

Developing a Model of Green and Happiness Community for Rural Villages in Northeast Thailand

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Abstract: The purpose of this study was to develop a model of green and happiness community for the rural villages of E-San (northeast Thailand) by using a mixed quantitative and qualitative method. The study was carried out with 20 resource persons and the samples of 72 operators in communities, 365 community leaders selected by multi-stage sampling and 360 heads of families selected by systematic sampling. The research instruments were questionnaires, interviews and focus groups. The data were analyzed by using descriptive statistics, MANOVA, with the use of SPSS for Windows. For the confirmatory factor analysis and the test of hypothesized model's fit with the empirical data, LISREL Program version 8.30 was applied. The research results revealed that, regarding a green and happiness community in rural villages of E-San, there were 6 main factors, 22 sub-factors and 107 indicators. They comprised 14 indicators for factor 1 "good environment and natural resources, 20 indicators for factor 2, good health, 13 indicators for factor 3, strong community economy, 19 indicators for factor 4, appropriate technology, wisdom and learning, 24 indicators for factor 5, good society and culture with morality and 17 indicators for factor 6, strong community administration and management. The models of factors 1-6 for a green and happiness community fitted with the empirical data with $\chi^2 = 59.20, 155.40, 43.06, 113.01, 138.95$ and 68.26 , respectively ($p > 0.05$ in all items). For other indexes, they followed the criteria with reliability value of the indicators 0.55-0.88. Regarding the second order confirmatory factor analysis, all indicators could measure the main factors of a green and happiness community. For the result from evaluating a green and happiness community in general, it was at the high level. In comparing the means of green and happiness communities in upper, middle and lower areas of Kalasin Province, they were found to be different at the 0.05 level of statistical significance. For the appropriate model and guidelines to develop a green and happiness community according to the main factors, there were 21 guidelines and 71 major activities. The results of the study, it is appropriate to bring the model into practice in order to develop green and happiness community in the rural villages.

Key words: Green and happiness, developing a model, the rural villages of E-San, Northeast, Thailand

INTRODUCTION

The current idiom green and happiness corresponds to the Thai idiom yuyen pensuk, which by tradition means peace and happiness. The Thai idiom denotes healthy, clam and gently peaceful community with mutual care and share. The turning point appeared with the coming of industrial development. Pollution, earth warming, cultural degradation and the increasing spread of disease were part of the impact of this imbalanced development of the economy, society and the environment. Destruction of

natural resources, degradation of the environment and rampant social problems followed (Neudoerffer and Ruth, 2008). Unhappy with this model of development, which emphasized economic growth at the negligence of people's happiness and well-being, the world including Thailand has begun to look for a new development model with the emphasis on the creation of people's happiness, based on the principle of Gross National Happiness (McDonald, 2003; Galay, 2001). Subsequently, a diversity of development indicators has been developed. However, the existing models are not yet able to dig deep into the

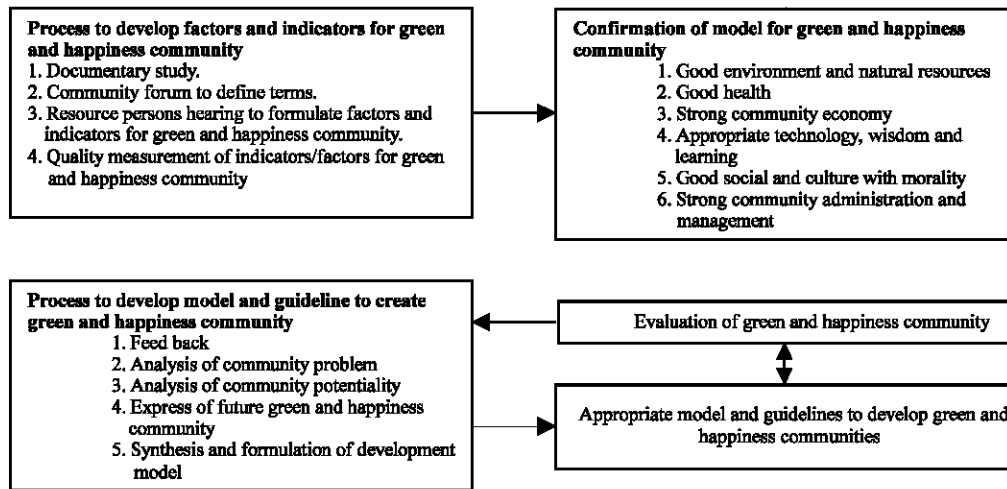


Fig. 1: Conceptual framework

rural Thai community ways of life with a different context of our own. Therefore, we would like to study the factors and indicators of a green and happiness community model appropriate for the Thai rural villages.

The main objective of this research, was to study and develop a model of green and happiness community for rural villages in E-san or Northeast Thailand. The specific objectives included the following:

- To develop the factors and indicators for green and happiness community in E-san villages
- To scrutinize the green and happiness community model, which would have been developed
- To evaluate the green and happiness communities in E-san villages
- To study the model and guidelines appropriate for the development of green and happiness communities

The conceptual framework for this research was formulated on the bases of grounded theory, participatory action research and the model for Thai green and happiness community (Fig. 1).

MATERIALS AND METHODS

The research using mixed quantitative and qualitative methods, this research involved 20 experts as resource persons, 72 community operators, 365 leaders of community organizations chosen by multi-stage sampling and 360 households heads chosen by systematic sampling. Three rural villages in three E-san provinces (Sakon Nakorn, Kalasin and Yasothon) were chosen as the study sites. The research instruments included rating scale questionnaires, interviews and focus group discussion.

The research was executed in 4 stages. In stage 1st, factors and indicators of green and happiness community were developed by a review of related literature and documents, focus group discussion with the resource persons and interviews with the community leaders. In stage 2nd, a confirmatory analysis was conducted in order to check the model with the empirical data collected by interviews with 365 community leaders. For this particular analysis LISREL Program Version 8.30 was used. In stage 3rd, the factors and indicators, which were developed were evaluated by the data collected from 360 households heads. In stage 4th, a synthesis was made to formulate an appropriate model of green and happiness community. This was done in a brain storming session of 30 community leaders chosen from the three communities with the highest mean scores from the evaluation in stage 3rd. The methods used here in stage 4th included Empower Evaluation, Future Search Conference and Strategic Planning. All this took place between December 2007 and May 2008.

Descriptive statistics was used to analyze general data, the quality evaluation of the factors and indicators and the evaluation of green and happiness community. Confirmatory factor analysis was used for the scrutiny of the model of green and happiness community. As for the comparison of the mean scores of green and happiness communities in different parts of Kalasin province, F-test, one-way ANOVA and one-way MANOVA were used.

RESULTS

In developing the factors and indicators of green and happiness community, it was found that there were 6 main factors, 22 sub-factors and 107 indicators. Under good environment and natural resources factor there were 3

sub-factors and 14 indicators. Under good health factor, there were 4 sub-factors and 20 indicators. Under strong community factor, there were 3 sub-factors and 13 indicators. Under appropriate technology, wisdom and learning factor, there were 5 sub-factors and 19 indicators. Under good society and culture with morality factor, there were 4 sub-factors and 24 indicators. And under strong community administration and management, there were 3 sub-factors and 17 indicators.

In the confirmatory factor analysis of the green and happiness community model, it was found that all 6 factors of the model appropriately fitted with the empirical data, with $\chi^2 = 59.20, 155.40, 43.06, 113.01, 138.95$ and 68.26 , respectively ($p > 0.05$ in all cases). The other indexes (GFI, AGFI, RMSEA and CN) were all in accord with the set standards.

In the second order confirmatory factor analysis to check the fitting of the green and happiness community model as a whole with the empirical data, the fitting was found, with $\chi^2 = 2807.14; p = 1.00; GF 1 = 0.91; RMSEA = 0.000; CN = 871.22$. All 107 indicators had statistical significance value at 0.05. All 6 factors weighed in at 0.87-0.91 with the factor of good health enjoyed the highest factor weight (Table 1). The reliability values of the 6 factors ranged between 0.76 and 0.83, which were all high. All factors were positively related at the 0.05 level of statistical significance.

In the evaluation of green and happiness community it was found that the community's well-being level was on the whole rated high ($\bar{x} = 3.77$). All factors were rated high with the good society and culture with morality factor ranking the highest ($\bar{x} = 3.96$), followed by the strong administration and management factor ($\bar{x} = 3.92$), the good health factor ($\bar{x} = 3.82$), the good environment and natural resources factor ($\bar{x} = 3.71$), the appropriate technology, wisdom and learning factor ($\bar{x} = 3.65$) and the strong community economy factor ($\bar{x} = 3.59$), respectively.

In comparing the six factors of green and happiness communities in the upper, central and lower areas of Kalasin province, the difference at the 0.05 level of statistical significance was found. And in comparing the mean scores of the green and happiness communities, it was found that all factors in different Kalasin areas were different at the 0.05 level of statistical significance (Table 2). Therefore, it can be concluded that the factors and the indicators of the model of green and happiness communities, which had been developed, were capable for discriminating measurement.

Model and guidelines for the development of green and happiness communities: It was found that there were 6 main factors and 21 guidelines as follows:

Table 1: The second order confirmatory factor analysis to check the fitting of the green and happiness community model

Factors	Factor weight			R ²
	b	SE	t	
Environment	0.87	0.04	20.63*	0.76
Health	0.91	0.04	22.23*	0.83
Economy	0.88	0.04	20.99*	0.78
Technology	0.90	0.04	21.70*	0.80
Society	0.88	0.04	21.07*	0.78
Management	0.87	0.04	20.64*	0.76

Chi-Square = 2807.14; p = 1.00; GFI = 0.91, AGFI = 0.91, RMSEA = 0.000; CN = 871.22; *p<0.05

Table 2: Outcome of differential analysis of green and happiness by factors in different areas of Kalasin province

Source of variation	SS	df	MS	F	p-value
Environment					
Contrast	50.292	2	25.146	77.335	0.000*
Error	116.082	357	0.325		
Health					
Contrast	52.159	2	26.080	95.616	0.000*
Error	97.373	357	0.273		
Economy					
Contrast	45.515	2	22.757	67.554	0.000*
Error	120.265	357	0.337		
Technology					
Contrast	34.792	2	17.396	50.651	0.000*
Error	122.613	357	0.343		
Society					
Contrast	54.933	2	27.466	108.033	0.000*
Error	90.764	357	0.254		
Management					
Contrast	40.568	2	20.284	64.204	0.000*
Error	112.787	357	0.316		

*p<0.05

- Good environment and natural resources, with 3 guidelines:
 - Adequate development and enhancement of basic ingredients for sufficient living in community
 - Development of good quality of life for people in community
 - Restore the balance of the ecology system
- Good health, with 4 guidelines:
 - Promote strong physical health of people in community
 - Promote good mental health of people in community
 - Create health assurance and welfare
 - Promote the use of local wisdom on health for health care of people in community
- Strong community economy, with 3 guidelines:
 - Create balance in communal basic economy
 - Enhance the self-reliance capacities of people in community
 - Strengthen the production
- Appropriate technology, wisdom and learning, with 4 guidelines:
 - Apply appropriate technology in making a living of people in community

- Make use of local wisdom for making a living and community development
- Organize communal learning process
- Create learning network
- Good society and culture with morality, with 4 guidelines:
 - Create good society with the security of life and properties
 - Maintain the good culture and tradition of the community
 - Practice mutual help and sharing
 - Create good and secure family
- Strong community administration and management, with 3 guidelines:
 - Enhance the potential and community leadership
 - Develop people participation in community
 - Enhance the potential for self-reliance of the community

DISCUSSION

Regarding the development of factors and indicators of green and happiness community, it was found that they were comprehensive and diversified due to the definition and meanings of gross happiness (Johannes, 2003), depending on people's needs, circumstances and perspectives. The content of green and happiness thus, linked to the meanings and characteristics of quality of life, well-being, livable community, strong and self-reliant community. Yet, the meanings of green and happiness differed, depending on personal perception and local conditions. The process of developing factors and indicators of green and happiness communities in rural villages of E-san was participated by diverse people including academics, development workers and local wise men, all with experience in community development. This was in accordance with the theory of people's participation (Neudoerffer and Ruth, 2008). It was especially the case in developing development indicators, in which community people must play a central role as designers and benefactors of development (Western *et al.*, 2005; Martin, 1986).

In the confirmatory factor analysis of green and happiness community by using LISREL Program, it was found that all the six main factors jived with the empirical data. Regarding the 2nd order confirmatory factor analysis of the constructed model of green and happiness community, it was found that on the whole the factors and the indicators jived with the empirical data, proving the appropriateness of the model (Shore and Gail, 2008). As for the order of importance based on the weight of the factors, it was found that good health factor ranked the

highest, followed, respectively by appropriate technology, wisdom and learning factor, strong economy factor, good society and culture with morality factor, good environment and natural resources factor and strong community administration and management factor. This finding showed that rural communities accorded priority importance to good health, corresponding to the finding of the Lanteigne, which concluded that health factor ranked first in the measurement of quality of life. When the interrelation of the six main factors was analyzed, it was found that all factors were positively interrelated at high level. Thus, it can be seen that all factors were important and mutually supportive.

In the evaluation of green and happiness communities in rural villages, it was found on the whole that the rating was high. Considered by factors, all six were rated high, with the good society and culture with morality being the highest factor. All this showed that rural communities in E-san enjoy a high level of living in peace and happiness, especially in the social and cultural aspects, This reality can be seen from the fact that rural E-san communities still maintain and continue their cultural values of sharing and security, constituting important social capital. This corresponds with the finding of Western *et al.* (2005) who stated that social capital makes for a happy society. From the comparative analysis of the state of green and happiness of communities in different areas, it was found that difference existed at the level of statistical significance both on the whole and by factors. The mean scores of green and happiness of the lower area were higher than those of the central and northern areas, respectively, due to geography, environment and other factors. From these findings, it showed that the factors and indicators of the green and happiness community model, which were constructed could be used in discriminating measurement (Tabachnick and Fidell, 1996).

A participatory process involving community leaders was undertaken to synthesize a model and to formulate guidelines for appropriate green and happiness community. Five steps made up the process: Feedback, analysis of community problems, potentiality analysis, designing community's future and synthesis of development guidelines. As a result, a model and guidelines for green and happiness community was obtained, with 6 main factors, 21 development guidelines and 71 main activities. The important lesson was that the learning process of the community leaders comprised 3 principles, i.e. empowerment, education and participation (Kenny, 2006). This process yielded a development model suitable to the problems, potentialities and needs of the community, following the participation theory (Neudoerffer and Ruth, 2008) and similar to the findings of

Dern (2007) who used civil society process to build up community strengths and guidelines for community development.

CONCLUSION

From the study, a model of green and happiness community, with its six main factors, 22 sub-factors and 107 indicators, was developed and it was found that this model is appropriate for the development of green and happiness community at the rural village level.

RECOMMENDATIONS

For action

- Organizations or agencies concerned with development at community level should involve people in the community in the formulation of development indicators of green and happiness community
- In The formulation of the model and guidelines for community development the principles of empowerment, education and participation should be practiced with community leaders in order to achieve the desired goal

For further research: Participatory action research, in which people in community participate throughout the process and in all stages should be undertaken in order to deepen development action and create a model of green and happiness community.

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