

# Concept Paper for the Task Force on Sustainable Lifestyles



## Introduction

Chapter 4 of Agenda 21 entitled 'Changing Consumption Patterns' called for 'new concepts of wealth and prosperity which allow higher standards of living through changed lifestyles and are less dependent on the Earth's finite resources'.<sup>1</sup> It highlighted the need to address current unsustainable patterns of consumption and production taking into account the current imbalances across the globe in satisfying needs and the associated environmental impacts. Agenda 21 also recognised that although consumption levels are high in some parts of the world, basic needs of a large part of population, including food, health care, shelter and education, have not been met. Both trends depict unsustainable lifestyles that put enormous pressure on the environment. Making lifestyles more sustainable is a large challenge, since they comprise not only eco-efficient products and services, but entail new patterns of human and institutional behaviour, new social practices and values, as well as new infrastructures (technology, regulatory and economic frameworks). Addressing effectively consumption patterns requires interventions at cultural, social, environmental and economic levels, through the adoption of a complex approach integrating the existing initiatives aimed at consuming efficiently, with the necessary "preparation" of society to demand and participate in these initiatives. There is the need to empower people by increasing awareness, providing access to appropriate knowledge, defining a new set of values and building individual mindsets so as to allow people to be active contributors to the shift towards sustainability. Education and training represent an important and useful lever to facilitate the needed changes in attitudes and behaviours.

The purpose of this concept paper is to present some of the existing knowledge on lifestyles and sustainable consumption patterns, to present activities of various actors for promoting more sustainable lifestyles, to emphasise the important role of education for sustainable consumption and lifestyles, to identify gaps in the current efforts and to highlight future challenges and opportunities. This paper is meant to support and stimulate the discussion of the working group 7 on "Sustainable Lifestyles and Education for Sustainable Consumption" on the 27 June, 2007.

## 1. Definitions

**Lifestyles** is a way we live our lives that allows us to fulfil our needs and aspirations. They serve as "social conversations", in which people signal their social position and psychological aspirations to others. Since many of the signals are mediated by goods, lifestyles are closely linked to material and resource flows in the society.

**"Sustainable lifestyles** are patterns of action and consumption, used by people to affiliate and differentiate themselves from others, which: meet basic needs, provide a better quality of life, minimise the use of natural resources and emissions of waste and pollutants over the lifecycle, and do not jeopardise the needs of future generations".<sup>2</sup> Sustainable lifestyles should reflect specific cultural, natural, economic and social heritage of each society.

**Sustainable consumption** is related to the process of purchasing products and services, consuming and disposing, while sustainable lifestyles include a broader set of activities, such as interaction, leisure activities, sports and education, including, but not limited to, material consumption.

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<sup>1</sup> UNCED (1992). Agenda 21. The Earth Summit: the United Nations Conference on Environment and Development, Rio de Janeiro.

<sup>2</sup> CSD (2004). "Every little bit helps..." Overcoming the challenges to researching, promoting and implementing sustainable lifestyles. Westminster, Centre for Sustainable Development, University of Westminster: 48.

## 2. State of affairs: lifestyles and consumption patterns

Lifestyles are based on past and current consumption and production patterns and are intricately interwoven with everyday choices of people. Throughout the world, people's aspirations and desires are quite similar – we all want to lead lives of dignity and care, be healthy and happy, provide for our children and develop ourselves. However, the material intensity of reaching these goals differ dramatically within and among countries with developing and developed economies.<sup>3</sup> In many countries the number of cars on the roads is increasing, leisure and business trips are becoming longer in distance and shorter in time, the ownership of household appliances is growing, and the size of housing per person is also increasing.<sup>4</sup> Consumption of electricity from space and water heating is on the rise, as well as paper consumption and waste generation.<sup>5</sup> The levels of meat and dairy consumption are also mounting not only in developed economies, but globally: in 40 years, global food consumption and production increased 2,5 times.<sup>6</sup> From 1960 to 2000 water use increased 2 times and wood consumption – 3 times.<sup>7</sup> The supply of goods from exotic locations is increasing, including fruits, wood and pets. The overall distances food travels is increasing, as well as the consumption of processed food and meat.<sup>8</sup> A lifestyle and culture that became common in affluent societies is going global through products and services, media, the globalisation trend and trade policies. Western brands of clothing and other products, restaurants and cafes are almost as common in Asia and Latin America as they are in Europe and USA. The global consumer class is reaching 1,7 billion people and nearly half of it come from developing economies.<sup>9</sup> Many products, e.g. mobile phones, audio-video equipment and cars previously seen as luxuries are now becoming necessities in developed and developing economies.

For most countries, recent changes in consumption patterns and levels have led to considerable benefits. For others changes in consumption patterns have been to the worst. For example, an average African household consumes 25% less now than it did 25 years ago. Out of 4 billion people in the south, nearly 60% lack basic sanitation, almost 30% have not access to clean water and 25% do not have adequate housing.<sup>10</sup> 14% of the world population goes hungry every day and malnutrition claims 10 million lives annually.<sup>11</sup> 30% of the world's population continues to lack regular access to essential drugs, with over 50% living in Africa and Asia.<sup>12</sup> There are thus mounting disparities between those who benefit from the achieved economic growth and those who have been excluded from the growing prosperity or who are even being harmed by. Indeed, the world's 20% richest people consume nearly 75% of natural resources.<sup>13</sup> The wealth of the world's 225 richest individuals equals the annual income of the poorest 47% of the world's population, or 2.5 billion people.<sup>14</sup>

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<sup>3</sup> MEA (2005). *Ecosystems and Human Well-being: Synthesis*. Island Press, Washington, DC.: 155.

<sup>4</sup> WWI (2004). *State of the World 2004*. Washington, WorldWatch Institute: 273.

<sup>5</sup> EEA (2005). *Household consumption and the environment*. Copenhagen, European Environmental Agency: 72.

<sup>6</sup> Ibid. 3

<sup>7</sup> Ibid. 3

<sup>8</sup> Ibid. 5

<sup>9</sup> Ibid. 4

<sup>10</sup> UN (2006). *The 2nd UN World Water Development Report: 'Water, a shared responsibility'*. Paris, UNESCO: 601.

<sup>11</sup> FAO (2003). *The state of food insecurity in the world 2003*. Rome, Food and Agriculture Organisation of the United Nations: 40.

<sup>12</sup> WHO (2007). Homepage, World Health Organisation Retrieved on 03.06.2007 from <http://www.who.int/en/>

<sup>13</sup> Ibid. 4

<sup>14</sup> UNDP (1998). *Human Development Report*. New York, Oxford University Press for the United Nations Development Programme (UNDP).

### 3. Drivers to existing lifestyles and consumption patterns

The underlying reasons that have and are shaping our lifestyles are complex and numerous. They have been formed in centuries and are driven by a number of factors, including economic forces and technological development, political settings and environmental issues, as well as sociological and cultural contexts and psychological determinants. That is why changing lifestyles towards more sustainable ones is perhaps the most challenging part of reaching sustainable development.

**Economic** development and market competition leads to productivity increases and a general (albeit not equally diffused) increase in incomes, leading to the growing purchasing power of individuals and increasing material consumption. Ideally, a higher income together with the right knowledge and awareness could lead to more sustainable purchasing choices.

**Technological** advances lead to supply of more efficient products and technologies, which can lead either to reduced environmental and social impacts, or create conditions that require people to consume more. For example, the development of aircraft technologies has increased the level of international air passengers, but information technology provides possibility to substitute business trips with videoconferences.

**Policy** actions set regulatory framework, within which companies and consumers act and where social and technological norms develop. For example, policy instruments, e.g. gasoline taxes or eco-labels, influence consumer behaviour and producer practices into more sustainable direction, affecting final consumption. However, there are still many policy tools that counteract the development towards sustainability or send confusing signals to the markets and consumers.

**Socio-psychological** drivers of consumption are based on our use of products are means of communication with others and therefore we buy products not only for their functional, but also for their symbolic or identity value, for signalling success, power and control in life and because we associate ownership of products with happiness. This however is only partially correct: the link with happiness holds true only until certain income level,<sup>15</sup> after which it de-links from economic welfare and instead other factors such as availability of time, possibility to enjoy family and friends define our quality of life. This also means that for countries with much less income levels per capita, the level of well-being and happiness of people is closely associated with economic growth.

**Cultural and historical** aspects also influence consumption through consumer goods and services, institutions that mediate cultural meanings and everyday practices. Understanding the underlying cultural reasons and drivers, as well as historical path and settings of each social group is important for understanding how societies function.<sup>16</sup> Understanding the cultural settings is helpful for realising how contemporary lifestyles can be changed, but still grounded and embedded into cultural and social settings.<sup>17</sup> Historical and cultural studies also demonstrate how Western lifestyles affect the traditional

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<sup>15</sup> The World Value Survey demonstrates that until \$13,000 of annual income per person (in 1995 purchasing power parity) income and happiness tend to track well, but after this level they start delinking (WVS 2006)

<sup>16</sup> For example, historical studies demonstrate how the type of employment defined the social status of people in 19<sup>th</sup> century and how this function has been replaced by the consumption patterns in the 20<sup>th</sup> century.

<sup>17</sup> For example, Aoyagi-Usui, Vinken *et al.* (2003) The study demonstrates that while in the Netherlands and the USA, environmental values are linked to altruistic values that are perceived as being contrary to traditional values, in Japan, Bangkok, and Manila, environmental values are linked with both traditional and altruistic values. This suggests that the Asian countries may have easier task when introducing pro-environmental behaviours.

ways of life in many countries and lead to higher resource consumption and more unsustainable lifestyles.

#### **4. Actors actions towards sustainable lifestyles**

In order to initiate and sustain the fundamental change towards more sustainable lifestyles the combination of policies and business strategies, encouragement of individual and community actions, involvement of NGOs and academia, contribution of media, role models and advertisers are needed. Examples of the on-going efforts are presented in the following sections.

##### **4.1 The role of public authorities**

Public authorities at all levels have a key role to play in facilitating the shift to a more sustainable world: as rulers by setting the regulatory, economic and institutional framework; as visionary by encouraging and leading the development of a new vision of a sustainable society; as consumers by fostering the demand for sustainable products and services through responsible purchasing practices and greening own operations; as educators by ensuring availability of information and education for sustainable development for all; as facilitators of change by initiating dialogue with stakeholders for market, institutional and infrastructural transformation that encourages sustainable lifestyles.

**Greening the market** through regulation includes measures that reduce environmental impacts of products and services, e.g. by developing standards that set certain limits on product features, e.g. content of toxic substances or energy use of products; or by developing environmental requirements for product design, use and final disposal, e.g. EU Directives on WEEEs.<sup>18</sup> These measures can stimulate business innovation, increase market share of environmentally sound products and together with economic and information instruments improve public purchasing decisions.

**Urban planning & construction policies** steer public investment in infrastructure and thereby largely shape consumption patterns. Urban policies can support city design that reduces the urban sprawl, the need for transportation or that improves safety on the streets allowing people to walk instead of taking car for safety reasons, that improves provision and access to communal services and public facilities, that supports energy and water saving measures for houses and development of the efficient waste management system, that encourages continuous monitoring of resource efficiency in buildings, etc. Success stories come from Curitiba, Brazil<sup>19</sup> and Johannesburg EcoCity.<sup>20</sup>

**Economic instruments** play an important role in shaping consumption patterns. Pricing of products and services that better reflects environmental and social cost can encourage sustainable consumption. *Internalisation of environmental costs* and shifting the tax burden from taxing labour to taxing resources is a way to correct pricing of environmental goods and services.<sup>21</sup> *Subsidies* are desperately needed,

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<sup>18</sup> WEEE stands for Waste of Electronic and Electric Equipment

<sup>19</sup> Curitiba, Brazil is an interesting success story for integrated land use development, urban design and an innovative transit system. The radial corridors in the city plan are used as exclusive bus lanes to serve high capacity buses providing a rapid transit means of travel. The system of busses serves 1.5 million people (> 70% of the population). In the last 30 years, Curitiba's population has increased 4 times (from 0.5 to 2 mln people), but travel by car has decreased by 30%. The city's mixed-use zoning encourages local self-sufficiency; bus stops became nodes of civic activity where shopping, recreation, police and businesses concentrate. Curitiba's policies result in one of Brazil's lowest air pollution levels, with little traffic congestion and an optimal environment for its residents (Parasram 2003)

<sup>20</sup> The Johannesburg EcoCity initiative shows an alternative way of planning communities that aims to alleviate poverty through local economic development., combine African specific conditions with Western knowledge to develop environmentally sound and safe city (EcoCity Trust 2007)

<sup>21</sup>. In the EU, the environmental tax reform has taken place in Denmark, Finland, Germany, the Netherlands, Austria, Sweden and the UK.

especially in developing countries that can ensure sufficient provision of material means and access to services to satisfy basic needs of population. As important is perhaps to eliminate *subsidies* that encourage unsustainable consumption. Other tools include *charges on products, deposit refund systems, tradable permits and enforcement incentives, e.g. environmental charges*.<sup>22</sup> *Grants to businesses* may stimulate technological, environmental and social innovation of companies or help start-ups to establish their businesses in strategic areas of interest.

**Greening operations of governments and municipalities** provides good example to citizens and businesses. Some municipalities get certified with ISO 14001 standard, others develop green procurement practices, by purchasing, e.g. organic, fair trade or local produce, buying services instead of products, e.g. car sharing, and substituting where possible business travel with videoconferencing. Denmark, Sweden and Japan are well-known for their ambitious policies in this regard.

**Education and communication** can increase awareness about sustainability issues by introducing the concept into the formal education curricular and by stimulating and engaging all stakeholders into common activities. Information instruments help achieving this goal and comprise various types of labels that provide information to consumers on features or origins of products, campaigns for citizens and marketing. Information technology starts to be used to deliver information to people,<sup>23</sup> but the best results are obtained when information is combined with incentives.<sup>24</sup> Communication with stakeholders opens up the opportunity to initiate societal dialogue and create common visions of a sustainable society.<sup>25</sup> In creating exciting visions of more sustainable living public sector may involve trend setters, role models, media, advertising, educational system and journalists.

## 4.2 The role of businesses

Businesses have large potential to contribute to shaping sustainable consumption and lifestyles both in their role as suppliers and as customers. They are involved in building infrastructure, designing products and delivering services. In their role as suppliers, many companies employ **dematerialisation** and **eco-efficiency** strategies to design products and services with fewer resources. Together with developing eco-efficient products, it is vital to support innovations that are suitable and affordable in low-income markets.<sup>26</sup> A rather recent addition to eco-design and eco-efficiency is a strategy based on shifting from product sales to selling services and providing **systems solutions**. Examples range from

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<sup>22</sup> E.g., Korea has an extensive deposit refund system, Indonesia has initiated forestry deposit fund and Singapore uses auctionable permits for ozone depleting substances and Malaysia is using tax incentives to discourage use of unleaded fuel and encourage use of catalytic converters. E.g. progressively graduate water prices have been particularly effective in reducing consumption over time in Denmark and Hungary. (EEA 2006)

<sup>23</sup> E.g., after a breakout of Mad Cow epidemics in 2001, Japan's Food Safety Commission began to tag food products with radio frequency (QR) tags and almost all cell phones sold in Japan today contain QR readers. As a result, there has been a shift in preferences towards purchase of locally grown foods. In this case, information provision led to changes in consumer behaviour because environmental issues were combined with health concerns (FJS 2006)

<sup>24</sup> E.g., a NU-card is a joint initiative between the municipality of Rotterdam, Rabobank and the consultancy Stitching Points that rewards people for their efforts to consume sustainably. By buying renewable energy, eco-labelled products, green financial products and services, using public transport, separating waste and re-using and repairing products people can collect points, which they can use for buying sustainable products and services (NU-Spaarpas 2007). The municipality of Nuremberg, Germany, helps its citizens to shop more sustainably by providing them with 99 more sustainable gift ideas (Nuremberg municipality 2007). Malmö municipality, Sweden offers its employees lessons in eco-driving, which reduce fuel consumption and exhaust and save money (Malmö kommun 2007).

<sup>25</sup> E.g., municipality of Naga, Philippines became a model for local Philippine governance through its i-Governance initiative that promotes public participation and accountability in local city development and includes citizens' guidebook, the Internet services, print material and broadcasting.

<sup>26</sup> For example, NorhTec, a Bangkok based company, manufactures tiny computers that costs less than USD 100. Sun-Tap Combo, Solar-Dynamo Multi-Band Radio, KA007, Freeplay Summit are examples of radios that can be powered in at least two different ways (solar and hand-cranked dynamo) and are therefore suitable for markets worldwide.

selling energy efficiency services to car sharing.<sup>27</sup> Some real estate companies attract tenants by selling the package of housing with the membership in a car-sharing organisation. Automotive producers extend their after-sale services: they get much higher profits from after-sales support than from selling cars and at the same time extend product life span.

Companies can contribute to sustainable lifestyles also by improving their **own internal practices**. Some companies, e.g. Telia in Sweden, have a corporate policy to substitute where possible business travel for videoconferencing. Other companies encourage their employees to tele-work at least once a week and thereby reduce environmental impacts of commuting by at least 20%.

Together with greening products and services and offering systems solutions to customers, it is important to **create markets** for more sustainable products and to stimulate consumer demand for them. So far this is done through environmental and social labels, direct advertising through media (TV, cinema and magazines), and sometimes by educating consumers on various aspects of more environmentally and socially sound products.<sup>28</sup> Some companies are taking much more proactive approach in envisioning more sustainable lifestyles with more sustainable products, services and activities.<sup>29</sup> In the tourism sector, some organisations develop information and communication strategies that promote sustainable lifestyles through local leisure activities, agro-tourism, nature- or eco-tourism, or community tourism and pro-poor tourism. Some hotels experiment with selling packages comprising lodging and mobility services encouraging tourists to leave their cars at home and come to the destination by train. Banks and financial sector are extremely important players in shaping more sustainable societies since they provide financial means to various types of activities and thereby influence consumption patterns. The Dow Jones Sustainability Index benchmarks the performance of investments in environmentally and socially sound companies and many banks start lending money only to organisations they believe add value to the environment or society.<sup>30</sup> The new concept of micro-banking delivers credits to poor people without collateral with low interest rates.<sup>31</sup> Retailers greatly affect the choice of products in shops by putting demands on suppliers and by creating own brands. In this way they can help create market for ecological, organic and fair trade, energy-efficiency and low-toxicity products.<sup>32</sup>

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<sup>27</sup> E.g. energy efficiency services (e.g. ESCOs in many countries worldwide), flooring systems (e.g. Interface, DuPont, MilliCAre, Collins&Aikman), chemical management services (e.g. SafeChem, Castrol, Dow, Ashland), washing services (e.g. Electrolux), document companies (e.g. Xerox, Océ, Hewlett Packard), or car sharing businesses (StattAuto, Germany, GreenWheels, the Netherlands, GoGet and Flexicar, Australia, Car Co-Op, Singapore).

<sup>28</sup> Earth A'Wear is the first shop in Copenhagen, Denmark that sells only cloth from organic raw materials (MiljøDanmark 2000). Sotheby's, the auction house, has officially promoted waste as an honourable material for creating glamorous design by opening in 2003 Contemporary Decorative Arts and Design selling exhibition, with a special section named "Waste to Taste". Since early 1970s, Patagonia was making functional outdoor clothing that is made with environmental considerations. Since 1993 the company is making fleece products made from post-consumer recycled plastic soda bottles (Patagonia 2007).

<sup>29</sup> E.g., EcoProperty is an Australian company that develops property with ecological and social criteria. Their products include healthy houses, organic farms, development of eco-villages and co-housing communities. The company has developed a network of local consultants, who advice people about sustainable living (EcoProperty 2007).

<sup>30</sup> E.g. Banca Etica, Italy, Triodos Bank, Belgium, Cultura Savings Bank, Norway

<sup>31</sup> Examples are Grameen Bank Microcredit programme in Bangladesh,<sup>31</sup> Bank Mandiri in Indonesia, and many others.

<sup>32</sup> E.g., Finnish retailer Keso is certified with ISO 14000 and SA 8000, while Japanese Ito Yokado performs on-site inspections of their suppliers and employs a wide range of communication initiatives for own employees and customers. An Indonesian company Bimandiri works closely with farmers, and Coop retailer has four own organic and ecological primary brands.

### 4.3 The role of media and marketing

**Advertising** and **marketing** are perhaps the most powerful tools that can create attractive visions of more sustainable futures and lifestyles, and to educate and engage consumers in taking steps towards translating these visions into everyday practices. Many examples are already available that demonstrate the power of **media** and advertising in promoting eco-efficient products and services through social and environmental marketing, e.g. Kia's advertising: "Think before you drive: for long trips use the Sedona, for short ones use your loaf" or Coop Konsum advertisement: "We've stopped selling eggs from caged hens. Take 10 people with you in this telephone booth and you will understand why". The Positive Futures Network, USA supports the evolution of sustainable cultures and publishes a quarterly magazine "YES! A Journal of Positive Futures". The Sustainable Solutions Design Association, Denmark also publishes a fashion magazine ITCH that is a source of inspiration for designers, producers of textiles and clothes. EcoLogic, Australia is a website that helps design students and consumers to make more informed choices. The Environmental Media Services, USA is another organisation with the main focus on "Eco-friendly alternatives to commercial cleaners and other household products" providing natural solutions to household chemicals.

However, media is much broader concept than just advertising and newspapers. It includes **TV**, magazines, **books**, **fashion shows**,<sup>33</sup> **comics**<sup>34</sup> and much more. The role of **celebrities** in promoting more sustainable habits and lifestyles is also very important.<sup>35</sup> All these channels should be employed when developing a vision of a more sustainable society.

### 4.4 The role of NGOs

NGOs are widely involved in **campaigns** and initiatives that increase public awareness about sustainable consumption patterns and levels at local and national level. At **international** and national levels they educate and provide information, they act as lobbyists for sustainable consumption and as watch-dogs of the progress, and they ask sensitive questions. **Local** and **regional** NGOs often cooperate with local authorities, community representatives and various activity groups, all together driving sustainable consumption from the bottom up. International NGOs, on the other hand, are seen as having controlling and catalytic function of the progress towards sustainable consumption and in such a way drive sustainable consumption agenda at political level – top-down.

There are numerous NGOs that are working on improving **environmental literacy** and facilitating behavioural change.<sup>36</sup> Examples of such campaigns can be found in the activities of Global Action Plan,

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<sup>33</sup> E.g. the Ethical Fashion Show that took place in Paris in November 2004 and brought together 25 designers from around the world or a Fair Trade and organic cotton collection from People Tree organised in London the same year. The Sustainable Living Festival held in Melbourne, Australia is another example of the diversity of initiatives for more sustainable lifestyles that included exhibits, designs, shows and demonstrations.

<sup>34</sup> Manga is a Japanese and world phenomenon that recently has caught up with the raising environmental awareness and nowadays produces comics with nature protection and environmental messages. One of the professional Manga artists with pseudonym High Moon is Prof. Takatsuki - professor emeritus of Kyoto University Environmental Preservation Centre, who uses his Manga environmental comics in his public lectures.

<sup>35</sup> Hong Kong movie star Jackie Chan has launched the "Jackie Chan New Day Environmental Protection Program" in Beijing. In 1998, Leonardo DiCaprio started the Leonardo DiCaprio Foundation to promote environmental causes. More recently, he has been working on a global-warming documentary "11th Hour" featuring interviews with global green leaders. Robert Redford has campaigned for Utah wilderness, promoted solar energy, convinced mayors to tackle climate change, and served 30 years on the board of the Natural Resources Defense Council. George Clooney launched Oil Change, a campaign to eliminate America's dependence on oil. To support the campaign he drives electric car. Brad Pitt supports the emerging green-building movement, helps rebuild New Orleans in an eco-sound way, narrates a sustainable design TV series, and supports Ed Norton's Solar Neighbors Program.

<sup>36</sup> For example, Miljøhjemmevernet in addition to its information activities, have engaged 50 000 households in voluntary contracts to reduce environmental impacts. The Clean Cloth Campaign<sup>36</sup> started in the Netherlands in 1990 to improve working conditions in the garment and

Environmental Home Guard (Norway), Miljøhjemmevernet (Norway), The New American Dream (USA), Sustainable Do-It-Yourself (The Netherlands), Solar-Na Klar! (Germany) and Evergreen Club of Ghana.

Many national and international NGO are actively involved in **lobbying** campaigns against exploitation of natural resources, such as forests, minerals and fruits. For example, they lobby for getting national governments to limit their procurements of timber products to ones certified by the Forest Stewardship Council (FSC). As a result of such lobbying the European Commission has developed a strategy called the Forest Law, Economics, Governance and Trade programme with the aim to get developing countries to work with the EU to stop illegal logging.

Raising awareness and education is very much about access to **information**. In many countries innovative approaches combined with traditional means provide inspiring examples. Various types of library service span from Donkey Drawn Libraries in Zimbabwe, book-boats and elephant libraries in Thailand and the camel Library service in Kenya to Bibliobus in Barcelona, Spain (IFLA 2002).

#### **4.5 The role of individuals**

In their role as consumers people greatly influence the market for sustainable products by making more sustainable purchasing choices. In their role as citizens they undertake proactive and more extensive actions aimed at reducing environmental and social impacts of their lifestyles. They initiate or become members of community-based or/and grass-root initiatives, e.g. green consumer clubs or book exchange networks. Another example is the **Slow Food** movement that aims to counteract fast food and fast life, the disappearance of local food traditions, to protect the right for tasty and healthy food, respect to the ones who make food and to the environment where food is produced. Similar to this idea are the **Slow Cities** and **simplicity lifestyles** movement for those who prefer slow pace of life with more time for relationship, fulfilling work and family. **Co-housing communities** respond to the basic needs of today's households—childcare, social contact and economic efficiency - by combining the autonomy of private dwellings with the advantages of community living. Similar to co-housing initiatives are **eco-villages** that aim to reduce environmental effects and create positive social outcomes. Eco-villages are alternative small-scale communities, in which people chose to live in accordance with environmental and social principles. **World Carfree Network** unites people from around the world and serves as a clearinghouse on how to revitalise cities and create a sustainable future that is not dependent on cars. **Local Exchange Trading Schemes** are local community-based networks, in which people exchange goods and services without using money. Services can include childcare, cooking, transport, or home repairs and renovation. Similar concept – Community Exchange Systems – is available in Nigeria, Senegal, Kenya, South Africa and Cameroon. An important contribution to

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sportswear industry. The organisation collects information on companies' codes of conduct and targets them with campaigns. It is active in 11 European countries. Global Action Plan International is a network of non-governmental organisations from several countries who are working on empowering individuals to change their lifestyles through developing specially designed programmes, e.g. "Greening Your Neighbourhood", USA; Workplace EcoTeams, the Netherlands; Action at Work, UK; Sustainable Neighbourhood Development, Sweden; EcoHouses in Russia, Garden Action Team and Youth Action Team in Ireland. Evergreen Club of Ghana is an NGO that actively participated in preparation of Ghana's Environmental Plan of Action, in the development of educational material and organising forums for youth on environmental and sustainability issues.

sustainable lifestyles are “**grass roots**” **movements of schools** and universities such as the eco-schools and the green campuses to deliver practical education on sustainable consumption and sustainable lifestyles by making the learning space a living example of sustainable lifestyles. Eco-schools is an international programme for environmental education for sustainability. The green campuses movement aims at improving every day practices on campus and raise students’ awareness about environmental issues and consumption through action learning. Many campuses have car sharing and car pooling programmes and exchange networks for everything from student flats to cloth.

There are also examples of consumer actions that go beyond coordinated and well planned campaigns – **consumer boycotts**, when consumers suddenly are faced with disturbing information about products or production processes associated with products. Examples of Shell and Nike boycotts of the late 1990s demonstrate the power and the willingness of consumers to act once they got information on practices of companies in other parts of the world.

## **5. Food, housing and mobility: ideas for more sustainable lifestyles**

This section presents some ideas for more sustainable lifestyles in three areas of the highest environmental impact of households: food, mobility and housing.

### **5.1 Food**

**Resource extraction** In a sustainable society, food is about quality and not quantity. Where feasible, food is organic and locally grown.<sup>37</sup> Agricultural produce is harvested by local farmers, large and small, who commonly own or lease agricultural machinery. Livestock, such as cattle and poultry, is kept in open spaces and is more healthy because it is grass-fed, not grain-fed. The use of antibiotics in bringing up livestock is reduced as much as possible. The feed is also preferably organic and locally grown, so that pesticides, fertilisers and antibiotics are not transferred to meat. The movement between the farms is reduced to prevent food safety disaster, as avian flue and BSE (mad cow disease).

**Production** If feasible the food is processed as little as possible with the goal of avoiding use of chemical substances for preservation, colour, and preserving the nutrient content of food. This means that seasonal food is highly valued. Food processing may also take place in small local facilities owned by cooperatives or where processing equipment is shared.

**Marketing** of food is based on the nutrition content of food and organic, ecological and fair trade food products are relieved of VAT and/or supported with subsidies. The marketing message is “buy just enough”. The messages “Buy 3 - pay for 1” are nowhere to be seen.<sup>38</sup>

**Sales and delivery** of food takes place in a variety of ways: through large retail chains, farmers markets, in village shops, delivery from organic farms and through on-line shopping. The food shops are situated close to where people live, so that the need to drive is drastically reduced.<sup>39</sup> Delivery of food through organised channels (retailers or local farmers) is facilitated by special design of delivery

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<sup>37</sup> However, the impacts of this scenario should be always evaluated in comparison with alternatives. There are many examples when local production is not the best even in terms of environmental impact, despite the reduced impact from decreased transportation distances. For example, if we are to choose Spanish or Norwegian tomatoes based on their environmental impact, we should choose Spanish tomatoes because the impact of transporting them is lower than the impact of growing Norwegian tomatoes in green-houses that use a lot of energy for heating.

<sup>38</sup> This helps reduce the current 40% of food being wasted in some developed countries.

<sup>39</sup> Currently, many large malls are situated at city outskirts and people tend to drive to shop for food once a week – which increases car reliance and pollution, as well as the need for preserved food.

box. In some communities a delivery box is a cooling unit located in the yard of the house and each flat has its own shelf/compartment to where the delivery man has access. In other communities a special type of refrigerator (Siemens prototype) is installed close to the entrance door that can be opened from outside and from inside, so that the delivery man leaves the food directly into the refrigerator.<sup>40</sup>

**Consumption** of food is linked to experiences. Slow food movement is getting support of diet specialists, medical doctors and governments. People eat less of junk food and get more nutrients. Fast food chains are turning into healthy food chains triggered by demands of consumers and supported by healthy food specialists. Meat eating is getting reduced, because of health and resource-intensity reasons, and large portion of peoples' diet is vegetarian. People awareness about food products is increasing with the help of educational campaigns supported by governments, NGOs and academia. For example, school food menus are designed based on the supply of local and organic foods and children are educated about the value of food, which reduces the amount of residues.<sup>41</sup>

**End-of-life phase** The volume of food is thrown is drastically reduced through education and awareness raising campaigns. Food leftovers are collected separately and are composted or are used for energy production. There are already examples of residues from slaughter houses being used for biogas production in Sweden.

## **5.2 Mobility**

**Resource extraction** In a sustainable society, resources that are needed for fulfilling the mobility need are extracted or produced in a sustainable manner. This means first of all, that non-renewable resources, e.g. coal and oil, are substituted where possible for renewable (biogas, wind and solar power, hydrogen) resources. Roads are built with local materials. Transportation vehicles whether individual cars or means of public transportation are produced with high environmental and social standards that are safeguarded along the entire supply chain.

**Production** of cars and public transport means is geared towards fuel efficiency, lighter and smaller cars. Research and development has brought to the market bi-fuel, electric and hydrogen cars and busses, trams and trolley-buses and other modern means of transportation. Car manufacturers design durable vehicles and

**Marketing** The largest portion of car manufacturers profits come from after-sales support and from providing alternative means of transportation. Therefore, marketing strategies target consumers who are interested in participating in sharing or pooling schemes or who are eager to try new modes of transport. Sales of individual cars are based on the life cycle financial and environmental and social information. Population is educated about eco-labels for cars. Car manufacturers are as interested in selling cars and in providing access to public or alternative transport modes, such as leasing, sharing and pooling.

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<sup>40</sup> This solution is comfortable for consumers since food can be delivered at any time – good for the environment because food delivery routes can be optimised and environmental impact from transportation can be reduced significantly, as well as the size of the delivery van can be adjusted to the volume of food that has to be delivered on one route.

<sup>41</sup> It was demonstrated that 25% of food sold in the USA is wasted by consumers, restaurants and retailers (Rizvi 2004)

**Use** Governments support initiatives that allow people to work from home (tele-working) or switch working places to reduce the commuting distances to work.<sup>42</sup> Many mobility schemes are developed in close collaboration with city planners to ensure reduced need for cars in cities. Availability and efficiency of a well-functioning public transportation system is reflected in consumer choices for not owning a car or for becoming a member of a car sharing cooperative to satisfy the need for travel on weekends. Much attention is brought to developing infrastructure and services that allow satisfaction of people needs, e.g. food shopping, without the need to use a car. This drastically reduces environmental impacts, improves social climate in the city and contributes to increased quality of life. The government developed a policy that requires all driving schools to teach everybody the eco-driving technique. Companies encourage their employees to substitute business travel with videoconferencing.

At the **end-of-life phase** of all the vehicles and public transportation means they are brought back to recycling stations where they are disassembled and some parts are reused. The rest of sorted material goes to recycling. Tires are used in road construction and to produce other products. Plastics are recycled, as well as glass.

### **5.3 Housing**

**Resource extraction** The best case is if the resource extraction for housing takes place locally, e.g. use of local materials such as sand, gravel, sandstone, clay, etc. Many construction companies are in the power position in their supply chains to exert pressure on their suppliers in terms of sourcing of their materials, health and safety issues of their workers and the environmental features of the products and materials they supply.

**Production** In order to reduce environmental and social impact of housing per person, one of the strategies could be to develop smaller size housing that would be suitable to the ongoing trends in society – less people in each household. It is therefore the task of architects and construction companies to design housing that is comfortable and suitable for smaller sizes households. Co-housing communities provide inspiration for the future because they combine individual spaces with much extended facilities that can be used by all the tenants, such as large room for parties, facilities for various hobbies and services: DIY rooms, solariums, sport facilities, etc. In addition to reducing the household size, houses can be designed with high energy-efficiency standards (passive houses) that require little energy for space heating, are well insulated, may have own energy production units through solar panels or be attached to a local wind mill. In many countries local designs of housing are based on long term tradition and knowledge of local climate conditions. These traditional designs are often much more energy, material and water efficient and rely on local supplies of materials. Reducing transportation cost of construction materials is both economically and environmentally beneficial.

**Marketing and sales** There are interesting initiatives aiming at increasing awareness of people regarding the state of housing when they sell or buy the property. For example Home Condition Reports introduced in 2007 in the UK are produced when a property is sold or undergoes a change of tenancy.<sup>43</sup> Marketing of more energy-efficient housing and equipment is an important approach that

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<sup>42</sup> Such efforts are already on the way. In order to reduce the need for commuting to work, a project is on the way that develops a web-based service that should help people in the Netherlands to reduce home-work travel by switching jobs with someone who has a similar job, but closer to their home (Maase and Dekker 2007).

<sup>43</sup> Dresner, S., P. Ekins and R. Willis (2006). A Green Living Initiative. Engaging households to achieve environmental goals. London, Policy Studies Institute: 32.

increases people awareness by applying life cycle cost analysis to demonstrate the life cycle cost of purchasing, using and disposing of equipment and appliances. Labelling, such as Energy star, USA or European Energy label are of great help for consumers in their purchasing choices.

**Use** In the use phase of the house also a lot can be done. For example, in addition to technical solutions, many traditional energy sales companies and new companies that sell energy-efficiency services direct their attention to the use phase and provide energy-efficiency audits to institutions and people. There are examples when companies educate people from neighbourhoods to become energy auditors and help their neighbours with advice on the choice of energy-efficient appliances, the use patterns and on disposal of energy-using equipment. Economic measures can greatly influence consumer choices with regard to the energy use in their houses, e.g. tax reduction are provided in some countries to households who install insulation measures. Financial mechanisms, such as subsidies, can also be used to support the introduction of universal metering for gas, water and electricity that should lead to tariffs based on the amount used. This provides direct information to households regarding their use patterns and gives incentive to reduce costs and consumption.

**End-of-life phase** of housing can be improved by developing laws on demolition of old houses and reuse and recycling of materials from old construction sites. In many countries such laws already exist. A new trend that may become a part of a more sustainable lifestyle is reuse of old parts of houses, such as windows and roof tiles in new houses.

## 6. Future challenges

It is important to stimulate discussion across **different regions** and investigate what representations of lifestyles (traditional and “imported” from other parts of the world) people in developed and developing economies have and how images of more sustainable lifestyles can be created, considering cultural, historical, natural and social heritage in different countries.

Another important ingredient is to devise ways for how to make sustainable lifestyles more **fashionable** and desirable. This should be address for both individuals, and especially groups of people. Sustainable lifestyles practices have to become normalised and accepted as an ingredient of everyday life.

Sustainable lifestyles can be divided into **specific areas**, such as cooking, travelling, entertainment, and their environmental and social impacts need to be evaluated. Alternative ways for fulfilling these needs in less energy and resource intensive ways need to be found. The new ways need to be as comfortable and convenient as the old alternatives and at least should not cost more.

**The combination of approaches** provides the best actual result. For example, campaigns on increasing awareness level of population on energy saving measures should be combined with enabling measures, such as loans to households for insulation and with marketing campaigns promoting energy efficient appliances, as well as information provision on the financial savings from all the aforementioned activities.

The type of approaches depends on the institutional structure in the society. For example, in societies with high degree of trust to the government, information provision from authorities will be trusted and followed, while in the climate where government is distrusted any information will be questioned and despised. Furthermore, in many countries local power structures, such as tribal councils are much more respected and powerful, and therefore in these cases these actors need to be involved rather than national governments.

Different strategies should be developed for various groups of consumers. Some consumers prefer to save energy by purchasing energy-efficient technologies, while others rather than paying prefer to take part in energy saving behaviours. In either case, information and enabling technologies and products should be available to both groups of consumers. Whatever activity they prefer it still reduces environmental impacts.

People obtain a large part of their knowledge about environmental and social issues at local level, being at work, at school, at home, by talking to their friends and family. Therefore, campaigns for changing people behaviour need to be geared towards these places. Campaigns need to visualise the effects of peoples' actions, e.g. recycling paper leads to less trees being cut.

Education of population about sustainability is vital for the progress towards more sustainable lifestyles and therefore, link with the Italian TF on Education for Sustainable Consumption is necessary

Since lifestyle changes are so profound, cooperation between various actors is needed, where each actor contributes in its own way to the common vision of a more sustainable society.