Social Innovations on the Way to Sustainable Development

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Abstract:

This study connects two ambiguous concepts: sustainable development and social innovation, and undertakes a step to substantiate these concepts on an empirical basis. The fundamental thesis of this study begins with the assertion that the potential of social innovations to modify our society into a more sustainable one has not been sufficiently recognized thus far, despite many punctual activities and the assumed importance of the phrase „social innovation." In order to produce empirical-based knowledge on social innovations in the field of sustainability, 230 initiatives and projects located in Austria, Germany and Switzerland were investigated, in which 122 representatives of these projects were assisted by means of a written questionnaire in 1998. In addition, 14 selected projects were studied in detail by conducting personal interviews and content analysis of written resources. The results of this empirical study can be summarized as follows: (a) the activities in the sense of a sustainable development, which set forth on the problem-solving capacity of social innovations, are characterised by a large topical and conceptual variety; (b) the global vision of sustainable development is capable of stimulating appropriate activities on a local level; (c) the development and the success of the analysed projects are dependent, to a large extent, on the presence of a central person or an efficiently operating core-group; (d) typically, several combined social innovations are applied within single projects; (e) the transfer of successful examples is possible as a matter of principle, however, it requires substantial effort to adapt models in the new social setting.

1. Introduction

More than any other political concept within the last years, the concept of sustainable development seems to find almost universal acceptance in society. To implement this concept the focus – at least in Austria – still remains on developing new technologies or implementing alternative an alternative tax model (SUSTAIN 1994). But the concept of sustainable development implies a change in society in a very specific way (Jahn/Stieß 1997). Therefore the role of social innovations has to be taken into account as well. In contrast to technical innovations, social innovations are new forms of organizations or co-operations. An empirical study for the Austrian ministry of science dealt with the potential of such social innovations for problem solving. This study focused on three main questions: 1) does the concept of sustainable development stimulate the development of social innovations on the local level and how important is this role? 2) What factors are elementary for a successful project? 3) how important are organizational changes within the projects?

A hypothesis on the problem-solving potential of social innovations was the starting point of this study: the potential of social innovations in influencing sustainable development is not yet well enough understood and used, although many punctual initiatives and activities are present and well known. Besides, not many scientific studies have been completed within the past years in German speaking countries. Within the last years social innovations were seen as a solution for many social problems, whereas a clear definition was still missing.

2. Theoretical notes to the concept of social innovations

Already in 1911 the Austrian economist Joseph Schumpeter showed in his "Theory of economic development" that not only technical renewals, but also changes in organizations are economic innovations. The distinct feature of an innovation is a new combination of existing elements, says Schumpeter. He distinguishes between five different types of innovations: fabrication of new products, implementation of new production methods, the opening of new markets, new sources of supply and the development of new organizational forms (Schumpeter 1952). The so-called diffusion theory, which is a theoretical concept for the analysis of diffusion processes, also gives a broad definition of innovations. For example Rogers (1983) defines an innovation as something new for potential adopters, such as individuals, groups or organizations. These innovations might

be ideas, practices or objects that are new to the specific target group. In this context it is not relevant whether this innovation is new from an objective point of view. Only the subjective perception is important. In this definition, too, the concept of innovation is not restricted to products or technology. It includes new forms of behaviour and organizational change.

There is a difference between inventions and innovations. In the area of innovation-research a three-step model is used to describe the process of development (Schumpeter 1952; Dosi 1991). Invention, innovation and diffusion are being distinguished. Invention describes the idea for an improved technology or a method that could be patented. Innovation describes the first successful use of an invention. This linear, rather simple model has been criticised repeatedly in the past years (e.g. Bijker et al. 1987). Nevertheless it is quite useful for the basic distinction of these phases and provides a clearer picture. Between the development of an idea for a new solution (e.g. a patent), its first use (e.g. a pilot project) and the massive use of this idea, not only a longer period of time might go by, but also can these three phases vary substantially. Social innovations, our focus, can be found in the middle of these three phases: They are much more than an idea, but still far away from massive acceptance.

How can these social innovations be specified? Zapf (1989) describes them as new ways to reach goals, especially new forms of organizations, regulation methods or lifestyles. They change the direction of social development and help to solve problems in a better way than previous methods could. Therefore, they are worth to be imitated and institutionalised. In this definition three aspects are being expressed, which are important for further discussion: 1) the aspect of novelty, 2) the focus lies in the change of behaviour, 3) proof of acceptance while being implemented in practice, furthermore a specific superiority as compared with conventional methods which makes imitation worthwile.

Zapf shows a close relationship between technical and social innovations. Social innovations can be seen as preconditions, circumstances or continuations in relationship to a technical innovation. Examples based on empirical studies on social innovations can be found where – driven by social change – new needs and tasks emerge.

Considering the thought that most tasks in society can be accomplished by using technological or social solutions, the question of conditions favoring social rather than technological solutions arises. Social solutions usually involve different forms of co-operation. Sociologists with a focus

on technological studies, such as Schmutzer (1994), state that in highly individualised societies, technical solutions are preferred in general. By replacing a social co-operation the technical solution usually minimizes the organizational effort for the involved individuals. Human beings in modern societies see themselves as individuals and therefore want to minimize dependencies on other humans. This might account for the tendency to seek technical solutions to problems rather than social innovations.

Regarding this preference for technical solutions, a social innovation might be seen as something unusual. But which conditions support social solutions, usually as organizational changes? Do they get their chance only when technical solutions either fail or would require a very high effort? Or are these solutions lead by a societal task?

Based on research on car sharing in Berlin, Gillwald (1997) stated three theses for the development of this ecologically desirable social innovations. Firstly, she states that such initiatives are usually developed mainly for pragmatic reasons. In the case of car sharing, the evaluation of costs and benefits are the main reason for success. Secondly, such initiatives have to be accompanied by other measures. In the case of car sharing, this would be a highly developed public transport system and a high number of well-dispersed car-sharing stations. The use of shared vehicles could also be strengthened by legalistic measures. Thirdly, social innovations are, in an early phase, highly dependent on the desire within the target group to participate. Since one cannot rely on a societal confidence towards the concept of sustainable development, Gillwald shows the need for protected niches for the development of such initiatives.

Social innovations contributing to sustainable development are presumably not based on day-to-day decisions. It has to be taken into consideration that they are mainly motivated by the concept of sustainable development itself. So they might be seen as reactions in society to rising awareness of technological risks and of processes identified as globalization. Albrow (1997) states that the latter precondition is characterized by values that determine daily life of many social groups and refer to by factual or imagined conditions of the world and its inhabitants. Furthermore, images, information, and goods from all over the world are accessible at any time for a steadily growing group of persons world-wide. Correspondingly, global events and forces increasingly influence the local scale of life.

Therefore, motivation to act is not only derived from problems and dangers personally

experienced, but also from global conditions, such as global warming, that by way of highly complex interactions, might endanger future generations, such as global warming. Possibly, the search for social innovative solutions actually derives from scientific assumptions dealing with global risks. After all, wide recognition of such dangers formed the basis of a development model formulated in order to avoid the imminent global catastrophes. This concept is well known as „sustainable development."

3. Empirical basis of this study

The starting point and empirical base of the project was an intensive investigation in Austria, Germany and Switzerland. We were looking for initiatives whose work focuses on three main aspects: they should at least partially follow the concept of sustainable development; they should be based on changed patterns of behaviour and organizational structures; and, thirdly should introduce something new to their region. Although we were not too restrictive with these criteria, the search for such initiatives was not so easy and quit exciting. Some initiatives were well known, such as car sharing, local agenda 21 processes or local trading organizations, but the „real" empirical basis is still not known. The research was mainly done by evaluating literature on project descriptions, such as studies, documentation, articles in newspapers and periodicals, by personal contacts, and the Internet. A total number of 230 projects were collected. 122 representatives of these projects were interviewed by means of a mailed questionnaire in 1998. In addition, 14 selected projects were also studied in detail by personal interviews and content analysis of written resources.

4. Some empirical findings

The projects in the sample show a broad variety of tasks and goals: In order of frequency, we mainly found new forms of services, local or regional development projects, consulting organizations, participation models, information campaigns, action-research projects, alternative residential initiatives, and combinations of those types. Although they differed widely, the word „project" was commonly used to describe these activities. Organizations that are responsible for those projects are mainly associations, municipalities or regional authorities. Therefore most of these examples can be described as non-profit projects. Only 13 % are working on a profit base.

Two thirds of the projects are designed for the long-run. Yet, concerning the financial situation and the number of persons working in these projects vast differences were found. Projects with ten or more employees were found as well as projects working exclusively on a voluntary basis. All projects are working more or less towards the goal of implementing sustainable development. The main concept of the projects focused on new forms of organization, behaviour and services. Most projects were financially supported to a large extent by public administrations. Apart from these points, the projects had hardly anything in common.

The concept of sustainable development stimulates local activities

In spite of different definitions of sustainable development exist, especially in German speaking countries, the concept has great influence in practice. In more than 3/4 of those projects started after 1995 the individual work is seen as part of realizing the concept of sustainable development. The idea of implementing sustainable development also was a core reason for actually starting such a project. The motive of minimizing environmental risks has high approval, therefore one can assume that not only the concept of implementing sustainable development, but also the perception of global risks in general is important.

Sustainablility is strongly connected with environmental thoughts

Ideas about realizing a sustainable economy and way of living are very important, not only during the pioneer phase. Nearly 4/5 of all projects not only tries to implement the concept, but also discusses these ideas intensely. Projects, such as local agenda 21 processes, even focus on this discussion. Nevertheless, the debate on the definition for this concept varies broadly, since opinions differ. Of course, this is a consequence of the concept's vague definition itself. Many definitions are based on the relatively simple formula presented in the Brundtland report. But for the concrete implementation, „taking care of future generations" is not sufficient.

Our research shows that the ecological part of the concept of sustainable development does not only dominate the presented definitions, but also dominates daily work and the focus of most projects. Projects that tried to realize all three parts of the concept (ecological, economic, and social implications) and integrate them in one project are a minority in our sample. Only every tenth project tried to realize this integrated approach. Generally speaking, ecological goals were

more important than economic or social goals. By implementing these ecological goals, a combination of sufficiency, efficiency and consistency approaches was used.

Core groups and central persons as driving forces

Social innovations at times move towards new frontiers, sometimes across rather insecure ground. Common ways of acting and thinking are given up for a new solution. To succeed in these uncertain situations, the existence of a core group or central person seems to be very helpful. This person is not necessarily the „inventor" of the project – most of the projects we studied implemented ideas already known – but somebody with high social competencies, such as communicative and developing skills. The demands these persons must meet are higher than those of „usual" project co-ordinators. In addition to the project co-ordinator´s work, this central person or core group must act as a constant source of new ideas and information, as a communicator between the inner and outer world of the project. He/she/they must manage varying needs and requests. In most cases the level of identification of this/these person/s with the project's goals are extremely high. This often leads to voluntary work, since payment is not the driving force for taking action. On the other hand, quite a few projects would not be able to survive at all without this voluntary work, at least within the pioneer phase. Since it is rather difficult to measure success in a social innovation (at least compared with technical innovations), this central person or core group also has to verbalize the change in behaviour and its success.

Single projects contain several social innovations

A clear distinction must be made between projects and the social innovation itself. Only in rare cases it was possible to determine a whole project as a social innovation (e.g. in participation processes, new services). In most projects very specific tasks, irrespective of their importance, are tackled by developing and implementing, for example, an innovative organizational set-up. On an average, four distinguishable social innovations can be found per project. Due to a change of behaviour, these social innovations are not only adopted by the projects themselves, but also by their environment, for example, by the participants' private households.

Five groups of such combinations of behavioural change are most commonly found in our sample: „new styles of living and change in consumption habits" is the largest of these groups at 27 %,

followed by „networks of persons, local actors and new forms of dialogues", „new services", „new or modified forms of organizations" and „public participation and other social innovations in politics" (see table 1).

Types of social innovations	Examples/Related projects
New lifestyles	• sustainable living as a one-year-test • car-free settlements • eco-villages
Networks	• direct co-operation between First and Third world-projects • regional energy consulting network financed by company-pool • integrated transport solutions
New services	• car-sharing • consumer good sharing • mobility information centre • (energy) contracting • maintenance and repair centre
New or modified organizations	• local exchange trading organizations (LETS) • multi-use of urban space • new NGO's (e.g. climate alliance)
Public participation	• participation models with expert working groups (e.g. in local agenda 21 projects) • participation models for sustainable urban planning • „Leitbild"-assessment

Table 1. Types and examples of sustainable social innovations

Social innovations are important for the success of the projects

Project co-ordinators believe that social innovation is a key factor for their project's success. They actually form the core of activities. Without the development of new forms of social organization or change in behaviour, most projects would not be able to achieve the implementation of the concept of sustainable development. 9 out of 10 projects stated that the social innovation is very or rather important for the project's success.

Solutions that aim at new lifestyles, the development of social networks or the provision of new types of service are exceptionally efficient at reducing the consumption of natural resources, at spreading ecologically safer technologies, at protecting jobs in a local economic framework, and at

strengthening, to some extent, the basis for socially marginalized groups. The investigated projects were to some extent extreme cases, since they put very strong emphasis on the change in behaviour for solving problems. But social innovations can be seen as a global phenomenon. They are important even when no explicit social solution is intended. Within the projects some promising models have been developed that may be of use within different frameworks as well.

Social and technical innovations add to each other

Although our study focused on social innovations, we also found technical innovations in most projects. In almost every second project the diffusion of environmentally sound technology was an important goal. (This corresponds with a focus on ecological goals within the projects.) But for the implementation of the projects themselves technological questions are not all that important. Technologies are used as a means to carry out the project. We could not prove the thesis that social innovations substitute technological solutions. It is more likely that social and technological solutions add to each other. Especially, technologies introduced to a new market are easier to implement with a social field present; in addition to necessary financial means. Projects trying to spread technologies use new forms of services, consultants, and networks of local actors who formerly saw themselves as competitors rather than as partners. But technologies are not only a basis for socially innovative projects, technologies also are invented in the course of projects. In more than a third of the projects the need for technological solutions arose during the project. Examples are new software for data gathering and electronic safe deposit boxes (car-sharing), energy-saving technology (contracting models), or infrastructure measures (company mobility management).

Labour effects of the projects

Although the positive labour effects for the society as a whole are rather small, we want to emphasize the noticeable qualitative aspect. In nearly half of the projects, up to 8 new jobs in addition to 5 part time jobs were created in areas that are socially and politically widely accepted. Taking this into consideration, it is surprising that most projects have severe financial difficulties. Problems concern available funds (about ATS 500.000,-- or EUR 36.370,-- per employee p.a.) as well as the reliability of public funding. If the public administrations are really interested in

sustainable development, they should indeed increase and secure financial assistance to socially innovative solutions.

Transfer of successful projects

Most projects we analysed have invented methods fitting a specific situation and need. They depend on the context in which they were developed and on the presence of an active person or core group. This fact has made it difficult to disseminate successful models. The local social framework greatly influences the development and the success of innovative solutions. In order to achieve the same results within a different framework, the models must be adapted, accordingly. Some examples show that it is not ultimately necessary to have the adjusted concept ready from the outset. By permanent reflection and re-adaptation, it is possible to develop the project step by step. A second quite important aspect, which makes dissemination difficult is the presence of a central person or a core group. The know-how of this person or group is the project's human capital. This central person also decides when to share his or her knowledge with others. While this knowledge on social processes is of highest practical value, it is impossible to estimate its financial value. Thus it cannot be „sold". There is no market for knowledge of social innovations. This delays the dispersal of social innovations and successful models. In addition, the fact is that this knowledge is usually not written down and available to other persons. The well documented projects that describe and reflect their „secrets of success" are a clear minority.

5. Conclusion

We have shown that the concept of sustainable development is able to stimulate activities on a local level that rely on the capacities of socially innovative solutions. Most of the projects we studied were even good-practice-models that should be imitated due to their positive effects. But dissemination is rather difficult as the projects' existence often depends on the commitment and the efficiency of a central person or core group. Besides, the mixture and combination of different social innovations within one project are main factors of success.

For persons involved in the projects the novelty of a taken measure is of minor interest, even if it has great consequences for their daily lives. Only the impact counts. Additionally, the evolvement of innovations in proven concepts took place at some time in the past. Such innovations are hardly

perceived as *new*. „If you think this is something new", an expert in regional development told us after explaining his outstanding project, „I'm afraid I have to disappoint you."

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