking our narrow bands of thinking'. Similarly, the requirement to adopt a solutions-orientation within discussions was seen as a marked change from the discussions about sustainability that the participants were more familiar with in their daily work-life. As another participant commented 'it was refreshing to commentate on the positive without having to overthink the plausibility. It did prompt me to think in a different way. I will consider using this technique in my own work'. In particular, participants responded positively to the integrative social practice lens of the visioning process. Participants felt that the workshops were stimulating with regards to improving their understanding of the interactions and interrelations between the techno-material landscape and the cultural norms of consumption. Some participants (mostly those with creative design backgrounds and experience of future visioning techniques) felt that others had struggled with the future-orientation suggesting that 'pragmatism is hard to suppress'. However, the fact that the workshops were intended to stimulate innovative ideas and bring together a diverse range of stakeholders (many of whom had no prior experience of future-oriented techniques) perhaps inevitably restricted overall levels of creativity and the ability of some to entirely shed the shackles of the present.

### **Collaborative spaces**

As with other analyses of backcasting research, the diversity of the participants in the CONSENSUS backcasting process was viewed as a positive mechanism to establish a wide range of ideas whilst also creating possibilities for greater integration across those ideas (Meadowcraft, 2009; Quist, 2007). As one participant characterised it, 'the large group opened up a large range of insights. I see it as a valuable way to achieve a unique perspective on sustainability problem areas'. Another participant commented that the workshops included 'a good melting pot of people who wouldn't perhaps share ideas normally'. Accessing the creativity and insights of a wide variety of people in order to generate solutions is not restricted to backcasting processes. Open source innovation (Chesbrough, 2003), crowdsourcing (Tapscott

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<sup>2</sup> Detailed analysis of the washing and heating visioning workshops are addressed in Davies et al., (2012) and an overall analysis is presented in Doyle (2013).

and Williams, 2006), and innovation contests (that generate new seeker–solver relationships) are becoming familiar features of high-tech industry environments seeking solutions to contemporary challenges. While aiming to be expansive, these innovation interfaces rarely involve a variety of social actors, seldom focus on issues of collective purpose and still largely presume engagement is driven by profit or personal accolade.

### **Reflective spaces**

The evaluation of the CONSENSUS backcasting process indicated that the dedicated time to think and discuss collectively ideas about alternative ways of meeting essential needs that the workshops provided was highly valued for reflective purposes. While reflective processes are, in general, ongoing and largely unconscious (Bondi, 2005), a number of participants felt that the structure of the process provided the space for explicit and overt reflection on sustainability issues that they would not experience on regular basis in their everyday lives. As one participant suggested, the workshop had stimulated him to think more critically about his understandings of the issues discussed: ‘the process has helped me review or reconsider previous views on certain topics’. While inevitably delimited in terms of its duration, the moments for reflection that the CONSENSUS backcasting process permitted, couched within a collaborative environment and framed by discussion liberated from the constraints of the present certainly indicate levels of widespread learning amongst participants. Equally, it is not necessarily the case that reflection and learning ceases when participants leave the physical spaces provided by backcasting. Circulation of participant contact details and opportunities to comment and debate virtually on the outcomes of the workshops (e.g. specific commentary was invited on the scenario formation, but also participants were invited to join the Sustainable Consumption research network led by CONSENSUS) provided for ongoing engagement and reflection.

The preceding sub-sections provide some concrete examples of how the CONSENSUS backcasting process contributed to individual learning, but if such learning remains only at the individual level and only amongst direct participants, then the transformational shifts required to meet sustainability challenges will not occur. Without demonstrable influence on technologies, governing frameworks and lifestyles that might ultimately lead to actual reductions in the impacts of consumption practices, backcasting experiments will remain only niche activities. Informed by the work of Quist et al. (2011), the next section considers the current pathways to impact that the CONSENSUS backcasting process has generated to date, and the additional plans to progress and extend those impacts.

### ***Pathways to impact***

Attention to stakeholder learning contributes to wider reflection on the impact and influence of backcasting experiments (Quist, 2009). In formative research in this area Quist et al. (2011) consider the impact and spin-off effects from participatory backcasting as a means to analyse whether backcasting experiments are a ‘stepping stone towards system innovations’ (2011, 884). Recognising that backcasting experiments differ widely in their formation and application, in addition to taking place in highly diverse socio-technical contexts, Quist et al. (2011) identify four significant characteristics of participatory backcasting: the influence and intensity of stakeholder engagement (participation); where to go and what to do in relation to competing visions and the status quo (vision); shifts in problem definition, solutions and approaches both amongst individuals and groups of stakeholders (learning); and the way in which backcasting is applied and the institutional context in which it takes place (setting). It is then argued that the impact of backcasting experiments depends on the culmination of activities, actors and resources in terms of network formation; the guidance and orientation of visions and their evolution; and changes in institutions, practices and rules (as well as resistance to them). These building blocks are themselves shaped by the characteristics of the particular variant of backcasting applied and external socio-technical system that surrounds it. Ultimately, four broad

societal domains - research, business, government and society - which might be influenced by the outcomes of backcasting are delineated.

While Quist et al. (2011) required a minimum five-year period between completion and their impact analysis to allow for the emergence and identification of follow-up and spin-off developments the conceptual framework remains applicable at any stage of analysis. Indeed, early consideration of the framework may also permit reconfiguration of strategies to optimize influence in the dynamic and evolving world of consumption practices. Adopting the Quist et al. (2011) framework an analysis of CONSENSUS backcasting is summarized in Table 1 below.

*Table 1 CONSENSUS backcasting characteristics*

<b>Characteristics</b>	<b>CONSENSUS backcasting</b>
Participation	Stakeholder involvement was primarily through workshop participation rather than in workshop design - low intensity
Vision	Multiple scenarios were initially created, but a singular Transition Framework document was developed for each practice area – single vision
Learning	Feedback analysis suggests higher order learning amongst some participants, which mostly occurred at the individual level. Further longitudinal analysis is required to ascertain whether there has been any widespread institutional learning – individual learning
Setting	CONSENSUS backcasting was practice-oriented and participatory. It had a low budget relative to those analysed by Quist et al. (2011). There was support from the Environmental Protection Agency and other state and semi-state organisations through funding and an Advisory Panel, but limited participation from the private sector and from high-level officers in allied policy-making Departments, e.g. Agriculture and Energy.

At this early stage (Transition Frameworks were disseminated between 2012 and January 2013) the impacts of CONSENSUS are emergent and further efforts to communicate and disseminate findings are planned. In particular, activities to consolidate and extend partnerships formed through the CONSENSUS process are ongoing. Promising practices are being revisited in relation to possibilities for developing 'living laboratories' where novel ideas, rules and devices from the short-term interventions can be tested with householders and engagement with ongoing reform of relevant institutional arrangements is underway. These impacts and activities are summarized below according to the societal domains set out by Quist et al. (2011):

## 1. Research

- a. New funded project to examine and improve communication between research and policy (BRIDGE – EPA).
- b. Extension of CONSENSUS until December 2013 for engagement and partnerships building.
- c. Agreement from the EPA to accept follow-on funding proposal to extend and further embed outputs from CONSENSUS through a range of activities to include the establishment of living laboratory households to test-bed short-term promising practices in collaboration with public, private and civil society partners.
- d. New networks have been built with actors keen to explore related areas e.g. food waste communities through LIFE+ mechanisms.

## 2. Business

- a. Business engagement and corporate communications strategy is being developed with a professional sustainability communications expert.
- b. Partnership building with a range of large corporate partners, SMEs, Start-up and grassroots sustainability enterprises is underway.

### 3. Government

- a. CONSENSUS team has played a key role in relevant policy reviews e.g. National Climate Change Policy Review conducted for Government by National Economic and Social Council which included ideas of transformation, backcasting, visioning drawn from CONSENSUS.
- b. The Environmental Protection Agency is incorporating behavior change as a key strand of its work in the forthcoming Strategic Plan.
- c. The Environmental Protection Agency is reorganizing its structures to include a Resource Efficiency Unit.
- d. Initial networks have been consolidated and expanded to include contact with high-level Principal Officers in the Department of Environment and Directors within the newly formed Irish Water organisation.

### 4. Society

- a. The exhibit 'WaterWise' based on CONSENSUS backcasting scenarios continues to travel globally (Dublin, Edinburgh, New York, Ontario) to science galleries and art-technologies museums. To date it is estimated that more than 60,000 people have passed through the exhibition.
- b. Further visual dissemination of outputs from CONSENSUS is planned, including infographics and digital media shorts, for greater and wider engagement with communities.
- c. Establishment of relationships with potential living laboratory households in underway.

Whilst the impacts detailed in the societal domains do not indicate a system transformation, they do indicate that the initial CONSENSUS backcasting process has led to initial step-changes that would not have occurred without the experimental activities embodied within the process. Without doubt though there remains a suite of challenges that will affect the intended network building, vision evolution and institutionalization, not least the overarching fiscal constraints affecting government spending and priorities. Within practice arenas there are also more specific governmental priorities that may act as points of resistance for taking forward the consumption focus proposed in Transition Frameworks:

1. **Eating** - the persistence of a public and private sector focus on food production (and the economic growth of the agri-economy in Ireland) rather than consumption, despite the recent horsemeat crisis.
2. **Washing** - the focus in government of institution building through the formation and development of Irish Water and the associated fixation on the introduction of water charges as a means to raise revenue and recoup costs.
3. **Heating** - supply-side focus on new forms of energy within research and development arena.

For evolving reflection on promising practices to gain traction, multifaceted, co-ordinated and concerted efforts involving elements from across systems of governance and aimed at deliberately attempting to shape transformational shifts will be required; essentially evolving processes of shiftshaping enacted by shiftshapers will be crucial in this context.

### ***Conclusion: identifying and engaging shiftshapers***

The CONSENSUS backcasting process provided novel opportunities for the creation of, and engagement with, imagined futures. Responses from participants involved in the stakeholder workshops also indicate that the processes provided important moments for reflection, liberation and collaboration with others from disparate professions and perspectives. These moments stimulated ideas and thoughts indicative of higher order personal learning found in previous backcasting studies. The process itself has spawned new interactions, new networks, new channels of exchange for knowledge and expertise amongst stakeholders (and citizen-consumers more broadly). An optimist might conceptualise the CONSENSUS as a catalytic



intervention; sowing the seeds of change with respect to how consumption is perceived. At the same time, however, the CONSENSUS project and the processes embodied within it are clearly bounded in terms of the physical spaces of interaction supported by it and the material outcomes emanating from it. The entire process is a mere drop in the ocean of seminars, workshops, webinars, meetings, strategies, roadmaps and policy briefs that bombard stakeholders on a daily basis. Ultimately, the learning outcomes from CONSENSUS may be transient unless the knowledge gained by participants is translated into broader institutional learning and practice (Argyris and Schon, 1978; March and Olsen, 1975; Kolb, 1984).

There is no blueprint that provides clear pathways from individual learning into organizational learning and ultimately into transformed and more sustainable consumption (Shove and Walker, 2007). Nor should the co-creation of the CONSENSUS Transition Framework be seen as an attempt to create one. CONSENSUS backcasting was as much about the process of developing the Framework as it was about defining the interventions detailed in the document. The interventions presented are not intended to be prescriptive. Individually, in combination, or even in their entirety they simply offer ideas about the multiple potential pathways and options for affecting change in ways which might reduce the current unsustainabilities of household consumption practices. As with other significant and related areas of concern such as global environmental change or economic markets, complexity and uncertainty pervade the landscape of consumption and in such a dynamic context it is inevitable that agendas, visions and pathways will need to be adapted as interventions are tested and rejected or modified and supported. Nonetheless, attention to the dynamics of these wider landscapes in which practices are embedded is essential if actions, when they are taken by citizen-consumers, governments, NGOs, or private companies, are to have the intended impact of moving away from currently unsustainable practices.

While there is no one shiftshaper - authoritative and affective power ebbs and flows across a range of actors - there will inevitably be some actors that will be more pivotal in certain contexts at particular times. For example, the formation of the new central state body to manage water provision in Ireland, Irish Water, by its very creation gives significant power to actors within the organisation to shape the ways in which water is collected, treated, stored and provisioned to householders. Certainly decisions and actions by Irish Water will contribute to the shaping of household washing practices, particularly through proposed mechanisms for water charging, but it would be simplistic to assume that the activities Irish Water alone controls how people wash. Multiple (and sometimes contradictory) messages about health and hygiene, or offers of new sensations or innovations in washing experiences are relayed by business, industry and NGOs. Even the outputs from the CONSENSUS process itself sought to stimulate reflection on why and how washing occurs. All these actors, including citizen-consumers, are potential shiftshapers. Suffice to say, without the enrolment of a wide range of shiftshapers, who are situated within systems and are part of the dynamics of change, from those with formalized mandates to govern (governments) to those with the ability to invest in novel technologies or affect the nature of production chains (large multinational companies or venture capitalists) working in a co-ordinated way, transitions are likely to remain unpredictable, fragmented and unsustainable. Responding to this impasse raises a suite of questions. How might such enrolment and co-ordination be stimulated? Who will take the lead in enrolment and co-ordination processes? Is it even possible for the various vested interests of shiftshapers to work together when the motivations for action and ultimate goals are so diverse?

Inevitably, when there is no agreement about what sustainable heating, washing or eating (or indeed any other consumption practice) might actually entail in practice, who enrolls shiftshapers and for what purpose remains a political act infused with power. Multistakeholder processes such as backcasting do not remove strategic behavior or vested interests. Ultimately, whatever forms of governing transformational shifts towards more sustainable consumption emerge they will not be post-political, but to be effective they will need to be multiscalar and multistakeholder in form and principled, reflexive and adaptive in practice.

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## ***References***

- Argyris C and Schon D (1978) Organisational learning: a theory of action perspective Addison-Wesley, Reading MA
- Bondi L (2005) Making connections and thinking through emotions: between geography and psychotherapy Transactions of the Institute of British Geographers 30 433–48
- Brandes O and Brooks D (2010) The soft path for water in a nutshell Friends of the Earth Canada, The POLIS Project on Ecological Governance, Victoria (British Columbia, CA)
- Brown H S, Vergragt P, Green K and Berchicci L (2003) Learning for sustainability transition through bounded socio-technical experiments in personal mobility Technology Analysis & Strategic Management 15 291–315
- Carlsson-Kanyama A Dreborg K H Moll H C and Padovan D (2008) Participative backcasting: a tool for involving stakeholders in local sustainability planning Futures 40(1) 34-46
- Chesbrough H (2003) Open innovation: The new imperative for creating and profiting from technology Harvard Business School Press, Cambridge, MA
- Davies, A.R., Doyle, R. and Pape, J. (2012) Future visioning for sustainable household practices: spaces for sustainability learning? Area 44, 54-60.
- Diaz-lopez F Tukker A Van de Lindt M Mont O Lorek S Spangenberg J and Giljum S (2009) Systemic approaches to innovation and some lessons for sustainable consumption and production Paper submitted to the Joint Actions on Climate Change conference 8-10 June Aalborg, Denmark
- Doyle, R and Davies, A.R. (2013) Towards sustainable household consumption: exploring a practice oriented, participatory backcasting approach for sustainable home heating practices in Ireland. Journal of Cleaner Production 48 (2013) 259-270
- Doyle, R. (2013) Towards a future of sustainable consumption: a practice oriented participatory backcasting approach for sustainable heating and washing practices in Irish households, unpublished PhD research, Trinity College Dublin
- Dreborg K H (1996) Essence of backcasting Futures 28(9) 813-828
- Elzen B Geels F W and Green K (2004) System innovation and the transition to sustainability: theory, evidence and policy Edward Elgar, Cheltenham
- Green K and Vergragt P (2002) Towards sustainable households: a methodology for developing sustainable technological and social innovations Futures 34(5) 381-400
- Hinton E and Goodman M K (2009) Sustainable consumption: developments, considerations and new directions in Redclift M and Woodgate G eds International handbook of environmental sociology (2nd edn) Edward Elgar Publishing, Cheltenham
- Jackson T (2005) Motivating sustainable consumption: a review of evidence on consumer behaviour and behavioural change A report to the sustainable development research network sponsored by the Department for Environment, Farming and Rural Affairs (DEFRA), London
- Jegou F and Manzini E (2000) The construction of design orienting scenarios Final report Sushouse project, Faculty of Technology, Policy and Management, Delft University of Technology, Delft
- Jungk R and Mullert N (1987) Future workshops how to create desirable futures 1996 English Adaption edn Institute for Social Inventions, London
- Kolb D A (1984) Experiential learning: experience as the source of learning and development Prentice Hall, Englewood Cliffs NJ

- March J G and Olsen J P (1975) The uncertainty of the past: organizational learning under ambiguity *European Journal of Political Research* 3 147–71
- McDowall W and Eames M (2006) Forecasts, scenarios, visions, backcasts and roadmaps to the hydrogen economy: a review of the hydrogen futures literature *Energy Policy* 34 1236-1250
- Meadowcroft J (2009) What about the politics? Sustainable development, transition management, and long term energy transitions *Policy Sciences* 42(4) 1-18
- Quist J (2007) Backcasting for a sustainable future: the impact after ten years EBURON Academic Publishers, Delft
- Quist J and Vergragt P (2006) Past and future of backcasting: the shift to stakeholder participation and a proposal for a methodological framework *Futures* 38(9) 1027-1045
- Quist J, Thissen W, Vergragt P (2011) The impact and spin-off of participatory backcasting after 10 years: from Vision to Niche, *Technological Forecasting and Social Change* 78(5): 883-897.
- Rotmans, J. (2008) Detour ahead: a response to Shove and Walker about the perilous road of transition management. *Environment and Planning A* 40: 1006-1014
- Shove E, Walker G, (2007) CAUTION! Transitions ahead: politics, practice, and sustainable transition management *Environment and Planning A* 39(4) 763 – 770
- Shove E (2003) *Comfort, cleanliness and convenience: the social organization of normality* Berg publishers, New York
- Shove E (2010) Beyond the ABC: climate change policy and theories of social change *Environment and Planning A* 42, 1273-1285
- Sondeijker S Geurts J Rotmans J and Tukker A (2006) Imagining sustainability: the added value of transition scenarios in transition management *Foresight* 8 15-30
- Southerton D Chappells H and Van Vilet B (2004) *Sustainable consumption the implications of changing infrastructures of provision* Edward Elgar, Cheltenham
- Spaargaren G (2003) Sustainable consumption: a theoretical and environmental policy perspective *Society and Natural Resources* 16(8) 687-701
- Tapscott D and Williams A (2006) *Wikinomics: How mass collaboration changes everything* Penguin Books, New York
- Van de Kerkhof M and Wieczorek A (2005) Learning and stakeholder participation in transition processes towards sustainability: methodological considerations *Technological Forecasting and Social Change* 72 733-747
- Vergragt P (2000) *Strategies towards the sustainable household: final report, Sushouse project* Faculty of Technology, Policy and Management, Delft University of Technology, Delft
- Vergragt P (2005) Back-casting for environmental sustainability: from STD and SusHouse towards implementation, in: M Weber, J Hemmelskamp (eds.), *Towards environmental innovation systems*, Springer: Heidelberg, 301-318.
- VEIL 2010 Victorian Eco Innovation Lab Report February 2010 Victorian Eco-Innovation Lab [VEIL] Faculty of Architecture, Building and Planning, University of Melbourne, Victoria

# Design in the era of Liberal Sustainability paradox

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## Abstract

Although there is a problem that “majority of people aspire to continuous accumulation of wealth and possessions without considering the social or environmental impacts of their daily activities while minority are decreasing their earnings and material dimension experience improvements in overall quality of life (SCORAI, 2013)”, there is no one proper solution for defined problem.

The majority of the global society is living in the capitalism which is an economic system based on the private ownership of capital goods, creation of goods and services for profit that requires capital accumulation and competitive markets. The aim is one – to consume more - whether it is consumption of so called “green” products or so called mass consumption products. “In order for organisations to survive, they must engage in product development” (Eger et al, 2013). Consumption is the blood of capitalism resource - production closed loop cycle. It is clear that the system demands an active participation of the majority to live a resource intensive way of living to keep the circulation of the blood. There is evidence that such a system did not happen itself. Arthur Pulo stated that America, as a sample of a democratic capitalism system, was designed (Dilnot, 1989). Designers were they who helped to create a consumer welfare society for the sake of economic regeneration. To prototype sustainable consumption and production patterns, formation of the socio-economic system, cause and effect needs to be analysed.

The research presented in this paper is based on literature review. Theoretical substructures will discuss the use of design from a historical perspective in developing and sustaining unsustainable consumption patterns; the term ‘liberal sustainability paradox’ will be constructed and debated. In the conclusion, feasibilities of using design for sustainable consumption and development will be constructed on the basis of historical and theoretical perspectives of research relevant to the problem, discovered by SCORAI network.

The research testifies a conflict between sustainism and modern capitalism as politics of liberalism. Although liberalism is based on the ideas of liberty and equality, ownership, free trade and social liberalism activities are just formal promoters of sustainability. Inefficiency of the existing system marks a paradox of freedom of the choice by an individual and never ending fulfilment of wishes and intention of implementation sustainability development as a central axis of policy planning and businesses for “the future of the future” (Fry, 2011).

## ***Problem: Use of design to endure unsustainable consumption patterns***

Enhancing and accumulation of material wealth as an axis of economy leave an impact on social and economic factors of sustainability, such as social crisis and changes in ecology.

“More” is a key word of sustainable development planning agendas by the international organisations. It is crucial to make more informed choices with no matter whether they are so called green or mass consumption products (<http://ec.europa.eu/europe2020>, 2012) and to consume more. An economic aspect as a ground for sustainability is determined as a framework politically because for organisations to survive, they must engage in product development (Eger

et al., 2013). It means to produce new and new products which are intended to be bought and consumed by us and meant to be as an identity of our material world.

The problem lies not only in the aspect that goods created and produced have a short term usability and people have to buy these products, but also in the fact that availability of finances has decreased; that is in a direct way is linked with the ability to consume and accumulate any kind of products –either green or mass consumption to be used for a short period of time as a back-up of a never-ending process of the production. Consequently, the waste is not produced by the people as consumers but by producers, designers and technologists who are designing and producing products for short term use and landfill according to the conditions settled by entrepreneurs. The problem is also in socially and ecologically irresponsible global businesses (corporations) as exploitation and use of natural and labour resources for the sake of their owners rather than in local micro business as they are linked in everyday operation with local people and communities, where a production is based.

As early as in 18th century, manufacturers constantly updated and adapted design of their products as to the change of shape and style according to current trends (Styles, 2010), but in the first part of the 20th century an American industrial designer Brook Stevens created a link between design, stimulated consumers' wishes and continual innovation, designing a planned obsolescence to make existing products look like old ones and to bring the society into a never ending consumption process and a continuous product replacement. Planned obsolescence was a part of a new business model, where design was used as investment to stimulate sales. Already then there was a critical opinion that design was used as a tool to manipulate with people. Planned obsolescence was named as the new consumer ethic, recognizing that consumption expands production, returning people to jobs during high unemployment periods and renewing consumers' self-confidence. Product longevity and durability standards were in contradiction with the planned obsolescence of goods that pointed on novelty and existence of short term wishes and contributed to the promotion of emergent consumers' lifestyle. (Raizman, 2003) In 20th century design was used as an instrument for solution of economic crisis and regeneration. Advertisement manager Elmo Calkins in a business magazine in late 1920s stated that design adds appeal, willingness and value to the products. This strategy was developed to the fineness, designing consumers engineering and sustaining emergence of wishes with the help of designers (Raizman, 2003).

Nevertheless, the subject of the discussion about sustainability and continuity should be not about how to stimulate desire for new products with the help of design, nor how to produce new and more and more goods by replacing technologies, style or form of the product, nor fulfilment of never ending wishes as they show up and performance of identity, but rather about how to promote significance of the values and that reasonable recognition and fulfilment of needs by using design creates a sufficient model, that also the generation after the next one could live a qualitative life as well as how to implement design thinking in strategic planning as a responsible choice in both product development and production and in relation with individuals and communities. Like we have been told that one or another product is vitally needed, there is a potential to develop a system of values and needs.

### ***Liberal Sustainability paradox***

To live better, we do not need, individually, an endless accumulation of goods, which means consumption of new products as a replacement of useful but older ones. Specifically, this planned obsolescence of goods and manipulation with people telling that wellbeing might be achieved by buying new and new goods and the more there is produced the more there is bought, the better we live, reveals the problem of sustainable consumption and production as the emphasis should be not on creation and production of more environmentally friendly mass consumption products but rather how to live and to achieve social wellbeing and satisfaction while consuming less. The global economy and financial system is developed and operates on

the principles of liberalism, such as freedom, equity, legal and social justice, it advocates free trade and private ownership. It contradicts with the defined sustainable development approach, that speaks of “meeting the needs of the present without compromising the ability of future generations to meet their own needs” (United Nations, 11 December 1987) envisaging fulfilment of particular needs, not wishes in a particular period of time that encompass the ability of every generation to meet its needs and not to endanger the existing of each next generation. As the definition of sustainable development embodies satisfaction of cyclically continual generation needs, it is possible to say that social sustainability, in particular, is in the heart of sustainable development but not a possibility to be continued by financial or free market economy using the limited resources of the planet. Design could be used as a tool to ensure social and ecological sustainability because of its sustained contribution to economic wellbeing.

Capitalism survives in spite of the evident poverty and exploitation enclosed by it (Crossley, 2005). Consumption is the blood of capitalism and production has been included in a never ending consumption cycle. To sustain such a system, an active participation of people is needed who live a resource intensive life and continue the circulation of the capitalism blood. The system of consumption did not happen by itself, it was created. Arthur Pulo stated that America, as a sample of democratic capitalism system, was designed (Dilnot, 1989). Designers were they who helped a consumers' wellbeing system to emerge and they are the ones who continue to sustain it for the needs of the economic system but not for the needs of social or ecological sustainability.

Globalization as the ground of liberalization has created a class of individualists and multinationalists as nomads. Global corporations do not have an identity, they do not belong to any nationality, they do not have a permanent settlement and they are not loyal to any particular nation. Global corporations can move their enterprises around the globe to any place where they do have better conditions, such as tax reduction, lower labour costs, more flexible legal base, possibility to employ and to dismiss as they want, feel free to change working conditions - a place without labour associations (Crossley, 2005) and opportunity not to invest in working environment that is socially irresponsible towards the people of a particular community and towards using ecological and nature resources (<http://www.economist.com>, 2013). Although globalization has diverse forms of manifestation and some are more positive than negative, the current form of globalization is socially disruptive, destructive and unfair for the part of society who does not have a power (Crossley, 2005).

In a situation with a limited availability of financial recourses, is it a solution to ensure material accumulation and purchasing power to produce more and more effectively with an aim to minimize social crisis? It is clear that ‘more’ or magnitude in production does not verify social wellbeing. Enhancement in social wellbeing is essential for economic growth on the level of income especially in developing countries but not so important in developed ones (Common & Stagl, 2005). People generally report social and individual well-being as greater subjective life satisfaction if they have strong and frequent social ties, live in healthy ecosystems, experience good governance. Research over a period of many years has approved that happiness as relationship does not increase when income level grows. Constancy of happiness or satisfaction indicator is distinctive to all developed countries that have reached particular and steady GDP; the growth of happiness was seen during the periods when GDP was growing (Common & Stagl, 2005). A professor of economics Deirdre McCloskey argues that a sense of happiness are the words of particular moment but the first Gross National Happiness (GNH) Survey analysed satisfaction of people using seven different indicators, including capability to satisfy economic conditions and quality of live environment: economic satisfaction (savings, debt and purchase power); environmental satisfaction: (pollution, noise and traffic); workplace satisfaction (job satisfaction, motivation, ethics, conflict, etc.); physical health (severe illnesses, overweight); mental health (usage of antidepressants, self-esteem, positive outlook); social satisfaction, including family and relationship satisfaction (domestic disputes, communication, support, sex, discrimination, safety, divorce rates, complaints of domestic conflicts and family lawsuits, public

lawsuits, crime rates, etc.); political satisfaction (quality of local democracy, individual freedom, and foreign conflicts, etc.) (Jones).

*Table 1: Divergence of measurement criteria*

<b>Gross Domestic Product</b>	<b>Social Well-being</b>	<b>Gross National Happiness</b>
Private consumption	Social ties	Economic satisfaction
Gross investment	Healthy ecosystem	Environmental satisfaction
Government spending	Good governance experience	Workplace satisfaction
Export - import		Physical health
		Mental health
		Social satisfaction and relationship satisfaction
		Political satisfaction

Economic capital is more rational and more easily calculable and includes quantifiable values such as money, financial value, goods and land (Crossley, 2005, p. 2), but there is an apparent difference in providing social wellbeing by GDP and GNH indexes: the first one reflects material and economic wealth, the second one social aspect, i.e. satisfaction with life in general. It is possible to say that economic and symbolic capital is about admission of the status that in a differentiated society as a prestige might be localised because liberalism is promoting individualism and material wealth (Crossley, 2005).

Liberalism, on the one hand, has created global mobility using self-capacity, resources and knowledge to be able to accumulate private material wealth and economic capital, on the other hand, however, it encourages non camaraderie, rivalry, showing off and scud after 'more'. At the same time, liberal approach suggests thinking of the next generation and therefore we should decline the consumption model 'more' to suffice also for our grand, grandchildren. Sustainism favours simplicity, not to reduce things to their simplest form but to incorporate the complexities of life – including time, contact, meaning, perpetual learning, emotion and trust (Schwarz & Elffers, 2010). Community, social equity, fulfilment of needs, social class and collective ownerships is characteristic to sustainism as well as socialism. In socialism, a human as a social being is a common ground for the existence of the community, where individual identity is highlighted in the mutual belonging to one or another social group or collective. In liberalism, an individual is crucial. Sustainism is a movement to exclude no one, rather than to include everyone where in the centre of community is connectivity. In sustainability, a community is coherent, self-organized and informal. (Schwarz & Elffers, 2010) Differences between sustainism and modernism as styles of expression were compelled successfully by Michiel Schwarz and Joost Elffers; it is possible to define liberal sustainability paradox by supplementing the description of liberalism, socialism and sustainism manifestation of social capital (Field et al, 2000, p. 25).

*Table 2: Evidence of Liberalism and Social Sustainism*

<b>Liberalism</b>	<b>Modernist style</b>	<b>Sustainist style</b>	<b>Social capital</b>	<b>Socialism</b>	<b>Sustainism</b>
Individualism	Less is more	Do more with less	Relationship	Community	Next generation
Laissez-fair capitalism	Uniformity	Diversity	Level of reliability	Social equity	Sharing

<b>Liberalism</b>	<b>Modernist style</b>	<b>Sustainist style</b>	<b>Social capital</b>	<b>Socialism</b>	<b>Sustainism</b>
Private ownership	Autonomous	Interdependent	Affiliation/ participation	Collective ownership	Private ownership as inheritance of liberalism
Free trade	Nature as resource	Nature as source		Fraternity	Communal and shared use
Social guaranties	Planning	Co-design			Co-creation as participation
Consumption	Form follows function	Meanings follow connections			Experience
	Machinelike	Mirroring nature			
	Linear	Cyclical	Interactive/ mutuality		
	Structure	Flow			
	Minimalist	Variegated			
	Reductionist	Complex simplicity			
	Objects	Connections	Social cohesion		
	Centralized	Networked	Citizenship	Relationships	Collaboration
	Appropriation	Open-source exchange	Raise of capacity and authorization		
	Efficiency	Effectiveness			
	Disposable	Recyclable			Refusal of consumption

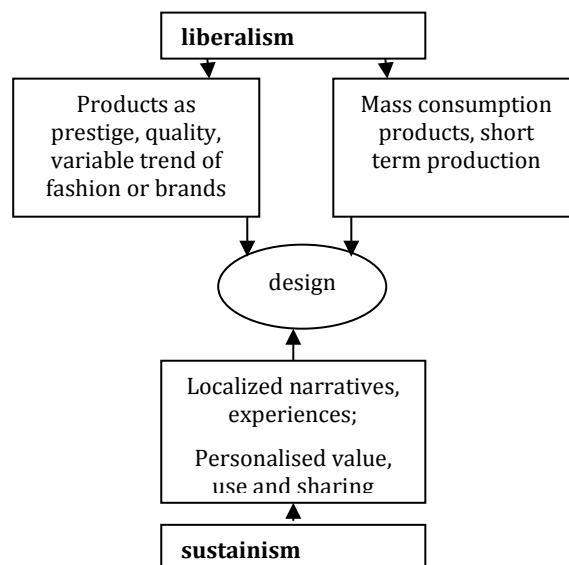
Liberal sustainability paradox is an inconsistency between the dominant economic-political ideology and a method of operation to achieve an articulated sustainable development vision as required for solutions of social and ecological problems. Sustainism as a holistic ideology of implementing sustainability and sustainable development where the axis of social component is the localized globalisation with the value, social responsibility and rational governance of the resources for the sake of local community or regional inhabitants is unacceptable to the dominant ideology due to the accumulation of surplus and capital for global corporations, investors and private business close to the ideology.

Although the nomadic or rover lifestyle, the first in the human history, emerged due to climate changes, it is considered that the lifestyle of settlers, the second type of human lifestyle, is approaching its end because of ecological and environmental changes again. In the course of thousands of years, the human has adapted to the life geographically and biologically. The biggest problem today is that the biggest part of the world has become urbanised and has interrupted the commitment with the nature (Fry, 2012).



## ***Feasibilities of using design for sustainable development and consumption***

The word “design” was used for the first time in Oxford dictionary as early as the end of 16th century in a sense of a plan or schema created by a person for the realization of something alongside with the traditionally known meaning of designing an object or drawing (Burdek, 2005). ICSID defines design as a creative activity aimed to establish the multi-faceted qualities not only of objects, but also of processes, services and their systems in whole life cycles. Therefore, design is the central factor of innovative humanisation of technologies and the crucial factor of cultural and economic exchange (<http://www.icsid.org>). Although design primarily was applied to mean a form, style and aesthetic language of the objects, design is also an instrument or method for the humanisation of systems, strategies, relationships and processes, i.e., not only for the sake of economy and culture, but also as modelling of social systems and social capital. Sustainable design process requires a change in several fundamental ways: willingness to do things differently compared to what is conventionally done; requires expanded collaboration between disciplines and a greater focus on the process; it requires the use of a holistic thinking process by key decision makers. (McLennan, 2004) To enhance sustainable development strategic design thinking as ability to take a broad ‘systems approach’ to the problem, rather than accepting narrow problem criteria; ‘framing’ the problem in a distinctive and sometimes rather personal way and designing from ‘first principles’ (Cross, 2011) is needed. Therefore promotion of sustainable consumption and production system as a way to sustainability is bind to thinking, planning, value and the model of action rather than criteria of product development life cycle, eco-design or end-of-life approach. Although design traditionally has an impact on stimulating economy, it is regarded and classified as cultural capital that may embody in a tangible form and manifest itself in an institutionalized form of education and qualification as well as cultural experience (Crossley, 2005). As cultural capital, design has been classified due to it use historically as aesthetic and style. To classify design as economic capital, specified measurement of the value of design is needed as it generally has not been viewed as a quantifiable monetary value rather an ideal, qualitative value achieved through the aesthetic elements of the design (Zec & Jacob, 2010). To realize sustainability mutuality of social and economic capital is needed.



*Figure 1: Use of design in sustainism and liberalism*

The use of design and design thinking in sustainability as relationship and experience building requires the application of diverse design research methods based on examination of needs and values of human as user in a contextual system and mutuality. Such an approach would

contradict to the contemporary consumer society activities as well as affiliation to the particular social group. A shift of the design application methods from the creating and producing goods as consumer or elite commodities and promoting them into the market as a ground to a progressive consumption culture and to the advertising industry, to the creation of products and services with a deliberate analysis and qualitative local solutions as identity or user experiences and where the result should not always be tangible. Therefore many producers are producing and offering goods not as material products but as symbols and identities where identity as rationality is embodied in relative opposition by individual to others in the context of mutual interaction. (Crossley, 2005) In this context design is applied again as a principle of styling not as a sustainable and socially responsible way of design thinking to create symbols and identities in an intangible form. Highlighting an individual against other individuals of the society is insignificant in sustainism.

Sustainability should be also viewed as social groups are trying to accomplish collective cohesion and solidarity. If sustainable development is considered as continual development of humanity, then sustainism as development of collective identity occurs as a narrative and ritual of collective history, creating strong emotional ties between members of the society (Crossley, 2005).

### ***Discussion: Conflict between sustainism and modern capitalism***

Social capital is an intangible value as opposed to economic capital that is material and embodied in tradable products. Human capital manifesting in skills and knowledge creates intangible, yet so significant relationships between neighbours and society in general, and forms an attitude towards environment and the use of recourses. Social and human capitals are contiguous theories and sustaining each of them, a different approach needs to be applied. Highlighting human capital leads to arguments of investment in all periods of education, whereas emphasis on social capital encompasses urban regeneration and community network (Brown & Lauder, 2000). This is, therefore, a starting point of a debate that design is not only shaping economic capital, but by designing experience, emotions and services is a value of the source of social and human capital.

Design as a culture capital is also allied to the movement of anti-corporations as praxis of culture globalisation. Language and cultural values are not so easy to enforce as political and economic operations (Crossley, 2005) as society is built on the relationships, empathy and exchange by the members of the society.

In social theory, it is debated that society consists of three levels: economic, political and ideological. Liberal economists maintain that economic level is the ground of the society with political and ideological levels as its above structures. There is an opinion that the economic level always determines ideological and political framework as the last instance and manifests itself in liberal market and capitalism ideology. The above structures are relatively autonomous from the underlying structures and are dominating when economic sub-structure requires or commands it (Crossley, 2005), states Althusser. It follows from this, that participators of the sub-structure, here, entrepreneurs and corporations, control ideology in the form they need by applying their own methods. Therefore it may be debated that if the basic structure was based on the social capital, ideology and economic structure would receive different messages. Consequently, ideology should start to operate for the benefit of people and communities, not corporations.

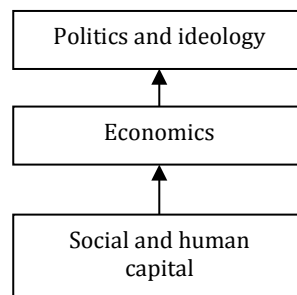


Figure 2: Interaction of the society and ideology

Ideology implemented as governance and practice means that we have to collaborate in a way the ideas are embodied. Therefore we have to analyse our habits and rituals and how we act and personify ideas and confidence. Ideology designs our state of being, who we believe, the reality in which we act and live. Ideologies have always existed as society cannot exist without its language, legal system, culture, confidence and beliefs; however, the existence of an ideology does not mean that it is good and necessary. In theories, ideology works as a distortion of reality people are living in. The real relationships by the people have always been observed in interaction with the imagination and symbolic structures. The role that highlights an individual has been discussed as real social relations and regarding others is imagined. We are playing diverse roles in our everyday life and therefore ideology represents imagined relations between roles (Crossley, 2005). It is possible to say, that design as a tangible symbol of the imagined material wellbeing is one of the methods used for designing ideology and creating sustainism as a visionary ideology and system, design thinking is crucial when applied for social, not merely economic capital creation.

### ***Overall conclusion: innovation & design production processes in the era of sustainism***

We have to acknowledge that sustainism could be attained by design action and use of design thinking leading to reduction to minimum of individualism as ego capital satisfaction, instead of that renunciation and sharing would be practiced both in personal life, in community and nationally. If this approach is to be implemented in personal life, it is changing when individual is playing the role of an entrepreneur. Being in the role of an entrepreneur, human and environmental criteria step back and such indicators as 'more' and surplus are the only ones of being successful. Of course, it is possible to argue that social corporate responsibility is a sustainability index and an example of sharing in the corporate world. However, opposition of an entrepreneur, that sooner or later means profit and capital, to a private person who acts responsively in his or her choices, creates inconsistency between sustainability as thinking and belief ideology and capitalism ideology.

When creating a sustainable ideology, its basic level should be formed as a culture and social capital.

It is an absolute fact that we all are willing to live a respectful life in fraternal and helpful relations in an unpolluted environment. But while competing about private capital and more and more profit, why do we forget that what I leave after myself and how I get my benefit refers to the owners of profit and accumulators of the capital as well? Would the owners of the global textile corporations employ their relatives and friends in the circumstances with such an attitude as to the women working in Bangladesh? It was an excellent, although a tragic example of the global economic colonization as irresponsibility to the society and community where global capitalists are getting a profit by exploiting human and natural resources. They, who are willing to earn more, find a possibility to exploit those who have no other solutions, but when

applying design thinking, a different approach would be implemented: answers and solutions would be found to improve the working conditions and life of the factory employees, to perfect work and life quality in the particular place-specific context.

Responsible human-design centred thinking is in the heart of product –service innovation system as planning processes by international organizations on a strategic level by corporate CEOs and in design processes that shape sustainable social wellbeing as satisfaction of life rather than material wellbeing.

## References

- Brown, P., & Lauder, H. (2000). Human capital, Social Capital, and Collective Intelligence. In S. Baron, J. Field, & T. Schuller, *Social Capital. Critical Perspectives* (pp. 226-242). Oxford: Oxford University press.
- Burdek, B. E. (2005). *Design History, Theory and Practice of Product Design*. Basel: Birkhauser.
- Common, M., & Stagl, S. (2005). *Ecological Economics*. Cambridge: Cambridge University Press.
- Cross, N. (2011). *Design Thinking*. Oxford: Berg.
- Crossley, N. (2005). *Key Concepts in Critical Social Theory*. London: Sage Publications.
- Dilnot, C. (1989). The State of Design History. V. Margolin, *Design Discourse. History, Theory, Criticism* (pp. 213-250). Chicago: The University of Chicago Press.
- Eger, A., Bonnema, Maarten, Lutters, E., & Van der Voort, M. (2013). *Product Design*. The Hague: Eleven, international publishing.
- European Environment Agency (1993-2010).  
<http://ew.eea.europa.eu/ManagementConcepts/scp>. Retrieved 2012.09.04 from  
<http://ew.eea.europa.eu/ManagementConcepts/scp>
- European Commission (2012.23.02). <http://ec.europa.eu/environment/eussd/>. Retrieved 2012.09.04 from <http://ec.europa.eu/environment/eussd/>
- Field, J., Schuller, T., & Baron, S. (2000). Social Capital and Human Capital Revisited. In S. Baron, J. Field, & T. Schuller, *Social Capital. Critical Perspectives* (pp. 241-263). Oxford: Oxford University Press.
- Fry, T. (2012). *Becoming Human by Design*. London: Berg.
- Fry, T. (2011). *Design as Politics*. Oxford, New York: Berg.
- <http://www.economist.com>. (2013.05.04). Retrieved 05 06, 2013, from  
<http://www.economist.com/news/business/21577078-after-dhaka-factory-collapse-foreign-clothing-firms-are-under-pressure-improve-working?fsrc=scn/fb/wl/pe/avoidingthefirenexttime>
- <http://www.icsid.org>. Retrieved 2013.30.04 from  
<http://www.icsid.org/about/about/articles31.htm>
- Jones, M. Retrieved 04. 28. 2013, from <http://www.iim-edu.org>: <http://www.iim-edu.org/polls/grossnationalhappinessurvey.htm>
- McLennan, J. F. (2004). *The Philosophy of Sustainable Design*. Kansas City: ECOTone.
- Raizman, D. (2003). *History of Modern design. Graphics and Products since the Industrial Revolution*. London: Laurence King Publishing Ltd.
- Schwarz, M., & Elffers, J. (2010). *Sustainism is the new Modernism. A Cultural Manifesto for the Sustainist Era*. China: D.A.P.
- SCORAI. (2013). Retrieved 03 2013, from <http://scorai.org>: [http://scorai.org/wp-content/uploads/SCORAI\\_Istanbul\\_CfPP\\_Jan22.pdf](http://scorai.org/wp-content/uploads/SCORAI_Istanbul_CfPP_Jan22.pdf)
- Styles, J. (2010). Manufacturing, Consumption and Design in eighteenth-century England. In G. Lees-Maffei, & R. Houze, *The Design History Reader* (pp. 41-47). Oxford: Berg.
- United Nations Environment Programme (s.a.).  
[http://www.rona.unep.org/about\\_unep\\_rona/scp/index.html](http://www.rona.unep.org/about_unep_rona/scp/index.html). Retrieved 2012. 09.04 no  
<http://www.rona.unep.org>: [http://www.rona.unep.org/about\\_unep\\_rona/scp/index.html](http://www.rona.unep.org/about_unep_rona/scp/index.html)
- Zec, P., & Jacob, B. (2010). *Design value. A Strategy for Business Success*. Essen: red dot edition.

# **Voluntary consumption reduction - experience from three consecutive residential programmes in Hungary**

## **Residential energy master as a new carrier?**

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### ***Introduction***

Our paper presents the process and the results of voluntary residential energy consumption reduction efforts through introducing and analyzing three programmes in Hungary that had different origins, but are related and connected due to the same methodology and underlying theoretical assumptions and because they build on each other.

We focus on voluntary residential energy consumption reduction through behaviour change (and not, for example, investment) for several reasons.

1. First of all, if society is to move towards low-carbon lifestyles, an imperative both from the point of view of climate change and resource scarcity issues, individuals, households as well as communities need to recognize and understand their responsibility and act upon this recognition.
2. Then, individuals and households need to know as well as experience that it is indeed possible to achieve energy use reduction through modified everyday behaviour and use patterns in order to realize the considerable saving potential available (Novikova and Ürge-Vorsatz, 2008; EEA, 2013). People tend to believe that energy saving can only be achieved through investment, and then are prone to blaming their lack of financial resources for not taking any concrete steps.
3. Individuals and households also need to know where exactly they stand in terms of everyday energy efficient practices, and how they can move forward. Research in Hungary revealed (OTP, 2012) that people tend to believe that they do everything they can and they could not possibly save any more through behaviour change when 64% of them do not even monitor their consumption, and when asked to list what exactly they do in order to save energy they only mention defrosting the fridge and unplugging mobile phone batteries. GreenDependent's work with households supports this conclusion, and households, when asked to talk about their experience, often mention how surprised they were to discover new ways of saving energy and further reducing their monthly bills.<sup>1</sup>
4. Furthermore, our experience – supported by participant case studies and presentations - shows that once individuals and households manage to save energy through changing everyday behaviour, they tend to look for opportunities to move forward. As a result, they become more open to engaging in energy efficient community solutions (e.g. car sharing, small-scale and community owned renewable energy production), and also to invest in energy efficiency focused home improvement, often to utilize their savings achieved earlier.
5. Finally, as an additional and very positive outcome that, we argue, needs to be taken advantage of more in the future, some of the people who engage in residential behaviour change oriented energy saving programmes will be motivated to become voluntary energy masters to help others change behaviour and realize energy savings.

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<sup>1</sup> See participant presentations at [this link](#) (last accessed 5 May 2013).

The three programmes our paper is based on can be described as follows (and please refer to Table 1 for a summary).

The **Gödöllő Climate Club**<sup>2</sup> is a small, voluntary, grassroots group initiated in 2009 by GreenDependent in the town of Gödöllő in Hungary, with the primary goal of reducing the carbon footprint of its members. The Club was initiated as a pilot project within an EU FP7 research project (Changing Behaviour) which investigated how to induce long-term behaviour change related to energy use.

The Club meets monthly and members discuss climate change and energy-related issues, ideas and concerns in an informal setting. Club members keep track of their consumption and emissions with the help of a carbon calculator developed by GreenDependent. They also calculate the footprints of Club events and occasionally plant fruit trees in a local community garden to offset the emissions. The Club also organizes community events like seed swaps, earth day programmes, etc. More recently, Club members have decided to become more active in the local community in order to raise awareness of what they do, attract more members, and motivate community level change.

The overall aim of the **Small Footprint (SF)** campaigns<sup>3</sup> was to initiate long-lasting behaviour change in household energy use behaviour. The objectives were to raise the energy and climate change awareness of households, to draw attention to and provide information on energy saving possible without investment, and to reduce consumption. As it is well-known that simply providing more information will not result in changed behaviour, the SF campaigns used a variety of ways and means (see details below) to reach the target group and bring about the desired behaviour and change.

**EnergyNeighbourhoods2 (EN2)**<sup>4</sup> has been a European campaign in 16 countries, one of them Hungary. The overall aim of the EN2 project was to ensure that a clear connection is made between climate change and everyday life, and to realize energy savings without reducing the quality of life. EnergyNeighbourhoods (ENs) – groups of 5-12 households led by one of the group members, a so-called energy master – were formed. ENs entered in a competition to save at least 9% energy without making investments. All through the programme and competition, ENs were offered expert advice and assistance in addition to having their own group to provide support and encouragement.

The EnergyNeighbourhoods methodology was originally developed in Belgium. The first campaign, conducted between 2007-2009 in 9 European countries (not including Hungary) won the **ManagEnergy Local Energy Action Award** in 2010<sup>5</sup> (see also EEB, 2011).

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<sup>2</sup> See more at [www.klimaklub.greendependent.org](http://www.klimaklub.greendependent.org) and at [www.energychange.info](http://www.energychange.info).

<sup>3</sup> See more at [www.kislabnyom.hu](http://www.kislabnyom.hu) and [www.greendependent.org](http://www.greendependent.org).

<sup>4</sup> See more at [www.energiakozossegek.eu](http://www.energiakozossegek.eu) (Please note that the English language website contains information only on EN2 in the UK and Ireland. This can be used as a general guideline, but there have been some differences in how the campaign was conducted in the 16 countries.)

<sup>5</sup> <http://www.managenergy.net/resources/1257> (last accessed 10 May 2013)

Table 1: Introducing the three Hungarian voluntary residential energy consumption reduction programmes

	Main focus	When?	Where?	How many participants? (people, households, groups)	Were there any energy masters/group coordinators?	Was consumption monitored (meter reading) and carbon footprint calculated?
<b>Gödöllő Climate Club</b>	(1) raise awareness of households' responsibility relating to climate change, potential and practice of energy saving through behaviour change; and (2) create a supportive community	2009 – still ongoing	In the town of Gödöllő in Central Hungary (started as a pilot project in FP7, but voluntary since 2010)	core group of 25-30 people, but cc. 250 on mailing list	no (but Club members volunteered to be energy masters in SF and EN2)	yes, but optional, focus on carbon footprint (calculated based on meter readings)
<b>Small Footprint (SF)</b>	(1) raise awareness of households' responsibility relating to climate change, potential and practice of energy saving through behaviour change; and (2) organize competition for households			<b>focus placed on households</b>		yes, compulsory, focus on carbon footprint (calculated based on meter readings)
Large Family – Small Footprint campaign		2010-2011	national (HU)	cc. 4000 households reached by campaign, around 500 participating in competition	yes, 7 people	
Small Footprint campaign		2011-2012 (parallel to EN2, Season1)	national (HU), but focus on Central Hungary	cc. 3000 households reached by campaign, more than 500 participating in competition	yes, 20 people	
<b>EnergyNeighbourhoods2 (EN2)</b>	(1) raise awareness of households' responsibility relating to climate change, potential and practice of energy saving through behaviour change; (2) create supportive communities; and (3) organize competition for them			<b>focus placed on groups</b>		yes, focus on energy saving measured in kWh (compulsory), use of carbon footprint calculator optional
Season 1		2011-2012 (parallel to SF)	national (HU), but part of international (IEE) campaign with 16 countries participating	24 groups started, 18 completed, 140 households	yes, 24 people	
Season 2		2012-2013		25 groups started, 17 completed, 120 households	yes, 25 people	

## ***Demand side energy saving***

### **Households' share in energy consumption and CO<sub>2</sub> emission**

Buildings form the largest energy consumer sector in Europe, with a 41% share of total final energy consumption in 2010. Disappointingly, the final energy consumption of buildings has been constantly increasing by 1% per year at EU level since 1990, and electricity demand by 2.4% per year (Lapillone et al., 2012).

On average households are responsible for larger part of buildings' energy use, which represent 26% of total final energy consumption at EU level (EC, 2007); however, the figure for Hungary is significantly higher, where the share of households in total energy consumption is 34%, and 30% of CO<sub>2</sub> emissions are attributed to them (Novikova and Ürge-Vorsatz, 2008; HCSO n.d.a.; Lapillone et al., 2012).

### **The role of users in influencing building energy demand**

#### *Occupants' impacts*

The energy demand of buildings is influenced both by the installed building and appliance technology and by user behaviour and decisions. Classic sociological studies in the 1970s at Princeton University showed energy use variations of more than a factor of two between houses that were technologically identical but had different occupants (Socolow, 1978). This was confirmed by a number of similar results during the 1980s in Europe (Aune et al., 1995). Current research also suggests that up to a 40-70% difference in the energy demand of similar buildings could be attributed to the occupants' behaviour (Yua et al., 2011). Similar differences were shown by Emery and Kippenhan (2006) in a longitudinal study of identical houses. The impact of tenants was largest in the case of hot water and electricity use, and was less substantial in the case of space heating. Interestingly, they also found that the contribution of the occupants was higher in technologically less efficient buildings than in renovated ones.

#### *The energy performance of residential buildings in Hungary*

In the European Union construction rate has drastically dropped due to the financial crisis. In Hungary the value of construction activities in the residential sector has more than halved between 2006 and 2011 (HCSO n.d.b.). From an energy performance point of view this means that the energy quality of the building stock is deteriorating continuously.

The same trend can be observed for appliance ownership. People have been delaying purchases and appliance exchanges, which causes the – already old – appliance stock in Hungary to slowly get more obsolete. Compared to the situation in 2009, the ratio of appliances older than 8 years has grown in all categories, in average from 43% to 46% in 2009 and 2013, respectively. This translates into a change from a total consumption of 2,673,589 MWh to 3,009,362 MWh and emission increase from 1,663,450 to 1,942,346 tCO<sub>2</sub> (CECED, 2013).

#### *Occupants' motivation and planned energy efficiency actions*

Regarding appliances, only about 6-10% of owners plan to replace their washing machines or fridges and freezers in the near future, despite the fact that the stock is so old. This ratio is slightly higher in the case of owners of products that are at least 10 years old. Decisions are influenced primarily by the price, and much less by the energy performance of appliances (CECED, 2013).

At the same time, Energy Club, a national think-tank, found that 24% of the population plans to renovate their homes within the next three years, the most popular measure being the insulation of homes. 40% of those planning to invest aim at reducing their bills through energy efficiency improvement and expect an average of 30% savings (Energy Club, 2013).



Hungarians do not use expert advice extensively. 47% of home owners use the internet as the primary source of information, 24% rely on friends and relatives for advice, and only 15% seek professional advice (Energy Club, 2013).

### **Strong need to increase the energy saving capacity of households**

Based on the above, it is clear that major effort should be made to influence energy-use-related knowledge, behaviour as well as motivation to save. While technological solutions are successfully mandated through regulations, improving energy use behaviour requires a non-traditional policy approach (Boza-Kiss et al., 2013). Motivating bottom-up initiatives is likely to yield better results (Linden et al., 2006), especially when building on the growing willingness of people to actively save energy and to transform to a more sustainable 'small footprint', low-carbon lifestyle.

The availability of incentives has seriously decreased in Hungary in recent years (Energy Club, 2013), while the motivation of the population – driven by saving money – has increased and could be used as a vehicle to ensure economy-wide energy savings. While there is a huge energy saving potential in renovating residential houses and replacing obsolete appliances, increasing and supporting the capacity of households is also needed, especially in the light of the uniquely high rate (80%) of energy poverty in the country (Tirado and Ürge-Vorsatz, 2010).

### ***The methodology used in the three residential programmes***

Although the three residential programmes discussed in this paper are different in size and scope, they were organized in a way that they could successfully build on one another. This was possible because they share a common methodology and theoretical framework.

The methodology was first developed and piloted during the Changing Behaviour FP7 project<sup>8</sup>, between 2008-2010, when the Gödöllő Climate Club was started. When its success could already be seen – along with parts of the methodology that needed to be improved as well as elements that had to be newly added -, the first Small Footprint campaign was conceived and funding secured for it. The European EnergyNeighbourhoods methodology was very similar to that of the Climate Club and SF campaigns, so provided an excellent continuation and extension of the two programmes.

The common framework and methodology has three very important elements, all meant to contribute to achieving long-term change in energy use behaviour and overall reduction in carbon emissions. They are the following:

1. using a variety of tools, enablers and motivators within the same programme;
2. creating and sustaining groups to provide context and support for behaviour change; and
3. supporting individuals and groups to become role models and trend setters (in other words, helping the low-carbon practice to move from niche to mainstream).

### **Using a variety of tools, enablers and motivators**

In the Changing (Energy Use) Behaviour FP7 project a consortium of researchers and practitioners studied the literature as well as successful and less successful demand-side management programmes in an effort to establish general success factors (Mourik et al., 2009; Heiskanen and Rask, 2008). Although, obviously, there is no 'silver bullet' for success, an attempt was made to plan the methodology for the Gödöllő Climate Club and later the Small Footprint campaigns to incorporate many of the success factors in order to create lasting change. The main elements of this methodology and concrete tools used are shown in Figure 1.

As a first step, all three programmes attempted to help people understand how their everyday energy use behaviour is part of a global system and how what they do in their everyday life

<sup>8</sup> Please refer to <http://www.energychange.info> for more details on the Changing Behaviour project and its outputs.

impacts global processes like climate change. This was done in a user-centred way meaning that an effort was made to first assess how much people already know and do about climate change and sustainable energy use through using knowledge assessment questionnaires. The outcomes of these questionnaires were then used to influence the content of information input.

As people's knowledge and experience is at a different level, and they are motivated by a variety of factors, methods and tools were developed to allow for flexibility and for household-specific assessment, action plan and progress. This was made possible through providing a great variety of tools and methods for participants as well as using different types of communication channels (e.g. electronic, printed, face-to-face meeting, informal training, community events, etc.). This way, each household could select their preferred way and speed of change. At the same time, they were reminded regularly and in lots of different ways about low-carbon living.

The competition element in the SF and EN2 campaigns helped provide an overall framework for the change, and it ensured that feedback was regularly given on progress in a variety of ways (e.g. through the CO<sub>2</sub> calculator, the evaluation of competition tasks). However, it is important to mention that each household – and in the case of EN2, each group – was assessed in terms of its own progress and achievements, compared to their own 'baseline' consumption and/or home energy audit results.

The fact that there was an opportunity to repeat the competitions (both SF and EN2) provided a chance for households to enter again in the same type or even a different type of challenge (e.g. first as an individual household then as a household part of an EN2 group) – and quite a few of them did indeed take advantage of this opportunity.

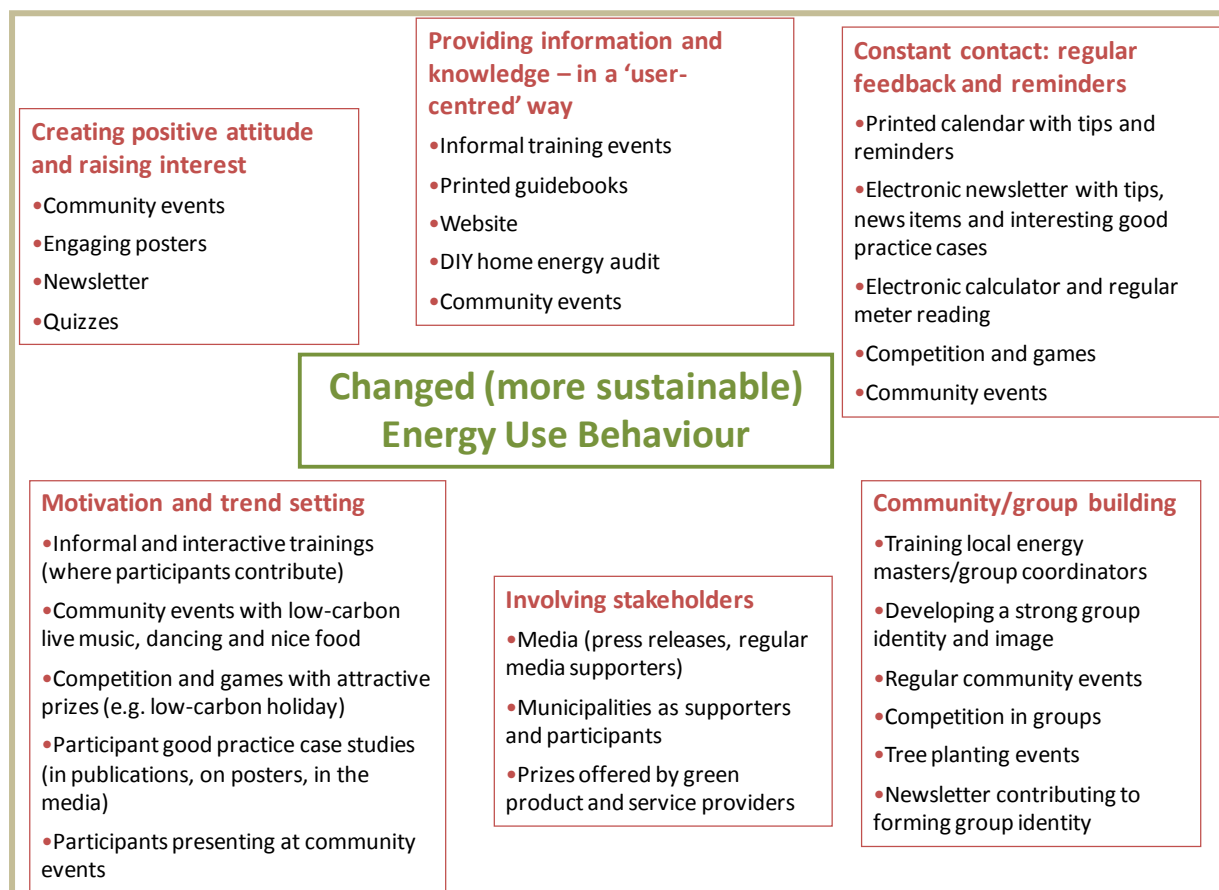


Figure 1: Summary of the methodology and tools used in the three programmes

### Creating and sustaining groups to provide context and support for behaviour change

Most of the behavioural change programmes to reduce energy consumption, and more recently to reduce the carbon-intensity of our lifestyles, have focused on individual behaviour and individual households. Thus, many of them suffer from a conceptual problem: methodological individualism. By drawing on purely economic or psychological representations of behaviour, they fail to recognize the socially grounded nature of human behaviour and the fact that energy consumption behaviour occurs in a layered context. (Jackson, 2005; Heiskanen and Rask, 2008; Heiskanen et al., 2009a)

The ways in which groups can help overcome barriers to sustainable energy use behaviour and increase people's capacity to change is summarized in Table 2 with the specific example of the Gödöllő Climate Club.

*Table 2: Ways in which small groups can help overcome barriers to behaviour change*

Capacities	Description	Barrier to behaviour change	How the Gödöllő Climate Club can help overcome barrier
<b>Personal</b>	Individuals understanding of the issue, their willingness and ability to act, their values skills and enthusiasm	Lack of knowledge and understanding, lack of willingness and skills, helplessness	Sharing and creating knowledge Providing advice, skills, motivation and encouragement Members can see that 'others are doing their bit' Assurance that being 'green' is normal
<b>Infrastructural</b>	Facilities and structures enabling sustainable living available in the community	Current socio-technical infrastructures	Creating knowledge network on the carbon intensity of lifestyles and the low-carbon solutions available in the community Limited impact on 'hard' infrastructure at the moment
<b>Organizational</b>	Values held by formal organizations in the community	Social conventions, helplessness	Challenging existing institutions Changing taken-for-granted beliefs about modern life and creating a supportive environment for problematizing current lifestyles
<b>Cultural</b>	Legitimacy of sustainability and low-carbon living in the community	Social dilemmas, helplessness	Creating a community of individuals prepared to change their lifestyle and promote these changes to others and by doing so creating legitimacy for sustainable and low-carbon values and living

*(based on Middlemiss, Parrish, 2010; Heiskanen et al., 2009b and 2010; Vadovics, Heiskanen, 2010)*

To overcome the above-mentioned challenges, the methodology of the three programmes discussed here applies a socio-technical approach and makes a conscious attempt to actively involve stakeholders who have an impact on household energy use behaviour. Furthermore, the formation of small, local groups as well as the development of a 'small (carbon) footprint' group identity is strongly promoted through various means (training of energy masters or group coordinators, developing a strong group identity and image, community events, etc., see Figure 1).

### Moving from niche to mainstream: supporting individuals and groups to become role models and trend setters

In the sustainable consumption literature it is recognized that for more sustainable, low-carbon lifestyles to become a norm, there is need for systemic change. This was already noted in Agenda 21, but was reinforced by the more recent conclusions of the SCORE! research project<sup>9</sup> (Tukker, 2008). The system innovation view postulates that there are three levels on which change can, and for the transition to a more sustainable, low-carbon society, needs to happen: at the micro or niche level, at the meso or regime level, and finally, at the macro, or landscape level (Andersen, 2008; Tukker, 2008).

<sup>9</sup> SCORE stands for Sustainable Consumption Research Exchange. More information on the project is available at [http://www.score-network.org/score/score\\_module/index.php](http://www.score-network.org/score/score_module/index.php).

All three programmes targeted the niche level. However, one of their aims was to facilitate the transfer of sustainable everyday energy use behaviour from niches to the mainstream. This is not only important in order for low-carbon everyday behaviour to spread but also for motivating early-adopter individuals and households to persist in as well as be proud of their good practice. Thus, the methodology includes elements that facilitate the transfer of the niche practice to mainstream society.

First of all, an active cooperation with various media (electronic, printed as well as TV and radio) was sought. Media sponsors were found as well as regular press releases issued. Participating and well-performing households were asked to take part in radio and TV interviews.

Then, participating household best practice case studies were written and widely disseminated through printed publications, electronic newsletters and the project websites. Furthermore, with the involvement of designers, posters were prepared and exhibited at community events and press conferences. Finally, case study owner households and groups were asked to present their best practice, success stories as well as any challenges they needed to overcome.

## Results and Discussion

In this section we provide details about the participants profile, their motivations and reasons for participating in the programmes, the information and personal development they have achieved. We discuss participants' actual knowledge about climate change and personal responsibility, as well as resulting actions that were taken by them.

Furthermore, we highlight some of the quantifiable results of the programmes, such as the amount of energy saved (in kWh) and carbon footprints. Finally, we discuss the role of involving local energy masters or group coordinators in household behaviour change programmes.

Table 3 provides a summary of the information and data sources used for the analysis of results and outcomes presented in this paper.

*Table 3: Summary of information and data sources*

	Information and data sources used for this paper
<b>Gödöllő Climate Club</b>	Evaluation questionnaires
<b>SF</b>	Initial (start-of-project) knowledge and awareness survey DIY home energy audit completed by households and then each of them evaluated by 2 experts independently Carbon footprint calculation based on monthly or bi-weekly meter readings and lifestyle questions (e.g. how much meat is eaten, holiday destinations, etc.) Participant case studies presented in published books available in electronic format from the programme website
<b>EN2</b>	Baseline attitude and energy use behaviour survey End-of-project attitude and energy use behaviour survey Energy consumption calculator data (based on monthly or bi-weekly meter readings) and historical reference consumption data (based on invoices) Participant presentations of own case studies at campaign closing events available from the programme website

### Participants' profile and motivation

All three programmes are built on **voluntary participation** which is achieved by the promise of energy (and cost) saving as well as the opportunity to get involved in something that is beneficial for the environment and future generations. The internal motivation to join a group of like-minded individuals or households has also been strong.

The programmes organised by GreenDependent developed in terms of the type of participants, from individuals to households and finally to groups of households. This indicates the search for the most appropriate level of intervention and motivation. While individuals can act successfully against climate change at the personal level, most decisions and changes in behaviour naturally involve whole households, of which all members must be engaged. By extending the focus to groups, the EN2 programme ensured a more self-sustaining system of information dissemination and involvement.

*Table 4: Typology of participants and groups in the three analysed programmes.*

*Source: own analysis.*

Programme	Type of participants	Type of participation, remuneration	Distribution of tasks
<b>Gödöllő Climate Club</b>	individuals (all ages are welcome)	individuals, voluntary (but often several members of a household attend)	led by GD experts, but gradually transforming into a self-sustaining and self-organising group
<b>Small Footprint (SF)</b>			
Large Family – Small Footprint campaign	focus on large households (3+ children), but all households are welcome	households: voluntary coordinators: voluntary, symbolic payment offered	led by GD experts, organisation of the overall programme, preparation of supporting materials, national level promotion, training of coordinators, etc. <b>coordinators</b> promote the programme, and organize, motivate and assist participants locally
Small Footprint campaign	all households		
<b>EnergyNeighbourhoods2 (EN2)</b>			
Season 1			
Season 2	groups of 5-10 households	households: voluntary coordinators: voluntary	led by GD experts, organisation of the overall program, preparation of supporting materials, national level promotion, training of coordinators, etc. <b>coordinators</b> promote the programme locally, organize, motivate and coordinate groups

In two of the programmes (Gödöllő Climate Club and EN2), participant surveys were carried out to understand their reasons for joining them. Their answers reflect the aims of the programmes and the types of participants sought.

Table 5: Motivation to join the Climate Club and EN2 campaigns.  
Source: own analysis.

Programme	Reasons for joining the programme (people were asked to indicate their 3 most important reasons)
<b>Gödöllő Climate Club</b>	The topic is interesting: 50% To meet people with similar interests: 35% To act together to save the environment: 35% To get help for actions in the close neighbourhood: 25%
<b>EnergyNeighbourhoods2 (EN2) Season 1</b>	To reduce energy bills: 73% To do something for climate protection: 69% To understand energy use & how to save energy: 67% To support climate protection activities of the city 50% To win the prize for the best Energy Neighbourhoods: 40% Friend or neighbours asked me to participate: 38% To do something social with friends & neighbours: 27%
<b>EnergyNeighbourhoods2 (EN2) Season 2</b>	To continue participation from season 1: 68% To do something for climate protection: 78% To reduce energy bills: 76% To understand energy use & how to save energy: 67% To support climate protection activities of the city 51% Friend or neighbours asked me to participate: 32% To win the prize for the best EnergyNeighbourhood: 18% To do something social with friends & neighbours: 13%

The Climate Club is a small group of dedicated individuals who already know quite a lot about energy saving and sustainable lifestyles. Thus, they appreciate the additional knowledge and the sense of community as a primary value provided by the monthly meetings. It is also clear that most members feel closely associated with the group, and have a feeling of ownership, which seems to be increasing with time.

In the EN2 campaign households reported different motivations and attitude to the programme, more typical of the general public. This did not change between the two seasons. The majority of participating households were motivated by the opportunity to reduce energy bills as well as doing something good for the environment (climate). A great number of them also wanted to learn more about energy use and energy reduction possibilities. To a limited extent, they were also motivated by joining others. Interestingly, they were not so much motivated by winning the competition. From participant case studies presented at the closing event of both seasons it appears that it was clear for participants that the competition setting would help them move ahead, but the largest gain they would get will be the knowledge and actual savings.

### Carbon literacy and carbon capability

The three aims of the initiatives have proven to be achieved in all three programmes:

- to increase knowledge and awareness of the participants, improve availability of appropriate information;
- to increase readiness to save energy through behaviour change and thus lead a more sustainable 'small footprint' life; and
- to engage households in actual behaviour change and achieve savings.

### *Change in awareness and knowledge due to the programmes*

All three programs increased the knowledge of the participants about climate change, energy efficiency and the link to personal responsibility. We tested these changes attributable to the programmes through participant surveys.



Everyone in the Climate Club participant survey stated that they have gained more information about sustainability. One member noted that “I finally found a place to meet with like-minded people. I wish there were more places like this!” and another person said “I learnt a huge amount from the newsletters, which always had new information for me, even if I am very much involved in the subject due to my profession.” Indeed, the particularity of the Club is that it helps continuous development of knowledge even for ‘advanced’ members.

In the evaluation surveys of the EN2 campaigns, we asked participants to self-evaluate their knowledge. Most people feel moderately informed about energy efficiency issues (see Figure 2), which slightly improved between the start and the end of each season.

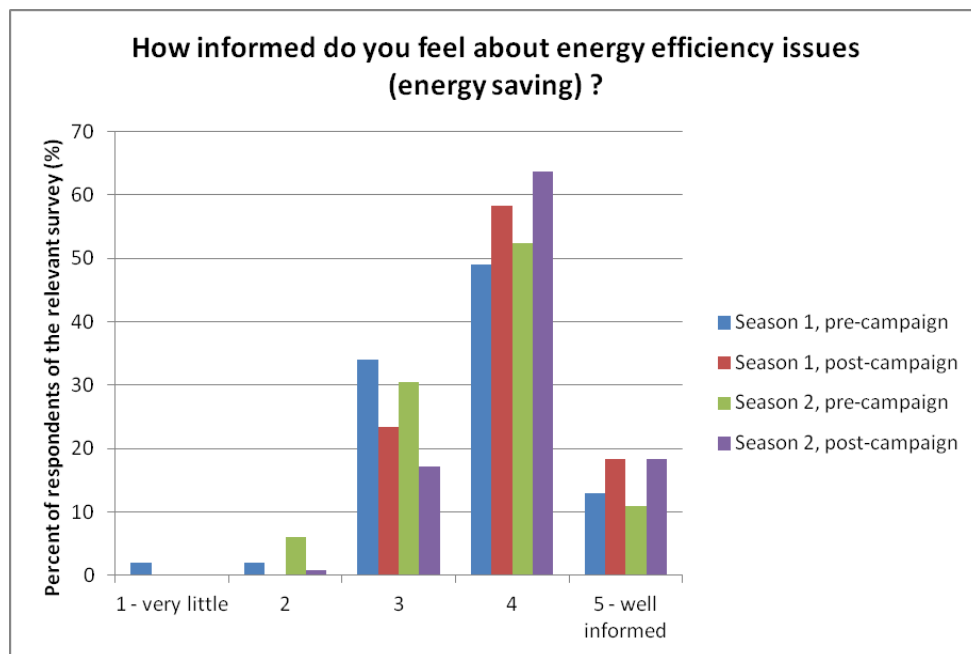


Figure 2: Knowledge of the EN2 participants about energy efficiency based on the evaluation surveys before and after the campaigns. Source: own analysis.

In the scope of the SF campaigns a series of more detailed knowledge and awareness surveys were conducted at the start of the programmes (baseline survey) and at the end of the competition (closing survey). In general, we concluded that factual knowledge, understanding one's (personal and country level) role in climate change, and awareness about the ways and the level of the potential of energy savings at home have all increased during the SF campaigns. This must be due to the very intensive education and training of both the coordinators and participants that were integral part of the programme (see Figure 1).

Excerpts from the results:

- In the baseline survey, only 40% of the respondents evaluated Hungary's relative carbon footprint (compared to other countries) correctly, while this was 99% in the closing survey;
- Four out of five people (80%) could identify greenhouse gases correctly after the programme, as opposed to 23% in the baseline survey;
- 45% and 83% knew correctly the atmospheric residence time of a CO<sub>2</sub> molecule in the baseline and closing survey respectively;
- The level of knowledge in respect to the share of end-uses in energy consumption in the home also increased significantly, from 20% to 84% selecting the right answer;

- The awareness about the energy certification of buildings was also proven in the closing survey, with 60% of the respondents knowing that category “C” refers to current technical requirements prescribed by legislation.

#### *Enabling the self-evaluation of own saving potential: home energy audits*

Do-it-yourself (DIY) home energy audit forms were prepared and made available for people in all three programmes to assist them in evaluating their current energy use patterns as well as in selecting the best saving options. The audit is comprised of a set of questions relating to the energy efficiency status of the home (e.g. location and siting, insulation levels, types of doors and windows, heating technology, renewable energy use), and how energy is used in the home. Following these questions, people were guided with further questions to evaluate their strengths and weaknesses, and then asked to select at least three energy saving measures that they wanted to undertake both for the short (i.e. during the programme) and the long run. The DIY audit was first developed for people participating in the Gödöllő Climate Club<sup>10</sup>, but was later improved for the two consecutive campaigns based on both participant and expert feedback<sup>11</sup>.

The DIY home energy audits were used in slightly different ways in the three programmes. In all three of them, all participants were presented with the opportunity to use the audit form. In addition to this, in the Gödöllő Climate Club, members have been offered free expert advice to support the preparation of their audits, and at times Club members sat down to discuss their audits together and gave each other feedback and assistance. In the SF campaigns the use of the energy audit form was strongly suggested for households taking part in the competition. In both of the SF campaigns audit forms filled in by households were collected and evaluated by two experts independently. It is the result of this evaluation that we base our conclusions relating to the ability of people to evaluate their own energy use and saving options.

We found that about half of the households (64% and 46%, respectively, in the two SF campaigns) were able to evaluate correctly their strengths and weaknesses in terms every day energy use practices and the potential of their home in terms of energy efficiency and facilitating low-carbon living. Furthermore, they were also able to select the most effective ways of changing their behaviour to increase their energy efficiency.

#### *Participants' energy saving practices*

As part of the baseline surveys, we asked the respondents to indicate what pro-environmental behaviour they were bringing into the programme within the SF campaigns. The following graph (Figure 3) shows the result of the collection.

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<sup>10</sup> Please refer to <http://klimaklub.greendependent.org/en/documents/climate-calculator-and-audit.html> for the first version of the DIY home energy audit (last accessed 11 May 2013).

<sup>11</sup> Please refer to [http://www.energyneighbourhoods.eu/sites/default/files/Haztartasi%20klima-audit\\_0.pdf](http://www.energyneighbourhoods.eu/sites/default/files/Haztartasi%20klima-audit_0.pdf) for the current version of the DIY home energy audit (last accessed 11 May 2013). Please note that the Hungarian audit form is different from the one used in other countries.



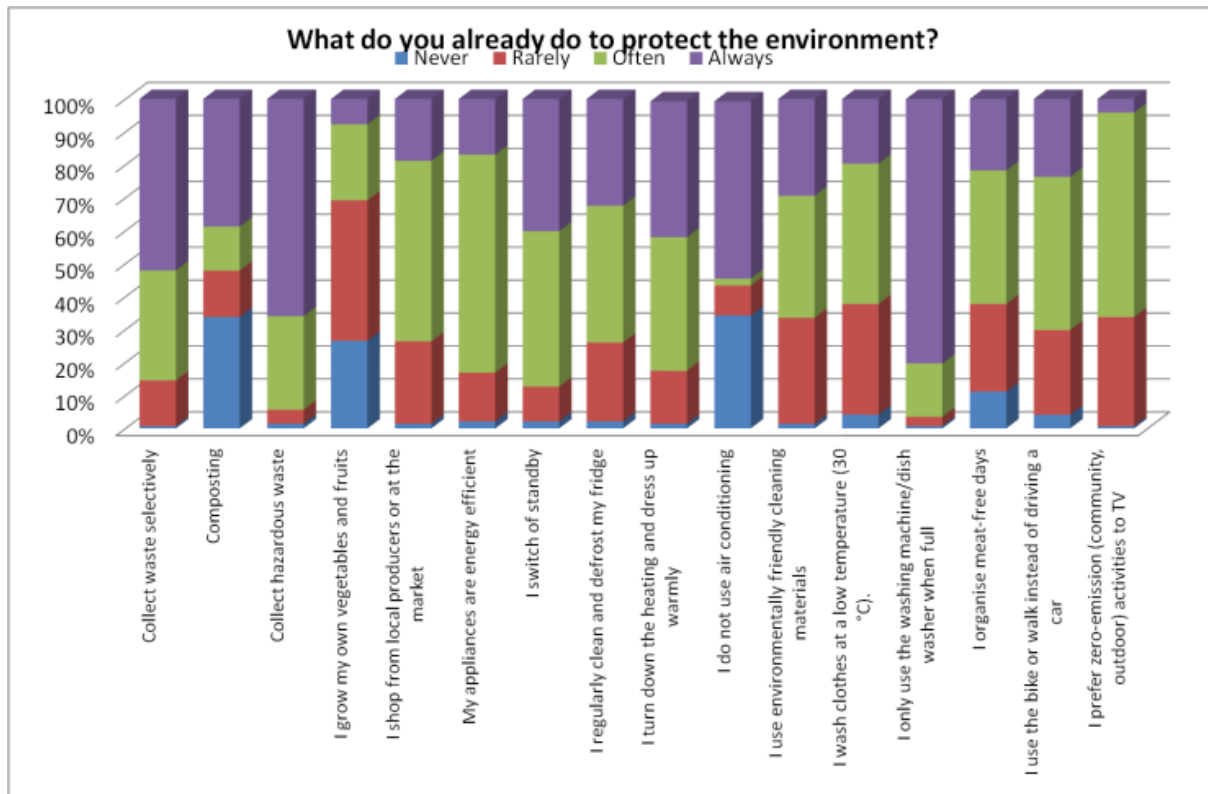


Figure 3: Actions that SF campaign participants were already doing prior to the campaign.

Source: own analysis

The two SF campaigns involved a self-audit (home energy audit, see the section above) as a first step of the competition, and then, as the final activity, a short report from all households on what they managed to carry out. Table 5 is a selection of the most popular and most interesting or unique actions completed by participants. It is notable that households had to identify these opportunities themselves and select those that are feasible and most beneficial in their particular case. This was because we aimed at increasing their self-evaluation capabilities.

Similar information was collected in the first season of the EN2 data in a less guided manner through surveys (in this programme the use of the DIY home energy audit was optional). These results are also included in Table 6.

Table 6: Energy saving and pro-environmental behavioural changes during the campaigns. Source: own analysis based on the expert evaluation of home audits and the final report by participants

	Most popular actions	Unique/interesting actions
<b>SF campaigns</b>	<ul style="list-style-type: none"> <li>• Changing regular light bulbs to CFL</li> <li>• Switching off lights in unused rooms</li> <li>• Metering the energy use of appliances</li> <li>• Growing own vegetables and fruits</li> <li>• Using washing machine only when it is full, washing less often</li> <li>• Setting the toilet to use less water</li> <li>• Walking more</li> <li>• Installing blinders</li> <li>• Defrosting the fridge regularly</li> <li>• Avoiding standby</li> <li>• Buying used products and offering old or unused ones for charity</li> <li>• Spending most of our time in the colder/warmer rooms of the house</li> </ul>	<ul style="list-style-type: none"> <li>• Planting trees for shade to reduce need for air conditioning</li> <li>• Purchasing of new energy efficient appliances, with particular attention to water consumption</li> <li>• Rain water collection to enable showers in the garden in the summer</li> <li>• Building a fireplace and other ways to enable switching to wood burning</li> <li>• Going to library</li> <li>• Renting electronic tools (instead of owning them) that are used rarely</li> <li>• Climate-friendly gifts for birthdays and Christmas</li> <li>• Lowering body heat with cold showers or</li> </ul>

	Most popular actions	Unique/interesting actions
	<ul style="list-style-type: none"> <li>• Opening windows in the night in summer</li> <li>• Cooking less, and planning meals better</li> </ul>	<ul style="list-style-type: none"> <li>• with wet towels in summer (instead of air conditioning)</li> <li>• Having low-carbon days every week (no TV, no internet and experimenting with raw dishes)</li> <li>• Having meat or dairy free days</li> </ul>
<b>EN2 Season 1</b>	<ul style="list-style-type: none"> <li>• Turning down the heating for the night or when not at home</li> <li>• Changing to energy saving lamps/LED</li> <li>• Taking shorter showers</li> <li>• Less use of car, more walking, more public transport</li> <li>• Using switchable power strip</li> <li>• Switching off lights</li> <li>• Collecting bath water and reusing it</li> <li>• Insulating the door, windows, and some of the colder walls</li> <li>• Avoiding stand-by</li> </ul>	<ul style="list-style-type: none"> <li>• Tracking of energy usage</li> <li>• Eating seasonal fruits</li> <li>• Less ironing, hanging out clothes immediately after shaking them well</li> <li>• Shortening ventilation time</li> <li>• Switching off the boiler when we leave the flat for several days</li> <li>• Visiting relatives more often: this results in less energy use at home, and vica versa</li> </ul>

In general it can be concluded that the popular and low-hanging fruits were reaped by the majority of households that participated in the programmes. Furthermore, more advanced 'energy savers' could still find many areas to improve and this has resulted in a large collection of interesting and innovative ideas, including climate-friendly Christmas celebrations, reducing ironing needs, having weekly low-carbon days, etc.

In the EN2 campaign, questions in the survey were designed to allow for an analysis of the background factors of observed behaviour change. These indicators measured the level of knowledge in particular related to understanding logical relationships, motivation levels, intentions and actual behaviours. These indicators show relevant changes on a range between -10 and 10 (see Figure 4).

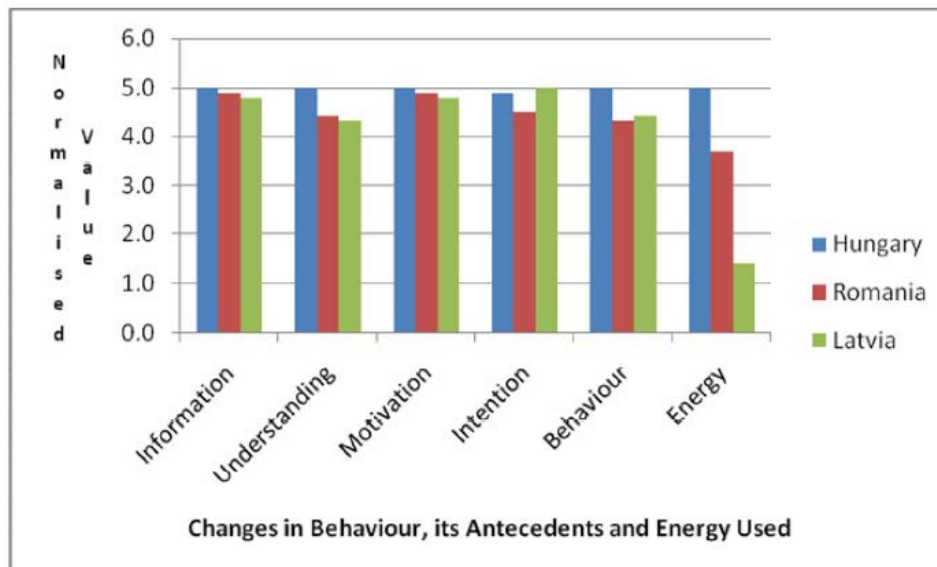


Figure 4: The relative change of behaviour and its antecedents in the first season of EN2 in 3 participating countries. The normalised value of indicators show a positive change in all areas in all countries during the campaign. Source: EN2 Consortium, 2012.

The clear increase of all antecedents and also of energy efficient behaviour support current theories in psychological-behavioural literature. Low-carbon behaviour has certain pre-determinants, which should be influenced at the same time. Information levels, understanding of

one's own role and a feeling of responsibility, thus motivation, are essential drivers to improve intention and motivation (EN2 Consortium, 2012).

*Energy saving and carbon emission reduction – can households monitor their consumption?*

One of the most important questions to be asked is whether households participating in the three residential programmes managed to reduce their energy consumption and resulting carbon emissions. As indicated in Table 1, all three programmes used calculators to keep track of and monitor both energy consumption and carbon footprints.

Recent research on the general awareness of households of their energy consumption in Hungary revealed that 64% do not keep track of or monitor their consumption (OTP, 2012), with 21% never looking at their energy bills (Bell Research, 2013). Although no specific quantitative survey was carried out in the three programmes in this regard, our experience confirms that a lot of households have difficulty in interpreting their energy bills, providing reliable reference consumption data as well as are reluctant or find it challenging to read meters regularly. Quite often the reason for this is simply to do with the lack of established routines. In fact, one of the objectives of the three programmes was to help households establish such monitoring routines.

Because of its more informal nature, there was no comprehensive study done on the carbon footprint reduction or energy saving achieved by the Gödöllő Climate Club members. However, Club members regularly discuss the savings they have managed to achieve and through which measures. Most members achieved at least 10% reduction in energy use since they joined the Club, and it has become customary among members to say “since I started coming to the Club, I’ve stopped using... I’ve given up... I’ve saved...”, so success in saving and being proud of it has become part of the Club identity.

In the SF campaigns those households that participated in the competition were required to monitor their consumption and related carbon footprint. Prizes were not given based on the saving achieved as it had been known by organizers that establishing reliable reference consumption would be difficult. Rather, **the objective was to establish the routine of meter reading, and familiarize households with their consumption and carbon footprint.** Nevertheless, a great number of households monitored their saving using the calculator provided<sup>12</sup>, and included results in the various tasks completed as part of the competition.

Using the consumption data based on meter readings entered into the carbon calculator developed specifically for the programme, at the end of the SF campaigns organizers calculated the average carbon footprint of the best performing households, and found that they were lower than the average Hungarian and EU carbon footprint (see Table 7).

*Table 7: The carbon footprint of winning households in the SF campaigns*

SF campaigns average per capita carbon footprint		Average Hungarian per capita carbon footprint*	Average EU per capita carbon footprint*
Large Family – SF, average of 21 winning households	SF, average of 25 winning households		
2 t/yr	2.65 t/yr	5.1 t/yr	7.76 t/yr
* Source: EEA, <a href="http://www.eea.europa.eu/data-and-maps/">http://www.eea.europa.eu/data-and-maps/</a> , data for 2010 Notes: Only CO <sub>2</sub> emission related carbon footprint was considered. The calculator developed for the SF campaigns only includes emissions related to direct energy use in the home, diet, travel and holidays; however, direct energy use is based on consumption in winter months.			

<sup>12</sup> The calculator developed for the SF campaigns (but available to all interested households) can be accessed at <http://www.karbonkalkulator.hu>.

In the EN2 programme, as the competition was based on concrete energy saving, all participating households/groups were required to provide reference consumption data, and had to read their meters at least once a month and enter the data into an online calculator<sup>13</sup>. Their savings were calculated by the calculator in both kWh and tons of CO<sub>2</sub> emissions avoided, the latter as a complementary piece of information, as the winning group of the competition was selected based on the savings achieved in kWh in comparison to the reference consumption in kWh. The savings achieved in the two seasons of EN2 are summarized in Table 8.

*Table 8: Summary of savings achieved in the EN2 campaigns*

Season 1 of EN2		Season 2 of EN2	
Average saving of all participating groups:	9%	Average saving of all participating groups:	8%
Total saving:	221,705 kWh	Total saving:	180,000 kWh
Saving achieved by the top 3 groups:		Saving achieved by the top 3 groups:	
1. 23%		1. 23%	
2. 19%		2. 17.4%	
3. 16.5%		3. 12%	

#### *Working with energy masters / group coordinators*

In order to facilitate the formation and sustenance of small, local groups, and ensure that households and groups joining the programmes from all over Hungary had local contact people to whom they could turn to for advice, working with, training and supporting lay and largely voluntary energy masters (i.e. group coordinators) was an important part of both the SF and EN2 campaigns. People applying for the role of energy masters did not need to have any previous knowledge or experience in environmental work; however, they needed to be open and able to attract people around them to participate in the programmes (e.g. friends, family, colleagues, neighbours, etc.). Energy masters were offered training in climate change and energy saving related knowledge and skills as well as group dynamics, motivation and organization. In addition to face to face training events (which were organized 2 or 3 times during the programmes), they were also given continuous expert assistance.

Although the organizers initially worried that there might not be any people interested in becoming energy masters, it soon became obvious that there were more than enough applicants each time this voluntary position was advertised. Applicants came from all fields and sectors, and were of varied age (from university students to pensioners). Some of them were already part of a group (e.g. a large families' association, Rudolph Steiner communities, employees of the same company, etc.), others applied because they wanted to try their hand at something new and positive, or wanted to start organizing their neighbourhood. Quite a few of them reported wanting to use this opportunity to prepare for something new in their life (e.g. mothers preparing to get back to work, students getting ready for real jobs, people considering a career change, etc.), or were unemployed and wanted to do something that could turn into a job.

It is important to note that being a Gödöllő Climate Club member as well as being a regular – but successful – participant in either of the competitions prepared and motivated people to later become energy masters. 8% of the energy masters trained started as Climate Club members, and 25% of them first simply participated in SF or EN2, but then as they completed either of the

<sup>13</sup> Please note that this is not the same calculator as the one used in the SF campaigns. It can be accessed on the home page of the programme, and is available for all 16 countries participating in EN2: <http://www.energyneighbourhoods.eu/>.

competitions successfully, felt ready to start helping and motivating others. It is also worth noting that 16% of the energy masters decided to coordinate and facilitate groups in 3 out of the 4 potential opportunities, and there was 1 person who acted as an energy master in all 4 cases.

## **Conclusions**

In order for low-carbon lifestyles to become mainstream, individuals and households need to be convinced that the first important step they can take is changing their everyday behaviour, which is challenging, but possible without financial investment. The three programmes introduced in the paper set out to do this, and we can say that participating households now not only learnt, but also experienced that energy saving through behaviour change is possible as well as rewarding. Even those that perceived themselves as highly environmentally-aware households where additional savings could not possibly be made reported considerable savings at the end of the programmes.

Although material reasons (i.e. achieving energy savings and thus a reduction of the monthly bill) are an important motivating factor for people to join behaviour change programmes, many of them mention other reasons as well, such as wanting to do something positive for the environment (climate change) or their own neighbourhood. As a result, it is important to include these in communication materials designed to encourage people to adopt low-carbon behaviour, a conclusion that supported by other studies, too (see e.g. Kasser, 2009; Sheldon et al., 2011). Community events and developing a strong 'small footprint' group identity can also help incorporate these non-material motivators into climate change and energy efficiency related intercourse.

Furthermore, in this particular case in Hungary, having the opportunity to first pilot a methodology in a smaller scale programme (the Climate Club), and then applying it in several larger-scale campaigns proved to be beneficial. On the one hand, it encouraged households to participate in more than one programme and thus continue with their transition to low-carbon everyday routines. On the other, it provided the opportunity for individuals to become energy masters or group coordinators and pass on their knowledge and experience.

However, in order for this to happen on a wider scale, appropriate policies and funding should be available to support successful behaviour change programmes for longer periods of time, allowing for the programme to spread and giving participants the chance to motivate others to join through relating their good experience. As a certain percentage of participants in these programmes will be happy to become voluntary energy masters, it is conceivable that the support necessary for programmes can be progressively reduced as the number of energy masters – local change agents – grow.

Further research would be needed to establish how to encourage and empower people more effectively to become energy masters as well as what kind of frameworks and structures are needed to support them in their work. In our case, a competition with a set timeline and attractive low-carbon prizes, and an expert organization available to provide continued professional support proved to be a useful and effective framework.

It is also worth noting that a lot of the people who volunteered to be energy masters were at some kind of a changing point in their lives, for them becoming an energy master was, in a way, a carrier option. One of them even told us that she believed she **achieved quite a satisfying career in energy saving**: she was first a Climate Club member, then decided to participate in one of the SF campaigns where she was a member of one of the winning households, and then, as she felt ready, she joined the EN2 programme as an energy master. So, processes designed to provide some form of recognition for these people could contribute to low-carbon lifestyles becoming the norm.

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## ***References***

- Andersen, M. M. (2008). Review: system transition processes for realising sustainable consumption and production. In: Tukker, A. et. al. (ed.): System Innovation for Sustainability I. Perspectives on Radical Changes to Sustainable Production and Consumption. Greenleaf Publishing, UK. Chpt. 18.
- Aune, M., Sorensen, K. H., and Lysne, H. (1995). Energy concerns and the choice of dwelling. In "Proceedings of the ECEEE 1995 Summer Study: Sustainability and the Reinvention of Government — A Challenge for Energy Efficiency", Mandelieu, France, June 6-10, 1995. ECEEE: Stockholm, Sweden
- Bell Research (2013). Meg se nézzük a számlát – energiatudatlanságban a háztartások [We do not even look at our bills – households' lack of awareness]. Available from: [http://www.piacprofit.hu/klimablog/fenntarthato\\_fejlodes/meg-se-nezzuk-a-szamlat-energiatudatlansagban-a-haztartasok/](http://www.piacprofit.hu/klimablog/fenntarthato_fejlodes/meg-se-nezzuk-a-szamlat-energiatudatlansagban-a-haztartasok/) (last accessed 12 May 2013)
- Boza-Kiss, B., Moles, S., and Urge-Vorsatz, B. (2013). Evaluating policy instruments to foster energy efficiency for the sustainable transformation of buildings. Current Opinion in Environmental Sustainability, in press
- Breukers, S., Heiskanen, E., Mourik, R.M., Bauknecht, D, Hodson, M., Barabanove, Y., Brohmann, B., Bürger, V., Feenstra, C.F.J., Jalas, M., Johnson, M., Maier, P., Marvin, S., Meinel, H., Pariag, J., Rask, M., Rinne, S., Robinson, S., Saastamoinen, M., Salminen, J., Valuntiené, I., Vadovics, E. (2009). Interaction Schemes for Successful Energy Demand Side Management. Building blocks for a practicable and conceptual framework. Deliverable 5 of the Changing Behaviour project. Available from: [http://www.energychange.info/downloads/cat\\_view/34-deliverables](http://www.energychange.info/downloads/cat_view/34-deliverables) (last accessed 10 May 2013)
- CECED Hungary. (2013). A magyarországi háztartásokban található régi háztartási gépek cseréjével elérhető energia-megtakarítási lehetőségek. [Energy saving potential through replacing old household appliances in Hungarian homes.]. Available at: <http://www.cecedhu.hu/aktualis/hirek/68/> (last accessed 10 May 2013)
- Emery, A.F. and Kippenhan, C.J. (2006). A long term study of residential home heating consumption and the effect of occupant behavior on homes in the Pacific Northwest constructed according to improved thermal standards. Energy 31: 677–693
- Energy Club. (2013). Hírek: A háztartások negyede korszerűsítene. [News: A quarter of the households would like to renovate.]. Available at: <http://energiaklub.hu/hir/a-haztartasok-negyede-korszerusitene> (last accessed 10 May 2013)
- EnergyNeighbourhoods2 (EN2) Consortium. (2012). D6.4 Evaluation of Meter Readings and comparison of Savings and Survey Results. B.&S.U. Beratungs- und Service-Gesellschaft Umwelt GmbH: Berlin (Germany)
- European Environment Agency (EEA) (2013) Achieving energy efficiency through behaviour change: what does it take? Copenhagen, Denmark. 52 p. Available from: <http://www.eea.europa.eu/publications/achieving-energy-efficiency-through-behaviour> (last accessed 10 May 2013)
- European Commission (EC). (2007). HUNGARY – Energy Mix Fact Sheet. Available at: [http://ec.europa.eu/energy/energy\\_policy/doc/factsheets/mix/mix\\_hu\\_en.pdf](http://ec.europa.eu/energy/energy_policy/doc/factsheets/mix/mix_hu_en.pdf) (last accessed 9 May 2013)



- European Environmental Bureau (EEB) (2011). Saving Energy in Europe: 15 Good Practice Case Studies. Climate and Energy. Brussels, Belgium. 39 p.
- Heiskanen, E. and Rask, M. (2008). From Sociotechnical Theory to Sociotechnical Practice: An Action Research Project. In Sustainable Consumption and Production: Framework for Action. 2nd Conference of the Sustainable Consumption Research Exchange (SCORE!) Network Conference Proceedings Part III, Brussels, Belgium. Available from: [http://score-network.org/files/24119\\_CF2\\_session\\_5.pdf#page=11](http://score-network.org/files/24119_CF2_session_5.pdf#page=11) (last accessed 10 May 2013)
- Heiskanen, E., Johnson, M., Saastamoinen, M. and Vadovics, E. (2009a). Creating Lasting Change in Energy Use Patterns through Improved User Involvement In: Joint Actions on Climate Change Conference Proceedings, Aalborg, Denmark. Available from: [http://www.energychange.info/downloads/cat\\_view/16-project-outputs](http://www.energychange.info/downloads/cat_view/16-project-outputs) (last accessed 10 May 2013)
- Heiskanen, E., Vadovics, E., Johnson, M., Robinson, S., Saastamoinen, M. (2009b). Low-carbon communities as a context for more sustainable energy consumption. In: Kerekes, S., Csutora, M., Székely, M. (ed.) Sustainable Consumption 2009 Conference. Proceedings. Corvinus University of Budapest. Available from: <http://unipub.lib.uni-corvinus.hu/222/1/suscon2009proceedings.pdf> (last accessed 10 May 2013)
- Heiskanen, E., Johnson, M., Robinson, S., Vadovics, E., Saastamoinen, M. (2010). Low-carbon communities as a context for individual behavioural change. Energy Policy 38: 7586-7595.
- Hungarian Central Statistical Office (HCSO). (n.d.a). Data for Hungary for 2010. Available at: [http://www.ksh.hu/docs/hun/eurostat\\_tablak/tabl/tsdpc320.html](http://www.ksh.hu/docs/hun/eurostat_tablak/tabl/tsdpc320.html) (last accessed 20 September 2012)
- Hungarian Central Statistical Office (HCSO). (n.d.b). Tables (STADAT) - Times series of annual data – Construction. Available at: [http://www.ksh.hu/docs/eng/xstadat/xstadat\\_annual/i\\_oe003b.html](http://www.ksh.hu/docs/eng/xstadat/xstadat_annual/i_oe003b.html) (last accessed 10 May 2013)
- International Energy Agency (IEA). (2012). World Energy Outlook Executive Summary 2012. Paris: OECD/IEA. Available at: <http://www.iea.org/publications/freepublications/publication/English.pdf>. (last accessed 4 May 2013)
- Jackson, T. (2005). Motivating sustainable consumption - A review of models of consumer behaviour and behavioural change. A Report to the Sustainable Development Research Network. London, UK. Available from: [http://www.sd-research.org.uk/sites/default/files/publications/Motivating%20Sustainable%20Consumption1\\_0.pdf](http://www.sd-research.org.uk/sites/default/files/publications/Motivating%20Sustainable%20Consumption1_0.pdf) (last accessed 10 May 2013)
- Kasser, T. (2009). Psychological need satisfaction, personal well-being, and ecological sustainability. *Ecopsychology*. 1: 175-180.
- Lapillonne, B., Sebi, C., Pollier, K. and Mairet, N. (2012). Energy Efficiency Trends in Buildings in the EU. Lessons from the ODYSSEE MURE project. ADEME: Paris (France)
- Lindén, A-L, Carlsson-Kanyama, A., and Eriksson, B. (2006). Efficient and inefficient aspects of residential energy behaviour: What are the policy instruments for change? *Energy Policy* 34(14): 1918-1927
- Middlemiss, L., Parrish, B.D. (2010). Building capacity for low-carbon communities: The role of grassroots initiatives. *Energy Policy*, 38: 7559–7566.
- Mourik, R.M., Heiskanen, E., Anttonen, M., Backhaus, J., Barabanova, Y., Bauknecht, D., Bern, R.M., Breukers, S., Brohmann, B., Bürger, V., Feenstra, C.F.J., Hodson, M., Jalas, M., Johnson, M., Kallaste, T., Kamenders, A., Liang, V., Malamatenios, C., Maier, P., Marvin, S., Meinel, H., Papandreou, V., Pariag, J., Rask, M., Rinne, S., Robinson, S., Saastamoinen, M., Salminnen, J., Valuntiené, I., Vadovics, E. (2009). Past 10 year of best and bad practices in demand management: a meta analysis of 27 case studies focusing on conditions explaining success and failure of demand-side management programmes. Deliverable 4 of the Changing Behaviour project. Available from: [http://www.energychange.info/downloads/cat\\_view/34-deliverables](http://www.energychange.info/downloads/cat_view/34-deliverables) (last accessed 10 May 2013)

- Novikova, A. and Ürge-Vorsatz, D. (2008). Szén-dioxid kibocsátás-csökkentési lehetőségek és költségeik a magyarországi lakossági szektorban [Carbon-dioxide emission reduction potential and the related costs in the Hungarian residential sector]. Ministry of Environment and Water: Budapest (Hungary)
- OTP Building Society Ltd. (OTP) (2012). Nem energiatudatosak a magyar családok. [Hungarian households are not energy efficient]. Available from: <http://www.greenfo.hu/hirek/2012/09/20/nem-energiatudatosak-a-magyar-csaladok> (last accessed 10 May 2013)
- Seryak J, Kissock K. (2000). Occupancy and behavioral affects on residential energy use. In "Proceedings of annual conference on American solar energy society" 2000
- Sheldon, K.M., Nichols, C.P., and Kasser, T. (2011). Americans Recommend Smaller Ecological Footprints When Reminded of Intrinsic American Values of Self-Expression, Family and Generosity. *Ecopsychology* 3(2): 97-104.
- Socolow, R. (1978). Saving Energy in the Home: Princeton's Experiments at Twin Rivers. Ballinger Press: Cambridge, MA, USA.
- Tirado, S. and Urge-Vorsatz, D. (2010). Fuel poverty in Hungary: a first assessment. Central European University and The Environmental Justice Working Group: Budapest (Hungary)
- Tukker, A. (2008). Conclusions: change management for sustainable consumption and production. In: Tukker, A. et. al. (ed.): System Innovation for Sustainability I. Perspectives on Radical Changes to Sustainable Production and Consumption. Greenleaf Publishing, UK. Chpt. 22.
- Vadovics, E., Heiskanen, E. (2010) Understanding and enhancing the contribution of low-carbon communities to more sustainable lifestyles: the case of the Gödöllő Climate Club in Hungary. Poster presented at the ERSCP-EMSU conference in Delft, Holland, 26-29 October 2010.
- Yua, Z., Fungb, B.C.M., Haghighata, F., Yoshinoc, H., and Morofskyd, E. (2011). A systematic procedure to study the influence of occupant behavior on building energy consumption. *Energy and Buildings* 43(6): 1409–1417



# Discussant Contribution

## Values and visions

*Kristine Abolina*

We are all members of society and the context is important for us – starting from dominant social paradigm and awareness of basic economic forces (A. Freimane) and ending with small individual learning process (A. Davies). Sustainability learning is collaborative, voluntary energy consumption reduction is organised in groups/teams, where a family as group is important, too (Vadovics and Boza-Kiss). Probably the most important determinant of activities towards or away from consumerism is willingness to be happy, to be satisfied with life (Csutora and Zsoka) that is only one and individual for each of us. As diversity is found to be crucial for sustainability and is proposed as one of core dimensions of sustainable development (Tappeser and Stratti, 2000), diverse cultural norms, values, settings and actors are beneficial. The energy reduction example shows that we have limited set of options/ activities to cut energy consumption and the question is – will knowledge be transformed to activity? The backcasting example shows that in the setting of a sustainable vision diversity is expressed by the choice made by participants - HOW individually to reach this vision (firstly having assessed the vision against sustainability criteria). The change process leading to more sustainable consumption is a combination of top-down and bottom-up processes with different responsibilities.

The challenging issue is the setting of dominant economies and growth that probably is the reason why poor people – green consumers (Csutora and Zsoka) perceive their situation as one where they cannot be happy, because in the local context their “needs” are not being met.

The difference between wealthy green consumers and poor green consumers is availability of choice for the former group.

The issue of challenging consumer culture to be redefined in another way. We are designing our lives, the design matters – tangible or intangible things are more important. Both of them are used, the question is in balance.

Contributions do not reflect the issue of compromising GDP by certain activities, but Aija's article clearly states the core problem of consumer products designed to maximize profits. Unanswered question where more studies are welcomed is where the wealthiest part of society is spending its money and the input of green consumerism to GDP, growth paradigm as well as to Earth carrying capacity. Example from energy reduction in Hungary shows reduction in individual level, but probably that it is not a vision of energy production sector in the state or leading energy companies. Agnes and Maria in their study show that green consumerism that is not made by voluntary choice but by lack of money is not perceived as prosperity or at least the situation where an individual can be

The selected articles are an excellent combination from a theoretical review to individual learning and activity. Anna's described project activity is a welcomed means of how to link science with real life activities, the link that is lacking in so many cases. The important question is the motivation to take part in those activities and changes of individual behaviour - the support from society or group of friends is important as mentioned earlier, at the same time the example from Hungary shows that it did not begun from zero and establishment of motivated group probably is key from awareness to activity. It takes individual time, mostly non-working time, it is unpaid work, so the transfer of example to other cultures or simply other context is dependent on individuals personal choice, activity or passivity regarding common activities.

We can play quite an important role by linking research to real life and letting stakeholders to be creative and choosing their way. A very important aspect is to study things that can be done to live a more responsible lifestyle as well as the related social aspects and behaviour, and to exchange this knowledge to develop a better understanding of what is at stake. Questions for discussion are:

How to emphasize the unique role of each stakeholder in this process and by this making people happier? How to promote existing sustainable practices and how to advertise and communicate those lacking as trendy, easy, valuable?

# Discussion Report

## Values and Visions

*Almut Reichel*

A question was raised regarding the burden of voluntary initiatives on involved individuals. Building on the experience from the three voluntary residential energy reduction programmes in Hungary, Edina Vadovics explained that many people were keen to be involved even in more than one programme. It turned out that the energy masters, as well as the most active persons in the groups often were at changing points in their lives, for example unemployed persons, students at the end of their studies, or pregnant women. The project team is still being approached by people asking for new programmes where they would like to be involved. It seems that people get a lot out of being engaged. Maria Csutora pointed out that those people who were forced to live more sustainably because of poverty, were less happy than others doing environmental actions voluntarily. The Hungarian project experience also showed that large families, when made aware that their actions actually were rather sustainable, were proud of that and could see restrictions on their lives in a more positive way.

A second point of discussion addressed the need to define what consumption levels actually are sustainable – we need some numbers here. Not every possible vision is sustainable, and for example in Latvia, many things are called sustainable but not all of them are in fact. In the Hungarian case study, it turned out that some of the households had a carbon footprint of around 2 ton/person, corresponding to the level that has been calculated as being sustainable globally whereas at least 30-40% of the households in the sample would have to radically cut down their carbon footprints. However, when using the ecological footprint concept, comparing biocapacity of a country with footprint of the same country can also be misleading.

Another discussion centred on how values are exported to other countries and regions, for example via standards. These standards, for example for cleaner production, are usually technology driven and do not necessarily take into account cultural values in the 'standard-importing' countries as experience from SWITCH ASIA shows, and the question was raised how this could be taken into account in ISO standards.

Media attention and use of media: In the Hungarian case, the people and researchers involved in the energy saving programmes got remarkable media attention by mainstream TV channels and newspapers, and this was in the group seen as very positive as it shows to the public that people engaging in energy saving activities are not some 'extreme hippies' but just normal people. In the current protest movement in Turkey, social media are actively used by the movement to report about what is happening in the streets because the mass media are politically restricted, and social media thus seem to be quite powerful in empowering people. Regarding use of the internet for sustainable consumption projects, researchers have to be careful, though. Not all households have access to internet, or not all members of the household have easy access, so this should be taken into account when designing projects.

As regards the use of visioning and backcasting methods, the UK practice shows that these methods are increasingly also used by policy makers, and the European Environment Agency has already used visioning techniques in working with stakeholders and is also interested in using this for working with its country network of policy makers across Europe.

# III

**Agents  
& Actors**

# Creating low carbon neighbourhoods: discourses and academic roles

*Audley Genus*

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## Abstract

A number of contributions have analysed or supported community or neighbourhood-level activities connected with the development of sustainable or low carbon localities. The paper reports on a recently completed project (called Newcastle Low Carbon Neighbourhoods). The paper aims to deepen understanding of problems relating to the creation of low-carbon neighbourhoods, focusing on the potential of novel methods of civic, community and business engagement to enable neighbourhood-level action by bridging competing discourses of urban sustainability. It also reflects on the multiple roles played by academic researchers in attempting to facilitate the development of low carbon neighbourhoods. The paper shows that there is the potential to employ discourse analysis to probe the inclusivity or exclusivity of social and political actors and agenda, and the story sets, texts and practices capable of binding together individuals and groups, and the normative underpinnings of people's behaviour and interpretations.

*Key words: sustainable communities, critical discourse analysis, engagement, low carbon neighbourhoods, universities*

## Introduction

The question of how to enable more sustainable consumption and production is central to efforts to meet climate change commitments made by a number of countries. In relation to this, there is a stream of research that focuses on factors connected with discourses of local urban sustainability (Mazza and Rydin, 1997; Rydin, 1997; Rydin, 2003) and national level environmental policy (Smith and Kern, 2009). This stream of work informs the work presented in this paper, to which it seeks to contribute new knowledge.

The aims of the paper are as follows. Firstly, the paper aims to deepen understanding of problems relating to the creation of low-carbon neighbourhoods, focusing on the potential of novel methods of civic, community and business engagement to enable neighbourhood-level action by bridging competing discourses of urban sustainability. Thus the paper examines relations 'on the ground' involving university researchers, local authorities, resident groups, third sector organisations, businesses and others, in relation to the promotion of 'pro-environment behaviour' and the capacity for building low carbon neighbourhoods. Central to this is discourse analysis. The paper argues that social action is accomplished through discourse that is the 'glue' (Harrison White [1992] would say the 'gel'), manifest in the texts, stories and activities of the protagonists, which defines and maintains social relations, and thus is of great significance for localised collective action supporting the low carbon agenda. However, the effective ingredient in this 'glue' is the discourse affinity which bonds together the different domains and arguments implicated in the texts into overarching storylines which have a galvanising effect on social action (Hajer, 1993). The work of bridging actors capable of playing

the role of 'affinity builders' could be an important, if under-utilised element in realising the transition to sustainability through collective, local action.

The paper is structured as follows. The next section reviews previous research on the creation of low carbon neighbourhoods and communities, discussing the contribution and limitations of previous work in the context of insights drawn from the study of discourse. Subsequent sections present the methods underpinning the work undertaken, and an analysis of discursive domains, story sets, texts, practices and processes. The concluding section summarises the paper, and highlights the implications of discourse analysis for enabling neighbourhood-level action for achieving low carbon living.

## ***Review of literature***

Developments in social science connected with the 'discursive turn' have considered that the way to a better understanding of society and social life is to turn away from a focus on structure, to investigate the constitution of boundaries and communities as socially produced ways of living in the world. Instead, there is a central role for discourse analysis of discursive domains, networks, and practices and processes associated with networking and community building. Whereas structural features of networks relate to who knows or contacts whom, defining the boundaries of such domains may also be achieved by identifying through discourse analysis stories with which they are associated, and with 'discourse identifying the 'insiders' who belong to networks, their roles and identities, and by implication outsiders' (Knox et al, 2006, p.129). These domains do not pre-exist or exist apart from their enactment in conversation and discursive communication processes; at certain times the 'storied networks become institutionalised', rather than discourse emanating from network structures. The perspective adopted here recognises discourse as a practice, which is shaped and constrained by social structures. However, discourse contributes to the constitution of all those dimensions of social structure that directly or indirectly shape and constrain it. Thus the relationship between social structure and discourse is dialectical. Fundamentally, discourse enacts domains which may include or exclude would-be actors, and which may be in conflict or complementary with each other (Lombardi et al, 2011).

The literature reviewed here is that which is concerned with discourses and social action, in this case aligned to the development of sustainability of urban locations. Three strands of research on related topics are to be found in literature on: sustainability transitions, located within a sub-field of innovation studies (Smith and Kern, 2009); urban sustainability associated with human geography (Bulkeley, 2000; Lombardi, 2011; Mazza and Rydin, 1997; Rydin, 2003) and also on the politics of environmental discourse within the sub-field of environmental politics (Hajer 1993; Hajer and Versteeg, 2005; Howarth 2000).

Hajer suggests that discourse analysis be employed to examine the regularities in the terms employed in a discussion, implicating the analysis of power through which the very basis of politics is created. This, he says, involves analysis of power as knowledge connected with the creation of joint understandings or 'discourse coalitions' (see: Bulkeley, 2000; Smith and Kern, 2009) related to environmental sustainability issues, but also the analysis of 'strategic behaviour' and 'dislocation'. Strategic behaviour may exemplify the variously deliberate or likely unwitting tendency of actors to pursue, or at least to be orientated towards, the attainment of selfish goals. Dislocation is a notion which draws attention to the breakup of prevailing policy discourses, discursive routines or practices through power struggles which may be conceived as the performance of conflict (Hajer and Versteeg, 2005; Howarth, 2000).

Both Hajer (2005) and Rydin (2003) highlight issues of institutionalisation and deinstitutionalisation relevant to persistence or change in policy discourses. Rydin (2003) develops an institutional discourse approach, based on rhetorical analysis. With regard to rhetoric the approach provides readings of texts, and 'looks for shared understandings, verbal pictures and conceptual connections which together structure the discussion of policy into

discourses' (Mazza and Rydin, 1997: 6). Rydin's approach draws on the observation that new institutional theory has lacked but can benefit from attention to discourse (Rydin, 2003; c.f. March and Olsen, 1989; Ostrom, 1999; Scott, 2008). She employs rhetoric lines to differentiate rationalities which may be used to justify and legitimate environmental policy but also to consider how they interact or, through institutional innovation, might be 'combined in new ways' (Rydin, 2003: 168) to allow for more robust policy-making for sustainable development at local (but also at national, international and global scales). Further, she demonstrates connections among local policy networks, economic interests and sustainability discourses in two cities in the UK and two in Italy (Mazza and Rydin, 1997; Rydin, 1997). Mazza and Rydin (1997) identify seven 'images' of urban green space management: aesthetic; functional, ecological, symbolic, speculative, administrative and productive, which underpin the arguments of different policy actors such as local authority planners, citizens or environmental campaign groups. Mazza and Rydin (1997: 6) derive these images on the basis of analysis of the problem definitions, images and motivations of respondents regarding local urban traffic, retail location and green space policy, tracing 'lines of argument used to justify particular positions on policy issues'.

The paper builds on previous contributions. It addresses the distinction and separateness of discursive domains, whilst situating them in the discursive practices, processes and texts with which they are enmeshed. Moreover, the paper adopts a critical discourse analysis perspective which exposes the inclusion, marginality or absence of likely interested or affected stakeholders (c.f. Fairclough, 2001; 2003; 2010, on the politics underlying the methodology of critical discourse analysis). In attending to such phenomena the approach also has the benefit of addressing the strategic behaviour in and dislocation of discourses identified previously by Hajer and Versteeg (2005).

## ***Methodology***

The paper seeks to answer three research questions linked to the aims of the study: (i). what are the relations among actors (and non-actors) relating to the creation of low carbon neighbourhoods in urban spaces? (ii). what discursive domains, themes and story sets may be identified in relation to (i); and (iii). what roles are played by academic researchers in the attempted creation of low carbon neighbourhoods? Fairclough's (2001; 2003) methodology for critical discourse analysis is applied, such that the dimension of social practice, which he conceives as the broad societal currents affecting text (spoken, written, and as symbolic gestures), is analysed in relation to: (i). broader discursive domains; and (ii). constituent 'story sets'. The analysis here is of these domains and story sets, augmented by examination of the insiders/outsiders of the domains and pertinent practices and texts relevant for (re)producing individual or collective action by residents.

## ***Site and sampling***

The specific spatial unit governing engagement with residents was decided following discussions with the local authority and other third sector organisations, within the two universities in Newcastle and with members of the 'eco-neighbourhood' steering committee, which included representatives from other agencies, namely New Deal for Communities, Bridging Newcastle Gateshead, Groundwork, National Energy Action and Energy Saving Trust. The initial focus was on engagement with residents within defined geographical neighbourhoods in one of the New Deal for Communities areas (See the map in Figure 1). These neighbourhoods were considered to be amenable to the effective adoption of energy efficient technology and practices (e.g. for heating) individually and collectively. In addition data on energy consumption was available at ward and neighbourhood level, which a meeting of the eco-neighbourhood feasibility project steering group (in April 2009) agreed could be used to orientate the work (in terms of selecting and recruiting participants). Following discussions with intermediary organisations such as the Private Rented Service, Time Exchange and potential

participants, it became clear that focusing on co-located communities of interest could be effective for relationship building. The approach to sampling could thus better be described as one of discovery (through serendipity and snowballing) and purposive, rather than deliberate selection of participants, an approach consistent with the methodological perspective employed (see FIGURE 1).

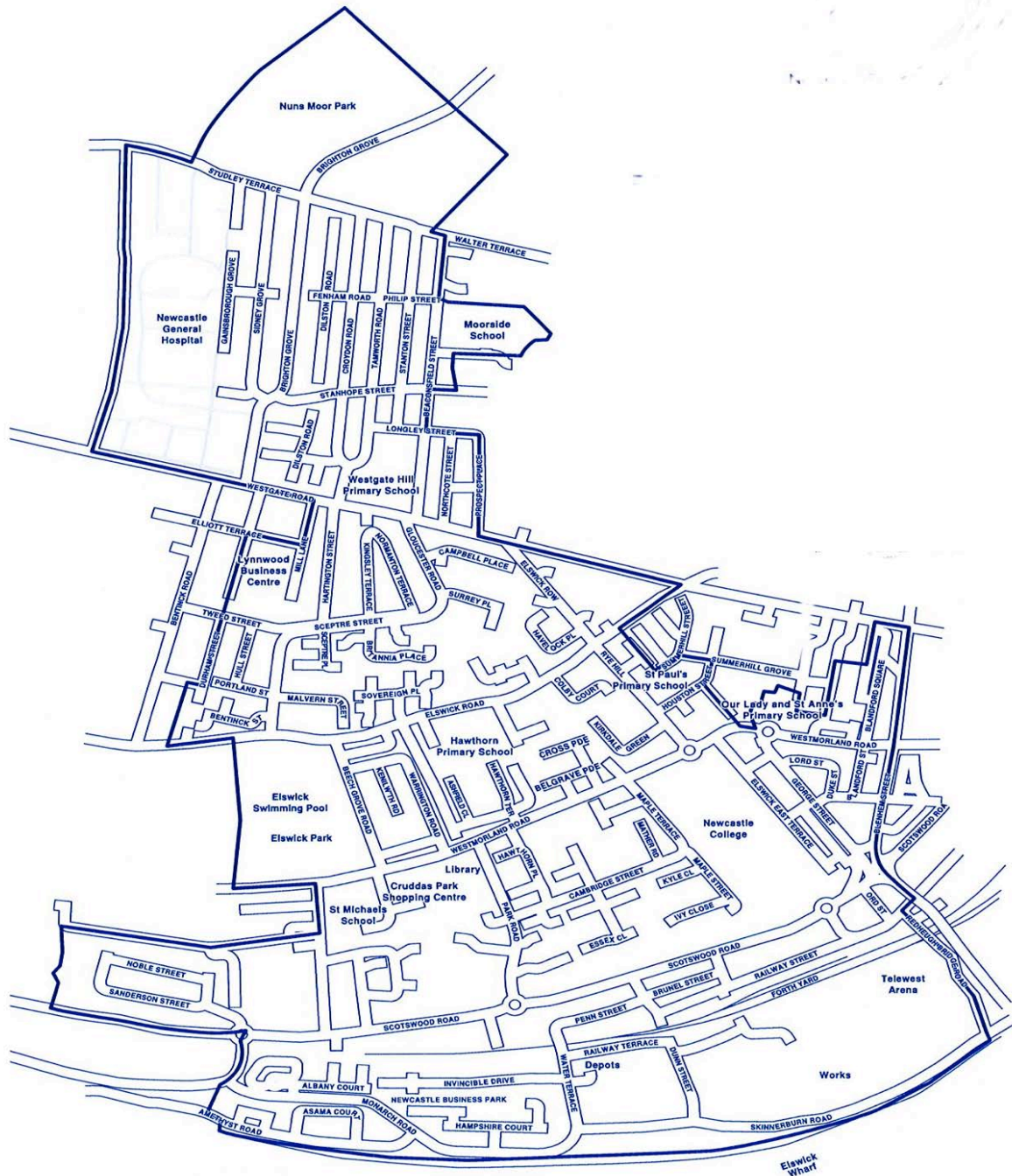


Figure 1 Map of New Deal for Communities Area in West of Newcastle upon Tyne



## Approach to Data Analysis

With regard to the identification of themes in discursive domains the paper analyses transcripts of meetings with residents, fieldwork notes of meetings with diverse stakeholders taken by the researchers (first independently then subsequently working in collaboration) since January 2007, and a large volume of other materials such as emails, reports produced within the Beacon/eco-neighbourhoods project and beyond (such as university engagement strategy documents, research council literature, proposals for funding, minutes of the eco-neighbourhoods steering group and other local authority and community organisation committee meetings). The following section identifies a number of discursive domains and discusses their constitution.

## Analysis

With reference to the Newcastle Low Carbon Neighbourhoods project the following discursive domains may be identified (see Table 1): (a) low carbon energy research; (b) public/ civic/ community/ business engagement; (c). regional development; (d) fuel poverty reduction; (e) grassroots movements; (f). social marketing; (g). social enterprise; and (h). low carbon buildings (see Table 1).

*Table 1: Discourses Relating to the Creation of Low Carbon Neighbourhoods in North East England 2007-2011*

<b>Domains</b>	<b>Associated story sets</b>	<b>Discursive processes: texts and practices</b>
(a). Low carbon energy research	Interdisciplinary projects; mode 2; funding opportunities	Funding calls and applications prepared; SCRI workshop; Carbon Routemap workshop; NEFCC meetings; Newcastle-Durham research grant funding discussions
(b). Public/ civic/ community/ business engagement	Co-inquiry; action research; 'new' university missions and 'grand challenges'; Co-inquiry Action Research group	Beacon NE public engagement induction and other workshops, training event, academic publication/ website material on engagement
(c). Regional development (North East of England)	Urban regeneration community cohesion	Scientia '08; annual reviews, updates; meetings/ emails/phone calls with Science City & ONE staff
(d). Fuel poverty reduction	Saving money on household energy bills; social justice	'Eco-neighbourhoods' project plan, steering group meetings, and project reviews; workshop flyers and talk
(e). Grass-roots movements	Innovative niches and 'mainstreaming'; active communities; (im)possibility of bottom up transition	Meetings with community groups; leaflets and brochures delivered door-to-door; public events
(f). Social marketing	CO2 targets; new business sectors; 'green localism' public participation; social marketing	David Gershon presentation and conference call with NCL sustainability officer and 'ego'; sustainability social marketing plans, LA climate change policy documents, Draft sustainable communities strategy; Super output maps of energy demand. Green Barometer survey, written and oral reports from MSc students and North Tyneside council.
(g). (Social) enterprise	Emerging business models; ESCOs;	Mike Bell 'RAKE pitch'; CoRE community energy champion training workshop and material

<b>Domains</b>	<b>Associated story sets</b>	<b>Discursive processes: texts and practices</b>
(h). Low carbon buildings	(Eco) retrofitting	Demonstration eco-house tour; Cruddas Park visit pre-refurbishment; conversation about exemplars; meetings in cold homes

These discursive domains are associated with certain story sets, actors, practices and texts (again, see Table 1) and which mark their porous boundaries. They are:

(a). A discursive domain relating to low carbon energy research may also be identified. This is associated with story sets regarding the need for and conduct of high impact, interdisciplinary research, ‘mode 2’ science (in which the process of scientific investigation is opened up to scrutiny and collaboration with civil society) and the availability and pursuit of funding opportunities in the general topic area of energy and environmental sustainability. Among the discursive practices implicated with the story sets are funding calls published by, and applications prepared for, submission to the UK research councils. In addition, one may point to the myriad emails, via which drafts of and ideas about funding proposals were exchanged, the content of meetings, workshops and research and other papers informing the thoughts of the researchers.

(b). In the public, community, civic and business engagement domain associated story sets revolve around the ideas and practice of ‘co-inquiry’; action research; and university missions emphasising greater engagement between the university and civil society. Factors promoting such activities include local and regional implementation of national-level initiatives and agenda connected with increasing the impact of research and changing relations between universities and civil society. Engagement here is shaped by the adoption and diffusion of the idea of co-inquiry, the leitmotif of the Newcastle-Durham Beacon for public engagement, the research interests of members of North East Forum Climate Change, as well as by universities taking on a role (at least rhetorically) in terms of engagement with the local community. An example is the Coinquiry Action Research group (CAR), which began as a Beacon North East project and later won funding from the Arts and Humanities Research Council to examine the ethics of engagement. The group’s members included researchers from local universities and representatives from local community organisations, including the Housing Cooperative referred to above. Related texts include the mission statements of Beacons for Public Engagement, training materials provided for Beacon fellows, and fellows’ applications for funding and project summaries prepared for potential lay participants and stakeholders.

(c). The regional development domain is illustrated by the following quotation, taken from the project description and outcomes document of March, 2009, which exemplifies an associated story set involving urban regeneration: the ‘findings of this project are timely for NDC [New Deal for Communities] as its current funding stream is ending and as an organisation it intends to continue to lever in funding for community regeneration...It is actively working with complementary projects such as Science City and the Scotswood Expo, and is a partner in a Groundwork Trust and St John’s Ambulance project to transform the Fire Station site on Westgate Road into an eco-centre for entrepreneurs.’ Thus much of the discussion with New Deal for Communities and certain other bodies focused on the establishment of new business sectors in the green economy and the need to bring in jobs in deprived localities to ‘sustain’ communities in the non-environmental sense of that word. Strategy documents describing the project are further suggestive of this requirement. Thus, as stated in the ‘Project Description and Outcomes’ paper of 25th March 2009, the project aimed to ‘investigate, identify and deliver appropriate regeneration within a community which will deliver a low carbon community. It will build on and support key strategies and projects currently being undertaken by the City Council and other key stakeholders in Newcastle and the wider region: Newcastle’s sustainable community strategy and area regeneration strategy; fuel poverty strategy; achieving its objective to become a low-carbon city, directed through the Carbon Route Map project; Science

City (specifically its initiative's Energy and Environment theme), the EXPO site; and low-carbon retrofitting of housing in a number of locations in the City.'

(d). The fuel poverty reduction domain entails story sets concerned with how residents may save money on household energy bills; and social justice, as indicated by the incorporation of the fuel poverty agenda of New Deal for Communities (Centre West) into the earlier Newcastle – Northumbria university eco-neighbourhoods feasibility project. Key texts here include an 'eco-neighbourhoods' project specification document prepared by the NLCN team during late 2008 and the beginning of 2009, a report on the project produced by the project team for New Deal for Communities a year later and discussions and minutes of the project steering group. In a meeting with tenants association Y (27/11/09), one tenant/resident expressed their interest in the NCLN project by referring to their need to reduce expenditure on energy (they said that would typically spend £15 per week 'feeding' a gas fire during the winter whilst also needing to use an electric fan heater to keep warm).

(e). A discursive domain may be identified concerning the activities of grassroots movements in the creation and maintenance of environmentally resilient communities, in which story sets coalesce around the nature of and how to attain national and local CO2 emissions reduction targets, and in which 'green localism' and public participation in pro-environmental activities are central. An interesting example of text demonstrates the boundaries between this and the fuel poverty domain, as well as misunderstanding between housing cooperative members and researchers about each other's aims and interests. So, in the passage below a resident and member of the Housing Co-operative reacts to a general description made by EA of the aims of a meeting thus:

'Well basically [there's] a discrepancy between what we are looking for and what you are looking for because you know...Quite a lot of people...they obviously want to...raise their awareness...and what we want to do as Co-op is...to be able to look at er... kinds of options and schemes and energy sources that we as a Co-op can make decisions about our properties in the long term...To spend lots and lots of time thinking about... gas meters [would be] frustrating to me.' (Housing Co-operative member).

This passage attests to the active orientation of the Co-operative relating to pursuing opportunities to investigate the installation of renewable or energy efficient technologies in its homes, rather than pursue mere energy bill reduction.

(f). A distinct discursive domain is that of social marketing. Here people and texts seemed to enter and leave the domain quickly, unlike other actors and activity taking place around the NLCN project. Specific texts that featured in and configured discussions here include a book by David Gershon called *Social Change 2.0: A Blueprint for Reinventing our World*, a talk given to members of the North East Forum for Climate Change by Gershon himself, and notes meeting prepared by his colleague to help sell a particular approach to engendering community actions to reduce energy consumption to the local authority. Another branch of the domain associated with a particular manifestation of discussion about social marketing involved local government officers from North Tyneside council, citizens and social entrepreneurs connected with the Terra Nostra Meadow Well community centre initiative and MSc researchers on the Renewable Energy and Enterprise Management for engineering students programme at Newcastle University, along with staff from EST and NLCN project staff. Texts related to their considerations of how to diffuse ideas about sustainable communities include the 2010 Green Barometer survey for Energy Saving Trust on 'environmental attitudes' in the North East, project proposals developed by Peter Jones at North Tyneside council and by NLCN staff with others, and MSc students' work (supervised by NLCN staff and used with permission. The relevant students also attended various meetings of this sub-group).

(g). The discursive domain of social enterprise constituted relations among the university researchers leading the Newcastle Low Carbon Neighbourhoods project and Mike Bell and David Gershon, who were involved in 'pitching' the social marketing campaign to the city council, as

discussed above. Texts of relevance here include email correspondence and face to face meetings connected with an application made by members of the research team to 'RAKE', and in relation to the development of Transition Initiative Newcastle and social enterprise teaching at the universities. None of these strands of activity culminated in any enduring relationship with David Gershon or Mike Bell, or led to any substantive developments in the universities in Newcastle, or in the local transition initiative. Their intervention could be understood as an example of strategic behaviour, as could the city council's determination to avoid or reduce 'unnecessary' expenditure, in a period of 'austerity' and budget constraint.

(h). A low carbon buildings domain may be identified, which is distinct from the low carbon energy research domain discussed above. Here, the discourse focused on energy demand reduction, taking in how energy efficiency in individual homes or on a neighbourhood basis could be achieved, for example via retrofitting and energy consumption behaviour change. It also related to lowering energy use in businesses, by building on findings from a survey of business needs. Related texts and activities include YHN's Tenants' Investment Priorities Survey and modern homes programme, the Newcastle-Gateshead housing renewal pathfinder, reports on 'exemplar' housing, refurbishment of domestic properties and visits to demonstration eco-homes in Newcastle. At the first meeting with Housing Cooperative members (18/12/09), a co-op representative said that its 'concern now' was to improve energy efficiency. This was partly expressed in terms of refurbishment which could overcome some problems with condensation in bathroom extensions in some of the homes owned by the cooperative and poor insulation in these and other properties. At the second meeting, on 12/4/10, cooperative members raised the issue of the need for reliable advice about insulation and other matters.

Taken as a whole the discursive domains are characterised by dynamism and openness; they constitute shifting patterns of indeterminate and unfolding relations. New contacts are added, whilst existing ones are made (or make themselves) redundant. Contacts come and go, are temporarily dormant, or co-opted into the domain by others without ever physically being present at meetings, workshops, or involved in direct exchanges with some other contacts. The quotation above referring to the housing cooperative as an outsider in relation to the fuel poverty domain, an insider within the grassroots movement domain, but concerned that its needs have been misunderstood by the project team, suggests how the researchers have had to move between different domains in collaborating with (and reassuring) a range of types of actor in the project. Stories told by members of tenants associations X and Y about the poor service offered by the relevant housing management company has brought into the domain those who in another sense have remained 'outside' the domain of fuel poverty reduction (though more fully connected with the low carbon buildings or retrofitting domain), and whom tenants in one meeting referred to as 'the enemy' (tenants association X meeting 26/4/10). Another example of co-option pertains to stories about biscuit mornings that seem to have helped to bring tenants association X residents from diverse ethnic backgrounds together. Specifically this relates to weekly meetings of a community of people from various African countries, which could potentially benefit from or participate personally in an extension of the low carbon neighbourhood engagement activity. From a discursive standpoint the surfacing of such stories such as related above provides an indication of when and where the voices of potentially affected or interested residents are marginalised. The following, concluding section considers the broader significance and insights from the project.

## ***Concluding discussion***

The paper has provided an analysis of discourses relating initially to the attempted creation of low carbon neighbourhoods – and subsequently of low carbon communities of interest - in urban locations in Newcastle upon Tyne, in the north east of England. The primary contribution of the paper is to demonstrate how descriptive analysis may combine informed inquiry into and reflections upon the structure, processes and texture of social relations to produce insights of theoretical and practical significance. The paper thus opens up a view of an empirical setting

that has not commonly featured in discourse analysis but which has the potential to interrogate prevailing theoretical positions.

A contribution of the paper is to advance our understanding of social relations as the product of a dialectical relationship between discourse and social structure, such that the latter is both a condition for, and effect of, the former. Whereas concerns about structure have conventionally occupied analysts, the potential contribution of discursive approaches has not. However, the paper has shown that there is the potential to employ discourse analysis to probe the inclusivity or exclusivity of social and political phenomena, the story sets, texts and practices capable of binding together or estranging individuals and groups, and the normative underpinnings of people's behaviour and interpretations. Thus it is possible to invoke critical discourse analysis to define when and where the voices of potentially affected or interested residents or others are marginalised or have alternative value systems and priorities.

The main role of the research team in the NLCN project was to sustain a range of conversations and a flow of text/information with heterogeneous actors, some of which everyday discourse is implicated in relatively modest performances and somewhat unglamorous outcomes. In doing so the research team has (had to) play a number of distinct roles in parallel rather than perform any one overarching role (c.f. Healy, 2008), a phenomenon which may be understood when one reconsiders the institutional and social contexts of the activities discussed above. Thus the receipt of funding from New Deal for Communities for a feasibility study into the creation of 'eco-neighbourhood' put the researchers into a client-consultant relationship with the funder and other actors. However, the parallel receipt of funding from Beacon North East contributed to the research team assuming a role as facilitator of an interactive research project, influenced by ideas about co-inquiry and mutual collaboration between researchers and the researched. A similar point may be made regarding the pre-existing involvement of one of the research team in local 'green' groups. Finally the role played by the researchers as intellectual authorities was largely confined to those areas with which it is conventionally understood i.e. in the organisation of conferences, workshops and seminars, participation in research networks, or in the production of peer-reviewed papers and applications for research funding. In other respects, the academics have been required to subscribe to the agendas and discursive formations of other protagonists.

## References

- Bulkeley H, 2000, "Discourse coalitions in the Australian climate change policy network" *Environment and Planning C: Government and Policy* 18 727-748
- Fairclough N, 2001 *Language and power*, 2nd edition (Longman, Harlow)
- Fairclough N, 2003 *Analysing discourse: textual analysis for social research* (Routledge, London)
- Fairclough N, 2010 *Critical Discourse Analysis – The Critical Study of Language* (Pearson, Harlow)
- Hajer M, 1993, "Discourse coalitions and the institutionalization of practice: the case of acid rain in Britain", in *The Argumentative Turn in Policy Analysis and Planning* Eds. F Fischer, J Forrester (Duke University Press, Durham, NC) pp 43-76
- Hajer M, Versteeg W, 2005, "A decade of discourse analysis of environmental politics: achievements, challenges, perspectives" *Journal of Environmental Politics and Planning* 7(3) 175-184
- Healy P, 2008, "Knowledge flows, spatial strategy making, and the roles of academics" *Environment and Planning C: Government and Policy* 26 861-881
- Howarth D, 2000 *Discourse* (Open University, Buckingham)
- Knox H, Savage M, Harvey P, 2006, "Social networks and the study of relations: networks as method, metaphor and form" *Economy and Society* 35(1) 113-140
- Lombardi D R, Porter L, Barber A, Rogers C D F, 2011, "Conceptualising sustainability in UK urban regeneration: a discursive formation" *Urban Studies* 48 273-296

- March J G, Olsen J, 1989 *Rediscovering institutions: the organizational basis of politics* (Free Press, New York)
- Mazza L, Rydin Y, 1997, "Urban sustainability discourses" *Progress in Planning* 47 1-74
- Ostrom E, 1999, "Institutional rational choice: an assessment of the institutional analysis and development framework", in *Theories of the Policy Process* Ed. P Sabatier (Westview Press, Boulder, Colorado) pp35-71
- Rydin Y, 1997, "Policy networks, local discourses and the implementation of sustainable development", in *The Politics of Sustainable Development: Theory Policy and Practice within the European Union* Eds. M Baker, D Kousis, D Richardson, S Young (Routledge, London) pp152-174
- Rydin Y, 2003 *Conflict, Consensus and Rationality in Environmental Planning: An Institutional Discourse Approach* (Oxford University Press, Oxford)
- Scott W R, 2008 *Institutions and Organizations: Ideas and Interests* (3rd edition) (Sage, Thousand Oaks, CA)
- Shove E, Walker G, 2007, "Commentary: Caution! Transitions ahead: politics, practice and sustainable transition management" *Environment and Policy A* 39(4) 763-770
- Smith A, Kern F, 2009, "The transition storyline in Dutch environmental policy" *Environmental Politics* 18(1) 78-98
- White H, 1992 *Identity and Control: A Structural Theory of Social Action* (Princeton University Press, Princeton, NJ)

# Energy Efficient Housing in the ASEAN

## An Assessment of Policy Practices in Thailand and the Philippines

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### Abstract

The ASEAN region is undergoing robust economic growth and fast urbanisation and industrialisation. As a close consequence, energy consumption in this region has accelerated over the past decade. These factors have had severe ramifications on national energy security, climate change and environmental protection for most ASEAN member countries. Responding to these, there is growing need to involve the residential building sector, which consumes about a quarter of the region's final energy. This paper analysis the policy practices of energy efficient housing in two selected ASEAN member countries, Thailand and the Philippines, to elucidate a pattern of challenges in the policy practices in the region: 1) low priority of residential building sector in national energy policy making agenda; 2) lack of mandatory residential building energy code; 3) absence of effective economic incentives; 4) low market acceptance and penetration of localised green building rating schemes. Disparities between the policy practices of the two countries and the implications for other ASEAN countries are also covered. The paper concludes with recommendations tailored to the two sample countries, the aim of which is overcoming the ingrained problems in current policy practices related to energy efficient housing.

*Key words: Energy Efficient, Residential Buildings, Policy Instruments, Policy Practice, ASEAN*

### Background

With ten member countries, the Association of Southeast Asian Nations (ASEAN) houses about 600 million people (around 8.6% of the world total) yet in 2011 its combined GDP was only about 3% of the world total for that year (about 2.1 trillion current USD)(WB, 2012). This large percentage gap (between ASEAN and the world in population and GDP) clearly shows that the ASEAN as a whole is still a relatively undeveloped region. Nonetheless, the region is widely viewed as having huge potential in economic growth due to its intrinsic advantages—abundance of raw resources, huge population and market, and young, skilled workforce.

In fact, the ASEAN region is currently undergoing robust economic growth as well as fast industrialisation and urbanisation. This can be readily understood from its energy consumption over the past decade, which has grown rapidly; in 2010 nine of the ASEAN member countries (Lao excluded due to lack of data) consumed about 552.7 Mtoe (million tonnes of oil equivalent) energy; an increase of 45% since the year 2000 level (WB, 2012).

This acceleration in energy consumption has provoked a number of serious challenges to many ASEAN countries, such as degraded national energy security, climate change and environmental degradation. To combat such, the residential building sector is of pivotal importance as its energy consumption accounts for a significant share of the total energy use in the ASEAN region. In 2010, residential buildings in ASEAN (excluding Lao) consumed about 25% of the final energy

(IEA, 2012). Despite the contribution this sector could offer in mitigating the challenges outlined above, and the fact that an energy efficient building sector is crucial for achieving sustainable consumption and production, this sector has long been ignored in energy-related policy making in most ASEAN countries. Sidelining of a whole sector on such a large scale raises the obvious question of exactly what is preventing its full potential from being realised.

This paper focuses on two typical ASEAN developing countries, Thailand and the Philippines, and analyses the policy practices of residential energy efficiency in the region. Among the ASEAN developing member countries—countries defined in this paper as having lower per-capita energy consumption (both TPES and electricity) than the world average—Thailand and the Philippines can be seen as being at different ‘development stages’ according to their per capita economic outputs and energy consumption, as shown in table 1.

*Table 1: Energy and Economic Macro-Indicators of the ASEAN and Other Countries or Regions in 2009*

<b>Country or Region</b>	<b>TPES/population (toe/capita)</b>	<b>Electricity Use/Population (kWh/capita)</b>	<b>CO<sub>2</sub>/Population (t CO<sub>2</sub>/capita)</b>	<b>TPES/GDP (toe/thousand 2000 US\$)</b>	<b>GDP/Population (2000 USD/capita)</b>
Brunei	7.81	8,485	20.3	0.38	17,050
USA	7.03	12,884	16.90	0.19	36,936
Japan	3.71	7,833	8.58	0.10	38,265
Singapore	3.70	7,948	8.99	0.13	28,751
EU-27	3.31	6,070	7.15	0.17	18,949
Malaysia	2.43	3,677	5.98	0.22	4,992
World Average	1.80	2,729	4.29	0.31	5,868
China	1.70	2,648	5.14	0.72	2,368
Thailand	1.52	2,073	3.36	0.59	2,567
Indonesia	0.88	609	1.64	0.78	1,124
Vietnam	0.73	904	1.31	1.09	674
Philippines	0.42	592	0.77	0.35	1,214
Cambodia	0.35	123	0.29	0.69	505
Myanmar	0.30	99	0.20	0.76	398

*Source: IEA, 2011*

In this research it is assumed that the energy efficiency policy practices in a country are closely related to its level of economic development, energy consumption and dependence on imported energy. A country with a more developed economy, higher per capita energy consumption and larger share of imported energy in its energy mix is more likely to adopt aggressive energy efficiency policies and may be more successful in enforcing such policies (as in Japan), and vice versa. Based on such assumption, the policy practices in Thailand and the Philippines could be viewed as typifying those of developing countries in the ASEAN. Furthermore, as these two countries are still developing (particularly compared to North America and West Europe), their policy practices are also expected to share much common ground.



Owing to the insufficiency of academic literature covering the introduction of energy efficient housing into policy in the two selected countries, an extensive literature review was carried out in this research to clarify and summarise key policy practices (or instruments) in the two countries. Further, as information from different sources was often contradictory, much cross-checking was also required. Interviews with government officials and experts were also carried out in order to deepen our understanding of how policies were formulated and enforced in the two countries.

In brief, we carefully analysed the building energy efficiency related policy instruments currently implemented in Thailand and the Philippines to expose any shortages or insufficiencies in promoting energy efficient housing. Based on these observations, in terms of promoting energy efficient housing, what was lacking or urgently required in these two countries—and by extension in the developing ASEAN region—could be elucidated.

### ***Main Policy Instruments for Promoting Energy Efficient Buildings in Thailand and the Philippines***

Generally speaking, there are three main types of policy instrument for promoting energy efficiency in buildings: regulatory, fiscal, and informational and voluntary. The main policy instruments in Thailand and the Philippines are respectively summarised in table 2.

*Table 2: Main Policy Instruments for Promoting Building Energy Efficiency in Thailand and the Philippines*

Category	Policy Instruments	
	Thailand	The Philippines
Regulatory	Building Energy Code MEPS (Minimum Energy Performance Standards)	Mandatory Appliance Energy Efficiency Labelling System
Fiscal	Energy Conservation Promotion Fund (ENCON Fund)	Financing Assistance for Energy Efficient Lighting Initiatives
Informational and Voluntary	HEPS (High Energy Performance Standards) Green Building Labelling Schemes TEEAM TREES Other Public Awareness Raising Campaigns Community Energy Volunteers Program Competitions and Awards Capacity Building	Guidelines for Energy Conservation Design of Buildings and Utility System Green Building Rating Scheme - BERDE of PHILGBC Public Awareness Raising Campaigns Recognition Awards ASEAN Awards in Buildings Don Emilio Abello Energy Efficiency Award GEMP Award Conferences “Building Green” Conference Series of PHILGBC Education and Training

*Source: Chirarattananon et al, 2004; Rakkwamsuk, 2010; Chirarattananon et al, 2006; Prakobchat, 2011; Vongsoasup, 2012; Rakkwamsuk, 2011; Nilkuha, 2010; IEEJ, 2010; IEEJ, 2011; PDOE, 2012; UNEP, 2011; PHILGBC, 2012; UNDP, 2011; ASEAN, 2012*

Our research reviewed and analysed the practice of these policy instruments in terms of their chronology and current enforcement, strengths and weaknesses, and other factors. Section 3

provides a brief summary of our main findings, more details of which can be found in project reports and publications.

## ***Summary of Analysis of Policy Practices in Thailand and the Philippines***

### **3.1 Summary of Analysis of Policy Practices in Thailand**

#### ***3.1.1 Little Policy Consideration of Residential Building Energy Efficiency***

Since the initial passage of the Energy Conservation Promotion Act in 1992, which in itself represents a milestone for Thailand's adoption of national EE policies and strategies, the residential building sector has received little official attention. Until recently the sectors of industry and commercial buildings were of higher priority due to their larger energy consumptions, but the policy focus has since shifted to the transportation sector due to its huge impact on national energy security. In 2009, Thailand imported 85.7% of its oil, and around two-thirds of its oil products were used in its transportation sector (MoEN, 2012; IEA, 2011).

The residential building sector has received very limited attention during the past two decades despite its 24.6% share of the country's final energy consumption (IEA, 2012). Based on the authors' interviews with Thailand's building sector stakeholders, commercial buildings are currently in a state of relative oversupply as a result of a huge wave of investment over past decades. Conversely, modern, high-spec residential buildings, particularly high-rise condominiums, are in short supply in the cities. Further, demand for such buildings is anticipated to climb due to steady domestic economic growth (about 4% over the past decade (1988 constant price)) and accelerating urbanisation (recently 1.8% per annum (WB, 2012)). This is therefore an opportunity for the government of Thailand to intervene and promote energy efficient housing.

#### ***3.1.2 Lengthy Revision Cycle for Building Energy Code and Protracted Legalisation Process***

Drafting of the country's first building energy code ended in 1987 but the code didn't become official until 1995, thus legalisation required eight years. It was subsequently revised in 2004 and issued on a voluntarily-enforced basis in 2009, the legislation thus requiring a further five years, despite its voluntary nature. In total this revision cycle took 14 years, much longer than that in developed countries—three years in the US (DOE, 2012) and six years in Japan.

According to Thailand's Ministry of Energy (MoEN), revision of the 1995 code was expected to make it mandatory before 2011, but as of June 2012 the code was still voluntary. Lack of inter-ministerial coordination was cited as the reason behind this. That is, although the Ministry of Industry (MOI) approved building drawings in aspects of structural safety, fire safety and other safety and security factors, it refused to shoulder the responsibility for validating energy efficiency measures. Had it simply added the energy measures at the stage of safety checks carried out by the MOI before issuance of construction permits, the building energy code designed by MoEN could have been enforced on a mandatory basis. MOI's reasoning behind not incorporating the energy measures was that passing on the additional penalty risk (refusal of construction permits) of failure in energy measures to developers and designers was unfair. In other words, MoEN attaches more weight to energy conservation than MOI.

This inter-agency disagreement in primary policy thus severely delayed mandatory enforcement of Thailand's building energy code. In a move to break this apparent deadlock, a recent Cabinet requirement for all new government buildings to meet the building energy code before the related construction budget is released could be seen as a positive step in the right direction. This resolution is anticipated to stimulate debate on building energy code compliance among the various government agencies, which may expedite the legalisation process towards mandatory enforcement of Thailand's building energy code.

In summary, the long code revision cycle and slow legalisation process together severely delayed timely adoption of emerging and advanced building energy efficiency measures, and as such will mean any legal measures will never be in lock-step with the advancing pace of building technologies. Therefore, a shorter code revision cycle and faster legalisation process would lead to a higher degree of energy efficiency within buildings. Based on the current pace of technology updates in the building sector, a code revision cycle of around five years would appear to be the most suitable.

### *3.1.3 Lack of Dedicated Residential Building Code*

Thailand's current building energy code covers nine types of large building (over 2,000 m<sup>2</sup> in floor area); namely buildings in the areas of healthcare, education, offices, assembly, theatres and cinemas, entertainment/services, hotels, department stores/shopping centres and condominiums—all of which are of a commercial nature (with the exception of condominiums). The vast swathe of houses and low-rise residential buildings are thus not covered by the current Thai building energy code.

Taking into consideration the fact that Thailand's residential buildings actually consume nearly twice of final energy as commercial buildings, that construction of residential buildings in urban areas is expected to accelerate due to population migration related to economic growth (urban population of only 34% in 2010; 60% in most developed countries (WB, 2012)), that such buildings will require higher construction standards and incur higher energy consumption (such as high-rise apartment buildings), and that without a proper residential building code urban areas will be filled with new, inefficient residential buildings, a building energy code specifically designed for residential buildings that includes houses, apartments and condominiums is urgently required in Thailand.

Moreover, because technical requirements of residential buildings, including building equipment, architectural design features and building operation mode, vary greatly from those for commercial buildings, two sets of codes would be more effective than one combined code; i.e., one for residential and one for commercial buildings.

In short, there is a real and urgent need to develop a real residential building energy code in Thailand, whether based on energy consumption, future increase in urban population or technical differences between the two types of buildings.

### *3.1.4 Lack of Financing Programmes for Energy Efficiency Improvements in Residential Buildings*

Thailand's Energy Conservation Promotion Fund (ENCON Fund) was launched in 1992, in conjunction with the legislation of Energy Conservation Promotion Act. This fund serves as the source of finance for implementing energy conservation programmes, which include energy efficiency improvements, renewable energy development, R&D projects, public awareness campaigns, and monitoring and evaluation of national energy conservation plans. The ENCON Fund, which is managed by a Fund Committee, mainly relies on income from tax on petroleum importers and domestic producers as a fixed rate charged per litre, bank interest and irregular government and private subsidies. In 2010, a total of 2.034 billion Baht (66 Million USD) was allocated for energy efficiency improvement programmes (IEEJ, 2010).

The operational mechanism of the Thailand ENCON Fund guarantees government budgetary allocation to environmental issues. This differs from most developing countries, in which all tax income accrued by governments as national income is then disbursed to various government agencies according to prevailing government policy priorities, which may change over time. As developing countries tend to prioritise economic and social issues over the environment, the share allotted to environmental protection is often the first to suffer, particularly in economic downturns. Thailand's ENCON Fund thus successfully directly links taxation with energy efficiency financing, releasing funds for energy efficiency improvement activities.

Despite the above, however, few programmes targeting promotion of energy efficient housing actually exist in Thailand. One barrier cited in this respect is the high initial cost and lengthy payback terms linked with energy efficiency investments in the residential building sector. Another is the lack of effective financing programmes in this sector compared to commercial buildings, which is mainly due to the diversified, multi-owner nature (such as the ‘principal-agent’ issue between owners and tenants) of residential buildings. A further barrier is the inability of Small and Medium Sized Enterprises (SMEs), which dominate the residential building sector, to access energy efficiency financing sources due to lack of or unacceptable collateral, making them unappealing to financial support institutes.

Therefore, in order to effectively promote energy efficient housing in Thailand by continuous financing, the risk management strategies of the ENCON Fund need tweaking, and flexible, low-bar financing programmes tailored to the residential building sector need to be built-in.

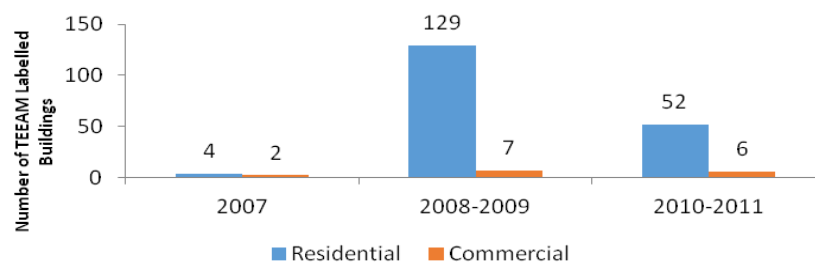
### *3.1.5 Low Stakeholder Awareness of Energy Efficiency in Residential Buildings*

Despite the presence of a limited number of public awareness-raising activities (e.g., Community Energy Volunteers Programme, competitions and awards) covering residential energy conservation, responses gathered at interviews conducted in Thailand by the authors point to a low general awareness of energy efficient residential buildings within Thai society. For example, for many new house buyers, energy efficiency does not factor at all in purchase decisions—the primary concerns of which are location and price. Such situation could be attributed to the low priority the residential building sector has in Thailand’s national energy policies and strategies, and the lack of housing-related policy instruments and dedicated residential building code. The low awareness among stakeholders in the sector hinders the development and deployment of energy efficient housing in the country from both supply and demand sides, which points to the need for more creative and effective public awareness raising campaigns to be rolled out.

### *3.1.6 Limited Support for, and Market Penetration of Localised Green Building Labelling System*

The Thailand Energy and Environmental Assessment Method (TEEAM) was the first localised green building labelling system, launched by the Department of Alternative Energy Development and Efficiency (DEDE) of Thailand MoEN in 2007. At the time of writing its assessment fee was waived in order to increase market penetration of the system.

Figure 1 shows the number of TEEAM labelled buildings from 2007 to 2011. It is immediately apparent that there is a huge disparity in number of labelled residential buildings. A total of 129 residential buildings were labelled from 2008 to 2009 but only 52 from 2010 to 2011. The reason behind this is the variation in TEEAM implementation, which involves on-site assessments and TEEAM expert committee approval meetings, and which is fully dependent on an annual TEEAM-related government budget that is highly unstable and often very limited. In 2012 it was zero, leading to programme suspension.



*Figure 1: Number of TEEAM Labelled Buildings 2007–2011*  
Source: DEDE, 2012

Two other factors can be gleaned from the implementation of TEEAM over the past five years. First, TEEAM attracted few applications from commercial buildings—a total of only 15 have been labelled in the past five years. Second, among the total of 185 TEEAM labelled residential buildings, most of them (164, or 90%) were labelled with the lowest grade, and only two achieved the highest grade. Both of these observations indicate that stakeholders in Thailand's building industry still have very low awareness of TEEAM, a situation that needs to be remedied.

Another significant barrier to increasing the market penetration of TEEAM is the lack of human resources. All TEEAM applications have to be checked and approved by the TEEAM Expert Committee, which can only meet once a month due to budgetary restrictions and only assess around five applications in each meeting. TEEAM can therefore only perform about 60 assessments a year, thus many real estate investors and developers from the private sector avoid TEEAM-based application due to the lengthy period before actual labelling.

In addition, as the conceptual scope of green buildings is much broader than that of energy efficient buildings, TEEAM may not play the same role as a dedicated energy performance labelling system, in terms of facilitating the information dissemination of building energy performance in the residential building sector. From this perspective, Thailand could consider establishing a dedicated building energy performance labelling system similar to the successful “Energy Performance Certificate” (EPC) system in use in EU countries such as Germany and the UK and the “Energy Star House” system in the USA. Naturally, if this route were followed, a database of housing energy performance in Thailand would have to be created and the related technicalities would require careful study before adoption in the localities.

### *3.1.7 Lack of Governmental Coordination*

MoEN is a relatively new ministry, established in 2002, and was designed to coordinate national enforcement of energy issues. To this end it unifies energy-related management responsibilities previously spread across several government ministries (Science Technology and Environment, Interior, Industry, and Commerce). However, the creation of MoEN still hasn't resolved the basic problem of differing policy priorities.

For example, as seen in the case of Thailand's building energy code, MoEN's main concern is the energy saving potential via enforcing the new building energy code on a mandatory basis. However, MOI downgrades energy conservation in its policy-making. Although both ministries may perform their allotted duties well, the end result is protracted delays in new policy formulation and enforcement.

To coordinate the various interests and concerns of different government agencies, a specific mechanism, such as an effective higher-level coordination agency may be needed, one that could survive political instability such as that witnessed in Thailand's Central Government Cabinet over the past years.

### *3.1.8 Lack of Penalty Mechanism for non-compliance with Building-Related Energy Efficiency Programmes*

This drawback makes some of the building-related energy efficiency programmes in Thailand neither cost-effective nor successful. For example, according to the Ministerial Decree on Designated Facilities in 1995 and 1997, large commercial buildings and factories were supposed to submit energy audit reports every three years to the Thai government. However, ten years after the Decree went into effect only about half of the facilities (around 4,500) had submitted reports, despite the presence of substantial government subsidies for report submission (IRG, 2007). This lack of penalty mechanism in building-related energy efficiency policies coupled with weak implementation often leads to projected energy conservation goals never going beyond just paperwork.

### *3.1.9 Lack of Energy Consumption Databases and Mechanism for Energy Data Auditing and Reporting*

A reliable database would back up policy-making decisions, such as in the design of building code, economic instruments and related information tools. Further, without the establishment of an energy auditing and reporting mechanism it is impossible to build a reliable database or provide a foundation for promoting energy efficient housing. To date, no such information infrastructure exists in Thailand, mainly due to the low priority accorded to the residential building sector in Thailand's energy efficiency policy over the past two decades.

## **3.2 Summary of Analysis on Policy Instruments in the Philippines**

### *3.2.1 Lack of Recognition for Building Sector under National Energy Policy Framework*

The residential and commercial building sector accounted for 37.8% of the total energy consumption in end-use in 2009, and is the biggest energy consuming sector in the Philippines. Second is transportation (34.7%) and third, industry (24.9%). Moreover, within the building sector itself, residential buildings accounted for around 72% of final energy utilised in 2009 (IEA, 2011).

However, like Thailand, the current Philippine energy policy focus is the transportation sector, which is seen as more sensitive to energy-related policy instruments than other sectors. Transportation currently holds sway over the building sector mainly due to the nature of the energy demand and supply.

As is well known, the transportation sector is mostly dependent on oil, and in the Philippines around 97.5% of the energy consumed in transportation derives from oil products. The share for electricity is negligible. Owing to its very limited indigenous oil resources the Philippines has to import a huge amount - for 2009 the figure exceeded 90% (IEA, 2011). From the viewpoint of energy security, the Philippine government places overarching priority on the transportation sector in formulating its energy policy.

Conversely, oil only accounts for a relatively small share (20.9%) in the energy supply mix in the building sector. The bulk is from biomass and electricity (47.3%, 31.8%). Most of the biomass and power come from domestic sources; in 2009 around 68% of the electricity was from geothermal, natural gas and hydro, obviating the need to import it (IEA, 2011).

From the perspective of reliance on imported energy resources, the building sector, in comparison with the transportation sector, factors little in the debate over Philippine energy security. The building sector thus remains very much on the sidelines of the country's national energy policy.

As a further consequence, many building-related energy conservation programmes are the by-products of related programmes in other sectors. For example, the first building code was combined with energy conservation requirements for the industry sector; its first green building rating scheme was actually a consequence of a solid waste management project; and mandatory energy audits resulted from an initiative for reducing the oil consumption of government service vehicles, based on AO No. 103 and 110. The building sector as a whole, therefore, is only inadvertently influenced as a result of energy policy covering other sectors or topics in the Philippines, and its scope is often only limited to commercial buildings. Residential buildings are rarely involved.

In consideration of the huge share of energy consumed by the building sector in the Philippines, therefore, specific strategies, plans, programmes and projects need to be designed and developed for promoting energy efficiency and conservation in this sector. An energy efficient building sector would also suppress the accelerating pace of power capacity installation within the country, an added bonus.

### 3.2.2 Absence of Residential Building Energy Codes in the Philippines

The Guidelines for Energy Conservation Design of Buildings (2008 version) can be seen as the only code specifically designed for building energy in the Philippines, but its remit solely covers commercial buildings and enforcement is voluntary.

However, residential buildings in the country consume almost 2.6 times the final energy and 1.24 times the electricity of commercial buildings (IEA, 2011). Further, based on its robust domestic economic growth (average annual increase of 4.5% over the past decade), demands for better living standards and upward mobility are bound to increase. Population and urbanisation are also growing, at 1.7% and 2.8% annually, respectively (WB, 2012), thus more new urban residential buildings are expected to appear, particularly air-conditioned western-style ones. Together, all these factors are expected to rapidly drive up energy consumption for residential buildings in the Philippines in the near future.

Therefore, a residential building energy code in the Philippines is much desired. Naturally, as evidenced in the rest of the world, there often exists a discrepancy between the presence and actual implementation and enforcement of building energy codes—there's no guarantee that a good code will lead to successful enforcement. But, this only underscores the necessity of prioritising formulation and enforcement of a residential building energy code within the Philippine government.

### 3.2.3 Need for Broader Scope and Stricter Standards for Mandatory Appliance Labelling System

Currently, only four products (room air-conditioners, refrigerators, CFLs and ballasts) are covered by the Philippine mandatory appliance energy efficiency labelling system. This scope is too narrow and must be broadened to embrace other energy-intensive or heavy-use household appliances, such as electric water heaters, Liquefied Petroleum Gas (LPG) stoves and electric fans.

Further, as the poorer segment of the population (still a significant percentage) cannot afford new energy efficient appliances, they often buy old or second-hand ones which are often of low efficiency. This has created a large reuse-recycling market for household appliances (e.g., air-conditioners and refrigerators) and a glut of outdated and inefficient models in the country, which only exacerbate matters as the country is therefore challenged with the task of bringing this huge market under regulation. This would be done via mandatory appliance labelling or other policy measures.

Moreover, the Philippine labelling standards for room air-conditioners (in terms of COP: Coefficient of Performance) could backfire, as they are weaker than those in both Thailand and China, as shown in table 4. This could cause an influx of inefficient or low efficiency models from such countries and higher domestic energy consumption. In this context, the minimum standards of the Philippine mandatory labelling system need to be continually updated in accordance with those of its bordering countries.

Table 4: Minimum COP Requirements for Air Conditioners: Philippines, Thailand and China

Country	Lowest COP Requirement (Cooling Capacity <3.3kW)	
	Window Type	Split Type
The Philippines	2.53	2.56
Thailand	2.82	2.82
China	2.90	3.20

Source: PDOE, 2012; MoEN, 2012; SAC, 2010

### *3.2.4 Need for Effective Mechanism to Expedite Adoption of the Localised Green Building Rating Scheme - Building for Ecologically Responsive Design Excellence (BERDE)*

Developed by the Philippine Green Building Council (PHILGBC) in 2010, BERDE is the first green building rating scheme in the country and was based on several well-recognised green building rating schemes from around the world—LEED in the USA, Green Star in Australia, and BREEAM in the UK. However, most importantly, it addresses local environmental priorities and is particularly designed for the local tropic maritime climate.

Encouraged by the success of LEED, PHILGBC adopted a similar market-based mechanism to popularise BERDE, including establishing certification for professionals and assessors, arranging seminars and training programmes for Philippine building sector stakeholders, and hosting the annual green building conference. In order to further develop BERDE, PHILGBC accredits a leading professional company to administer BERDE training programmes.

However, BERDE has seen little use in the Philippines as only five projects have been registered over the last two years according to its website (PHILGBC, 2012). Possible reasons for this are prior market penetration of foreign green building rating schemes such as LEED and BREEAM, and the fact that BERDE is voluntary—something PHILGBC is trying to remedy with the Philippine government. More backing and government support are therefore needed to mainstream this scheme.

### *3.2.5 Absence of Effective Economic Incentives for Energy Efficient Housing*

At the time of our review of policy instruments and practices in the Philippines, only one economic incentive targeted at building energy efficiency in the Philippines existed: the Energy Efficient Lighting Financing Assistant Programme (under the UNDP-GEF funded Philippine Efficient Lighting Market Transformation Project (PELMATP)). However, in 2011 UNDP judged this programme unsatisfactory overall due to its weak influence on the market (UNDP, 2011).

Designing and implementing economic incentives in developing countries is a challenge, usually because of insufficient institutional support and weak enforcement. However, economic incentives are crucial and effective in promoting energy efficient buildings and should not be overlooked. To this end the current institutional system requires upgrading under a comprehensive reform framework to facilitate the design and implementation of economic incentives.

Further, in order to avoid any misrepresentation, selection of applicable technologies and scope of economic incentives requires the utmost prudence. Houses that emulate western styles, as well as big-business real estate developments based on Western standards—which often introduce the use of air-conditioners and hermetically-sealed residential buildings—despite being popular, pay little heed to traditional passive measures such as day-lighting and cross-ventilation. Such borrowed or imported housing styles also often disregard local cultural and social contexts and can lead to higher energy use. Thus, what constitutes ‘good’ and ‘bad’ use of economic incentives needs to be decided; in other words, which technologies should be incentivised.

## ***Further Discussion and Recommendations***

### **4.1 Commonalities between Thailand and the Philippines**

Based on the above analysis of policy practices in Thailand and the Philippines in section 3 above, four barriers to promoting energy efficient housing are common to both countries:

- Low priority of residential building sector in national energy policy making agenda;
- Lack of mandatory residential building energy code;



- Absence of effective economic incentives (other than ENCON Fund in Thailand);
- Low market acceptance and penetration of localised green building rating schemes (TEEAM in Thailand and BERDE in the Philippines).

Overcoming the above four barriers can be seen as fundamental steps for promoting energy efficient housing. In other words, failure to carry them out will almost certainly inhibit any significant advancements in residential building energy conservation and efficiency, a fact corroborated by similar experiences in the USA and EU. To be sure, the existence of appropriate policy focus on the residential building sector within national energy policy making agenda in countries that have control over energy efficiency in the residential building sector has resulted in mandatory residential building energy codes which are regularly revised, economic incentives (tax rebates, tax exemptions, tax credits, subsidies, favourable loans, etc.) and market-successful green building rating schemes. The necessity of making concrete advancements in the above four areas is thus of crucial importance both for Thailand and the Philippines if they are to make any headway in overcoming the challenges of national energy security, climate change and environmental degradation.

#### **4.2 Differences between Thailand and the Philippines**

Naturally, as these two countries are at different developmental stages (based on per-capita economic output and per-capita energy consumption), some differences in the policy practices of energy efficient housing are bound to exist.

First, Thailand has established a sound national energy efficiency financing mechanism, in the form of the ENCON Fund, although currently there are few programs currently covered by this fund that are specifically designed for residential buildings. Conversely, there are no such financing mechanisms in the Philippines, which may make it more difficult for it to design and implement programmes or projects aimed at energy conservation and energy efficiency improvements in the residential building sector.

Second, in Thailand, to regulate the energy efficiency of household appliances, two energy efficiency labelling systems were created: mandatory MEPS (minimum energy performance standards) and voluntary HEPS (high energy performance standards). These two systems function in unity and complement each other. In Thailand, MEPS is targeted at removing products from the lowest 3% efficiency bracket from the market, and HEPS is applied for labelling of products in the highest 20% efficiency bracket as role models for the market to emulate (Vongsoasup, 2012). The Philippines has MEPS but no HEPS. Furthermore, the scope of Philippine MEPS is narrower than that of Thailand, and for some products (e.g., room air-conditioners) Philippine MEPS standards are lower than Thailand's.

Third, several localised green building rating schemes (e.g., TEEAM, TREES and Carbon Reduction Label) exist within Thailand's building ratings market, which compete with each other; the Philippines has only one, BERDE, developed by PHILGBC in 2010. Introducing the element of competition could, in theory, lead to continually raised levels of efficiency, pushing the boundaries for development of green buildings forward. In addition, a competitive market also results in better market penetration of the green building rating system. To illustrate this, in Thailand, the TEEAM rating scheme was suspended in 2012 due to lack of governmental funding, but building owners had the option of applying via TREES, a private venture. Therefore, if only one localised rating scheme exists, and this scheme runs into difficulties (e.g., in funding, human resources, inappropriate criteria), market penetration of the concept of green buildings will stall in that country.

#### **4.3 Lessons for Other ASEAN Undeveloped Countries**

There are two important lessons which can be learnt from the policy practices of energy efficient housing in Thailand and the Philippines for other ASEAN undeveloped countries.

The first one is that designing and issuing a mandatory residential building energy code is a crucial step for promoting energy efficiency in the residential building sector, as it regulates the minimum requirements for building energy efficiency, which in turn often kick-starts other policy instruments, such as economic incentives. Without the initial implementation of such a fundamental policy instrument, no other significant improvements in energy efficient housing will follow.

The second one is Thailand's energy efficiency financing mechanism, the ECON Fund. As mentioned in section 3 above, such mechanisms are effective in ensuring the source of funding for energy efficiency programs or projects, particularly in developing countries. For many developing countries, energy efficiency is either completely overlooked or only paid lip service within national policy agenda; government budgets usually also lack the budget for energy efficiency improvements too, especially during periods of economic downturn. Therefore, establishing a "marketised" energy efficiency financing mechanism that can ensure steady and continuous funding support would greatly assist in promoting energy efficient housing in many developing countries.

#### 4.4 Recommendations for Overcoming the Barriers in Thailand and the Philippines

Based on the above analysis and discussion of policy practices related to energy efficient housing in Thailand and the Philippines in section 3, tables 5 and 6 below give recommendations for overcoming the barriers present in the two countries.

*Table 5: Findings and Recommendations for Energy Efficient Housing Promotion in Thailand*

<b>Findings</b>	<b>Recommendations</b>
National energy efficiency policies ignored the residential building sector over the past 20 years	Raise the status of residential building sector within national energy policies and strategies Design more residential building sector-specific strategies, plans, programmes and projects
Protracted revision cycle and legalisation process of building energy code	Shorten the code revision cycle to around 5 years to keep pace with technology upgrades Expedite the legalisation process by establishing higher level coordination agency within government
Lack of dedicated residential building code	Design and issue a specific residential building energy code modifiable to local contexts Implement the code on a mandatory basis and ensure strict enforcement
Despite an energy efficiency financing mechanism (ENCON Fund), few programmes are designed for financing energy efficiency improvements for residential buildings	Tweak risk management strategies of ENCON Fund to give it flexibility Design low-bar financing programmes for residential buildings (e.g., extended payback periods and smaller loans)
Low awareness of energy efficient residential buildings in Thai society	Design and implement more awareness-raising campaigns for residential buildings, particularly targeted to low awareness groups like homemakers, students, and the old
Market penetration of localised green building rating scheme, TEEAM, is minimal due to unstable government budget and limited human resources; Energy Performance Certificate (EPC) system would better promote energy efficient housing	Provide stable and continuous government budgetary support to TEEAM Allow entry of private sector to enhance TEEAM labelling processing capability (may reference the practices of LEED) Establish an energy performance labelling scheme for residential buildings for the medium term

<b>Findings</b>	<b>Recommendations</b>
Lack of bureaucratic coordination despite establishment of Ministry of Energy in 2002	Clarify individual government agency responsibilities and overcome issue of responsibility overlaps  Coordinate incompatible policy priorities and concerns among different government Ministries by establishing a higher level coordination agency
Near complete absence of penalties for failure to comply with energy efficiency programme	Design appropriate penalty mechanism for energy efficiency policies or instruments  Strengthen the implementation of such penalty mechanism by clear authorisation
Lack of established energy consumption database and energy data auditing/reporting mechanisms for residential buildings	Extend the current 'designated buildings' energy data auditing/reporting system to cover big residential buildings in the short term  Establish related penalty mechanism for this auditing/reporting system  Build a reliable energy consumption database in the medium term to support energy efficiency related policy-making

*Table 6: Findings and Recommendations for Energy Efficient Housing in the Philippines*

<b>Findings</b>	<b>Recommendations</b>
Low priority of building sector within national energy policy-making despite being largest energy consumer	Apportion the building sector appropriate weight and priority within national energy policy agenda  Design building sector-specific strategies, plans, programmes and projects
Current building sector-related energy efficiency policy instruments focus on commercial buildings; residential buildings ignored	Target residential building sector by extending current building-related policy instruments or developing new residential sector specific instruments
Lack of residential building energy code	Develop a residential building energy code  Reclassify the code as mandatory and enforce it effectively  Address the local context in the code by adopting traditional passive technologies: day-lighting and natural ventilation
Current scope of Philippine mandatory appliance labelling system is too narrow	Expand the current scope of mandatory appliance labelling system to include other energy-intensive or heavy-use appliances such as electric water heaters, LPG stoves and electric fans
Presence of huge reuse-recycling market for outdated/second-hand household appliances, extenuating use of inefficient appliances among poor population which have low purchasing power	Develop mandatory procedures to eradicate inefficient appliances from reuse/recycling market  Establish appropriate buy-back mechanism (to trade-in inefficient models for more efficient ones)  Design a subsidy policy encouraging consumers to buy new efficient appliances
Standards for mandatory labelling scheme for room air-conditioners are lower than neighbouring countries of Thailand and China	Regularly upgrade the minimum COP requirements for room air-conditioners under the national energy efficiency policy framework to avoid influx of low efficiency or inefficient air-conditioners from neighbouring countries

Findings	Recommendations
	Raise the testing and labelling capacity, currently fully operated by governments, by inviting private sector participation
BERDE popularisation is too slow	Perform more BERDE advocating campaigns and training and education programmes  Request support from governments for wider application of BERDE
Lack of economic or fiscal incentives hampers energy efficient building practices	Reform current institutional systems under a comprehensive framework to facilitate good design and effective implementation of economic incentives
Lack of familiarity with energy efficient housing among general public due to relative newness of the concept	Develop or build demonstration/pilot projects to inform the general public of energy efficient housing ideals  Demonstrate traditional housing with passive cooling or lighting designs to guide the building sector into avoiding copycat practices emulating technologies of western-style houses which ignore local social, cultural and climate contexts

## References

- ASEAN Center for Energy. (2012). Available online at: <http://aseanenergy.org/> (accessed 25 June 2012)
- Chirarattananon, S. et al. (2006). Revised Building Energy Code of Thailand: Potential Energy and Power Demand Savings.
- Chirarattananon, S. et al. (2004). Development of a Building Energy Code for New Buildings in Thailand. Conference Paper for the Joint International Conference on “Sustainable Energy and Environment”, Hua Hin, Thailand, 2004
- DEDE (Department of Alternative Energy Development and Efficiency of Thailand). (2012). Available online at: <http://www.dede.go.th/dede/> (accessed 23 March 2012)
- DOE (Department of Energy of USA). (2012). Building Energy Code. Available online at: <http://www.energycodes.gov/status/> (accessed 23 March 2012)
- IEA (International Energy Administration). (2012). Energy Balances of Non-OECD Countries 2012. IEA, 2012
- IEA. (2011). Database. Available online at: [http://www.iea.org/country/n\\_country.asp?COUNTRY\\_CODE=TH&Submit=Submit](http://www.iea.org/country/n_country.asp?COUNTRY_CODE=TH&Submit=Submit) (accessed 23 February 2012)
- IEEJ (Institute of Energy Economics of Japan). (2011). APEC Energy Overview 2010: Thailand Part. Available online at: <http://www.ieej.or.jp/aperc/2010pdf/Overview2010.pdf> (Accessed 23 March 2012)
- IEEJ. (2010). Compendium of Energy Efficiency Policies of APEC Economics. Available online at: <http://www.ieej.or.jp/aperc/CEEP/CEEP-all.pdf> (accessed 23 March 2012)
- IRG (International Resources Group). (2007). Thailand Country Report. Prepared for the United States Agency for International Development (USAID), 2007
- MoEN (Ministry of Energy of Thailand). (2012). Available online at: <http://www.energy.go.th/?q=en/> (accessed 23 March 2012)
- Nilkuha, K. (2010). Energy Efficiency Promotion Policy and Activities in Thailand. Presentation for the SETatWork Facilitation Workshop, Bangkok, 2010
- PDOE (Philippine Department of Energy). (2012). Available online at: <http://www.doe.gov.ph/> (accessed 25 June 2012)

- PHILGBC (Philippine Green Building Council). (2012). Available online at: <http://philgbc.org/> (accessed 26 June 2012)
- Prakobchat, S. (2011). Implementing Energy Efficiency Building Code in Thailand. Presentation for the APEC Building Material and Component Testing and Rating Workshop, Bangkok, Thailand, 2011
- Rakkwamsuk, P. (2011). Current Practice, Constraints, and Opportunities of Developing and Financing Energy Efficiency Measures in the Buildings Sector: Thailand Experience. Presentation for 12th Climate Technology Initiative Workshop, Berlin, Germany, 2011
- Rakkwamsuk, P. (2010). New Building Energy Code and Government Policies of Thailand. Presentation for the Workshop of Transition towards Low Carbon Society in Thailand and Asia, Thailand, 2010
- SAC (Standardisation Administration of China). (2010). National standards of the minimum allowable value of energy efficiency and energy efficiency grades for room air conditioners (GB 12021.3-2010). China Zhijian Publishing House, 2010 (in Chinese)
- UNEP (United Nations Environment Programme). (2011). Sustainable Building Policies on Energy Efficiency: Philippines. UNEP 2011
- UNDP (United Nations Development Programme). (2011). FINAL EVALUATION of Philippines Efficient Lighting Market Transformation Project. UNDP 2011
- Vongsoasup, S. (2012). Energy Efficiency S&L: Current Situation and Policy Development in Thailand. Available at <http://eneken.ieej.or.jp/data/4227.pdf> (accessed 23 March 2012)
- WB (World Bank). (2012). Database. Available online at: <http://data.worldbank.org/country/thailand> (accessed 14 February 2012)

# Making practice theory practicable: towards more sustainable forms of consumption

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## Abstract

In recent years, there has been growing interest in applying social practice theory to theorizing consumption, specifically in relation to transforming practices that have problematic environmental impacts. In this paper, we address the questions: how do changes in practices occur, and what are the levers for influencing change towards more sustainable consumption practices? We argue that a view of agency as being distributed across people, things and social contexts, is fruitful. We also explore learning through membership in communities of practice, where people are involved in experiments with or exposure to new practices. We relate three case studies in the arena of food consumption practices then discuss the practicalities and pitfalls involved in translating social practice approaches into practicable recommendations for encouraging more sustainable forms of consumption.

*Note: a final version of this paper has been accepted for publication in the Journal of Consumer Culture. Please refer to that version as the main reference.*

# Discussant Contribution

## Agents and Actors

*Kersty Hobson*

These three papers present different takes on the roles that agents and actors play, and indeed what constitutes an agent/actor. They focus respectively on discourses, policy, and practices as agents of change, and offer interesting case studies of these agents in action. In terms of discussion, I would like to focus more on agency and power amongst these agents.

**Audley Genus'** paper presents an example of Newcastle Low Carbon Neighbourhoods project that has evidently involved many cross-sector actors and is very much rooted in the region. The paper talks about the value of looking at discourses and of course, that field of academic analysis is now well established in the literature. The paper claims to be undertaking a critical discourse analysis and mapping out discursive domains: and with so many actors involved, offers the reader a broad-brush analysis of the storylines that coalesce around this project. This is a necessary starting point but there is a lot written across the social sciences in this field that is really asking the 'so what' question i.e. we know that different storylines exist, but what work do they do? Therefore it would be very interesting if the author could drill down further into particular aspects of the project. For example, the paper mentions a Coinquiry Research Action Group, which went on to win an AHRC project grant. It would be fascinating to hear more about what this groups did; how and to what ends. What discourses came up and how did they shift? This could be linked to emerging and established work in the social sciences on action research, knowledge exchange and co-inquiry.

The **Guo and Akenji** paper focuses on energy efficient instruments for buildings in Thailand and the Philippines. This was interesting and the point made about ASEAN countries missing from mainstream academic literature is well made. I encourage the authors to think about submitting this as a revised manuscript to a journal like Energy Policy. The paper for the most part is descriptive of the situation in both countries and of course, this is important. The analysis takes a structural/institutional perspective, which is insightful: but it would be useful to see some reflection upon the politics around these issues. Some questions that spring to mind: in Thailand, the authors state that slow legislation process and lack of ministerial coordination is key. Is this normal in Thailand for other issues or is there something about this domain that makes it stick out? If so, why? Why are residential building so low priority, politically speaking? In the EU, the discourse of efficiency is now pegged to economic competitiveness – not an add-on, but central to the economy. So what is the mindset in ASEAN? Grow first, and become efficient later? Who has the power here and what sort of power is it?

**Sahakian and Wilhite's** paper sets out premise and limitations of practice theory cogently, and was enjoyable to read. In terms of comments, whilst it is clear that practice theory does fundamentally argue for distributed agency amongst a wide set of actors, it is also clear that agency is not distributed equally. For example, the paper talks of the 'London on Tap' campaign, which aimed to make ordering and drinking tap water more normalised in restaurants. It states that the campaign failed to take off with customers but was more successful in restaurants, as this 'taboo' was discussed publically and created 'favourable conditions' for ordering tap water. So how did that work in ways that the consumer focus didn't? The point here is that one of the main strengths of practice theory is that it broadens the landscape of possible leverage points and types of intervention. So we need to go beyond just saying it allows 'recognition' of this, which includes considering how a practice theory intervention and/or evaluation of a project

looks different from conventional approaches, not only in terms of what is done but also in terms of how we evaluate the impact it has.



# Discussion Report

## Agents and Actors

*Aija Freimane*

### ***Emerging general topics***

The papers demonstrate that research is currently grappling new and advanced cases regarding the question how to turn a novel practice into a norm. Salient issues discussed in this respect are actors that play a key role, aspects related to the infrastructure and geography as well as the history, culture and politics of a given setting. Lobbyism is not to be disregarded in this respect as well.

### ***Main discussion points on the paper by Audley Genus***

The discussion initially revolves around community engagement and the role of academics with that. In the following, participants are wondering whether and how the discourse of a regeneration agenda relates to a possible transition towards more sustainable consumption. The discourse around low carbon neighbourhoods appears to be dominated by concerns to improve the economic situation of these particular neighbourhoods. Therefore, questions related to power dynamics emerge: how do these initiatives connect to actors at national level whose primary concern still is economic growth?

### ***Main discussion points on the paper by Fei Guo & Lewis Akenji***

A question addressed at the authors wonders in how far the long term effects of the projects presented are taken into consideration. Since the aim is to change practices and consumption, it is unclear how long an intervention needs to be in order to establish change and what happens after the project and its intervention mechanisms end. It was responded that consumption change is currently not measured and that more funding would help to involve more people to firmly embed long-term change across neighbourhoods.

Another topic of discussion is the flexibility of initiatives. Not everyone would like to adopt the same alternative, more sustainable practice. Therefore, campaigns and attempts to change infrastructure should aim to cater to different interests and existing behaviours. Ideally, initiatives aim to learn about what moves people and how to best engage them in change efforts.

### ***Main discussion points on the paper by Marlyne Sahakian & Hal Wilhite***

The consumption of bottled water is higher than ever. The key question is whether this is due to people's norms, habits, safety (purity) or other reasons. In some cities and countries (e.g. London) it is considered to be normal to ask for and being served tap water in cafés and restaurants, in others not. It is important to consider the message to give to people, e.g. marketing tap water as safe, cool, convenient and good and, in addition, how to link up to policy making.

The question remains, how concepts and approaches based on social practice theories be made more practicable to policy makers. Since all practices are interrelated and interwoven with social meanings, infrastructures, etc., the question emerges where possible leverage points for change reside.

# IV

**Annex**

## About SCORAI Europe

Founded in North America and inspired by the European SCORE! Network (2005-2008), SCORAI is an international network of professionals working to address challenges at the interface of material consumption, human fulfilment, lifestyle satisfaction, and technological change. SCORAI Europe hosted its first Trans-Atlantic workshop around the theme, "Sustainable Consumption During Times of Crisis" in Bregenz (Austria), on May 1, 2012. Following this successful event that brought together researchers from North America and Eastern/Western Europe, a session dedicated to SCORAI to present and discuss workshop outcomes with a wider audience took place within the larger European Roundtable for Sustainable Consumption and Production conference (May 2-4, 2012). In that session, participants unanimously agreed that creating a SCORAI Europe network would help strengthen the sustainable consumption community in Europe, both in terms of research and practice. Shortly afterwards, SCORAI Europe was launched. Its goal is to support a community that contributes forward-thinking, innovative research in the area of sustainable consumption, while also bridging academic research with mainstream thinking and policy-making.

SCORAI Europe was involved in hosting an international workshop on "Structural Prerequisites for Sustainable Societies and the Good Life – Taking the Sustainable Consumption Lens Seriously" which took place at the University of Muenster on March 21-22, 2013. The workshop explored the possibilities and conditions of a common vision of a Good Life, the structural changes needed to allow the societal development and pursuit of such a vision, and the most promising political intervention points on behalf of a societal transformation towards sustainable consumption and the Good Life.

A key feature of SCORAI Europe workshops to date is that they have adopted a small group discursive format, which places an emphasis on engagement and discussion. The Muenster workshop exemplified this as debates and discussions centred on the relevance of power in sustainable consumption research and governance, and the potential and limits for diffusion and mainstreaming of local or regional sustainable initiatives.

SCORAI Europe aims to work closely with European Roundtable for Sustainable Consumption and Production (ERSCP) and our sister SCORAI organization in North America, as well as other research networks that are focused on the challenges of addressing the society-environment nexus from a consumption perspective.

Overall, SCORAI Europe events provide a platform for universities, interested groups, policy-makers and individual researchers to connect. Indeed, the SCORAI Europe listserv offers the opportunity for members to share relevant research announcements, publications, vacancies and interesting news articles.

To learn more about SCORAI, please visit: <http://www.scorai.org>, where you will find a dedicated web page for SCORAI Europe activities.

To become a member of SCORAI Europe, please join the SCORAI EUR listserv: <http://scorai-eu.opendna.com>.

For more information on SCORAI Europe, please contact: [scoraieurope@gmail.com](mailto:scoraieurope@gmail.com).

# **SCORAI Europe: Future Outlook**

## **Report on the Closing Session of the Istanbul Workshop**

*Edina Vadovics*

In the last session of the workshop, the discussion was divided into two sub-sessions: first general workshop content outcomes, reflections and ways forward (in terms of future research and workshop topics) were discussed, and then our group moved on to reflect on the role and ways of working of SCORAI Europe, as well as what kind of changes members might want to see in future workshops.

### ***Reflections on the workshop content, outcomes and possible ways forward in research***

#### **Where should the focus in research as well as action be placed? On the individual or the community/groups/society?**

Generally, focus on the individual, and individualized approaches are not considered to be adequate and sufficient in sustainable consumption research. Still, we should be careful not to do away with these approaches completely. Relating to this, it is important that we start implementing sustainable consumption at the individual level, and, in fact, in our own lives. The topic of the researcher as activist also emerged, along with what the barriers and opportunities could be in this regard.

Meanwhile, it is important that new research methods are developed that are suited for taking a more holistic, systemic and multi- or even transdisciplinary approach. On the individual level we may be relatively sustainable in our practices, but overall this may still result in an unsustainable society (e.g. cycling in Denmark vs. the Danish having a large ecological footprint). Similarly, if, for example, environmental policy is targeting waste selection, the impact of waste separation is not measured and thus missed. So, the whole system needs to be observed and studied, and the most important leverage points found.

Furthermore, research could focus less on individual consumption and more on subjective welfare and well-being. Some research evidence is already available to suggest that reducing the ecological footprint of our lifestyles does not result in reduced well-being.

Even though it is clear that the individualistic approach in sustainable consumption research needs to be overcome, our own group may not be the most appropriate target audience for discussion and effecting change – given that we are largely convinced and are already actively looking for new ways. The question then arises if we should take this message to another target group (e.g. other researchers, policy makers, the media?).

Finally, it is important that we keep our work connected to work on sustainable development and consumption indicators, and thus maintain our contact with policy makers as well as economists. It is vital that what is revealed in our research should be translated in some ways into indicators as well.

**Working out what the good life and sustainable consumption in practice is, the need to ‘translate’ our work and messages for others.**

There is overall agreement between us that we need to move on from capitalism. However, what is the alternative? How could we define the alternative? It appears that there is need for collecting the numerous good examples that exist. Also, work needs to be done on how we upscale all the good practices (what is scaling up, really? do we really need scaling up or is it rather multiplication?).

Connecting to the idea of researcher as activist mentioned above, we may also need to just go out and do it, put the change we want to see in practice, academics in collaboration with communities – good examples of this already exist, e.g. in Australia ([Katherine Gibson, http://www.communityeconomies.org/Home](http://www.communityeconomies.org/Home)).

If we want to reach out to and convince policy makers, we need evidence of what works well and what does not, and in what context and circumstances, as many people believe that it is not possible to change consumption behaviour. It changes for certain periods of time, for example due to the financial crisis consumption was reduced as well as more sustainable consumption practices adopted in several countries (e.g. Portugal), but such change is not likely to last. There is need for collecting and structuring the evidence as well as ‘translating’ our language for policy makers and people from other scientific fields.

***What is SCORAI (Europe) and how could we attract more people, including practitioners?***

SCORAI is a network of sustainable consumption researchers and practitioners. This does not mean we exclude those who work in production, but our approach tends to be different: we are looking at consumers and groups of consumers, and lifestyles, while those working in production tend to focus more on industries and production processes. SCORAI also focuses on the voluntary aspect of changing lifestyles and behaviour. We must of course consider production aspects in consumption studies, as these are often two sides of the same coin, and stay informed on research and advances in sustainable production as well.

SCORAI is a research and action initiative, but at the moment we lack cooperation with those doing the action, partly because, in general, their abstracts were not up to the standard of the academic level of the workshop (see below for some ideas for including practitioners more in SCORAI). There is a need for finding ways to close the knowledge gap between research and action.

SCORAI also offers networking space for the likeminded. We should all see this network as an opportunity to present our work and discuss it in a broader community. The opportunity to organize a workshop and thus elaborate and debate one’s work is open to anyone. We should all feel encouraged to take ownership of SCORAI as well as take the initiative, especially given the fact that SCORAI is in its infancy, and thus open to all kinds of ideas. Commitment is needed, as well as more people volunteering to take part in the process.

SCORAI does not want to depend on external funding or project-based funding. For more general funding, the Leverhulme Trust could perhaps be contacted, see <http://www.leverhulme.ac.uk/index.cfm>).

## SCORAI Workshops

As for the current structure of SCORAI workshops, people are generally happy with it, most importantly because it provides space and opportunity for discussion. So far, it has also proved to be fruitful to link SCORAI workshops to other big conferences and networks – this helps dissemination and linking up with others. Still, some ideas for improving or making the structure more varied have been put forward:

- Length of workshop: 1 day is perhaps a little bit short, could we consider having 1.5 – 2 day workshops.
- Structure and format, including practitioners more:
  - a. we could sometimes have a short field trip included to see a local good practice example and thus include practitioners more;
  - b. we could invite local good practice example representatives (=practitioners?) for a shorter session within the workshop or lunch break to present what they do (with the help of posters?). The local SCORAI organizer could help practitioners prepare for it (previous good and working example for is available from Hungary).
  - c. the workshop could be divided into two main parts: 1st part of the meeting could be conducted in a way that has been usual so far, 2nd part could be a practical workshop with a local initiative or real initiative, and we could examine how we, as researchers, could contribute to it. How could local stakeholders use our results and knowledge?
  - d. we could have some kind of a practical workshop as part of the SCORAI workshop (e.g. like the transition management or backcasting workshops this year in ERSCP, or with a focus on other methodologies)
  - e. we could include a match-making part to encourage cooperation and joint proposal development (speed-dating?)
- Researchers as activists: the carbon footprint of workshops could easily be calculated and offsetting arranged through supporting (even taking part in?) a local project (e.g. planting of native fruit trees in a community garden)
- Potential topics for future workshops:
  - a. Designing appropriate research methodology for practice theory, possibly a webinar (Marlyne Sahakian and Henrike Rau).
  - b. A hierarchy of consumption webinar (Kate Power)
  - c. Sustainability skills being lost (e.g. bread making, food growing) – this could provide an interesting link to production (Aija Freimane)
  - d. Equity within limits and the good life (Edina Vadovics)
  - e. A practice focus in transition towns (Audley Genus)

Finally, it has also come up whether we want or, indeed, need a shared vision within SCORAI, to have a shared understanding of what exactly we would like to change and towards what we would like to move. This is an area that merits further discussion within SCORAI (see e.g. Münster workshop discussion and outcomes) although the point was made that the network is only as strong as its active members, and therefore the vision and future of SCORAI very much depends on coming together to establish this.

**SCORAI Europe Workshop, 4 June 2013, ISTANBUL**

**Rectorate Conference Hall**

**Boğaziçi University**

**Bridging Across Communities and Cultures Towards Sustainable Consumption**

**Workshop Programme**

9:30-10:00	Registration
10:00-10:15	<b>Welcome</b> <b>Sylvia Lorek</b> , Sustainable Europe Research Institute and <b>Marlyne Sahakian</b> , University of Lausanne
10:15-10:45	<b>“Chopsticks, fingers, forks and knives: Individual cultures in the context of global consumption”</b> <b>Lewis Akenji</b> , Institute for Global Environmental Strategies (IGES)
10:45-12:00	<b>SESSION 1: Structures in Communities</b> <b>Chair: Burcu Tuncer</b> , CSCP Wuppertal <b>Discussant: Anna Davies</b> , Trinity College Dublin <b>Note-taker: Skaidrite Dzene</b> , Latvia University of Agriculture <ul style="list-style-type: none"><li>• <b>Kristine Abolina</b>: Sustainable eating habits and challenges of urban allotment gardens: case study of Riga, Latvia</li><li>• <b>Barbara Heisserer and Henrike Rau</b>: Curbing the Consumption of Distance? Conceptual and Practical Tools for Sustainable Mobility</li><li>• <b>Kersty Hobson</b>: Monitoring and evaluating for sustainable communities: making meaning from diversity?</li></ul>
12:00-13:30	<b>Lunch break</b>
13:30-15:00	<b>SESSION 2: Values and visions</b> <b>Chair: Frances Fahy</b> , National University of Ireland, Galway <b>Discussant: Kristine Abolina</b> , University of Latvia <b>Note-taker: Almut Reichel</b> , European Environment Agency <ul style="list-style-type: none"><li>• <b>Maria Csutora and Agnes Zsoka</b>: Green consumerism as special form of spirituality and contributor to subjective wellbeing</li><li>• <b>Anna Davies</b> : Creating space: lessons from collaborative backcasting for sustainability learning</li><li>• <b>Aija Freimane</b>: Design in the era of liberal sustainability paradox</li><li>• <b>Edina Vadovics and Benigna Boza-Kiss</b>: Voluntary consumption reduction. Experience from three consecutive residential programmes in Hungary</li></ul>
15:00-15:30	<b>Coffee and tea break</b>

- 15:30-16:45      **SESSION 3: Agents and Actors**  
**Chair: Arnold Tukker**, TNO  
**Discussant: Kersty Hobson**, University of Oxford – check to see if ok with 4 papers  
**Note-taker: Aija Freimane**, Art Academy of Latvia
- **Audley Genus**: Creating low carbon neighbourhoods: discourses and bridges
  - **Fei Guo and Lewis Akenji**: Barriers to Promoting Energy Efficient Housing in Southeast Asia: the Thailand and the Philippines Cases
  - **Marlyne Sahakian and Harold Wilhite**: Making practice theory practicable: towards more sustainable forms of consumption
- 16:45-17:30      **Closing Session:**  
**Lewis Akenji**, Institute for Global Environmental Strategies (IGES)  
**Sylvia Lorek**, Sustainable Europe Research Institute
- Summary and discussion
  - SCORAI Europe next steps

### Workshop format

SCORAI workshops are designed to maximize discussion and interaction. Space is limited to 30-35 participants, including authors, and will be filled on a first-come-first-serve basis. All participants are strongly encouraged to read the papers in advance, which will be distributed two weeks prior to the event. In each panel, authors will be asked to briefly introduce their key points; discussants assigned to each panel will lead the debate, with participants also engaging in the exchanges and capturing summaries, which will be presented in a special session within the ERSCP.

### SCORAI within the ERSCP

SCORAI will host a panel session within ERSCP under the title “Bridging across Communities and Cultures towards Sustainable Consumption”. A summary of workshop findings will be shared in this session, with time allocated to discussing workshop outcomes and future SCORAI activities in Europe.

#### On behalf of the organizing team,

**Julia Backhaus**, ICIS, Maastricht University

**Frances Fahy**, National University of Ireland, Galway

**Sylvia Lorek**, Sustainable Europe Research Institute

**Marlyne Sahakian**, IPTEH, The University of Lausanne

#### Abstract review committee

**Maurie Cohen**, New Jersey Institute of Technology

**Lucia Reisch**, Copenhagen Business School

**Burcu Tuncer**, CSCP

**Arnold Tukker**, TNO

**Philip Vergragt**, Tellus Institute & Clark University



## **Workshop Participants**

### **(By first name)**

Aija Freimane, Art Academy of Latvia  
A. Idil Gaziulusoy, AUT University  
Almut Reichel, EEA  
Anna Davies, Trinity College Dublin  
Arnold Tukker, TNO  
Audley Genus, Kingston University  
Burcu Tunçer, CSCP  
Christina Raab, CSCP  
Cristina Rocha, LNEG  
Edina Vadovics, GreenDependent  
Frances Fahy, National University of Ireland, Galway  
Frans Verspeek, SWITCH-Asia Network Facility at the CSCP  
Henrike Rau, National University of Ireland, Galway  
Kate Power, Copenhagen Resource Institute  
Kersty Hobson, University of Oxford  
Kristine Abolina, University of Latvia  
Lewis Akenji, IGES Japan  
Maria Csutora, Corvinus University of Budapest  
Maria Kalleitner-Huber, Austrian Institute of Ecology  
Marlyne Sahakian, University of Lausanne  
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Nilgün Cılız, Boğaziçi University  
Skaidrite Dzene, Latvia University of Agriculture, Faculty of Economics  
Sylvia Lorek, Sustainable Europe Research Institute  
Vera Fricke, Technische Universität Berlin

## Picture of the workshop participants

