Eco-Friendly Digital Economy Philosophy on the Indonesia-Timor Leste Border

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Abstract. The people on the Indonesia-Timor Leste border are classified as poor and need to be empowered. Poverty is not due to a lack of natural resources but because the natural potential has not been optimally explored. President Joko Widodo has paid attention to the border area to be developed to grow a new economic point for the local people. This research method applies qualitative methods with a philosophical approach. Study findings indicate that the Indonesia-Timor Leste border area, especially Belu Regency is rich in environmentally friendly resources and digital economy that can be developed. An eco-friendly digital economy philosophy on the Indonesia-Timor Leste border can become a reference framework for implementing development at the border toward people's welfare. The philosophy of an environmentally friendly digital economy can become a new thought innovation that drives the dynamics of development towards improving the economic quality of 600 thousand people for a better life. An environmentally friendly digital economy philosophy can be a solution to poverty in border areas to improve the welfare of the local community. This research provides a framework and recommendations for the Indonesian government to carry out development activities in border areas.

1 Introduction

The border area of Indonesia and Timor Leste is an area on Timor Island, East Nusa Tenggara Province that needs extra attention and priority to be built in achieving welfare for local communities. This assumption is relevant and important because Indonesia's border area is directly adjacent to foreign Timor Leste and certainly requires the attention of various stakeholders to develop a better economic sector for these border communities which include the Belu Regency, Malaka Regency, and Timor Tengah Utara Regency.

The government of President Joko Widodo's era has declared the Indonesia-Timor Leste border area as a priority area in the implementation of development. This is evidenced by the inauguration of the Integrated National Border Post (INBP) carried out by President Jokowi in 2016. There are 3 Integrated National Border Posts. INBP areas are located in Motamasin (Malaka), Motaian (Belu), and Wini (Timor Tengah Utara). Jokowi said that the inauguration of the INBP is expected to become a new economic growth point in East Nusa Tenggara Province [1]. This provides economic business opportunities to be developed in the border areas of Indonesia and Timor Leste. To support the business economy in this region, one of the important factors needed is the availability of energy that can help accelerate and transform industrial operations in this border area. In fact, in the Indonesia-Timor Leste border region, many energy sources can be explored to support the development of the industrial world.

The conditions in the area show that there are many potentials and challenges in this border region. There is potential for environmentally friendly energy such as wind, solar, and ocean waves which can be utilized to provide practical benefits for society and the industrial world. Unfortunately, the availability of electricity in this region to support the growth of the industrial world is still not optimal and is far from expectations. Another potential is the area involves 600 thousand of people in Belu, Malaka, and Timor Tengah Utara districts who need to be empowered to get out of the poverty line towards a situation of physical and spiritual well-being. Another challenge is the level of education and human resources which is still low and it requires the attention of various parties to increase an educated and professionally skilled workforce. Another challenge is that the potential of local natural resources has not been managed effectively and efficiently using an environmentally friendly energy-integrated digital economy.

The purpose of this research is to build a philosophical concept that is relevant to the economic potential of the Indonesian Timor-Leste border community, environmentally friendly energy, and its integration with economic business development to support sustainable development. Apart from that, it is also to build public awareness about the importance of using environmentally friendly energy in their local
areas which can make a real contribution to the economic sustainability of Indonesian border communities to support sustainable development. The assumptions of this research are the philosophy of an environmentally friendly digital economy as an important innovation to support sustainable development on the border of Indonesia and Timor Leste. The philosophy of an environmentally friendly digital economy is predicted to accelerate the rate of economic progress of the people on the Indonesia-Timor Leste border.

The findings of this study indicate that the Indonesia-Timor Leste border area, especially Belu Regency (around Motain) is rich in environmentally friendly energy resources, including wind power. So, an environmentally friendly digital economy can be developed into a development model on the Indonesia-Timor Leste border in line with the era of the 4.0 industry. More specifically, an eco-friendly digital economy philosophy on the Indonesia-Timor Leste border can become a reference framework in the implementation of development at the border toward people's welfare. The philosophy of an environmentally friendly digital economy can become a new thought innovation that drives the dynamics of development towards changing the lives and improving the economic quality of 600 thousand people for a better life for the border communities of Timor Leste. An environmentally friendly digital economy philosophy can be a solution to the problem of poverty at the border to improve the welfare of the local community by presenting a new economic ecosystem that better meets expectations. This research provides a framework and recommendations for the Indonesian government and related parties in carrying out development activities in border areas, especially Belu Regency.

2 Theoretical background

Some of the precious relevant research on the digital economy and clean energy in Indonesia and Timor Leste include some research from Wu et al., (2023) that explored the idea of ‘Does the digital economy reduce air pollution in China? A perspective from industrial agglomeration’ [2]. In this corridor, Che, S and J. Wang (2022) also stated Digital Economy development and haze pollution: evidence from China [3]. Q. Guo et. al. (2022) also highlighted the idea of ‘The spatial impact of the digital economy on energy intensity in China in the context of double carbon to achieve the sustainable development goals’ [4]. Moreover, A. Jahanger et. al. (2022) underlined the focus of ‘How far are renewable energy and globalization useful to mitigate the environment in Mexico? Application of QARDL and spectral causality analysis’ [5]. In this line, Bukht and Heeks (2018) also emphasized the point of ‘Defining, conceptualizing and measuring the digital economy’ [6]. Technically, Fios (2018) explained the idea of ‘Mapping the potential of green energy to bordering societies of Indonesia and Timor Leste (a preliminary study)’ in Timor Tengah Utara Regency’ [7]. Fios et al. (2021) also pinpointed the aspect of ‘Environmental ethics of Belu society in Indonesia and Bobonaro society in Timor Leste: An ecological reflection’ [8]. Fios et al (2021) also underlined the perspective of ‘Utilization of wind energy in Belu District to improve community welfare and support environmentally friendly development’ [9].

In line with the topic, The United Nations World Tourism Organization (UNWTO), as the agency that is responsible for the promotion of responsible, sustainable, and universally accessible tourism, provides a blueprint for peace and prosperity. As part of supporting elements in achieving 17 Sustainable Development Goals (SDGs) under the United Nations, the involvement and empowerment of the local community will signify the substantive support and capacity-building to improve quality of life, reduce inequality, spur economic growth, and end other deprivations. In this frame, the attention and priorities to local communities require stakeholders’ support. From an epistemological point of view, researchers can find out how tourism exists in an area through a sustainable development approach. Meanwhile, from the axiological aspect, researchers can find out whether tourism benefits society’s lives.

3 Methodology

Phenomenology is a broad discipline and method of inquiry in philosophy, developed largely by the German philosopher Edmund Husserl, which is based on the premise that reality consists of objects and events ("phenomena") as they are perceived or understood in the human consciousness, and not of anything independent of human consciousness. The empirical phenomenological approach involves a return to experience to obtain a comprehensive description that provides the basis for a reflective structural analysis that portrays the essence of the experiences [10]. Phenomenology is a philosophical method that is special and unique because it relies on the subject’s direct experience with the object being observed. Phenomenology is the study of experience and how we experience it. It studies structures of conscious experience as experienced from a subjective or first-person point of view, along with its "intentionality" (the way an experience is directed toward a certain object in the world). In phenomenological studies the investigator abstains from making suppositions, focuses on a specific topic freshly and naively, constructs the basis for further research and reflection [11].

4 Result and discussion

Philosophy, from Greek, by way of Latin, philosophia, (“love of wisdom”) the rational, abstract, and methodical consideration of reality as a whole or of fundamental dimensions of human existence and experience. Philosophical inquiry is a central element in the intellectual history of many civilizations [12]. Philosophy is a wisdom, vision, critical and comprehensive view of life towards a reality that is thought. In this context, philosophy is a frame of mind that can be used as a reference in the application and
implementation of human action praxis especially on the border of Indonesia and Timor Leste.

Development on the Indonesia-Timor Leste border needs to pay attention to the philosophy of an environmentally friendly digital economy. The development carried out must not bring new damage to the environment. Therefore, it is necessary to consider the impact of development that accommodates environmentally friendly digital economic platforms.

Some research evidence that has been conducted shows the great potential of wind to be utilized for electricity development in supporting sustainable development and downstream industry. There is a potential of 120-180 Megawatts of wind that can be converted to electricity. There are also 600 thousand people who can use this environmentally friendly electrical energy to build industries and businesses for their welfare. But unfortunately, the problem that arises is that this environmentally friendly energy exploration policy is not adequate and has not been maximally realized by the central and regional governments. Even though there is a lot of potential for local natural resources that have high economic value to be developed for the progress and economic growth of local communities.

The technological transformation of the world today has brought mankind into the industrial era 4.0. This is in line with the content of a speech delivered by Indonesian President Joko Widodo when attending a meeting in Hannover, Germany on April 17, 2023, entitled "Making Indonesia 4.0 Roadmap" [13]. The philosophy of an environmentally friendly digital economy needs to be developed to support sustainable development on the border of Indonesia and Timor Leste in line with the spirit of the industrial revolution 4.0 which is being promoted in the march of development in Indonesia.

The philosophy of the digital economy is that it is necessary to utilize the potential of local nature wisely with digital media platforms, not damage the natural environment, pay attention to the principles of sustainable development, and create welfare and good fortune for the happiness of local communities.

5 Conclusion

The philosophy of an environmentally friendly digital economy towards sustainable development is a concept and paradigm of development in the border region of Indonesia and Timor Leste. It needs to be used as a way of life, a shared vision of all elements in Indonesia, the Province of East Nusa Tenggara, the District Government as well as entrepreneurs and local communities to create significant prosperity and economic growth on the borders of Indonesia and Timor Leste. The government needs to support efforts to promote an integrated digital economy of environmentally friendly energy based on green energy. Businesses and investors need to create new value to build across the frontier. Communities need to continue to learn and be given training to improve their skills and skills, especially in line with current and future technological developments and the industrial revolution 4.0. The limitations of this study are based on qualitative analysis using a literature review-based approach. The results of this research can be used as a consideration in policy making at the regional and national levels. In addition, this will encourage government policies to support their implementation. In the future, this concept will be applied to border development as prioritized by President Jokowi so that the industry needs to check its interest in building a downstream industry. Arguably, government policies play an important role in supporting the realization of this concept, such as decisions by governors or related ministries and district heads in the regions.

References

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