

Social dimension of sustainability – An example from China

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#### ABSTRACT 377:

According to all relevant scientific concepts, sustainability is supposed to include the social approach; but the scientists rarely develop further theories concerning the social dimensions. This paper proposes an operational definition of sustainability and shows how the definition can work as an interface between academic disciplines. We consider sustainability as a “*balance-seeking process*”, between natural sciences, social sciences, the humanities and architecture. This paper presents results from the Sino European research project SUCCESS, “Sustainable User Concepts for China Engaging Scientific Scenarios“, that the authors were coordinating. The results are based on photo interview studies which focused on the life quality in rural Chinese villages. Within these case studies, we could see numerous factors that influence the question of sustainable livelihood.

The whole scientific consortium together with the local dwellers developed sustainable future scenarios for seven case study villages. While architects focused on the built environment ensuring the future life quality of a settlement, while the task of the natural scientists was to explore the material flow and its consequences for specific future choices, the social point of view on a balance seeking process takes into account the social topics that represent the life in a village.

The village is not a static entity, but a dynamic one, which undergoes constant changes. Yet it is crucial that the social as well as the architectural integrity of the village be maintained throughout this research process, which means that the dwellers of the village go on having the feeling of belonging to a community with its specific identity. When started at the social level, the question of this balance seeking process between the human system on the one hand, the built environment on the other, has chances to be integrated into the village life. Maintaining integrity whilst adapting to changing societal conditions is an inherent quality in the Chinese villages.

#### **SUCCESS - Sustainable Users Concepts for China Engaging Scientific Scenarios**

The SUCCESS study – developed and carried out seven case- studies of peri-urban and rural settlements in six different provinces in China. This interdisciplinary project combined the disciplines of social sciences with architecture, economy and ecology. With the participation of local residents, the study worked out sustainable future scenarios for the Chinese case study villages. The basic question of the research was: What to maintain and what to change in the selected villages? The five-year-study initiated a process that leads from the proto-sustainable Chinese villages to contemporary sustainable settlement systems - a process which supported an emergent future, respecting human needs combined with the needs of nature. The research studied seven villages in their different architectural and social situations with a case study methodology based on the local situation. By developing the future scenarios, the disciplines analysed the local precondition and the change within the years of the project time.

### **The definition of sustainability**

The following definition of sustainability was a common approach in the SUCCESS project. All researchers in the SUCCESS project had to agree to work with this definition in the final phase of the analysis time; thereby we established a feed back loop and bound our findings back to the basic concept of sustainability as our common working hypothesis. We hereby used this definition as a tool for interdisciplinary work, so that the disciplinary analysis was working out their results in relation to the given terms of “local”, “informed”, “participatory”, “future” or “balance-seeking”. In this way, each discipline could adapt this term or parts of the term to **break** the general idea of sustainability down to the specific structures, theories, notions and connotations from inside the respective discipline.

*“Sustainability is a local, informed, participatory balance-seeking process, operating within a Sustainable Area Budget, exporting no negative imbalances beyond its territory or into the future, thus opening the spaces of opportunity and possibility.”*

- local: it happens at a specific place – the living environment of a settlement within its region, including living patterns and creativity of the tenants*
- informed: it benefits from the tools of the global scientific community and requires an interdisciplinary approach which provides cause and effect feedback as well as systemic loops*
- participatory: it needs informed, empowered, gender sensitive human actors who are the stakeholders in the sustainability negotiation process*
- a balance-seeking process: it models alternative future scenarios, taking into account the classical triad of sustainability: economy, ecology, socio-culture, complemented by the context of built environment*
- Sustainable Area Budget: it operates within people's fair earth share*
- spaces of possibilities: sustainability considers the future as an open space where socio cultural life quality, economic equity, and ecological needs converge towards balance (Dumreicher, Levine, Yanarella 1999)*

The procedure to use a given term in order to analyse the empirical results is inspired by the methodology of social science, where this research process is well established, but never used in an interdisciplinary setting. Working with a common definition is a new method in the realm of interdisciplinary work with little experience so far. Sustainability, as a multidisciplinary research endeavour, is a very young scientific field with need for theoretical work; this paper will be a contribution on the pathway to an operational yet theoretical definition.

Since the first sustainability concepts, the question of sustainability includes the social topic as the third of the three established paradigms: ecology, economy and socio-culture. The aim of the sustainability process was, to combine the economic development and the protection of the environment in a way that supports the quality of life in general and the social life with regard to a common sustainable life quality. The “social” topic contains the cultural possibilities, including questions of employment and raising the question of participation in civil society processes. All those approaches often stand by their own, however, a systematic discussion what should be included in a theoretical approach to social sustainability is still missing.

In the SUCCESS research several general findings emerged from the intense analysis of the seven case study villages. This paper will contribute to the theory of social sustainability, focusing on a few dimensions which we extrapolated from the empirical results of our social

scientist approach. We hereby made a step towards the aim of achieving a definition of sustainability in the context and in the view of social science.

## **Social dimensions of sustainability**

*Sustainability is acting ...*

*- locally: sustainability happens in a specific place – the living environment of a settlement within its region, including living patterns and creativity of the tenants*

In the context of sustainability, the local identity is the starting point for future scenarios: the local potential in its singularity will be the glue that holds together the integrity of the village. The existing social patterns have a general character and are not specific to a certain place; they rather show similar qualities in different villages.

### Emotional co-ownership

The *emotional co ownership* (Dumreicher, Kolb 2003) to ones own village plays a role in all local conditions. In all seven villages, there is a similar devotion to the place, whereas the material form of this sense of ownership differs from place to place. In one village the local element that serves as a focal point for the feeling of emotional co ownership might be a deteriorated temple, in another village, it might be the traditional way of water organisation, in yet another, a common history of funeral and marriage ceremonies.

Any local action needs to relate on the one hand to these existing local social parameters, but it also needs to respect and adapt to the larger context that plays an overwhelming role. The social structure is highly influenced by larger provincial or nation-wide guidelines, policies, rules and worldviews. When Chinese policies make a big difference between rural and urban areas, the action field for a local initiative depends highly on the status assigned to this place by the authorities – if your village is considered to belong to an rural area, you need to conform to the respective rules even if your village is on the way to becoming an suburban satellite.

The local qualities become significant under specific conditions, especially when the past is still alive in the place. This is the case in most Chinese villages where the memory of the dramatic events during the cultural revolution is still working – like temples that were destroyed, families that were humiliated, people that left the settlement.

People have developed social strategies to explain their past, including their life and decisions, in order to come to terms with the past. These strategies still have an impact on changing social situations, concerning the present but even more on the capacity of imagining a future.

### Local social infrastructure

From the view of socio culture, the local infrastructure is an important potential in the selected places. This infrastructure influences the chances, possibilities and life quality in the village: if a good local infrastructure for the social and cultural life exists, the chances for a future development are much higher than in a place with deteriorated local governance. The availability of a school, a kindergarten or a geriatrics house gives the dwellers different possibilities to choose and change their life styles and chances to participate in the social life.

The local infrastructure takes away some of the burden that the Chinese farmers find for organizing their daily survival and creates chances for taking a further away future into consideration, not only the imminent one. If there is a kindergarten, women can go out for work and find a connection to the outside world. If there is a local middle school, more children will be better educated and achieve higher education. This means that the discussion can start at a different level. It is not the struggle for survival that is at stake, but the question whether the village itself can provide a decent working place for the young generation or whether they need to migrate.

#### Local cultural infrastructure

The cultural infrastructure creates the chances for the cultural identity of a local place and its inhabitants. If many dwellers participate in a local dancing group or in the making of zhao zi, the famous dumplings, this activity will make the community actions in the whole village **livelier** and contribute to the sense of place, even for the people who are not actively involved in this endeavour.

Different groups of people need specific cultural actions: a place to meet and chat, a traditional dancing group, where people from the village might even win some prizes in the region, a place for washing clothes that supports also the social exchange for the users, a small shop with some benches where the old villagers can meet, a basket ball place or just some old trees put along the earth road, in the shadow, where the villagers can come together to have their lunch break from the field work. The cultural possibilities will also give the community the specific local identity, which is a necessary condition for or a good relationship with the region. It is also a sign of changing livelihood if the spare time activities beside the working time, are rising – as a part of modern life style. In the villages, there are very modest signs of this new era: the wish for establishing their own Beijing opera group in one of the private houses, the new Dongba writing class for women, a spare place at the edge of the village where farmers start doing contemporaneous gymnastics instead of the traditional Taiji, Badminton meetings or other time consuming activities.

The new free time and leisure activities are very modest so far, and they sometimes lead to some sorts of sports that the observer might not cherish - like young men who start educating their dogs for street fights.

*Sustainability is being ...*

*- informed: sustainability benefits from the tools of the global scientific community and requires an interdisciplinary approach which provides cause and effect feedback as well as systemic loops*

#### Participating in information systems

In the era of globalisation, information also has its place in a remote Chinese village – information guaranties that the village can plug in into the global discussions and value systems. Information is also needed in order for the villagers to make their decisions about rural and urban life conditions.

But in order to be able to digest the information, especially if it is at a high scientific level, the precondition is a set of mind that goes beyond the limits of the house or the village. After a long period of reclusion, this condition seems to be fulfilled in most of the villages - one sign of it is the very open attitude in which the SUCCESS villages welcomed the researchers. This finding is supported by previous work that showed how the life quality in a town depends on a good balance between the near and the far away, between the well known and the unknown (Dumreicher, Kolb 2004).

Getting information is part of communication action, which needs societal skills that start at an early stage of the individual development. The first formal approach to information is delivered and trained in the schools - and we found that every selected village, even the one with less than 100 inhabitants, provides a village school, often run under difficult conditions.

#### Education as precondition for being informed

The primary education in the local schools represents a basic system for achieving the skills that allows communication with the informed part of the world. As in some of our case study villages, the middle and the high school is not in the local place anymore, the pupils have to leave their village for higher level education. For some of the children and their parents, this is a reason not to participate anymore and to give up the quest for knowledge. This rather new phenomenon contains a risk for the dwellers to loose the chance of communicating with the outside world already in a very young age.

Information is not thinkable without education; the high awareness of the village dwellers and their will to contribute to the education of their children is a strong basis for the future life of the communities.

Children's education and schools in the villages are necessary for the future life quality. Missing infrastructure produces individual problems of education and reduces the future working possibilities (see above paragraph infrastructure).

#### Trans regional information

Certainly the villages and their residents lack information concerning trans regional aspects; often they only have enough information to be able to tangle with their day-to-day-life. It is hard to tell how the information about changes in policy that arrives at the village is filtered; yet central policy aspects seem to find their way even to the most remote villages. This is the case for the recent policy since February 2004 that we could see reverberated in SUCCESS discussions with village administrators and policy makers, who all gave us the reference for the new Chinese slogan "one person from every village to university". This policy already shows effects at the local level. Again, the future question is. How will this strategy **affect** the village? Will China find ways of re-conducting the academic knowledge that may emerge in order to further support the village life? Some of the future labs held in the course of SUCCESS gave hints that the dwellers are aware of the double sidedness of this question: on the one hand, they themselves and their children need outside education - on the other, they are aware of the fact that this will cause a serious brain drain from the villages.

Scientific information is necessary in the villages. On the one hand, the lack of expertise is a stop in developing a better life quality, but information is necessary when residents think about a sustainable future. The new knowledge that the SUCCESS study brought to the village had affected the knowledge base in the villages. Existing ideas among the dwellers that were neglected or not taken seriously could be integrated into a world wide concept of a "society of

sustainability". This fact encouraged villagers to carry out their own ideas and use and enlarge their fields of action. (see below paragraph spaces of possibilities).

The contemporaneous civil society is only able to develop in these villages, if the level of available policy information rises.

*Sustainability is being involved...*

*-participatory: sustainability needs informed, empowered, gender sensitive human actors who are the stakeholders in the sustainability negotiation process*

This definition is a targeting approach – it does not describe a status, but a movement. The sustainability negotiation process needs knowledge and also creates knowledge; it needs participation and also enhances participation. This learning by doing approach has several levels of intensity:

#### Individual empowerment

In a participatory approach, the individual learning means that a person can achieve more skills when embedded in a personal empowerment process.

#### Capacity building in the community

When dealt with at the community level, the space of possibilities becomes more powerful and creative: the village organisation as a whole can raise their experience in a participatory approach and thereby experiment with some new ideas about the governance to choose **from** (Marschalek 2008). This participation as a social endeavour makes the link from the individual to the policy level. Not a single person is the partner, but a group of people becomes the actor of their own interests and wishes. Finding ways to organise this societal participation will give a new chance for a village: in the participation process, they develop their own model of a village as a learning organisation. This model gives a feed back loop to the governance level and improves the acceptance of decision making in the village. The participation of different groups of people – like women, young people, and the elderly – is a chance to integrate different positions in the village. In a future sustainable scenario, research should take into account that the common village structure should present life quality for all ages and sexes.

#### Participation on regional and national level

The regional to national level: besides the village level, participation is also needed - as well as information - at the next higher level in the administrative policy. These entities should not only be confronted with the possible results: with a sustainability project, all several levels - up to the nationwide - need to be involved in the negotiation process.

*Sustainability is being involved in ...*

*- a balance-seeking process: sustainability models alternative future scenarios, taking into account the classical triad of sustainability: economy, ecology, socio culture , complemented by the context of built environment*

### Sharing chances and risks

While the task of the natural scientists and systems analysts should be to develop tools for mirroring the material flow consequences of specific future choices, the social point of view on this balance seeking process takes into account the social balances that represent the life in a village.

The village is not a static entity, but a dynamic one that undergoes constant changes. Yet it is crucial that the social integrity of the village be maintained throughout this whole process, which means that the dwellers of the village continue having the feeling of belonging to a community with its specific identity.

### Social equity

Maintaining integrity while adapting to changing societal conditions is an inherent quality in the Chinese villages - this is what made them persist over hundreds and thousands of years. Although China has a tradition of central government, the villages enjoyed a rather high independence in their daily whereabouts. Residents have a tradition of solving upcoming problems in a common way, with common effort. In the best Chinese case, the whole village is the owner of a problem, there is no segregation of different local groups or clans. The fact that this tradition of dealing with the commonly shared questions in a local way shows the quality (or deficiency) of the village governance, which is an important factor for the social quality in the community.

In the period of transition and societal change that China is undergoing today, the moment seems to be well chosen for implementing sustainability processes. The old balance in the villages is fading away, the new balance has not yet arrived, so the farmers and other dwellers are open for new ideas that might contribute to extend their balance-seeking process into the future. Most villages are aware of the importance of the integrity and local identity of their places and looking out for solutions that may help into a continuity of change into the future. Today, the traditional social security and insurance system that was an integral part of the social balance in the village is undergoing big changes; the old models loose their stake, new ones have not yet been established. Finding an equilibrated way of securing health and thereby establishing a continuity of safe life conditions in case of sickness and becoming old is part of the necessary balance seeking process.

### Balancing the income structure

Another imbalance is the upcoming differentiation of income structures and chances for life in general, including the question of staying in the village or migrating- a question that the rural population is confronted with for the first time in history. Until recently, it was nearly impossible for a person from a rural background to move to an urban environment; the Chinese legislation is undergoing important changes in this concern and is even starting to encourage people to leave. Defining a good mix of possible specific life styles is one of the challenges of such a balance seeking process and will define the individual life and its specific good life quality as a part of the whole social entity.

At these different levels, the actual imbalance is a big challenge for the integrative forces in the villages: When started at the social level, the question of a balance seeking process between the human system on the one hand, the natural system on the other, has chances to be integrated into the village life, specially as the concern for nature, landscape and beauty is present in

peoples understanding - but the same phenomenon as in the Western countries can be found even in the Chinese villages: although the awareness of nature and a good usage of the resources has a rather high priority in peoples minds, this awareness is seldom translated into action.

In a Chinese village, there is a growing importance to discuss the question of social justice, as well as the distribution of natural and human resources within the community. The feeling of the dwellers that they are living in a safe environment, where personal life and personal goods are guaranteed, is a basic condition for a social balanced process between human and nature. With the systemic approach that fits well into the Chinese culture, such a process can find a basis.

*Sustainability is ...*

*- exporting no harmful imbalances beyond its territory or into the future*

Sustainability deals with a future that has a quality not yet found in present models. Future is often seen as a continuity of existing patterns, a sort of surrogate future. In the sustainability discourse, future stands for a new quality of thinking and goes beyond the usual planning horizon. In the individual approach, future has at first the element of "extended present", and the concept of sustainable future is placed at a future point far away with remembrance to the actual present. A sustainability process needs to combine a "real future" that is rather far away with the imminent needs of today. For the politicians, too, future has different scales: the most important horizon is the established rhythm of voting. The future that sustainability is voting for represents a different value system of intergenerational equity.

#### Involving future interests

The future perspective serves as a model for future development that sees the dwellers as important stakeholders of this process. The beginning participatory process of SUCCESS with its experience and self empowerment qualities can be a beginning of such a future process. A part from the realm of planning, the approach of a participation process goes against the global tendency of trans-regional and trans-national approaches and bureaucratisation thereby giving space to the actual re-discovery of local spaces.

The sustainable future process, understood as an outcome of the civil society, finds its limits when it stands against the so-called institutional void: nor administration nor the political entities have institutional frameworks that would allow people to deal with participatory processes that go beyond the planning realm (Hajer 1995).

#### Agents of change

For the future aspect of sustainability it is important to involve the young, the children and the youth. The young generation carries the future perspective for the elder generation and motivates them to accept the processes of social change.

One aspect of the future is the modernisation considered by the village people as a typical sign for being connected with the outside world of the village. The presence of urban lifestyle via TV and personal migration experiences as well as the growing possibility of communication with other parts of the world produces the need of modernisation.



In the sustainability future perspective, the need for modernisation can be combined with sustainability icons of modernity, also including the critique of this western styled modernity.

*Sustainability is creating...*

*- spaces of possibilities : sustainability considers the future as an open space where socio cultural life quality, economic equity, and ecological needs converge towards balance*

#### New activities

From the social point of view, spaces of possibilities are chances for new human activities within the society, not just the so called objectively definable different pathways. Imagining spaces of possibilities is in itself a social action that shows the participants in the process what their possibilities are – at first independently of the actual situation and its direct implications, in a second step, the group will see whether the far away future that they imagine for themselves can be bound back to the present.

When discussing and balancing the spaces of possibilities, the social group that is undertaking the hereby described sustainability process defines its own potential and its own field of action and can experiment with their own power of transformation – at first in thought, later also in more practical terms. By establishing a sustainability group of people in the villages who are working with the specific of assuring the integrity of the village in present and into the future task opens an new space of possibilities.

#### **Conclusion**

People are the one important power that can create new local places or new local actions, a statement which takes us back to the first paragraph, thereby starting the next circle in the spiral movement of sustainability.

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