

**PENGUATAN SISTEM INOVASI DAERAH (SIDA) MENUJU PENGEMBANGAN  
EKONOMI LOKAL: SEBUAH MODEL PENGEMBANGAN KELAS TULIS**

***STRENGTHENING REGIONAL INNOVATION SYSTEM (SIDA) TOWARD LOCAL  
ECONOMIC DEVELOPMENT: A CATTLE CLUSTER DEVELOPMENT MODEL***

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**ABSTRAK**

Pemerintah Daerah Provinsi Banten mengembangkan Sistem Inovasi Daerah (SIDa) melalui pengembangan model klaster ternak domba dan kambing terpadu di Kampung Ternak Domba dan Kambing Cinyurup Kelurahan Juhut Kabupaten Pandeglang, 2012-2017. Tujuan dari penelitian ini adalah untuk mengevaluasi pelaksanaan RIS dalam rangka mendesain ulang model pengembangan klaster ternak untuk periode kedua 2018-2023 di Provinsi Banten. Metode penelitian menggunakan penelitian eksploratori dengan analisis deskriptif. Analisis menggunakan SWOT untuk menentukan implikasi beberapa variabel dijelaskan dan mendesain ulang model pengembangan cluster cattle untuk periode kedua. Penerapan model klaster ternak berhasil dilaksanakan dengan meningkatkan nilai ekonomi dan mendorong peningkatan kesejahteraan bagi masyarakat. Model ini telah diadopsi di daerah lain di wilayah ini. Hasil analisis SWOT menunjukkan bahwa model klaster perlu memperluas pembangunan melalui memilih opsi strategis yang sesuai dengan mempertimbangkan semua masalah dan pemangku kepentingan yang terlibat melalui teknologi input, program mentoring, akses pinjaman dari lembaga pendanaan, peningkatan kapasitas manusia, dan strategi pendekatan campuran. Pemangku kepentingan perlu membangun komitmen, dan mempertimbangkan semua pemangku kepentingan yang terlibat dalam penerapan RIS untuk periode kedua.

Kata kunci: Model Pengembangan Cluster Ternak, Pengembangan Ekonomi Lokal, SIDa, Kabupaten Pandeglang

### ***ABSTRACT***

The Regional Government of Banten Province Regional Government Regional Innovation System (SIDa) through the development of integrated sheep and goat cluster models in Cinyurup Sheep and Goat Livestock Village, Juhut Village, Pandeglang Regency, 2012-2017. The objective of the research is to evaluate the implementation of RIS in order to redesign a cattle cluster development model for second period 2018-2023 in Banten Province. Research method used exploratory research with descriptive analysis. Analysis using SWOT to determine the implication some variable described and redesign the model of cattle cluster development for second period. The cattle cluster model adoption was successful implemented with increasing economic value and drive to improving welfare for the community. The model has been adopted in other area in this region. The result of SWOT analysis indicate that the cluster model need extending development through choose appropriate strategic option considering all problem faces and stakeholder involved through input technology, mentoring program, loan access from funding agency, improving human capacity, and mixed approach strategies. Stakeholders need to build commitment, and deliberating all stakeholders involved on implementing RIS for second period.

*Keywords:* Cattle cluster development model, local economic development, SIDa, Pandeglang district

## INTRODUCTION

The spirit of regional autonomy provides flexibility for local governments to organize governance in their respective regions within the framework of resource management, Budiarto, 2015. In this case, the Banten Provincial Government can optimize the integrated system in order to keep the vision of "*Unite to Make the People of Prosperous Banten Based on Faith and Taqwa*" for the next five years *Medium Term Development Plan (RPJMD) 2018-2023*. This is in accordance with what in the National Strategy Strengthening System of Innovation Document (Deputy of Technology Policy Assessment of BPPT, 2012), The formal role of Head of Region will be very significant in management of innovation system in its jurisdiction.

Regional Innovation System (SIDa) is a development with a systemic approach which means that the passage of SIDa Development Program in a defined area is the quality of the cooperation of more than one actor, stakeholder, institution involved in order to support the success of the innovation development goals. The most important thing in the development of SIDa is the general framework that is conducive for Innovation in business development in the region, which is the interaction between the stakeholders

with business institutions and sustainability in support with the business data, regulations, basic infrastructures as well as innovation and business incentives, Oktaviana dan Bahrrudin (2015).

Joint Regulation of Minister of Research and Technology, and Minister of Home Affairs No. 03 Year 2012 and No. 36 of 2012 consist on strengthening the Regional Innovation System (RIS) or Sistem Inovasi Daerah (SIDa) Policy in Provincial and Regency / City level. In Article 5, Article 6, Article 7 and Article 8 of this Joint Regulation, SIDa reinforcement contains an Integrated SIDa Strengthening Roadmap into the *Medium Term Development Plan (RPJMD)* and the *Local Government Work Plan (RKPD)*.

Regional innovation system consist of actors (individual and organization) such as companies, cluster organization, research institution, educational bodies, knowledge transfer organization, science parks and others, that connected through networks whereby the actors behavior and interaction are shape institution, the cumulated knowledge base and technologies, Prodi, et.all(2016), OECD (2013), Grillitsh and Tripll (2016).

The Implementation of Regional Innovation System began in 2012 when the

Banten Governor signing regulation on Road Map of Banten Regional Innovation System and forming the Coordinating Team of RIS. The RID focusing on development of small and medium enterprises (SMEs) to speed up the growth and one up level grade to spread local economic growth. The small and medium enterprises till exist on turbulence economic crisis in 1998 and 2008, Langitan (2011). The regional economic profile shows the positive growth event slowly and above the national economic growth. Located in strategic location support the capital city of Jakarta, Banten become favorable and interesting place to investment area, Kartika (2017).

The cattle cluster model focus on developing *Integrated Sheep and Goats* as one of pilot project developed since the first period of Regional Innovation System in 2012-2017, Muhlisin, et.all (2015), Budiarto (2015). The objective of this research are evaluated the progress of the cattle cluster development model and redesign the next establishment for second period of Banten regional innovation system on 2018-2023. Evaluation of the development of integrated sheep farms needs to be done to measure the success of the model implemented and so it can be replicated elsewhere. An increase in

the level of welfare as measured by the farmer's exchange rate and farmer's income.

## **METHOD**

The research is exploratory and using descriptive qualitative approach to identified problems propose with interpretation of process and meaning. Moleong (2005) referred to descriptive research is a type of research intended to collect information about the status of a variable or theme, symptoms or existing circumstances, i.e. conditions or symptoms according to what it is at the time of the study. According Sugiyono (1999) descriptive research is a study conducted on independent variables that is without connecting or comparing with other variables. From the above opinion can be elaborated related to the meaning of descriptive research that is the nature of research that describe or describe the symptoms or circumstances that exist based on the data field without connecting the influence of symptoms that appear to each other.

Research was done through observation and interviews techniques. Primary data collected through key informant and stakeholder involved through observation, while secondary data come from other sources, BPS, field data, information and documentation. Previous research also used as

complementary information and adjustment to this research.

Primary data and secondary data (documents) were compiled and discussed in several focus discussion activities (FGD) involving experts and officials from the Ministry of Research and Technology, and several non-ministry government institutions, the relevant SKPD elements of provinces and districts/municipalities, elements of universities, and experts, associations and also some economic actors. Through the FGD obtained various inputs and directives on the main theme to complete the data for the preparation of strengthening the regional innovation system of Banten Province period of 2018-2023.

## **RESULTS AND DISCUSION**

### **A. Economic Impact of Existing Cattle Cluster Development Model**

Investigation was done to the implementation program on *Economic Right* of the community around to the cluster model developed, Budiarto and Listiani, (2017) can be seen at Figure 1. As a whole the implementation cattle cluster model give positive impact on improving economic beneficiaries for the community.

Budiarto and Listiyani, (2017) evaluate the average value of the index to Economic Rights is 2.42. The value of the

right index works 2.53, the index gets social security 2.7 and the group rights index of 2.46 shows above the average economic rights. While the Livelihood Rights Index is worth 2.18 and the rights index gets a fair and good working condition 2.23 shows below the average economic right. It was concluded that the community has benefited from the implementation of cattle cluster model development as Regional Innovation System of Banten Province, and need to pay attention to the index compiler variable as the evaluation material of RIS implementation. The farmer term of trade increasing significantly to community, comparing the previous SIDA adopted. The significant variable valued to the farmer term of trade is farmer revenue rate revenue monthly increase 20 % compared in early 2012.

### **B. Stakeholder Analysis**

Regional innovation system (RIS) consists of actors (individual and organization, knowledge transfer organization, science park, regional government, that are connected with network whereby the actors behavior and interaction are shaped by institutions, the cumulated knowledge base and technologies, Prodi et.all (2016).

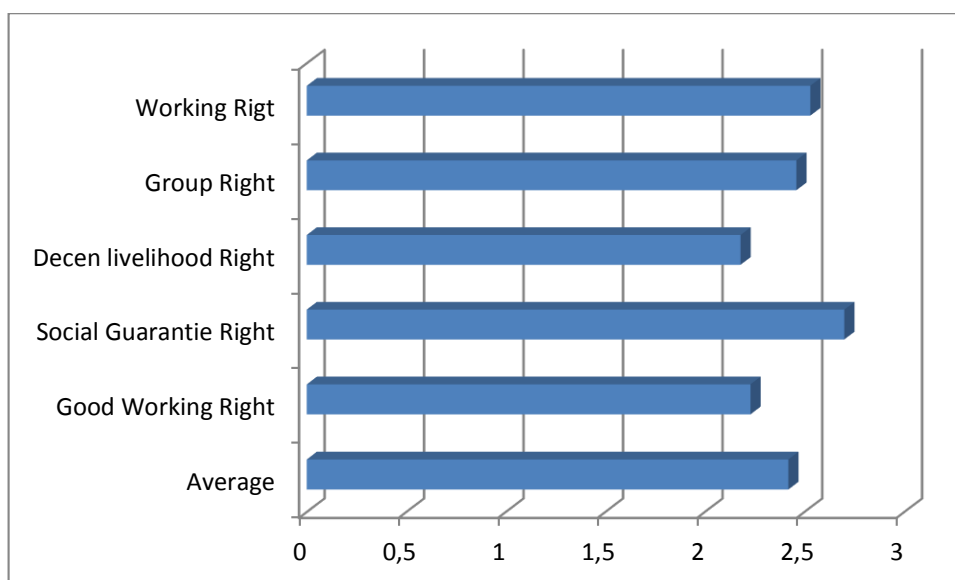


Figure 1. The economic right of the community (Budiarto and Listiyani, 2017)

Tabel 2. Analysis Stakeholders Pengembangan Wisata Desa Sawarna

|                        | Low Influence   | High Influence  |
|------------------------|---|---|
| <b>Low risk Group</b>  | Non Government Organization<br><i>Last Priority involved on monitoring</i>                  | BPPP, Balitnak, Banten Provincial Gov., Pandeglang District Gov (Agriculture, Livestock, Trade and Industry Section).<br><i>Always deliberated on decision making</i> |
| <b>High Risk Group</b> | <b>University, Perhutani</b><br><i>Need empowerment (keep informed and active involved)</i> | Trader, Entrepreneur, Farmer, Group of Farmer<br><i>Priorities group and accomodate the need</i>  |

Sourches : Budiarto, 2015

Budiarto (2015) was found some stakeholders have high roles and influence on determining role and influence to the cattle cluster development, namely central government, district and provincial government, Agricultural Research and Technology Desemination Agency (BPTP), Indonesian Center of Animal Research and Development, some regional offices in Pandeglang district, because they are always involved in every stage with the development of integrated sheep village, Budiarto (2015). While the Merchants, Entrepreneurs, Farmers Group, Farmer Association are groups that are betting with high risk and high influence for the interest of this group must be considered and accommodated. College and University are group with low influence and less risk, should often be involved in any decision-making to have a high enough effect. Non-Government Organization have low influence and high-risk impacts because they are at the forefront of the community at least in the development of cattle cluster development model.

### **C. Problem Tree Analysis**

Analysis using problem tree analysis to the model developed, found that people feel positive impact but still not prosperous enough, because the revenue still low,

Budiarto (2015). Associated with the analysis, it turns out the concept of farming and rising is still subsistence oriented. With further analysis, it turns out the newly acquired revenue limited to meet basic daily needs. According Kartika (2017), it is necessary to identify barriers by involving the community in a participatory way to formulate strategies and improve the welfare of the community. Input technologies are needed on breeding system, feeding technology, food processing (including sheep milk), and residual technology for biogas. From the perspective marketing management, the Local government should guarantee the product prizes, the market aces, pro poor policy facility, and mentoring facility.

### **D. SWOT Analysis**

In the end of first period implementing Regional Innovation System 2012-2017, the existing cattle cluster development model on implementing RIS needs to evaluate the progress status in order to redesign the establishment for next period.

|  |  |   |
|--|--|---|
| <p style="text-align: center;"><b>External</b></p> <p><b>Internal</b></p>  | <p><b>(Opportunity)</b></p> <ol style="list-style-type: none"> <li>1. Large market needs.</li> <li>2. The economy growth, purchasing power increases.</li> <li>3. Science and Technology Knowledge</li> <li>4. Locus potential development</li> </ol>                              | <p><b>(Threat)</b></p> <ol style="list-style-type: none"> <li>1. Disharmonizes between stakeholders SIDA</li> <li>2. Pests and Diseases</li> <li>3. Bottlenecks production</li> <li>4. Price stability</li> </ol>   |
| <p><b>(Strength)</b></p> <ol style="list-style-type: none"> <li>1. Availability of breeding technology, feed, maintenance, processing.</li> <li>2. The involvement of Research &amp; Development Agency in SIDA</li> <li>3. Ease of financial assistance for development (KUR, Jamkrida).</li> <li>4. Others Economic potential sources</li> </ol> | <p><b>Strategy (SO)</b></p> <ol style="list-style-type: none"> <li>1. Disseminate science and technology from research institutions.</li> <li>2. Access to funding sources</li> <li>3. Develop as eco tourism destination</li> <li>4. Provide regulation to access loan</li> </ol> | <p><b>Strategy (ST)</b></p> <ol style="list-style-type: none"> <li>1. Strong stakeholder, organization and networks alignment for implemented strategy.</li> <li>2. Linked timing strategies, market need and production.</li> <li>3. Low rate loan policy</li> </ol> |
| <p><b>(Weakness)</b></p> <ol style="list-style-type: none"> <li>1. Low manpower capacity of farmers</li> <li>2. Persistence business mindset tend to fulfill the basic need.</li> <li>3. Lack of mentoring, coaching goats.</li> <li>4. Weak regulation from local government</li> </ol>   | <p><b>Strategy (WO)</b></p> <ol style="list-style-type: none"> <li>1. Mentoring coaching programs and capacity building to farmers</li> <li>2. Introduction of technology</li> <li>3. Change of farmer business mindset</li> </ol>   | <p><b>Strategy (WT)</b></p> <ol style="list-style-type: none"> <li>1. Building stakeholder commitments</li> <li>2. Redesign SIDA implementation</li> <li>3. Integrated existing problem solution</li> </ol>   |

Figure 2. SWOT Analysis of Cattle Cluster Development Model



Figure 2 about SWOT analysis indicate the cattle cluster development model succesful implemented, while the main option for established for second period are the strengthening diffusion of science and technology by research & development Institutions, access to funding sources, tourism development, provide regulation to loan access (SO). To minimize the threat, need to emphasize on building stakeholder commitment, redesign RIS/SIDa implementation and integrated existing problem solution (WT). Furthermore to leverage the weakness, it need to mentoring program and capacity building of farmer and introduction of technology (WO). Government function as a regulator and incentive producer push to strengthening every actor innovation and nature pillar the nasional innovation system and regional innovation system Zuhail (2013), Cokes (2004).

## CONCLUSION

The adoption of cattle clusters development model had an economic impact on the surrounding community even in an intangible economic form. The cattle cluster development model extending should consider the existing problems, push the role and influence of each stakeholder commitment, considering the various issue

and approach, as well as formulating appropriate strategic option for the second period.

The SWOT analysis shows that stakeholder commitment plays most important role in determining the successful development of cattle cluster development model. The role and influence of each party must be improved in accordance with its function. Analysis of economic rights shows cattle cluster development can fulfill the basic need of people around. The indirect economic impact were people can buy motor vehicles, send their children to higher education and improve their physical residence.

The integrated cattle cluster development model program propose to be continued, optimize the potential, drive the locus area to be developed as a ecotourism destination, food based production of tales beneng (*Xantomonas sp*) and other plantation commodities. Implementation RIS for second period of cattle cluster development should consider comodity mixed to existng approach cluster approach to maximize potention improve the welfare of the community

## REFERENCE

Budiarto, MS. 2015. Identifikasi Berbagai Permasalahan dan Pemangku Kepentingan Dalam Pengembangan Ekonomi Lokal. Jurnal Inovasi Vol.12 No 3, Hal : 170-177.

- Budiarto, MS., Listiyani. 2017. Impact of Regional Innovation System (SIDa) Sabajuhut Development to the Fulfillment of Economic Rights. Proseding Seminar Nasional. Balitbangda Jawa Timur
- Cookes, P. 2004. The role of research in regional innovation systems: new models meeting knowledge economy demands. International. Journal of Technology Management, Vol. 28, Nos. 3/4/5/6, 2004
- Grillitsch., M., Tripl. M. 2016. Innovation Policies and New Regional Growth Path : A Place based System Failure Framework. Working Papper on Innovation Studies N. 2016/26. Center of Innovation, Research and Competence In Learning Economy (CIRCLE) Lund University.
- Kartika,RS. 2017. Local Government Readiness in Developing SIDa Roadmap in Banten, West Sumatra and Bali. Journal of Home Affairs Governance Vol.9 No 1, pp 126-136.
- Lakitan., B. 2011. National Innovation System in Indonesia: Present Status and Chalanges. Working Paper on Annual Meeting of Science and Technology, Tokyo Institute of Technology.
- Moleong,JL. 2005. Metode Penelitian Kualitatif. Bandung : PT Remaja Rosdakarya
- Muhlisin, Leksono, SM. Bachrudin, DT. 2015. Daya Dukung Lingkungan dalam Pengembangan Pusat Inovasi Usaha Mikro Kecil dan Menengah (PI-UMKM) Domba dan Kambing di Kabupaten Provinsi Banten. Jurnal Bina Praja. Vol 7. No 1 .pp 37-50.
- OECD. 2013. Region and Innovation : Collaborating Across Border. OECD Woking Paper on Regional Innovation System Series. OECD Publishing
- Oktaviana, O., and Bachruddin., DT. 2015. Strategi Pengembangan Pusat Usaha Mikro, Kecil dan Menengah di Provinsi Banten. Jurnal Inovasi Vol.12, No 1. Pp 360-369.
- Oktaviana., O., Widiyanti, Y., Amar,A. 2014. Kajian Struktur Tata Kelola Sistem Inovasi daerah (SIDa) Provinsi Banten. Jurnal Lingkar Widyaiswara. Edisi 1 No. 1. Pp 19-32.
- Prodi.,P., Frattini.F., Nicolli., M. 2016. Regional Innovation Systems in China: A long-term Perspective Based on Patent Data at a Prefectural Level Regional. SEED Working Paper 01/2016.
- Sugiyono. 2005. Metode Penelitian Kuantitatif & Kualitatif dan R dan D. Bandung: .ALFABETA
- Zuhal, 2013. Gelombang Ekonomi Inovasi. Jakarta. <http://zuhal.id/download-pdf-on/>