



# การประชุมวิชาการระดับชาตินานาชาติ "เบญจมิตรวิชาการ" ครั้งที่ 10 The 10<sup>th</sup> BENJAMITRA Network National and International Conference

## Assessment of sustainable development in the small islands of Vietnam using indicator approach: a case study of the Ly Son District

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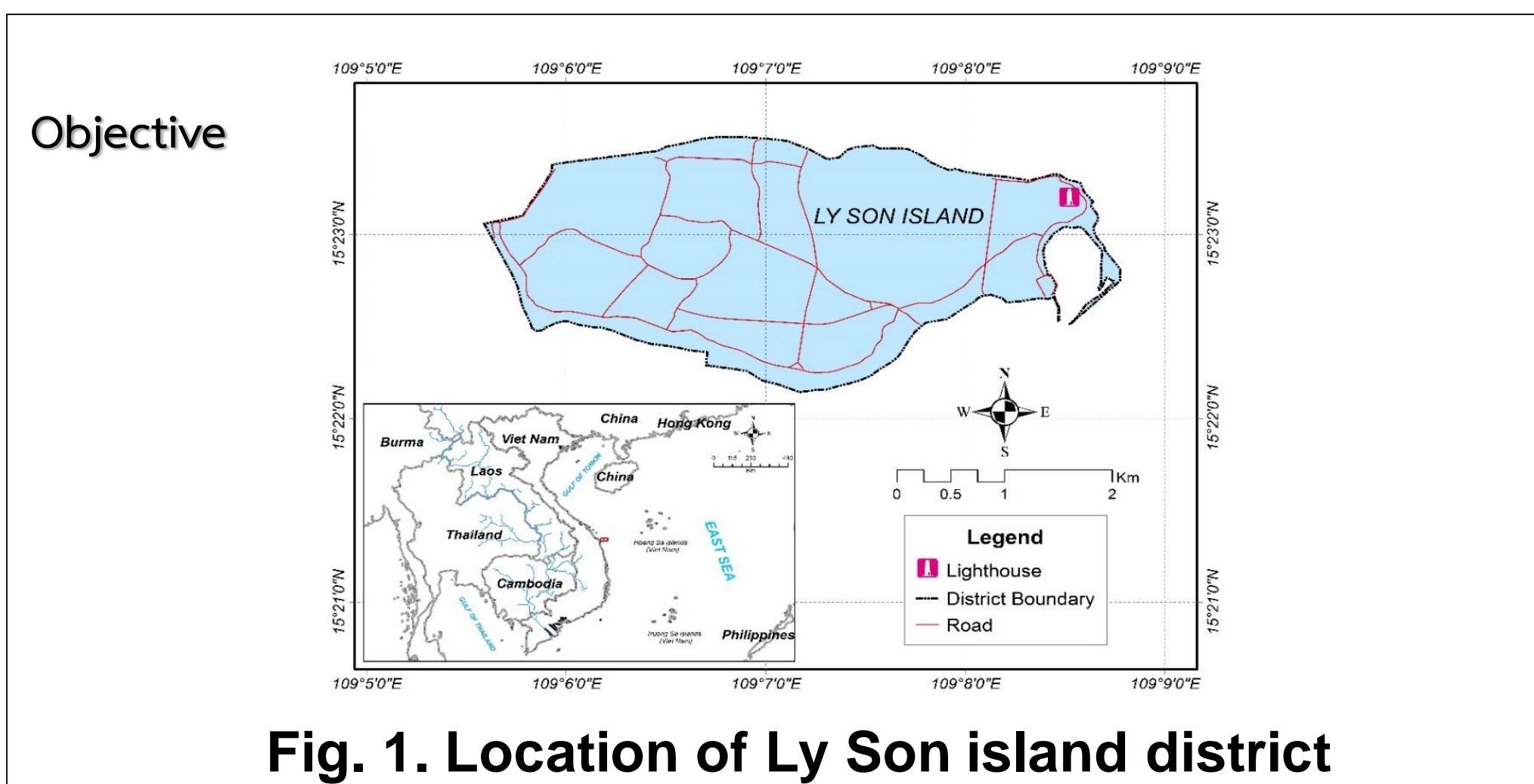
### Abstract

The objective of this study were to develop the sustainable development index (SDI) at the local scale and to investigate the sustainable level of SD for Ly Son Island District in Quang Ngai Province. The indicators for the SDI were selected based on the literature review and expert consultation. The results identified 50 indicators based on 16 SDGs for three components of SD (i.e., economy, society, and environment) to estimate the SDI. Furthermore, the result of SDI for the Ly Son District indicated that the level of sustainability is good. Also, the results highly emphasized the increased participation of women in the local government and (SDG5) and increased perception and equipment of households to prevent natural disasters (SDG13) to improve the SD level of the Ly Son District.

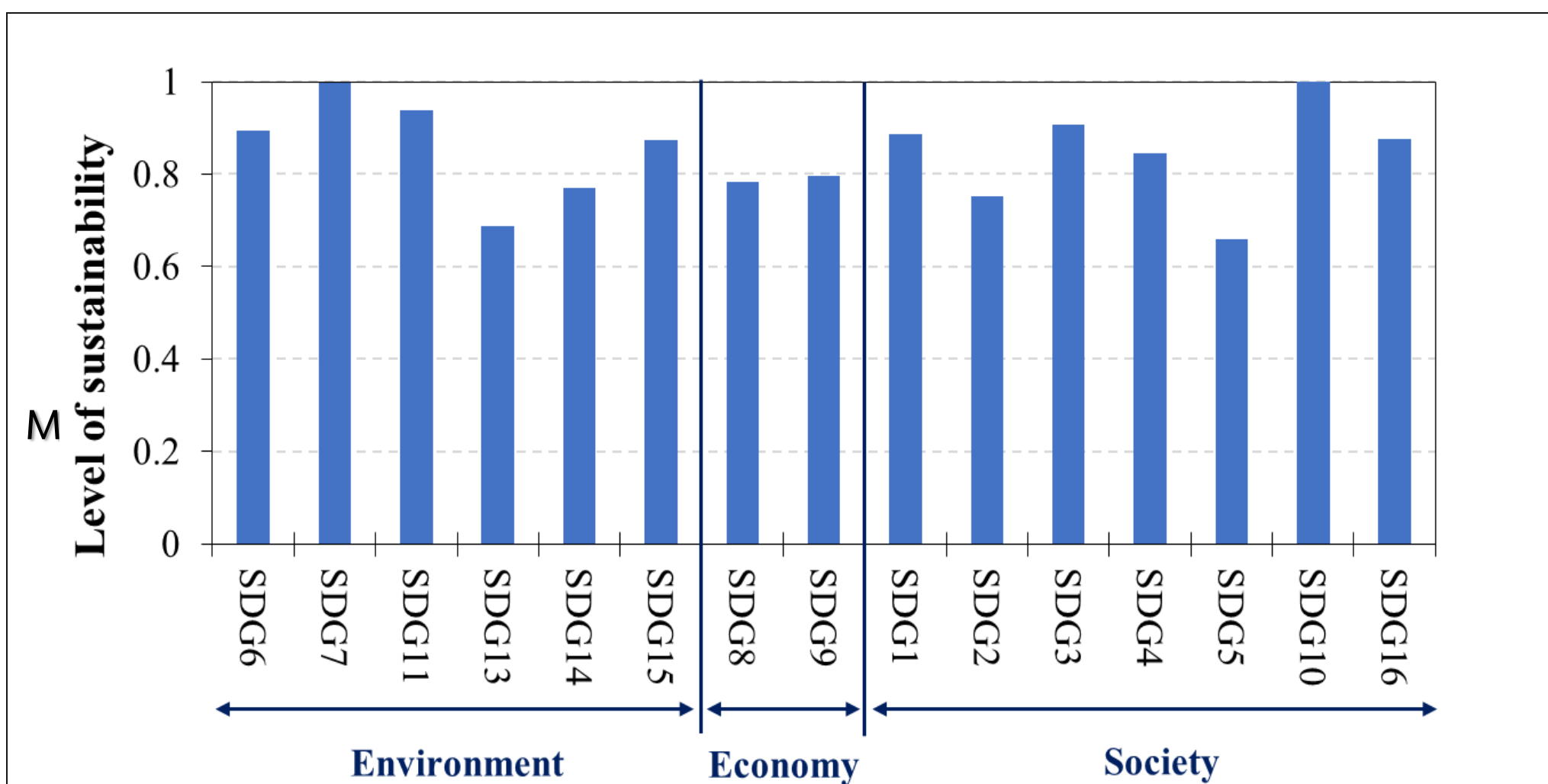
### 1. Introduction

- Sustainable development indicators (SDIs) have been developed to measure the progress of SD and support decision-making process under consideration of its three dimensions.
- The SD issue appears in most development agenda at the international and national levels; however, this issue has become the concern of governments at the local and regional levels in recent years.
- The objective was to develop the SDI for measuring the progress of sustainable level of regional development with a case study of the Ly Son Island District in Quang Ngai Province, Vietnam.

### 2. Study area



### 4. Results



### 3. Methodology

SDGs	Indicators	Unit		
Environment	6.1	Percentage of households supplied with clean water through a centralized water supply system (%)	%	
	SDG6	6.2	Percentage of households using clean water sources (%)	%
		6.3	Percentage of households using hygienic toilets (%)	%
		6.4	Percentage of wastewater is collected and safety treated	%
	SDG7	7.1	Percentage of households with access to electricity	%
		7.2	Percentage of renewable energy in gross final electricity consumption	%
		7.3	Diversification index of electricity source	-
		7.4	Percentage of households using clean fuel	%
	SDG11	11.1	Percentage of population living in permanent houses	%
		11.2	Percentage of solid waste is collected and safety treated	%
		11.3	Percentage of communes meeting the criteria for new rural standards	%
	SDG13	13.1	Percentage of households having access to communication media (TV/radio, telephone)	%
		13.2	Percentage of population to be disseminated of knowledge on typhoon prevention and mitigation	%
SDG14	13.2	Economic losses due to natural disaster events	Mil. VND	
	14.1	Rate of capture fisheries to regional fishery resources	%	
	14.2	Total area of marine protected areas	ha	
	14.3	Number of illegal fishing cases	-	
	15.1	Percent change of forest land over the years	%	
SDG15	15.2	Percentage of forest cover	%	
	SDG8	8.1	Ratio of revenue budget to total budget	-
8.2		Ratio of employment to population	-	
8.3		Average production value per hectare of agricultural land	Mil. VND/kg	
Economy	8.4	Tourism growth	%	
	8.5	Percentage of unemployment and underemployment	%	
	SDG9	9.1	Rate of waterway passenger transport to total passenger transport	%
		9.2	Rate of waterway cargo transport to total cargo transport	%
SDG17	9.3	Rate of processed and manufactured industrial products to the total products	%	
	9.4	Rate of employment in processing and manufacturing industries	%	
Society	SDG1	1.1	Percentage of poor households	%
		1.2	Percentage of population having social insurance	%
		1.3	Percentage of population living in households with access to basic living conditions	%
	SDG2	2.1	Rate of malnutrition in under-5-year-old children	%
		2.2	Percentage of agricultural land to be applied safety regulations or standards	%
		2.3	Percentage of population struggling for foods	%
	SDG3	3.1	Annual number of new HIV infections (per 1,000 uninfected population)	-
		3.2	Percentage of vaccinated children under 1-year old	%
		3.3	Number of hospital beds (per 10,000 population)	-
		3.4	Number of health workers (per 10,000 population)	-
		3.5	Percentage of communes meeting the criteria for cultural standards	%
	SDG4	4.1	Primary school completion rate	%
4.2		Percentage of children attending primary school at the right age	%	
4.3		High school completion rate	%	
4.4		Percentage of schools meeting the national standards	%	
SDG5	5.1	Number of child marriage	-	
	5.2	Sex ratio at birth	-	
SDG10	5.3	The rate of female deputies in the People's Council	%	
	10.1	Expenditure growth of households	%	
SDG16	10.2	Income growth of households	%	
	16.1	Percentage of citizen satisfaction with public services	%	
	16.2	Number of family violence incidents	-	

### 5. Conclusion

- 50 indicators based on 16 SDGs for three components of SD (i.e., economy, society, and environment) were identified;
- Ly Son District is at a good level of SD (0.83);
- This study emphasized the increased participation of women in the local government and (SDG5) and increased perception and equipment of households to prevent natural disasters (SDG13) to improve the SD level of the Ly Son District.

The value of SDI is 0.83. In case of components of SD, the values of SDI for society, economy, and environment are 0.85, 0.79, and 0.86, respectively.