Chapter 24
Opportunities and Limits of Cooperatives in Times of Socio-Ecological Transformation

Heike Walk and Carolin Schröder

Abstract Cooperatives offer promising conditions for an economically, ecologically, and socially sustainable future, even more so as several recent societal trends favor a stabilization and even a boom in collective approaches with long(er)-term outcomes. Based on recent research results on German cooperatives, and with a focus on practical approaches to local climate protection, this chapter analyzes actual and potential roles of cooperatives in transition processes towards more sustainable societies.

Keywords Cooperatives · Local climate protection · Socio-ecological transformation · Germany

It was not only the 2012 Year of Cooperatives that led to a boom in cooperative topics, but also the need for a new perspective on current challenges. These challenges include the financial and economic crisis, yet also climate protection. While talk of energy transition and socio-ecological transformation are on everyone's lips, it is also obvious that these problems cannot be solved at the political level alone. Moreover, the population's trust in the existing economic system is dwindling as a result of its disproportionate focus on the promotion on individual interests. Individual interests, of course, rarely coincide with the public good. The responsible type of entrepreneur of the 1950s and 1960s has increasingly vanished. Instead, businesses geared towards short-term interests prevail. Within only a few years, their casino capitalism has swept clean several business sectors throughout Europe. The cooperative organization represents an alternative in this scenario.

Cooperatives offer promising conditions for an economically, ecologically, and socially sustainable future—after all, members not only promote their own interests and goals, but also contribute actively to the shaping of their (local) environment. In addition, the fact that the cooperative movement still boasts a comparatively large number of supporters, who explicitly appreciate its sustainable and democratic potential, suggests an even greater potential: cooperative, i.e., collective, self-responsible action may be the result of an inspiration to become involved (which

H. Walk (✉) · C. Schröder
Technische Universität Berlin, Berlin, Germany
e-mail: walk@ztg.tu-berlin.de

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may initially and primarily be focused inward) and of mutual support among the members, but it can in fact also have an effect that goes beyond the cooperative, e.g., when cooperative principles are applied to neighborhoods and districts, in the form of civic engagement.[1]

In the following, cooperatives are being conceived as a specific form of collective organization that is based on a set of principles valuing self-help, collective responsibility, democracy, and solidarity. In addition, cooperatives promote voluntary, self-determined and equal membership (one member: one vote) in order to achieve shared goals.

This chapter refers to climate-protection activities in Germany to discuss in what way cooperatives can contribute to a socio-ecological transformation.[2] The chapter claims that cooperatives—along with providing specific services—contribute to the transformation of society (to a socio-ecological transformation in this case) in a special way and transport new lifeworld logics to systems such as the state and the market. This is of even greater interest since, so far, cooperative research has not systematically tied in with new research fields (e.g., sustainability research or socio-ecological research). It is also striking that some of the terms and topics that are (historically) closely linked with the cooperative idea—such as solidarity and participation—have hardly been examined in case studies. The present chapter seeks to close some of these gaps and discuss the opportunities and limits of cooperatives against the background of various sociological focus areas with regard to socio-ecological transformation, especially in the context of community climate protection. The chapter claims that cooperative organizations in particular hold this additional potential for climate-protection activities.

The New (and Old) Attractiveness of Cooperatives

Cooperatives are not a new business form, history teaches us. On the contrary, cooperatives underwent numerous highs and lows over the past decades and centuries, and, interestingly, flourished at times of sociopolitical crises or during transformation phases (e.g., Röpke 1992; Sundhaussen 1993). In the late nineteenth century, for example, skilled workers hit by hardship founded cooperatives to provide their businesses with mutual support; a lack of housing made others create housing cooperatives.[3] So in those times, the cooperative movement was closely linked with

[1] Cf. (BMVBW 2004, p. 383).

[2] The term "socio-ecological transformation" comprises a variety of strategies that are aimed specifically at socio-political shaping in order to manage financial and economic crises and climate and demographic change. The adjective socio-ecological is used to show that the transformation implies a different relation to geological and bio-physical resources. On the other hand, the shaping approach is based on democratic, fair, and solidarity-oriented restructuring towards a sustainable way of production and way of life (WBGU 2012).

[3] Earlier forms of the cooperative model date back even further.

the fight for humane working and living conditions. From then on, cooperatives developed differently in different countries: Unlike in England and France, where early socialists such as Richard Owen and Charles Fourier were instrumental in the development of the cooperative sector (cf. Weise 2013; UK study), the cooperative movement in Germany increasingly grew apart from the worker's movement (Vogt 2011). According to Hardtwig (2009), the most important spokesmen in Germany were neither peasants nor workers, but members of the educated classes. Friedrich Wilhelm Raiffeisen and Hermann Schulze-Delitzsch are the main pioneers in this context. Raiffeisen, who was active in the poverty-stricken Eifel region as a young mayor and founded the rural cooperative, acted according to a Christian-conservative notion of caring. Schulze-Delitzsch in turn was a left-liberal politician and co-founder of the "Deutsche Fortschrittspartei" (Hardtwig 2009).

The range of different cooperative activities has by now grown to an extent that makes it difficult to generalize this business form even at the national level. In very basic terms, cooperatives are defined as self-help organizations, with members managing their matters self-responsibly yet also in joint responsibility (economic and social sustainability). The academic literature on cooperatives includes various approaches that attempt to do justice to this great variety: It differentiates between the kind of performance relationship (cf. Dülfer 1995) or type of market commitment, for instance (procurement/purchasing cooperatives and sales/marketing cooperatives) (Atmaca 2007) and between cooperatives in the legal sense and cooperatives in an economic sense. German-speaking countries differentiate between production cooperatives (*Produktivgenossenschaften*) (members are natural persons, employees are also co-entrepreneurs; cf. Atmaca 2007) and development cooperatives (*Fördergenossenschaften*) (members are legal persons; cooperative fulfills certain tasks for those members; cf. Atmaca 2007) or based on business sector (cf. Table 24.1). These are mostly divided into established sectors such as credit cooperatives, agricultural or rural cooperatives, industrial cooperatives, consumer's cooperatives, and housing cooperatives. More recent fields of activity and sectors, such as energy, IT, and creative professions, have so far scarcely been mentioned separately in the literature.

Three Current Trends

German cooperatives are currently both on the decrease and on the increase. On the one hand, there have been constant merging and consolidation processes, especially in the credit sector, which have reduced the number of cooperatives from initially 27,000 to 7,619 today (DZ Bank Research 2012; cf. Table. 24.1). On the other hand, there have been a growing number of newly founded cooperatives especially in the fields of housing, energy, and social issues. There are three reasons for this:

Firstly, in times of various economic and social transformations, the image of the cooperative form of organization is gaining in significance all over the world due to

Table 24.1 Total numbers. (slightly modified representation, DZ Research 2012, p. 40)

	1980	1990	2000	2010	2011
I. Number of businesses	11,681	8,769	9,094	7,618	7,842
1. Cooperative banks	4,267	3,055	1,813	1,156	1,139
a) Credit cooperatives	4,246	3,037	1,794	1,138	1,121
b) Cooperative central banks	10	4	4	2	2
c) Special affiliated cooperatives	11	14	15	16	16
2. Rural cooperatives	5,228	3,725	3,815	2,480	2,41
a) Primary cooperatives[a, b]	5,168	3,672	3,780	2,474	2,407
b) Head offices[c]	60	53	35	6	6
3. Industrial cooperatives[a]	875	787	1,422	2,018	2,338
a) Primary cooperatives	856	772	1,410	2,009	2,329
b) Head offices	19	15	12	9	9
4. Consumer's cooperatives	94	30	53	33	31
a) Primary cooperatives	55	28	51	32	30
b) Head offices	39	2	2	1	1
5. Housing cooperatives	1,217	1,172	1,991	1,931	1,921
a) Primary cooperatives	1,217	1,172	1,991	1,931	1,921
b) Head offices	–	–	–	–	–
II. Members in thousands	13,275	15,207	20,074	20,744	21,155
a) Credit cooperatives	9,105	11,421	15,039	16,689	17,002
b) Rural cooperatives[a, b]	1,555	1,205	922	563	550
c) Industrial cooperatives[a]	337	257	255	315	407
d) Consumer's cooperatives	665	600	825	355	350
e) Housing cooperatives	1,613	1,724	3,033	2,822	2,846

Up to 1990 only old Laender and currency in DM

[a] Water, electricity, and refrigerated glass house cooperatives listed as rural cooperatives until 2008 have been listed as industrial cooperatives since 2009. The bioenergy, forestry and timber cooperatives that were in part listed as industrial cooperatives until 2008 have been listed as rural cooperatives since 2009

[b] Excluding credit cooperatives with transactions in commodities. Including agricultural cooperatives

[c] Since 2006 only main cooperatives

the values ascribed to it (economic and social sustainability). Eisen (2002) speaks of a traditional model with a future (*Traditionsmodell mit Zukunft*). Owing to their sound business model, cooperatives have proved to be more resistant in times of financial and economic crises, and therefore more sustainable than other legal forms. Insolvencies and crashes are extremely rare compared to other forms of organization: the wide distribution of risk across the members and the additional commitment of many active cooperative members are key factors in this. Widespread discussions about access to resources, quality of life, and the constitution of society play a part here as well. Examples of such discourses are the solidarity economy or "post-growth society" (Elsen 2013), which point to the requirements of far-reaching eco-social transformation processes and imply fundamentally changed ideas of life, of the relations between civic society, the economy and politics and of social action. The cooperative boom, especially in the social, health, energy, water, and housing sector as well as local/regional supply may be interpreted as a first reaction to this.

These changes have affected some of the legislation. To what extent the 2006 and 2013 amendments to the German Cooperative Act—which resulted in easier founding procedures for new cooperatives—have contributed or will contribute to this, is disputed among experts, and will surely differ from sector to sector (cf. e.g. DZ Bank Research 2011).

A second impulse that boosted the growth of cooperatives at approximately the same time was triggered by the energy transition. In recent years, more than 500 energy cooperatives with some 80,000 members were founded, who in so-called citizens' plants (*Bürgeranlagen*) have so far invested a total of around 800 million € into renewable energy (Keßler and Klemisch 2013). Along with associations and private partnerships (GBR), it was primarily the cooperatives that demonstrated the feasibility of a different business model in this sector, e.g., by taking over electricity grids, creating systems of community self-sufficiency and bio-energy villages.

And thirdly, the United Nations International Year of Cooperatives 2012 and the current decade of cooperatives (2011–2020) have significantly added to the publicity of cooperatives worldwide. The boom reflects both in an increasing number of scholarly articles and media reports as well as in the above-outlined growth developments in various sectors (cf. Table 24.1). It is, however, striking that most of the data available on cooperatives are found in the field of economics. The social sciences have so far largely neglected cooperatives. There are hardly any qualitative studies concerned with cooperatives or their activities, specifically the solidarity-oriented and participative structures of this form of organization. Publications by Zimmer (2009) and Münkner and Ringle (2010), analyzing cooperatives as actors of civic society, are the only exceptions.

Community Climate Protection as an Example of Socio-Ecological Transformation

The special qualities of cooperatives as described above, in particular their economic and social sustainability, also prompt us to consider their possible ecological sustainability: Empowerment to self-help and problem solving based on self-responsibility and shared responsibility can trigger considerable bursts of motivation, specifically with regard to climate protection. This is significant in view of the climate crisis we are facing in addition to the economic and financial crisis (Bals et al. 2008). It is obvious that global climate change is progressing much more rapidly than assumed until a few years ago. The need for action is therefore all the more urgent, not only at the political level. We need to identify additional potential at all levels. This chapter claims that an additional potential for climate protection activities can be found precisely in cooperatives.

In Germany, community climate protection activities have soared in recent years. There are hardly any communities or towns that have not committed themselves to this issue. However, we are still observing a strong east–west and north–south divide, with the degree of commitment being much higher in the south and in the

west. While in the 1990s community climate policies concentrated exclusively on climate protection,[4] attention in the last decade was increasingly also paid to adaptation[5]—after the effects of climate change had become evident in Germany as well. The main effects of climate change in cities include catastrophes resulting from extreme weather conditions, especially floods as a result of heavy rain, but also heat waves and droughts. Adaptation activities include avoiding building development in areas that are susceptible to floods and designing the sewage systems accordingly. Community climate policy is usually categorized according to fields of action on the one hand, and the respective role the town plays on the other (consumer and role model, planning body and regulating body, supplier and disposer, consultant and promoter) and/or according to the types of governance (self-governing, governing by authority, governing by provision, governing through enabling).

Although climate protection is still voluntary, most communities have presented more or less comprehensive climate protection concepts. Most of them are CO_2 reduction schemes,[6] and some include measures for the reduction of hydrofluorocarbons (HFCs), yet comparatively little attention is paid to the other gases of the Kyoto basket.[7] Hence, the key activities are in the field of energy: saving energy, expanding renewables, reducing motorized traffic, and shifting towards environmentally friendly vehicles (Alber 2013).

However, for socio-ecological transformation to occur, we need to turn our attention above all to the social dimensions. The social dimensions, comprising factors such as income, gender roles, age and health have only recently been considered, yet they determine a person's options and opportunities for escaping the effects of climate change, dealing with these effects spontaneously or preparing to adapt to them in the medium and long run. This, in turn, depends on the extent to which people are given the possibility of participating in shaping climate policies, the strategies and actions they prefer and accept, their own potential (real or perceived), and the extent to which they are affected by climate policies.

So what will a process of socio-ecological transformation be like in reality? And what part could cooperatives play in this? Theories of socio-ecological transformation in this context point to three features:

> Firstly, socio-ecological transformation will not occur in the form of disruption, but as a gradual process, similar to major cycles of capitalist evolution. At the same time it will not be the result of policies or administrative measures, nor will it be implemented according to a certain model. On the contrary, the process implies extensive searching, inventing, and experimenting at grass roots level. This, in turn, requires pioneering actors and their networks in the broadest sense (economic, political, social entrepreneurs). Secondly, socio-

[4] Climate protection = mitigation = reduction of greenhouse gas emissions as well as preservation and expansion of CO_2 sinks.

[5] Adaptation = adaptation to expected climate changes.

[6] CO_2 is one of the most important greenhouse gases, along with methane which is emitted primarily from waste management activities.

[7] The greenhouse gases specified in the Kyoto Protocol are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF_6).

> ecological transformation will only succeed if capitalist (accumulation) dynamics, state regulation and civil society initiative, support and control intermesh, and if novel democratic standards of participation and solidarity are applied. The third conviction is that the energy sector can adopt a leading role in this transformation process. However, this also requires a new capital logic that decouples growth and natural consumption and guarantees multi-dimensional sustainability of (re)production. While it is true that sectoral and local/regional potentials and innovative economic development projects are an essential aspect, they will remain marginal(ized) without new, nationally guaranteed regulation methods and social embeddedness. (Noelting et. al. 2011, p. 235)

Cooperatives as Local Pioneering Actors

Cooperatives indeed have the potential to be pioneering actors in a socio-ecological transformation process. Local embeddedness is one of their main advantages in this context: "…as medium-sized businesses, they traditionally have strong local roots" (Greve 2000, p. 7). Greve attributes this partly to the fact that the basic principle of "business activities controlled by the members" (including active involvement in the cooperative, exercising voting rights) makes it likely for the "circle of members and with them the geographic expanse of a cooperative to be manageable in size." The aspect of member promotion, too, used to be (more so earlier than now) implementable primarily via short routes in that the members would meet, exchange ideas, and find solutions together. This comparatively traditional form of organization is no longer restricted to such an extent thanks to modern communication technologies (telephone, internet, etc.). Greve identifies another reason in the fact that "cooperatives…frequently deal with tasks…that benefit from local embeddedness." He assumes that the goals and interests of people living in a confined space resemble each other and that cooperatives can draw competitive advantages from their detailed knowledge of the situation at hand (customer needs, problems, etc.) (Greve 2000. p. 7 f.; cf. Birkhölzer 2000, p. 11).[8]

On the one hand, this is what allows the individual to identify with the respective cooperative and its goals in the first place, and on the other, local roots enable members to develop local or regional solutions that make sense in the medium and long run as well. The variety of new, small cooperatives that have developed reflects a great interest in experimenting and implementing those ideas. In rural areas with a weak infrastructure, for example, small consumer's cooperatives in the form of food stores were able to revive villages or create local value chains through producer/consumer cooperatives. Here farmers got together with consumers, for example, or—as was more often the case in cities—multi-stakeholder cooperatives, where corporate bodies and natural persons deal with certain tasks together.

[8] The latter can, however, turn out to be problematic in times of globalization, according to Greve: "Because of their regional action radius, cooperative banks do not have the same possibilities of making profits abroad as do internationally active major banks. Big banks ensure that their profits are generated/accrue in affiliated companies that are based in countries with low business taxation." (Greve 2000, p. 8).

Cooperatives as Democratic and Participatory Businesses

The participatory rights of cooperative members differ fundamentally from the influential power held by the shareholders of other business forms. The democratic principle underlying cooperatives provides that every member shall have a vote in the annual assembly, irrespective of the amount they invested (Beuthien et al. 1997). This principle, which sets cooperatives apart from corporations, is derived from the fact that cooperatives are first and foremost associations of individuals. Furthermore, the principle not only defines that decisions are taken democratically, i.e., transparently and based on equal rights, but that the management performed by the board of directors and the supervisory functions of the supervisory board are legitimized by the members as well—similar to the principle of all power emanating from the people in democratic states.

Therefore and in principle, these office-holders need to be members of the cooperative, too.[9] Accordingly, at the General Assembly, members decide about general management matters, prepare the annual statement and decide on how to use the profits. The participatory rights granted in cooperatives are appreciated by most members, despite these rights almost always being restricted to participation in the General Assembly or election of representatives for the latter. In fact, often only a minority of the members exercise their democratic rights. Paradoxically, members approve of the principle of participation and regard it as the cooperative's great advantage, but then fail to participate. Lack of time is what prevents members from participating in most cases (von Blanckenburg 2013).

So in reality, will-formation and decision making, the two core elements of participation, are frequently concentrated in the board of directors. Here, too, it is the technical expertise and the time available to each individual member of the board that is decisive. So far, issues such as climate protection and the implementation of climate protection measures have been introduced to the cooperatives by the boards (cf. von Blanckenburg 2013). This is somewhat different with cooperatives that are committed explicitly to climate protection (because it is defined in the rules or in the guiding principles). In that case a large number of members are assumed to have dealt with the issue of climate protection and discuss it comparatively often.

Many cooperatives involve their members in opinion making to an extent that goes beyond the mandatory General Assembly of larger cooperatives, e.g., by setting up working groups on particular topics or offering workshops, or members forming such working groups themselves. Such groups and workshops pool a great deal of expertise, hence saving the board of directors and the supervisory board from doing the preparatory work for decision making and introducing new ideas, such as climate protection. These ideas and concepts find their way into the cooperative via the board of directors.

[9] Members control the management of the board by appointing a supervisory board (§ 36 ff. GenG), occupy bodies from within their own rows (§ 9 II GenG) and have the highest decision-making body with the General Assembly (§ 48 I GenG).

As in other organizations, too, there is also an informal level of exerting influence in cooperatives. Since the power is often concentrated in the board of directors—especially in larger cooperatives—proximity to the board of directors is an important prerequisite for exerting influence. Influence is usually exerted by particularly committed members or groups of committed members. Frequently founding members are among this particularly active and influential group. On the other hand, boards seek consultants within, but increasingly also outside of the cooperative—and hence outside of the participative structures of cooperatives. This is why the power of working groups is often regarded as being ineffective (cf. von Blanckenburg 2013).

Overall, however, the prospects for integrating ecological, economic, and social dimensions in climate change—as demanded by the "three pillars of sustainable development"—are excellent in cooperatives that commit themselves to climate protection. This is remarkable since sustainability policies have expanded the possibilities of participation mainly in the field of civil society activities, and the sustainability discourse made it a basic prerequisite for the implementation of sustainability goals—while the lack of economic aspects are usually criticized in this.

Cooperatives as Organizations Based on the Notion of Solidarity

The literature on cooperatives still mentions solidarity as one of their central values—for one thing because the principle of solidarity is regarded as a stabilizing element within the cooperative (Vogt 2011, p. 30 f.), but also because—at least in the early years of the cooperative movement—solidarity among members implied a considerable potential to make up for certain deficits (Bonus 1994, p. 45/46; cf. Vogt 2011, p. 22). In this, the focus is on self-help among members, so solidarity in cooperatives is primarily based on the members' interests.

However, there are only few studies that examine the notion, goals, and meaning of the term solidarity in the cooperative context. This may be due to the general difficulty of capturing the subject matter of solidarity in the form of a concept. In the 1990s, a number of studies were carried out which identified trust as a key prerequisite for cooperative solidarity: Gherardi and Masiero (1990, p. 554) describe solidarity in cooperatives as a relational pattern, as a form of collective action or network activity that builds on trust and can therefore also be understood as a competitive factor that makes cooperatives stand out from the private economy (ibid).

In this sense, solidarity-based climate protection activities can be promoted through the organizational form of cooperatives, especially if the cooperative as a whole is committed to climate protection, as in the field of green building, for example. And to take it further, yet, the cooperative framework can also be an option for providing people with low income access to a higher ecological, i.e., climate-protecting, standard of living. Conversely, it has also been suggested that "this community-forming feature [of cooperative solidarity] … [could be] promoted …

by climate protection measures." At the same time we proceed on the assumption that joint, solidarity-based actions produce larger effects in the field of climate protection, both in smaller, but especially in, and larger cooperatives, since more people generally achieve more than individuals, and because many people will probably find it easier to tackle the issue of climate protection jointly (Schröder 2013).

Strategic Embedding of Cooperatives

For a greater commitment to climate protection beyond the respective sectors' own potential, cooperatives also need to network with actors from the world of politics, the economy, and the civil society. In this context, the influence of community politics on cooperatives must not be underestimated, all the more so since cooperatives also depend on community politics precisely because of their community orientation. While many larger housing cooperatives are already working closely with community governments (this is more often the case in the eastern federal states of Germany), the potential for strategically embedding other cooperatives in community climate protection and community development programs appears not to be fully tapped yet; there is scope for improvement with regard to consulting, financing, qualification, networking and support (cf. BMVBS 2010, p. 67 f.).

So far the open-mindedness of local government units towards cooperatives has been rather limited (cf. Alber 2013). Personal contacts with members of these government units or excellent public relations are indispensible. Indeed, ministries and administrative units at the national and local level have (re)discovered by now the concept of cooperatives and have prepared various studies, especially for the housing and energy sectors. These, so far, do not tie in systematically with new fields of research (e.g., sustainability research or socio-ecological research). The federal and Laender promotion program "Urban restructuring in the new federal states" (*Stadtumbau Ost*) is an exception. It strategically embeds housing cooperatives in urban development concepts (ibid). Also, cooperatives are currently receiving more publicity as a result of broader discussions about de-privatizing power or water utilities.

The trade unions, too, are not really taking notice of the cooperative movement at present: While the early phase of the labor movement was influenced by the trio of party, trade union, and cooperative, Vogt (2011) points to the fact that trade unions in Germany are now hardly offering any support for cooperative forms of organization. Vogt believes that more cooperation between trade unions and cooperatives would create a great opportunity for advancing a different, i.e., more democratic, form of doing business in times of financial and economic crises.

Cooperatives as Key Actors in Socio-Ecological Transformation

The social aspects of climate protection were neglected for a long time. They have been addressed only recently, especially in debates about the socio-ecological transformation. Not only have poorer sections of the population been shown to be affected by climate change more often, it is also obvious that social aspects and business activities in the sense of day-to-day routines are highly relevant in climate issues, particularly at the community level. Hence, individuals and their way of doing business or producing goods should be taken into account when formulating a climate policy. Cooperatives play an important part in this, since they represent collective key actors in socio-ecological transformation and sustainable development processes (Jäger-Erben and Walk 2013).

Cooperatives view business activities not only in the light of economic growth, but attach importance to alternative indicators: The socio-ecological perspective includes considerations concerning the consumption rate of resources and common ecological property and emissions (including rebound effects) in the overall profitability assessment.

Results of interdisciplinary and socio-ecological research indicate that cooperatives are capable of complementing and supporting the climate activities of municipalities in various ways. The specific participatory structures in particular open up possibilities for climate-protection activities that stand out from those of other business forms: Provided the members agree, cooperatives could, in fact, invest in climate protection, even if this lowered the company's profits. The cooperative could, for example, emphasize the benefit this has for the cooperative business itself (climate protection as a competitive strategy, potential savings, etc.). They could also use the cooperative's values as arguments, stating that solidarity is not only a cooperative principle, but also an ethical guideline for action that goes beyond the cooperative framework and in this function provides impulses for CO_2 reduction. The orientation of cooperatives that links up with the values of civil society (von Blanckenburg 2012) develops its effects thanks to the participatory structures. Correspondingly, if the board of directors were interested, climate protection could be collectively embedded in cooperatives to an extent that is not imaginable in other business forms.

Cooperatives with a board of directors not interested in climate protection, but focusing mainly on profitability and restricting participation to the statutory minimum of the annual General Assembly make it hard for members to raise the issue of climate protection. Yet unlike in the other business forms, where the "customer" has no possibility of influencing the business policy, cooperative members can try to raise issues via the supervisory board or have it placed on the General Assembly agenda themselves. This requires practical suggestions, a convincing manner, and possibly even economic expertise, which not every cooperative member has. Despite the fact that conditions may not be easy in reality, we would still like to emphasize that every cooperative member has the opportunity to raise issues. Within

the framework of the cooperative's participatory organization, it is possible to discuss climate protection, agree on activities, and implement measures in a way that clearly go beyond that which is possible in other business forms.

This circumstance—along with others mentioned in this article—makes cooperatives attractive as actors in a socio-ecological transformation. And this applies not only to the entire management policy, but also to the attitude towards climate protection. Compared to other countries such as, for example, Italy and Japan, the German cooperative sector was quite reluctant to emphasize and implement the values and principles specific to the international cooperative movement (self-help, collective responsibility, democracy, solidarity as well as voluntary, self-determination and equal membership)—especially during the 1980s and 1990s. But this seems to be changing in the context of socio-ecological transformation as many new cooperatives promote creative and alternative ways to combine economic, social, and environmental aspects and might thus inspire civil society actors in other countries.

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