

Identification and Development of Innovative Village in Banyumas Regency

ABSTRACT

The concept of innovative village initiated by Central Java Provincial Government contains the essence of utilization of village resources in a new way based on science, technology, and local wisdom for community welfare, village progress and improved living standards by involving all elements of the village. The research aimed to explore the characteristics of villages in Banyumas Regency that potentially served as an innovative village. The research phase began with focus group discussions to assess the potential of villages using rapid assessment and quantitative analysis of the Analytical Hierarchy Process. The discussion resulted in a list of 22 villages that were screened out through rapid assessment into 7 villages. The results of the focused group discussion also resulted in eight dimensions used as an instrument to select innovative village, namely: 1) empowerment of village potentials innovatively, 2) support of institutional system and village infrastructure, 3) capacity and commitment of rural apparatus, 4) technological accessibility by the community, 5) community participation, 6) tourism potential, 7) agricultural / plantation / forestry potential, and 8) livestock / fishery potential. The results of paired comparisons using AHP selected Kalisari village at Cilongok sub-district as an innovative village. Field surveys, observations and in-depth interviews were conducted in Kalisari village with respondents of village communities, village apparatuses, and district government agencies.

Keywords: Model, Village, Innovative, Kalisari, Potency.

INTRODUCTION

Research Background

The failure of top-down economic development along with the challenges arising from the dynamics of globalization leads practitioners and academics to reconsider their development orientation (Pike *et al.*, 2006). As a result, since 1990, a series of innovative, local and bottom-up regional development policies emerged and dominated development practice in various countries. China's success in building its economy to its current strongest and substantial poverty reduction efforts can not be separated from the development efforts of village-scale businesses in 1980's and 1990's (Nam *et al.*, 2010). The study indicated the significant role of local economic development in the rural context in building a nation's competitive advantage.

The government of Banyumas Regency already has a plan to develop innovative village. However, the result of discussion with the partner (Bappeda) indicated that the government of Banyumas Regency has not been able to decide which village among 331 villages in Banyumas Regency that will be selected to be developed. It has been acknowledged that the selection of these villages is not an easy process, as the village will become a pilot village for other villages to develop. This study is useful as a scientific justification in the selection of innovative village, because the selection process used objective database and subjective opinions of experts, especially apparatus associated with local area development.

Most of the rural development researches published in scientific journals are dominated by studies in developed countries. Schaffer (1999) states that rural development researches in the United States emphasize regional variation. Johnson *et al.* (2006) states that rural development researches have tended to place greater emphasis on rural labor supply, commuting, and migration or labor demand issues. This is because the fundamental driving force for economic growth, its decline and change at the local level are the employment and the fundamental unit of spatial economy is the labor market. From the applied perspective, this study plays an important role in supporting the Central Java

Provincial Government program which pioneers the development of innovative village. In this context, this study assists local government in determining which village to be developed and assists in providing an instrument that can be used to select the village to be developed into the next innovative village.

Research Objective

- (1) To identify potential resources and readiness of existing villages in Banyumas Regency to be developed as innovative village through rapid assessment.
- (2) To prepare an instrument for measuring the village readiness to be developed into innovative village.
- (3) To determine the village to be pilot project of innovative village.

ANALYSIS METHOD AND ANALYSIS

Innovative Village

The Research and Development Board of Central Java Province defines innovative village as a village capable of utilizing village resources in new ways. Based on the definition, an innovative village is an implementation of local economic development (PEL) concept which based its growth on endogenous development, village development relying heavily on the potential of its resources. Innovative village development requires active participation of various elements, such as village and regional institutions, academics (universities), business owners, banking, and research and development institution.

Rural Development Researches

Every rural development effort has a philosophical and oriented basis (Clements, 1986). Innovative village is an idea developed by the Research and Development Board of Central Java Provincial Government in developing its local economy. The core idea of rural development is similar to that developed by the United Nation in Africa. Carr (2008) states that Millenium Village Project (MVP) is an effort undertaken by UN Millenium project to develop facilities at village level to meet the Millenium Development Goals (MDGs). This activity is described as an integrated community level development strategy to eradicate rural poverty using bottom-up approach.

MVP requires active community engagement. Rural communities are encouraged to frame the issues of concern to the MDG framework. framing cross-village issues will further encourage the emergence of intervention design to achieve a set of common goals and as a potential method to bring these issues at the national level. Thus, it will influence policy makers at the national level within the framework of millenium development goals (MDGs).

The 1970s period was a milestone of change in development orientation with policy transformation in regional development planning. Under this new direction, general policy has shifted to poverty reduction and employment, and has provided greater priority to rural development (Ngah *et al.*, 2012). In this regard, new strategies are formulated as part of the development of rural areas with an emphasis on integrated rural development. One of the strategies is rural strengthening within the framework of regional development planning by introducing the Traditional Village Development Approach in Malaysia (Ngah *et al.*, 2012).

Village development studies are also related to cultural aspects. Oakes (2006) states that culture has become a significant source of rural development in China. Oakes (2006) also describes the involvement of government at both the provincial and sub-district level in exploiting cultural resources for regional development purposes. The culture itself is not a key to sustainable development, but culture has the potential to produce a community capable of managing its own entity. This is possible because the cultural strategy introduces new meanings into the daily activities of the community. Nam *et al.* (2010) identifies the existence of two interrelated innovations contributing to the industrial development of the village, namely production of high quality products for export markets and adoption of a vertically integrated production system. Rural development efforts need to be well

managed at every stage, from the planning, implementation, to evaluation. Clements (1986) presents a conceptual framework that can be used as an analytical tool in managing rural development.

RESEARCH METHOD

Research Approach

The approach used is mix method using qualitative and quantitative data. This approach is chosen by the researcher with a consideration to produce a development model, so that it requires exploratory study. By using mixed method, the researcher can achieve convergence of collected data and enrich the descriptions to improve the credibility of research findings.

Research Population

The population of this research consists of village community and village apparatus, competent apparatus at official level in Banyumas Regency (Bappeda, Disperindagkop, Dinpertanhutbun, Disnakan), PNPM.

Type and Method of Data Collection

Primary data needed are (1) data of respondent responses from related department through rapid assessment, (2) data of respondent responses from village community, village apparatus, sub-district, related department in the form of responses to questionnaires, in-depth interview transcript, and focus group discussion, and (3) field observation data about potential, area condition and village economy.

Secondary data needed are (1) document of the direction of development policy of Banyumas Regency areas and (2) document of cross-department activities conducted and related to the village development.

Primary data collection was performed through focus group discussion with the Regional Development Planning Board (Bappeda) and other related departments, and field survey. While secondary data collection was performed through literature review in government institutions, namely Bappeda, Disperindagkop, Dinpertanhutbun, and Disnakan.

Method of Data Processing and Presentation

Quantitative data is processed using rapid assessment and analytical hierarchy process. Qualitative data is processed by data reduction, data display and data categorization methods based on comparative analysis method. Processed data is presented in the form of narrative text, that is a systematic, logical and rational description according to the order of importance of the data.

RESULT

Identification of Resource Potential and Villages Readiness

Focus group discussion was conducted by inviting LGUs in the relevant Banyumas Regency government. Rapid assessment was conducted in the villages proposed by FGD participants and they agreed to propose 22 villages to be analyzed further, the villages were:

Table 1. Proposed Villages in Focus Group Discussion

No.	Village	Sub-District
1.	Kalitapen	Purwojati
2.	Kejawar	Banyumas
3.	Kemiri	Sumpiuh
4.	Limpakuwus	Sumbang
5.	Kalisari	Cilongok
6.	Gumelar	Gumelar
7.	Sokawera	Cilongok
8.	Kalisalak	Kebasen
9.	Alasmalang	Kemranjen
10.	Baseh	Kedungbanteng
11.	Beji	Kedungbanteng
12.	Papringan	Banyumas
13.	Sokaraja Kulon	Sokaraja
14.	Kemutug	Baturraden
15.	Karangtengah	Cilongok
16.	Kemawi	Somagede
17.	Kel. Pasir Kidul	West Purwokerto
18.	Karanggintung	Kemranjen
19.	Tambaknegara	Rawalo
20.	Pancasan	Ajibarang
21.	Pekaja	Sokaraja
22.	Gununglurah	Cilongok

Furthermore, from the villages list proposed by FGD participants, it was conducted rapid assessment summarized as follows:

Table 2. Rapid Assessment of Potential Villages

No.	Dimension	Village							
		1	2	3	4	5	6	7	8
1.	Empowerment of village potentials innovatively	3.7	2.3	2.3	4.7	8.3	7.3	6	7.3
2.	Support of institutional system and village infrastructure	5	4	3.3	6	7	6.3	5.7	6.7
3.	Capacity and commitment of village apparatus	5.3	4.7	4.0	5.7	7.7	6.7	5	6.3
4.	Technological accessibility by the community	3.0	3.0	2.7	3.7	7.7	5	4.7	3.3
5.	Community participation	3.3	3.0	2.7	5.3	8	5.7	6	7.3
6.	Tourism potential	2.3	2.3	2.3	6	8	2.3	4.3	7
7.	Agriculture/plantation/forestry potentials	3.7	3.7	3.7	7	7.3	6.3	7.7	7.7
8.	Livestock/fishery potentials	2.0	2.0	2.0	4.7	5	7.7	7	7.3
	Total	3.54	3.13	2.88	5.4	7.4	5.9	5.8	6.6

No.	Dimension	Village							
		9	10	11	12	13	14	15	16
1.	Empowerment of village potentials innovatively	3.7	3.7	8	3.7	8	4.3	4.0	2.7
2.	Support of institutional system and village infrastructure	3.3	3.3	5	3.3	7	4.0	3.7	4.3
3.	Capacity and commitment of village apparatus	4.0	4.0	6.3	4.0	5.7	4.7	4.7	5.3
4.	Technological accessibility by the community	2.3	2.3	6.7	2.3	6.7	2.3	2.7	2.7
5.	Community participation	3.3	3.3	3.3	3.3	7.3	4.0	4.3	3.3
6.	Tourism potential	2.0	7.3	2.3	3.0	6.7	8.0	7.0	4.7
7.	Agriculture/plantation/forestry potentials	7.0	7.0	3.7	5.3	3.3	6.7	6.7	6.0
8.	Livestock/fishery potentials	2.0	1.7	9	1.7	4.3	3.7	3.0	3.0
	Total	3.46	4.08	5.5	3.33	6.1	4.71	4.5	4.0

No.	Dimension	Village					
		17	18	19	20	21	22
1.	Empowerment of village potentials innovatively	2.3	2.0	2.7	3.7	3.0	3.7
2.	Support of institutional system and village infrastructure	4.0	4.3	4.3	4.7	5.0	5.3
3.	Capacity and commitment of village apparatus	4.7	4.3	4.3	5.0	5.7	5.7
4.	Technological accessibility by the community	4.3	4.3	4.3	4.3	5.0	5.3
5.	Community participation	2.7	2.3	2.3	3.7	4.3	5.0
6.	Tourism potential	2.0	1.7	2.7	3.3	2.7	6.0
7.	Agriculture/plantation/forestry potentials	2.3	2.7	2.7	2.3	2.3	7.3
8.	Livestock/fishery potentials	2.3	2.0	2.0	2.7	3.3	2.7
	Total	3.08	2.96	3.17	3.71	3.92	5.13

Preparation of Measurement Instrument of Village Readiness to be Developed into Innovative Village

The process of instrument preparation is a series one-way discussions conducted with Bappeda of Banyumas Regency as a facilitator. The eight components agreed by one-way discussion participants include:

Table 3. Components of Innovative Village Assessment Instrument

No.	Components
1.	Support of institutional system and village infrastructure
2.	Capacity and commitment of village apparatus
3.	Empowerment of village potentials innovatively
4.	Technological accessibility by the community
5.	Community participation
6.	Tourism potential
7.	Agriculture/plantation/forestry potentials
8.	Livestock/fishery potentials

The order of above components does not reflect its importance. Support of institutional system and village infrastructure is an important component according to discussion participants. Institution refers to organization, place and includes behavior in individual and institution in the broad sense. Definition of institution fundamentally refers to a system established to facilitate relationship between

people in an effort to achieve common goals. Institutional system referred to in this instrument includes both formal and non-formal definition, so that its assessment is the result of an assessment of aggregate perceptions of individual respondent to the presence of assessed institution in the village.

Capacity and commitment of the village apparatus are a component determining the success of village development. Rondinelli et al. in Kurniawan (2009) explain about 4 (four) factors affecting the implementation of decentralization. First, the level of political commitment and administrative support. Second, condition of behavior and conducive culture to decentralization. Third, the effective design and organization of decentralization programs. Fourth, adequate financial, human and physical resources. In the context of rural development, the commitment of village leader or village head and Village Consultative Board (BPD) to village development planning, and the ability and willingness of bureaucracy at the village level to support and facilitate development, as well as the capacity of apparatus in coordinating village resources will affect the success rate of development.

Banyumas Regency generally has a variety of natural resources and other potentials among sub-districts/villages. However, the study conducted by Suroso et al. (2012) indicate that there are many sub-districts which do not belong to the advanced category. Based on Klassen's Typology, Suroso et al. (2012) indicate that from 27 existing sub-districts, there are only four advanced sub-districts in Purwokerto city, the remaining mostly belongs in lagging, advanced but suppressed, and growing categories. These findings indicate that the existing natural resource and human resource potentials have not been managed optimally and innovatively.

Selo (2005) in his paper for the National Seminar on Electrical Engineering Education explains the definition of rural community from a socio-cultural perspective. Selo (2005) states that rural community means those who are socially and culturally accustomed enjoying television broadcasts and away from the culture of using computer and internet technology. Technological accessibility component by the village community covers a broad aspect. It does not only cover the accessibility and ability of the community to access information, but also other technologies related to innovation to exploit the village potentials. The definition of technology here does not mean something complicated and sophisticated, such as computer and internet, but whether the community has easy access to utilize technology developing in the village.

Susantyo (2007) states that community participation has a strategic aspect, the community has its own experience in the form of wisdom arising from the process of continuous interaction with their natural resources and environment, the community responds and dynamizes as well as controls the relationship between groups to create a strong social network system, mutual protection and mutual benefit.

The dimension of tourism potential is considered important because multiplier effect of the tourism sector for the economic activities is extensive. Various studies confirm the association between tourism development and the growth of creative economy in the region. UNDP (2008) defines creative economy as part of innovative knowledge, creative use of technology, and culture. Creative industrial sector relies on the power of human innovation in exploiting opportunities. Suparwoko (2010) states that although the creative sector does not produce large quantities of products, it is capable of making a significant positive contribution to the national economy. Although the creative sector generally develops in urban context where the quality of human resources is generally higher, Ooi (2006) states that the creative economy and tourism sector are two things affecting each other, and can synergize when they are well managed. Yozcu and Icoz (2010) explain that creativity will stimulate tourist destinations to create innovative products that will add value and higher competitiveness compared to other tourist destinations. The eighth dimension is related to two sectors that contribute greatly to GRDP, namely agriculture, plantation, and forestry sector and livestock and fishery sector.

Determining Which Village to be a Pilot Project of Innovative Village

Based on the calculation through Analytical Hierarchy Process technique, it can be determined the weight of each dimension summarized as follows:

Table 4. Weight of Each Instrument Dimension

No.	Determining dimension of Innovative Village	Weight	Rank
1.	Support of institutional system and village infrastructure	0.286500499	1
2.	Capacity and commitment of village apparatus	0.107518631	6
3.	Empowerment of village potentials innovatively	0.109074349	5
4.	Technological accessibility by the community	0.077310259	8
5.	Community participation	0.110872434	2
6.	Tourism potential	0.089295246	7
7.	Agriculture/plantation/forestry potentials	0.109714290	3
8.	Livestock/fishery potentials	0.109714290	4
Total		1	

Table above shows that the dimension of support of institutional system and village infrastructure is perceived by respondents as the most important dimension in assessing potential village to be developed. The next part of the questionnaire instrument is paired comparison of seven villages on each of the eight instrument dimension. The results of paired comparison are summarized in the following tables:

Table 5. Weight of Each Village on Dimension of Institutional System and Village Infrastructure

Determining Dimension of Innovative Village	Alternative village	Weight
1. Institutional System and Village Infrastructure (0.286500499)	1. Sokaraja Kulon	0.170194
	2. Limpakuwus	0.124402
	3. Kalisari	0.427622
	4. Gumelar	0.120177
	5. Sokawera	0.098581
	6. Kalisalak	0.028324
	7. Beji	0.030700
Total	1	

Table 6. Weight of Each Village on Dimension of Capacity and Commitment of Village Apparatus

Determining dimension of Innovative Village	Alternative Village	Weight
2. Capacity and commitment of village apparatus (0.107518631)	1. Sokaraja Kulon	0.147625
	2. Limpakuwus	0.144494
	3. Kalisari	0.153054
	4. Gumelar	0.146627
	5. Sokawera	0.137108
	6. Kalisalak	0.135351
	7. Beji	0.135742
Total	1	

Table 7. Weight of Each Village on Dimension of Empowerment of Village Potentials Innovatively

Determining Dimension of Innovative Village	Alternative Village	Weight
3. Empowerment of village potentials innovatively (0.109074349)	1. Sokaraja Kulon	0.142558
	2. Limpakuwus	0.137108
	3. Kalisari	0.149106
	4. Gumelar	0.146591
	5. Sokawera	0.134567
	6. Kalisalak	0.146844
	7. Beji	0.143225
Total	1	

Table 8. Weight of Each Village on Dimension of Technological Accessibility by the Community

Determining Dimension of Innovative Village	Alternative Village	Weight
4. Technological accessibility by the community (0.077310259)	1. Sokaraja Kulon	0.143835
	2. Limpakuwus	0.141202
	3. Kalisari	0.149437
	4. Gumelar	0.150297
	5. Sokawera	0.133736
	6. Kalisalak	0.147081
	7. Beji	0.134413
Total		1

Table 9. Weight of Each Village on Dimension of Community Participation

Determining dimension of Innovative Village	Alternative Village	Weight
5. Community participation (0.110872434)	1. Sokaraja Kulon	0.141508
	2. Limpakuwus	0.138207
	3. Kalisari	0.154098
	4. Gumelar	0.147674
	5. Sokawera	0.136766
	6. Kalisalak	0.149820
	7. Beji	0.131926
Total		1

Table 10. Weight of Each Village on Dimension of Tourism Potential

Determining Dimension of Innovative Village	Alternative Village	Weight
6. Tourism potential (0.089295246)	1. Sokaraja Kulon	0.147874
	2. Limpakuwus	0.148517
	3. Kalisari	0.153748
	4. Gumelar	0.137459
	5. Sokawera	0.137405
	6. Kalisalak	0.144379
	7. Beji	0.130618
Total		1

Table 11. Weight of Each Village on Dimension of Agriculture, Plantation, Forestry Potentials

Determining Dimension of Innovative Village	Alternative Village	Weight
7. Agriculture, plantation, forestry potentials (0.10971429)	1. Sokaraja Kulon	0.147874
	2. Limpakuwus	0.148517
	3. Kalisari	0.153748
	4. Gumelar	0.137459
	5. Sokawera	0.137405
	6. Kalisalak	0.144379
	7. Beji	0.130618
Total		1

Table 12. Weight of Each Village on Dimension of Livestock and Fishery Potentials

Determining Dimension of Innovative Village	Alternative Village	Weight
8. Livestock and fishery potentials (0.10971429)	1. Sokaraja Kulon	0.129660
	2. Limpakuwus	0.137594
	3. Kalisari	0.147433
	4. Gumelar	0.150807
	5. Sokawera	0.141063
	6. Kalisalak	0.139253
	7. Beji	0.154189
Total		1

Based on the calculation of analytical hierarchy process, the village selected as an innovative village was Kalisari village in Cilongok sub-district.

Exploring Potential of Selected Village (Kalisari Village) through Field Study

A field survey was conducted on 25 respondents considered to represent public opinion. The selection of respondents was conducted using convenience sampling by taking into account the respondents background. Thus, it was expected to be able to describe the collective opinion. The sampling did not take into account to the principle of statistical representation because based on observation and information on research subject, the community of Kalisari village had local characteristics of following the leader opinion and seeking to achieve harmony in the community for the collective interest.

The background of respondents was dominated by entrepreneurs/tofu producers by 17 people because Kalisari Village is a center of tofu, the majority of population depends on tofu production for their livelihood. While the remaining 8 people had jobs ranging from civil servant and private employee. The respondent's responses are tabulated in the following table.

Table 13. Respondent's Response of Kalisari Village

No	Attitude	Amount	Percentage
1.	Support	24	96
2.	Does not give opinion	1	4
3.	Does not support	0	0

Source: Primary Data

Table above shows the amount of support from the sample of Kalisari Village community to realize an innovative village. Some respondents expressed their hope to realize an innovative village, so that the community economy dominated by SMEs will be empowered. The respondents also expressed their hope to develop Curug Cipendok tourist attraction located in Karang Tengah Village in the north of Kalisari Village, so that the benefits can be gained by both Kalisari and Karang Tengah Villages.

Although some respondents were not fully informed about innovative village, they believed that the village status will have a positive impact on the community.

CONCLUSION AND SUGGESTION

Conclusion

Dimensions that can be used as a guide in assessing the village potentials to be developed as an innovative village included (1) support of institutional system and village infrastructure, (2) capacity and commitment of village apparatus, (3) empowerment of village potentials innovatively, (4) technological accessibility by the community, (5) community participation, (6) tourism potential, (7) agricultural/plantation/forestry potentials, and (8) livestock/fishery potentials.

Based on the result of rapid assessment on 331 villages in Banyumas Regency and paired comparison of potential villages, Kalisari Village Cilongok Sub-District had the highest value compared to other potential villages.

Suggestion

Based on the above conclusions, some recommendations to be proposed are: (1) Intensive discussion is needed at the government level (Government of Banyumas Regency), so that all LGUs within government of Banyumas Regency have the same level of commitment and prepare mutually supportive activities program in order to develop innovative village optimally. (2) Communication path between tofu producers and elements of community needs to be reopened, so that solutions to various community and business problems can be found.

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