Bauhäusle as a Cohousing Project

M Nasution and B K Napitupulu

1 Master of Infrastructure Planning, University of Stuttgart, Germany

E-mail: bonikasih@gmail.com

Abstract. In recent years, housing prices in many countries constantly increased followed by limited availability of land. How to meet the demand for development with increasing number of population and city growth, particularly rapid development in cities, become one of main issues of housing supply. The effects lead to several problems, one of which is adequate housing with a strong social interaction. To fulfil the demand and improve social well-being in the neighbourhood can be achieved by applying cohousing concept in the neighbourhood. This study aims to analyse whether cohousing can be such a coherent solution in tackling issue of housing problems, furthermore, it is also a way to promote social inclusion. Bauhäusle is located on campus in Vaihingen, Stuttgart. It is designed with ecological construction concept which uses readily available raw materials generally donated by DIY firms, companies and also discarded materials. In disguise, the concept of Bauhäusle also initiated other similar projects for example: Construction of the student dormitory ESA in Kaiserslautern or the mound houses in Stuttgart-Hohenheim. This concept applied according to social relationship which can fulfil the aims of sustainability through an inclusive community. Method used in this research are literature reviews, on-site visitation, interview, and descriptive analysis. The results of this research is to give advantageous and disadvantageous Bauhäusle cohousing by providing stakeholder analysis, action plan, SWOT analysis, and potential period of implementation to upscale the project.

1. Introduction

Sustainability development agenda is now commonly evolved in urban development. This concept concerns to improve inclusiveness, sustainable and resilient future for development. Sustainability elements should be promoted for reducing inequalities, increasing standards of living, maintaining social development and inclusion [8]. However, how to meet the demand for development with increasing number of population and city growth, especially the rapid development in cities, become one of the main issues to implement sustainability. The effects lead to several problems such as adequate housing, basic infrastructures, transportation, and also affect to social relation. To fulfil the demand and improve social well-being in the neighbourhood can be achieved by applying cohousing concept in the neighbourhood. Cohousing is one of the solutions which offer people not only to have an access and share the ownership, but also create a strong bond and build great responsibility within a community [9]. Cohousing was established in the middle 1960s by a Denmark architect and it started to spread to other countries. This concept applied according to social relationship which can fulfil the aims of sustainability through an inclusive community.

Inclusiveness is a way to enhance participation within development processes and goals [5]. These are elements which are taken into account for enhancing inclusion.
Figure 1. Elements of Social Exclusion and its Indicator. Source: DESA, 2009

According to the [9], Bauhäusle can be assumed that it is applied cohousing concept particularly refer to resident-led model. This model include the residents’ involvement in designing, managing, and producing processes of the project, together with forming the community. They may get help from professionals in designing, legal forms, and technical aspects. Bauhäusle was built under the supervision of the great minds Peter Sulzer and Peter Hübner. It is the most beautiful, untraditional and at the same time the cheapest dormitory in the state of Baden-Württemberg. The construction of Bauhäusle began in summer 1981-1983. The Bauhäusle is located on campus in Vaihingen, Stuttgart. It is designed with ecological construction concept which uses readily available raw materials generally donated by DIY firms, companies and also discarded materials. In disguise, the concept of Bauhäusle also initiated other similar projects for example: Construction of the student dormitory ESA in Kaiserslautern or the mound houses in Stuttgart-Hohenheim. As the research purpose, this paper aims to analyse whether cohousing can be such a coherent solution in tackling issue of housing problems such as limited land and land price, furthermore, it is also a way to promote social inclusion.

Figure 2. Bauhäusle 2D Plan, Source: Sack, 1983

2. Method
This research was conducted by doing several research methods, such are: 1) Interviewing students who live in the Bauhäusle to get information regarding activities and inclusivity in Bauhäusle, 2) literature reviews which are taken from websites and books. Those two methods then to be processed with qualitative descriptive analysis which included SWOT analysis and stakeholder mapping for discussion and conclusion.
3. Results

3.1. SWOT analysis
Inclusiveness in Bauhäusle in this research can be analysed using SWOT analysis, as a way to represent the internal and external factors to compare the ends results with the objectives.

![Figure 3. SWOT Analysis](image)

Bauhäusle as a cohousing in Stuttgart has prominent strength in energy saving and cost reduction. Since it is a cohousing project, Bauhäusle promote values, sense of belonging, participation, and feeling of ownership as parts of social inclusion. Inclusiveness in Bauhäusle will increase opportunity to formulate interior design of houses by people who live inside it. On the contrary, it will contradicts rules of general architecture. In the end, it is basically depends on the dwellers in making decision of interior design. Rules of general architecture can be discarded if all dwellers feel comfortable in designing their houses as what they want.

3.2. Stakeholder Mapping
In Bauhäusle, there are several stakeholders involved in order to manage and strengthen social relation among them. Table 1 shows the roles of each stakeholders involved in Bauhäusle.

| Stakeholders                  | Roles                                                                 | Note                                                                 |
|-------------------------------|-----------------------------------------------------------------------|----------------------------------------------------------------------|
| Students                      | • Conceptualization, designing, and implementing.                     | • Still needs professional helps to promote such activities.         |
|                               | • Managing daily needs in the cohousing.                             | • The bonds and social relationship among students who live in Bauhäusle are strong. |
|                               | • Forming and strengthening social relationship among the students.  | • The residents have less social relation with people outside Bauhäusle. |
| Hausmeister                   | Managing and maintaining daily needs in the cohousing.               | -                                                                    |
| Management (Studierendenwerk) | • Manager of the land and the building.                               | Lack of consideration to assign multicultural students in the Bauhäusle. |
| University department         | • Allocating the cohousing to the tenants.                            | The university less participates to the Bauhäusle particularly from architecture and civil department to assist the students if they seek of assistance and professional help. |
3.3. Vision and Objectives

After analysing Bauhausl as the experimental project and refer to SWOT analysis, it is a good practice for enhancing social inclusion and idea of cohousing. The vision is to upscale the idea and concepts of sharing and cohousing such as sharing space, facilities, responsibility, and activities to a community led housing. This idea will bring more cohesion by creating social links and networks within a community, empowering people through engagement in the decision making and led residents to be more active, creative and participative regarding their communal space and society. To achieve the vision, the project focuses on strategies with two main objectives and sub-objectives.

1. Enhancing Inclusiveness
   a) Inclusive design and support shared facilities
      • Creating design concept to promote inclusiveness
      • Including user involvement in design process
      • Creating common sport centres and Green space/ open space
      • Collaborating with private company which can supply raw materials for construction and maintenance of the cohousing project.
      • Strengthening the relationship and interaction of the community
   b) Promote cultural diversity
      • Organizing more events and parties to strengthen the residence bond.
      • Promoting cultural activity and intergenerational meetings.
      • Forming a community association within the community
   c) Strengthening participation and community engagement in planning and decision-making process.
      • Demonstrating visible leadership through associations within the community to provide equality, diversity, and inclusion matters.
      •确保 everyone understand their personal responsibilities to promote equality and inclusive practice and remove any unfair barriers.

2. Promote Cohousing
   a) Introducing new stakeholders and strengthening the coordination among stakeholders
      • Involving influential parties
      • Holding stakeholder’s meetings in a regular basis
      • Improving partnership (private public partnership)
   b) Regulating housing policy
      • Introducing Subsidies and incentives

3.4. Action Plan

Based on the objectives and strategies, an action plan is required to measure the respective indicators of each objective. An action plan is necessary to provide an overview of the implementation in order to achieve the vision.
### Table 2. Stakeholder Mapping

| Wider Objective: | Indicators of Progress | Indicator Measurements | Assumptions and Risks |
|------------------|------------------------|------------------------|-----------------------|
| Enhancing sharing concept in Bauhäusle | • Shared facilities and common areas, such as common sport centres and green space/ open space.  
• Increasing social inclusion.  
Indicators of Progress: | • Number of common space survey  
• Interviewing Stakeholders | Residents are interested in sharing concept |
| Specific Project Objective: Improving relationship among stakeholders as influential parties to the project. | | | |
| Output | Indicators of Output | Indicator Measurements | Assumptions and Risks |
| • Community association  
• Activity centre  
• Common facilities | • Members of association  
• Physical structure  
• Shared facilities | | |
| Activities | Input | Assumptions and Risks |
| • Physical structures  
• Community events | • Community agreement  
• Funds for construction  
• Sponsors for conducting community events.  
• Involvement from institution for learning events | | Private companies support the concept of cohousing |

### Conclusion
Bauhäusle set itself as a good example for a co-housing project. Based on the current trend of sharing concepts and the SWOT analysis, it leads to an opportunity to upscale the project on higher grounds like community led housings. SWOT, stakeholder mapping, vision and objectives clearly shown how cohousing project can be possibly applied to cities or region which have problems with limited land and land price. It can also be applied to refugees housing or Studentenwohnheim (students’ dorm). To
upscale the project, it needs strategies which can enhance inclusiveness, for example providing more public facilities and community events, then, most importantly promote the project by involving more stakeholders which has more influencing power, but not forgetting people’s participation in making decision towards the cohousing, since they are the person who will live in it. In a nutshell, projects like community led housing is a key influential factor in the growing economy. However, this research has a limitation regarding growing economy in Bauhäusle. Nevertheless, with rapid urbanization, such projects can overcome scarcity of housing issues and likely improve social inclusion to have a sustainable society.

In such a contribution towards Indonesia, this concept might be applicable to cities which have land issues but in need to provide the inhabitants places to live. Government, local actors, stakeholders, and citizens should participate in arranging policy to ease people in getting houses with affordable price and can still maintain social relationship to each citizens. Government and stakeholders could promote available land which can be offered to create cohousing and targeted specific citizen who are willingly to live in a cohousing. In regards of criminality, to reduce the risk of criminality, citizen who are motivated to be in part of cohousing should provide full information about themselves and give it to developers and other citizens who want to participate in the same cohousing, so they will know each other. This is such a simple solution to reduce criminality internally. They can also provide security guard if it is necessary.

Finally, at the end of this paper, we would like to thank University of Stuttgart and Lembaga Pengelola Dana Pendidikan (Indonesia Endowment Fund) in helping us to realize this paper. We hope this paper could be used as development towards cohousing in Indonesia.

5. References

[1] Bauhäusle. (2018). Am Anfang: Hör Mal Wer Da Hämmert. Retrieved from Bauhäusle: http://www.bauhaeusle.de/about.html
[2] Colantonio, A. (2009). Social Sustainability: A Review and Critique of Traditional Versus Emerging Themes and Assessment Methods. In A. P. M. Horner, Second International Conference on Whole Life Urban Sustainability and its Assessment (pp. 865-885). Loughborough: SUE-MoT.
[3] DESA. (2009). Creating an Inclusive Society: Practical Strategies to Promote Social Integration.
[4] Emas, R. (2015). The Concept of Sustainable Development: Definition and Defining. Florida: Florida International University.
[5] Joyeeta Gupta, C. V. (2016). Sustainable development goals and inclusive development. Int Environ Agreements, 433-448.
[6] Morelli, J. (2011). Environmental Sustainability: A Definition for Environmental Professionals. Journal of Environmental Sustainability, 1-9.
[7] Natasha Palich, A. E. (2013). Social Sustainability: Creating Places and Participatory Processes that Perform Well for People. Environment Design Guide.
[8] Nation, U. (2018, May 31). United Nation. Retrieved from United Nation: https://www.un.org/sustainabledevelopment/development-agenda/
[9] Norhaslina Jumadi, N. A. (2016). An Introspective view of Sustainable Cohousing with The Malaysian Malaysian Housing Concept. MATEC Web of Conferences 66, 1-9.
[10] Sack, M. (1983, June 24). Zeit Online. Retrieved from Zeit Online: https://www.zeit.de/1983/26/mit-dem-kopf-und-mit-den-haenden
[11] Zeit Online. (1992, April 3). Retrieved from Zeit Online: https://www.zeit.de/1992/15/meister-unordentlicher-haeuser