

SMART VILLAGE CONCEPT AND TOURISM DEVELOPMENT IN SUMBAWA REGENCY

Ivon Arisanti*

Departemen of Psychology, Sumbawa University of Technology, Sumbawa Besar, Indonesia

Email: ivon2109@gmail.com

ABSTRACT

The complexity of the development problems faced by Sumbawa Regency nowadays require an acceleration to realize rural development-based development, especially the development of villages to become smart villages through: smart economy, smart mobility, smart environment, smart people, smart living, and smart government. These six elements are dimensions of Smart City that can be synergized with the development of Smart Village in advancing and developing the potential of Sumbawa Regency. The programs that can be carried out by the Sumbawa Regency Government in developing smart villages are based on the needs of each village such as the tepal village, one of the cultural villages, can attract tourists by making the bolic pan to strengthen cellular signals so that the internet is easier to accessed and tourism promotion can be intensified. For the village of Poto, the application of the command center in the village is expected to be able to easily access services and/or complaints. Services/complaints will be handled easily because they are connected to the application in the village office so that village officials can swiftly handle various complaints from the community. For this purpose, it is necessary to provide a Closed Circuit Television (CCTV) display that can monitor the activities of the community in the village especially for the important access center such as village halls, schools and health centers. The CCTV can also display the SME products. Economic improvement through the empowerment of any potential in each village can be mastered by improving the functions and roles of MSMEs and cooperatives, providing facilities and infrastructure that support tourism development such as hotels, adequate road access, directions, flood-free roads, convenient parking, cooperation between stakeholders in increasing tourism, the availability of local products as souvenirs, a clean environment, and providing tourist information center in the strategic places making it easier for tourists when visiting.

Keywords – smart village, tourism

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I. PRELIMINARY

Sumbawa Regency is a district located in the island of Sumbawa. Sumbawa Regency is as one of the ten regencies/cities in the West Nusa Tenggara Province, located in the western part of Sumbawa Island, with an area of 6,643.98 Km². In terms of topography, the land surface of Sumbawa Regency is uneven or tends to be hilly with altitudes ranging from 0 to 1,730 meters above sea level, where most of them (355,108 ha or 41.81%) are at an altitude of 100 to 500 meters. Meanwhile the altitude for the subdistrict cities in Sumbawa Regency ranges from 10 to 650 meters above sea level. The capital city of Batulanteh Subdistrict, Semongkat, is the highest sub-district capital, while Sumbawa Besar is the lowest sub-district capital in Sumbawa. The boundaries of Sumbawa district are Flores Sea and Saleh Bay in the north, Dompu Regency

in the east, Indian Ocean in the south and West Sumbawa Regency in the west. Sumbawa district has promising potential, especially the tourism sector. Complete tourism options ranging from cultural tourism, nature tourism, religious tourism, culinary tourism, shopping tours, sports tourism is one of the main attractions of tourism in Sumbawa Regency.

Sumbawa Regency consists of 24 (twenty-four) sub-districts with the district capital located in Sumbawa Besar, with details as follows:

Table of Division and Area of Administrative Region of Sumbawa Regency in 2017

No	Sub-District	Area (Km ²)	Village	Hamlet	Population
1	Lunvuk	513.74	7	32	20,655
2	Orong Telu	465.97	4	17	4,795
3	Alas	123.04	8	29	29,296
4	Alas Barat	168.88	8	31	19,727
5	Buer	137.01	6	17	14,161
6	Utan	155.42	9	35	30,191
7	Rhee	230.82	4	15	7,307
8	Batulanteh	391.40	6	27	10,412
9	Sumbawa	44.83	-	-	61,518
10	Lab. Badas	435.89	7	31	33,967
11	Unter Iwes	82.38	8	32	19,719
12	Moyo Hilir	186.79	10	46	24,019
13	Moyo Utara	90.80	6	23	9,727
14	Moyo Hulu	311.96	12	47	20,831
15	Ropang	444.48	5	15	5,145
16	Lenangguar	504.32	4	17	6,450
17	Lantung	167.45	4	12	2,868
18	Lape	204.43	4	22	17,426
19	Lopok	155.59	7	35	18,905
20	Plampang	418.69	11	38	32,043
21	Labangka	243.08	5	20	10,856
22	Maronge	274.75	4	19	10,378
23	Empang	558.55	10	39	22,664
24	Tarano	333.71	8	33	16,620
Total		6,643.98	157	632	449,680

Data Source: Sumbawa Regency Statistics Center 2017

Sumbawa Regency has 157 villages which all have potentials not only natural resources but also tourism. These are evidenced by many natural and cultural potentials that can be enjoyed. The Sumbawa Regency tourism is able to attract its own attention, especially the coastal areas and small islands around Sumbawa regency, such as Moyo Island, Bedil Island, and Bungin Island, Ai Beling Water Fall as one of the waterfalls available at Sumbawa Regency, Tering Batu Area which stores historical value of human civilization with the existence of sarcophagi and Liang Petang Cave which has stalacmites and stalactites inside it, Mamak and Batu Bulan Dam area, and Istana Dalam Loka as a duplication of traditional houses representing NTB at the Beautiful Indonesia Mini Park, and Yellow Bala as a Royal Museum.

In addition to natural scenery, cultural tourism has its own characteristics in adding the tourism attractions of this region, such as *Karapan Kerbau*, horse racing with jockeys (horsemen) age of 9-12 years old, the characteristic of a stilt house, *berempuk* (regional boxing arts) as a manifestation of the success of the harvest, karaci, weaving as one of the livelihoods of the people of Sumbawa, Tepal village maintain the preservation of their ancestral *Samawa* culture and dressed using the traditional weaving fabric.

In terms of development, infrastructure improvements can be achieved with the presence of Sultan Kaharuddin airport, Samota Bridge, Dams (such as Batu Bulan dam, Mama Dam and Pernek dam) provide electricity, and providing facilities and transportation between villages and sub-districts. Other kind of infrastructures needed are such as energy, clean water, telecommunications, health facilities, banking, trade centers, sports buildings, hotels and hospitals. The availability of these infrastructures are very adequate and must be supported conductively by environmental factors for the economic and investment activities. Environmental factors such as ease of business, quality education environment, and community environment will support local political stability.

With all the views above, the unplanned development process will cause villages, with tourism potential, to reach a phase of stagnation in the short term. For this reason, a comprehensive handling of village development is needed, especially for smart villages based on tourism development in Sumbawa Regency.

II. DISCUSSION

A. Smart Village Concept in Sumbawa District

The concept of a smart village adopted from smart city concept prioritizes a city order to ease people to get information quickly. In the concept of a smart village, the level of success of a program is measured by looking at the performance carried out in managing the resources so that resources will become more effective and sustainable by involving all elements in the community not only government and academics but also community social institutions.

With the dominant of people living in urban areas has triggered the government to build rural areas more, so people are interested living in villages and utilizing the potential of the village. This has actually been stated in the government program, 3rd Nawacita, which reads: *'building Indonesia from the periphery by strengthening regions and villages within*

the framework of a unitary state'. In 2015 the government gradually carried out the mandate stated in law number 6 year 2014 about villages where there was an obligation for the government to provide village funds. Village funds allocated are used to develop rural areas with its aim is to realizing the independence of rural communities so that the independence of village is sustainable. Self-sufficient villages can make villages more attractive to be occupied, visited or targeted for investment. Therefore, innovative steps need to be taken, one of which is to create smart villages. Smart village is a series of Universal Service Obligation (USO) Programs which are intended as a means of introducing Information and Communication Technology (ICT) to the community, so that it will increase productivity and the economy of the region.

One way to improve the economy in the region is through rural tourism, where tourism in the countryside is the impact of changes in tourist interest in various tourist destinations, so that this potential can be developed by referring to several important elements can be improved in smart village development based on tourism development. The village elements which are the characteristics and types of tourist objects, including:

1. Characteristics of attractions

There are four main characteristics that need to be considered in an effort to develop tourism:

- a. The area must have something that can be seen or sold as a tourist attraction
- b. The area must be able to provide what can be witnessed and recreational facilities that can make tourists stay longer
- c. The area must be able to provide facilities for shopping, especially typical handicraft items produced by the village.
- d. The area must be able to provide adequate transportation facilities in terms of air, sea and land transportation as well as access to transportation facilities to tourist areas.

2. Types of attractions

With the development of the tourism industry, each region and village must have its own characteristics. Its aim is to understand

the needs of tourists on tour, based on reasons and tourist destinations.

Based on this, the natural resources and the cultural potential increasingly enriches the diversity in Sumbawa Regency. The Development of village websites has been encouraged to date but in its application there are many villages that have not been able to take advantage of the potential that exists through the information technology system to attract investors and even foreign tourists to come.

One of the village that can be developed with the Smart Village Concept is Poto Village which has cultural potential maintained until now. Cultural tourism activities such as: traditional weaving, pottery making, and attractions of horse and buffalo racing are activities carried out sustainably. Poto Village can be used as a pilot villages in developing Smart Village where its cultural potential is one of the advantage of the community. In addition to its cultural potential, natural potential is a supporter of the economic growth of the community.

Smart Village will design the village as a center of citizen creativity that combines productive and creative economic activities, improving education and health, efforts to reduce poverty, and ICT instruments as a driver. With Smart Village, the role of the village government will be more optimized so that it can manage village resources effectively, efficiently and sustainably. Smart Village operations can be concentrated in village offices or village halls, so that village offices and village halls will be visited continually by village communities. Village halls and village offices are expected to be able to function as citizens' creative homes or can be upgraded to become *citizen-sourcing*, a places to encourage community involvement in providing ideas or innovations that can be developed in their villages, even experts and academics can be invited and involved to provide breakthrough suggestions for the progress of the village.

If all villages are able to reach smart villages, the rural outflow will increase, the urban burden will decrease, the national

economy will grow rapidly, and the development of regional area will grow evenly. The minimum service standards are required and it can be supported by the use of cutting-edge technology, so that services to the community can be carried out more quickly. The recommendations suggested to create village independence in supporting the concept of smart villages are:

1. Preparation of guidelines on the concept of smart villages so that a diverse system can be implemented and can be used as a reference for other villages that want to develop the concept of smart villages in their villages.
2. Continuous attention from local and central government and village official regarding to village potential that can be developed and can improve public services and support the creation of sustainable development.
3. The involvement of stakeholders regarding the creation of smart village
4. Development of strategies that have been implemented by the Ministry of Village, Development of Disadvantaged Regions, and Transmigration of the Republic of Indonesian in developing independent villages as below:

a) Building the critical and dynamic capacity of citizens and civil society organizations in the village. In this way the potential and resources of the village are expected to be explored further because there are good synergies between the population and the existing village institutions. The steps that can be taken include:

- 1) Conducting assessments and mapping the capacity of village community organizations
- 2) Organizing and facilitating the process of strengthening the capacity of village community organizations through the implementation of programs / activities oriented to increasing organizational capacity.
- 3) Involvement of village community organizations in public policy-

making processes organized by the village government.

- b) Strengthening government capacity and dynamic interaction between citizen organizations in the administration of village governance. In this way, a good synergy between the village government, organizations in the village and village residents is expected to further strengthen the concept of a sustainable Smart Village.
- c) Building a responsive and participatory village planning and budgeting system. In this way it is expected that the basis of the Smart Village implementation can be directed and measured properly.

B. The concept of the synergy of smart village and smart city in Sumbawa regency

Smart City and Smart Village are two complementary components to expand the fulfillment of more modern and equitable public services. The focus on synergy focuses on efforts to solve national problems such as: poverty, health, clean water, and electricity to the neglected local potential. Then the choice of smart village policy as the focus of regional development innovation will be more profitable. This is what needs to be emphasized by the Sumbawa Regency government before deciding that Sumbawa Regency is one of the districts that launched Smart City so that the best and fastest and most efficient development is to start building from the bottom, namely the village. Every village in Sumbawa Regency must be independent. Where the village is the smallest community in a community interaction that will form a collection of villages that will administratively shape the city. Rural empowerment is preferred, where the concept of Smart Village is a union of services needed by the community and provided by the village so that village communities can be more efficient, and business people and investors can efficiently do various things.

C. The smart village concept and smart city support tourism development in Sumbawa regency

Sumbawa Regency has 24 sub-districts and 154 villages, of which there are several villages such as rural villages with a distance of +37 km. The road access from the center of Sumbawa to the villages are poor, so the Sumbawa district government needs to pay extra attention to the progress of the village. Tepal village has difficulty getting cellular signals because there is no Base Transceiver Station (BTS). With this limitation the concept of smart village is suitable to be implemented in tepal village which is one of the cultural villages that can be used as a tourist attraction for making local work for strengthen cellular signals so that the internet is more accessible and tourism promotion can be intensified so that it can improve people's welfare.

Whereas for Poto village that has tourism potential needs to be further developed such as rice harvesting, traditional weaving, pottery making and attractions of folk games such as horse and buffalo racing, and ponan tradition. Based on this, the application of the command center in the village of Poto is expected that the community can easily access services and / or complain the community can be handled easily because it is connected with the application in the village office so that the village apparatus can deal with complaints directly felt by the community. It is also necessary to provide Closed Circuit Television (CCTV) displays that can monitor the activities of the Poto village community especially for important accesses such as village halls, schools and health centers and can monitor the displays of products of SME residents who introduce weaving and pottery which are genuine products from Poto village community.

The amount of tourism potential in Sumbawa Regency has a multiplayer effect on economic activity and economic growth in Sumbawa Regency. Therefore, the orientation towards the development of tourism in Sumbawa Regency needs to be intensified especially in the trade, hotel and restaurant

sector, where the economic growth of Sumbawa Regency for the tourism sector is still very minimal and needs to be actively activated through the development of potential villages in each sub-district in Sumbawa Regency.

The development of the Smart Village concept that will synergize with Smart City needs to be developed to support the development of tourism in Sumbawa Regency. This can be explained from the dimensions of Smart City which has harmony with Smart Village through:

1. Smart Economy

Through the development of community empowerment, one of them is UKM (Usaha Kecil dan Menengah) which means small and medium enterprises and cooperatives which will encourage the emergence of community creativity and innovation in improving their quality of life.

2. Smart Mobility

The management of village and city infrastructure needs to be uniform so as to facilitate access from the village to the city and vice versa

3. Smart Community

Smart communities can be encouraged through understanding the use of technology as a first step in conducting education and collaboration from many parties through training, events or interesting activities so that the public can be aware of the use of technology more smartly and wisely. One of the easy access to capital provided by cooperatives and government banks as well as trainings for UMKM (Usaha Mikro, Kecil dan Menengah) which means small and medium micro enterprises, can improve the ability and skills of the community in developing their business and trigger the community to be more creative and smart. For social capital, it needs to be encouraged both in villages and urban areas, starting from the village environment, village halls, village offices to urban environments to the government, which in essence will increase trust, tolerance, appreciation, mutual cooperation, mutual giving and mutual acceptance. It has a positive impact on social collaboration that influences

economic growth so as to foster participation in democracy and responsibility for the public interest.

4. Smart Environment

The availability of open land in Sumbawa district is very wide, but its utilization has not been maximized. So that the function for green open space (public open space), both public and private, needs to be activated.

5. Smart Government

The main key in smart governance is through Good Governance. One problem that exist in Sumbawa district, especially those in each sub-district and village, is the development gap between regions. Smart government will try to anticipate the existence of inter-sub-district, between villages and by developing potential in each sub-district and every village so that it can develop and grow faster in catching up with development. With the even distribution of development between the regions, it will attract investors and even tourists to visit Sumbawa Regency.

The implementation of E-Government in improving public services is one way to increase equity and acceleration in all regions in Sumbawa Regency where all of these can be realized through the development of Digital City and even this can be implemented in villages in the district. Sumbawa thus becomes a digital village (Digital Village).

The application of Smart village that can be synergized with Smart city in developing tourism in Sumbawa Regency can apply:

- a) Technology-based public services
- b) Education with free foreign language courses at the village hall held by the village office for the wider community in the village, especially for pre-school children to elementary school children.
- c) Village e-learning, namely digital learning based on village learning
- d) Integrity of puskesmas and villages for the poor who are sick.

CONCLUSION

Sumbawa Regency has now been chosen as one of the regencies / cities in

Indonesia that will participate in the Movement Towards Smart City Program. Until now, Sumbawa District has made various efforts to become the forerunner to the application of Smart City, namely by striving to procure goods and services or e-procurement electronically, using information technology in order to accelerate service to the community, increase regional capacity, improve HR capacity, building network infrastructure and various applications to facilitate access to information for the community.

To build tourism in Sumbawa regency that is convenient for tourists, it is necessary to increase the provision of facilities and infrastructures that support tourism development such as hotels, adequate road access, directions, flood-free roads, convenient parking, and improvement of all existing tourism stakeholders in Sumbawa district, the availability of local products as souvenirs, a clean environment, and tourist information center that is provided in strategic places. Because the development of tourism is not only borne by relevant agencies such as the Tourism and Culture Office, but also as the responsibility of all lines of SKPD (Regional Government Work System) to the government in the sub-districts, villages to villages in Sumbawa district.

BIBLIOGRAPHY

- Hakim, L. 2017. Implementation of the Bolic Griddle in Blankspot Areas of Cibuntu-Kuningan Tourism Village. Format Journal, vol. 6 no.1
- Hollands. R. G (2008). 'Will the Real Smart City please stand up?' City 12
- [http://www.kompasiana.com.Build Indonesia from Pinngiran Through Smart Village / 2018/03/02 on November 4, 2018.](http://www.kompasiana.com.Build%20Indonesia%20from%20Pinngiran%20Through%20Smart%20Village%202018/03/02%20on%20November%204%202018)
- http://www.ind-safety.com/MainArticles?Ind_Expert_Speak/Smart-Village-The-Real-Future-Of-India/595875
- IPASJ International Journal of Information Technology, Smart Village through

information technology - need of erging
india-pinak ranade, sunil londhe, asima
Mishra

Karlsen, E.B. 2017. Smart City: What Is It,
Why Is It Important, and How to Get
Started. Halden: e Smart System

Kurniawan, B. 2015. Independent Village,
Building Village, Book 5. Jakarta:
Ministry of Village, Development of
Disadvantaged Regions, and
Transmigration of the Republic of
Indonesia.

Law of the Republic of Indonesia Number 6
of 2014, concerning Villages

Lane, B. Sustainable Rural Tourism
Strategies: A tool For Development and
Conservation. In Rural Tourism and
Sustainable Rural Development, B.
Bramwell and B.Lane, eds.Channel
View, Clevedon, 1994.

Miles, M. B and Huberman, M.1992.
Qualitative Data Analysis. Translation
by Tjetjep Rohendi Rohidi. Jakarta: UI
Press

Moleong, Lexy J. 2000. Qualitative Research
Methodology. Bandung: PT Remaja
Rosda Karya

N. Viswanadham. 2013. Smart Village and
smart City. Aware Ecosystem Global
Supply Chain Management. World
Science

Sumbawa Regency Bapedda. 2016. Profile of
Sumbawa Regency in 2016. Sumbawa:
Bapedda

(BPS Sumbawa) Sumbawa regency statistics
center. 2016. Sumbawa: BPS Sumbawa

Suprianto. 2013. Development of tourism
potential in the Sumbawa Regency area.
Journal of Economics and Business,
vol.1