

Assessing Sustainable Tourism Expectancies in Asia

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Abstract

Natural disasters and health pandemic (combined) is believed to have a significant impact to the tourism economy. This paper explores the connections between tourism and climate adaptation as a whole and the combined effects of pandemic in particular. This research shows the importance of developing sustainable tourism in diverse ASEAN regions, and to investigate the appropriate mitigations in building a more resilient economy. The expectancies of sustainable tourism in ASEAN regions are highlighted, in such a manner that gives a knowledge about the recent socio-economic transitions, as well as the changes in the natural resource that supports tourism.

1. Introduction: Tourism and Climate Change

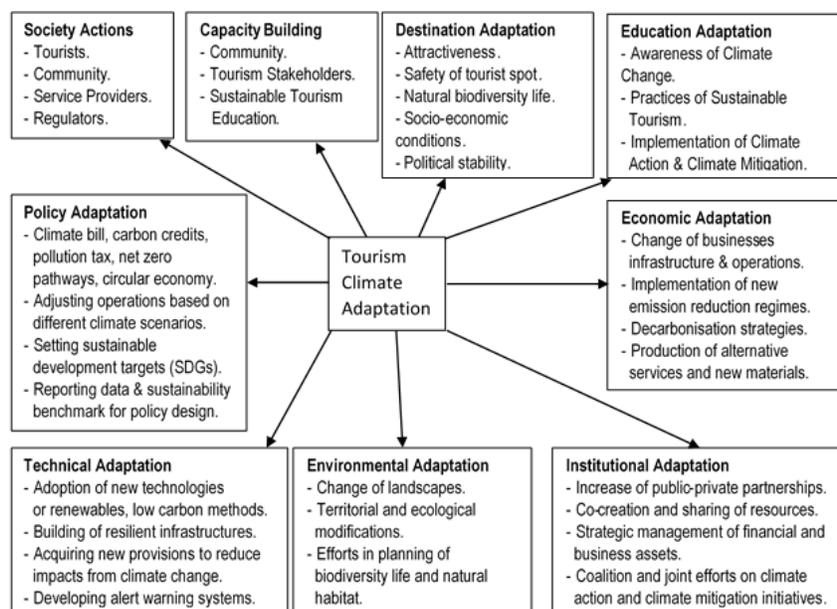
Climate related events reduces tourism economic growth, with a demand for sustainable development (Franziska Wolf et al., 2021). Tourism is a climate-dependent industry and places like the Caribbean islands are well occupied by tourists for its natural coastal and landscapes beauty (Layne Davina, 2017). Any huge climate changes events such as water and drought issues, and changes in quality of coral reefs life calls for efforts in tourism conservation. When global temperature increases, winter seasons are shorten with reduction in ice sheets and thus affecting touristic ski activities (Jianming, Y & Wan C, 2013). Human-induced CO₂ emissions over the last 50 years which includes the rebound effect of tourism activities, are amongst the main factors contributing to global warming and rapid climate changing events as reported by IPCC (Intergovernmental Panel on Climate Change). In the Davos Declaration: Climate Change and Tourism Responding to Global Challenges 2007, climate change is a big challenge which will affect the entire tourism system and the destination-community (Day J et al., 2021). Extreme weather changes would have a detrimental influence on the touristic places attractiveness, and subsequently affects the tourists safety and well-being (Ngxongo N-A, 2021). Weather pattern changes have thus led tourists to be exposed to new vulnerabilities, and to opt for weatherproof destinations, and thus a difference in tourism occupancy choices will arise (Gössling S and Dagmar L, 2021). Developed cities with better climate adaptation compared to touristic location with least adaptive to climate conditions are more likely to receive tourist activities booking. Semenza, JC and Kristie L-E (2019) research indicates the linkages of migration activities triggered by climate change events. The lack of habitability at places where food and water security are jeopardized, and the increasing risk of diseases leads to more migrants seeking new places to access better lifestyle. Boustras, G & Boukas. N (2013) describes the adverse effects of tragic forests fires in the Mediterranean on tourism development. Biodiversity life are impacted, followed by significant air pollution from debris, dust, and toxic release. Climate change therefore have a direct social impact, and environmental impact.

1.1 How Tourism Cities and Islands are Adapting to Climate Change?

Climate Adaptation seeks to moderate the adverse effects of climate events or to exploit beneficial opportunities arising from the consequences of climate change (Ian P. Holman et al., 2019). Emma Wong et al, (2012) describes that adaptation involves building capacity from individuals and a society of knowledge and experiences to adapt to climate changes events. New planning measures in ecological, social, or economic systems are performed in response

to solve climatic problems. The climate adaptation actions is organized by multiple stakeholders (tourists, tourism operators/businesses, tourism industry associations, governments/communities, financial sector) and multiple adaptations (e.g. technical/structural, behavioural, business management, policy, research and education) are performed by each stakeholder (Scott, D et al., 2009). Every tourism destination responds differently to different climate policy measures, depending on local resources and the socio-economic circumstances, while confronting complex geographic conditions. Adaptation planning has to be localised and requires stakeholder participation to adjust to local perceptions (Hyytiäinen, Kari et al, 2022). Co-creating with a destination community, local and sectoral actors can identify the barriers to adapting to climate change. Adaptation to climate change is rarely managed in isolation, for example, a touristic location confronting sea level rise may also face simultaneous other climate related events such as rising temperatures (Hoogendoorn, G & Fitchett J.M, 2016). When dealing with climate risks in a location, adaptation reduces the city's or community sensitivity to climate events, while mitigation reduces to exposure to climate change impacts (Landauer, Mia et al., 2018). Adapting from the findings of Njoroge, Joseph (2015), Figure 1 shows the actors of climate adaptation in the tourism economy, and briefly highlights actions undertaken by different stakeholders and the transformation processes when climate adaptation measures are imposed.

Figure 1: Tourism Climate Adaptation Knowledge Domains



Source: Author

Brown K et al., (1997) introduced the concept of *carrying capacity*¹, which is to study the degree and extent of socio-economic and environmental stresses as well as shocks inflicted from tourism activities. These stresses and shocks have to be assessed as the scale of impact may destabilize the natural systems.

¹ The concept of carrying capacity addresses the extent of a particular tourism destination can sustain or accommodate for services without significant pressure on the natural environment (or causes to unacceptable consumption) (Gerald T Eduarte et al., 2021).

For instance, solid waste production is expanding at an increasing rate over the average number of local inhabitants on tourism islands. This disproportionate calls for more regulation in sustainable tourism practices. Rogerson C. M. (2016) study highlights the case of South Africa government efforts in developing its national policy, and reframing the tourism sector to a more sustainable development. There are some challenges when managing climate adaptation policies, such as the lack of funding for these mandates which impedes progress and the effectiveness of regulation. Peeters, P. M (2017) research discusses on the contribution of pollution-saving technological change, such as more environmentally friendly mode of transportation to reduce emissions and implementing alternative energy sources to enhance fuel efficiency. Koçak Emrah et al., (2020) highlights that tourism economy consume a significant amount of energy, and causes huge wastes disposal. Therefore, energy efficiency measures and smarter consumption and smarter production of materials, products and services is expected to increase climate resiliency. Mycoo, M. (2013) research mentioned that unsustainable land management practices, mass tourism activities, and high-density island accommodation, were amongst the major factors in the negative impacts on island's fragile ecosystems. Coastal ecosystem degradation require policy shifts to enable climate change adaptation. Institutional quality affects the effectiveness of policies and sustainability governance in tourism (Iftikhar, H et al., 2022). There are asymmetries between institutional practices to the prosperity of tourism economic activity. The more reliable, safe, and politically effective a tourism site is, the more prosperous and sustainable the tourism economy. In response to the threat of increased drought occurrences, drilling waterholes for animals and tourists are early precaution steps, while raising water conservation plans. Other environmental adaptation have been suggested by the study of Scott D et al., (2009) which highlights snowmaking systems, slope development (eg. slope contouring, landscaping, protection of glaciers, modification of ski terrain), and cloud seeding as some examples of climate adaptation used by the ski industry. Some technical adaptation in regards to infrastructure development have been included in the study of Carroll, Joshua et al., (2020); suggesting that building bigger seawalls, increasing water elimination systems, erosion control, wildfire preparedness, and strengthening emergency response are amongst the tactics to climate adaptation.

1.2 The Pandemic Effect to Health Tourism

The occurrence of COVID-19 pandemic and travel restrictions have caused a slower tourism consumption behavior, with high concerns about the trusts and reliability on the health ecosystem (Orîndaru, Andreea et al., 2021). In the period of high uncertainty and a volatile tourism economy, tourists and all tourist stakeholders have higher priorities in securing safe health practices, securing access to health services, and having high concerns about the safeness and easy regulation related to traveling. COVID-19 pandemic have caused socio-economic displacements where livelihoods are at risk. At the same time, tourism remains to be a key economic driver to revive the world economy and to support sustainable tourism development by means of increasing tourism demand to the tourism system (Franziska Wolf et al., 2021). Some positive developments have followed from regulation measures to provide more sustainable living to the community in the wake of the pandemic. Indoor building management such as ventilation, to outdoor care systems are improved (Casado-Aranda et al., 2021). Vârzaru, Anca Antoaneta (2021) indicated the increase in green spaces in urban cities, and the built up effort from city mayors in considering the importance of making urban spaces more accessible to improve mobility and city livability. There are research gaps in regards to the linkage of climate change and the after-effect of pandemic in the tourism system. Most literature would address climate change as an important agenda for improved tourism planning.

However, there is a lack of research agenda on the definitions of health tourism², and the importance of managing health systems for tourism facilities and stakeholders. Firms are more likely to engage in corporate social responsibility, and implement new environmental mitigation measures (Casado-Aranda et al., 2021). The One Health approach has been introduced by the World Health Organization and scholars (Odette K Lawler et al., 2021), as an enhanced policy framework to engage multi-stakeholders to promote planetary actions aligned with climate mitigation, and promote human health.

Figure 2: Economic Contribution and Impact to Health Tourism

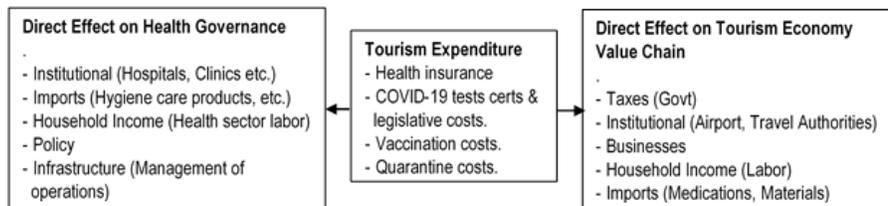


Figure 2 briefly shows the contribution of tourism expenditure during the health transformation process, which leads to a direct impact in the changes of health governance and the entire tourism economy value chain. These relationship defines the evolution of health tourism – in which tourism economy begins to instill an importance of facilitation of the health sector and health domains which are providing towards the economic value in the tourism and hospitality sector. At the same time, health tourism involves transformative processes whereby both socio-economic factors and political governance are equally contributive to ensure that the health management systems are adequate, safe, reliable, and accessible within the tourism economy and beyond the tourism economy. Health tourism is an arising phenomenon, post pandemic period, as health management systems begun to improve significantly, and more regulations have been set in place to manage the threats of the pandemic. The underpinning concepts of carrying capacity and use of green technology, among others, have become more practical and relevant to define sustainable tourism (Gutierrez E.L.M, 2021). The tourism economy encountered more state intervention where its role as a public administrator to exploit the most optimum resources to manage the community welfare in the period of a crisis. State intervention is important to manage tourism economy, as well as in correcting market imperfections (Gutierrez E.L.M, 2021). Ayham A.M. Jaaron et al. (2021) study highlighted the complexity of tourism businesses in addressing its shortfalls for contributing to sustainable economic growth during pandemic periods. A system thinking approach facilitated with a double loop learning method – to be embedded in the corporate practices can significantly help tourism companies to overcome limitations and improve services delivery. Romagosa, F (2020) referred the concept of degrowth arising from lower tourism economic activity and reduced purchases. Aligned to this concept, sustainable tourism becomes a natural phenomenon in the period of pandemic, in fact an autonomous event compared to the challenges of implementing sustainability in the entire tourism chain when economic activity is more prosperous and there are more environmental impacts. Secondly, the same author addressed the phenomenon when local tourism and proximity tourism becomes a second behavior choice amongst tourists who are more incline to

² The report by Neil Lunt et al. (2011) provides a brief overview about the different definitions between medical tourism and health tourism. Both – are evolving concepts, defined under different scenarios and depending on the reasons tourists are travelling beyond their geographic regions to access health or wellbeing care services, or depending on the circumstances when the health sector is offering an opportunity for tourists to access medical needs.

travel short distances during travel restrictions. Nearby travels and trips contributes to lower emissions and better carbon footprinting performance.

2 Methods

A literature review on different scholar articles focused in the case study of ASEAN regions are selected for analytical review in the theme of climate change and tourism management. The aim of the literature review is to carry forward insights about the recent potential sustainable tourism developments in the examples of the ASEAN economy, and to identify any potential effects of the health crisis such as the pandemic on tourism. The level of sustainable tourism development is graded based on three fundamental degree: low, medium, and high; which indicates the extent of sustainable tourism progress that has been identified in the individual article selected. There are some limitations to this grading as this grading only justifies the existence of sustainable tourism without considering the full criteria that supports sustainable management of the tourism ecosystem for a specific location, event, and undertaking specific climate scenarios. The advantage of this grading is to incite the expected development of sustainable tourism measures, or the expected sustainable tourism phenomenon in the ASEAN region which have been researched by scholars.

3 Results

Table 1 indicates the literature review of 26 articles which are selected based on open-access and data availability. The columns includes descriptive analysis about the socio-economic scenario confronted in the tourism sector, and some governance recommendations (if available). A column highlighting environmental dimensions are included, which discusses to what extent ecotourism practices, climate adaptation or climate mitigation has been mentioned in the study.

Table 1: Literature Review on Sustainable Tourism Expectancies in ASEAN.

YEAR	AUTHOR	CASE LOCATION	REVIEW	SOCIO-ECONOMIC & GOVERNANCE IMPLICATIONS	ENVIRONMENTAL IMPLICATIONS	SUSTAINABLE TOURISM DEGREE
2000	Jim C. Y.	Hong Kong	Ecotourism depends on the patronage volume, length of stay, visitor behavior and preferences. Management on these aspects helps to reduce environmental degradation during operational phases.	Promotion of nature tourism (appreciation to natural habitat). Environmental ethics fostered into tourist programmes. New nodes of tourist spots introduced to increase attractiveness to countryside.	Implementation of environmental policy for business to be proactive to reduce pollution (ie. better hotel management by energy conservation, water saving, waste management)	Medium
2010	Corazon Catibog-Sinha	Philippine	Integrating conservation and sustainable use into national decision making process develops sustainable tourism development.	Increased education on threatened species to promote responsible stewards of local biodiversity. Local policies must empower organizations, academic, research institutions, and community.	Promotion of ecotourism protected areas. Alternative tourism livelihoods introduced to support conservation and minimize dependence on natural resource.	Medium
2012	Mitsutaku Makino & Yasunori Sakurai	Japan	Climate change on fisheries in the heritage area require combined measures taking account various socio-ecological aspects and a cross-sector coordination system.	Scientific Council was established to provide integrated management plan for research and monitoring. Fishers expected to report fishing ground scale.	Restoration of the environment of natural spawning rivers. Hazard maps and evacuation plans aligned to climate events are prepared.	High
2012	Rungrawee Jitpakdee & Gopal Bahadur Thapa	Thailand	Eco-tourism generates higher productivity in the economy. Protection of landownership and social vulnerability needs to be addressed during sustainability tourism transformation.	Tourism activity includes cultural exchange activities during site visits. Fair distribution of economic and employment benefits post sustainable tourism.	Organization of activities that promotes coastal preservation and protection of fishing communities. Waste management considered.	Medium
2013	Thongphon P N Sakolnakorn et al.	Thailand	Policy design is affected by the results of actions in local tourism, government investments, and proper planning of city infrastructure.	Increase national policies to support local communities and education. Improve public services (water, electricity, etc.) and road infrastructure to reduce traffic problems.	Improve waste management. Adaptation of cultural tourism (linking cultural buildings and heritage to society practices)	Medium
2013	Narimah Samat & Norhidayah Harun	Malaysia	Conservation strategy through controlled urban development and urban sprawl in island helps to safeguard the environment (ie. Land use change is less noticeable)	Proper management and planning of tourism sites to be devised (ie. Zoning regulation for protecting landscape, natural heritage, etc.). Monitoring of urban sprawl.	Use of GIS to evaluate the impact of land use development on landscape structure. Study land use transformation.	Medium
2014	Azman Ahmad	Brunei	Ecotourism is a formula for sustainable tourism. Local populations dwellings adapt better to protected areas and secure sustainability to increase quality of life.	Increase local participation with government plans.	Regulation on traditional activities such as hunting, fishing, gathering of plants, etc. Management of indigenous populations at national parks.	Medium
2014	Hamdan Mahani & Kim Cheng P Low	Brunei	Aggressive marketing and promotion strategies of ecotourism to promote ecotourism activities.	Improve connectivity and tourism infrastructure (transportation and communication systems). Community dialogue with civil society and community leaders on sustainable investments.	Improve corporate social responsibility actions. Account for environmental implications through government and private sector transactions.	Low
2014	Kyeong H Byun et al.	Korea	Addressing carrying capacity and waste management, helps to maintain the sustainability of national park. Tourism activities compromises the integrity of natural biodiversity conditions, and quality of ecological system.	Tourism activities are restricted (ie. Number of visitors). Fines or sanctions imposed to monitor behavioural norms which impacts the integrity and life of the ecological systems. Enhanced education programs to increase awareness.	Incentives to improve waste management.	Medium

YEAR	AUTHOR	CASE LOCATION	REVIEW	SOCIO-ECONOMIC & GOVERNANCE IMPLICATIONS	ENVIRONMENTAL IMPLICATIONS	SUSTAINABLE TOURISM DEGREE
2015	Ahmad Fitri Amir et al.	Malaysia	Sustainable rural tourism aligned to promote communities resiliency – which helps society rebound to challenges. Resilience focus on community vulnerabilities and tackle immediate socio-economic and environmental threats.	Better planning in tourism activities, community planning, community development, infrastructure planning, social welfare policy, and emergency services planning are vital.	Concept of resiliency needs to be adopted into the environmental policy and climate change actions. Synergies across resiliency, and promoting sustainable rural tourism needed.	Low
2015	J.M. Luo et al.	Hong Kong	Increase in resident departures are associated to rising climate change events. Increase in disposable income leads to increase in travel.	The dimension of travel safety – is a deciding factor for a steady tourism economy. Sophisticated transport network (both air and land), affects the choice of tourist mobility. Urban heat island occurs due to tarmac replacing vegetation and reduced air ventilation with high dense buildings.	Climate variables such as temperature, humidity level, visibility, and wind – can be associated to the responsiveness of tourism departures. Climate change must be integrated in the strategic planning process.	Low
2015	Ali Mamhoori & Saboohi Nasim	India	Increase in quality of holidays and increase in economic margins develops sustainability. Need to study the level of perceived responsibility amongst multi stakeholders who are aware of sustainability.	Promote sustainable tourism products using market related instruments and incentives. Increase sustainability education and increase coordination of sustainability activities with NGOs.	Consider national and international policy (ie. OECD Environmental Performance Review) to shape sustainability reporting systems and advance environmental friendly activities.	Low
2016	Xiong Lina et al.	China	Visitation environment, economics, and community development are factors for sustainable urban heritage tourism.	Coordination and collaboration of multi-stakeholders needed for sustainable tourism development. Travelers feedbacks and experiences vital for policy design.	The character of a site place and heritage destination can build a delicate contribution to heritage conservation.	Low
2017	Ling-en Wang et al.	China	Responsible tourism and low carbon tourism activities should be advocated.	Government to provide financial support in form of subsidies and interest free loans to climate change sensitive businesses. Enhance consumption of local produce.	Establish environmental security monitoring systems in glacier tourist areas to safeguard against geological disasters. Reduction in waste.	Low
2017	Jazztin Jairum P. Manalo	Philippine	Ecotourism promotes economic development and prevent pollution.	Better management of coastal resources and use of green technologies.	Regular water testing at hotel operators.	Medium
2017	Loda M. & Macri E.	Myanmar	Responsible tourism index provides a reference point for sustainable development policy.	Study the tourist behaviours and attitudes in terms of actual responsibility which effects the potential tourism sustainability performance.	Adopt respective values for the natural resources and cultural heritage.	Low
2019	Vilas Nitivattananon & Sirinapha Srinonil	Thailand	Coastal tourism areas negatively affected (eg. Water pollution, resource degradation). Climate mitigation and climate adaptation is vital to improve carrying capacity and collaboration between multi-stakeholders.	Relevant environmental policies should recognize synergies between different urban developments and identify proper management of tourism infrastructure and services for climate resilience.	Establishment of wastewater treatment plant. Improvement of collection of wastewater and management of air pollution. Arrangement of zoning sites from tourism and urban activities,	Low
2019	Hongbing Zhu et al.	China	Heritage sites engagement with local communities promotes sustainable tourism. Tourist more likely to appreciate distinctive features of tourist site and advocate conservation.	Sustainable tourism at heritage sites require more cooperative coordination between site management and all public agencies and private enterprises to reduce ill managed tourism activities.	Cooperating with reputable institutions and obtaining certificate in environmental management ISO14001. Formulating guidelines for sustainable tourism in hotels.	Medium

YEAR	AUTHOR	CASE LOCATION	REVIEW	SOCIO-ECONOMIC & GOVERNANCE IMPLICATIONS	ENVIRONMENTAL IMPLICATIONS	SUSTAINABLE TOURISM DEGREE
2020	Somsathid Phonwattana et al.	Thailand	Cultural promotion and community welfare are interlinked to sustainable tourism development.	Management of low income community welfare influences the amount of tourism activities.	Cultural platforms stimulates new innovation, new environmental awards, and improved practices.	Low
2020	S.H. Hengky & Zaal Kikvidze	Indonesia	The competitiveness of environmentally sustainable coastal tourism depends on the efficient implementation of natural resource management, and the culture of practices in the community.	Advocate community-based marine ecotourism, which promotes local community participation in managing coral reef. Increase sustainable tourism education and awareness with local communities.	More ecological and sociological studies to be carried out to provide sound data for environmental management.	Low
2020	Stephenson, Marcus L. & Dobson, Graeme J.	Myanmar	Smart city developments offers a repositioning strategy to secure sustainability, and a more holistic development framework in city planning.	Utilizing ICT to support city activities and to make services more accessible.	Prioritization of the conservation of heritage sites, and increase responsiveness to environmental protection and climate change.	Low
2021	Venugopalan, T	India	Tourism governance and policies have no yielded desired sustainable tourism development. More proactive measures to mitigate adverse environmental impact is needed with involvement of multi-stakeholders.	Community participation and environmental education needs to be addressed for sustainable tourism development. Improvement on environmental education and awareness campaigns.	Tourism affecting safety and security of human beings. Government should adopt suitable strategies for conservation of physical integrity, biodiversity and resource efficiency.	Low
2021	Najib Noorashid & Wei Lee Chin	Brunei	The resilience adaptive cycle in tourism is reviewed to secure sustainable tourism. Promoting community-based tourism increases community empowerment and transform hospitality to sustainability.	Diversifying tourism products and services, while increasing collaborations between stakeholders helps to revive the tourism economy and prepare to resiliency.	Encourage innovation in domestic/local tourism products and services. Introduced virtual services and online events to promote awareness.	Low
2021	Abhishek Singh Bhati et al.	Vietnam	International collaboration and resources helps to design sustainable programmes. Uncontrolled urbanization, pollution, and water crisis calls for centralized planning and more local decision-making.	Consider more efficient public transportation to reduce traffic congestion. Support cultural tourism development to foster cultural education.	Improve city water infrastructure such as drainage and wastewater treatment to avoid flooding.	Medium
2022	Hoang V. Nguyen et al.	Vietnam	Expanding tourism market while reducing mass tourism and training skilled tourism human resources amongst approaches to sustainable tourism.	Diversification of tourism sector (diversifying sources of tourists and improving governance), and mitigating the risk of reliance on a single tourism sector.	Tourism led to overloaded infrastructure, lack of quality control, traffic congestion and floods. Regulation on construction permit to control oversupply of accommodation.	Low
2022	Ratchaphong Klinsrisuk & Watchara Pechdin	Thailand	Strengthening the tourism resilience in relation to the consumption and production economic patterns is critical for sustainable tourism.	Public utility services and labor-intensive sector have major economic and environmental shocks. Diversification of tourism products and services, and fostering high value added tourism activities.	Promote policies to reduce vulnerability to future tourism shocks. Technological production should be facilitated during the transitional period of restricting the tourism economy.	Low

4 Discussion

Figure 3: Deciding Factors Identified from Systematic Review Contributing to Sustainable Tourism

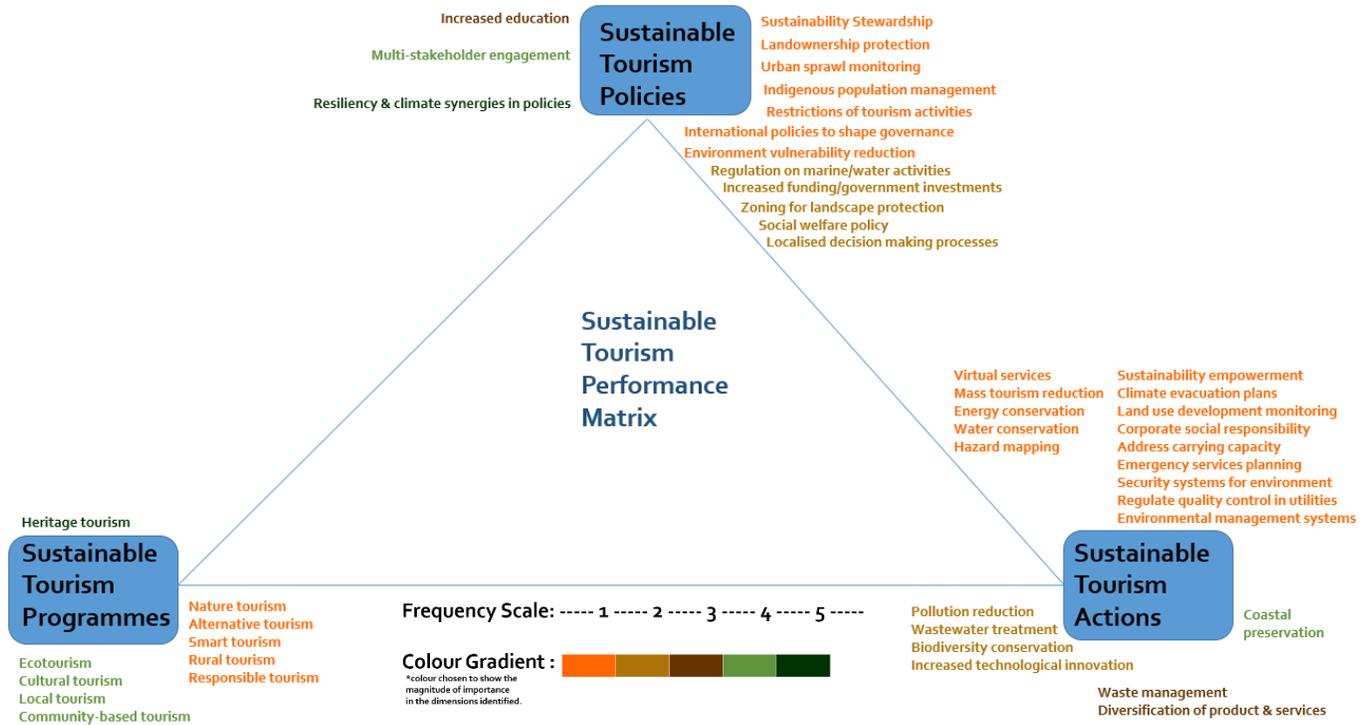


Table 1 contains a systematic review of research key outcomes from varied scholars focusing on incorporating sustainability development into tourism, and to achieve sustainable tourism performance by integrating varied interventions (eg. in the dimensions of economy improvements, political interventions, environmental governance, and synergies with climate change). The overall studies showed trends where sustainable tourism achievements (by means of meeting the targets of sustainable tourism development), are currently low in the recent years. In all 26 articles reviewed, the scale of sustainable tourism transformation are unlikely to be very high or normally high; especially when interventions are adopted singularly. If interventions are incorporated in multiple dimensions (eg. Economy, social, political/institutional, environmental, etc.), then the scale of sustainable tourism development will increase. Although this study has significant contribution to the current literature in the tourism industry and sustainability practice, however, this study also has few limitations which could be the future directions. First, this study is limited to fully identify the scale of sustainable tourism development in the entire ASEAN regions. There is a need to investigate more open access articles, and other reputable scientific database to retrieve more case studies on different ASEAN regions. Additionally, the tourism infrastructure and tourism governance varies for every country which may be one of the causes to vary the original results. Hence, incorporating a more in depth study of each individual country can be considered in future studies. One recommendation which can be highlighted from this research is to expand the research method with complementary quantitative data such as conducting interviews or surveys which can provide additional results that will reduce any flaw in defining sustainable tourism or understanding the behavior of market flows. Figure 3 shows the overall elements (or deciding

factors) identified from all articles. In which these factors contributes to the performance and operation of sustainable tourism development. Varied sustainable tourism programmes can be identified, in which these programmes are mutually defined by its terminology. The review indicated high frequency of the discussion on increasing sustainability awareness in community by offering training and improving education. This is a significant outcome, as the association of sustainable tourism have yet to be found to be commonly attributed to education by norm. The sustainable tourism expectancies in ASEAN have been found to place a moderate importance to integrate the concept of resiliency and climate action. The most frequent mentioned sustainable tourism interventions are biodiversity conversation, pollution reduction, and diversification of products and services.

5 Conclusion

Figure 4: Expectancies to Shape Sustainable Tourism in ASEAN

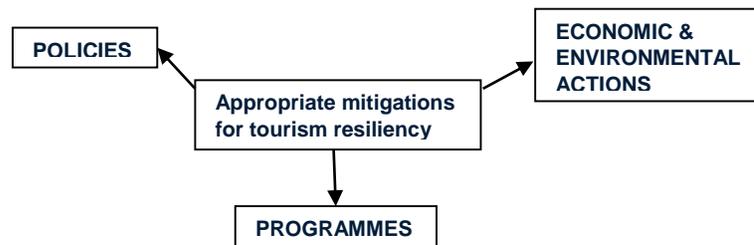


Figure 4 shows the transformative approaches through three core elements: 1. *Policies*, 2. *Programmes*, and 3. *Economic and Environmental Actions* to complement the planning process in tourism management; as well as to facilitate the governance in securing resiliency in the ASEAN tourism market. This paper contributes to the tourism studies in three-folds. Firstly, the review reflected on the trends of sustainable tourism and other definition terminologies (such as cultural tourism, heritage tourism, ecotourism, etc.) associated to tourism development. Secondly, the paper mainly focused on ASEAN market which remains to be an important continent segment to integrate in tourism research, where more data is needed. This paper outlined the need for two important phenomena associated to sustainability: 1. Climate Change, and 2. Health Pandemic. Both key aspects which were lacking of being discussed in most literature. Although a hand few of literature acknowledge the two scenarios, however – there is a lacking of evidence that provide linkages to sustainable tourism, and lacking of evidence in relation to the future impact that ASEAN market will confront when climate change or health pandemic continue to interrupt or intercept with sustainable tourism development. A further conclusion which derives from this research is that, similar ecotourism initiatives can be proven to be a very efficient initiative to foster preservation of natural resources, while ecotourism is treated as a normal practice across most ASEAN regions. The diverse problems associated to climate adaptation pathways or management of health tourism, are two other distinctive policy-related transformation which demands the coordination of different stakeholders, and local community participation. The sustainable tourism expectancies suggests that it is essential for all tourism stakeholders to integrate multiple interventions, and whenever possible – pursue varied ideas that prepares the tourism economy to adapt to different environmental problems and market imperfections.

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