IGES Institute for Global Environmental Strategies
Global Research Forum on Sustainable Production and Consumption
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sustainability REDUCTIONS
Reducing Environmental Degradation & Unsustainable Consumption Trends & Impacts On Nature & Society:
Research, Policy and Practice
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Intentional Communities in Germany

1. Introduction and aim

Intentional Communities are perceived as a valid possibility to dematerialise individual lifestyles. As part of voluntary simplicity, Intentional Communities are built on the free choice (rather than economic necessity) to limit expenditures on consumer goods and services. Instead they aim to cultivate non-materialistic sources of satisfaction and meaning. Simplifying, self-provisioning and slowing down production as well as consumption processes are common characteristics of Intentional Communities. This fact sheet provides evidence about how far such communities contribute to absolute reductions of CO_2 emissions.

2. Description of the case

The cases described here summarise the comparison of three Intentional Communities in Germany with statistical data from German eco-friendly households and German average households.

Intentional communities are generally characterised as (1) consisting of at least five persons, (2) living together voluntarily and (3) sharing, at least in part, a common economy.

The communities chosen for the analysis are listed below:

(1) The Kommune Niederkaufungen was founded in 1986 and consists of about 60 adults and 20 children. One relevant point for the performance in the case study is the common pool of two vans and seven cars as well as nine season tickets for local public transport. Food is mainly produced organically within the community. The remaining foodstuff is also organic and, as far as possible, locally or regionally produced.
(2) The LebensGut Pommritz was founded in 1993 and consists of about 20 adults and 15 Children. The explicit aim is to develop an optimal balance between local and global economic cycles. On the local level this means self-subsistent provision of food, energy and building materials as well as active contribution to the local health, culture, education and social systems.

(3) SiebenLinden eco village was founded in 1997 and consists of about 140 inhabitants. The explicit aim is to implement sustainable lifestyles, taking into account ecological, cultural, economic and social issues. The community practices self-sufficient and sustainable consumption. Their special features are low energy and passive energy houses built with straw bales in combination with solar panels and ground heat to satisfy energy requirements.

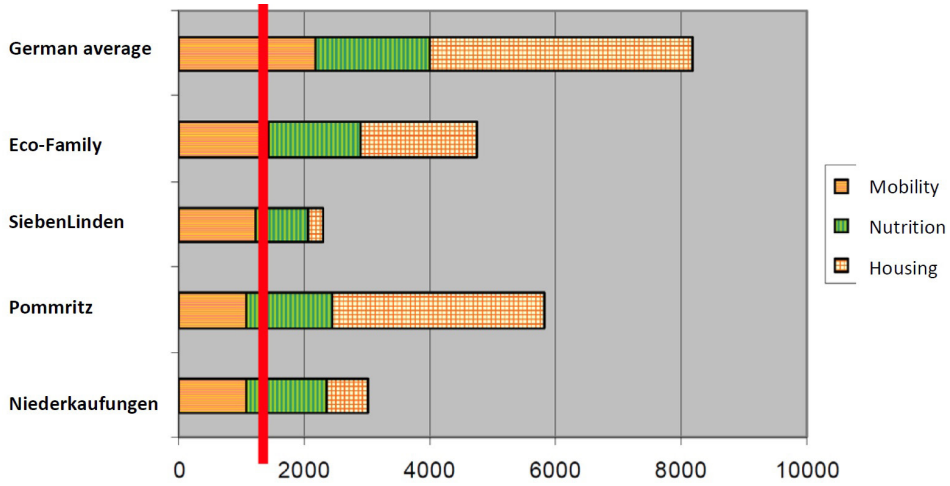
The calculations presented here are based on material flow analysis and energy balance (eco-balances, life-cycle assessment). The focus of the analysis was on the consumption areas such as housing, food and mobility. Finally the environmental impact was quantified using greenhouse gas emissions as a central indicator.

3. Measured absolute reductions

The German Intentional Communities that were analysed show a remarkable reduction of CO_2 emissions per capita and year compared to average households. They are much closer to sustainability than the average German family, and two of them showed better results than families who

Figure 1

CO_2 emissions in kg per capita and year



Source: Simon et al. 2004, p. 13.

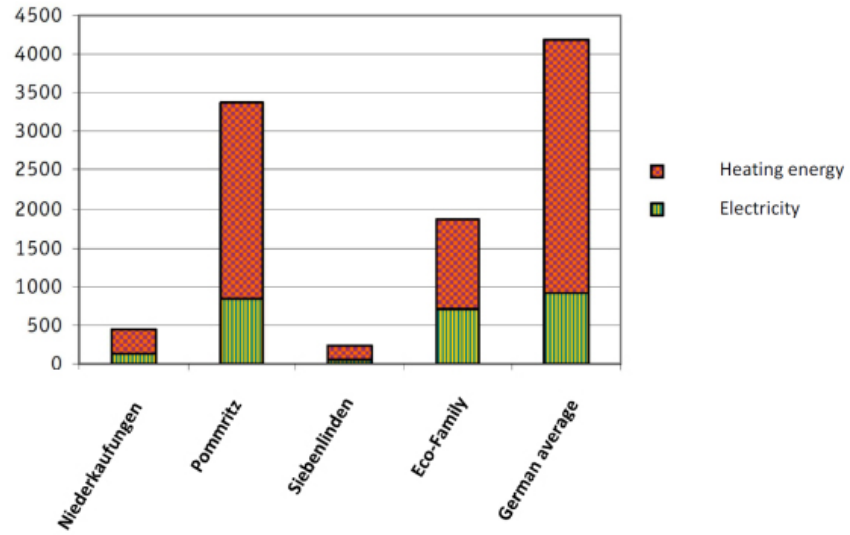
try to live in an environmentally friendly way. Compared to the German average, people living in the three analysed communities emit only half the average amount of CO_2 per year, some even less than one third.

a. Housing

Regarding housing, all three communities rank lower in terms of emission than the German average. However, there are tremendous differences in the level of reductions. The main influencing factor is the building stock: Pommritz is a large old estate, whereas SiebenLinden has constantly optimised straw bale houses. A further factor is the self-production of energy based on renewable sources in SiebenLinden and Niederkaufungenoptimised straw bale houses. A further factor is the self-production of energy based on renewable sources in SiebenLinden and Niederkaufungen.

Figure 2

CO_2 emissions in kg per capita and year for housing



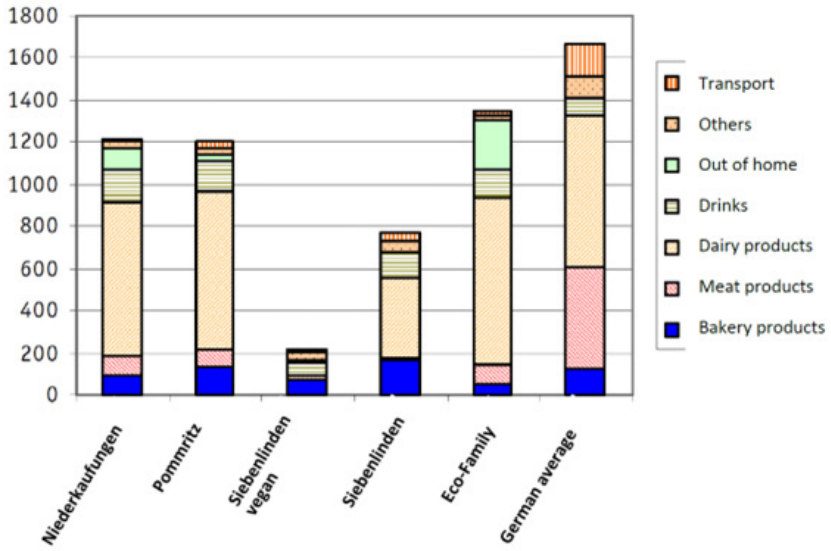
Source: Simon et al. 2004, p. 15.

b. Food

The impacts of food consumption differ a lot between the observed systems due to special preferences and local circumstances. All three communities rank lower in CO_2 emissions from food consumption than the German average and even ecologically oriented families. Sources of reduction here include reliance on local products (which reduces transport), integration of production into the commune itself, a central kitchen (with energy optimized devices) etc. The most visible influence however is the lack of dairy products in the vegan diets of a subgroup of SiebenLinden inhabitants. However, with regards to food supply there is also a reduced environmental impact compared to people living in average households in Germany.

Figure 3

CO_2 emissions in kg per capita and year for food



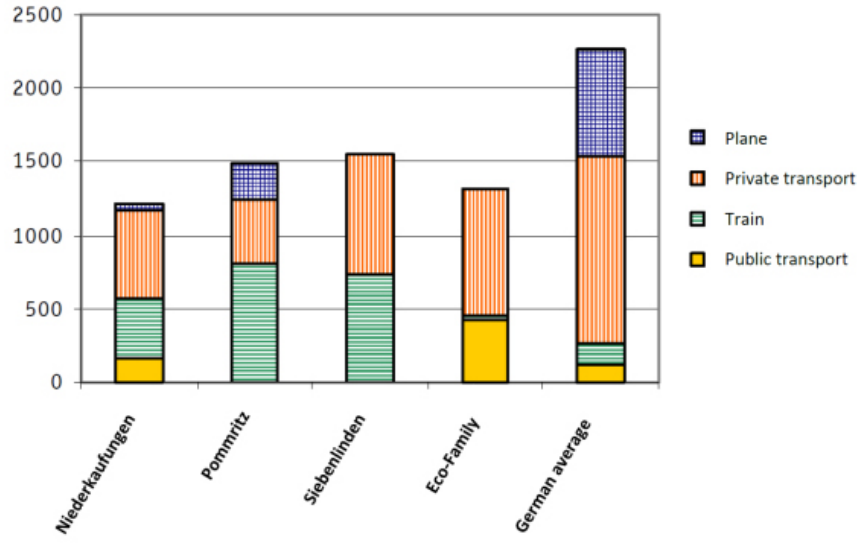
Source: Simon et al. 2004, p. 17.

c. Mobility

Despite the fact that mobility in general is not significantly lower in the communities, the total environmental impact is lower. The difference is due to a divergent modal split to realise mobility (a higher share of public transportation system, bicycles, etc.) and the structural element: common use of cars and public transport tickets. Trains and other public transport account for about one half of journeys in each of the communities while this amount is only about one third in the eco-families and about 1/10 in the German average.

Figure 4

CO_2 emissions in kg per capita and year for mobility



Source: Simon et al. 2004, p. 19.

4. Policy implications for waste reduction

The results from those Intentional Communities that were analysed indicate that, due to special personnel composition and factors like the integration of commercial undertakings (food production, small manufacturing) and common use of devices (automobiles, kitchen), there is a significantly lower impact on the environment when compared to the average household. Therefore these communities contribute significantly to a more sustainable society.

At least four structural elements are characteristic of Intentional Communities and their relationship to sustainability.

Optimisation and resource sharing: Intentional Communities are more likely than individual households to assess the environmental impacts of equipment, such as cogeneration plants, cars, refrigerators. It is important to count the impacts from both the product's manufacturing and use phases. The environmental impact of its production may be significant, and the less the product is actually used (as, for instance, when a car spends most of its time parked at the driver's place of employment or home), the higher the proportion of the total impact from production. When an Intentional Community organises optimised use of equipment (for example, by shared access to a commonly used carpool), then there can be benefits with respect to the overall balance of production and use impact.

Closing cycles: Most of the radical sustainability conceptualisations take it for granted that a sustainable future can be achieved only if society is reorganised in small, decentralised units. The assumption is that those small units will be more or less self-sufficient, with a good example of this being food production. When most of the food needed in a community is produced by that community itself, the consumers have the opportunity to set their own quality standards, to obey environmental principles, and to reuse waste from the system (for example, manure) in agriculture and gardening. The aim is to create production systems that are, to a high degree, independent from external resources, for example, by applying fertilisers produced on the farm itself, by minimising wastes, and by giving the consumer population control over production.

Reliance on regional products: This element naturally follows on from the previous. More sustainable solutions are based on settlements in which most of the goods and services are produced from the land, labour, talent and capital of the local region. With reliance on regional products, transport expenses are lowered or avoided and more transparency can be achieved if participants within the production-consumption systems know each other and better coordinate their interests.

Responsibility: Holding common property necessarily demands that people are more responsible with regards to everyday resource use, waste disposal and environmental conditions in that community. This holds especially true in the case of a common economy, which is a possibility but not a must for Intentional Communities. One result of a common economy is that people consciously reduce their wants so as not to burden the group.

5. Transferability to other areas

Intentional Communities are a marginalised mode of living (in Germany far less than 1 per thousand of the population). However, more than 400 such communities exist in Europe. The Global Ecovillage Network also has chapters in Oceania and Asia, Africa, South America and North America.

They are well connected, share experience and thus constantly further develop sustainability practices. Through seminars and workshops the three Intentional Communities presented in this case study spread their experiences and thus fulfill an important role in educating traditional municipalities and households on possible ways towards lifestyles within ecological limits. SiebenLinden, for example, and its ongoing practical experience in building straw bale houses also supports research on the further development of this building technique. In this sense Intentional Communities are living and learning centres for absolute reductions. A more structural uptake of best practice experiences for urban initiatives and development strategies can additionally increase the potential created in such communities.

6. Other reflections and conclusion

Intentional Communities can develop a high potential to reduce impacts on the environment. Research confirms they are providing a positive contribution, even if they are not managing to stay within global limits. It is important to recognise that inhabitants of the communities do not have low living standards and cannot be classified as social outcasts. They have a significantly lower consumption that is not related to mobility, or food supply (amount and quality), or other supply sectors. What makes the difference is the environmental impact of this consumption.

The case study revealed that, for example, those living in SiebenLinden have a carbon footprint that is a third of the size of the German avarage. In particular this is due to their vegan/vegetarian diet, car sharing, avoidance of aeroplane travel and good insulation of their houses.

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Related website: http://www.usf.uni-kassel.de/glww/ziele.htm

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