How can German housing cooperatives contribute to reducing climate change?

Enkeleda Kadriu
TU-Berlin, Institute for Urban and Regional Planning,
EB 311, 10623 Berlin, Germany
e-mail: eda_kadriu@yahoo.com

Dr. Gabriele Wendorf
TU-Berlin, Straße des 17. Juni 135, Secretariat VP 3, 10623 Berlin, Germany
e-mail: vp3@tu-berlin.de

Abstract

Germany is well known for its long and significant history of housing cooperatives. These organizations continue to play a crucial role in the housing sector. Although there are more than 2,000 housing cooperatives with over two million apartments and over three million members in Germany providing housing to communities and people, unfortunately, it is not precisely known how many of these cooperatives include the issue of energy saving in their statute and to what extent the people and communities are informed, asked to get involved or participate in decision-making processes regarding energy saving issues in housing. The “Solidarische Stadt” project started by the TU-Berlin in cooperation with partners specializing in the field aims, among other issues, to identify and analyse the degree of awareness and the participation of these cooperatives in energy saving in housing. In this paper we will try to present some facts about the current situation in Germany and identify the problems and challenges that housing cooperatives face in the aim to reduce climate change.

Keywords: Housing cooperatives, energy saving, energy efficiency, community participation

Introduction

Germany is well known for its long history and importance of cooperatives, and housing cooperatives, an experience which goes back to the 19th century. These organizations have played, and continue to play, an important role in providing affordable community housing for many people and communities all around Germany. While there are over 2,000 housing cooperatives with more than two million apartments and three million members in Germany, unfortunately it is not precisely known how many of these include the energy saving issue in their statute and to what extent the people and communities are informed, asked to get involved or participate in decision-making processes regarding energy saving and efficiency in housing. The project “Solidarische Stadt” (2010 - 2013) started by the TU-Berlin in cooperation with partners specializing in the field aims, among other issues, to identify and analyze the degree of awareness of the impact that housing cooperatives may have on reducing climate change. One research question is, whether the idea of solidarity in cooperatives is fundamental for
participation processes in cooperatives and, hence, a basis for more sustainable consumption patterns and cooperative energy saving in housing. In this paper we will try to present some facts about the current conditions in Germany and identify some of the problems and challenges that housing cooperatives face in terms of organization and management, resources and capacities, aiming to fill the gap in the literature regarding the studies in this field.

After a short introduction and some definitions about housing cooperatives, we provide a brief overview of the history of housing cooperatives in Germany. It is very important to understand the circumstances under which they have developed and matured because it is their nature which defines their behavior not only towards cooperative members but also in the market. It is the social, economic and political background of these organizations which defines their success and competitive nature, as well as differentiates them from other housing companies.

We could observe that the socio-economic changes in the world and Germany have also shaped the nature of the new emerging housing cooperatives and altered their goals and potential in spheres like sustainability, eco-friendly design and behavior, sensible consumerism and many more. A discussion about the future of housing cooperatives and their role in this new environment will take us to the next issue in our paper, which is the relevance of energy efficiency in housing cooperatives. What are the current discussions about energy saving and efficiency and why do we consider energy efficiency important? The socio-economic advantages that energy saving brings in the long-run cannot be ignored and/or taken for granted. Therefore, we address the question: given the financial situation of housing cooperatives, what are the opportunities or the alternatives for financing energy-saving investments needed for both old and new buildings? How do public authorities and housing organizations together with members and other private groups or interests share the responsibility? In this paper, we will try to highlight some facts about the current situation and illustrate two case studies - a new and a traditional housing cooperative. Observations and recommendations will be discussed in the conclusion, bringing some inputs to the discourse.

Basic principles of cooperatives

To understand the specific situation and background of cooperatives, we first look at some definitions. According to Digby (1978:2),

A cooperative is a legally incorporated group of people, generally of limited means, pursuing an economic purpose, in which membership is voluntary and control is democratic. Members make an approximately equal distribution to the capital required, and any profit is distributed among them in proportion to the business they have done with the co-operative.

The German cooperatives in Europe, understand the concept of cooperatives based on the ideas of Raiffeisen, while the UN/ILO definition provides for the following, “a co-operative is an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise.”

Drawing from both these definitions it can be said that cooperatives share certain values and principles everywhere, such as voluntary and open membership, democratic member control, member economic participation, autonomy and independence, education, training and information, cooperating among cooperatives and concern for the community (www.derv.de). In Figure 1, a more comprehensive chart of cooperatives’ principles is given as adopted from Mändle (2005:33) and Beuerle et al. (2005:15).
The cooperative sector in Germany is subdivided into five pillars: the cooperative banks, the rural cooperatives, the buying and marketing cooperatives and other service cooperatives, the consumer cooperatives and the housing cooperatives with their corresponding federations, central cooperatives and specialized institutes (www.dgrv.de; Andrusz, 1999:34).

Considering the housing sector we can identify several characteristics differentiating the sector from other cooperatives as Mändle (2005:18) did:

- They operate as a complementary economic entity or as an auxiliary operation of the members;
- They have a double nature of being an association of personal/social and business/economic interests at the same time;
- They are a demanding business management system; and
- They are a complex cooperative system with further subsystems within.

Furthermore, the housing cooperative fulfils these conditions (Digby, 1978:2-3):

- It is incorporated, i.e. it is a legally recognized body with the power to do all those things which could be done by an individual running his/her own business.
- It is democratically controlled, each member having one vote no matter what the number of shares.
- Members make an approximately equal contribution to capital, on which they receive a fixed rate of interest.
- Profits are not distributed as with most cooperatives in proportion to members’ business with the cooperative, but used for the general good of the membership.
- Membership is voluntary and members may retire if the organization ceases to meet their needs.
- The organization has a social purpose – principally the provision of good housing at a low cost – and is not an undertaking aiming at maximizing profits neither is it a government institution.
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Because of the very important role in Germany’s market economy, the cooperatives composed of small- and medium-sized enterprises are crucial in vitalizing the market in many lines of business as well as in terms of employment (around 830,000 people throughout Germany) and providing extensive training programs for approximately 35,000 people every year (www.dgrv.de). Considering that every forth citizen is a member of a cooperative and that the cooperative network consists of over 20 million members in more than 7,000 cooperatives, it is classified as one of the largest economic organizations in Germany. Therefore, it is also possible to say that there is an enormous amount of social capital involved with these organizations worthy of research (www.dgrv.de).

In addition to the above, Lewin (1981:18) emphasises the educational role towards their members, officers, and employees and of the general public in the principles and techniques of cooperation, both economic and democratic; and their actively cooperative nature in every practical way with other cooperatives at local, national, and international levels. For these reasons we think housing cooperatives might play an important role in climate change.

**Historical development of housing cooperatives in Germany**

The cooperative movement in Germany was inspired by the Rochdale model but developed along more commercial lines. Herzog, according to Chamberlayne (in Andrusz, 1999:179), distinguishes three main strands within the cooperative movement:

1. the banking, distributing and marketing cooperatives, initiated by Raiffeisen (1818-88) to service small peasants, which, with 4 million members in 1930, formed the largest cooperative in the world;
2. the more middle-class tradesman, in the craft and credit tradition of Schulze-Delitzsch (1808-83); and
3. the more working-class consumer movement, including housing co-operatives and, in the 1920s, trade union cooperative factories.

To understand the background of housing cooperatives which’s traces still could be found in their current statutes we need to know about the situation while they were founded and built their housing stock. At the beginning of the 19th century the first housing cooperatives were founded to respond to the high demand for housing around Europe (Beetz, 2008). In the decades that followed, the cooperative idea spread throughout Germany, Europe and worldwide. Other reasons such as the Second World War, population growth and migration, changes in living standards and many others, have also been strong elements in boosting the housing development in European countries and elsewhere. The first cooperatives in Germany were created in the second half of the 19th century as rural savings and credit cooperatives based on the ideas of Friedrich Wilhelm Raiffeisen, while the first housing cooperatives were established in Germany in the beginning of rapid industrialization around 1850, to answer the acute shortage of housing for workers, a concern of men like Victor Aimé Huber who called for self-help efforts among the working class to alleviate the situation (Digby, 1978:7, Wiedenhoeft, 1985:28). It was actually the Bismarck government that acted to help improve the living conditions of workers and, thereby, help prevent revolution in the mid-19th century. The first establishment that arose as a response to the joint efforts of philanthropists and of people in need of housing was the Berlin Building Society for Public Benefit in 1847-48 (Digby, 1978:8). During the first world war all housing construction came to a virtual halt, to be operated according to the greatest good for the greatest number, a concept that benefited many people throughout 1920s (Wiedenhoeft, 1985:28). In the 1930s the Nazis abolished all housing cooperatives in Germany (http://www.icons.org.uk).

Cooperative housing construction experienced a new upswing after 1945 in the reconstruction of destroyed cities and accommodation of refugees. Many new cooperations came into being, initially with the focus on Southern Germany and since 1954 under the heading “workers’ housing cooperatives” (AWGs) in the German Democratic Republic, as well. In West Germany, few new housing cooperatives were set up between 1950 and 1980 but existing cooperatives expanded.
Some 50 percent of the existing cooperative housing stock in West Germany was built in the 1950s and 1960s, and about 60 per cent of the stock in East Germany dates from the 1970s and 1980s. In the 1980s, the first new cooperatives were founded to introduce new forms of housing (e.g., in experimental housing development). Housing cooperatives thus also became established in the inner city. After 1996 new legislation led to the founding of many new cooperatives, especially in cities. 20% of today’s cooperatives in West Berlin and 44 percent of those in East Berlin were set up between 1990 and 2001. The greater part of today’s cooperative housing stock, therefore, tends to be located in the development belts of the early and mid-20th century urban extensions and in large housing estates, but not in the inner city. In Brandenburg, for example, only 17 percent of the stock dates from before 1948 compared with 66 percent of the private stock, and 46 percent of the stock from other housing enterprises (Beetz, 2008). Still today, the development of owner-occupied dwellings plays a major role in Southern German housing cooperatives, whereas large rental cooperatives are to be found in Northern Germany (Beetz, 2008).

The housing cooperatives within the Federal Association of German Housing Enterprises GdW provide affordable and secure housing to more than 5 million people; they are developing entire cities and districts. They represent about 2.2 million flats, which is approximately 10% of the housing stock in Germany. The concept of cooperative housing is based on joint ownership, which is administrated on the principles of sustainability and cross-generational equity. Thereby, the cooperatives are proposing numerous services connected with real estate issues – assisted housing for elderly and handicapped occupants, neighborhood meetings, shopping assistance, member festivities, special housing offers for young members and families, etc. The investment volume amounts to 3.4 billion euro per year (http://www.icons.org.uk).

The ideological ideas and the social movements of late 1960s and early 1970s led to a new wave of cooperatives in most Western European countries, although small in number. Many of them later included thematic issues which were incorporated within the much broader social movements which grew out of them, i.e. formation of ‘Green’ and ecological movements (Andrusz, 1999:54). Due to the changed law on cooperatives¹, now it is easier to establish a cooperative. Although the absolute number of new cooperatives has not increased since 2006, their market share has clearly increased. In 2008 about 180 new cooperatives were founded in Germany. New cooperatives, mainly in the energy and water sector (e.g. Austria, Spain), but also in housing and consumption (e.g. Scandinavia, Switzerland, Italy, Sweden and Denmark) are being formed, with the explicit intent of making a collective contribution to sustainability and climate protection (Schröder et al., 2011). According to Schröder et al., 23% of all new cooperatives in Germany are energy cooperatives, with about one to two new formations per month in 2010, and around 70 new formations for the years 2000-2008 in Germany. Regarding new foundations of housing cooperatives, there are for example projects of common housing in new built or modernized houses designed for elderly people.

Future role of housing cooperatives in the housing market

According to Schröder et al. (2011), the cooperative is considered a promising form of sustainable social and economic organisation. For their members, cooperatives represent an opportunity to shape their local communities and environments while sharing resources, knowledge and economic power to their benefit. With a rising number of new cooperatives in the sectors of energy/water, housing/construction, consumption and mobility explicitly referring to climate protection, climate-related activities, in turn, have the potential to inject new life into the cooperative movement and to provide innovative – i.e. collective – approaches to local climate governance (Schröder et al. 2011).

¹ To date the housing cooperatives in Germany function under these legal framework: 1) The Cooperatives Act, first adopted in 1889, which was reformed in 2006. The Act determines the cooperatives’ organizational rules, including their business conduct; and 2) The Rent Regulation Act, which rules the obligations and responsibilities of all landlords of rental dwellings, including housing cooperatives such as rent increases (ICA).
Many local authorities in Germany, look at housing cooperatives as stability factors in the development of quarters development and management, and very important for achieving a sustainable urban social development (ExWoSt, 2007:49). The regions are required to integrate housing cooperatives in their plans, and in local authority planning and implementation is mandatory (Chamberlayne, 1999:193). In Schleswig-Holstein, North Rhine-Westphalia, Hamburg, and Lower Saxony the often large housing cooperatives are more strongly integrated into the urban planning process than the often smaller, decentralized coops in Southern Germany. In East Germany and increasingly in Northern Germany, the participation of cooperatives is mostly tied to urban redevelopment. Depending on the region, between one half and one third of East German housing cooperatives take part in the urban redevelopment process. Many coops now have communication centers, neighborhood clubs, and recreational facilities. Big coops with over 5000 units, in particular, have in recent years developed decentralized structures in which individual building and settlement groups play an increasing role.

It is worth to draw the attention thought, that not only the traditional housing cooperatives which are known for their social engagement, participatory nature and democratic approach, but also the new housing cooperatives carry a lot of potential for their “help for self-help” initiatives, and learning processes: i.e. basic professional support through a complementary range of social services; motivation and possibly training of volunteers and members of cooperative; and the acquisition of coordination functions and the use of different offers between everyone (ExWoSt, 2007:43).

Housing cooperatives and energy saving

The provision of housing is a basic necessity that consumes a vast amount of natural resources, a central issue for housing providers, environmentalists and users alike (Bhatti et al., 1994:13). Housing cooperatives should provide good housing at affordable rates regarding the loan maintenance and repairing costs. Energy saving is a matter not only of finances but also of sustainable living and consumption (Beetz, 2008). A central sustainability theme is the relationship between energy consumption and urban development (Gibson, 1994:39).

The role of the single European market, i.e. the establishment of common standards and legislative frameworks for processes, is definitive and vital for every small, medium or large enterprise. Following the entering into force of the regulations regarding European cooperatives on 18.08.2006, so far it is very important to improve the competitiveness of the German cooperatives against the rival European ones (Beuerle et al. 2005:83). Important pieces of legislation have already been adopted, notably on the energy performance of the buildings, promoting cogeneration, taxing energy products and electricity, energy efficiency requirements and on the labeling of certain appliances. However, there is still a large potential for cost-effective energy savings (ADEME, 2005:7).

It is very important for traditional housing cooperatives to win new members and remain competitive in the housing market; therefore, they have strong reasons to adopt new technologies and energy saving initiatives, which can then be used as attractive options for new members. Independent of their age or ethnic background, different income groups would appreciate and prefer to live in cost-effective and energy-efficient houses. New living forms such as alternative dwellings, multimedia apartments and ecological living are but only some attractive examples that housing cooperatives are considering and embracing more and more both as ideas to be implemented in the near future as well as immediate projects (Beuerle et al. 2005:42).

In order to spread the idea and widely implement energy saving policies, new governance strategies are needed. Where there is good communication and interaction between local authorities and cooperatives, the transfer of energy saving issues and the policies relevant to them are more easily done. On the other hand, where the cooperatives behave totally independently and are free in their actions, there is likely the case that they will initiate new programs regarding energy saving. In other words, if the local authorities have employed in their statutes energy saving schemes and policies,
there is most likely the case that the housing cooperatives in that local area will embrace and support the initiatives.

One example of a successful initiative of local authorities is the **KlimaSchutzPartner-Programm** in Berlin. As the authors of the article were told by a member of a housing company the initiative of the local authority helped to identify energy and money saving potentials which would not have been identified without the initiative. Within the last 10 years since the program started many housing companies and especially housing cooperatives participated and some of them received an award.

The **spill-over effect**: good case studies of a housing cooperative in a city can motivate other housing cooperatives or new initiatives to adopt energy saving programs become more aware of energy efficiency use, funding opportunities, available technology and many more. Also there is a lot to learn from project processes, i.e. participation methods, management, decision-making etc. (ExWoSt, 2007:39).

**The importance of energy efficiency**

Energy efficiency improvements refer to a reduction in the energy used for a given service (heating, lighting, etc.) or level of activity. The reduction in the energy consumption is usually associated with technological changes, but not always since it can also result from better organisation and management or behavioural changes (“non-technical factors”). For energy efficiency experts, improving energy efficiency reflects the results of actions that aim at reducing the amount of energy used for a given level of services (e.g. lighting, heating, and transportation): purchase of efficient equipment, retrofitting investments to reduce the consumption of existing buildings and facilities, or avoiding unnecessary energy consumption (AMEDE, 2005:12).

Efficiency standards for new dwellings are mandatory in all countries and are tightened at regular intervals. Since the first oil crisis in 1973/74, the new building standards have been raised 3 to 4 times in most EU countries (AMEDE, 2005:77). The quality profile aspect of buildings is becoming a very common approach for many housing cooperatives. Energy saving is seen as part of a broader goal to lengthen the life span of buildings, which in the long term generates income and saves investments that can be used to finance the improvements in a building. Creating support with tenants is another driver for success, given that there is a good information supply on both sides. Lengthening the exploitation of buildings can be a good approach to generate money for energy-saving investments (housing cooperatives in the Netherlands).

According to a survey done by POWER HOUSE EUROPE (the big green housing and energy exchange project) the goals for energy efficiency were found to be more common for new buildings (>90% of the participants reported that they had a goal) than existing ones (<70%) (CECODHAS, 2011:4). According to the findings, 70% of the housing organizations have a strategy in place to reduce energy use, with 60% for existing buildings having a standard or goal to meet on energy efficiency (90% for new buildings) (CECODHAS, 2011:10).

Existing buildings:

- Studies from Europe (EU 15) show that consumption in existing buildings for heating and cooling can be more than halved (55 % reduction is feasible by renovation ).
- New 12 EU member states show larger potentials (55 – 80 %)
- In the US it is estimated that up to 50 % of the energy in buildings is lost due to inadequate insulation.
- Efficient HVAC systems and renewable energy can reduce the use of fossil fuels even further.

New buildings:

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2 Authors personal communication with Ingo Malter, CEO of the “STADT UND LAND” housing company, on May 18, 2011, Conference “Berliner Energietage”
Zero Energy Homes are being built in the US with more than 50% reduction compared to traditional homes.

Passive Houses are being built in Europe with more than 75% reduction compared to normal new buildings in most countries.

Zero Energy or Zero Carbon Buildings with zero net energy use over one year are possible – but more costly even over time (http://www.worldenergy.org/publications/).

Housing is both a commodity and it has a use value. The more energy efficient the house is, the lower the costs, and the higher its value. An energy efficient housing stock and the eradication of unfit housing are among the aims of the German government regarding the future of housing. The building sector is considered a milestone of the Energy Concept (BMU). The goal is having a "climate-neutral building stock" by 2050. The German government wants to achieve this by:

- doubling the rate of energy-saving modernisation from 1% to 2% p.a.,
- gradually reducing energy demand for heating by 20% by 2020 and primary energy demand by around 80% by 2050, and
- covering the remaining energy demand predominantly with renewable energies.

The German government’s plans are forward-thinking and aim to achieve significant outcomes, such as reaching the target of an 80% reduction of primary energy demand by 2050. Support not only for new buildings and construction initiatives, but also the building renovation is considered an important part of the strategy which will ensure better funding, more market incentives for renewable energies and performance-related support schemes for a more successful sustainable urban development. A mix of instruments complemented by tax incentives is intended to reach most of the targets in the future.

Since the incentives to elaborate the housing stock considering energy efficiency were not sufficient the German government decided to implement at least an information instrument to communicate the energy consumption of the housing stock to potential tenants and owners. The “energy-passport” should help tenants and owners to anticipate future energy costs. But even if they were able to anticipate both the rent and the energy costs and through this information choose the more efficient dwelling, the question is, whether there are energy efficient houses in the market.

For this reason we have to consider the decision-making situation of housing companies. Here we have to diagnose that the housing sector suffers from the landlord/tenant dilemma. Due to the problem that tenants will profit from the reduction of energy costs while investors are not able to raise the rent for the dwelling, we find many housing companies hesitating to implement e.g. more efficient heating systems.

Here cooperatives differ from other housing companies because tenants are at the same time owners of the company. This may explain why the portfolio of a famous provider of energy services for housing³ has only housing cooperative clients. The not-for-profit nature of the housing cooperatives and their long-term interests drive their disposition towards modernisation and the refurbishment of the existing housing stock.

Challenges and problems

Jon Elster, (Bengtsson in Andrus, 1999:250) identifies two distinct types of cooperative problems, fundamental and transitional. Fundamental problems could be that tenants do not want to participate in the management of their estate, they lack the competence to do so efficiently, or cooperative housing does not provide tenants and management with the right incentives. Such problems may create bad situations for the continuity of the cooperative’s existence. Transitional problems may be that only

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³ Authors personal communication with Martin Timme from “Techem Energy Services GmbH” on May 18, 2011, Conference “Berliner Energietage”
eccentrics or idealists are prepared to join cooperatives in a housing sector dominated by private landlords and the state. These problems can be solved, once a certain threshold has been crossed. According to ADEME (2005:85-86), the progress in energy efficiency is offset by lifestyle changes. There are two converse trends in regard to energy efficiency: increased comfort, larger dwellings and an increasing share of central heating, and of single family dwellings that drive the demand upwards on the one hand, and, on the other, more efficient dwellings and heating appliances that contribute to lowering demand (AMEDE, 2005:77).

One of the findings of the POWER HOUSE EUROPE survey was that those responsible for providing information on energy in a housing organization are mainly the Federation, then the energy expert or an external consultant, then management or the staff of the organization. The organizations usually provide the residents with information packets (70% of participants) or demonstrations (30% of participants). Rather than always learning from good practices, these housing organizations would also like to learn from bad cases. Furthermore, financing and funding were considered the biggest barriers for energy efficiency (also lack of financial capacity of tenants), since the information provided may be for advertising purposes and not reliable, not in the local language, or not informative enough or sufficient.

It is easier for bigger organizations to source more information on the latest opportunities regarding funding, technology and many more, while the smaller organizations do not have the necessary networks and their only sources, therefore, remain the federations or the information online in their local language. It is very important that they get to know more not only about locally available subsidies and tax incentives but also schemes and funds available at the EU level through European Structural funds and the European Investment Bank (CECODHAS, 20011). One of the most frequent reasons for establishing self-help ventures is a lack of coordination with the various authorities responsible for land, planning, services, financing, etc. Cooperation and communication at and between federal, state and communal levels are of utmost importance. Where there is sound housing policy and long-term programming, any kind of undertaking or investment is possible.

Some general problems with housing cooperatives can be summarized as below (ExWoSt, 2007:51):

- traditional cooperatives need innovations in practice
- small cooperatives need know-how and cooperation opportunities
- renter cooperatives aspire to become owner cooperatives
- young cooperatives want to be considered serious partners
- start-ups need advice and financial aid - the biggest challenge for newly created cooperatives is the lack of access to finances for investment and growth.

A major problem with local policies is the ‘top-down’ approach tendency to develop them instead of ‘bottom-up’ perspective. There is the risk that the environmental policy-making arena at the local government level will be dominated by more powerful organizations or actors in the housing sector, such as housing associations, private developers, infrastructure agencies etc. (Brown, 1994:76). Therefore, instead of embracing a techno-centric (top-down policy recommendations) approach, the eco-centric approach (public participation and community involvement) could bring more benefits and tangible results in the end.

What resources do housing cooperatives engage in regards to energy efficiency issue?

- Personnel/human resources
- Financial resources
- Technical/technological
- Experts/consultants/private agencies
- Local authorities/public authorities
- Academics/scholars
- NGOs, civic society
Management of funding and resources

Sources for the financing of cooperative housing are (Digby, 1978:188):

- Financial institutions (mortgage banks, saving bank, life insurance funds, etc.)
- Public funds
- Own resources, and
- Other sources (e.g., employer’s loans).

One peculiarity of the cooperative as an enterprise is that residents make a financial and organisational contribution to the realization of their housing wishes. In long-standing housing cooperatives, the members’ share in equity is often under 10 percent, whereas in recent coops this figure is often almost 100 percent. Some 40 housing cooperatives tie up further capital of their members by means of a savings facility. Members who wish to invest their capital in the cooperative more or less fix their place of residence and take an interest in what happens in their neighbourhood (Beetz, 2005). This means that the residents can influence decision making and lead to long-term cost-reductive, which means energy saving schemes.

The prompt collection of rents or loan repayments, the care and maintenance of buildings and the absence of conflicts, minor abuses and juvenile delinquency are all fields in which the cooperative projects seem to show better results than do those of public authorities (Digby, 1978:99). This can be a very strong asset for cooperatives in terms of credibility ration for loans and grants from financial institutes or public authorities. At the same time they contribute in different aspects to the concept of sustainable development (Wendorf 2006).

Figure 4. Financial Resources of Housing Cooperatives (Beuerle et al. 2005:93)
Different funding options regarding energy efficiency in housing are a good attraction for both housing organizations and their members. But to what extent is this attractive tool used by housing cooperatives? There is high competition and high standards to apply for these funds, which may discourage those housing cooperatives which do not enjoy solid structuring, management skills etc. The smaller, weaker cooperatives may be let out of these benefitting schemes. If funding mechanisms could not be changed, cooperatives need to consider cooperation with other cooperatives.

Furthermore, cooperatives enact rules that govern the behavior of their residents. The ability of cooperative owners to use tax deductible debt to finance building-wide improvements is advantageous. Restrictions on debt as well as the control over admission to the cooperative enable existing and future shareowners to maintain a community with certain desired characteristics (Schill et al. 2006:3).

KFW

A financial source for energy efficiency projects are the KfW housing, home modernization and energy conservation programs. These programs target homeowners, private builders, landlords and housing companies, and promote the construction of new energy-efficient homes and the energy-efficient refurbishment of older residential buildings in particular with grants or loans with favorable conditions. Their support also includes modernization measures to improve housing quality and conversions to create barrier-free housing, which can be used as financial means for housing cooperatives to apply for. The loans or grants vary from 2,000-100,000 Euros, depending on the application package. Funding opportunities exist for the following:

1. Energy-efficient Construction: innovative heating technology based on renewable energies (i.e. solar, geothermal, biomass, wood, wind, and hydropower) and very good thermal insulation.
2. Energy-efficient Refurbishment
3. Energy-efficient Refurbishment - special promotion: professional construction supervision by a technical expert (50% of the costs for the supervision of construction)
4. Housing Modernization: restoration and renewal
5. Senior Housing Conversion
6. KfW Home Ownership Program

Increasing awareness of communities and people

The democratic aspect of cooperative housing makes the participation of members successful for the simple reason that by joining on equal terms, it is held, members of a cooperative can take care of their common affairs in a spirit of participatory democracy, thereby obtaining a sense of shared responsibility, perhaps even of self-fulfilment (Bengtsson, 1999:253). Participation strengthens the identification with one’s living area (ExWoSt, 2007:43). Participation is crucial, as well as wide promotion, good marketing and workshops. A small investment today may reduce future costs, as well as maintain, even increase the value of the assets in the future. The involvement of the members can be crucial from the establishment of the cooperative to the planning, promotion, and design of the project itself, therefore, active participation of each member should be strongly encouraged. By discussing the design with the members, the requirements for self-help in the construction of the infrastructure and houses, and in the production of building materials, can be explained more clearly. The members can thus grasp the significance of self-help and will identify themselves with the project (Lewin, 1981:57). Construction standards and cost estimations should also be available and explained to members, therefore making them understand the value of their investment and contributions.

4 For more detailed information on loans and grants please see www.kfw.de
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How do housing cooperatives access information, news, updates?

- Website, adverts, word-of-mouth
- Panels, workshops, exchange of experiences
- Through community members
- Through housing federations
- Other

The role of the government/public authorities (three levels – local, national, federal + international):

- Informative
- Mediator
- Supporter/provider
- Partner

Exploring the advantages of Cooperatives

Both cooperatives and other housing companies have to face obstacles to undertake energy saving models. As we already discussed, the problem of the investors-tenants dilemma is less relevant for cooperatives, which in return makes the cooperatives more likely to decide for long-term investment. In most cases the long-term perspective is the necessary condition for the profitability of energy saving measures.

In addition, there is another side of the story which is less obvious: This is the fact that housing cooperatives have a greater potential to successfully implement and obtain concrete outcomes in terms of common consumption patterns.

Figure 3. Cooperatives Success Factors (Beuerle et al. 2005:136)

![Cooperatives Success Factors Diagram](image)

It is the “Corporate principles”, “Corporate culture”, “Corporate identity” and “Corporate communication” factors that lead to a successful achievement of proper measurements against climate change. This fact is relevant for both traditional and newly established cooperatives. Furthermore, newly established cooperatives can integrate climate change and sustainable consumption patterns in their statutes. The following case studies represent both traditional and new housing cooperatives and their respective activities in terms of climate change and energy efficiency.
Case studies

Portrait of a newly established cooperative

Initiative Möckernkiez – is a social, intercultural, ecological, and barrier-free project for young and old. For the realization of the project, the founders are looking for investors for the planned commercial spaces, e.g. 100-bed hotel, organic supermarket, bike shop, coffee shops, bio-ice cream parlor, Italian espresso bar etc.

The founders have been discussing whether to specifically establish an energy cooperative that would operate on a network on its own. The project aims to be successful not only in energy efficiency issues but also in establishing a sustainable neighborhood environment. The areas between the buildings are planned to be car free. The €20,000 charge per car parking space will produce increased revenue for the cooperative. Car-sharing opportunities will be provided. Parallel to the planning of the Board, there are discussions with various banks. In fall 2011 the cooperative will submit the planning application. The construction workers will start in spring 2012 with a completion date of autumn 2013.

<table>
<thead>
<tr>
<th>Name of Cooperative</th>
<th>Möckernkiez Genossenschaft für selbstverwaltetes, soziales und ökologisches Wohnen e.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>Möckernstraße 64, 10965, Berlin, Germany</td>
</tr>
<tr>
<td>Website</td>
<td><a href="http://www.moeckernkiez.de/">http://www.moeckernkiez.de/</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Foundation year</th>
<th>2009; Citizen initiative (2007), Association (since 2008, still existing; the framework of the cooperative is still in the process of being finalized) and Cooperative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key figures of the project</td>
<td></td>
</tr>
<tr>
<td>Heated living area</td>
<td>38,000 m²</td>
</tr>
<tr>
<td>Heated Business</td>
<td>7,000 m²</td>
</tr>
<tr>
<td>Buildings</td>
<td>2 block boundary lines and 10 multi-story houses</td>
</tr>
<tr>
<td>Number of dwellings</td>
<td>400; smallest floor plan 35 m²</td>
</tr>
<tr>
<td>Number of occupants</td>
<td>1000</td>
</tr>
<tr>
<td>Standard</td>
<td>at least passive house, possibly plus energy house</td>
</tr>
<tr>
<td>Total cost</td>
<td>70 million Euros, of which 49 million Euros financed by bank</td>
</tr>
<tr>
<td>User fee</td>
<td>average 8.30 € / m² with minimum investment, broken down by location and possibly size, deposit at least 30 percent of the share of total costs</td>
</tr>
<tr>
<td>User fee plus running costs</td>
<td>average of 10.00 € / m²</td>
</tr>
<tr>
<td>Number of members</td>
<td>520 (September 2010), 620 (March 2011), 790 (as of May 01, 2011)</td>
</tr>
<tr>
<td>Gender</td>
<td>70% women and 30% men</td>
</tr>
<tr>
<td>Age structure</td>
<td>50% 50-60 years old (the rest is mixed, both younger and older)</td>
</tr>
<tr>
<td>Ethnic-cultural background</td>
<td>Some with very different background; very few of Turkish origin</td>
</tr>
<tr>
<td>Work/thematic group contexts of the cooperation</td>
<td>Themes: elderly care, communication, architectural services, ecology, social concepts, funding</td>
</tr>
<tr>
<td></td>
<td>60-80 active members; distributed evenly to around 10-12 people</td>
</tr>
</tbody>
</table>

| Goal and thematic of the cooperative | Acquisition and subsequent development of the construction field; administration and management of the resulting apartments, commercial units and premises; providing the members a good, safe and socially responsible housing supply; provision of ecological, communal, barrier-free, intergenerational and intercultural living in a secure and sustainable environment |

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5 Information obtained from the statute and website of the cooperative as well as from Alexander Morhart’s interview with founder Aino Simon, on May 17, 2011, and several interviews of “Solidarische Stadt” project team with Möckernkiez representatives, October 2010-February 2010, Berlin, Germany.
Regarding climate change

Environmental sustainability in respect to construction, dwellings and living: minimizing surface sealing, stabilizing the urban biodiversity by simultaneous creation of new habitat; passive houses, renewable energy, ecologically safe building materials, intelligent handling of water

<table>
<thead>
<tr>
<th>Climate change activities</th>
<th>Energy and Power</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Heat insulation buildings: planned passive houses standards</td>
</tr>
<tr>
<td></td>
<td>Efficient heat system: yes, but the system is still in the testing-phase</td>
</tr>
<tr>
<td></td>
<td>Solar energy for water: planned</td>
</tr>
<tr>
<td></td>
<td>Photovoltaic: planned</td>
</tr>
<tr>
<td></td>
<td>Efficient appliances, waiver of unnecessary equipment: to be considered in the future</td>
</tr>
<tr>
<td>Mobility</td>
<td>Energy-saving behavior (heat, regulations, air, stand-by mode): offerings and support plans for tenants</td>
</tr>
<tr>
<td>Consumption</td>
<td>Eco-power: providers still unclear</td>
</tr>
<tr>
<td></td>
<td>Offering and supporting different environmental friendly alternatives (public transport, bicycle, foot): to be provided</td>
</tr>
<tr>
<td>Waste</td>
<td>Renunciation of particularly air polluting products</td>
</tr>
<tr>
<td></td>
<td>Transition to climate friendly products (recycled paper, regional products)</td>
</tr>
<tr>
<td>Other</td>
<td>Community usage of equipment: planned</td>
</tr>
<tr>
<td></td>
<td>Offers and suggestions for reuse of any consumption goods: planned</td>
</tr>
<tr>
<td></td>
<td>Climate friendly leisure activities: planned</td>
</tr>
<tr>
<td></td>
<td>Prevention</td>
</tr>
<tr>
<td></td>
<td>Recycling (according to type and sort)</td>
</tr>
<tr>
<td></td>
<td>Yard greening: all bottles become green-bottles; the green concept is present</td>
</tr>
<tr>
<td></td>
<td>Economical use of resources (e.g. water)</td>
</tr>
<tr>
<td></td>
<td>Reduced bottle-sealing</td>
</tr>
</tbody>
</table>

**Portrait of a traditional cooperative**

**Berliner Bau- und Wohnungsgenossenschaft von 1892 eG** – The cooperative was established in the year 1892 as a result of housing shortage in Berlin. “1892” was and still remains a place for the co-reformist ideas, concerning not only the architecture but also social and cultural issues. The project started as an experimental self-help approach among the working class and the liberal bourgeoisie. The aim was healthy and affordable housing and generally, the vision of emancipation by improving the living conditions, education and economic solidarity. The “Falkenberg Garden City” and the “Schillerpark Estate” have been listed as UNESCO World Heritage Sites since July 2008.

The cooperative’s lifespan in detail reflects the historical developments in Germany from 1892 to present date. Important for us is to focus on the period where drastic changes happened in relation to climate change, i.e. modernization and refurbishment in buildings, energy efficient investments and many more. In the period 1981-1990, the cooperative was mainly concerned with rehabilitation and upgrading instead of new development. Close attention was given to old building settlements, by improving and upgrading the heating system to gas heating for example. The retreat of the state from housing in late eighties due to de-regulation meant that the future would be more independent and according to market rules. The next 9 years to follow, 1991-1999 were a struggle between tradition and innovation. A high degree of readiness for change was demanded from “1982”. As a result of the unification the cooperative got back some of its old settlements which were in disastrous conditions. Much effort and money has been invested in their reconstruction and rehabilitation. Furthermore, “1892” provides numerous alternatives in terms of communicative living, like the “Attacking Aging”
women’s residential project, and follows the country house style with greenery and a pleasant environment.

The savings institution of “1892” provides equal benefits to both the cooperative and its members: an attractive saving scheme on the one hand and relatively cheap financing for new construction, modernization and repairs on the other. In order to close the financial gap created as a result of Berlin Senate refusing additional funding for social housing in 2006, the cooperative is now looking for attractive opportunities of investments like voluntary shares. First, the needs of living are also increased and become more varied. However, Berlin has an oversupply of flats. Here, the cooperative must provide good, inexpensive, safe homes while maintaining its tradition but also caring about tomorrow.

As of 2000 the new slogan of the cooperative seems to be ‘old values in new ways’. A joint public relations office was established in partnership with 24 other housing associations in Berlin to make the cooperative idea known. The cooperatives work together across Germany in a marketing initiative and present themselves jointly on www.wohnungsbauenossenschaften.de.

<table>
<thead>
<tr>
<th>Name of Cooperative</th>
<th>Berliner Bau- und Wohnungsgenossenschaft von 1892 eG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>Landwehr 34, 22087 Hamburg</td>
</tr>
<tr>
<td></td>
<td>Knobelsdorffstraße 96, 14050 Berlin</td>
</tr>
<tr>
<td>Website</td>
<td><a href="http://www.1892.de/">http://www.1892.de/</a></td>
</tr>
</tbody>
</table>

| Foundation year     | 1892 |

<table>
<thead>
<tr>
<th>Key figures of the project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing units</td>
</tr>
<tr>
<td>Balance sheet</td>
</tr>
<tr>
<td>Equity rate</td>
</tr>
<tr>
<td>Rent (average)</td>
</tr>
</tbody>
</table>

| Number of members | 10,650 |
| Age structure     | Special financial provisions for older people: Purchase of the right to use housing (rent-free housing), additional shares (rent reduction in old age). |
| Ethnic-cultural background | Mixed |

<table>
<thead>
<tr>
<th>Work/thematic group contexts of the cooperation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Several housing projects for special needs have been established (elderly persons, a women-only project, intergenerational schemes)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Goal and thematic of the cooperative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saving, building, housing</td>
</tr>
</tbody>
</table>

**Conclusions and recommendations**

Housing cooperatives involve different opportunities to contribute to a more sustainable development and less climate change. The aspect of climate change or energy saving strategies is only recently stressed by some (mostly new) cooperatives within their statutes. Nevertheless, housing cooperatives are more likely to invest in energy saving because of their long-term and non-profit calculation of investments. The landlord/tenant dilemma that hinders investment in other housing companies is less relevant for cooperatives.

Furthermore they have the ability to motivate their members and stimulate and organize sustainable consumption, e.g. common use of tooling equipment or car sharing as well as gardening in the housing estates. The idea of solidarity within cooperatives facilitates these consumption patterns.

However, policy mechanisms must enable, facilitate and encourage housing companies as well as tenants to recognize the energy saving issue in their strategy and behaviour. Especially for new housing cooperatives advice, finance, qualification, networking and support are the main elements needed. The fusion of new smaller housing cooperatives with bigger traditional ones could also be a
means to provide the new inexperienced initiatives with the necessary resources⁶. Another way of applying energy saving schemes and models could be found in cooperating with other cooperatives, such as consumption cooperatives, renewable energy cooperatives or car sharing cooperatives. Thus many obstacles could be removed and cooperatives could face the challenges and develop their role in reducing climate change.

It is important to understand that new innovative methods and bottom-up strategies can play a crucial and vital role in a transition towards a climate-friendly society, thereby reducing the burden on both local and national governments.

References


ICA (1980) *Co-operative Housing*, International Co-operative Alliance


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⁶ Many traditional housing cooperatives now cooperate with smaller or alternative start-ups, embracing in this way, alternative forms of living and housing within their portfolio (ExWoSt, 2007:104).
Workshop 11: Housing Regeneration and Maintenance: Towards an Environment-Friendly Housing Stock


Other resources


