

Ecologically Feasible Communities: What Could They Look Like?

Nina Gottselig, B.Sc., Sara Kennedy, M.P.H.

ABSTRACT

The term “ecovillage” came into common use in the early 1990s and defines a specific form of intentional community. Ecological communities are attempting to implement a new paradigm intended to lead humanity towards a more sustainable future. Communities focused on becoming or remaining ecologically sustainable lie along a spectrum of varying degrees of sustainability. An ecologically feasible village has to deal with a number of challenges throughout all processes of community life. This paper reviews two prototype ecovillage communities in the present context of development and sustainability.

Umwelt und Gesundheit Online, 2011; 4, 95-98.

Ecologically Feasible Communities Defined

The term “ecovillage” came into common use in the early 1990s and defines a specific form of intentional community. According to Kasper (2008), ideally, it is a “human-scale settlement that is intended to be full-featured — providing food, manufacturing, leisure, social opportunities, and commerce — the goal of which is the harmless integration of human activities into the environment in a way that supports healthy human development in physical, emotional, mental, and spiritual ways, and is able to continue into the indefinite future.” This expanded notion of community is accompanied by an ethic, which enlarges the community boundaries to the overall land and especially the interconnectedness of community life and nature. Ecovillages can be situated in urban or rural areas and is comprised of people sharing the environmental and social values of sustainability and low-impact living (Taggart, 2009). They not only recognize the human-ecosystem of interdependence, but also the biological limits to social phenomena. Currently, 374 villages, shown in Figure 1 are officially registered with the “Global Ecovillage Network” (GEN), founded in 1991. It is estimated that many more can be found throughout the world and within every culture. What separates the ecovillage model of sustainable community living from mainstream neighborhoods, towns or cities is an expanded notion and the strong connection to the underlying motivation and guiding principles.

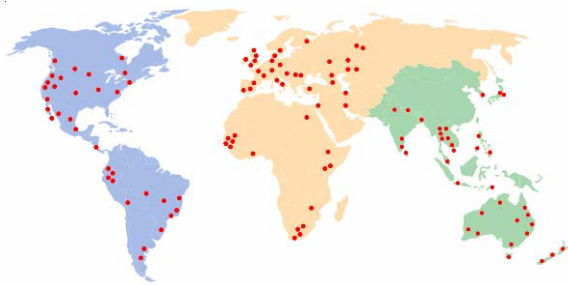
Ecological communities are attempting to implement a new paradigm intended to lead humanity towards a more sustainable future (Kasper, 2008; Happy Earth, 2008). Such communities are committed to reversing the gradual disintegration of supportive social and cultural structures and the upsurge of destructive environmental practices on

our planet. Primarily, they seek to get away from unsustainable living - matters such as waste, pollution and economic competition play a significant role in the everyday function of ecovillages. To reach their goals, the sense of community is an important factor. Robert Gilman, founder of the GEN, describes ecovillages as human-scaled villages that are fully featured and integrate human activity harmlessly into the natural world. These characteristics lead to a support of human development that can be continued into the indefinite future. Specific principles underline these characteristics to ensure the long lifetime of these communities. In general, they promote an entirely new way of thinking and practicing politics, science, management and life by encompassing aspects of ecological design and building, permaculture, green production, alternative energy, community building practices and much more (Taggart 2009:1). The management of an ecovillage should not be based on government-sponsored projects, but rather, rely on grassroots initiatives to serve as research and demonstration sites for the educational benefit of others. Furthermore, the residents and their behaviors and attitudes are the key player to success. They must value and practice community living, not depend on outside sources, and be willing to provide resources themselves. Thus, a strong sense of shared value is necessary. This improved quality of life with minimized depletion can eventually conserve the earth’s resources and ensure a continuous carrying capacity into a sustainable future.

The evaluation of sustainability is a complicated task and comparable measures are hard to find, yet the GEN has developed a tool to estimate a community’s sustainability status: The Community Sustainability Assessment (CSA). It provides indicators along ecological, social and spiritual lines.

The provided scale of 0 to 1000 is subdivided into three sections: excellent progress towards sustainability, a good start towards sustainability and actions are needed to undertake sustainability but it still remains a subjective tool as it is evaluated by the community itself and relies on the inhabitants to make their best judgments about the situation without providing comparisons. But, periodical repetition of the CSA allows an ecovillage to monitor its progress over time in context with their personal goals. Thus, all ecological sustainable communities provide a similar national framework and work together as a global alliance for “action, incentives, regulation and monitoring” (Rounsefell, 2008).

Figure 1. Registered Ecovillages Worldwide



Examples of Ecologically Feasible Communities

Communities focused on becoming or remaining ecologically sustainable lie along a spectrum of varying degrees of sustainability. Whereas some communities have achieved an entirely sustainable, waste-free community structure, others are gradually work toward that goal through individual projects. Such communities exist in rural and urban areas throughout the globe. The tie that links such aspiring ecologically feasible communities is a focus on collaborative community led decision making process as well as a focus on fostering infrastructure that both sustains the health of the community's local environment and promotes the quality of life of community members.

Gaviotas, Colombia

Gaviotas was founded in the late 1960s in the barren and remote plains of eastern Colombia. The community was founded by Paolo Lugari has an experiment to test energy self-sufficiency and agricultural creativity in a harsh, infertile environment. The settlement is located in a relatively barren area of eastern Colombia. The settlement is now home to about 200 people, including peasants, scientists, former street children, and previously nomadic Guahibo Indians. Over 20,000 acres of pine tree have been planted in the area providing the community with revenue from

the sale of tree resin, which is even packaged in a zero-waste facility. Reforestation has altered the local climate leading to an increase of 10% in annual rainfall. Community members are responsible for a number of inventions that provide solar and wind power. In addition to a myriad of energy and agricultural related inventions, the community represents a social innovation. The community has an unorthodox system of local government with no mayor or police chief. Every Gaviotas family has access to free housing, meals and education (Friends of Gaviotas, 2010).

Lufumbu, Tanzania

Lufumba is a small village with a population of 6,180. Most of the villagers live on less than \$1 (US) a day. In the region in which Lufumba is located, nearly half of the population does not have access to clean drinking water. Most members of this community earn a living through small-scale production of maize, beans, bananas and coffee (United Nations, 2008).

In 1992, the village requested but did not receive government funding for a water project. Villagers independently organized, considered community needs and, as a community, identified access to clean water as the most critical need. The independent and participatory manner in which the villagers initiated the water project reflects key tenants of the underlying principles of ecologically feasible communities. With limited external financial and technical assistance, water mains, reservoirs and over 50 drawing points were built. The entire project was completed for less than \$50,000 (US) and costs were shared with the Roman Catholic Church and the United Nations. The location of water pumps within the community was decided with input from community members. The construction of the reservoir and drawing points was completed by villagers in less than 5 months (United Nations, 2008).

Following the addition of the water scheme, incidence of water borne illness dramatically decreased. Sustainable, environmentally friendly materials were used in the creation of the reservoir. The workload of women, who had been responsible for walking long distances to procure water, was reduced substantially. Agriculture was dramatically improved; the production of coffee, a key cash crop, was expanded substantially. The water project led directly to the creation of a locally booming construction industry and improved housing as access to water led to the ability to make bricks. Over 300 brick houses have been built in the village since the completion of the water project. Also as a direct result of this project, biodiversity has increased and villagers are now involved in a reforestation project (United Nations, 2008).

The water scheme is managed by a

democratically elected water committee, which has proved to be transparent and effective. The development of the committee created to oversee the water project has provided a participatory governance system that is responsive to community needs. The nature of both the ecologically sustainable design of the water scheme as well as the organization and motivations of the people in the community of Lufumba provide a prime example of how an ecologically feasible community can develop (United Nations, 2008).

Challenges to Ecologically Feasible Communities

An ecologically feasible village has to deal with a number of challenges throughout all processes of community life. In general, the whole system has to deal with the overall goal to integrate sustainability in all aspects, from thoughts to actions. Ecovillages are intentional communities in which the vision under which they were started should be transported into every procedure. Beyond this, the intention acts as a social cohesion which bonds the inhabitants together. All members have to have a shared notion and value to withstand stressors that may arise. Still, ways have to be found to “systemize and optimize the resources and the challenges provided by the existence of different types of experience” (Rounsefell, 2008). There is no intention to make use of a similar governance system as it can be found in any other country, yet spokespeople are assigned to communicate the internal foci and positions about external relations that were before discussed among all people and are freely shared. The context of collective ownership goes much further than the actual material things present in the villages but also extends to the organism of the communities. Furthermore, the economic decisions in an ecovillage are not solely driven by income interests but there is a much greater emphasis on the fairness and non-exploitation principles which derive from the sustainability notion.

The last big challenge of sustaining an ecological feasible village relates to the overall environment in which the community wants to settle. A harmless integration into the surrounding world is absolutely needed. Building sites and materials have to be chosen very accurately, waste cycles have to be double-checked and energy sources such as solar panels have to be considered. Moreover, the village is challenged to conserve, restore, map and manage all potential impacts (Rounsefell, 2008). The natural world within and around an ecovillage needs an ecocyclic systems approach to reduce waste and sewage and to best reuse these resources. Then, food, wood and other resources on which life is based can be harvested from the landscape.

Umwelt und Gesundheit Online, 2011; 4, 95-98.
<http://www.electronic-health-journal.com/>

There are several different general types of challenges ecovillages face. The whole system challenge relates integrating sustainability in all aspects of community life. The glue challenge refers to having a shared notion behind the project. The governance challenge relates to ways needed to systemize the collective ownership and management of the community organism. The economic challenge focuses on the need to keep fairness and non-exploitation. The built environment and bio system challenge relates to the overarching goal of integrating the community harmlessly into the natural world.

References

- Friends of Gaviatos (2010). The Gaviatos Forest. Retrieved July 25, 2011 from: http://www.friendsofgaviotas.org/Friends_of_Gaviotas/Gaviotas_Forest/Gaviotas_Forest.html.
- Gilman, R. (2008). Happy Earth. Retrieved July 25, 2011 from: http://www.happyearth.info/programs_page2.html.
- Global Ecovillage Network, 2010. What is an Ecovillage? Retrieved July 25, 2011 from: http://gen.ecovillage.org/index.php?option=com_content&view=article&id=92&Itemid=215.
- Kasper, D.V.S., (2008). Redefining Community in the Ecovillage. *Research in Human Ecology*, 5 (1), 12- 24.
- Rounsefell, V. (2008). Ecovillage characteristics and challenges. Retrieved July 25, 2011 from: <http://yourdevelopment.org/public/uploads/file/EVchalCC~PPR2.pdf>.
- Taggart, J., 2009. Inside an ecovillage. Retrieved July 25, 2011 from: http://findarticles.com/p/articles/mi_hb6685/is_5_35/ai_n3916982/?tag=mantle_skin:content.
- United Nations Department of Economic and Social Affairs Division of Sustainable Development (2008). Innovation for sustainable development local case studies from Africa. Retrieved July 25, 2011 from: http://www.un.org/esa/sustdev/publications/africa_casestudies/publication.pdf.

ABOUT THE AUTHORS

Nina Gottselig (ngottsel@smail.uni-koeln.de) is a student in the International Master of Environmental Science program, University of Cologne, Cologne, Germany. Sara Kennedy (sara.kennedy3@gmail.com) was a student in the Master of Public Health program, University of South Florida College of Public Health, at the time this paper was prepared. An earlier version of this paper was presented at the 13th Health Education and Injury Prevention Partnership Course and Field Conference, Cologne, Germany, May 2011. Copyright 2011 by *Umwelt und Gesundheit Online* and the Gesellschaft für Umwelt, Gesundheit und Kommunikation.

