KSPN strategy in supporting economic growth or making socio-ecological crisis?

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Abstract

This research was conducted to analyze the development of the National Tourism Strategic Area (KSPN) contained in PERPRES 109/2020 and PERPRES 3/ 2016 concerning the Acceleration of Implementation of National Strategic Projects. The KSPN development in the concept of 10 new Bali but the problem is that some of the KSPN developments are located in environmental conservation areas. This research will look at the interlinkage, income impact, and labor impact of the KSPN construction using the 2016 Interregional Regional Input-Output (IRIO) tables obtained from *Badan Pusat Statistik* (BPS) RI and using project value calculation scenarios from KSPN whose data were obtained from the KPPIP. The results of this study indicate that on the Degree of Sensitivity Index (IDK) the dam processing industry sector, the electricity and gas procurement sector is a sector with strong values, but in a linear the air procurement, waste management, waste and recycling sectors are sectors that have no impact from the KSPN. In the Degree of Distribution Index for the electricity and gas procurement sector, the sector with the largest spread of values for weak sector results varies. The results of the Income Impact analysis show that the wholesale and retail trade sectors; car and motorbike repairs as well as the processing industry, while the air supply sector, waste management, waste and recycling are sectors with a small income impact and also have an impact on employment on several islands in Indonesia. The Agriculture, Forestry and Fisheries sectors are the sectors with the strongest employment impact on the islands of Sumatra and Kalimantan due to the existence of KSPN. The recommendation from this research is that there is a need for government evaluation, especially in selecting KSPN in environmental conservation areas as well as development in the circular economy infrastructure concept.

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1. Introduction

The issuance of Presidential Regulation Number 3 of 2016 concerning National Strategic Tourism Areas (KSPN) became the main focus that led the government to concentrate on the development of "10 new Bali" destinations, which include Tanjung Kelayang (Bangka Belitung Province), Borobudur Temple (Central Java Province), Morotai (North Maluku Province), Komodo Island-Labuan Bajo (East Nusa Tenggara Province), Wakatobi National Park (Southeast Sulawesi Province), Thousand Islands (DKI Jakarta Province), Lake Toba (North Sumatra Province), Bromo-Tengger-Semeru Area (East Java Province), Mandalika (West Nusa Tenggara Province), and Tanjung Lesung (Banten Province). In the Integrated Tourism Master Plan (ITMP), which is a loan from the Government of Indonesia to the World Bank worth USD300 million, with USD6 million allocated for funding the preparation of the ITMP and USD100 million (IDR294 million) for physical development and human resources in the surrounding areas (BPKP, 2017).

The selection of these 10 locations out of 88 other tourist destinations within the "New Bali" concept is considered as a form of romance that traps economic interests, as some areas are ecological zones (Chen & Kim, 2019). This does not align with (Arjana, 2016) for several reasons, as the development of KSPN is intended to: (1) Diversify the national income source from upstream industries to natural resources, (2) Utilize the tourism sector's potential as a source of foreign exchange, which is still underutilized in supporting the national economy, (3) Position tourism as one form of civilizational progress to enhance Indonesia's international competitiveness, (4) Create new jobs in the tourism sector, and (5) The KSPN concept is seen as capable of synergizing infrastructure and integrated eco-tourism areas (World Bank Group, 2022).

The development, which should be oriented towards people, planet, and profit, is not reflected in the projects, as the number of agrarian conflicts that have occurred in various National Strategic Projects (PSN) has led to 106 agrarian conflicts involving about 800,000 hectares of disputed land, with approximately 1 million people involved in the conflict (YLBHI, 2023). Giampiccoli & Mtapuri (2020) argue that the current tourism concept has not been able to bring welfare to the community because there is no concept of community-based tourism (CBT) involved (Pawson et al., 2016). There are even many conflicts arising from economic development activities that result in negative externalities.

Based on mapping conducted by YLBHI (2018), there are 100 private companies involved in conflicts, 74 conflicts involving local governments, and 50 conflicts involving the Indonesian National Police, which have also resulted in 134 violent acts with various patterns that harm marginalized communities and indigenous people, whose existence is recognized in Article 18B paragraph (2) and Article 28I paragraph (3) of the Constitution.

According to Masrurun & Nastiti (2021), in-depth discussions, communication, coordination, and cooperation between institutions/agencies are crucial in tourism area development. This is considered an important consideration in

implementing development in a region. Good development is one that is bottom-up, so the development of KSPN, which faces a hierarchical approach to ensure cumulative causality, often referred to as the backwash effect (Myrdal, 1957), will be useful in examining the economic and social impacts, especially looking at the negative externalities of economic activities within society (Hirschman, 1958; Marschner et al., 2022).

2. Methodology

The data used in this study are the 2016 Interregional Input-Output (IRIO) data available from BPS RI (2023), and this research uses the calculation of the investment value for the National Strategic Tourism Area (KSPN) projects from 2017 to 2020, published by KPPIP (2022) in Indonesia. The basis for calculating the IRIO in this study refers to the regulations of BPS RI (2010,2021), and Oosterhaven & Hewings (2021), which are formulated in the following table.

Table 1: The General Form of the IRIO Table

Industry 1		Industry i	Industry N	Final Demand		Total
Industry 1	.	Quadrant 1	.	Quadrant 2		x_1
Industry i	.	Z_{ij}	.	y_{iq}		x_i
Industry N	.	.	.	.		x_N
Import	.	Quadrant 3	.	Quadrant 4		M
Value Added	.	V_{pj}	.	y_{pq}		Y
Total	x_1	x_j	x_N	C	I G	E

Source: Oosterhaven & Hewings (2021)

The analytical tool for the IRIO table of the six islands in Indonesia is based on the investment shock from KSPN projects in Indonesia from 2017 to 2022, as published on the KPPIP website (KPPIP, 2015,2016,2017,2018,2022). The analysis will be explained as follows:

This analysis is based on Sahara (2017), which explains that the forward and backward linkages are calculated using the following equations:

$$BL = \frac{n \sum_{i=1}^{n} a_{ij}}{\sum_{i=1}^{n} \sum_{j=1}^{n} a_{ij}} \tag{1}$$

$$FL = \frac{n \sum_{j=1}^{n} a_{ij}}{\sum_{i=1}^{n} \sum_{j=1}^{n} a_{ij}} \tag{2}$$

Where $FL(i)i$ is forward linkage coefficient for industry i; $BL(i)i$ is backward linkage coefficient for industry j; and $\sum lij$ is the value of the cell in row ii and column jj of the Leontief Inverse Matrix.

$$m(h)_j = \sum^{n} an + 1 \tag{3}$$

Where $m(h)j$ is the additional household income from an additional rupiah in final demand for sector j; $m(h')j$ is the additional job opportunities from an additional rupiah in final demand for sector j; $an + 1, i$ is wage per unit of output or labor per unit of output.

3. Result and Analysis

3.1. Interpretation and Discussion of Linkage Analysis

The IRIO computation results in this study are intended to deepen the impact analysis of KSPN development in the 10 New Bali areas, which will become a national priority project. The following is the IRIO computation result in the form of KSPN linkage analysis presented in the Table 2.

Table 2: Interpretation of the Linkage Analysis of the 10 New Bali Strategic Tourism Areas (KSPN)

Islands	Sectors	IDK (FL)	IDP (BL)
Sumatra	Manufacturing Industry	2,3	1,11
	Water Supply, Waste Management, Waste, and Recycling	0,60	0,99
Jawa	Manufacturing Industry	5,69	1,03
	Water Supply, Waste Management, Waste, and Recycling	0,61	0,95
Islands	Sector	IDK	IDP
Bali and Nusa Tenggara	Electricity and Gas Supply	1,54	2,16
	Other Services	0,67	0,99
Kalimantan	Manufacturing Industry	2,50	1,08
	Education Services	0,60	0,90
Sulawesi	Electricity and Gas Supply	1,26	1,74
	Water Supply, Waste Management, Waste, and Recycling	0,60	0,95
Maluku and Papua	Electricity and Gas Supply	1,30	1,80
	Property	0,68	0,78

Source: Processed by author
Note: Green = sector linkage, Red = weak linkage sector

Based on the linkage analysis of the development of the National Tourism Strategic Area (KSPN) in the 10 New Bali areas, the results indicate that in Sumatra, Java, and Sulawesi, the water supply, waste management, waste, and recycling sectors are the weakest linkages among the 17 sectors. This is due to the KSPN as the Sensitivity Index (FL) and the Dissemination Capacity Index (BL) are < 1, meaning these sectors have weak value-added and economic dissemination capacity to other sectors in the economy (Tiwari et al., 2013). This needs to be noted by the government because in these three islands, there are KSPNs such as Tanjung Kelayang, Lake Toba in Sumatra; Borobudur Temple, Thousand Islands, Bromo-Tengger-Semeru, and Tanjung Lesung in Java; and Wakatobi National Park KSPN in Sulawesi, which are built in environmentally protected areas. These

areas would not be considered tourist destinations if evaluated from an economic approach (Nofriya & Fadhly, 2020).

The development of KSPNs is seen as a means to channel tourists to these 10 New Bali areas, where other service sectors are the weakest attraction in Bali and Nusa Tenggara (Kuklina et al., 2020). In Kalimantan, the education services sector becomes the weakest due to the KSPN. This is because there is no development in the area, indicating that the development of KSPN is relevant to improving human resources or social capital in tourist areas. The weakening of the property sector in Maluku and Papua occurred due to the focus on developing the 10 New Bali areas outside of Maluku and Papua, leading to a decline in the property sector in these regions.

Looking at the sensitivity index, the electricity and gas supply sector, which is the strongest sector in Sulawesi, Bali, and Nusa Tenggara (areas associated with tourism), shows that the development of KSPN in Wakatobi National Park and the KSPN in Komodo Island and Labuan Bajo provides relatively good value-added for tourism activities. However, this is not the case with the development of KSPNs in Sumatra and Java, which tend to push manufacturing activities and do not provide added value to tourism (Srinivasu & Rao, 2013).

In Maluku and Papua, the development of KSPNs affects the electricity and gas supply sector. This is suspected to be a result of the Ministry of Energy and Mineral Resources of the Republic of Indonesia's (2023) policy to increase the gas field capacity in Papua, which could supply energy needs for the electricity and gas supply sector in KSPN development. Kalimantan, which seems to gain added value in the processing industry sector, presents an anomaly because there is no KSPN development in the area. However, the result is similar to Sumatra, Java, and Sulawesi, which have KSPNs. This can be explained by the wealth of Kalimantan in minerals and palm oil, which can contribute to the downstream processing of mineral resources for construction materials and palm oil to support the accommodation and food and beverage sectors in areas with KSPNs (Suprayitno, 2017).

3.2. Interpretation and Discussion of Household Income Impact Analysis

In the IRIO computation analysis results on the impact of household income due to KSPN development, it was found that there is no relevance between KSPN development and the improvement of the tourism sector. This can be seen in the results from Sumatra, where the wholesale and retail trade; motor vehicle and motorcycle repair sector increased by Rp99,352,283 (in million IDR), the construction sector in Java increased by Rp264,559,392 (in million IDR), as well as Bali and Nusa Tenggara, which saw an increase of Rp291,774,320 (in million IDR), and similarly in Sulawesi, where the construction sector saw an increase of Rp77,233,263 (in million IDR). The income impact due to the existence of KSPN on regional economies or increased community income was not proven. On the

contrary, it is the local community that bears the environmental damage reflected in the water supply, waste management, waste, and recycling sectors, which are the weakest sectors in the KSPN development areas, namely in Sumatra, Java, Bali, and Nusa Tenggara, and Sulawesi. In fact, in Sumatra, the development of KSPN is considered to be politically motivated, controlled by the "oligarchs," because it benefits the wholesale and retail trade; motor vehicle and motorcycle repair sectors, which are unlikely to be owned by MSMEs typically associated with tourism activities. The property sector is the weakest sector in terms of income impact due to the existence of KSPN. The author believes this is in line with the 2020–2024 RPJMN, where there are still many development issues in Kalimantan and weak health and social service sectors in Maluku and Papua. It should be noted that there is a possibility that KSPN development will concentrate health and social support infrastructure in KSPN areas, which could result in the Maluku and Papua Islands not receiving significant benefits from these sectors (Chang et al., 2015).

Table 3: Interpretation of the Linkage Analysis of the 10 New Bali Strategic Tourism Areas (KSPN)

Island	Sectors	Income Impact
Sumatra	Wholesale and Retail Trade; Motor Vehicle and Motorcycle Repair	99,352,283.43
	Water Supply, Waste Management, Waste, and Recycling	359,270.89
Jawa	Constructions	264,550,392.41
	Water Supply, Waste Management, Waste, and Recycling	198,071.55
Bali and Nusa Tenggara	Construction	291,774,320.85
	Water Supply, Waste Management, Waste, and Recycling	69,163.13
Kalimantan	Agriculture, Forestry, and Fisheries	6,155,177.45
	Property	27,126.74
Sulawesi	Constructions	77,233,263.36
	Water Supply, Waste Management, Waste, and Recycling	98,901.03
Maluku and Papua	Constructions	106,111,057.71
	Health Services and Social Activities	39,056.86

Source: Processed by author
Note: Green = sector linkage, Red = weak linkage sector

3.3. Interpretation and Discussion of Employment Impact Analysis

The development of KSPN in Sumatra, Maluku, and Papua has minimal labor force impact on the economies of Sumatra, Maluku, and Papua itself due to the lack of sectors related to tourism activities. However, the construction sector, which is labor-intensive, is considered capable of absorbing labor effectively (Banerjee et al., 2020), adding 4,453,891 people. However, it does not support the health services and social activities sectors, which have weak impacts on em-

ployment absorption. Therefore, this needs to be a focus for KSPN development in Sumatra, specifically in the Danau Toba and Tanjung Kelayang KSPNs. An evaluation also needs to be conducted in Java, Bali, and Nusa Tenggara, as they have not shown significant impact on the implementation of a circular economy in KSPN development in these regions, such as in the Borobudur Temple KSPN, Thousand Islands, Bromo-Tengger-Semeru, and Tanjung Lesung KSPNs in Java; and Komodo Island and Labuan Bajo KSPNs in Bali and Nusa Tenggara, which only had an impact on 33,203 and 33,646 people, respectively. In Java, the KSPN development again only impacted the wholesale and retail trade; motor vehicle and motorcycle repair sectors, which can lead to negative externalities by promoting fuel-powered vehicles. In Bali and Nusa Tenggara, the construction sector had a positive impact, absorbing 12,679,376 people into the labor force. The employment impact itself is positive for the agriculture, forestry, and fisheries sectors, which have been supporting the accommodation and food services sectors due to the development of KSPNs. However, similar to Sulawesi, the property sector remains weak due to KSPN development. The weakness in the health services and social activities sectors in the Maluku and Papua Islands once again needs to be addressed, meaning there is a need for both physical and social infrastructure development for these sectors in these regions.

Table 4: Interpretation of the Employment Impact Analysis of the 10 New Bali KSPN

Islands	Sectors	Labour Impact
Sumatra	Construction	4,453,891
	Health Services and Social Activities	71,095
Java	Wholesale and Retail Trade; Motor Vehicle and Motorcycle Repair	5,691,178
	Water Supply, Waste Management, Waste, and Recycling	33,203
Bali and Nusa Tenggara	Construction	12,679,376
	Water Supply, Waste Management, Waste, and Recycling	33,646
Kalimantan	Agriculture, Forestry, and Fisheries	4,049,619
	Property	6,650
Sulawesi	Construction	1,877,838
	Real Estate	50,576
Maluku and Papua	Construction	11,482,489
	Health Services and Social Activities	38,084

Source: Processed by author
Note: Green = sector linkage, Red = weak linkage sector

4. Conclusion and Implication

4.1. Conclusions

Based on the IRIO computation results, it was found that the presence of the 10 New Bali KSPN in the environmental conservation areas has not implemented the

circular economy principles, as the sectors of water supply, waste management, and recycling are weak. This is reflected in the dispersion index values of 0.60 in Sumatra, 0.61 in Java, and 0.60 in Sulawesi (Table 2). These areas have various KSPN projects, but these sectors do not add value as their values are <1. The Dispersion Index results in these areas also show similar results, with values of 0.99 in Sumatra, 0.95 in Java, and 0.95 in Sulawesi (Sugiyanto & Fikri, 2016).

The added value and economic distribution occurring in the processing industry become the focus of KSPN development implementation, as it is not typically associated with tourism activities. This occurs in Sumatra, Java, and Kalimantan. In Bali and Nusa Tenggara, even the other services sector, which is associated with tourism activities (Fauzi, 2004), does not add value, with a value of 0.67, and does not provide economic distribution as the value is 0.99 or <1. The electricity and gas supply sector appears to be a strong sector in Bali and Nusa Tenggara, Sulawesi, and Maluku and Papua, which is a positive sign, as there is still a connection between this sector and tourism activities.

However, the property sector, which remains weak in Maluku and Papua, needs to be a focus for improvement and evaluation by the government in implementing KSPN. In the analysis of household income impact on water supply, waste management, waste, and recycling, these sectors continue to show the weakest impact on household income in Sumatra, Java, Bali, Nusa Tenggara, and Sulawesi. This indicates that the development focuses more on economic interests rather than conservation, as the development does not apply circular economy principles effectively (Calderón & Servén, 2014). Even in Sumatra, the wholesale and retail sector; motor vehicle and motorcycle repair become the strongest sectors due to the impact of KSPN. As known, this sector is associated with oligarchy, and the Danau Toba and Tanjung Kelayang KSPN projects are considered to have political and economic content (Putranto, 2021).

In the employment impact analysis, it was found that the wholesale and retail trade; motor vehicle and motorcycle repair sector became the strongest sector due to the KSPN development (Pinto et al., 2022). This indicates that the KSPN development prioritizes connectivity and accessibility, with government projects that have weaknesses, such as the Kertajati airport development near the Tanjung Lesung KSPN and the Jakarta-Bandung high-speed rail project near the Kepulauan Seribu KSPN project. The only sector with an intersection with tourism activities that has a positive impact on the KSPN project is the agriculture, forestry, and fisheries sector in Kalimantan. This study implies that government policy formulation needs attention and benchmarks based on circular economy principles and not solely on political and economic approaches as the foundation for evidence-based development projects (Korhonen et al., 2018). The government needs to map conservation areas, customary areas, and areas with agrarian issues when implementing development to mitigate social impacts and negative environmental externalities (Anbumozhi & Kimura, 2018), which requires national policies based on a bottom-up approach (regional research) that examines in detail the effects of development oriented towards the people.

4.2. Suggestions

The suggestions and recommendations from this study are as follows. First, the Committee for the Acceleration of Priority Infrastructure Provision needs to evaluate the dimensions of the KSPN project implementation, especially in applying the principles of circular economy with the classification of conservation and economic areas. This serves as a reminder that conservation areas or those with natural or cultural value should not be capitalized as economic or, even worse, political media to serve the interests of the oligarchy.

Second, an evaluation is needed for the government in implementing development, particularly for various projects that have so far failed to become the "growth epicenters" for the economic life of the target regions. The top-down approach needs to be improved, as seen in the cases of the KSPN Tanjung Lesung and KSPN Kepulauan Seribu, which are considered to provide a good image for the Kertajati Airport and the Jakarta-Bandung High-Speed Rail. Such approaches should not be pursued as they could create new environmental problems in the future, so an evaluation should be conducted.

Third, further research should use additional analytical tools to assess the economic and environmental impacts more dynamically by employing Computable General Equilibrium (CGE) models to account for increasingly complex variables.

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