



Resource use of low-income households – Approach for defining a decent lifestyle?



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HIGHLIGHTS

- We studied the material footprints of 18 low-income single households in Finland.
- The natural resource use of the participating households was lower than average.
- 2/3 had a smaller footprint than the “decent minimum” defined by a consumer panel.
- The footprint of all households is higher than ecological sustainability requires.
- We conclude that the material footprint is useful for defining a decent lifestyle.

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ABSTRACT

A decent, or sufficient, lifestyle is largely considered an important objective in terms of a sustainable future. However, there can be strongly varying definitions of what a decent lifestyle means. From a social sustainability point of view, a decent lifestyle can be defined as the minimum level of consumption ensuring an acceptable quality of life. From an ecological sustainability point of view, a decent lifestyle can be defined as a lifestyle that does not exceed the carrying capacity of nature in terms of natural resource use.

The paper presents results of a study on the natural resource use of 18 single households belonging to the lowest income decile in Finland. The yearly “material footprint” of each household was calculated on the basis of the data gathered in a questionnaire and two interviews. The results show that the natural resource use of the participating households was lower than the one of the average consumer. Furthermore, 12 of 18 households had a smaller material footprint than the “decent minimum” reference budget defined by a consumer panel. However, the resource use of all the households and lifestyles studied is still higher than long-term ecological sustainability would require. The paper concludes that the material footprint is a suitable approach for defining and measuring a decent lifestyle and provides valuable information on how to dematerialize societies towards sustainability.

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1. Introduction

In social science a decent lifestyle necessary for preventing poverty is often defined in relation to the average consumption level without paying attention to the fact that the present average consumption in western welfare states is ecologically unsustainable (see e.g. Halleröd et al., 2006). On the other side, when environmental scientists argue that the level of natural resource use or CO₂ emissions should be reduced, their message often omits a profound understanding about the implications in people’s lifestyles the changes would bring (see also Druckman

and Jackson, 2010). Therefore, in this study, we will apply a methodology where both aspects of decent life style are concerned.

Environmental research about a sustainable future evidently proves that the present level of consumption in Western countries is ecologically unsustainable (e.g. Schmidt-Bleek, 2009; Bringezu, 2009; Ewing et al., 2010). An ecologically sustainable lifestyle would require natural resources without exceeding the long-term carrying capacity of nature. In this paper, we call this sustainable level of natural resource use as an “ecological maximum”.

From a social sustainability perspective, this “ecological maximum” level of resource use still needs to be sufficient for ensuring that people have possibilities to achieve a decent lifestyle. In this paper, “decent minimum” refers to the sufficient level of resources to fulfil needs, participate in society and ensure human dignity. Decent minimum is

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“a standard that social policy should aspire for everyone to meet” (Bradshaw et al., 2008).

When considering both the ecological and socio-economical aspects of decent lifestyle, it is obvious that the environmental policies aiming to cut the use of natural resources should not lead to an increasing deprivation or a diminishing quality of life: an ecological maximum and socially decent minimum have to meet each others' requirements. Hence, we need to clarify what are the products and services included into a decent minimum and how they meet the limitations of an ecological maximum in the present society.

The purpose of this paper is to evaluate the use of the material footprint approach for defining what a decent lifestyle can mean and to provide some ideas on how to achieve it. Therefore, the paper presents results of a study on the natural resource use of 18 single households in Southern Finland. Data was gathered in a questionnaire and two interviews. All households were living on disability pension or the minimum level of unemployment allowance and thus they belonged to the lowest income decile in Finland.

Low-income households are an especially interesting group to study when trying to achieve a more comprehensive understanding about the decent minimum and the ecological maximum. Previous studies show that there is a strong connection between the income level and the use of natural resources: the level of natural resource use can be expected to rise along with the income (e.g. Tukker et al., 2010; Kotakorpi et al., 2008; Kleinhüchelkotten, 2005). It can be assumed that low-income households use relatively low amount of natural resources, whereas wealthy consumers require more natural resources. This, however, challenges the common assumption that only wealthy people can afford to “be green” and protect the environment, for instance by buying organic products or purchasing new, energy-efficient cars (see e.g. Haberl et al., 2011).

In the light of the aforementioned studies, low-income households might be more “environment-friendly”. However, people living on the minimum level of social security often lack the basic necessities or consumption habits that are regarded as a part of the socially acceptable lifestyle in the present society (Moisio et al., 2011). Thus, both aspects of sustainability have to be considered.

2. The two dimensions of decent lifestyles

2.1. Socio-economical approach

In the Finnish welfare state everyone has a right for a minimum income in case of a social risk like old age, sickness, unemployment or disability. The minimum level of social benefit should guarantee a decent and dignified lifestyle. People living on minimum income ought to have not only sufficient means for fulfilling basic needs (such as having a shelter or adequate nutrition) but also means for participation (such as having a phone, recreational activities and other forms of social participation) (Forma et al., 1999).

A decent lifestyle in socio-economical terms is specified on the basis of the quality, quantity, and price of the goods and services required for a decent life. According to Borgeraas (1987), the decent life should be sufficient to meet one's physiological, psychological and social needs and enable full participation in society. It comprises goods and services needed in everyday life so that people can ‘get by’ and their life goes smoothly while feeling oneself as part of the surrounding society. A decent minimum describes a consumption level regarded necessary for all members of society in order to live a decent life but excludes commodities that are regarded aspirational, not necessary (Bradshaw et al., 2008).

In previous studies, the socio-economical decent minimum has been studied, for instance, by inquiring what consumption goods and social opportunities are regarded necessary for all members of a society. One approach for this is a reference budget (or budget standard). In Finland, the reference budgets were compiled by using consumer

panel ($n = 53$) to define which products and services are regarded necessary and parts of a decent lifestyle. The budget contains the following products and activity groups: food, clothing and footwear, household appliances, entertainment electronics, ICT (information and communication technology), health and personal care, leisure, participation, transport, and housing (Lehtinen et al., 2011). These same categories were taken into consideration in the questionnaires of this study.

2.2. Ecological approach

If sustainability is to become a reality, a huge increase in absolute resource efficiency is required. Dematerialisation needs to take place, as proposed in the discussion on factor 10 as the magnitude required for decreasing resource use in Western industrialised countries (Schmidt-Bleek, 1993; World Resources Forum, 2009; Lettenmeier et al., 2009). According to Bringezu (2009) an acceptable level of total material consumption (TMC, which means the consumption-based use of material resources in an economy, i.e. the total material requirement of an economy minus the export-based resource use) would be approximately 6 t of abiotic materials per capita in a year. In addition, the present use of approximately 4 t of biotic resources in Europe could probably be maintained, whereas erosion should be reduced by a factor of 10 to 15 from the present 3 t per capita (Bringezu, 2009).

Thus, a sustainable level of TMC would amount to a maximum of 10 t per capita in a year, including household consumption as well as public consumption and capital formation. This means a reduction by a factor of 3 to 8.5 from the present TMC level of western industrialised countries according to Bringezu et al. (2009). In Finland, the present average resource use is at least 40 t (Kotakorpi et al., 2008). The sustainable level would, thus, mean a reduction of natural resource use by a factor of 6 to 8 depending on the level of resource use from public consumption and capital formation that could be considered sustainable.

2.3. Methodology

In this study, we calculated the natural resource use of households, the “material footprints” by using a simplified approach on the basis of the previous Finnish study on household level, conducted by Kotakorpi et al. (2008). This is due to two reasons. First, that study used the MIPS concept, which measures the natural resource use considering the whole life cycle of products and activities and including direct resource use (used extraction) as well as indirect resource use (unused extraction). The MIPS-method has proved to function as a holistic, useful, reliable and understandable measure for natural resource use. Thus, it serves also as a central indicator for ecological sustainability (see Schmidt-Bleek, 2009; Giljum et al., 2011; Aachener Stiftung Kathy Beys, 2010; Rohn et al., 2010). Secondly, the previous study of Kotakorpi et al. (2008) provides an interesting and useful basis for comparing the resource use of the households participating in this study to the resource use of 27 different households in that study, as well as an average Finn based on statistical data. To compare the results with the “decent minimum” we calculated the material footprint of the decent minimum reference budgets, and measured the material footprint on the basis of the yearly consumption of a single household.

The resource use is given as material footprint per capita per year in mass units of TMR (total material requirement, i.e. the sum of abiotic and biotic resource use plus the top soil erosion in agriculture and forestry, see e.g. Ritthoff et al., 2002). The material footprint of the participating low-income households was calculated on the basis of two interviews of each single household and a consumption and lifestyle questionnaire the participants filled in during an approximately two-week period between the interviews.

Material footprints are calculated by multiplying the direct input with a material intensity factor specific for each input (see Lettenmeier et al., 2009). Most of the material intensity factors used for calculating the material footprints were taken from Kotakorpi et al.

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