Article

# Unveiling Indonesia's poverty dynamics: Analyzing the structural impact of the tourism sector on poverty depth and severity

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**Abstract:** This study addresses the impact of the tourism sector on poverty, poverty depth, and poverty severity in Indonesia, focusing on the micro-level dynamics in the province. Despite numerous tourism destinations, their strategic contribution to regional progress remains underexplored. The motivation stems from the need to comprehend the nuanced relationship between tourism and poverty at both the national and local levels, with specific attention to the untapped potential at the province level in Indonesia. We hypothesize that a higher tourism sector GRDP will be inversely correlated with poverty levels, and the inclusion of a Covid-19 variable will reveal a structural impact on poverty dynamics. Employing a Panel Regression Model, secondary data from the Central Statistics Agency (BPS) spanning 2011–2020 is utilized. A panel data regression equation model, including CEM, FEM, and REM, is employed to analyze the intricate relationship between tourism and poverty. The findings demonstrate a negative correlation between higher tourism sector GRDP and the number of poor people. The Covid-19 variable, considered a structural break, reveals a significant association between increased cases and elevated poverty and severity across Indonesian provinces. This study contributes a micro-level analysis of tourism's role, emphasizing its impact at the provincial level. The findings underscore the need for strategic initiatives to harness the untapped potential of tourism in alleviating poverty and promoting regional progress.

**Keywords:** regional development; panel regression model; tourism sector; poverty; Covid-19 pandemic

## 1. Introduction

Indonesia is one of the countries with the greatest potential for tourism in the world, and this tourism potential has already generated significant revenue for the country. However, in recent years, since the outbreak of the Covid-19 pandemic, there has been a structural break in the Tourism Sector in Indonesia. This has led to a decline in the number of tourist visits, especially foreign tourists, which are a major source of foreign exchange earnings for the national economy. The prospects for tourism growth in developing countries have been a focus, with the Tourism Sector seen as a tool for poverty alleviation. Various stakeholders and institutions, such as the United Nations World Tourism Organization (UN-WTO), governments, and development organizations, believe that tourism can be a primary driver for poverty reduction (Spenceley and Meyer, 2012). However, some research findings suggest otherwise. For example, Tosun (2000) argues that while tourism aims to reduce poverty in local destinations, in reality, it often leads to the opposite outcome. Numerous studies support the idea that tourism can exacerbate poverty (Ashley et al., 2001; Mahony and Van Zyl, 2002).

However, in the context of Indonesia and some regions, the role of tourism in poverty alleviation has only attracted a small number of researchers to study or conduct related studies (Chok et al., 2007; Muhanna, 2007; Saayman et al., 2012). According to data from the Central Statistics Agency (BPS, 2020), the number of poor people in Indonesia is 26.42 million, or 9.78 percent of the population. This percentage increased by 0.37 percent from 2019 when it stood at 9.41 percent. The trend of poverty rates from 1999 to 2020 has been declining. In 1999, the number of poor people was 47.97 million, or 23.43 percent, and it decreased to 26.42 million, or 9.78 percent, in 2020. During the same period, the data on the poverty depth index and the poverty severity index also showed a decreasing pattern. In 1999, the poverty depth index was 4.33, and the poverty severity index was 1.23. By 2020, they decreased to 1.61 and 0.38, respectively.

The outbreak of the Covid-19 pandemic led several countries to impose restrictions on the entry of foreigners, including foreign nationals coming to Indonesia. This situation resulted in a decrease in the number of foreign tourist arrivals (foreign visitors) in 2020. Throughout that year, foreign tourist arrivals only reached 4.05 million. The decline in foreign tourist arrivals highlights the sharp reduction in income in the Tourism Sector in all provinces of Indonesia, especially in Bali. The data on foreign tourist arrivals decreased by 75 percent compared to 2019. According to the data, the top five nationalities of foreign tourists visiting Indonesia in 2020 were East Timorese citizens, accounting for 994.59 thousand arrivals or 24.54 percent; Malaysian citizens, accounting for 980.12 thousand arrivals or 24.18 percent; Singaporean citizens, accounting for 280.49 thousand arrivals or 6.92 percent; Australian citizens, accounting for 256.29 thousand arrivals or 6.32 percent; and Chinese citizens, accounting for 239.77 thousand arrivals or 5.92 percent.

In general, tourism is becoming an increasingly popular component of development strategies, especially in developing countries and underdeveloped countries, with the potential to boost economies and alleviate poverty. Tourism's role in global sustainability is significant, as highlighted by Ongan et al. (2022) in their retesting of the Environmental Kuznets Curve hypothesis. This study emphasizes the need for a nuanced approach, acknowledging the complexities in the relationship between economic development, environmental quality, and policy implications at the global level. Alvarado et al.'s (2023) research further explores the nexus between natural resource rent, economic complexity, and technological innovation, emphasizing the multifaceted roles of GDP, human capital, and civil liberties. Their findings contribute to understanding sustainability beyond national borders, with implications for both global and regional environmental policies. However, studies on tourism are still predominantly focused on the macro level, as seen in the works of Chok et al. (2007), Scheyvens (2007), and Mugand et al. (2010). As a result, there is a growing initiative among tourism researchers to incorporate the relationship between tourism development and poverty alleviation into their studies. Therefore, this study aims to examine the impact of tourism on poverty reduction and income distribution improvement at the district level in Central Sulawesi Province. This approach allows for a more micro-level analysis of the role of tourism compared to the national level, particularly in the districts of Central Sulawesi Province, where there are many tourism

destinations, but their strategic contribution to regional progress is yet to be fully realized.

## 2. Literature review

### 2.1. The impact of tourism on socio-economic development and poverty alleviation

Spenceley and Meyer (2012) elaborated on several theoretical discussions and findings from practitioners that emerged in the field of tourism and poverty alleviation over the past two decades. Furthermore, Blake et al. (2008) found that while the link between tourism and the domestic economy is relatively strong in three East African countries (Kenya, Tanzania, and Uganda), their study revealed that the income obtained by the poor from tourism is actually smaller than their share of the overall national income. Also, recent studies have put forth the notion that tourism is a potent tool for addressing poverty at the micro level. This new approach aims to establish a connection between tourism and poverty alleviation, and researchers have delved into the conditions of impoverished individuals in tourism development (Ashley et al., 2000; Ashley and Roe, 2002; Reid, 2003; Sofield et al., 2004; Ashley and Mitchell, 2005; Scheyvens, 2002 and 2007; Schilcher, 2007; Zhao and Ritchie, 2007; Islam and Carlsen, 2012). Several recent findings have driven attitude changes and aligned tourism development with global efforts towards poverty reduction.

The impact of tourism on socio-economic development and poverty alleviation can be felt through three main areas. First, tourism can serve as a substantial source of foreign exchange earnings for the community's income, contributing to economic development (Scheyvens, 2007; UNCTAD, 2007 and 2008). Second, tourism activities are generally labor-intensive, creating more job opportunities for people with various skills, including women (Chok et al., 2007; Scheyvens, 2007; UNCTAD, 2007 and 2008). Third, tourism development can provide better opportunities for the local population to benefit more equitably when they fully participate in decision-making and ownership of tourism activities (Akama, 2002; Kibicho, 2004; Tosun, 2000, 2006; Simpson, 2008; Muganda et al., 2010). With such a model, tourism can play a crucial and strategic role in socio-economic and cultural development critical for poverty alleviation.

The importance of community involvement in the planning and management of tourism development is further emphasized by Tosun (2000), Ashley and Roe (2002), and Sebele (2010). Micro-level tourism studies in communities in Kenya found that the higher the level of community involvement, the greater the benefits from tourism. The dependence of the local community significantly influences their evaluation of the benefits and costs, as well as their attitudes towards tourism (Kibicho, 2004). Those engaged in tourism activities have a better perception of the socio-economic impacts compared to those who are not involved. Overall, seven poverty alleviation factors have emerged from these and other micro studies, indicating areas where tourism can be a vehicle for socio-economic development and poverty reduction in communities (Tosun, 2000 and 2006; Mahony and Van Zyl, 2002; Kibicho, 2004; Manyara and Jones, 2007). These factors include improved accessibility

(transportation and communication), prices of goods and services (from both producer and consumer perspectives), entrepreneurship training, income-generating projects, employment opportunities, overall household income, and quality of life.

The concept of pro-poor tourism emerged as a solution to these leakages (Carbone, 2005). The idea is that the Tourism Sector can generate net benefits for the poor. Some benefits will be direct, such as increased wages through formal sector employment, while others will be indirect, such as improved roads, water and infrastructure, education and health levels, and environmental protection. Carbone (2005) argues that developing the Tourism Sector may be more conducive to pro-poor growth compared to other sectors due to the greater multiplier effects and opportunities created in the informal sector for unskilled workers and women. The question then becomes how to ensure the linkage. The link between tourism and poverty alleviation, according to Scheyvens (2007), has been strengthening in most developing countries, where state policies regarding economic growth view tourism as a tool to tackle poverty.

## 2.2. The impact of sustainable tourism on poverty depth

The impact of tourism on the depth of poverty is a multifaceted relationship influenced by various factors. Isik et al. (2018) explain the complex relationship between tourism demand, renewable energy consumption, and economic growth, emphasizing nonlinear dynamics. Additionally, Dogru et al. (2019) highlight the role of trade balance and exchange rates in shaping the economic impact of tourism. This understanding underscores the need to consider broader economic factors when assessing the impact of tourism on poverty levels. The dynamics of employee turnover in the hospitality industry, as explored by Dogru et al. (2023), add another layer to the discussion. These labor turnover dynamics underscore the complex interrelationships between the tourism sector, employment stability, and the subsequent impact on poverty. In addition, research by Bulut et al. (2023) examines the relationship between government spending, economic growth, and tourism in the context of climate change, emphasizing the linkages between environmental sustainability, economic development, and tourism impacts.

Furthermore, considering the recent pandemic, Karagöz et al. (2023) explain the impact of business models and state regulations on the accommodation sector. This underlines the relevance of external shocks and regulatory frameworks in shaping tourism sector dynamics and their impact on the depth of poverty. The collective insights from these studies emphasize the need for a holistic and differentiated understanding of the multifaceted relationship between tourism and the depth of poverty. Moreover, sustainable tourism development is closely related to economic growth as one of the main considerations in poverty alleviation. Dogru et al. (2023) investigate the impact of business models and state regulations on the accommodation sector, offering theoretical insights and empirical evidence, particularly in the context of the current pandemic. This research highlights the dynamic relationship between tourism, regulatory frameworks, and economic sustainability, providing a valuable perspective for broader discussions on the impact of tourism on economic growth.

The evaluation of the tourism-induced environmental Kuznets curve (T-EKC) hypothesis by Isik et al. (2020) across the G7 countries contributes to the understanding of environmental sustainability aspects in tourism. Their study explores the complex relationship between tourism activities and environmental impacts, providing evidence that can inform policies aimed at encouraging sustainable development. Additionally, Jabeen et al. (2023) investigated the role of energy utilization intensity, technical development, economic openness, and foreign tourism on environmental sustainability, further emphasizing the need for a holistic approach when considering the environmental dimensions of tourism impacts. In the field of social sustainability, Koščak et al. (2023) explore the neglected voices of children in sustainable tourism development. Their comparative study across six European tourist destinations highlights the importance of including social considerations in sustainable tourism discourse. Collectively, these studies underscore the complex interrelationships between tourism, sustainable development, and economic growth, and emphasize the need for thoughtful and balanced policies that balance economic prosperity with environmental and social responsibility.

According to Ashley et al. (2000), poverty has not been a part of the tourism development agenda in the past, but it is possible to make tourism more pro-poor and increase the income generated from tourism for the poorest segments of the population in developing countries. They also argue that poorly planned and managed tourism can damage social and cultural aspects, local traditions, and lifestyles, as well as harm ecological systems. As a result, community involvement in tourism is essential if tourism development in developing countries is to be sustainable. Community participation should be encouraged to make the planning process more effective, fair, and inclusive, as long as those participating represent the entire community and can safeguard collective interests and their own groups. Meanwhile, Zhao and Ritchie (2007) presented an integrative research framework for pro-poor tourism, which implements tourism as a crucial tool for poverty alleviation and identifies stakeholders, processes, and mechanisms through which tourism development can help alleviate poverty. In many cases, the poor are local communities in developing countries (Muganda et al., 2010; Chok et al., 2007). Poor communities are identified as one of the key stakeholders that play a vital role in the planning, development, and management of tourism. This integrative framework emphasizes the need for active local participation and ensures that, with proper planning, the economic opportunities arising from tourism development can reach the poor communities.

According to a report by WTO on the economic benefits of tourism, there are several ways to enhance the overall economic benefits of tourism in poverty alleviation, such as increasing the length of stay and tourist expenditures, spreading the development of tourism and its benefits geographically, building linkages with stronger sectors, maximizing the involvement of national labor in the tourism sector, promoting locally owned and managed tourism businesses, and optimizing tax revenues from tourism (UNWTO, 2002). Truong (2018) mentions three pathways through which tourism can help alleviate poverty: First, the direct impact pathway, where income is generated by tourism workers and other sources like handicraft sales. Second, through secondary effects where tourism professionals spend their income

back into the local economy. Third, the macroeconomic change pathway due to tourism growth.

## 3. Methodology

The empirical model used in this study has also been employed in studies conducted by Levenier et al. (2000), Sachs and Warner (2001), and Partridge and Rickman (2007). This model is expanded by examining the impact of tourism sector growth on poverty rates, poverty depth levels (P1), poverty severity levels (P2), and income inequality. The variables of poverty and income inequality serve as macroeconomic indicators to describe the level of community welfare achievement. Researchers, namely Croes and Vanegas (2008), Blake et al. (2008), Scheyvens and Momsen (2008), Gascon (2015), and Ko (2005), also investigate the impact of tourism variables on poverty, as well as the relationship between poverty and the depth and severity of poverty in different countries. This study utilizes secondary data by district/city sourced from the Central Statistics Agency (BPS) for the period 2011-2020, employing a panel data regression equation model. The panel data regression model in this study includes three models: the common effect model (CEM), fixed effect model (FEM), and random effect model (REM). The general form of the regression model equation is presented in **Table 1**.

**Table 1.** Panel regression model.

| | |
|---|---|
| 1. Model I | $LOG(\text{P0})_{it} = \sigma_{it} + \sigma_1 LOG(TOUR)_{it} + \sigma_2 DCOVID_{it} + \varepsilon_{it}$ |
| 2. Model II | $\text{P1}_{it} = \sigma_{it} + \sigma_1 LOG(TOUR)_{it} + \sigma_2 DCOVID_{it} + \varepsilon_{it}$ |
| 3. Model III | $\text{P2}_{it} = \sigma_{it} + \sigma_1 LOG(TOUR)_{it} + \sigma_2 DCOVID_{it} + \varepsilon_{it}$ |

P0 represents the number of poor population (in logarithmic units) in the provinces of Indonesia; P1 is an index indicating the depth of poverty in the provinces of Indonesia; P2 is an index indicating the severity of poverty in the provinces of Indonesia; PDR is the value of the Regional Gross Domestic Product (GDP) based on Constant Prices of 2010 in the Tourism Sector according to the provinces of Indonesia (in logarithmic units); DCOVID is a dummy variable (0 = no Covid-19 pandemic; 1 = presence of Covid-19 pandemic) indicating the occurrence and impact of the Covid-19 pandemic on the Tourism Sector in the provinces of Indonesia.

## 4. Results and discussion

### 4.1. Model I estimation results

Referring to the results of panel regression model 1 in **Table 2**, the best model is the fixed effect model (FEM) based on the goodness of fit criteria (high determinant coefficient) and succeeds in estimating the effect of the LOG(TOUR) and DCOVID variables on the LOG(P0) variable). The variable LOG(TOUR) has a negative and significant effect on LOG(P0). That is, the higher the ADHK GRDP Value of the Tourism Sector, the lower the number of poor people at the level of provinces in Indonesia. The DCOVID variable has a positive and significant effect on LOG(P0).

This means that the higher the number of cases of Covid-19, the higher the number of poor people at the provincial level in Indonesia.

**Table 2.** Panel Model I regression results.

| Independent variable | Dependent variable: LOG(P0) | | |
|---|---|---|---|
| | CEM | FEM | REM |
| C | 3.315607 | 7.201078 | 7.010284 |
| LOG(TOUR) | 0.359269*** | −0.153132*** | −0.127971*** |
| DCOVID | −0.033629 | 0.042653*** | 0.038907*** |
| R-Squared | 0.305724 | 0.996241 | 0.097603 |
| Adjusted R-Squared | 0.301604 | 0.995808 | 0.092248 |
| F-Statistic | 74.19892 | 2301.737 | 18.22501 |
| ***) Significant at $\alpha = 1\%$; **) Significant at $\alpha = 5\%$; *) Significant at $\alpha = 10\%$. | | | |

## 4.2. Model II estimation results

Based on the results of the panel model II regression in **Table 3**, the three models namely the common effect model (CEM), the fixed effect model (FEM), and the random effect model (REM). The three models (CEM, FEM, REM) can estimate the effect of the LOG(TOUR) variable on the P1 variable. The three models show that the LOG(TOUR) variable has a negative and significant effect on the P1 variable. That is, the higher the GRDP ADHK value of the Tourism Sector, the lower the level of poverty depth at the level of provinces in Indonesia. In the three models (CEM, FEM, REM), the DCOVID variable has a positive relationship with the poverty depth level, but this variable is not significant.

**Table 3.** Panel Model II regression results.

| Independent variable | Dependent variable: P1 | | |
|---|---|---|---|
| | CEM | FEM | REM |
| C | 4.564863 | 7.599933 | 5.986820 |
| LOG(TOUR) | −0.330492*** | −0.730745*** | −0.518014*** |
| DCOVID | 0.003946 | 0.063533 | 0.031863 |
| R-Squared | 0.128707 | 0.907303 | 0.067917 |
| Adjusted R-Squared | 0.123536 | 0.896631 | 0.062385 |
| F-Statistic | 24.89080 | 85.01427 | 12.27789 |
| ***) Significant at $\alpha = 1\%$; **) Significant at $\alpha = 5\%$; *) Significant at $\alpha = 10\%$. | | | |

## 4.3. Model III estimation results

Quoting the results of panel regression model III in **Table 4**, it is stated that the fixed effect model (FEM), gives the best results where the estimation results with this model give goodness of fit (highest determinant coefficient), can also predict the effect of the LOG(TOUR) variable and DCOVID on the P2 variable.

The LOG(TOUR) variable has a negative and significant effect on the P2 variable. This means that the higher the ADHK GRDP value of the Tourism Sector, the lower the poverty severity level at the provincial level in Indonesia. The DCOVID

variable has a positive and significant effect on the P2 variable. This means that the higher the Covid-19 case, the higher the poverty severity level at the provincial level in Indonesia.

**Table 4.** Panel Model III regression results.

| Independent variable | Dependent variable: P2 | | |
|---|---|---|---|
| | CEM | FEM | REM |
| C | 1.331552 | 1.980427 | 1.653621 |
| LOG(TOUR) | −0.103456*** | −0.189027*** | −0.145929*** |
| DCOVID | 0.056578 | 0.069317** | 0.062901** |
| R-Squared | 0.114311 | 0.914529 | 0.055975 |
| Adjusted R-Squared | 0.109055 | 0.904689 | 0.050373 |
| F-Statistic | 21.74744 | 92.93636 | 9.991070 |
| ***) Significant at $\alpha = 1\%$; **) Significant at $\alpha = 5\%$; *) Significant at $\alpha = 10\%$. | | | |

The findings are in line with previous studies, highlighting that the development of tourism as a means to achieve economic development in developing and underdeveloped countries has primarily been evaluated based on its macroeconomic contributions to gross domestic product (GDP), tax revenue, and total foreign exchange earnings. This approach often overlooks the specific measurement of tourism's impact on poverty at a more micro level. Traditionally, national or regional economic growth remains the primary focus in tourism development, while poverty alleviation is considered a subsidiary goal or, in some cases, an assumed natural outcome of national or regional economic growth (Ashley et al., 2000). On the other hand, there is a strong belief that almost all countries or regions have become wealthier (more prosperous) due to tourism development, which eventually trickles down to the poor through various channels, such as job creation, public welfare, and family well-being (Zhao and Ritchie, 2007).

In light of the identified negative impact of the tourism sector on poverty indicators and the exacerbating effects of the Covid-19 pandemic, future recommendations and implementations should focus on building resilience and adapting strategies to address uncertainties. Drawing from Işık et al. (2020), incorporating an Economic Policy Uncertainty (EPU) index into tourism planning can aid in navigating uncertainty stemming from various sources such as climate policy, war, and monetary fluctuations. This approach ensures a more informed decision-making process, helping the tourism sector anticipate and mitigate potential challenges, fostering sustainability in the face of uncertainty. Furthermore, insights from Işık et al.'s recent research (2023) on renewable energy, economic freedom, and policy uncertainty present an opportunity to enhance the sustainability of the tourism sector. Adopting renewable energy practices can contribute not only to environmental conservation but also to economic stability. Policymakers should prioritize creating a conducive environment for renewable energy adoption while simultaneously addressing economic policy uncertainties. Leveraging a Structured Vector Autoregressive (SVAR) approach, as demonstrated in Işık et al. (2023), can offer a comprehensive understanding of the interconnected dynamics among renewable

energy, climate policy uncertainty, industrial production, and $CO_2$ emissions. Implementing such an approach in the Indonesian context can guide policymakers in formulating strategies that promote sustainable tourism development while mitigating the adverse effects of uncertainty.

The negative and significant effect of the LOG(TOUR) variable on the P2 variable carries substantial practical implications for policymakers and stakeholders in Indonesia. The finding suggests that enhancing the Gross Regional Domestic Product (GRDP) value of the Tourism Sector (ADHK) can contribute to a reduction in poverty severity at the provincial level. Policymakers could consider investing in strategies to boost the tourism sector, such as infrastructure development, marketing initiatives, and sustainable tourism practices. By fostering growth in the tourism sector, provinces may experience a positive economic impact that, in turn, correlates with a decrease in poverty severity levels. This insight provides a tangible avenue for regional development planning, emphasizing the role of the tourism sector as a potential tool for poverty alleviation.

Conversely, the positive and significant effect of the DCOVID variable on the P2 variable underscores the importance of proactive measures to address the impact of the Covid-19 pandemic on poverty severity. Policymakers and public health authorities may need to implement targeted interventions to mitigate the economic fallout of the pandemic, especially in provinces with higher reported Covid-19 cases. Strategies could include economic relief programs, job creation initiatives, and healthcare support to alleviate the socio-economic consequences of the pandemic. The findings highlight the interconnectedness of public health and poverty dynamics, emphasizing the need for integrated approaches to address both immediate health crises and their longer-term socio-economic implications at the provincial level in Indonesia.

Lastly, policymakers often prioritize expanding the tourism sector but pay less attention to the practical impact of tourism development on poverty alleviation or reduction (Christie, 2002). Consequently, the direct impact of tourism on poverty alleviation is limited, leading to mediocre outcomes. Conversely, the pro-poor contemporary approach to tourism and the United Nations World Tourism Organization (UNWTO) project on poverty alleviation through sustainable tourism have shown significant and positive results. This approach has increased opportunities for the poor to benefit from tourism (Ashley et al., 2001; UNWTO, 2002). Furthermore, the objective of tourism as a mechanism for sustainable development will be measured and evaluated based on its effectiveness in reducing poverty in the national economy and lifting poor communities out of poverty. This aligns with the view of Rosetto et al. (2007), who emphasize that the potential of the tourism sector to contribute to poverty alleviation has become a focus of national and international development efforts. As one of the largest industries in the world, the tourism sector can play a crucial and constructive role in improving the living standards of impoverished people worldwide.

## 5. Conclusion

Based on the results of the estimation assessing the impact of the tourism sector

on indicators such as the number of poor people, poverty depth, and severity of poverty, the model incorporates the Covid-19 pandemic as a structural break. Consequently, the following conclusions can be drawn: Firstly, the tourism sector variable exhibits a negative and significant impact on the number of poor people, the depth of poverty, and the severity of poverty across provinces in Indonesia. Secondly, the Covid-19 variable, treated as a structural break in the form of a dummy variable, indicates that an increase in Covid-19 cases correlates with higher numbers of poor people and an elevated severity of poverty across provinces in Indonesia.

Although this research contributes to the existing literature on the relationship between tourism sector growth, poverty, and income inequality, there are several limitations that need to be acknowledged. Firstly, the reliance on secondary data from the Central Statistics Agency (BPS) for the period 2011–2020 may introduce limitations and potential measurement errors, affecting the robustness of the findings. In addition, the use of panel data regression models, including the common effect model (CEM), fixed effect model (FEM), and random effect model (REM), assumes homogeneity between regions and may ignore spatial heterogeneity within provinces, thereby potentially masking different patterns at the district or city level. Furthermore, this study did not investigate the specific mechanisms by which tourism influences poverty and income inequality, leaving room for future research to explore the mediating factors and causal pathways involved in these relationships. Future research efforts could use qualitative methods to gain a deeper understanding of socio-economic dynamics in tourism-impacted communities and consider additional contextual factors that may shape observed outcomes. Additionally, investigating the temporal dynamics of these relationships, especially considering the unique circumstances caused by the Covid-19 pandemic, can provide valuable insights into the resilience and adaptability of the tourism sector in the face of external shocks.

**Author contributions:** Conceptualization, S and MS; methodology, S and YS; software, M; validation, S, YS, MS and M; formal analysis, MS; investigation, M; resources, M; data curation, YS; writing—original draft preparation, S; writing—review and editing, S and MS; visualization, M; supervision, YS; project administration, M. All authors have read and agreed to the published version of the manuscript.

**Conflict of interest:** The authors declare no conflict of interest.

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