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Tourism Research Cluster



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Establishing Australia's South West Sustainable Tourism Observatory: Tourism for Regional Development in a Sensitive Environment

Preliminary report

Final version June 2019

Focal areas: Margaret River Region, Australia's South West (Western Australia)

Curtin University – Tourism Research Cluster

Status of the Study Report:

June 2019

Project Implementing Partners:

Tourism Research Cluster, Curtin University; Tourism Western Australia; Australia's South West; Margaret River-Busselton Tourism Association; Department of Biodiversity, Conservation and Attractions; Government of Western Australia; Expedia Group

Acknowledgment:

The research team and report acknowledge that Western Australia has strong and proud Aboriginal history and complex ownership and land stewardship systems stretching back many thousands of years. They explicitly pay respect to the Traditional Owners and Custodians.

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List of Abbreviations

Abbreviation	Meaning
AAM	Australian Accommodation Monitor
ABS	Australian Bureau of Statistics
ACA	Australian Cruise Association
ASW	Australia's South West
ASWTO	Australia's South West Tourism Observatory
COB	City of Busselton
GDP	Gross Domestic Product
GRP	Gross Regional Product
INRouTe	International Network on Regional Economies, Mobility and Tourism
INSTO	International Network of Sustainable Tourism Observatories
IUCN	International Union of Conservation of Nature
IVS	International Visitor Survey
MRBTA	Margaret River-Busselton Tourism Association
NA	Not Available
NR	Not required
NVS	National Visitor Survey
RTO	Regional Tourism Organisation
SAMR	Shire of Augusta-Margaret River
SWDC	South West Development Commission
TRA	Tourism Research Australia
TRC	Tourism Research Cluster, Curtin University
TSA	Tourism Satellite Account
TWA	Tourism Western Australia
UNWTO	United Nations World Tourism Organisation

1. Introduction

The tourism industry is one of the world's most important industries, contributing 10.4% to the global GDP and generating 313 million jobs in 2017 (WTTC 2018). As an export industry, tourism plays an important role in developing local economies and can fulfil this role only if it adheres to principles of sustainable economic, social and environmental development to ensure that the long-term viability of tourism destinations are not jeopardised. Measuring and monitoring sustainability impacts of tourism can be challenging due to the multi-faceted nature of tourism, but efforts are being undertaken to develop heuristics and good practices to follow. A key initiative is the UNWTO International Network of Sustainable Tourism Observatories (UNWTO-INSTO), which is committed to the sustainable and resilient growth of tourism.

Created in 2004, the purpose the UNWTO-INSTO is to continuously and systematically monitor sustainability indicators of destinations at a sub-national level to support the formulation and implementation of sustainable tourism policies, strategies and management processes, thus guiding improvements in sustainable development practices globally. INSTO Observatories help to encourage good practices worldwide, support local stakeholders in data collection and analysis to enable evidence-based decision making, promote capacity building and facilitate networking. As shown in Figure 1, there are currently 22 sustainable tourism development data observatories in operation worldwide (as of October 2018), including observatories in Europe, the US, China, Indonesia and New Zealand, but none located within Australia.



Figure 1: International Network of Sustainable Tourism Observatories

Source: UNWTO-INSTO, 2018

The proposed establishment of Australia's South West Sustainable Tourism Observatory (ASWTO) supports 'tourism development for regional development in a sensitive environment' and follows a stepwise approach. It is envisaged to begin by focusing on the Margaret River Region to be extended then to the broader Australia's South West tourism region.

Australia' South West tourism region which covers the Southwest corner of Australia and stretches from south of Mandurah to Albany and east to Bremer Bay, is the second most visited tourism region in Western Australia (WA), with 3.13 million visitors in 2017 (Tourism WA 2018[4]). The popularity of the ASW tourism region is based on a combination of natural attractions, such as a remarkable coastline, superb beaches and forests, in particular old-growth forests, and a diverse marine environment as well as a high-quality wine, food and arts. Australia's South West region is broken into four sub-regions: Bunbury Geographe, Margaret River Region, Southern Forests and Valleys, and the Great Southern region.

The Margaret River Region, one of these subregions, is a tourism region located in the westernmost part of Australia's South West tourism region. The destination is internationally recognised, boasting two IUCN category 2 sites, a rich nature-based tourism product and a world class wine region including gastronomic attractions. Tourism is a key contributor to the region's economy, accounting for 14.1% of the Gross Regional Product and 19.5% of employment (TRA 2018). The Margaret River Region can be considered to be a maturing tourism destination (Butler 1980; Jones, Burke and Stocker 2017), making it a highly suitable candidate for the location of the proposed UNTWO observatory.

The long-term prosperity of the Australia's South West and Margaret River regions depends on a fragile balance between regional development and the preservation of a unique natural environment, which is a rare biodiversity hotspot (one of only 25 original global hotspots for wildlife and plants), and the first one identified in Australia. Biodiversity hotspots are defined as regions "where exceptional concentrations of endemic species are undergoing exceptional loss of habitat" (Myers et al., 2000). The southwest Australian ecoregion is home to more than 4,000 species of endemic plants and 100 endemic vertebrates. Without doubt, this exceptional natural context is a key asset for tourism development in the region, which makes it indispensable to closely monitor impacts. At the same time, the region, as has happened to many other regional areas in Australia, may easily come under pressure of depopulation. Maintaining a solid rate of economic development is thus equally essential to ensure that the region remains attractive for residents and tourists alike.

Prospectively named Australia's South West Tourism Observatory (ASWTO), the Observatory will aid in achieving the following objectives:

- Provide up-to-date regional data to guide evidence-based tourism decision-making and policy development;
- Provide up-to-date regional data to monitor policy implementation;
- Provide baseline measurements and data for ongoing benchmarking (longitudinally, regionally, nationally and internationally);
- Provide data to assist in future research studies and;
- Exchange ideas and experiences on sustainable development within the UNWTO-INSTO network;
- Maintain and further enhance the established leadership of the Margaret River Region and Australia's South West in terms of sustainable tourism development in Western Australia and beyond;

- Maintain and further enhance the established leadership of the Margaret River Region and Australia's South West in terms of tourism development supporting regional development and prosperity;
- Implement self-monitoring by regularly evaluating the impact of the ASWTO on the regional destination network.

Within this application we will firstly provide a basic destination profile of the Margaret River and Australia's South West tourism regions including an overview of basic economic data, governance structures, destination attributes, tourism challenges and strategic plans in place to manage the sustainable development of the region. Secondly, key sustainability areas specific to Margaret River and Australia's South West will be explored via secondary and primary data analysis to identify necessary data and data gaps. This will be followed by an overview of the proposed data observatory's objectives, data collection methodology and relevant stakeholder relationships.

2. Destination Profile: Margaret River Region

Australia's South West is one of five geographically demarcated tourism regions within Western Australia (besides 'Destination Perth, 'Australia's Golden Outback', Australia's Coral Coast and 'Australia's North West') (see Figure 2) (Pforr, 2007; Pforr, Pechlaner, Volgger and Thompson, 2014). Within this region, next to three other subregional areas (see Figure 3), is the Margaret River Region, which will be the initial focus of the Australia's South West Tourism Observatory (ASWTO). The Margaret River Region is located 250 km south of Western Australia's capital city, Perth, and covers approximately 3,700 km^2. The region is characterised as a coastal area, encompassing Geographe Bay, Cape Naturaliste and Cape Leeuwin as major landmarks and includes two IUCN category 2 sites, namely the Leeuwin-Naturaliste National Park (191 km^2) and the Ngari Capes Marine Park (1,238 km^2). The region's Mediterranean climate provides ample rainfall and sustains a wide variety of agricultural activities, most prominently grape wine production. The region is also recognised as a biodiversity hotspot as it exhibits high levels of species endemism as well as high levels of threat, namely at least 1,500 species of endemic vascular plants and primary vegetation depletion of greater than 70% (Myers et al., 2000; English and Keith 2015).

The region has a population of 50,944 inhabitants and is governed by two local government authorities: the City of Busselton and the Shire of Augusta-Margaret River. Population within the region is concentrated to the major town centres of Busselton, Margaret River, Dunsborough and Augusta. Undeniably, tourism plays a role in ensuring income (14%) and employment (20%), and thus development, in the region (see further below). However, it will be critical to maintain the quality of the natural and cultural environment in future because they are at the very core of the region's attractiveness for both residents and tourists.

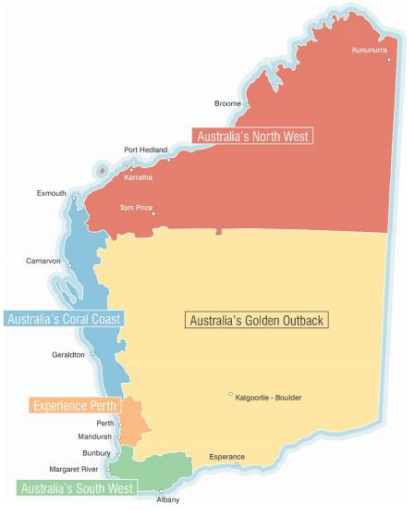


Figure 2: Map of Western Australia's Tourism Regions
Source: Tourism WA, 2018



Figure 3: Map of Australia's South West
Source: Australia's South West Inc.

2.1 History

Wadandi and Bibbulman people have been living in the area for at least 50,000 years, and exerted a strong influence on the region. The modern history of the region took a sudden turn with the arrival of early colonial settlers in the first half of the 19th century. European settlement in the wider area for agricultural purposes started in the 1830s. However, early attempts at creating an agricultural or timber industry base for British settlement were difficult (Jones 2016; Sanders 2005). Early tourism initiatives in the region coincided with the "discovery" of limestone caves in the early 20th century (Sanders 2005). "Yallingup Cave"/ "Ngilgi Cave" was the first to open for public access around 1900. The establishment of a "Caves Committee" in 1901 by the government to develop the area's caves into a national attraction can be seen as a first concerted effort towards the establishment of a tourism industry in the region.

Advancements in mobility in the post-war period made traveling to the Margaret River Region easier for visitors from Perth (Jones 2016). The areas cleared by early settlers were rediscovered by drifters in the 1950s and 1960s in search for alternative lifestyles. The drifters and hippies have since left a significant imprint on the region by emphasising environmentally sustainable practices. This development of the Margaret River Region into a "surf and hippie hangout" coincided with the beginning of the region's winemaking in the 1960s, which had a strong impact on its further development. Without necessarily intending it, surfies and vignerons sparked a renewed interest in the Margaret River Region, which has continued to this day.

2.21 Basic Economic Data

Relative to Western Australia the Margaret River Region represents less than 1% of the state's territory and 2% of the state's population. Despite its relatively small size compared to the State overall, the region accounts for 8.2% of Western Australia's 68.7 million visitors nights and accommodates 1,594,300 annual overnight visitors (three year annualised average 2015-17).

Table 1: Breakdown of visitors to the Margaret River Region (three year annualised average 2015-17)

	Visitors (Annual Growth)	Visitor Nights (Annual Growth)	Average Length of Stay
Intrastate	1,310,900 **(+3.3%)**	4,032,400 **(-0.7%)**	3.1 nights
Interstate	146,600 **(-1.2%)**	625,800 **(+2.9%)**	4.3 nights
International	136,800 **(+9.2%)**	1,002,700 **(+16.0%)**	7.3 nights
Total	1,594,300 **(+3.3%)**	5,660,900 **(+1.9%)**	3.6 nights

Source: Tourism WA (2018) City of Busselton; Shire of Augusta-Margaret River Visitor Factsheet 2017; 2018

As shown in Table 1, intrastate tourists are the dominant market segment, representing 82% of all overnight visitors. International visitors account for 8.6% of total visitors, but 17.7% of

all visitor nights, with key markets including UK, Singapore, Malaysia, USA, New Zealand, Germany and China. Growth in the intrastate and interstate markets has generally been stagnant in the last couple of years, although according to industry perceptions the Christmas period of 2018 saw a strong pick-up in the intra-state market in particular. At the same time there has been promising growth in the international market. Targeting the high-value Asian market has been a key focus of 'Tourism Western Australia' (Tourism WA), the Western Australia State Government statutory authority for tourism marketing and development, (see Volgger, Pforr and Marques, 2018).

Regional level data on the supply side (including its capacity) is fragmented and thus difficult to present with certainty. Best estimates provided by the Australian Bureau of Statistics (ABS) characterise the region as having 1,492 commercial rooms, which equates to 5,345 permanent commercial beds (ABS, 2017). Seasonality is a key concern with occupancy rates in accommodation in January above 70% and below 45% in August (Tourism WA, 2017[1]; 2017[2]).

The tourism industries are a key contributor to the region's economy. As shown in Tables 2 and 3, tourism contributed an estimated $2,061,000,000 to the GRP (Gross Regional Product) and employed 21,100 people in 2016/17 (TRA 2018). Thus, tourism accounts for 14.1% of the region's GRP and 19.5% of the region's total employment. Due to limitations in the data set, disaggregation of these figures into specific tourism-based industry representations as well as disaggregation at a sub-regional level are problematic.

Table 2: Total contribution of tourism to WA's tourism regions in 2016-17

	Gross Value Added ($ million)	Gross Regional Product ($ million)	Employment (persons employed)
Australia's South West	$1,886	$2,061	21,100
Western Australia	$10,605	$11,789	103,900

Source: Tourism WA, Economic Contribution of Tourism to Western Australia's Tourism Regions 2016-17

Table 3: Total Contribution of Tourism to WA's Tourism Region Economies in 2016-17

	Gross Value Added (% of region's total economy)	Gross Regional Product (% of region's total economy)	Employment (% of region's total economy)
Australia's South West	13.4%	14.1%	19.5%
Western Australia	4.4%	4.8%	7.7%

Source: Tourism WA, Economic Contribution of Tourism to Western Australia's Tourism Regions 2016-17

2.3 Governance Structure

Tourism within the destination is governed in a tiered system incorporating multiple key stakeholders, including several levels of government agencies and non-government organisations. Figure 4 provides a simplified graphical representation of this structure.

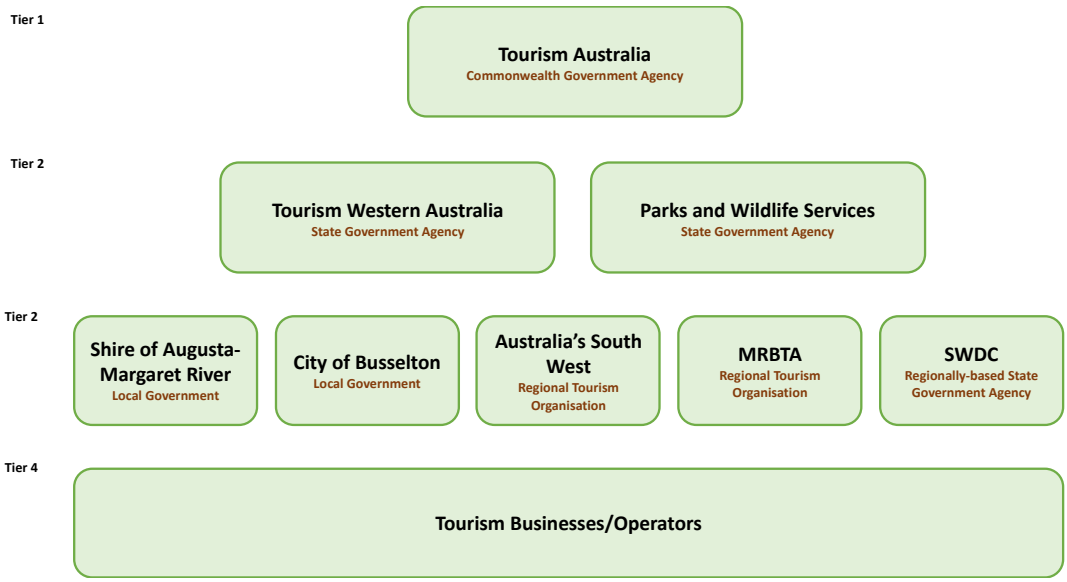


Figure 4: Governance structure of tourism management within the destination

Note: As tourism is a cross-sectional policy area, the relevance of additional Government Departments and Agencies operating in areas such as fishing and agriculture (and others) is recognised.

Source: Own illustration

Tourism Australia, the federal Australian Government tourism agency, has set the Tourism 2020 strategic agenda with the key goal of doubling the value of tourism (domestic and international) within Australia from $70 billion in June 2011 to $140 billion by December 2020.

Tourism Western Australia (Tourism WA) is the state government tourism agency for Western Australia. Tourism WA is responsible for guiding the growth of Western Australia's value of tourism to $12 billion as part of the Australian Government's Tourism 2020 strategy. Its key function is to partner with other state government agencies and industries to 1) market Western Australia as a tourism destination, under the umbrella brand 'Experience Extraordinary' (under which Australia's South West and the Margaret River tourism regions fall), 2) to sponsor major events to attract visitation and 3) to facilitate major tourism infrastructure and investment (Tourism WA, 2012).

Australia's South West (ASW) is a Regional Tourism Organisation (RTO) that is co-funded by Tourism WA and a membership base of local tourism operators. It partners with Tourism WA to aid in the execution of their tourism objectives at a regional level. ASW represents the four sub-regions of Margaret River, Great Southern, Bunbury Geographe and Southern Forests and Valleys.

The Margaret River-Busselton Tourism Association (MRBTA) is a private, membership-based tourism association established in 2015, uniting two previously competing tourism associations: the Augusta Margaret River Tourism Association and Geographe Bay Tourism Association. Their merger has since allowed the development of the regional umbrella brand, 'Your Margaret River Region', which is managed and facilitated by the MRBTA. The

MRBTA also works closely with 780 local tourism operators and operates six cave and lighthouse-based tourist attractions and four visitor centres to present a coordinated regional tourism product.

The South West Development Commission (SWDC) is part of the Western Australian State Government. The aim of the organisation is to aid in the development of the South West region by partnering with communities, government, businesses and industry to identify and support projects that benefit the region, thus developing the region's economy. While servicing all industries, tourism is one of SWDC's priority areas. Specifically, SWDC's key focus areas in relation to tourism include: trade and investment facilitation, market and consumer insights, and regional growth opportunities.

ASW, MRBTA and SWDC generally follow a collaborative approach in supporting tourism development and marketing whilst their territorial competence areas do not overlap completely. While ASW has its main focus on marketing, SWDC concentrates on development. MRBTA offers marketing, booking and visitor services specifically for the Margaret River Region. It also runs attraction points.

Finally, the City of Busselton and the Shire of Augusta-Margaret River are the two local governments in the Margaret River tourism sub-region. They are in charge of providing local resident amenity services such as waste management as well as approvals related to land use and development.

2.4 Destination Attributes: Tourism Product

As highlighted earlier, the Margaret River region has a diverse tourism offering and regional identity centred around nature-based attractions and agricultural produce. Key attractions include:

- Beach and aquatic recreation (e.g. surfing, fishing, diving)
- Wine and food (e.g. wineries, breweries, dining, local produce)
- Natural attractions (e.g. caves, forest, coastline)
- Adventure activities (e.g. Cape to Cape hiking track, 4x4 driving, diving, whale watching)
- Heritage sites (e.g. Busselton Jetty, lighthouses)
- Events (e.g. Gourmet Escape, sporting events)

As the principal RTO for the Margaret River region, the MRBTA has organised the branding and communication of the tourism product around five key pillars (MRBTA, n.d.): nature and environment, active and adventure, wine and wineries, eat and drink as well as arts and wellbeing.

2.4.1 Theme 1: Nature and Environment

The destination is ranked as a global top 10 biodiversity hotspot and is home to two IUCN category 2 parks. On land, is the Leeuwin-Naturaliste National Park, and surrounding this is the Ngari Capes Marine Park. Accordingly, nature-based attractions can be categorised as either land-based or water-based.

On land, natural attractions include forestry reserves located within the national park showcasing Tuart and Karri trees as well as wildflowers and bushland. Further, the region is home to a network of over 150 limestone caves. Four of these caves (Mammoth, Lake, Jewel and Ngilgi) have been fitted with boardwalk access to accommodate the mass market, whilst there are a range of caves that are accessible to the adventure tourist via specialised abseiling and climbing tours. These caves also hold great significance for the first inhabitants of the area, the Wadandi and Bibbulman Noongar people, who have lived in this area for at least 50,000 years. Within the national park are a network of four-wheel drive tracks, walking trails as well as a range of campsites.

On water, natural attractions include the coastline, home to numerous white sand beaches and surf breaks. The coastline is surrounded on three sides by ocean including where the Indian and Southern Oceans meet at Cape Leeuwin in the south of the region and the secluded Geographe Bay in the north of the region. Within Geographe Bay is the Busselton Jetty, the longest wooden jetty in the southern hemisphere (1,841m), which is equipped with an underwater observatory at its end and a rail service providing an excellent level of access. Both the coastline and ocean offer opportunities for activity-based tourism and will be elaborated on in the next section.

2.4.2 Theme 2: Active and Adventure

The nature-based tourism product is activated through a range of activities and access networks for all levels of capability and experience. Walking and hiking is made possible through a range of walking trails, most notably the long-range “Cape to Cape” and “Bibbulmun” Tracks. Cycling is accommodated via road networks as well as specialised mountain bike trails. Vehicle access to activities is also made possible via the road network as well as four-wheel driving tracks to provide access to coastline and campsites. Land-based adventure activities such as rock climbing, caving and horse riding are provided through a range of specialised tour operators. There are two golf courses within the region and scenic flights allow tourists to take in the natural splendour of the region from the air.

Water-based attractions are varied along the 138 km of spectacular coastline and targeted at the full spectrum of tourists. The region is known for its range of more than 70 world class surf breaks stretching between Cape Naturaliste and Cape Leeuwin. Some of these are accessible by road, but there are a number of breaks that require a four-wheel drive to access. The Margaret River Pro event is part of the World Professional Surfing Tour and takes place annually in March, acting as a key promotional device for surfing in the region,

which also hosts a number of surf schools. Beaches present the opportunity for swimming, stand up paddle boarding and canoeing, snorkelling and beach fishing. There are nine publicly accessible boat ramps within the destination presenting ample access and opportunity for boating activities such as fishing, scuba diving and water skiing. In regards to scuba diving, one key attraction is the sunken wreckage of the HMAS Swan in Geographe Bay. It requires a permit for public access but is also serviced by a range of tour operators. Lastly, whale watching is popular through the migration season of June to December and can be undertaken from vantage points along the coastline, lighthouses as well as through a range of tour operators.

2.4.3 Theme 3: Wine and Wineries

The Margaret River wine region with its 150 wine producers and 5,000 ha of vineyards only produces a small percentage of the total Australian wine output (about 3%), but the region produces approximately 20% of Australia's premium wine segment (Thomas, Quintal & Phau 2011; Galbreath 2014). As a tourism product, this is showcased via more than 95 cellar doors offering a range of services such as wine tasting, winery and vineyard tours, dining, gallery displays and other local produce. The winery cellar doors are also serviced by over 20 wine tour companies. A week-long flagship wine and food event, the 'Gourmet Escape', which takes place in November, offers access to and promotion of these attractions in a diverse number of ways.

2.4.4 Theme 4: Eat and Drink

Leveraging off the increased recognition as premium wine region, the Margaret River Region has seen vast growth in other gastronomic attractions such as restaurants and cafes, which are commonly situated within the wineries themselves. They offer a range of dining experiences from award-winning fine dining to casual family-friendly eating. Furthermore, there are nine micro-breweries currently in operation within the region also offering family-friendly dining experiences. Lastly, local produce forms another key attraction including chocolatiers, olive and olive oil producers, wood-fired bread bakeries, ice creameries, cheesemakers, venison farmers, honey producers and confectioners all with tourism-centric customer storefronts.

2.4.5 Theme 5: Arts and Wellbeing

Wellness and beauty spas are growing as another segment of the tourism product with a growing number of beauty therapy and massage spas in operation (Pforr, Hughes, Dawkins and Gaunt, 2014). Furthermore, there is a wide range of arts and crafts produced within the region. Supported by the Western Australian Indigenous Tourism Operators Council (WAITOC), Indigenous tourism has a small but growing representation within the region. Last but not least, there is a diverse calendar of arts and cultural events throughout the year.

The annual events calendar is championed by key events such as Gourmet Escape and Cabin Fever within the wine and food sphere, the Margaret River Pro surfing event as part of the World Surfing League, IRONMAN Western Australia and the Busselton Jetty Swim within the sports and adventure area.

2.5 Associated Issues/Challenges

2.5.1 Marketing of the Region

In 2010, Tourism Australia set a goal of doubling the visitor spending within Australia from $58 billion in 2010 to $115 billion in 2020 (Tourism Australia, 2011). This equates to a growth from $6 to $12 billion within Western Australia and growth from $1 billion to $2 billion within Australia's South West. A 2017 audit of the strategy found that the forecasted 2020 visitor spending would most likely fall short of its target by $800 million (OAGWA 2017). As possible reasons for not achieving the target, the audit specifically cites: (1) Insufficient growth in visitor spend, particularly for international visitors, (2) marketing strategy and (3) lack of new events. This indicates that there are opportunities to collaborate more effectively with regional partner organisations to improve the marketing of regional destinations, such as the Margaret River Region.

2.5.2 Access/Mobility

Access to the region and mobility within the region are key issues for increasing visitor numbers but also for avoiding perceived overcrowding. From an international and interstate visitor perspective, Western Australia, Perth, and the Margaret River region are very isolated from other major population centres. Internationally, Singapore is the nearest major transportation hub and is located 3,912 km or a five-hour flight away from Perth. Meanwhile, Adelaide is the nearest Australian capital city and is located 2,131 km or a three-hour direct flight from Perth. Major connecting aviation nodes of Sydney and Melbourne are 3,290 km (five hours by air) and 2,721 km (four hours 15 minutes by air) away respectively.

The Margaret River Region is located approximately 250 km south of Perth, which adds another barrier to accessibility due to indirect international/interstate accessibility and lengthy commute times limiting intrastate day trippers. The key mode of transport is private automobile (89% of visitors to Augusta-Margaret River (AMRTA 2011)), taking about three hours to complete the journey from Perth. Accessibility by car has, however, been aided by the development of the Forrest Highway. Opened in 2009, the highway provides unbroken dual-carriageway access between Perth and the regional centre of Bunbury (located one hour north of the Margaret River region) and has shortened the commute by 30-40 minutes via a more direct route. The Forrest Highway has also aided accessibility via busses/tour busses, although only 2% of visitors to Augusta-Margaret River opt for this mode of transport (AMRTA 2011). There were train lines in the past, but nowadays the region is not directly accessible via train with the nearest train station located in Bunbury, north of the region.

The Busselton-Margaret River Regional Airport offers direct accessibility via air travel, but due to cost factors the airport runs at a limited tourism-based capacity and rather focusses on private charters, emergency services and freight. Redevelopment of the airport is in progress to facilitate operation of Boeing B737 and Airbus A320 size aircrafts, but the works are currently stalled until there is commitment from a major carrier to service the destination. Access to the region via cruise ships was made possible in 2014 due to upgrades to the Busselton Jetty in the northernmost part of the region. In 2016/17, the region welcomed seven cruise vessels, totalling 9,250 day visitors (8,690 passengers, 560 crew).

Visitor mobility *within* the region is also a key issue. The Margaret River Region has very limited regular public transport options with buses only servicing routes between major town centres. As a result, there is a heavy dependence on private automobiles. Private tour operators do alleviate some of this stress by servicing key attraction points but can present visitors with inflexible options. Ridesharing technology such as Uber also has no coverage within the region and thus is currently unable to solve transportation issues. The dependence on private automobiles coupled with high fuel prices is therefore seen as a major barrier to visitation to the region.

2.5.3 Seasonality

Seasonal volatility in tourist visitor numbers is another key issue for the region and has a flow-on effect that creates issues with the long-term viability and diversity of amenities, accommodation and attractions, employment opportunities and resident satisfaction. Occupancy rates in accommodation within the region fluctuate between above 70% in peak periods such as January and below 45% in off-peak periods such as August (TRA, 2017), although recent research has indicated that there is potential to position the region as a winter get-away on the Asian market (Volgger, Pforr & Marques 2018).

The seasonality of tourist visitation translates into seasonal demand for accommodation, and other tourism related tourism infrastructure, amenity and services. This volatility hinders investment and development activities. This is felt greatest in the accommodation market with the region experiencing an oversupply of accommodation options that are beginning to become outdated and in need of refurbishment to offer attractive alternatives to competing destinations in the Australian market. There is also a lack of highest quality accommodation options in the region, which in part can be blamed on the market volatility making the region a risky place to invest for hotel developers. Once again, this reduces the region's competitive advantage in attracting visitors.

Seasonality also effects the ability of tourism operators to supply year-round employment opportunities. This results in a transient tourism-based labour market, impacting on indirect and induced income flow through into the local economy and also presents tourism operators with the need to invest more in labour training and education during peak periods. This situation also increases the challenges in attracting young people to pursue tourism and hospitality careers.

2.5.4 Sustainable Development

Nature-based tourism attractions and agricultural produce are central to the region's identity and tourism offering, so any development needs to consider balancing provision of access whilst maintaining long-term ecological sustainability. The region's image of being a biodiversity hotspot with clean water and air, diverse landscapes and rich natural resources has underpinned its branding as a nature-based as well as food and wine destination. Undoubtedly, the region's environmental and lifestyle qualities are sensitive to impact, and this perception is shared by many of the region's residents. Due to the history of the region, with hippies, drifters and surfers flocking into the region in high numbers since the 1960s, and the prevalence of small-scaled agricultural production, there is high societal sensitivity towards keeping the impacts of tourism under tight control. Central to this concern, the local government authorities, Shire of Augusta-Margaret River and the City of Busselton, have policy driven approaches to land use and development within the region. In addition, to quickly identify any harmful developments, which could end up putting in jeopardy the region's core competences, there is a need for accurate and up-to-date tourism impact monitoring. The Augusta-Margaret River Local Tourism Planning Strategy for instance mentions risks around some accommodation facilities falling into deterioration and owners not having adequate funding for upkeep due to the seasonal nature of tourism. In this regard, occupancy levels are an important indicator which can help determining the adequate level of accommodation development needs in the short and medium term.

The Margaret River Region has experienced strong tourism growth over the past decade (approximately three million visitor nights in 2010 to 5.5 million visitor nights in 2017) and, arguably, has subsequently transitioned from the development phase of the tourism area life cycle into the consolidation phase. However, taking a shorter-term perspective, tourist visitor growth has been slower and thus presents the potential for destination stagnation. This warrants profound considerations about future tourism development in the region. Overall, tourism numbers are still contained compared to other destinations around the world. As highlighted previously, seasonal volatility in tourist visits presents a barrier to development and there is the potential for facilities to lack economic sustainability resulting in deterioration. This is currently being evidenced in an over-supplied accommodation market with some facilities in need of rejuvenation.

3. Key Sustainability Areas: Secondary and Primary Data Analysis

A preliminary study of the Margaret River tourism sub-region, within the Australia's South West tourism region, is useful to identify sustainable tourism development issues and indicators that are relevant to the destination, as well as to identify data availability gaps and needs. In general, the UNWTO-INSTO has stipulated nine sustainable tourism development issue areas that need to be addressed/monitored:

1. Tourism seasonality
2. Employment
3. Economic benefits at destination level
4. Governance
5. Local satisfaction
6. Energy management
7. Water management
8. Waste water management
9. Solid waste management

Further, the UNWTO-INSTO suggests that prospective observatories identify destination-specific issue areas to address and monitor through the observatory.

In order to identify availability of existing data, data gaps, and specific areas of need and interest a three-step process was implemented. This included:

(1) Undertaking secondary data research of relevant sustainable development issue/indicator guidebooks and materials, existing data sets as well as strategic plans and reports regarding tourism strategy and management approaches for the destination.

(2) Findings from the secondary data research were used to develop a survey to collect data from key destination stakeholders to provide insight into destination specific issues and their perceived importance.

(3) Finally, findings from the survey were collated and used to develop and guide a workshop session between selected destination stakeholders to finalise the Observatory's preliminary approach.

As will be highlighted in Sections 3.3-3.5 further destination-specific issue areas were identified as:

1. Visitor flows and dispersal
2. Biodiversity protection
3. Regional cycles: Regional sourcing of foods, drinks and goods
4. Visitor satisfaction

3.1 Secondary Data Research

The following data sources were used to carry out a preliminary exploration of key sustainability issue areas and indicators relevant to the destination:

(1) International guidelines for sustainable tourism management and monitoring:

- Indicators of Sustainable Development for Tourism Destinations Guidebook (UNWTO 2004)
- The European Tourism indicator System: ETIS toolkit for sustainable destination management (European Commission 2016)
- Global Sustainable Tourism Council Criteria and Suggested Performance Indicators for Destinations (Global Sustainable Tourism Council 2013)
- A Closer Look at Tourism: Sub-national Measurement and Analysis – Towards a Set of UNWTO Guidelines (UNWTO and INRouTe 2013)

(2) Relevant destination tourism strategies:

- Tourism 2020 (Tourism Australia 2011)
- State Government Strategy for Tourism in Western Australia 2020 (Tourism WA 2012)
- Australia's South West: Strategic Plan 2018-2021 (ASW 2018)
- Augusta-Margaret River Tourism Association Destination Marketing Strategy 2014-2015 (AMRTA 2014)
- Nature Based Tourism Strategy (MRBTA 2016)
- Margaret River Busselton Tourism Association Strategic Plan 2016-2020 (MRBTA 2016)
- Local Tourism Planning Strategy: Shire of Augusta-Margaret River (SAMR, 2016)

As discussed in Section 2.5.1 and further evidenced by several of these tourism strategies, Western Australia is currently falling short of meeting its tourism revenue target of $12 billion, generating a perception that the state, and subsequently, tourism regions within the state are suffering from 'under-tourism'. As a result, the primary strategic focuses of the relevant tourism stakeholder groups is centred on economic development. This includes increased destination marketing, hosting major events and developing tourism infrastructure to attract more tourists and improve the quality of the experience. However, while economic development is the key priority due to specific circumstances, there is also consideration of social and environmental issues through increasing employment opportunities, increasing indigenous tourism, and balancing access to nature-based tourist attractions with a mitigation of negative environmental impact.

3.2 Stakeholder Survey

Due to the geographical spread of all stakeholders, it was difficult to get all parties to attend a single workshop. As a result, an initial survey was developed to provide insights into the key sustainability issues and indicators that each stakeholder felt had the highest

importance. Another aim of the survey was to gain insights into current data availability and existing data gaps.

The surveyed destination stakeholder groups were represented by key management level employees of the following organisations:

- Tourism WA (State government tourism agency)
- Australia's South West (Regional tourism organisation)
- Margaret-River Busselton Tourism Association (Regional tourism association, private)
- Department of Biodiversity, Conservation and Attractions (State government conservation management agency)

The survey (see Appendix A) included items aligned with a list of 55 prospective indicators specific to the destination which were composed in consultation with the aforementioned guidelines and data sources (see Section 3.1).

These items covered the nine mandatory UNWTO sustainability themes as well as items related to use of local produce, biodiversity, land use, site protection and cleanliness. Further, respondents were given the opportunity to freely express their views on other sustainability issues they felt were relevant. For each item, the respondents were asked to indicate: (1) the importance of the item on a 3-point Likert Scale (from 1 = unimportant to 3 = highly important); (2) whether data are currently collected; and if so (3) what organisation collects the data.

3.3 Survey Results

As shown in Table 4, the survey (carried out between December 2017 and January 2018) included 55 items of potential sustainability indicators to be used in the monitoring. These indicators were grouped into four categories: (1) destination management; (2) economic value; (3) social and cultural impact; and (4) environmental impact. Under the category 'destination management' the list offered seven potential indicators; under 'economic value' it proposed 17 indicators; under 'social and cultural impact' the list had 10 indicators; and under 'environmental impact' it offered another 21 potential indicators.

Table 4: List of sustainable tourism indicators included in the stakeholder survey

Issue/Area	Indicator
Section A: Destination management	
A.1 Sustainable tourism public policy	A.1.1 Percentage of tourism enterprises/establishments in the destination using a voluntary certification for environmental sustainability
	A.1.2 Percentage of tourism enterprises/establishments in the destination using a voluntary certification for Corporate Social Responsibility
A.2 Tourist satisfaction	A.2.1 Percentage of tourists and same-day visitors that are satisfied with their overall experience in the destination
	A.2.2 Percentage of repeat/return visitors (within 5 years)
	A.2.3 Importance and performance of key attraction experiences (i.e. wine and food tourism, beach activities, fishing, nature based attractions, wellness and beauty, retail, etc…)
A.3 Resident Satisfaction	A.3.1 Percentage of residents who are satisfied with tourism in the destination (per month/season)
A.4 Intermediaries Satisfaction	A.4.1 Opinion of local and international Tour Operators (% of operators with favourable opinion)
Section B: Economic value	

B.1 Tourism flow (volume and value) at destination	B.1.1 Number of tourist nights per month (Can be segmented by source country/region)
	B.1.2 Number of same-day visitors per month
	B.1.3 Relative contribution of tourism to the destination's economy (% GDP)
	B.1.4 Daily spending per overnight tourist
	B.1.5 Daily spending per same-day visitors
	B.1.6 Percentage of overnight tourists staying at various accommodation types (e.g. hotel, caravan park, AirBnB, etc…)
B.2 Tourism enterprise(s) performance	B.2.1 Average length of stay of tourists (nights)
	B.2.2 Seasonality: Occupancy rate in commercial accommodation per month and average for the year (Can segment via accommodation types)
	B.2.3 ADR (Average daily rate, i.e. average daily prices of accommodation providers)
	B.2.4 RevPAR (Revenue per available room)
B.3 Quantity and quality of employment	B.3.1 Direct tourism employment as percentage of total employment in the destination
	B.3.2 Percentage of jobs in tourism that are seasonal
B.4 Tourism supply chain	B.4.1 Percentage of locally produced food, drinks, goods and services sourced by the destination's tourism enterprises
	B.4.2 Percentage of locally produced wine sourced by the destination's tourism enterprises
B.5 Seasonality	B.5.1 Percentage of total tourists visiting in peak month, in peak quarter
	B.5.2 Ratio of number of tourists in peak month to lowest month (or more sophisticated seasonality indicators such as Gini coefficients)
	B.5.3 Percentage of business establishments open all year
Section C: Social and cultural impact	
C.1 Community/social impact	C.1.1 Tourism intensity (1): Number of tourists/visitors per 100 residents
	C.1.2 Tourism intensity (2): Number of beds available in commercial accommodation establishments per 100 residents
	C.1.3 Number of holiday homes per 100 homes
	C.1.4 Percentage of residents using a share economy platform (i.e. AirBnB, Stayz) to lease their property
C.2 Health and safety	C.2.1 Percentage of tourists who register a complaint with the police
C.3 Gender equality	C.3.1 Percentage of men and women employed in the tourism sector
	C.3.2 Percentage of tourism enterprises where the general manager position is held by a woman
C.4 Inclusion/accessibility	C.4.1 Percentage of rooms in commercial accommodation establishments accessible for people with disabilities
	C.4.2 Percentage of public transport that is accessible to people with disabilities and specific access requirements
	C.4.3 Percentage of tourist attractions that are accessible to people with disabilities and/or participating in recognised accessibility information schemes

Section D: Environmental impact	
D.1 Reducing transport impact	D.1.1 Percentage of tourists and same-day visitors using different modes of transport to arrive at the destination (e.g. Car, bus, plane, boat)
	D.1.2 Percentage of tourists and same-day visitors using local/soft mobility/public transport services to get around the destination
D.2 Climate change	D.2.1 Percentage of tourism enterprises involved in climate change mitigation schemes — such as: CO2 offset, low energy systems, etc.— and 'adaptation' responses and actions
	D.2.2 Percentage of tourism accommodation and attraction infrastructure located in protected area (i.e. National Park)
D.3 Solid waste management	D.3.1 Waste production per tourist night
	D.3.2 Percentage of tourism enterprises separating different types of waste
	D.3.3 Percentage of total waste recycled per tourist
D.4 Sewage treatment	D.4.1 Percentage of sewage from the destination treated to at least secondary level prior to discharge
D.5 Water management	D.5.1 Water consumption per tourist night
	D.5.2 Percentage of tourism enterprises taking actions to reduce water consumption
	D.5.3 Percentage of tourism enterprises using recycled water
D.6 Energy usage	D.6.1 Energy consumption per tourist night
	D.6.2 Percentage of tourism enterprises that take actions to reduce energy consumption
	D.6.3 Percentage of annual amount of energy consumed from renewable sources (Mwh) compared to overall energy consumption at destination level per year
D.7 Landscape and biodiversity protection	D.7.1 Percentage of local enterprises in the tourism sector actively supporting protection, conservation and management of local biodiversity and landscapes
D.8 Sustainability of key species (flora and fauna)	D.8.1 Annual counts for key species (key flora and fauna)
D.9 Uniqueness (rarity of the site)	D.9.1 Percentage of endemic species at the site
D.10 Level of site	D.10.1 Percentage of area subject to protection

protection	
D.11 Erosion of the shoreline	D.11.1 Percentage shoreline subject to erosion
D.12 Perception of cleanliness/quality	D.12.1 Percentage of tourists who believe that the area is polluted, dirty or contaminated
D.13 Trail Use	D.13.1 Density of trail use (e.g. Cape to cape track)

Each stakeholder group returned a completed survey. Table 5 displays the 15 indicator items deemed most important by destination stakeholders based on survey results, whereas Figure 5 depicts the mean scores for the importance ratings on each item in the survey. These results indicate that items related to economic value and destination management issues such as tourist/resident satisfaction were of greatest importance to the stakeholders. In regards to economic value, all 17 items were rated equal or higher than the scale mid-point of two. Further, six of 17 items (B.1.1, B.1.3, B.1.4, B.1.5, B.2.1, B.2.2) scored the maximum value of three on average. Examining the results for destination management, surveyed stakeholders rated six of seven items above the scale mid-point of two. Furthermore, two of seven items (A.2.1, A.2.3) scored the maximum value of three on average. These results specifically indicate that monitoring tourist and resident satisfaction levels, tourist flows, seasonality and tourism business performance appear relevant to the surveyed destination stakeholders.

Broadly speaking, social/cultural and environmental indicators ranked lower. However, specific issues were highlighted with four of ten social and cultural impact items (C.1.1, C.4.1, C.4.2, C.4.3) rated equal or higher than the scale mid-point of two, with C.4.3 scoring the maximum value of three on average. This highlights that stakeholders place a high level of importance on ensuring accessibility to persons with disabilities to accommodation, transport and attractions. Further, monitoring indicators of tourism intensity such as the percentage of tourists to local residents is seen as important to managing local resident satisfaction and the socio-cultural impacts of tourism.

In regards to environmental impact, seven of 21 items (D.2.1, D.7.1, D.8.1, D.9.1, D.10.1, D.12.1, D.13.1) rated equal or higher than the scale mid-point of two, whilst none of the items scored the maximum value of three on average. While these results indicate less of an envisioned focus on environmental issues, specific themes such as tourism operators' adoption of climate change reduction strategies as well as biodiversity and perceived cleanliness were deemed of greatest importance.

Table 5: Ranking of top 15 sustainable tourism indicator items by importance.

Item	Theme	Importance
A.2.1 - Percentage of tourists and same-day visitors that are satisfied with their overall experience in the destination	Tourist satisfaction	3
A.2.3 Importance and performance of key attraction experiences (i.e. wine and food tourism, beach activities, etc…)	Tourist satisfaction	3
B.1.1 Number of tourist nights per month	Tourist flow	3
B.1.3 Relative contribution of tourism to the destination's economy (% GDP)	Tourist flow	3
B.1.4 Daily spending per overnight tourist	Tourist flow	3
B.1.5 Daily spending per same-day visitors	Tourist flow	3
B.2.1 Average length of stay of tourists (nights)	Tourism enterprise performance	3
B.2.2 Seasonality: Occupancy rate in commercial accommodation per month and average for the year	Tourism enterprise performance - seasonality	3

C.4.3 Percentage of tourist attractions that are accessible to people with disabilities and/or participating in recognised accessibility schemes	Inclusion/accessibility	3
A.2.2 Percentage of repeat/return visitors (within 5 years)	Tourism enterprise performance	2.75
B.3.1 Direct tourism employment as percentage of total employment in the destination	Tourism employment	2.75
B.5.1 Percentage of total tourists visiting in peak month, in peak quarter	Seasonality	2.75
D.7.1 Percentage of local tourism enterprises actively supporting protection, conservation and management of local biodiversity and landscapes	Biodiversity protection	2.75
D.12.1 Percentage of tourists who believe that the area is polluted, dirty or contaminated	Perceptions of cleanliness	2.75
D.13.1 Density of trail use (e.g. Cape to cape track)	Trail Use	2.75

In addition to providing an importance rating for each indicator item, stakeholders were asked to identify any other areas for which they felt it was important to collect data. In this context, tracking tourist movements between regional key itinerary points was expressed as providing particular value as it can help to monitor mobility of tourists and the environmental impact of heavily used routes as well as to establish an evidence base for setting initiatives to encourage visitor dispersal within the region.

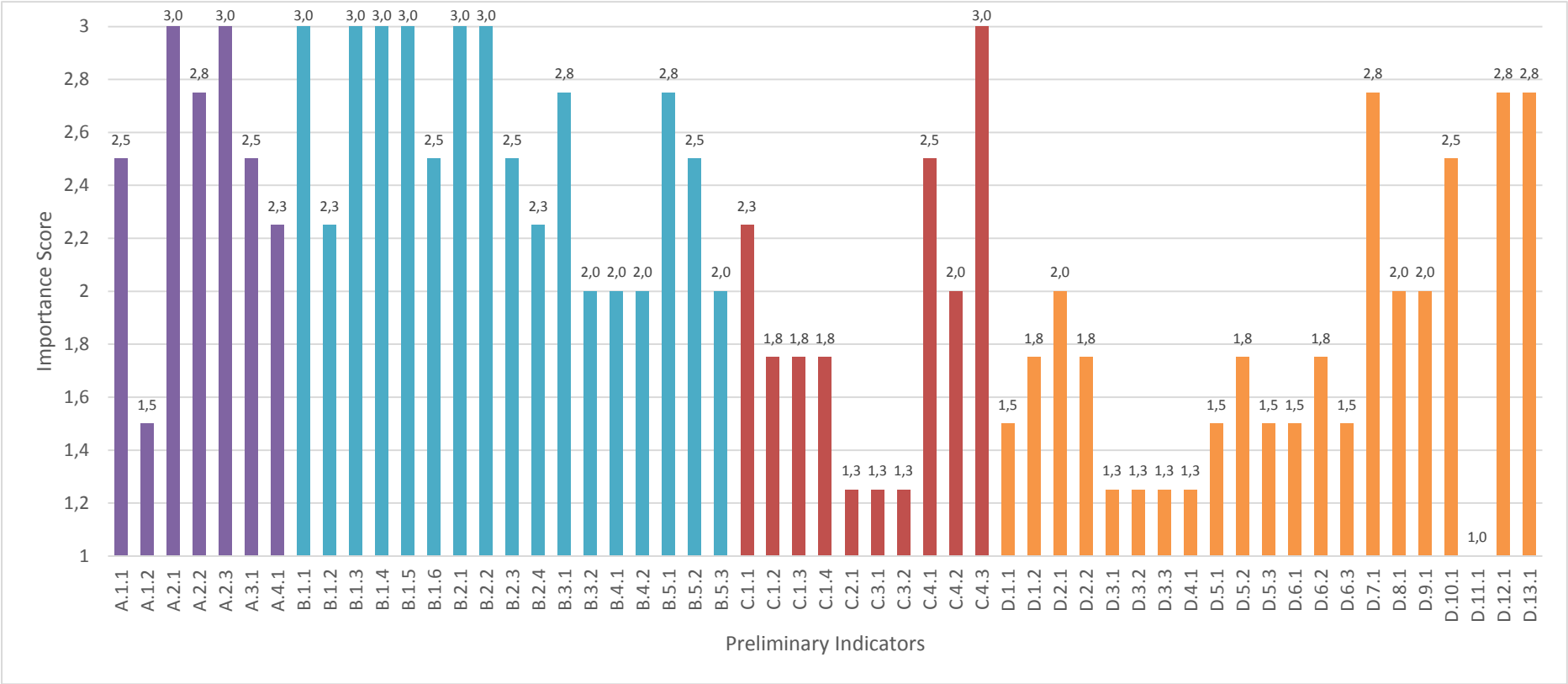


Figure 5: Mean scores for the importance of each indicator

3.4. Preliminary Assessment of Data Availability, Gaps and Needs

3.4.2 Tourism Flows, Visitor Profile and Visitor Satisfaction

The key data source for tourism flows and visitor arrivals is Tourism Research Australia (TRA), an Australian Commonwealth Government Agency. TRA monitors both international and domestic visitor arrivals across a wide range geographically indicated areas within Australia using two key surveys:

- *National Visitor Survey (NVS):* The NVS annually samples 120,000 Australian residents via telephone survey. Data collected includes place of residence, demographics, main destination location for day trips and outbound trips, stopover location(s) for domestic overnight trips, purpose of trip or stopover, leisure activities and travel party. Results are published quarterly based on year-ending totals across a range of geographical scales including national, state, tourism regional and local government areas.
- *International Visitor Survey (IVS):* The IVS annually samples 40,000 departing international travellers, intercepted at eight major international airports around Australia. The survey is conducted by Computer Assisted Personal Interviewing (CAPI) and contains 100 questions to provide data including usual place of residence, repeat visitation, travel party, purpose of visit and places visited, activities undertaken and demographics. Results are published quarterly based on year-ending totals across a range of geographical scales including national, state, tourism regional and local government areas.

Further to this, data specific to cruise ship arrivals is collected by the Australian Cruise Association:

- *Australian Cruise Association (ACA) – Annual Report:* ACA work collectively with Deloitte and AEC Group to collect data on cruise ship arrivals around Australia. Results are only published in the ACA annual report, but do include data on visitor arrivals, visitor days and visitor expenditure; and is segmented via port locations.

In regards to tourist satisfaction and visitor profiling, a range of data are collected:

- *Tourism Western Australia – Visitor Experience and Expectations Research (VEER):* The VEER is an annual survey that examines the satisfaction levels of tourists visiting Western Australia across a range of metrics including demographics, purpose of visit, motivation to visit (key attractions) as well as expectations and performance of attractions. The sample is 400 visitors, results are published annually and data are not region specific.
- *Shire of Augusta-Margaret River (SAMR) – Tourism Strategy Demand Analysis Visitor Survey 2010-11:* This was a one-off study conducted by SAMR to guide land use and infrastructure planning within the local government area. The study sampled 2,376 respondents, conducted as face-to-face intercept surveys during four separate time periods (Dec, Mar, Jul, Sept) to capture seasonal fluctuations. The survey included

26 questions, collecting data on demographics, purpose of visit, key attractions of interest and expenditure.

Assessment

In regards to the availability of relevant data covering tourism flows and visitor profiles to the Margaret River region, the TRA provides data that are possible to disaggregate down to the regional level to monitor visitor numbers. As seasonality is a key issue for the region, further work on providing disaggregated data month-by-month will be valuable. In regards to visitor satisfaction, Tourism WA's VEER isn't conducted at the necessary regional level and SAMR's demand study isn't conducted on a regular basis. As a result, the proposed ASWTO Observatory will need to develop their own data collection method to monitor tourist satisfaction on the regional level.

3.4.2 Tourism Contribution to the Economy

The key data source for visitor spending is Tourism Research Australia (TRA). TRA monitor both international and domestic visitor arrivals across a wide range geographically indicated areas within Australia using two key surveys:

- *National Visitor Survey (NVS):* The NVS annually samples 120,000 Australian residents via telephone survey. Data collected includes itemised trip expenditure. Results are published quarterly based on year-ending totals across a range of geographical scales including national, state, tourism regional and local government areas.
- *International Visitor Survey (IVS):* The IVS annually samples 40,000 departing international travellers, intercepted at eight major international airports around Australia. The survey is conducted by Computer Assisted Personal Interviewing (CAPI) and contains 100 questions to provide data including a breakdown of travel expenditure. Results are published quarterly based on year-ending totals across a range of geographical scales including national, state, tourism regional and local government areas.

Further to this, TRA conducts an annual Tourism Satellite Account with data disaggregated into national, state and tourism region levels. Data collected and analysed includes direct and indirect tourism incomes presented as both Gross Value Added (GVA) and Gross Regional Product (GRP) as well as direct and indirect tourism employment. Both income and employment is disaggregated into specific tourism industries (i.e. accommodation, retail trade and transport). Results are published and presented on an annualised basis and it is noted that data validity and reliability may vary at a regional level due to increased sampling error.

Data specific to accommodation are collected and reported on via the TRA Australian Accommodation Monitor (AAM). The data collection for the AAM is conducted on behalf of TRA by third-party data analytics provider STR. Data within the AAM include: number of establishments (10+ beds); number of rooms; room occupancy rate; average daily room rate; revenue per available room. Data are disaggregated into state-level and tourism region-level, geographically, as well as annually and quarterly from a time perspective.

As Expedia has a good coverage for accommodation in the region and has access to up-to-date accommodation data, the Observatory established a partnership with Expedia Group to make this data more widely accessible to tourism stakeholders in the region.

Assessment

In regards to the availability of relevant data covering economic contribution by tourism to the Margaret River region the TRA provides adequate data, however there are limitations in disaggregating the data into the required regional-level. Further, access to data specific to accommodation might benefit from partnerships with distribution platforms.

3.4.3 Environmental and social impacts

There are a range of organisations that collect data on environmental statistics within the region. They include:

- Energy consumption and management:
    - **Western Power:** Owned by the Western Australian (WA) state government. It is responsible for the maintenance of the energy network within WA.
    - **Synergy:** Owned by the WA state government. It is responsible for energy generation and supply
- Water consumption and management:
    - **Water Corporation:** Owned by the WA state government. It is responsible for the supply and network maintenance for water, wastewater and drainage.
- Solid waste management:
    - **Waste Authority:** Owned by the WA state government. It is responsible for implementation of the Waste Resource and Recovery Act 2007 through coordination between relevant government organisations.
    - **Shire of Augusta-Margaret River:** Local government within the tourism region.
    - **City of Busselton:** Local government within the tourism region.

Various forms of data are collected by these organisations, but data tend to be disaggregated, not specific to the tourism sector or not publicly available.

Assessment

Environmental and social impact data presents the greatest data availability issue. Although there appears to be a wide range of data collected on these topics, there are no regularly published and publicly accessible reports outlining energy, water, waste and social issues management.

3.5 Stakeholder Workshop

Following the analysis of the survey results and preliminary analyses of data availability a workshop was arranged with key stakeholder groups. The workshop was held in Busselton on 1 February 2018. The workshop attendees included:

- Curtin Tourism Research Cluster representatives
- Key management staff from:
    - Australia's South West (Regional tourism association)
    - Margaret-River Busselton Tourism Association (Regional tourism association)

Please note: Tourism WA was represented by Australia's South West.

The workshop afforded the ability to outline the objectives of the Observatory, deliver the survey results, finalise key sustainability issue areas and appropriate indicators and develop a preliminary plan to collect additional data. It was also used as a forum to openly exchange thoughts about the purpose and value of the Observatory. All involved stakeholders expressed their strong support for setting up of the ASWTO.

3.6 Key Insights from the Stakeholder Workshop

Discussions within the stakeholder workshop rendered a range of key insights, including:

1. **Economic data are of great importance.** WA is falling behind stipulated targets for visitor arrivals, visitor nights and visitor spending as laid out in the Tourism 2020 strategy, therefore any additional and regular data providing insights to address patterns in the development of regional visitation would be very beneficial. All parties involved in the workshop agreed that these data will also be of great value to ensure the relevance of tourism's contribution to income and employment in order to support regional development is recognised. Making sure tourism supports regional development is a key objective for all stakeholders, and thus should similarly be embraced as a main target by the Observatory.
2. **Accurate and reliable regional level data are scarce.** The comprehensive scope and sample sizes used within major federal statistical approaches such as the TRA's IVS and NVS present limitations to the regional breakdown of findings. Specifically, using currently available data there is a limited ability to disaggregate visitor arrivals, nights, spending and occupancy rates to accurately determine seasonal fluctuations on regional levels.
3. **Destination specific sustainability issue areas include:**
    a. **Tourist movement patterns.** The destination's tourism product is very diverse, attractions are spread across a wide geographical area and tourist mobility is a key issue due to the lack of public transport. Understanding specific tourist movements will provide insight for infrastructure planning and itinerary planning as well as itinerary communications. It may also

monitor and support initiatives incentivising visitor dispersal which is relevant to maximise contribution to regional development.

b. **Inclusion/accessibility for persons with disabilities.** Accessibility for persons with disabilities has been identified as an issue which attracted insufficient attention to date. This area may be extended to also include food intolerances.

c. **Landscape quality and biodiversity protection.** The destination is recognised as a biodiversity hotspot with many natural attractions integrated into the overall tourism product. Minimising impact and maintaining these attractive elements over the long-term is of utmost importance as they constitute the core attractive element for the destination.

d. **Penetration of local produce into the tourism product offering.** The destination is recognised for its agricultural produce (including world class winemaking) and gastronomic attractions form a key attraction point within the region. Having an understanding of the penetration of local produce within these attraction points will support the regional economy, reduce ecological impact of food transport, ensure healthy and high quality food provisioning, aid in regional marketing and guide further development of the tourism product.

4. **Data relating to energy, water, sewerage and solid waste management are relatively inaccessible to the currently involved stakeholder group.** Data related to energy and water are held by the respective state government agencies, whilst sewerage and solid waste management is undertaken by the respective local government agencies. Data for all these issue areas are not a-priori made publicly available, thus there are barriers in access. Moving forward, the Observatory will work to engage these agencies to enhance the capability of the Observatory.

From these insights, a preliminary list of 20 indicators across 11 issue areas, covering 8 of the 9 suggested UNWTO-INSTO issue areas was developed. Data availability was assessed and a prospective approach to data collection was established. The summary of obtained results from the workshop session can be seen in Table 6. Whilst this is a preliminary list, the ASWTO observatory will not limit itself to the collection of just these indicators and will seek to expand the list moving forward.

Table 6: Preliminary list of indicators, data availability and data collection approaches

Issue area	Indicator	Suggestion as per UNWTO guideline	Data availability	Data collection
Tourism Seasonality	Occupancy rate in commercial accommodation per month and average for the year (a specific analysis of school holiday and public holiday periods will be explored)	Yes	AAM	NR
Employment	Direct tourism employment as a percentage of total employment in the region	Yes	ASW-TSA	NR
Destination Economic Benefits	Percentage of tourists satisfied with visit	No	TWA, MRBTA	Visitor survey
	Percentage of repeat visitors	No	NA	Visitor survey
	Percentage of tour operator satisfaction	No	NA	Tour operator

				survey
	Tourism contribution to economy	Yes	ASW-TSA	NR
	Accommodation enterprise performance (ADR, RevPAR)	No	AAM	NR
Governance	Trail use: visitor numbers to Cape-to-Cape Track	No	DBCA	NR
	Tourist movement patterns	No	NA	GPS tracking
Local Satisfaction with Tourism	Percentage of residents who are satisfied with tourism in the destination	Yes	NA	Resident survey
Energy Management	Percentage of tourism enterprises that take actions to reduce energy consumption (what type of action)	Yes	NA	Industry survey
Water Management	Percentage of tourism enterprises that take actions to reduce water consumption (what type of action)	Yes	NA	Industry survey
Solid Waste Management	Percentage of tourism enterprises separating different types of waste	Yes	NA	Industry survey
Regional Cycles	Percentage of locally produced food, drinks, goods sourced by tourism enterprises (what)	No	NA	Industry survey
Inclusion and Accessibility	Percentage of rooms in commercial accommodation establishments accessible for people with disabilities	No	NA	Industry survey
	Percentage of attraction points accessible for people with disabilities	No	NA	Industry survey
	Percentage of restaurants accessible for people with disabilities	No	NA	Industry survey
	Percentage of transport accessible for people with disabilities	No	NA	Industry survey
Landscape Quality	Percentage of tourists who believe that the area is polluted, dirty or contaminated	No	NA	Visitor survey
	Percentage of tourism enterprises actively supporting conservation and management of local biodiversity and landscapes	No	NA	Visitor survey

Note: NR stands for 'not required'. It indicates that no specific data collection is needed as existing data collection mechanisms can provide information to compile the respective indicator.

Data collection methods included in Table 6 will be outlined in more detail in Section 4, specifically in Section 4.2.

4. Observatory Objectives and Methodology

The purpose of the Australia's South West Tourism Observatory (ASWTO) is to continuously and systematically monitor sustainability indicators for the Margaret River Region (Phase 1) and Australia's South West (ASW) (Phase 2) to support the formulation and implementation of sustainable tourism policies, strategies and management processes. Its main objective is to contribute to ensuring **tourism development for regional development in a sensitive environment**.

The Observatory will aid in achieving the following:

- Provide up-to-date regional data to guide evidence-based tourism decision-making and policy development;
- Provide up-to-date regional data to monitor policy implementation;
- Provide baseline measurements and data for ongoing benchmarking (longitudinally, regionally, nationally and internationally);
- Provide data to assist in future research studies and;
- Exchange ideas and experiences on sustainable development within the UNWTO-INSTO network;
- Maintain and further enhance the established leadership of the Margaret River Region and Australia's South West in terms of sustainable tourism development.
- Maintain and further enhance the established leadership of the Margaret River Region and Australia's South West in terms of tourism development supporting regional development and prosperity;
- Implement self-monitoring by regularly evaluating the impact of the ASWTO on the regional destination network.

The Observatory is suggested to be established in two stages, beginning with the development of indicator measures for the area known as the 'Margaret River Region"' including the City of Busselton and the Shire of Augusta-Margaret River. Once established, Stage Two will involve extending the measurement area to be inclusive of the entire ASW region.

The Observatory will be structured around two key bodies (see Figure 6): (1) The Tourism Research Cluster at Curtin University and (2) a Working Group of key stakeholders including Tourism WA, Australia's South West, Margaret River-Busselton Tourism Association (MRBTA), DBCA and the WA State Government. Expedia Group will have a special role as a research partner.

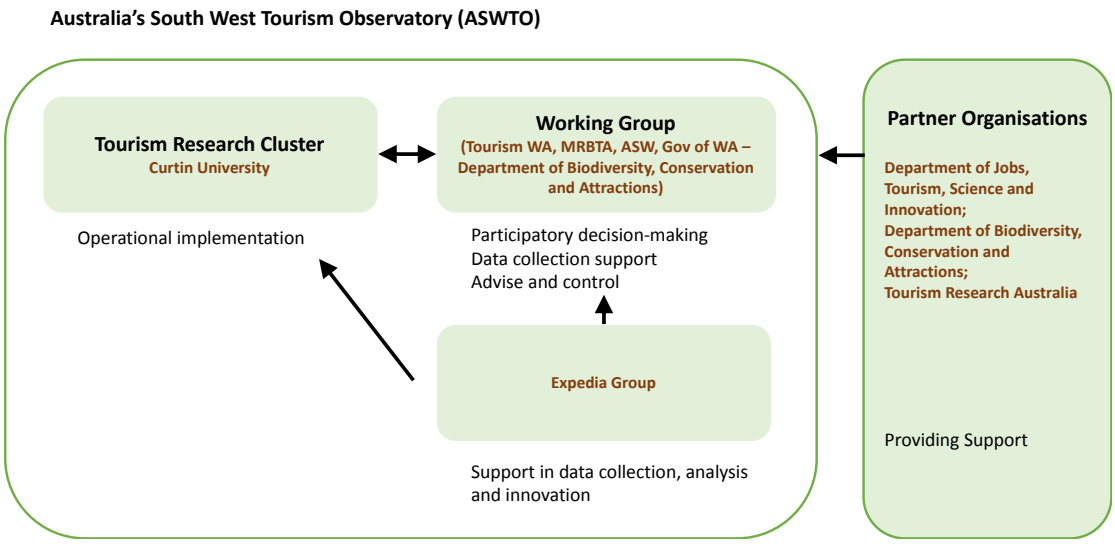


Figure 6: Governance of the Australia's South West Tourism Observatory (ASWTO)

The Tourism Research Cluster at Curtin University, founded in 2010, is a vibrant inter-disciplinary research group of internationally-recognised and world-class rated (ERA 2015) academics from diverse backgrounds including marketing, management, geography, public policy, spatial sciences, anthropology and statistics. Tourism and Hospitality research at Curtin University was recently confirmed to be among the World's Top 50 according to the prestigious Shanghai's Global Ranking of Academic Subjects (2017, 2018). The results are based on five indicators which look at publications, citation impact, international collaborations, top journal papers and the number of award-winning staff.

Next to its currently 20 academic members at Curtin University's Bentley campus in Western Australia, it also holds a number of Adjunct relationships with renowned international tourism academics (including Prof Harald Pechlaner (GER), Prof Muzaffer Uysal (USA), Prof Dogan Gursoy (USA), Prof Jane Ali-Knight (UK), Dr Piotr Niewiadomski (UK), Dr Mirjam Wiedemann (UK)).

The TRC has become particularly known for its collaborations with government and industry and its regular international symposia. The most recent symposium was held on 20 February 2019 on "From Under-Tourism' to Just-Right-Tourism: Asian, European, American and Australian Perspectives". TRC members have conducted many applied research projects in Western Australia and beyond, including recent projects on product development for and travel patterns of Asian visitors in Western Australia as well as Aboriginal tourism in Western Australia. The TRC has also been monitoring the impact of Airbnb on tourism in Western Australia (http://bcecreports.edu.au/airbnb/) and has been carrying out regular social media listening regarding awareness and attractiveness of Perth as a study destination. More information on the TRC, its members and projects can be found under:

https://businesslaw.curtin.edu.au/our-research/centres-and-institutes/tourism-research-cluster/

With its group of experienced tourism researchers, the TRC will deliver expertise in dealing with qualitative and quantitative data collection and data analysis strategies. Their role is to develop the analytical framework and manage the operational activities of the Observatory, including:

- Development and revising of the Observatory research design;
- Data collection management;
- Analysis of data;
- Communication of findings to relevant stakeholders in appropriate ways and through a range of media.

The Working Group of relevant key stakeholders will support data collection and provide guidance and advice to the TRC to ensure data collected and findings are aligned with, and provide value to, the destination. They will also support ASWTO in formulating objectives and validating results (before publication).

Further to the TRC and the Working Group additional partner organisations will be sought to provide data that may assist within or extend the capabilities of the Observatory. For instance, Tourism Research Australia as a key collector of data related to tourist flows and economic contributions will be crucial in providing data to the Observatory.

4.1 Initial ASWTO Indicators

This proposal identifies a framework of 20 region-specific indicators in 11 areas, covering eight of the nine themes suggested by the UNWTO, to guide the initial implementation of the ASWTO. A list of the areas suggested by the UNWTO and the corresponding indicators are shown in Table 7. These indicators will provide a starting point for the ASWTO to begin the data collection, analysis and reporting with the aim to extend the scope of indicators and data collected as the ASWTO moves forward.

Table 7: List of UNWTO mandatory issues and corresponding regional-specific indicators

Issue Area	Indicator
Tourism Seasonality	Occupancy rate in commercial accommodation per month and average for the year (a specific analysis of school holiday and public holiday periods will be explored)
Employment	Direct tourism employment as a percentage of total employment in the region
Destination Economic Benefits	Percentage of tourists satisfied with visit
	Percentage of repeat visitors
	Percentage of tour operator satisfaction
	Tourism contribution to economy
	Accommodation enterprise performance (ADR, RevPAR)
Governance	Trail use: visitor numbers to Cape-to-Cape Track
	Tourist movement patterns
	Development/changes of destination network structure (triggered by the ASWTO)
Local Satisfaction with Tourism	Percentage of residents who are satisfied with tourism in the destination
Energy Management	Percentage of tourism enterprises that take actions to reduce energy consumption (what type of action)
Water Management	Percentage of tourism enterprises that take actions to reduce water consumption (what type of action)
Solid Waste Management	Percentage of tourism enterprises separating different types of waste

Regional Cycles	Percentage of locally produced food, drinks, goods sourced by tourism enterprises (what)
Inclusion and Accessibility	Percentage of rooms in commercial accommodation establishments accessible for people with disabilities
	Percentage of attraction points accessible for people with disabilities
	Percentage of restaurants accessible for people with disabilities
	Percentage of transport accessible for people with disabilities
Landscape Quality	Percentage of tourists who believe that the area is polluted, dirty or contaminated
	Percentage of tourism enterprises actively supporting conservation and management of local biodiversity and landscapes

4.2 Data Collection Methodology

Table 8 outlines the envisaged regular data collection to be carried out by the ASWTO. It includes five surveys to be carried out on a yearly basis, which deliver the necessary information to complement data available from other sources and thus allow to deliver information on the full list of suggested indicators:

(1) The ASWTO Resident Survey will once per year collect residents' satisfaction with tourism development in the Margaret River Region. It is planned to conduct the survey either on phone or online and to aim for a minimum target of 120 participants. The intention is to keep a part of the sampled people constant over the years, i.e. to partially survey the same people each year. This will allow for increased statistical power in detecting trends over years. The objective will be both to identify average satisfaction level and to detect early warning signals.

(2) The ASWTO Industry Survey will deliver yearly data on industry satisfaction with tourism development as well as on regional sourcing, accessibility for disabled, energy management, water management and solid waste management. The survey will be conducted either online or over phone and will aim for 50 respondents.

(3) The ASWTO Visitor Survey will survey 75 visitors face-to-face at attraction points twice per year (summer and winter season). The aim is to gather primary data on visitor expectation, experience and satisfaction as well as visitor perception of landscape quality (biodiversity, cleanliness). A secondary purpose is to establish the prevalence and reason for repeat visitors (as well as barriers to repeat visitation). The objective will be both to identify average satisfaction level and to detect early warning signals.

(4) The ASWTO Visitor Tracking will make use of up-to-date GPS tracking approaches (see e.g. Ferrante, De Cantis and Shoval, 2018) to explore visitor movement patterns in the region twice per year (summer and winter seasons). It is envisaged to track 75 people per season and conduct pre- and post-surveys as well. The Observatory will also explore usage of complementary big data tracking methodologies (such as venue check-in data, see Vu, 2019).

(5) The ASWTO Tour Operator Survey will interview approximately 20 tour operators per year to reveal tour operator satisfaction with tourism development. This will allow to monitor observations in the organised tour market and allow tour operators, which are important intermediaries between supply and demand, to have a say. The survey will be conducted over the phone or online.

(6) In order to achieve effective outcomes, the ASWTO relies not only on the expertise and knowledge of its stakeholders, but also on their willingness to collaborate. Thus, to fully capitalize on this potential, it is essential to bring together the stakeholders and to establish appropriate structures and processes to facilitate their effective communication and collaboration. Thus, effective communication networks and an open exchange of information are cornerstones of its successful implementation. The ASWTO Network Evaluation System (ANES) is designed to elicit how knowledge and understanding is shared between members, in both formal and informal capacities. For this, a social network methodology will be employed as an analytical tool to describe and explain the complex nature of the interaction between the various stakeholders within the structure of the ASWTO network. The focus will initially be set on 'reputation', 'communication' and 'collaboration' networks (i.e. how stakeholders take each other into account in their actions). For this purpose, a standardized online questionnaire will be designed to investigate the nature of the interactions between the network's identified system of stakeholders at least once per year. Specifically, we are interested in tracking any changes during the life of the ASWTO and to also capture the development of new partnerships within a growing ASWTO network.

Table 8: Proposed data collection methodology (plan)

No.	Survey	Periodicity	Minimum sample sizes	Survey type	Data type
1	ASWTO Residents Survey	Once per year	120	Phone/online	Qual / quan
2	ASWTO Industry Survey	Once per year	50	Phone/online	Qual / quan
3	ASWTO Visitor Survey	Twice per year	150 (75x2)	Face-to-face @ attraction points	Qual / quan
4	ASWTO Visitor Tracking	Twice per year	150 (75 x2)	Face-to-face	Quan
5	ASWTO Tour Operator Survey	Once per year	20	Phone/online	Qual / quan
6	ASWTO Network Evaluation System	Once per year	20	Online	Quan

Together with Expedia, the Observatory will also consider innovative ways of data collection and analysis.

In addition to the above, dependent on funding, social media monitoring for the region, by using Curtin University's Social Studio facilities, can also be considered and implemented.

5. Relevant Stakeholder Groups

The following section outlines selected stakeholders in the destination which may play a role in informing and guiding sustainable tourism development and aid in the execution of the ASWTO.

Table 9 outlines the key stakeholders already committed to partner with the ASWTO, which specifically have provided a letter of support and have been included in the ASWTO Working Group. Further to these stakeholders, the ASWTO has also received a letter of support from the Western Australian State Government Minister for Tourism, Hon Paul Papalia MLA. Please see the appendices for evidence of letters of support from all stakeholders within the ASWTO Working Group.

Table 9: List of stakeholders within the ASWTO Working Group

Stakeholder	Relevance
Tourism Research Cluster at Curtin University	Key overseer and manager of the ASWTO
Tourism WA	WA State Government Agency responsible for tourism
Australia's South West	RTO responsible for tourism development within the Australia's South West tourism region
Margaret River-Busselton Tourism Association	RTO responsible for tourism development and management within the Margaret River tourism region
Department of Biodiversity, Conservation and Attractions	WA State Government Department responsible for the management and preservation of the Western Australian environment (including the management of National Parks)
Expedia Group	Data provisioning and innovation around data collection and analysis tools

Further to the stakeholders included in the ASWTO Working Group, a range of other stakeholders have been identified as potential partners and data providers to the ASWTO moving forward.

Table 10: Other potential stakeholders/partner organisations

Stakeholder	Relevance
Tourism Related Data Providers/Partners	
Tourism Research Australia	National government agency responsible for the collection of data related to tourism. Potential data provider.
Australian Bureau of Statistics	National government agency responsible for the collection of data across a broad range of industries. Potential data provider.
Tourism Council WA	State-level industry association representing tourism businesses, industries and regions in Western Australia.
WAITOC	State-level industry association for Aboriginal tours and experiences in Western Australia.
Ecotourism Australia	A national-level not-for-profit organisation focused on inspiring environmentally sustainable and culturally

	responsible tourism. Potential data provider.
Local Level Tourism and Economic Data Providers/Partners	
Shire of Augusta-Margaret River	Local government authority for the Augusta-Margaret River area. Potential working group partner and data provider.
City of Busselton	Local government authority for the Busselton area. Potential working group partner and data provider.
Chamber of Commerce and Industry of WA	A member-based organisation providing quality information, professional services and support for businesses. Potential data provider.
South West Development Commission	WA state government organisation that aims to aid in developing the region's economy and improving quality of life. Potential data provider.
Margaret River Wine Association	Local-level industry association focusing on the wine industry. Potential data provider.
State Level Environmental and Social Issue Data Providers/Partners	
Water Corporation	WA state government organisation responsible for the management of water resources. Potential data provider.
Waste Authority	WA state government organisation responsible for the oversight of waste management. Potential data provider.
Synergy	WA state government organisation responsible for the generation and provision of electricity. Potential data provider.
Western Power	WA state government organisation responsible for the management of the energy network. Potential data provider.
Public Transport Authority	WA state government organisation responsible for the management of public transport with the state. Potential data provider.
Main Roads	WA state government organisation responsible for the road network within the state. Potential data provider.
Disability Services, Department of Communities	WA state government agency responsible for advancing opportunities, community participation and quality of life for people with disability. Potential data provider.

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7. Appendices

Appendix A

Stakeholder Survey

UNWTO Sustainable Tourism Observatory – Key Partner Survey

Thank you for showing support for Curtin University's UNWTO Sustainable Tourism Observatory Application. If successful, the Australia's South West Tourism Observatory will be the first of its kind in Australia, joining 18 other observatories globally.

The purpose the observatory is to continuously and systematically monitor sustainability indicators for Australia's South West (ASW) to support the formulation and implementation of sustainable tourism policies, strategies and management processes. The Observatory will aid in achieving the following:

1. Provide data to guide better decision-making and policy development;
2. Provide data to monitor policy implementation;
3. Provide baseline measurements and data for ongoing benchmarking (longitudinally, regionally, state-wide, nationally and internationally);
4. Provide data to assist in future research studies

The observatory will aim to be established in two stages, beginning with the development of indicator measures for the area known as "Margaret River Region" including City of Busselton and Shire of Augusta-Margaret River. Once established, Stage Two will involve extending the measurement area to be inclusive of the entire ASW.

Indicator Development Survey

The first step in the preparation of the application is to collaboratively identify sustainability indicators relevant to ASW. The Curtin University team in consultation with the following documents developed the following list of 53 initial standardised indicators:

- UNWTO (2004). Indicators of Sustainable Development for Tourism Destination: A Guidebook, UNWTO, Madrid.
- European Union (2016). The European Tourism Indicator System.

We are seeking feedback from you on this initial list of potential indicators through the attached survey. Our aim is to reduce the list of potential indicators to a feasible amount that will be included in the ASW Tourism Observatory application. At this early stage, it is necessary to identify:

- What data is most relevant to all stakeholder groups;
- What data is available and currently collected, and by whom, **(note: we are aware that government agencies such as Tourism Research Australia will be a prime source for the desired data. We would like to use this process to get your input on any other potential data sources you may be privy to;**
- What other potential indicators outside of the developed list will be relevant.

Your time taken to complete the survey is greatly appreciated. Feedback provided will be very useful in guiding future discussions. It will take 10-15 min to complete and the information that you provide during the survey will be kept in the strictness of confidentiality. Reference will only be made to an entity as a whole.

Should you have any questions or require assistance, please do not hesitate to contact the Curtin University team:

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Curtin University Human Research Ethics Committee (HREC) has approved this study (HREC number: 2017-0868). Should you wish to discuss the study with someone not directly involved, in particular any matters concerning the conduct of the study or your rights as a participant, or you wish to make a confidential complaint, you may contact Curtin University's Ethics Officer on (08) 9266 9223 or the Manager, Research Integrity on (08) 9266 7093 or email hrec@curtin.edu.au.

Consent Form

I _____ (name) of the _____(entity)

accept to be involved in this research project.

Please tick if you are accepting of the following statements:

☐ I have been informed of and understand the purpose of the study.

☐ I have been given an opportunity to ask questions.

☐ I understand that I can withdraw at any time without prejudice.

☐ Any information which might potentially identify me will not be used in published material.

☐ I agree to participate in the study as outlined to me.

Signature: _____

Date: _____

Issue/Area	Indicator	Is this indicator relevant? (3 point scale – 1 = Unimportant; 2 = Moderately important; 3 Very important)	According to your knowledge, is data for this indicator currently collected? (Y/N)	If yes, do you know where the data is sourced from? (Organisation)
Section A: Destination Management				
A.1 Sustainable tourism public policy	**A.1.1** Percentage of tourism enterprises/establishments in the destination using a voluntary certification for environmental sustainability			
	A.1.1 Percentage of tourism enterprises/establishments in the destination using a voluntary certification for Corporate Social Responsibility			
A.2 Tourist satisfaction	**A.2.1** Percentage of tourists and same-day visitors that are satisfied with their overall experience in the destination			
	A.2.2 Percentage of repeat/return visitors (within 5 years)			
	A.2.3 Importance and performance of key attraction experiences (i.e. wine and food tourism, beach activities, fishing, nature based attractions, wellness and beauty, retail, etc…)			
A.3 Resident Satisfaction	**A.3.1** Percentage of residents who are satisfied with tourism in the destination (per month/season)			
A.4 Intermediaries Satisfaction	**A.4.1** Opinion of local and international Tour Operators (% of operators with favourable opinion)			

Issue/Area	Indicator	Is this indicator relevant? (3 point scale – 1 = Unimportant; 2 = Moderately important; 3 Very important)	According to your knowledge, is data for this indicator currently collected? (Y/N)	If yes, do you know where the data is sourced from? (Organisation)
Section B: Economic value				
B.1 Tourism flow (volume and value) at destination	**B.1.1** Number of tourist nights per month (Can be segmented by source country/region)			
	B.1.2 Number of same-day visitors per month			
	B.1.3 Relative contribution of tourism to the destination's economy (% GDP)			
	B.1.4 Daily spending per overnight tourist			
	B.1.5 Daily spending per same-day visitors			
	B.1.6 Percentage of overnight tourists staying at various accommodation types (e.g. hotel, caravan park, AirBnB, etc…)			
B.2 Tourism enterprise(s) performance	**B.2.1** Average length of stay of tourists (nights)			
	B.2.2 Seasonality: Occupancy rate in commercial accommodation per month and average for the year (Can segment via accommodation types)			
	B.2.3 ADR (Average daily rate, i.e. average daily prices of accommodation providers)			
	B.2.4 RevPAR (Revenue per available room)			

Issue/Area	Indicator	Is this indicator relevant? (3 point scale – 1 = Unimportant; 2 = Moderately important; 3 Very important)	According to your knowledge, is data for this indicator currently collected? (Y/N)	If yes, do you know where the data is sourced from? (Organisation)
B.3 Quantity and quality of employment	**B.3.1** Direct tourism employment as percentage of total employment in the destination			
	B.3.2 Percentage of jobs in tourism that are seasonal			
B.4 Tourism supply chain	**B.4.1** Percentage of locally produced food, drinks, goods and services sourced by the destination's tourism enterprises			
	B.4.2 Percentage of locally produced wine sourced by the destination's tourism enterprises			
B.5 Seasonality	**B.5.1** Percentage of total tourists visiting in peak month, in peak quarter			
	B.5.2 Ratio of number of tourists in peak month to lowest month (or more sophisticated seasonality indicators such as Gini coefficients)			
	B.5.3 Percentage of business establishments open all year;			

Issue/Area	Indicator	Is this indicator relevant? (3 point scale – 1 = Unimportant; 2 = Moderately important; 3 Very important)	According to your knowledge, is data for this indicator currently collected? (Y/N)	If yes, do you know where the data is sourced from? (Organisation)
Section C: Social and cultural impact				
C.1 Community/social impact	**C.1.1 Tourism intensity (1):** Number of tourists/visitors per 100 residents			
	C.1.2 Tourism intensity (2): Number of beds available in commercial accommodation establishments per 100 residents			
	C.1.3 Number of holiday homes per 100 homes			
	C.1.4 Percentage of residents using a share economy platform (i.e. AirBnB, Stayz) to lease their property			
C.2 Health and safety	**C.2.1** Percentage of tourists who register a complaint with the police			
C.3 Gender equality	**C.3.1** Percentage of men and women employed in the tourism sector			
	C.3.2 Percentage of tourism enterprises where the general manager position is held by a woman			
C.4 Inclusion/accessibility	**C.4.1** Percentage of rooms in commercial accommodation establishments accessible for people with disabilities			
	C.4.2 Percentage of public transport that is accessible to people with disabilities and specific access requirements			
	C.4.3 Percentage of tourist attractions that are accessible to people with disabilities and/or participating in recognised accessibility information schemes			

Issue/Area	Indicator	Is this indicator relevant? (3 point scale – 1 = Unimportant; 2 = Moderately important; 3 Very important)	According to your knowledge, is data for this indicator currently collected? (Y/N)	If yes, do you know where the data is sourced from? (Organisation)
Section D: Environmental impact				
D.1 Reducing transport impact	**D.1.1** Percentage of tourists and same-day visitors using different modes of transport to arrive at the destination (e.g. Car, bus, plane, boat)			
	D.1.2 Percentage of tourists and same-day visitors using local/soft mobility/public transport services to get around the destination			
D.2 Climate change	**D.2.1** Percentage of tourism enterprises involved in climate change mitigation schemes — such as: CO2 offset, low energy systems, etc.— and 'adaptation' responses and actions			
	D.2.2 Percentage of tourism accommodation and attraction infrastructure located in protected area (i.e. National Park)			
D.3 Solid waste management	**D.3.1** Waste production per tourist night			
	D.3.2 Percentage of tourism enterprises separating different types of waste			
	D.3.3 Percentage of total waste recycled per tourist			
D.4 Sewage treatment	**D.4.1** Percentage of sewage from the destination treated to at least secondary level prior to discharge			
D.5 Water management	**D.5.1** Water consumption per tourist night			

Issue/Area	Indicator	Is this indicator relevant? (3 point scale – 1 = Unimportant; 2 = Moderately important; 3 Very important)	According to your knowledge, is data for this indicator currently collected? (Y/N)	If yes, do you know where the data is sourced from? (Organisation)
D.5 Water management	**D.5.2** Percentage of tourism enterprises taking actions to reduce water consumption			
	D.5.3 Percentage of tourism enterprises using recycled water			
D.7 Landscape and biodiversity protection	**D.7.1** Percentage of local enterprises in the tourism sector actively supporting protection, conservation and management of local biodiversity and landscapes			
D.6 Energy usage	**D.6.1** Energy consumption per tourist night			
	D.6.2 Percentage of tourism enterprises that take actions to reduce energy consumption			
	D.6.3 Percentage of annual amount of energy consumed from renewable sources (Mwh) compared to overall energy consumption at destination level per year			
D.8 Sustainability of key species (flora and fauna)	**D.8.1** Annual counts for key species (key flora and fauna)			
D.9 Uniqueness (rarity of the site)	**D.9.1** Percentage of endemic species at the site			
D.10 Level of site protection	**D.10.1** Percentage of area subject to protection			

Issue/Area	Indicator	Is this indicator relevant? (3 point scale – 1 = Unimportant; 2 = Moderately important; 3 Very important)	According to your knowledge, is data for this indicator currently collected? (Y/N)	If yes, do you know where the data is sourced from? (Organisation)
D.11 Erosion of the shoreline	**D.11.1** Percentage shoreline subject to erosion			
D.12 Perception of cleanliness/quality	**D.12.1** Percentage of tourists who believe that the area is polluted, dirty or contaminated			
D.13 Trail Use	**D.13.1** Density of trail use (e.g. Cape to cape track)			

Are there any other potential issues/indicators you feel would be pertinent to include?

To maximise the value all stakeholders receive from this project, we invite you to outline and include other potential indicators you feel are important to include. Please use the following table to: (1) identify the issue; (2) conceptualise an indicator(s) for the issue; (3) briefly outline its relevance and; (4) outline potential data sources for it.

If there is an issue you feel is relevant but you are unsure of potential indicators to measure it or data sources to collect from, that is okay. We can help conceptualise indicators and data sources. The important thing is to include the relevant issue to guide discussion.

Issue/Area	Potential indicator	Brief summary of relevance	According to your knowledge, is data for this indicator currently collected? (Y/N)	If yes, do you know where the data is sourced from? (Organisation)