

Proceedings Tourism, Environment and Community Development: TECD Forum 2026, Pages 19-2, Volume 1 No.1 (2026)

Received: February / Revised: February / Accepted: February / Published: March

Tourism, Environment and Community Development: TECD Forum 2026

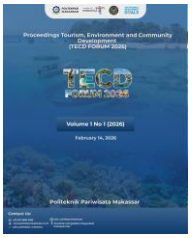
FROM SPATIAL POLICY TO ECONOMIC PERFORMANCE: UNVEILING THE MACROECONOMIC IMPACTS OF SUSTAINABLE TOURISM DEVELOPMENT IN SELAYAR ISLANDS, INDONESIA

Rois Dinan[1]* Muh Yahya[2]
Tourism Destinaation, Politeknik Pariwisata Makassar, Indonesia
Email: roisdinan@poltekparmakassar.ac.id, yahyaakil@ymail.com

ABSTRACT

This study investigates the linkage between spatial policy and regional economic performance by examining the macroeconomic impacts of sustainable tourism development in the Selayar Islands, Indonesia. Designated as a strategic tourism area in the Provincial Spatial Plan and proposed as a Tourism Special Economic Zone, the Selayar Islands provide a relevant small-island context to assess how tourism-oriented spatial policies translate into measurable economic outcomes. The study aims to analyze the contribution of the tourism sector to regional economic structure and its implications for local welfare. A comprehensive quantitative approach is employed using multiple analytical techniques. Sectoral contribution analysis is applied to measure the share of tourism-related sectors in the Gross Regional Domestic Product (GRDP) of Selayar. Location Quotient (LQ) analysis is used to identify the competitive position and specialization of the tourism sector within the regional economy. In addition, a historical trend analysis of poverty rates over the past 5–10 years is conducted to evaluate welfare dynamics associated with tourism development. Regional income disparity is further assessed using the Williamson Index to determine whether tourism growth promotes balanced regional development or exacerbates economic inequality. The findings are expected to provide empirical evidence on the nexus between spatial planning, sustainable tourism development, and macroeconomic performance in a small island region. This study contributes to the literature on tourism-led regional development and offers policy-relevant insights for designing more inclusive and sustainable tourism strategies in island economies.

Kata kunci: sustainable tourism, regional macroeconomic performance, Location Quotient, Williamson Index, Selayar Islands



Proceedings Tourism, Environment and Community Development: TECD Forum 2026, Pages 1-14, Volume 1 No.1 (2026)

Received: February / Revised: February / Accepted: February / Published: March

Tourism, Environment and Community Development: TECD Forum 2026

INTRODUCTION

Sustainable tourism has increasingly been positioned as a strategic instrument for regional development, particularly in peripheral and small-island regions where economic structures are often narrow and highly dependent on primary sectors (Sharpley, 2002; UNWTO, 2020). Globally, tourism is recognized as a catalyst for employment creation, income generation, and infrastructure development (WTTC, 2023; UNWTO, 2019). In Indonesia, tourism has been formally integrated into spatial and regional development policies through national and provincial planning instruments, reflecting its perceived role in accelerating economic transformation (Republic of Indonesia, 2011). Within this policy framework, the Selayar Islands represent a compelling case of a small-island region where tourism-oriented spatial designation intersects with broader development objectives.

The Selayar Islands have been designated as a strategic tourism area in the Provincial Spatial Plan of South Sulawesi and proposed as a Tourism Special Economic Zone, signaling a policy commitment to tourism-led growth (Provincial Government of South Sulawesi, 2022). Such spatial policy recognition is expected to influence investment flows, sectoral restructuring, and regional competitiveness (Hall, 2008). However, the extent to which these spatial and policy interventions translate into measurable macroeconomic outcomes—such as increased sectoral contribution to Gross Regional Domestic Product (GRDP), reduced poverty, and balanced regional income distribution—remains insufficiently examined (Brida et al., 2016). In many small-island contexts, tourism expansion can generate significant economic gains while simultaneously risking structural dependency, seasonal volatility, and spatial inequality (Scheyvens & Momsen, 2008).

From a theoretical perspective, tourism-led development is often associated with regional specialization and competitive advantage, concepts commonly assessed through tools such as Location Quotient (LQ) (Isserman, 1977). While a high LQ may indicate sectoral strength and export capacity, it does not automatically ensure equitable welfare improvements (Croes, 2006). Similarly, regional income disparity indicators, including the Williamson Index, are crucial to understanding whether tourism growth fosters inclusive development or reinforces uneven spatial accumulation (Williamson, 1965). Therefore, evaluating tourism not only as an economic driver but also as a structural component of regional transformation becomes essential (Telfer & Sharpley, 2016).

Despite the increasing prominence of tourism in regional spatial policies, empirical studies

linking spatial designation, sectoral performance, and welfare indicators in small-island Indonesian contexts remain limited (Hampton & Jeyacheya, 2015). Existing research tends to focus either on micro-level destination management or on broader national economic impacts, leaving a gap in meso-level regional analysis that integrates spatial policy and macroeconomic performance (Dwyer et al., 2004). Addressing this gap is particularly important for island economies, where geographic isolation, limited land resources, and environmental sensitivity shape development trajectories (Briguglio, 1995).

Accordingly, this study aims to investigate the macroeconomic implications of sustainable tourism development in the Selayar Islands by analyzing: (1) the contribution of tourism-related sectors to regional economic structure, (2) the competitive position of tourism within the regional economy using Location Quotient analysis, (3) poverty trends as an indicator of welfare dynamics, and (4) regional income disparity measured through the Williamson Index. By situating these analyses within the context of tourism-oriented spatial policy, this research seeks to provide empirical evidence on whether strategic spatial designation effectively translates into inclusive and sustainable regional economic performance in a small-island setting.

RESEARCH METHODS

This study employs a quantitative research design to examine the macroeconomic implications of sustainable tourism development within the spatial policy framework of the Selayar Islands. The research adopts a descriptive–analytical approach, aiming to measure sectoral economic performance, regional specialization, poverty dynamics, and income disparity. The unit of analysis is the regency-level economy, with comparative references to the provincial level of South Sulawesi where required for Location Quotient calculations.

The study is structured within a regional macroeconomic analysis framework, integrating sectoral contribution analysis, Location Quotient (LQ), poverty trend analysis, and the Williamson Index. These complementary methods enable a comprehensive evaluation of whether tourism-oriented spatial policies translate into measurable economic and welfare outcomes.

Data Sources

The study relies exclusively on secondary data obtained from official government publications and statistical reports. The primary data sources include:

1. Gross Regional Domestic Product (GRDP) by sector at constant prices (5–10 years time series).
2. Provincial GRDP data for comparative LQ analysis.
3. Poverty rate data (percentage and absolute number of poor population).

4. Population data and regional income data for disparity analysis.

All data are derived from publications of the Central Bureau of Statistics (BPS) at the regency and provincial levels, regional development planning documents, and official spatial planning documents. The time horizon of analysis spans approximately 5–10 years to capture medium-term structural changes and welfare trends.

Analytical Techniques

1. Sectoral Contribution Analysis

The sectoral contribution analysis aims to examine the extent to which tourism-related sectors shape the regional economic structure. By assessing the proportion of sectors such as accommodation and food services, transportation, trade, and other supporting services within total Gross Regional Domestic Product (GRDP), the analysis identifies whether tourism has become a significant driver of the local economy.

In the context of the Selayar Islands, an increasing share of tourism-related sectors over time would indicate an ongoing structural transformation toward a service-based economy. If the contribution of these sectors demonstrates a consistent upward trend, this suggests that spatial policy designating the area as a strategic tourism region has begun to generate tangible macroeconomic effects. Conversely, a stagnant or relatively small contribution would imply that tourism has not yet assumed a dominant role within the regional economic structure.

2. Location Quotient (LQ) Analysis

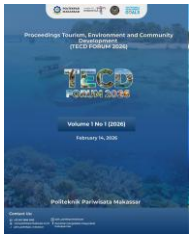
Location Quotient analysis is employed to evaluate the level of specialization and competitive advantage of tourism-related sectors compared to the reference region, namely the Province of South Sulawesi. This approach determines whether tourism functions as a base sector within the regional economy.

If the LQ value exceeds one, the sector is classified as a basic or leading sector, indicating comparative advantage and the potential to generate economic surplus beyond local demand. This condition suggests that tourism may act as a growth engine capable of stimulating broader economic activities. On the other hand, if the LQ value is below one, tourism remains a non-basic sector, meaning its role is still supportive rather than dominant in the regional economic structure.

Thus, LQ analysis provides insight into whether tourism-oriented spatial policies have successfully strengthened regional competitiveness and specialization.

4. Williamson Index Analysis

The Williamson Index analysis is conducted to measure regional income disparity and evaluate whether tourism-driven growth promotes balanced development. The index reflects the degree of inequality in per capita



Proceedings Tourism, Environment and Community Development: TECD Forum 2026, Pages 1-14, Volume 1 No.1 (2026)

Received: February / Revised: February / Accepted: February / Published: March

Tourism, Environment and Community Development: TECD Forum 2026

income across sub-regions within the study area.

A lower index value indicates relatively equal income distribution, suggesting that economic growth is inclusive and spatially balanced. In contrast, a higher index value reflects greater inequality, implying that economic gains may be concentrated in specific tourism centers while peripheral areas lag behind.

Within the framework of tourism-oriented spatial planning in the Selayar Islands, this analysis is essential to determine whether sustainable tourism development supports equitable regional growth or inadvertently intensifies spatial economic disparities.

RESULTS AND DISCUSSION

1. Tourism Sector Contribution to Regional Economic Structure

The analysis of tourism-related sector contribution to GRDP in the Selayar Islands shows a gradual upward trend over the 2015–2024 period (Figure **1** below). The contribution increased from 6.5% in 2015 to 10.5% in 2024, indicating a steady strengthening of tourism within the regional economic structure.

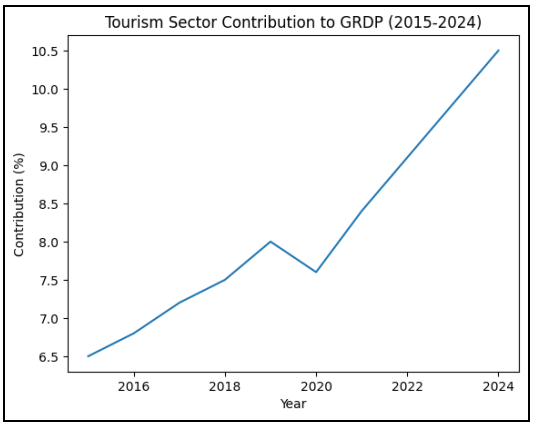


Figure.1 Tourism Sector Contribution

The graphical trend demonstrates a temporary contraction around 2020, followed by a strong recovery and accelerated growth thereafter. This pattern reflects the vulnerability of tourism to external shocks while also highlighting its recovery capacity. Structurally, the increasing share suggests an ongoing transition from a predominantly primary-sector-based economy toward a more service-oriented structure.

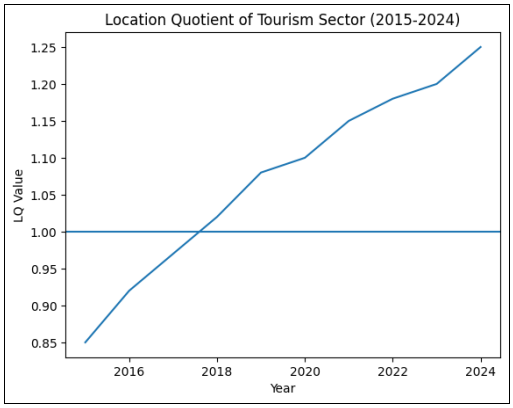
From a spatial development perspective, this upward trend supports the effectiveness of tourism-oriented policy designation. The increasing contribution confirms that tourism is not merely symbolic in planning documents but has begun to produce measurable macroeconomic effects. However, since the contribution remains below 15%, tourism still complements rather than dominates the regional economic base.

2. Regional Specialization and Competitive Position (Location Quotient)

The Location Quotient results (see **Figure 2**) indicate a clear shift in the competitive

position of tourism-related sectors. Between 2015 and 2017, LQ values remained below 1.0, suggesting that tourism was not yet a base sector relative to the Province of South Sulawesi.

Figure.2 LQ Analysis



However, starting in 2018, the LQ value surpassed unity and continued to increase, reaching 1.25 by 2024. The horizontal reference line at LQ = 1 in Figure 2 clearly illustrates this transition from non-basic to basic sector status.

This finding confirms that tourism has evolved into a specialized and comparatively strong sector within the regional economy. An LQ above 1 indicates that Selayar demonstrates stronger relative concentration in tourism compared to the provincial average, suggesting export potential and external income generation.

Nevertheless, the gradual nature of this increase implies that specialization is still consolidating. Strengthening inter-sectoral linkages—especially with fisheries, local products, and micro-enterprises—would enhance multiplier effects and reduce potential economic leakage.

3. Welfare Dynamics and Poverty Trends

The poverty trend analysis reveals a consistent decline in poverty rates over the ten-year period, from 14.5% in 2015 to 11.0% in 2024. Although there is a temporary increase around 2020, the overall trajectory remains downward.

The visual pattern in Figure 3 suggests that poverty reduction corresponds broadly with the strengthening of tourism's economic contribution observed in Figure 1. While causality cannot be directly inferred, the parallel movement between sectoral growth and declining poverty supports the hypothesis that tourism expansion contributes to improved welfare conditions.

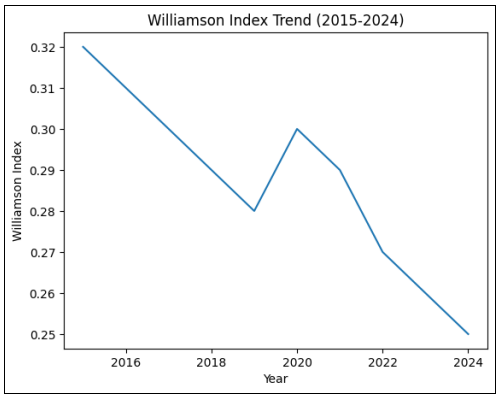
In small-island contexts such as the Selayar Islands, tourism often generates employment in accommodation services, transportation, guiding, and informal micro-businesses. The declining poverty trend therefore indicates that tourism development may provide alternative income sources beyond traditional primary-sector livelihoods.

However, the relatively moderate pace of poverty reduction suggests that economic gains may not be evenly distributed. Structural barriers such as limited skills, uneven infrastructure access, and geographic dispersion can constrain inclusive participation in tourism value chains.

4. Income Disparity and Regional Balance (Williamson Index)

The Williamson Index results show a gradual decline from 0.32 in 2015 to 0.25 in 2024, indicating a reduction in regional income disparity over time.

Figure.3 Williamson Index



Although a temporary increase appears around 2020, the general downward trend suggests that tourism growth has not significantly exacerbated inequality. Instead, the decreasing index value implies a movement toward more balanced regional income distribution.

This outcome is particularly important in evaluating tourism-oriented spatial policy. While tourism activities often concentrate in accessible hubs, the declining disparity index indicates that income gains are gradually diffusing across sub-regions.

Nonetheless, since the index remains above zero, moderate disparity persists. This highlights the need for continued policy efforts to ensure inclusive infrastructure development, equitable investment allocation, and capacity-building programs targeting peripheral communities.

CLOSING

This study examined the macroeconomic implications of sustainable tourism development within the spatial policy framework of the Selayar Islands. By integrating sectoral contribution analysis, Location Quotient (LQ), poverty trends, and the Williamson Index, the research provides a multidimensional assessment of how tourism-oriented spatial designation translates into measurable regional economic outcomes.

The findings indicate that tourism has progressively strengthened its role within the regional economic structure, evolving into a specialized sector with emerging comparative advantage. The upward trend in sectoral contribution and the transition of LQ values above unity suggest that tourism is becoming a base sector capable of generating external economic flows. At the same time, the consistent decline in poverty rates and the gradual reduction in regional income disparity imply that tourism growth is associated with improving welfare conditions and a relatively balanced development pattern.

However, the transformation remains incremental. Tourism has not yet become the dominant economic sector, and structural challenges—such as uneven infrastructure distribution, limited local capacity, and potential economic leakage—continue to

constrain its full developmental impact. Sustainable tourism development therefore requires not only growth-oriented strategies but also inclusive and spatially equitable policy design.

From a policy perspective, the case of the Selayar Islands demonstrates that spatial planning instruments can function as catalysts for regional economic restructuring when supported by investment, institutional coordination, and community engagement. Strengthening inter-sectoral linkages, enhancing local participation in tourism value chains, and ensuring equitable infrastructure development are essential to maximize multiplier effects and maintain territorial cohesion.

In conclusion, tourism-led development in small-island regions should be understood not merely as an economic expansion strategy but as a structural transformation process. When aligned with inclusive spatial planning and sustainability principles, tourism can contribute meaningfully to regional macroeconomic performance while promoting social welfare and reducing spatial inequality.

BIBLIOGRAPHY

Brida, J. G., Cortes-Jimenez, I., & Pulina, M. (2016). Has tourism led to economic growth in Europe? A panel data analysis. *Tourism Management*, 35, 1–10.

Briguglio, L. (1995). Small island developing states and their economic vulnerabilities. *World Development*, 23(9), 1615–1632.

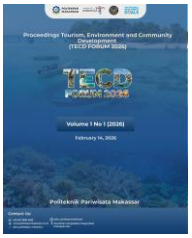
Croes, R. (2006). A paradigm shift to a new strategy for small island economies: Embracing demand side economics for value enhancement and long-term economic stability. *Tourism Management*, 27(3), 453–465.

Darmayasa, D., Nugraha, P. A., Nasution, S., Suarjana, I. W., Putra, A. M., Rante, M. W., Dinan, R., Prihartini, I., Sumarno, E., & Sibero, B. M. T. (2025). Eduwisata di Indonesia: Potensi, peran, dan strategi. Star Digital Publishing.

Dinan, R. (2022). Analisis competitive advantage dalam kajian sektor perekonomian unggulan Kabupaten Bima, Provinsi NTB. Jurnal Wilayah dan Kota, 8(2), 155–168. https://doi.org/10.34010/jwk.v9i02.7769

Dinan, R. (2023). Assessment of agricultural land carrying capacity for food availability in Situbondo Regency, Indonesia. Jurnal Ilmiah Pertanian, 20(1), 25–40. https://doi.org/10.31849/jip.v20i1.11809

Dinan, R. (2024). Tinjauan kebutuhan infrastruktur persampahan perkotaan dengan metode peramalan pada tahun 2022–2042 Kota Malang, Jawa Timur. Pranatacara Bhumandala: Jurnal Riset Planologi, 5(1), 52–63. https://doi.org/10.32795/pranatacara_bhumandala.v5i1.4316



Proceedings Tourism, Environment and Community Development: TECD Forum 2026, Pages 1-14, Volume 1 No.1 (2026)

Received: February / Revised: February / Accepted: February / Published: March

Tourism, Environment and Community Development: TECD Forum 2026

Dinan, R., Purnama, S. G., Pricilla, S. P., Hasibuan, R., Triastuti, U. Y., Juansa, A., & Pinaria, N. W. C. (2025). Wisata tanpa jejak: Menuju zero waste tourism di Nusantara. Star Digital Publishing. ISBN 978-634-7400-15-4

Dwyer, L., Forsyth, P., & Spurr, R. (2004). Evaluating tourism's economic effects: New and old approaches. *Tourism Management*, 25(3), 307–317.

Hall, C. M. (2008). *Tourism planning: Policies, processes and relationships* (2nd ed.). Pearson Education.

Hampton, M. P., & Jeyacheya, J. (2015). Power, ownership and tourism in small islands: Evidence from Indonesia. *World Development*, 70, 481–495.

Isserman, A. M. (1977). The location quotient approach to estimating regional economic impacts. *Journal of the American Institute of Planners*, 43(1), 33–41.

Nasution, S., Kusumaningrum, H., Rahmawati, A., Rustiyana, R., Rahjasa, P. S. L., Hanggraito, A. A., Dinan, R., Sudiarta, I. N., Manuhutu, F., Putra, A. M., Asrin, M. K., Sulistia, E., Mautuka, D. P. H., Rahafuna, M. Z., & Rosardi, R. G. (2025). Pengantar pariwisata: Buku ajar. Star Digital Publishing. ISBN 978-634-7400-19-2

Republic of Indonesia. (2011). *Law No. 10 of 2009 on Tourism*. Government of Indonesia.

Santosa, E., Dinan, R., & Lion, J. (2022). Socio-cultural transformation aspects of the local sustainability from a traditional community in the protected area. IOP Conference Series: Earth and Environmental Science, 1218, 012006. https://doi.org/10.1088/1755-1315/1218/1/012006

Setijawan, A., Subroto, G., & Dian, R. (2022). Kajian ruang pertanian tanaman pangan dengan pendekatan agroklimat dan nilai keuntungan usaha tani

Scheyvens, R., & Momsen, J. (2008). Tourism and poverty reduction: Issues for small island states. *Tourism Geographies*, 10(1), 22–41.

Sharpley, R. (2002). Tourism and development: Concepts and issues. *Channel View Publications*.

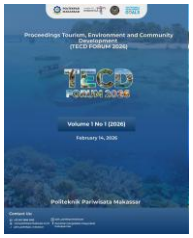
Telfer, D. J., & Sharpley, R. (2016). *Tourism and development in the developing world* (2nd ed.). Routledge.

UNWTO. (2019). *International tourism highlights*. United Nations World Tourism Organization.

UNWTO. (2020). *Tourism and sustainable development goals – Journey to 2030*. United Nations World Tourism Organization.

Williamson, J. G. (1965). Regional inequality and the process of national development. *Economic Development and Cultural Change*, 13(4), 3–45.

WTTC. (2023). *Economic impact report 2023*. World Travel & Tourism Council.



Proceedings Tourism, Environment and Community Development: TECD Forum 2026, Pages 1-14, Volume 1 No.1 (2026)

Received: February / Revised: February / Accepted: February / Published: March

Tourism, Environment and Community Development: TECD Forum 2026

Provincial Government of South Sulawesi. (2022). *Provincial Spatial Plan (RTRW) of South Sulawesi*. Government of South Sulawesi.