

Volume I Part - A

URBAN DEVELOPMENT AUTHORITY Research & Development Division

Arugam Bay

Tourism Development Master Plan

2020-2030

Consultancy Assignment on Preparation of Tourism Development Master Plans for Seven Tourism Areas Identified by Sri Lanka Tourism Development Authority

June 2020

Submitted by:



Urban Development Authority Sri Lanka

Arugam Bay Tourism Development Master Plan

2020-2030 Final Report

Consultancy Assignment	Preparation of Tourism Development Master Plans for	
	Seven Tourism Areas Identified by Sri Lanka Tourism	
	Development Authority	
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Consultant	Urban Development Authority of Sri Lanka 🧼	
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Planning Team

Overall Supervision by: Plnr. M.P. Ranathunga **Deputy Director General (Planning) – UDA**

Team Leader – Plnr. Janak Ranaweera **Director (Southern Province)** – **UDA Deputy Team Leader** - Plnr. L.J. Liyanage **Director (Eastern Province)** – **UDA** *Plnr. Lalith Wijayarathne* – **Former Director (Eastern Province)** - **UDA** Plnr. D.M.B. Ranathunga **Former Additional Director General** – **UDA**

Plnr. Priyani Nawarathna Director (Research and Development) – UDA Plnr. Nirmala Kulatunga Deputy Director(Planning) (Research and Development) – UDA Plnr Thushani De Alwis – Real Estate Consultant - Director (Strategic Planning) – UDA Prof. Jagath Manathunga - Environment & Infrastructure Consultant Dr. Rangajeewa Rathnayake - Socio-economic Consultant Eng. R.A. Sudath - Transport Consultant Mr. M.N.L. Lantra - Tourism Consultant Plnr. I.S. Biyanwila - Town Planner Archt. Sampath Jayaweera – Architect Plnr. B. H. M. R. Bandara - Deputy Director (Planning)- UDA

Junior Town Planners/ GIS Assistants

Mr. G.K. Karunaratne – Enforcement Planner, Ampara District Office, Plnr. M.M. Musthaq – Town Planner, Ampara District Office, Plnr. Nishamani Abeyrathna – Assistant Director (Planning), Kandy District Office, Plnr. Lakshan Dissanayaka – Town Planner (R&D Division), Plnr. Sukhitha Ranasinghe - Town Planner - R&D Division, Plnr. Madhuka Thamarasi - Town Planner - R&D Division, Plnr. M.M. Riswan - Town Planner - R&D Division, Plnr. Nadeesha Karunasena - Town Planner - R&D Division, Mr. Vichithra Sampath – Land Manager - R&D Division, Plnr. Chulesha Geeganage - Town Planner - R&D Division, Ms. Sathya Meepagala - Town Planner - R&D Division, Ms. Monali Rupasinghe - Town Planner - R&D Division, Ms. Aloka Fraser - Enforcement Planner - R&D Division, Mr. Kasun Chathuranga - Town Planner - R&D Division, Plnr. Uditha Jayampath - Town Planner - Strategic Planning Division, Ms. Maheshi Nanayakkara - Town Planner - CMR Division, Ms. Shanika Sumanapala - Town Planner - CMR Division

THE CALL OF THE WAVES OF ARUGAM BAY...

















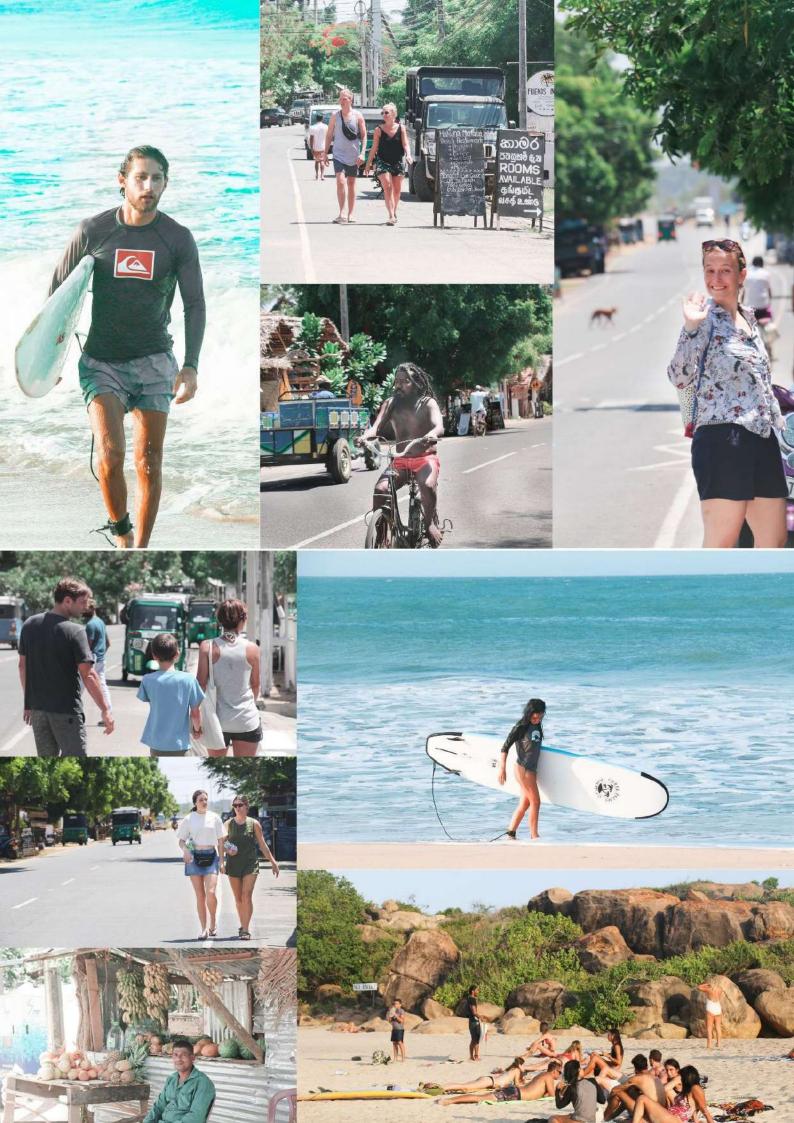












Acknowledgment

The Arugam Bay Tourism Development Master Plan (Arugam Bay TDMP) was completed as a part of the Consultancy Assignment; Preparation of Tourism Development Master Plans for Seven Tourism Areas identified by the Sri Lanka Tourism Development Authority. It was prepared under the supervision and encouragement of many individuals and institutions.

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Chapter 01 Introduction Preparation of Arugam Bay Tourism Development Master Plan

1.1) **Project Inception**

Sri Lanka is endowed with a diverse collection of landscapes, climate and natural features. It fascinates an unbelievable experience for almost everyone, and holds enough diversity to keep a vacation interesting. The central highlands with emerald tea plantations and misty views, the cultural triangle with ancient architecture, majestic art, and amusing engineering, the east of the island with lush paddy fields, national parks, ports, harbors, and spectacular sunrises, the north of the island with vibrant blend of essences, with a unique flavor and culture and golden beaches around the island nurtures the inherited character it holds.

It is evident that tourist arrivals to Sri Lanka have experienced a significant growth since the conquering of civil war in 2009. Accordingly, various tourism related activities have bloomed in around popular tourist destinations in response to the rapid rise in tourist arrivals experienced in the past ten years. Yet, most of these activities are developed in a haphazard manner at the absence of tourism development plans to guide the activities in identified tourism areas earmarked and statutorily declared by the Sri Lanka Tourism Development Authority.

Considering this situation, Sri Lanka Tourism Development Authority (SLTDA) invited Urban **Development Authority (UDA)** to undertake the Consultancy Assignment on Preparation of Tourism Development Master Plans for Seven Tourism Areas; Arugam Bay, Ella, Nuwara Eliya, Kalpitiya, Beruwala, Hikkaduwa and Pinnawala identified by the SLTDA. UDA is the state organization which holds statutory powers to regulate physical developments in the areas declared under the provisions of Urban Development Authority Act No. 41 of 1978. Further, this particular law provides provisions to prepare planning schemes on behalf of any government agency and provide technical planning services for government agencies.

The Memorandum of Understanding pertaining to the consultancy assignment was signed between SLTDA and UDA on 13th February 2019 at the SLTDA. As per the agreed Terms of Reference of the consultancy assignment, the basic details of the assignment are as follows.

Name of the Consultancy	Preparation of Tourism Development Master Plans for
Assignment	Seven Tourism Areas identified by the Sri Lanka Tourism
	Development Authority
Assignment Duration	18 months
Tourism Planning Areas	Phase I - Arugam Bay
	Ella
	Nuwara Eliya
	Kalpitiya

Phase II - Beruwala
Hikkaduwa
Pinnawala
06 Months
(Initiation of each Tourism Master Plan keeps a lapse of two
months and continues for the next six months while the work
of two or three master plans are being carried out
simultaneously)
The Planning Team consists of several thematic field
experts such as;
Team Leader/Town Planning & Real Estate Expert
Tourism Planning Expert
Environment & Infrastructure Expert
Transport Expert
Socio-Economic Expert
Architect
GIS Expert
Junior Town Planner

Table 1.1: Basic Project Details

As per the agreed Terms of Reference of the Consultancy Assignment, the first tourism plan to be prepared is the Arugam Bay Tourism Development Master Plan.

1.2) Arugam Bay Tourism Planning Area

Arugam Bay is a world-famous tourism destination especially for surfing and is widely known as a 'Surfers' Paradise'. Arugam Bay offers several surfing points with waves of different rhythms to suit the preferences of a variety of surfers. Arugam Bay has always been ranked among the best surfing destinations in the world.



Many travel sites and blogs have cited Arugam Bay as one of the best surfing points in the Asia as well as in the world; **Arugam Bay as the 08**th best surfing location in Asia – Ampersand Travel Blog, Arugam Bay as the 07th best surfing destinations of 2019 in the world – BookSurfsCamp Blog, Arugam Bay being ranked among the 14 world's best surfing destinations – Trvl Channel and etc

Arugam Bay is not only a destination of surfers but also it attracts tourists from all over the world who wish to enjoy beautiful coastal landscape and associated tourism culture. Arugam Bay is located in the dry Inspector Etham Basak Moulana Nagar Victor Estate Hidayapuram 2 zone of Sri Lanka's South East coast falling within the boundary limits of Ampara District of Eastern Province of Sri Lanka. The fact that Arugam Bay is surrounded by number of natural and archeological attractions enhances its potential as a sought tourism destination. widely Lahugala Kitulana National Park, Kumana National Park, Panama Lagoon and beach, Okanda beach, Magula Maha Viharaya, Muhudu Maha Viharaya, Kotawehera Viharaya, Kudimbigala Monastry and Okanda Temple etc. are some of the key attractions frequently visited by both local and foreign tourists. These sites are visited by the tourists whose main destination is Arugam Bay as well as Arugam Bay is visited as a stopover by the tourists who visit the surrounding attractions. Arugam Bay is a well self-organized tourism destination with a variety of attraction sites & activities and a range of tourism facilities to serve its visitors of all kinds.

Considering the fact that Arugam Bay's tourism industry is highly interlinked with the above mentioned surrounding attractions, the planning boundary of Arugam Bay Tourism Development Master Plan (TDMP) was selected as it includes all such attractions. In terms of administrative boundaries, the Arugam Bay Tourism Planning Area is comprised of two Divisional Secretariat Divisions (DSD) namely Pottuvil and Lahugala. However, Arugam Bay falls within the boundary limits of Pottuvil DSD. The planning area is governed by two local authorities namely Pottuvil Pradeshiya Sabha (PS) and Lahugala Pradeshiya Sabha which also have the same boundary limits as of Pottuvil DSD and Lahugala DSD respectively. Pottuvil DSD or in other terms Pottuvil PS consist of 27 Grama Niladhari Divisions (GND) whereas Lahugala DSD/ Lahugala PS consist of 12 GNDs.

	GNDs falling within the limits of Pottuvil	GNDs falling within the limits of		
	DSD	Lahugala DSD		
01	Hidayapuram 1	Dewalagoda		
02	Hidayapuram 2	Hulannuge		
03	Hijra Nagar	Hulannugee West		
04	Inspector Etham	Kandahindagama		
05	Jalaldeen Square	Lahugala		
06	Kalappukaddu	Panama Central		
07	Kanagarkiramam	Panama North		
08	Komarie 01	Panama South		
09	Komarie 02	Panama West		
10	Kundumadu	Pansalgoda		
11	Pakkiyawatta 1	Perani Lahugala		
12	Pakkiyawatta 2	Shasthrawela		
13	Pasarichchenai			
14	Pottuvil 01 / Unit I			
15	Pottuvil 01 / Unit II			
16	Pottuvil 01 / Unit III			
17	Pottuvil 02 / Unit II			
18	Pottuvil 02 / Unit III			
19	Pottuvil Town			
20	Rasak Moulana Nagar			
21	Sangaman Kandy			
22	Sarvodayapuram			
23	Sinna Puthukkudiyirup			
24	Sinna Ullai			
25	Vaddively			
26	Victor Estate 1			
27	Victor Estate 2			

Table 1.1: GNDs falling within Arugam Bay Tourism Planning Boundary

1.3) Statutory Provisions for planning Arugam Bay

As explained in the section 1.1 above, preparation of Arugam Bay TDMP is carried out by the Urban Development Authority as a sub project under the Consultancy Assignment; Preparation of Tourism Development Master Plans for Seven Tourism Areas identified by the Sri Lanka Tourism Development Authority.

As per the Tourism Act No. 38 of 2005, Sri Lanka Tourism Development Authority has legal provisions to regulate and monitor tourism activities and economic activities in declared 'Tourism Development Areas'. Accordingly, several tourism areas and areas with potentials to develop as tourism areas in different parts of the island have been declared as 'Tourism Development Areas' by the SLTDA.

On the other hand, as per the Urban Development Authority Act No. 41 of 1978, UDA is the apex planning and plan implementation body in Sri Lanka responsible for managing the state of the urban environments of the island. Identifying the rapid urbanization occurring parallel to the tourism development, Pottuvil PS and Lahugala PS had been declared as 'Urban Areas' by the gazette notification no. 1399/16 dated 30th June 2005 by the UDA. Accordingly, UDA is responsible for promoting and regulating physical developments in Pottuvil and Lahugala Pradeshiya Sabha areas while ensuring its social and economic development and sustainable environment management.

Tourism development of a particular destination cannot be achieved solely by managing its tourism and related economic activities but should be integrated with overall physical, social and economic development. Recognizing the importance of this fact, UDA has been invited by SLTDA to provide consultancy services to prepare tourism development plans for identified seven tourism areas including Arugam Bay and enforce them by publishing through gazette notifications under the provisions of UDA Act No. 41 of 1978. Consequently, tourism activities of the area are expected to be further regulated and promoted as identified by the Arugam Bay TDMP under the provisions of Tourism Act No. 38 of 2005.

1.4) Objective of the Arugam Bay TDMP

Objective of the Arugam Bay TDMP is to prepare a comprehensive Tourism Development Master Plan for Arugam Bay and its surrounding tourism functional area by integrating tourism development aspect with overall physical, social and economic development and environmental management aspects in order to promote Arugam Bay as a sustainable tourism destination.

1.5) Scope of the Arugam Bay TDMP

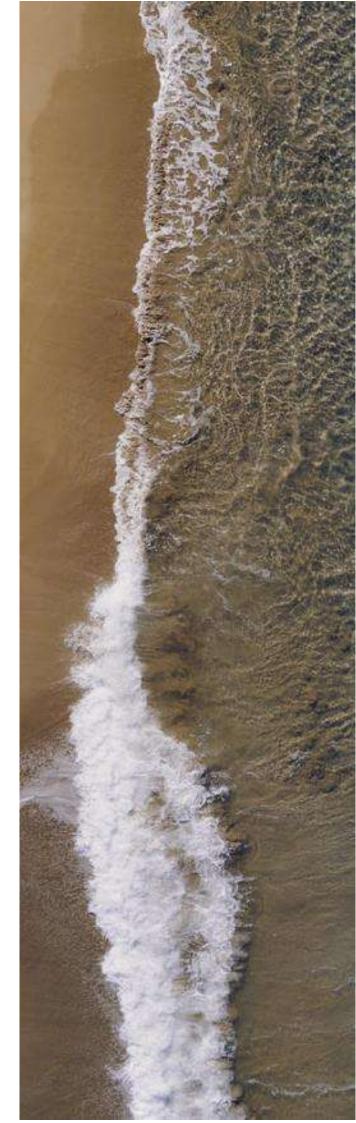
1.5.1 Scope in terms of geography

Geographic scope of the Arugam Bay TDMP is the Arugam Bay tourism area and its surrounding tourism functional area. Considering the administrative boundary limits, the geographic scope of the Arugambay TDMP has been selected including Lahugala PS/ Lahugala DSD and Pottuvil PS/ Pottuvil DSD. However, the study scope of the assignment shall include the role of Arugam Bay in the national tourism industry and its national and regional connectivity.

The geographic scope includes a wider area beyond Arugam Bay tourism area as it is includes surrounding attraction sites, hence, the structure plan will be prepared with the focus on geographical and functional linkages in between different attractions while detailed level layout plans will be prepared for identified major tourist attraction sites.

1.5.2 Scope in terms of Sectors

The main focus of the Arugam Bay TDMP shall be tourism development and management. Nevertheless, tourism activities of an area cannot function alone. They need to be facilitated with infrastructures such as utilities, roads, different transport facilities and special tourism facilities etc. On the other hand, the major tourism attractions are associated with natural and man-made environmental assets, cultural elements, values and heritages which need proper management measures to ensure sustainable tourism development. Further, the engagement of local community in the tourism industry, their needs and concerns are equally important for sustainable tourism development.



In this background, Arugam Bay TDMP shall cover sectors such as Tourism Development, Infrastructure Development, Transport Development, Environment Management, Culture & Heritage Conservation and Local Community Engagement & Empowerment. However, the focus of tourism development

1.5.3 Scope in terms of Level of Detail

Arugam Bay TDMP shall be basically prepared considering two main geographic scales as elaborated above. The plan shall include few regional level strategies ('Region' will be defined based on surrounding attractions and feeder cities) to strengthen Arugam Bay's connectivity with surrounding attractions and feeder cities.

However, the main focus of the Arugam Bay TDMP shall be the delineated 'Tourism Functional Area' and it will include several strategies, strategic interventions and strategic projects to ensure the tourism

1.5.4 Scope in terms of Effective Time Period

The Development Plans prepared by UDA are in effect for a period of 10 years. Accordingly, Arugam Bay TDMP shall also be prepared for a period of ten (10) years for convenient will be limited to aspects such as exposing, connecting and promoting of tourism attractions, including branding of areas with appropriate urban design, architecture, landscape guidelines, future visions and tourism product/ services promotion.

development and management of the delineated area.

In addition, layout plans (including block wise spatial development guide plans) shall be prepared for key attractions, congested sites or sensitive sites identified based on relevant analysis.

Further, Arugam Bay TDMP shall also include planning and building regulations derived aligned with proposed strategies and layout plans to ensure overall management of tourism related spatial development of the area.

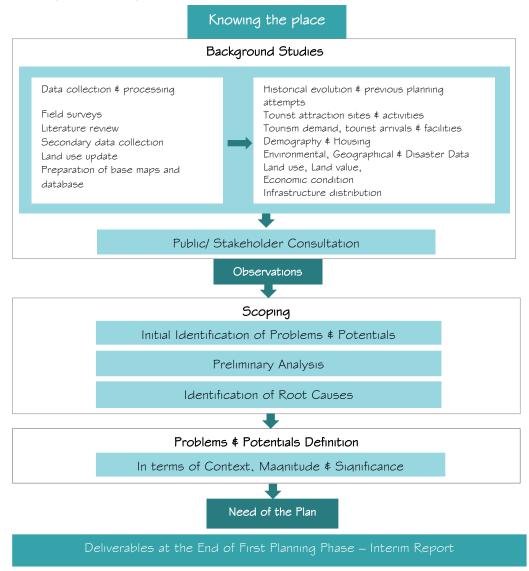
execution as they are required to be legalized through gazette notifications along with the development plans of the relevant local authority areas.

1.6) Planning Approach & Methodology

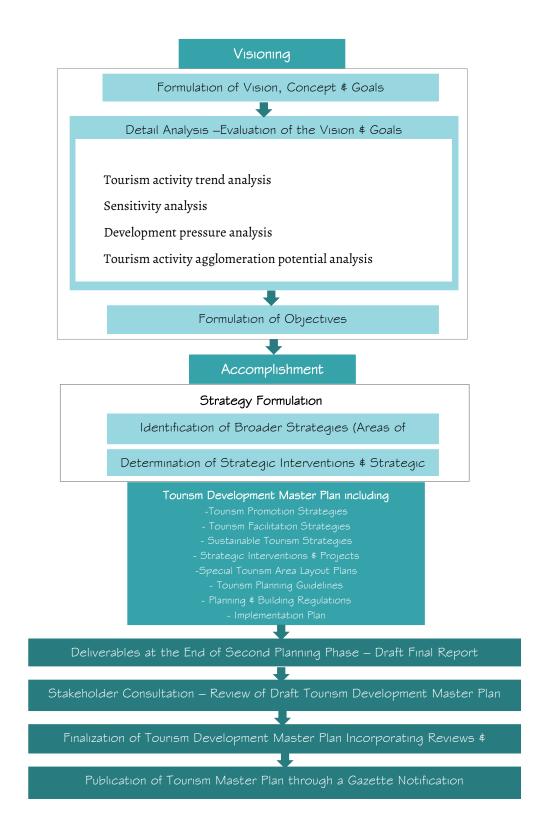
Arugam Bay TDMP will be prepared following the strategic planning approach and adopting several advanced technologies and methodologies for the evaluation of existing tourism industry and its functional patterns, diagnosis of prevailing issues, identification of the most appropriate visionary paths and development solutions and for the planning of strategic paths to achieve the anticipated transformations. Arugam Bay TDMP shall be prepared in two phases following the strategic planning process. The first phase shall include background studies of the planning area, scoping and identification of problems & through observations potentials and stakeholder consultation and defining the need of the plan. The key focus of this phase shall be the defining of the need of a plan in terms of specific issues and potentials of the area. The prevailing issues and potentials of the area shall be defined in terms of their context, magnitude and significance relevant to the Arugam Bay's tourism industry.

The second phase shall comprise of visioning including detail analysis & formulation of objectives, formulation of strategies, identification of strategic projects, preparation of detail layout plans and formulation of planning and building regulations. The key products of the Arugam Bay TDMP shall be the Tourism Promotion, Tourism Facilitation and Sustainable Tourism Strategies, Strategic Projects, Special Tourism Area Layout Plans, Tourism Planning Guidelines, Planning Building and Regulations and the Implementation Plan.

1.6.1) Strategic Planning Process – First Phase



1.6.2) Strategic Planning Process – Second Phase



1.7) Key Stakeholders of Arugam Bay TDMP

'Planning is for people' and people are a part of the plan who contribute for its design, implementation and feedback and it is on them the ultimate effect of the plan is experienced. Thus, stakeholder consultations will be carried out at different stages of the planning process to capture the ideas of people, development agencies, citizen organizations, etc, who are considered as an essential partaker of the Arugam Bay Tourism Development Master Plan.

The co-implementation authorities such as the 02 Local Authorities; Pottuvil PS and Lahugala PS, respective Divisional Secretariat Divisions; Pottuvil and Lahugala DSDs, Ampara District Secretariat Division, Sri Lanka Tourism Development Authority, of Forest and Wildlife Department Conservation. Coast Conservation Department (CCD), Central Environmental Authority (CEA), Irrigation Department (ID), Sri Lanka Land Reclamation & Development Corporation (SLLRDC), Road Development (RDA). Provincial Authority Road Development Authority (PRDA) and etc. will be consulted throughout the planning process.

The ideas of several other stakeholders including the state agencies, private sector organizations and the general public will be gathered by means of CAP workshops, stakeholder meetings, community and tourist perception surveys, focused group discussions and on-line surveys etc.

It is scheduled to carry out stakeholder consultation at two stages;

- Initial stakeholder consultation at the stage of Background Studies
 - To obtain different stakeholder perspectives on existing situation of Arugam Bay tourism related industry, issues, suggestions for enhancing its potentials, ongoing and proposed interventions and especially their aspirations for future development of Arugam Bay
- Secondary stakeholder consultation after the completion of draft report To obtain comments and suggestions for the draft plan



Chapter 02

Tourism in the International and Sri Lankan Contexts

2.1) "Tourism"

Tourism industry is considered as one of the world's largest industries, which has extended its branches over numerous sectors. Thus, it is not relaxed to deliver a strong and all-inclusive definition for tourism. However, the World Tourism Organization defines Tourism as "the activities of persons traveling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes". Further it elaborates; "Tourism is a collection of activities, services and industries which deliver a travel experience comprising transportation, accommodation, eating and drinking establishments, retail shops, entertainment businesses and other

hospitality services provided for individuals or groups traveling away from home".

In essence tourism industry is interrelated with all other sectors: economic, social, cultural, environmental, and political. In view of spatial distribution, tourism is a highly fragmented activity which is located in specific environments and destinations, where there is a variety of environmental, cultural, social and physical attractions. Hence the finest method to understand the functionality of tourism industry is to interrelate tourism activities with its spatial distribution. However, tourism activities are dynamic as those could be reformed by new tourism trends and concepts.

Tourism is the activities of persons traveling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes. – UNWTO, 2008

A visitor is a traveler taking a trip to a main destination outside his/her usual environment, for less than a year, for any main purpose (business, leisure or other personal purpose) other than to be employed in the country or place visited. – UNWTO, 2008

A tourist is a visitor if his/her trip includes an overnight stay; otherwise, a visitor is classified as a same-day visitor (or excursionist). – UNWTO, 2008

2.2) World Tourism Trends

Since Arugam Bay is a world famous tourist destination, it is also a part of global tourism industry and is highly influenced by contemporary world tourism trends. Therefore, knowledge on existing situation of global tourism industry and its contemporary trends is essential to place Arugam Bay in the world tourism context and to link Arugam Bay with global opportunities for tourism development.

2.2.1) Tourism as a Trending Industry

International tourist arrivals

Will increase by 43 million (3.3%) a year on average between 2010 and 2030 $\,$

International tourist arrivals

Will reach 1.8 billion by 2030

Travel & Tourism sector

Is shown to account for 10.2% of global GDP and 292 million jobs, equivalent to 1 in 10 jobs, in 2016 \pounds

10.4% of global GDP and 313 million jobs, or 9.9% of total employment, in 2017





Pacific by 2030

Future arrivals

Will be spread more widely across the globe; the share of international tourism to emerging economies will surpass that to advanced ones, and many of the new arrivals will be to destinations in Asia, Latin America, Central and Eastern Europe, Africa and the Middle East.

International tourist arrivals

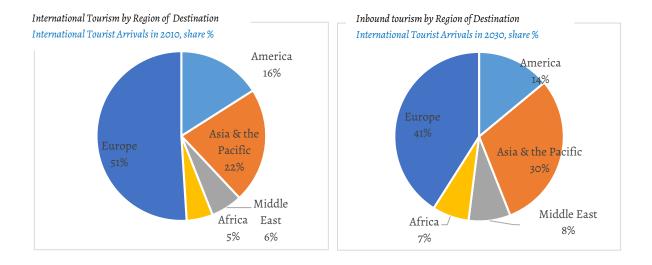
From 2015 emerging economies will receive more international tourist arrivals than advanced economies and will surpass 1 billion arrivals by 2030.

International tourist arrivals to Asia and the Pacific are projected to increase by 331 million in two decades, from 204 million in 2010 to 535 million in 2030.

Fastest growing sub-region

South Asia will be the fastest growing sub-region in relative terms (+6.0% a year).

Sources: Tourism Towards 2030 – Global Overview; UNWTO, 2011 & OECD Tourism Trends and Policies 2018; OECD, 2018



Source: World Tourism Organization

2.2.3 Megatrends transforming tourism

The world tourism industry has undergone some significant changes in recent years. The tourists of western countries used to dominate in worldwide travelling and mostly visited Europe, America and some parts in Asia (such as Thailand) and the Caribbean islands. However, over the last fifteen years, China has significantly developed in tourism while being the largest source market of many other countries such as Hong Kong, Japan, Macau, Russia, Singapore, South Korea and Thailand. As it is recorded in China National Tourism Administration for the year 2017, more than 130 million outbound trips to the rest of the world were made by Chinese (Wee, 2017).

As stated by OECD in its report; OECD Tourism Trends and Policies 2018, the driving forces behind these observed changes in world tourism industry are the megatrends related to i) evolving visitor demand, ii) sustainable tourism growth, iii) enabling technologies and iv) travel mobility.

i) Evolving Visitor Demand due to demographic changes

Rapidly increasing middle class population in the world

It has been estimated that the world is only a few years away from the majority of the world's population being considered middle class (Kharas, 2017) At the end of 2016, there were approximately 3.2 billion people considered to be in the middle classes around the world. Annually, approximately 150 million people are joining this demographic group, with the majority of those (an estimated 88%) residing in Asia (Kharas, 2017).

66 As the middle class grows in developing economies, these parts of the world are going to play an increasingly important role as source markets for global tourism. **99**

Increasing elderly population of the world

The share of people in the global population over 60 years of age is expected to nearly double over the next 35 years, with some regions experiencing more significant growth than others

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The United Nations (UN) has projected that by 2050, nearly all regions of the world will have almost a quarter of their population aged 60 or older. This demographic group is currently growing at a rate of about 3% per year, and is expected to reach 1.4 billion people in 2030 and 2.1 billion by 2050 (UN, 2017).

Research indicates that tourism is one of the major areas that will benefit from an aging population that is increasingly more inclined to pursue leisure-oriented experiences \$ medical tourism **99**

Emerging Generation Z and Millennials

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Generation Z (born in the late-1990s to early-2010s) and Millennials (born in the early-1980s to mid-1990s) will both represent important market opportunities in the tourism sector by 2040. Meanwhile, the generation that follows Millennials – Generation Z – will also be a major force in the tourism market and labour force by 2040, ranging between the ages of 30 and 45. By as early as 2020, this demographic group will make up the largest share of the global population at 2.6 billion, projected to overtake Millennials who are estimated to be number 2.3 billion (Weinswig, 2016).

(Weinswig, 2016).

Millennials take more trips annually compared to other generations – at four or more per year. (Globetrender, 2017). Furthermore, they are more likely to pick travel experiences that they consider to be "authentic" – preferring to head off the beaten track and "live like a local" (Future Foundation, 2016)

ii) Sustainable Tourism Growth

Sustainable Tourism as a key trending concept

Tourism is widely recognized as a human activity that is dependent on natural resources, while at the same time contributing to the depletion of these same resources. In light of negative consequences due to high carbon emissions, climate change, exploitation of natural resources and environmental damages, contemporary tourism trends and concepts are more oriented towards promoting sustainable tourism.

Tourism can play a key role in driving the transition to a low-carbon and resource efficient economy. Due to its cross-cutting nature and close connections to numerous sectors, even small improvements will have important impacts.

Sustainable Tourism

"Tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities"

UNWTO, 2005

iii) Enabling Technologies

Influences of Advancing Technologies

From the sharing economy to the Internet of things, to autonomous vehicles and artificial intelligence, and block chain technology to big data analytics, a range of new and emerging innovations promise to unlock more opportunities for people around world. Digital platforms are often used to inform travel decisions and their impact is likely to grow in coming decades.

80% of Booking.com customers do researching, booking and planning of entire trip by only using smartphones and further, 70% of travelers use mobile phones during their trip - Booking.com Last minute travel booking search ups of mobile phones have grown over 150% for over the past two years – Google Data, 2017

'Personalization' in customer booking process is one of the trending facts in tourism. According to the search results of Google's data 2017, the customers personalize their trips based on personal experiences, preferences & behaviors and further it could be described that 36% of customers are willing to pay more for personalized trips (Google/Phocuswright, 2019).

TripAdvisor and Airbnb are the commonly used travel guide sites where others share their local experience and knowledge by reviewing local food and places during their visits.

Sixty percent of the travelers intend to post photos, videos and live updates on social media each day during their stay.

Advancing technologies make travel more affordable, efficient and accessible to many people.

iv) Travel Mobility

Modern Improvements in Transportation

Transport is an essential component of the tourism system and plays a vital role in moving tourists efficiently from their place of residence to their preferred destination and to various attractions. Modern improvements in transportation

Air passenger traffic in particular is expected to nearly double between now and 2035, expanding from 3.8 billion to 7.2 billion passengers (IATA, 2016). The ITF has also forecast strong growth in global road and rail passenger travel by 2050, with estimates ranging from 120% to 230%, depending on future fuel prices and urban transport policies.

Over the ten years 2004/2014 demand for cruising worldwide increased from 13.1 million to 22 million passengers (+68%) with 3.4% growth achieved in 2014.

66 Managed effectively, transport and tourism synergies can improve visitor mobility to and within destinations, enhance visitor satisfaction, and help to secure the economic viability of local transport systems and services by servicing both residents and tourists.

2.2.4 Trending Tourism Types and Concepts

The characteristics of tourism are dynamic due to new tourism concepts arisen in the world which are followed by travelers. Apart from the conventional tourism concepts, these trending tourism concepts are more towards experimental tourism and being shaped according to the requirements of travelers.

Eco-tourism- more towards sustainable tourism which visits fragile, pristine, and relatively undisturbed natural areas while intending low impact to the environment.

eg: wildlife safaris, hiking, rainforest, national parks

Adventure Tourism- 'Getting off the beaten track' is the most common interpretation for adventure tourism. However, this refers to the travel in rugged regions or adventure sports such as mountaineering sailing, diving, surfing and hiking. Heritage tourism, cultural tourism, educational tourism, health tourism, ancestry tourism can be identified as the conventional tourism concepts. Though, as the trending tourism concepts following are popular among tourists.

Perpetual Tourism- the wealthy community always try to be on vacations for the mind relaxations and to get rid from their busy lifestyle. Apart from that this wealthy community make trips to avoid tax issues and being resident in any country.

Dark Tourism- these travel sites associate with death and suffering

Niche Tourism - a type of specialty tourism that focuses on a specific concept or topic is called as niche tourism. This can be food, sports, sex, and war or wildlife tourism.





Family travel, solo travel, business travel and wellness travel are the new travel trends emerged among travelers. However, still group travel is more preferred for budgeting and has a bigger increase of 21% to 25%.

Family travel-

Tour operators offer different packages focusing on family travel. According to the intrepid index 2019 Vietnam is the top family destination followed by Malaysia, Thailand, India, Sri Lanka, Cambodia, Japan, South Africa, China and Egypt. Apart from this trend, in the year 2018, tours specifically for single parent families have introduced to the world. Hence the kids of single parent families could travel around the world with the company of other families and support of a local tour leaders. (Intrepid Travel, 2019)

Solo travel-

As stated in Google searches 'travel alone' or 'solo travel' are commonly surfed terms which is about increase of 40% increase. Searches for "solo female travel" grew by 52% between 2016 and 2017. Specifically, the younger generation has high interest on adventure travelling where one in four people say they will travel solo in 2018. (Solo Traveler, 2019)

Business travel-

A new study from Expedia Media Solutions and Luth Research has identified that the international business travels increases imperceptibly. Nowadays these business travels are converting to Bleisure trips by 40%. Usually these Bleisure travelers tend to be frequent business travelers. As it is mentioned in the study 21% of frequent business travelers said they travel more days for leisure element than business purpose since Bleisure trips are great opportunity to cover travel.

2.3) Tourism in Sri Lanka

Sri Lanka is located in a strategic spot in the Indian Ocean which supports to create paths and links to enter the international tourism arena. This island country's geo-positioning as well as geography are equally important to make herself as a popular tourist destination. Sri Lanka is blessed with natural assets in diverse landscapes for instance, blue sea with sandy beaches, misty green mountains, waterfalls, natural grasslands, forests and wildlife. Apart from these natural assets, from past to present the country has enriched by an amazing cascade system, plantations and culture & heritage. Accordingly, these factors are proven that Sri Lanka has the capability to stand as a tourism hot spot in the world.

Sri Lanka entered to the international tourism arena in 1960s. Since then the country's economy has gradually sustained with tourism industry. Nevertheless, few drawbacks mainly, security situation prevailed in the country and Tsunami catastrophe were directly impact to tourism sector. By now the country is again on the track to develop it as a must visit tourism destination in the world.

2.3.1 Sri Lanka in World Tourism Rankings



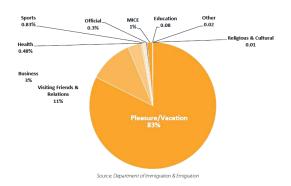
*Note – Intrepid Travel Index – 2009 is based on a survey of 1,000 Australian Travelers

2.3.2 Sri Lanka's best Tourism Products

Annual Statistical Reports published by Sri Lanka Tourism Development Authority, provide concise data on Sri Lanka's tourism industry which is beneficial to understand trending tourism products and characteristics of inbound tourism and growth of travel and tourism of the country. Further, tourism demands and trends have been tracked by an airport survey of departing foreign tourists from Sri Lanka in 2017 which was conducted by Tourism Development Authority, Sri Lanka. The sample size of the survey is 6,559 departing foreign tourists and accordingly below statistics related to Sri Lanka's tourism products have been identified



83% of tourists visit Sri Lanka for Pleasure & Vacation



07 Major Tourist Destination Regions in Sri Lanka

Resort Region	Occupancy Rate		
_	2016	2017	
Colombo City	76%	75%	
Greater Colombo	75%	73%	
South Coast	74%	72%	
East Coast	74%	72%	
Hill Country	75%	73%	
Ancient Cities	75%	73%	
Northern Region	69%	70%	

Source: Annual Statistics Report of SLTDA - 2017

66 52% of visitors to Sri Lanka prefer Sun & Beach and Sightseeing 99

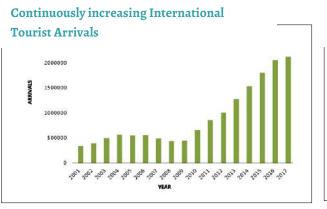
Source: Airport Survey – 2017; SLTDA



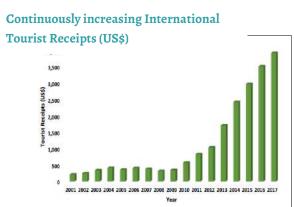


2.3.3 Tourism as a Growing Industry in Sri Lanka

The economic sector of Sri Lanka is contingent on 'Travel and Tourism' as it creates jobs, drives exports, and generates prosperity to the country. According to the report of Travel & Tourism Economic Impact 2018 of Sri Lanka by the World Travel and Tourism Council, the country's travel & tourism's direct contribution to GDP is recorded as US \$4.4 bn where country ranked in 59th place. The travel and tourism sector is shown to account for 10.4% of global GDP and 9.9 percent of global employment is generated through this sector. (World Travel & Tourism Council, 2018)



Average daily spending of an international tourist Package Tour – US\$ 188, Non-package Tour – US\$ 170



Source: Annual Statistics Report of SLTDA - 2017

Average length of a stay of an international tourist in Sri Lanka is 11 nights

Key economic indicators of Travel & Tourism Industry in Sri Lanka

Source: Airport Survey – 2017; SLTDA

Indicator	2016 2017		2017	
Indicator	LKR	%	LKR	%
Direct GDP Contribution of Travel & Tourism	631.8 Bn	5.1% of total GDP	687.4 Bn	5.3% of total GDP
Total GDP Contribution of Travel & Tourism	1,405.4 Bn	11.4% of total GDP	1,518.8 Bn	11.6% of total GDP
Direct Employment Contribution of Travel & Tourism	406,000	4.8% of total employment	404,000	5.1% of total employment
Total Employment Contribution (including indirect employment supported by tourism) of Travel & Tourism	894,500	10.7% of total employment	875,000	11.0% of total employment
Tourism Investments	129.4 Bn	4.0% of total investments	144.3 Bn	4.1% of total investments
Foreign Exchange (FE) Earnings	512.6 Bn	14.2% of total FE Earnings	598.4 Bn	14.8% of total FE Earnings

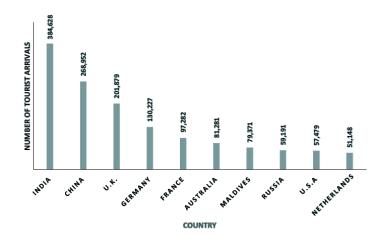
Source: Travel & Tourism, Economic Impact 2017- Sri Lanka; World Travel & Tourism Council

2.3.4 Source Markets of Sri Lanka's Tourism Industry

India continues to be the leading tourist generator to the country with a share of 18.2 percent of the total tourist arrivals. China comes second followed by Germany, France, Australia, Maldives, Russia, United States of America and Netherlands respectively. Yearon-Year analysis of top source markets reveals that Australia, USA and United Kingdom recorded the highest percentage changes for the year 2018/17. The top ten markets accounted for 68.2% of the total tourist traffic to the country in 2018. The table below gives a listing of the ten major source markets in 2017 and 2018.

_	Tourist Arrivals		_	Share in 2018
Country -	2017 2018		— % of Increase	
India	384,628	424,887	10.5	18.2
China	268,952	265,965	(1.1)	11.4
United Kingdom	201,879	254,176	25.9	10.9
Germany	130,227	156,888	20.5	6.7
Australia	81,281	110,928	36.5	4.8
France	97,282	106,449	9.4	4.6
Maldives	79,371	76,108	(4.1)	3.3
USA	57,479	75,308	31.0	3.2
Russia	59,191	64,497	9.0	2.8
Netherlands	51,148	57,160	11.8	2.4
Sub total	1,411,438	1,592,366	12.8	68.2
Others	704,969	741,430	5.2	31.8
Grand Total	2,116,407	2,333,796	10.3	100.0

India and China as the largest source markets of Sri Lanka's Tourism Industry



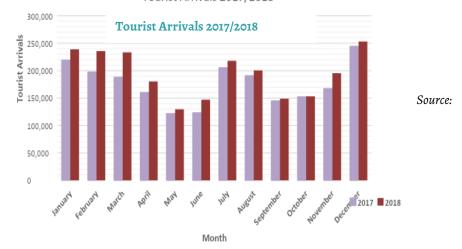
Source: Annual Statistics Report of SLTDA - 2017

2.3.5 Seasonality in Sri Lanka's Tourism

The general seasonal tourism pattern in Sri Lanka is a high season during the months of January to March and December with a mini

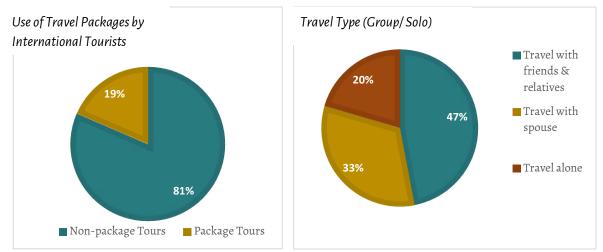
Tourist Arrivals 2017/2018

peak during July and August due to the Kandy Perahera. This general pattern is entirely different for the East Coast.



2.3.6 Booking & Travel Trends

Booking and travel trends have been identified using the Airport Survey results and it indicates that nearly 40.2% had gone for own arrangements while 36.9% of the respondents had arranged their trip online. Among the respondents who had arranged their stay via online, 78.2% had done the payment by using credit cards while others (13.9%) had used bank transfers. However, the respondents who had paid through a travel operator in the country of residence and in Sri Lanka are 17% and 4% respectively. These facts show that majority of the tourists tend to personalize their stay by planning travel arrangements on their own and via internet. Further, they consider making own arrangements are more accountable than seeking assistance from travel operators.



Source: Airport Survey – 2017; SLTDA

'Sri Lanka's tourism industry today lies along the continuum from exploration to development, depending on the destination.' (Sri Lanka Tourism Strategic Plan 2017-2020) However, Sri Lanka Tourism Development Authority has observed the current status of Sri Lankan tourism industry as an untapped potential that has taken place predominantly organically, without a definite vision and without coordinated planning. Considering this fact, the SLTDA has set out several planning and policy interventions to transform Sri Lanka's tourism industry to make the island competitive in the global travel market.

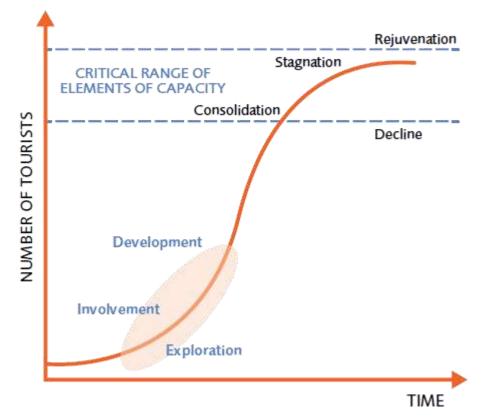


Figure: Sri Lankan Tourism Industry currently being positioned along the continuum from exploration to development

Source: Sri Lanka Tourism Strategic Plan 2017-2020

The current national scale tourism policy is based on Sri Lanka Tourism Vision 2025 and the Sri Lanka Tourism Strategic Plan 2017-2020. However, several tourism planning attempts have been made throughout the past decades since 1967 The highlights of these past tourism planning attempts will be discussed further with relevance to Arugam Bay Tourism Area in Chapter 3.4.

a) Sri Lanka Tourism Vision 2025

Sri Lanka's tourism sector has been growing exponentially since the end of civil war in 2010. It is benefitted from being perceived as a safe and secure country and wider international interest. This was further enhanced by significant direct investment by the private sector and by overseas investors, as well as positive steps taken by other key stakeholders in recent years. Nevertheless, to date, tourism in Sri Lanka has been unable to capture its full growth potential. Hence the Sri Lanka's Tourism Vision 2025 strives to address this.

Sri Lanka Tourism Vision 2025;

GG To be recognized as the world's finest island for memorable, authentic and diverse experiences **99**

[Made in Sri Lanka]

Sri Lanka's Roots Philosophy which is underlined within the Sri Lanka Tourism Vision 2025 is as follows.

Sri Lanka's Roots Philosophy

- Celebrate Sri Lanka
- Tourism is rooted in the people, places, heritage, and values of the country
- Tourism can promote a sense of place and belonging and a voice for every community
- Tourism should be used as an income generator to protect, conserve and enhance Sri Lanka's natural environment as well as the tangible and intangible cultural and historic assets
- This Roots Philosophy should govern policy, planning and development to build economic, social, environmental and local capital
- Visitors, both domestic and international, are guests in the country

The Tourism Vision 2025 is not an operational plan for a national brand, marketing strategy, advertising campaign, country slogan or action plan. Rather it is a strategic positioning of Sri Lanka in the international tourism market, which sets the foundations from which the sector can build. It is a catalyst to transform the tourism industry to become a leading employer and driver of economic growth. It provides the foundation with which all stakeholders can rally together to transform the tourism sector as well as the platform to communicate Sri Lanka's tourism values to the rest of the world.

It is expected that the Tourism Vision 2025 will transit Sri Lanka into a higher value tourism destination by capturing its full growth potential, whilst safeguarding and prioritizing the sustainability of its natural and cultural assets. The implementation of the vision is defined by detailed strategies and action plans elaborated in the Sri Lanka Tourism Strategic Plan 2017-2020.

b) Sri Lanka Tourism Strategic Plan 2017-2020

The National Tourism Strategy (NTS) of Sri Lanka has been developed aligned with the Sri Lanka Tourism Vision 2025 which sets a new course for Sri Lanka to adopt the new tourism strategy where the guiding philosophy, visitor demand and supply-side experiences are associated. The new strategy will aim to address gaps in planning, regulation, value addition, market research, stakeholder coordination, skills development, investment attraction and sustainable natural resource management. Accordingly, the country's potentials will be counted in the journey of transforming the island as a well-known tourism destination.

Following the National Tourism Vision 2025, following mission and objectives have been formulated to set the path towards the anticipated vision.

Mission of the Sri Lanka Tourism Strategic Plan 2017-2020

To be a high-value destination offering extraordinary experiences that reflect Sri Lanka's natural and cultural heritage, are socially inclusive and environmentally responsible, and provide economic benefits to communities and the country. **99**

The National Tourism Strategy 2017-2020 follows by six transformative themes namely; Governance and *'Improving* Regulation', 'Understanding Visitors', 'Marketing and Communicatina Effectively', 'Developing Sustainable Destinations', 'Lifting Industry Standards' and 'Engaging the Workforce and Communities' with corresponding core strategies.

In United Nations declared 2017 as the "International Year of Sustainable Tourism for Development". Aside from that, among 17 Sustainable Development Goals of UN, three SDGs with strong tourism features namely, 'SDG8: Promote sustained, inclusive, and sustainable economic growth; full and productive employment; and decent work for all', 'SDG12: Sustainable consumption and production patterns' and 'SDG14: Conserve and use the oceans, seas, and marine resources for sustainable development' are accommodated by NTS.

Based on the national economic objectives and the UN SDGs, seven guiding principles for Sri Lanka's tourism industry have been identified. (Ministry of Tourism Development, 2017)

- Capturing the benefits of tourism for Sri Lanka
- 2. Democratization of economic participation
- 3. Conservation and world-class management of assets
- 4. Local community involvement
- 5. Memorable experiences rooted in heritage
- 6. Responsible destination marketing
- 7. Safety and security for all

High Level Objectives of Sri Lanka Tourism Strategic Plan 2017-2020

- Tourism to be Sri Lanka's #3 net foreign exchange earner, with a target of us\$ 7 billion earned in 2021 - in 2018. (Tourism was the #3 foreign exchange earner, with a value of US\$ 4.4 billion.)
- Tourism and its supporting industries to employ 600,000 Sri Lanka's, with women accounting for 10% of the workforce- in 2018, 388,436 people were employed in the tourism sector.
- To increase daily spending per visitor to
 US\$210- in 2018, the daily spending was
 US\$174.



Chapter O3 Tourism in Arugam Bay

Arugam Bay as one of the Best Surfing Destinations in the World

Arugam bay is an adventurous destination for water sports lovers as it is a world-renowned surfing spot which is ranked among the best surfing sites in the world. Surfing is generally 'riding waves' where the wave rider or surfer rides on forward or face of a moving wave, which usually carries the surfer towards the shore. Surfing is a seasonal water-based tourism activity which depends on wave pattern in terms of wave height, speed and frequency. Furthermore, Arugam Bay surfing points are long right-hand breaks where the waves generate to reach up to one meter to two meters high for a 400 meters ride.

The surfing season in southern coast is from November to May where the east coast and surfing season is from in April and ends in October. During the surfing seasonal period, Arugam Bay is visited by 125000 tourists approximately. Among them 50% are beginners while others have previous experience or being experts in surfing for years. Arugam Bay being ranked as No. 08 in the 18 Best Sunfing Locations in Asia (Ampersand Travel Blog)

Arugam Bay, Hikkaduwa, Unawatuna and Weligama of Sri Lanka being ranked among the 10 Best Surfing Destinations of 2019

(BookSurfCamp Blog) Arugam Bay being ranked among the 14 World Best Surf Destinations

(Trvl Channel)

Arugam Bay being ranked as No. 46 in the World's Best Sunf Spots (CNN Travel. CN 37) Surfing is a popular water sport among the foreign tourists who visit the palm fringed pristine beaches of Sri Lanka. Sri Lanka has been an international tourism destination since early 60's. The most popular surfing beaches of the island are Hikkaduwa of South Western coastal belt and **Arugam bay** of Eastern coastal belt of Sri Lanka.

The resplendent waters surrounding the moon-shaped curl of soft golden sand in the eastern shores of Sri Lanka are known to be one of the best 'point brakes' in the world. In Arugam Bay, there are around 11 surf spots which are popular among surfers as well as few hidden spots which are yet to be exposed.

POINTS AT THE BAY

1) Main Point

'Main Point' or 'The Point' is the main break in Arugam bay. The point is a long right-hand point/reef break that breaks at the headland in front of Arugam bay. It is also the best swell magnet of all the points as it guarantees that the Main Point will be a couple of feet bigger than any of the other breaks. It breaks from anything between 2 and 6 feet but tends to max out after 6 feet. This is also the same reason which has made it one of the 10 best places to surf in the world.

In terms of surfing related technicalities, Arugam Bay's Main Point is known for its sweeping (400m - 600m) right hand point break; the headland is oriented perfectly to receive the South-South-East swell and holds best between 3ft - 8ft. As the wave is situated at the top of this head land there is no protection from any cross winds during the season.

Due to its location it also attracts the biggest crowd making it the busiest of all the points but seems to be handling it as it often sections in a few spots. The main point is described as a fantastically easy-to-surf, right-hand wave, breaking over a fairly soft reef at the headland in front of Arugam Bay by the Surf Team Sri Lanka. Surf Team Sri Lanka website well describes the character of the Main Point of Arugam Bay as follows.

"The rush for the Main Point begins on little after dawn, when around 05. 30 hrs, surfers of all ages, shapes, sexes and colors can be seen trudging along the beach with their boards tucked under the shoulder.

Surfing occurs pretty much all the day, with crowds peaking during early morning and late evenings. Many surfers will have a friend or partner film their rides..."

The locational specialty of this point makes it the place where Sri Lanka's only international surf competition is held. The Main Point is usually recommended for intermediate to advanced surfers

2. Baby Point

Technically speaking, Baby Point works from July onwards and it is the continuation of the wave from Main Point. As the wave folds around the headland, it runs into the bay, parallel to the beach. Once the beach has fully formed and all rock and reef has been covered up by sand, Baby Point is at its peak; between 2ft – 4ft. The Baby Point is a great setup for beginners and long boarders as it offers leisurely waves of different heights catering all abilities. This area also draws a lot of swimming public and the beach is filled with relaxing tourists who enjoy sun bathing.

3. Cobra Point/ Pasari Chenai

Cobra Point can be reached by walking past the Arugam Bay Main Point for nearly 500 metres along the Pasarichenai beach stretch, till a group of rocks curving inland can be seen. This Point is relatively new one and takes its name from the powerful waves that are apparently in the shape of a cobra's head, ready to strike.

POINTS AT THE NORTH OF ARUGAM BAY

4. Pottuvil Point/ Kottukal Point

This area is located towards the north-east of Pottuvil Town. The Northern beach area (Urani) is separated by the surf point at the top of peninsula. Pottuvil Point can be reached by getting to the coast line and then traveling along the sand dunes for nearly two kilometers until beached fishing boats can be seen.

Technically, Pottuvil Point has been considered one of the best right hand waves on the island when it works (August & September). Waves can be expected to change multiple times with heavy take offs into a hollow section, followed by a mellow ride into the bay before it walls up to the sand; between 3ft - 6ft when attempting to score an 800 metre long ride. Pottuvil Point is recommended for all levels of surfers as it offers multiple take off locations. (*hideawayarugambay.com*)

Pottuvil Point can be accessible through a plot of private land which is around 82 acres flanked by the beach on the east and the lagoon on the west. The land is fenced and the entrance has a gate kept open allowing free entrance for surfers.

This point is popular with surfers for its unique setting and location. A long deserted sandy beach ends with a large set of boulders that make it seem somewhat like a Martian landscape, especially in the late evenings.



5. Whiskey Point

This is located in the Urani area (north of Kottukal) and has become a popular place for surfing in recent times. Whiskey Point can be accessed by a 2km ride through vast tracts of blocked out lands available towards the north right after turning off near the Army Camp. Whiskey Point is not just a surf point. it is also densified area and provides standard accommodation facilities.

Technically, Whiskey Point is considered great for learners and preferred place for lessons, due to all season long guaranteed waves with a unique setup at the point. There is a particular point known as the Sweet Spot located to the side of the rocks which is an easy place to sit and get onto the wave without much effort. Here, the right hand wave is considered to be not so technical and tends to be fat and slow between 2ft - 6ft. (*hideawayarugambay.com*) The Whiskey Point gained its popularity nearly five years back and yet today it is probably the most frequented surf point after Arugam Bay Main Point.

6. Komari Beach (Lighthouse Point/ Green Point)

Komari beach is an unspoiled stretch of beach that is located about 14km north of Pottuvil. There is a good surfing point named lighthouse point/ green point available towards the south of the bay close to the mouth of the lagoon. The land is mostly privately owned planted with coconuts. The lagoon is an added attraction which and can be promoted for activities such as canoeing, fishing, bird watching and camping.

The name 'Komari' is said to have been bestowed upon this place after a strange incident when the King of Ruhuna, Kavantissa, who was searching for his princess, asking everyone 'ko kumari' or 'where is my princess?' lending itself how this name (Komarigama) came about.

This beautiful beach/point is yet to see a peak in its popularity, but is nevertheless frequented by a handful of surfers. The beach stretch prior to the lighthouse is pristine and inviting. The drive to reach this point is also supremely beautiful with unending swathes of paddy fields of either side. (Surf Team Sri Lanka)

POINTS AT THE SOUTH OF ARUGAM BAY

7. Elephant Rock

Elephant rock can be accessed by travelling along Pottuvil – Panama road, making a left turn at the Sastrawela/ STF Junction and following the road for a kilometer, before taking the right fork that leads directly to the base of Elephant Rock. This point can also be reached by a 20 minute walk south, along the coast, from Crocodile Rock. When looking from far, this large rock is said to appear in the shape of a proud elephant, but in reality the rock gets its name because of the wild elephants that visit each morning and evening. The view from the top is of a beautiful natural coastline, engulfed by the warm waters of the Indian Ocean. At the Elephant Rock, the right hand wave breaks just off the rocks and often sucks into a barrel. On the outside, however, the wave mellows out as it opens into the bay. Only a deep take off presents any danger; otherwise mostly sandy and cruisy; between 2ft – 6ft. The nature of waves and the sandy bar and the shallow waters at Elephant Rock makes it another favourite spot for beginners and surf schools.

Climbing the Elephant Rock is another interesting activity one can enjoy and once climbed from the rear side the top of the rock can be reached where there is a cave ledge, ideal for relaxing. The surf point can be accessed by climbing over the rock or crossing the lagoon to reach the beach. A lagoon tour is also on offer here.

8. Peanut Farm

This surfing point is situated about 7 km south of Arugam Bay and is accessible from the main road by a jeep track through forest land. Presently, there are a few cabana structures on a 10-acre private land by the beach.

There are two breaks at this point as a result of two head lands made up of rocks and carefully moulded sand. These two breaks are known as Main Point and Baby Point of Peanut Farm. Main Point is a highly technical right-hand wave that requires negotiating a steep, fast take off in front of rocks, often barreling; between 3ft - 6ft. Baby Point is technically the continuation of the earlier wave and is a little mellower at this point. It has sandy bottom and a slower wave; between 2ft - 4 ft. Surfing on a day that these two points connect is known to be one of the best surfing experiences ever. The Peanut Farm is recommended for surfers of all levels although Main Point is set up for more advanced surfers and Baby Point is a popular break for beginners.

Surf point at Peanut Farm is considered to be one of the very first 'underground' old secret surfing points in Arugam Bay. It takes its name from the numerous peanut trees that were farmed on property in the past. During the early 2000's the owner had setup some tree houses and huts and used to play host to diehard surfers who preferred to stay at Peanut Farm in order to make most of their surfing holiday. (*Surf Team Sri Lanka*)

9. Okanda

Located in the vicinity of the Hindu Temple and bordering the Kumana Sanctuary, the area has a broad unspoilt beach and a strong surf. The land has forest vegetation and is a highly sensitive area.

Okanda is another remote point, given its distance making it rarely visited. The point is highlighted by a large flat slab rock, with a crevice in the middle that attracts and spews out water, like a blow hole. A Long untouched stretch of beach is complemented by a lagoon, just beyond the sand dunes. This point is an excellent viewpoint of the sunrise to the left and sunset to the right.

Okanda is the very last surf spot on the south of east coast that provides two options of waves. The main (southern) wave is technical and wild as it is exposed entirely. A gradual rock off to the side creates a suction of water from which a steep, fast right hand wave is created. The water stands tall and maintains its strength all the way to the sand, barrelling occasionally; between 3ft - 6ft. The orientation of large rocks to the north provide some protection from direct swell and create a shallow, sandy bay where long, mellow waves form; Between 2ft - 4ft. (hideawayarugambay.com)

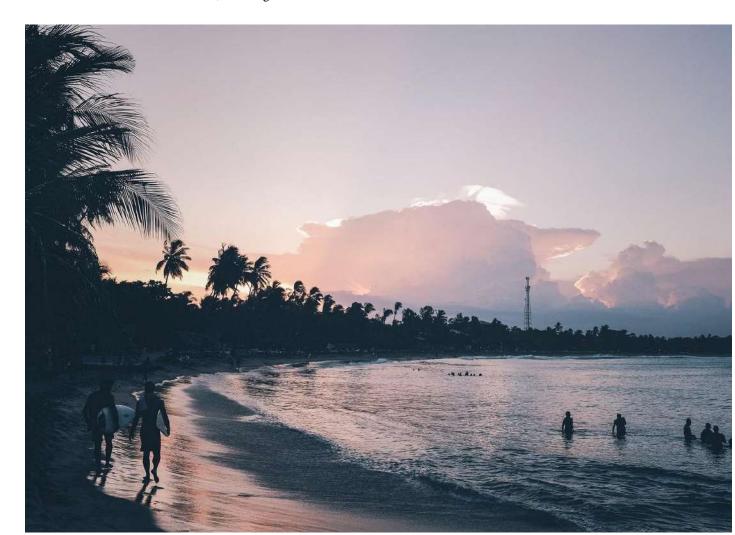
10. Panama

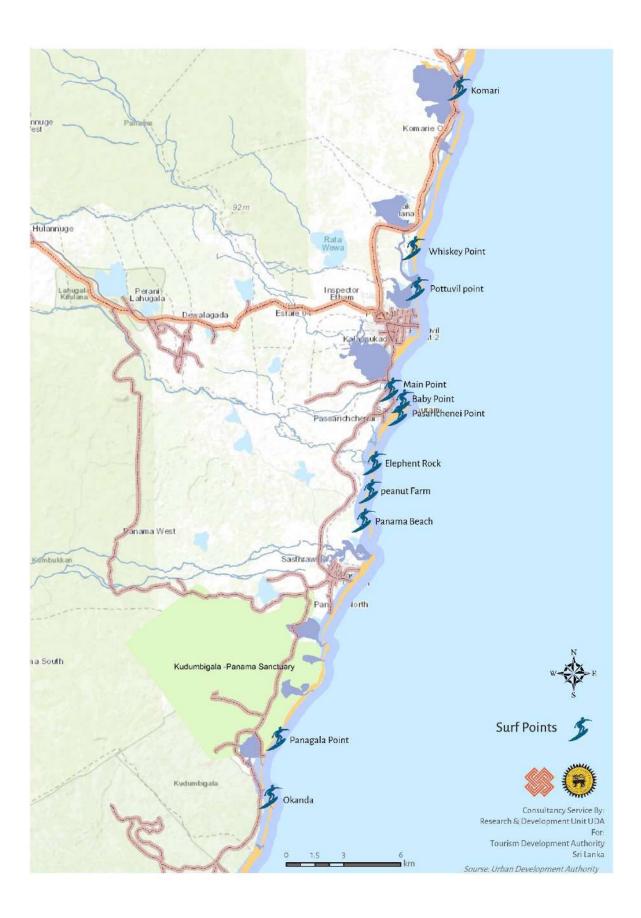
Panama Point is located at the extreme end of the Pottuvil – Panama Road. Panama Point is accessible across large sand dunes which resemble the deserts in Middle East. This is also another remote point set against a backdrop of large boulders at the mouth of the lagoon. Even though Panama surf point is remotely located, it is regularly frequented by surfers of all levels as it provides necessary conditions for surfing.

Climbing the surrounding rocks is another interesting activity that can be enjoyed at Panama surf point. As the coast joins the Yala National Park from this point onwards, it is off limits to surfers.

11. Panagala Point

Panagala Point is a newly discovered point which has been emerging since 2014. This point can be accessed from Panama – Kumbukkana Road. However, finding of this point is bit tricky as it is located at a relatively hidden place which needs to be accessed following jeep/cart roads.





A) SURFING SEASON IN ARUGAM BAY

Arugam Bay's surfing season is from April to October. The surfing and tourism seasonality in east coast of Sri Lanka is due to the dry and rainy seasons. During the period from May to September, it is the dry season at Arugam Bay and usually the best waves are there in the months of July, August and September. This is due to reshaping of headlands and sand bars for the perfect set up followed by swelling from south and south east shifting the sand. During the season, most of the surf points/ breaks explained in the previous section are activated due to the bigger swells.

Arugam Bay's tourism season is also same as the surfing season as its tourism industry and culture is established mainly based on its potential as a surfing destination. Most of the hotels, guest houses and restaurants are closed during the off-season. During the community surveys and field observations, it was found out that considerable number of restaurant and guest house owners at Arugam Bay do also have their own businesses at Hikkaduwa, Weligama and down south of Sri Lanka which are also famous surfing and sun & beach tourism destinations. The tourist season of Down South Sri Lanka is from December to April, which allows these tourism service providers to operate their businesses in both destinations at each of the seasons.

It is not only the guest house and restaurant owners, but also the surfing instructors, surfing camp organizers and other associated service providers follow this operational pattern to continue their businesses throughout the year.

However, Arugam Bay is not only about surfing, but also there are number of natural and heritage attractions which has the potential to make it a year-round tourism destination. During the off season, Arugam Bay is mostly visited by local tourists who visit such surrounding natural, heritage and religious attractions. These attractions will be presented in the following sections.

Arugam Bay's Surfing Season & Tourism Season is from May to October as the best waves are there in the months of July, August & September...99

B) SURFING SCHOOLS, CAMPS AND INSTRUCTORS AT ARUGAM BAY

There are around 26+ surf camps at Arugam Bay which are held annually, monthly and seasonally throughout the year. These surf camps are available to meet the requirements

66 Arugam Bay is having 26+ surf camps throughout the year with 1:2 instructor to student ratio.99 of different types of surfers ranging from beginners to advanced surfers.

The specialty of Arugam Bay is the presence of instructors for 1 to 2 student ratio as opposed to 1 instructor to 8 student ratio available at surf schools worldwide. (Press Reader.com)

Type of Camp based on No. of Days	Price Ranges (US\$)
14 days	1400
11 days	800 - 900
7 to 8 days	650 - 950
6 days	500
4 days	300

The types of surf camps based on duration and their respective price ranges are as follows.

The cost of surf lessons at Arugam Bay ranges from 1000 – 2000 LKR per hour (\$7-15 USD per hour). Usually surfing lessons are conducted for nearly 4 hours per day. However, the average price range of surfing lesson prices is recorded to be 1000 – 3000 LKR which is slightly higher than Arugam Bay.

C) SURFING RELATED PRODUCT MARKET AND SERVICES AT ARUGAM BAY

There are few complimentary goods and services required for surfing and usually these also become a part of the tourism culture of a particular surfing destination. Likewise, there are self-organized ventures at Arugam Bay which provide such surfing equipment, surf board repairing services, tourist and surfing guides and tuk-tuk transport services.

The essential surfing equipment required are the Surfboard, Fins, Leash, Surf wax/ Traction pad and Wet suit. In addition, the supplementary surfing equipment are the rash guard, surf earplugs, surfboard bag, boots and gloves and hoods etc. There are number of surf board renting shops and a few surf board repairing shops available at the Arugam Bay Main Street. In addition there are also few surf board renting shops available at other surf points such as Whiskey Point, Peanut Farm and Panama etc. The rental price of surfboards at Arugam Bay is US\$ 10 (LKR 1700) per board per day.



There is a sub culture associated with surfing in Arugam Bay. This sub culture is composed

of surfers, surf instructors, tourist guides, surf board renting and repairing boutiques, arts & crafts shops selling surfboard crafts and souvenirs, cloth shops selling surfing related designed beach and summer clothes etc. One of the key features of this interesting culture is the surfers walking along the main street of Arugam Bay and along the beach and travelling by trishaws (tuk-tuk), scooters and motorcycles from one point to another carrying surfboards. Coast guards/ life guard service is available at the Main Point in Arugam Bay, Peanut Farm and Whiskey Points.



D) SURFING COMPETITION IN ARUGAM BAY

Due to incredible waves that support surfing of all levels, Arugam Bay has been a place to hold number of national level surfing competitions during the past years. One of such recent events held was the Inaugural National Surfing Championship Series 2018 organized by the Surfing Federation of Sri Lanka in September, 2018. One of the members of Arugam Bay Surf Club was crowned the National Surfing Champion of Sri Lanka at this competition.

An international surfing competition is scheduled to be held in September 2019 at the Main Point of Arugam Bay. It is the World

Arugam Bay is going to host an International Surfing Competition; World Qualifying Series in September 2019 **?** Qualifying Series (WQS) competition where the World's most accomplished surfers would compete. Even though this even was initially scheduled to be held in June 2019, it was postponed to September as a result of the national emergency situation due to Easter Sunday Attack in Sri Lanka.

The event is organized by the Surfing Federation of Sri Lanka which is a member of the National Olympic Committee of Sri Lanka. It is expected that around 145 competitors and 105 officials from 22 countries such as United States, Brazil, South Africa, Australia, New Zealand, Portugal, France, Japan and Indonesia would participate resulting an income of US\$ 450,000 for Sri Lanka.

3.1.3) Favorable Natural Conditions supporting Surfing at Arugam Bay

Since Arugam Bay is located near the equator there are favorable climatic conditions at Arugam Bay during the surfing season. The average water temperature is 28 degrees and the average air temperature is 32 degrees at Arugam Bay thus even though it is hot in the afternoon, the water temperature is favorable for surfing.

On the other hand, Arugam Bay is safe from dangerous sea species such as shark and jelly fish thus there is 0% of recorded fatal injuries due to fish attacks. The studies have indicated that the water quality of Arugam Bay Sea is within the recommended ranges indicating an average PH (8.15 ± 0.1) and the turbidity value (9.52 ± 0.58 NTU) is below the maximum permissible limit.

The below two charts provide a comparison of average wave types of Arugam Bay with the favorable waves for different surfer skill levels.

Skill level	Peel angle (degrees)	Wave height (meters)	Section speed (meters/second)	Section length (meters)
Beginner	60-70	2.5	10	25
Intermediate	55	2.5	20	40
Competent	40-50	3	20	40-60
Top Amateur	30	3	20	60
Top World Surfer	>27	3	20	60

Table: Most suitable wave type for different surfer skill level Source: https://en.wikipedia.org/wiki/Surfing

Arugam bay	Ride Distance (meters)	Wave height (meters)	Section speed (meters/second)	Section length (meters)
(Average)	400	0.6 - 2.5	10	40 - 80

Table: Average Waves at Arugam Bay

Source: https://lanka.com/events/surfing-in-arugam-bay/

66 Arugam Bay being blessed with favorable temperature and wave types that facilitate tourism **99**

3.1) Arugam Bay: Beyond a Surfing Destination

Even though Surf Breaks are the main attraction of Arugam Bay they are not the only attraction as there are number of natural and heritage tourism attractions located in and around of Arugam Bay. The other attractions of Arugam Bay can be categorized as national parks & sanctuaries, lagoons, beaches, and historical & archeologically important sites.

Most of these attractions are already popular and often visited both by local and foreign tourists. However, still there are some attractions which remain hidden and unpopular due to their distanced locations and not having proper linkages, exposure and promotional activities.

3.2.1) Natural Attractions in Arugam Bay

a) National Parks & Sanctuaries

There are two National Parks located within the selected Arugam Bay Tourism Planning Boundary. Both Kumana National Park and Lahuagala Kithulana National Park are located within the boundary limits of Lahugala DSD. Kudumbigala – Panama Sanctuary is also located within the boundary limits of Lahugala DSD adjoining the Kumana National Park.

Kumana National Park

Kumana National Park is one of the most important bird nesting and feeding sites in the island and is home to nearly 255 bird species mainly large flocks of migratory waterfowl and wading birds. Kumana National Park which has an extent of 17.864 ha is known as the largest fauna nesting and breeding grounds in the country.





There are nearly twenty lagoons and fresh water tanks located within Kumana National Park. Tens of thousands of migratory birds flock to the lagoons and fresh water tanks of Kumana during the migratory season from mid-October to April, every year.

Kumana is also known as Yala-East as it is connected to the Ruhuna (Yala) National Park on the west. Kumana is rich with a bio-diversity which is not second to Yala. The Park's wetlands are surrounded by dry zone tropical thorn forest and its landscape is littered with rocky outcrops.

There are also number of elephants, wild leopards, golden jackals, wild boar, otter and fishing cats that roam the park freely in fair numbers. Kumana is also home for a large number of threatened wetland reptile species such as three reptile species, Mugger Crocodile, Hard-shelled terrapin and the Soft-shelled Terrapin.

66 Kumana National Park is ideal for bird watching, photography, wildlife safari, explorations, camping and hiking **99**

Lahugala-Kithulana National Park

Lahugala- Kithulana National Park is known to be a playground of wild elephants as it is home to nearly 200 elephants who feed on the flourishing grasslands around its main three tanks; Lahugala, Kithulana and Sengamuwa and numerous water holes. The extent of Lahugala-Kithulana National Park is nearly 5,100 ha and is formed mainly by a dry zone evergreen forest.

Besides elephants, the Lahugala National Park is also home to many other animals including endemic Toque Macaque, Common Langur, Sloth Bear, Jackal, Rusty Spotted Cat, Fishing Cat, Leopard, Wild Pig, Indian Muntjac Deer, Spotted Deer, Sambar, Pangolin and Black – naped Hare. Endemic birds like Comb Duck, rare Red-faced Malkoha and Sri Lankan Spur Fowl also can be seen at the Lahugala National Park in addition to other resident birds such as Pelican, Purple Heron, Painted Stork, Lesser Adjutant Stork and White Bellied Sea Eagle etc. The reptile inhabitants of the park include Indian Rock Python, Flying Snakes, Sri Lanka Cat Snake and Russell's viper.

66

Lahugala – Kithulana National Park is a playground of nearly 200 wild elephants and many other endemic bird, mammal and reptile species. **99**

GG Arugam bay is the only place in Sri Lanka which gives access to 5 national parks.**99**

b) Lagoons

Arugam Bay Tourism Planning Area consists of a chain of lagoons located along the coast of Arugam Bay. These lagoons are gifts of nature which are home to a variety of flora and fauna and also sources of local economy. At the same time they are also major attractions which offer unique tourism experience.

Coastal lagoons are shallow water bodies separated from the ocean by a barrier. There

are nearly 13 lagoons located within the Arugam Bay Tourism Planning Boundary accounting for nearly 2072 ha, and among them, Komari Lagoon, Pottuvil – Ureni Lagoon, Arugam Lagoon, Panama Lagoon and Okanda Lagoon. The lagoons in east coast of Sri Lanka are home to nearly 20 variety mangrove species.

Name of the Lagoon	Area (km²)	Perimeter (km)
Komari	4.68	13.37
Pottuvil - Ureni	24.49	64.23
Arugam	5.83	26.16
Panama	14.76	66.24
Okanda	0.25	6.22

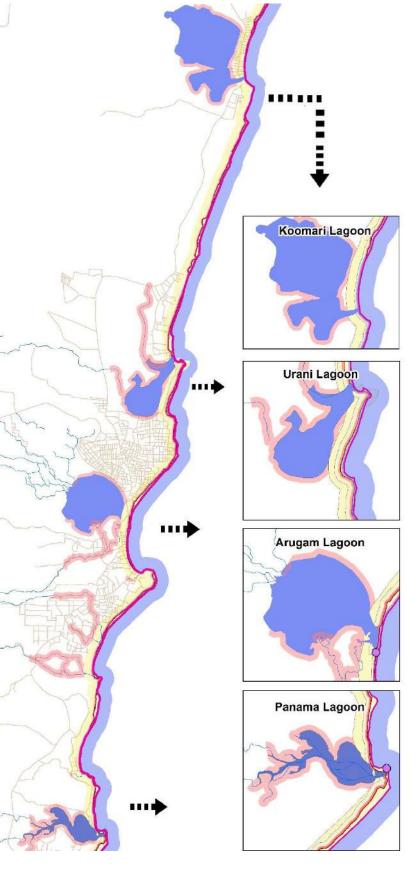
Table: Dimensions of main lagoons in Arugam Bay

Source: Lagoons of Sri Lanka from the origins to the present; IWMI,

Among these main lagoons, four of them; Komari, Arugam, Pottuvil-Ureni and Panama are established fishing grounds.

As the lagoons in Pottuvil and Panama areas are located close to or bounded by the Kumana and Lahugala National Parks, a variety of wild animals and birds frequent these places. Thus, these places are ideal attractions for both local and foreign tourists.

On the other hand, due to these lagoons being remotely located far away from settlements and businesses, make the environment serene and silent and ideal places for eco-tourism. The community based project 'Participatory Coastal Zone Restoration and Sustainable Management in Eastern Province of Post



Tsunami Sri Lanka' conducted by the Department of Coast Conservation & Coastal Resources Management, has introduced community led lagoon safaris as a sustainable eco-tourism venture.

Today, these lagoon safaris are conducted in three places; Kottukal (Pottuvil), Urani (near Whiskey Point) and at Panama. As a result of the impact made by above mentioned project, during the recent years, there has been significant investment with new boats and buildings and more centralized organization. The tourists' safety and convenience is very much assured by the local community involved in the business as they had already given the required training and provided with necessary equipment.

Since there is no shade on the boat, the recommended time for lagoon safari is 6 am in the morning and 4 pm in the evening, when the climate is cooler. There are different types of lagoon safaris varying based on the safari duration and cost. The average per person cost for a lagoon safari of two hours and six hours are 2000 LKR (US\$ 11) and 5000 LKR (US\$ 28) respectively. Many tourists who had experienced the lagoon safari in Urani – Kottukal Lagoon and Panama lagoons have expressed their satisfactory comments in online forums.¹

¹ *NOTE - This section includes the information that have been collected/ extracted from following sources

^{1.} Wonder of Panampattu Sri Lanka – A Comprehensive Tourist Guide; Lahugala DSD & Tourism Bureau, Eastern Provincial Council, Tricnomalee

^{2.} The promotional video of Arugam Bay Tourist Attractions by the Department of Coast Conservation and Coastal Resources Managemet

^{3.} Lagoons of Sri Lanka from the origins to the present; IWMI

c) Beaches

Arugam Bay is blessed with number of splendid beaches offering spectacular views which host activities such as surfing, sun bathing, beach sports and recreation etc. Most of its beaches are unique as they are complemented with a variety of natural landscapes such as sand dunes, rocky outcrops, lagoons, forest patches and brushwood etc. which are blended together in most unexpected ways.

Even though there is a beach stretch that is approximately 10km, not all beaches are actively used for water sports and recreational activities due to the types of waves and location of those beaches. There are 08 beach stretches in Arugam Bay which can be named as most popular among tourists.

Beach Name	Current Use	Beach Length (Km)
Arugam Bay Coast	Surfing, Beach, Sea bathing, Sun	1.5
	bathing	
Panama Beach	Surfing, Sea bathing, Sun bathing, Site	
	seeing, Beach	01
Peanut Farm Beach	Surfing, Site seeing, sun bathing	3
Pasarichenei Beach	Sun bathing, Beach	01
Elephant Rock Wave Surfing	Surfing, Sun bathing, Sea bathing,	0.3
Site	Beach	
Crocodile Rock Beach		
Kottukal Beach	Beach, Sun bathing	1.7
Whiskey Point	Surfing, Sea bathing, Sun bathing,	
	Beach	0.8
Okanda Beach	Sea bathing, Sun bathing, Beach	0.4

Table: The popular beaches in Arugam BaySource: Satellite Images & Field observation

• ARUGAM BAY BEACH

Arugam Bay beach; the main attraction of Arugam Bay is the most active beaches of all. It hosts three main surf breaks namely Main Point, Baby Point and Cobra Point as explained in the section 3.1.1. Since, Arugam Bay beach serve with a variety of wave types that suit requirements of all types of surfers and nonsurfers, it has become the most interacted space in Arugam Bay. The Main Street of Arugam Bay runs parallel to the Arugam Bay beach and a large number of tourist hotels, guest houses, restaurants, camps and other different types of accommodation and food facilities are sandwiched in between the beach and the Main Street. There is a line of hotels & guest houses facing the beach and the tourists sunbathing in front of these facilities make it an active beach strip throughout its 1.5km length.



A small beach strip lying in between the main point and the hotel strip is occupied by the village fisherman and for their fishing activities. This portion of the Arugam Bay beach strip is used to park the boats of these fisherman and land their daily catch of fish. This place also acts as a market place, boat and other equipment placing and repairing place, fishing place and also the relaxing place of fishermen. On the other hand, this place is continuously crossed by the tourists walking to the Main Point and also it was observed during the field visit that tourists also interact with fishermen by watching the fishing and related activities.

On the other hand, the Arugam Bay beach is not only for surfing but also for sunbathing, swimming, bathing, water sports and relaxation and playing on the beach. The place is full of a variety of activities and it is also a place where many beach parties are held at night. Thus, Arugam Bay beach can be named as the most interactive and vibrant beaches of Arugam Bay.

PANAMA BEACH

Panama is located 12km south of Arugam bay, attached to the endpoint of the road towards Yala National Park. As explained in the section 3.1.1, Panama is one of the top surf beaches in the East Coast.

Afternoon is recommended for a surf mission at Panama as there is higher probability of seeing huge crocodiles on the sand banks. The Panama Beach is unique on its own way due its formation consisting of rocky outcrops pointed towards the ocean in the backdrop of a large beach edging the Panama Lagoon. By climbing the rock at the Panama Beach, one can reach to the flat top from which he/ she can enjoy the extraordinary views of sea green ocean and surrounding natural landscapes. Panama beach is ideal for tourist activities such as surfing, sunbathing, photography, sightseeing, exploring and wildlife.

• PEANUT FARM BEACH

Peanut Farm Beach is also a popular surf break which is largely popular among tourists for their best waves. Peanut Farm Beach can be reached by 20min walk from Panama and it is also known as one of the easily reachable surf points in Arugam Bay. It is a 800 m battle if walks by the trails or the best option of transport is the tuktuk.

Peanut Farm is surrounded by the agricultural lands of Panama villagers. Since, it is located remotely hidden among large agricultural lands and forests, it is an ideal place to enjoy the serenity of the natural environment. The key activities hosted by the Peanut Farm Beach are surfing, sunbathing, photography, sightseeing and wildlife.

• ELEPHANT ROCK BEACH

Elephant Rock beach is also another picturesque beach that offers chance to explore isolated and untouched beaches, climb the Elephant Rock to view an amazing sunset, surrounding stunning landscapes and the chance to see wild elephants roaming nearby.

Elephant Rock got its name due to its shape of an elephant's head. In addition to surfing, sunbathing and rock climbing, walking along the beach is also an option but not recommended during the middle of the day and certain periods of the year due to the nature of sands.





Once, when the lagoon at Elephant Rock opens to the sea during the rainy season, the route along the beach will be blocked.

Since, there isn't much food stalls or public services around the Elephant Rock beach, it makes it an ideal getaway from crowds and busyness. The Crocodile Rock is also located nearby and it is another attraction point due to the existence of a crocodile shaped rock which has a natural platform on top of it. This platform is an ideal place to sit and relax while enjoying the stunning scenes of sun-set and sun-rise.

• OKANDA BEACH

Okanda Beach is 33 kilometers away from Arugam Bay and can be reached through a jungle path. Okanda is also a popular surfing point and is surrounded by the naïve natural landscapes roamed by the wild elephants, leopards many other mammals. Okanda beach strip is also an ideal place for sunbathing and sunset surfing.

Okanda beach can be reached by 2-3min walk from the Okanda Dewalaya; which is a frequently worshipped Hindu Temple. The sight of wild elephants is said to be frequent at the Okanda beach.

*NOTE - This section includes the information that have been collected/ extracted from following sources

1. Wonder of Panampattu Sri Lanka – A Comprehensive Tourist Guide; Lahugala DSD & Tourism Bureau, Eastern Provincial Council, Tricnomalee

2. The promotional video of Arugam Bay Tourist Attractions by the Department of Coast Conservation and Coastal Resources Managemet

3. Lagoons of Sri Lanka from the origins to the present; IWMI

d) Sand Dunes

Sand dunes are familiar characteristics of shorelines and are home to special plants and animals including rare endangered species. Sand dunes also help avoid coast erosion and also further protects and help to reform already eroded beaches. Moreover sand dunes are a major tourist attraction and sand dunes are not very frequent in the beaches of Sri Lanka.

There are nearly 340 ha of sand dunes located within the boundary limits of Arugam Bay Tourism Planning Area.

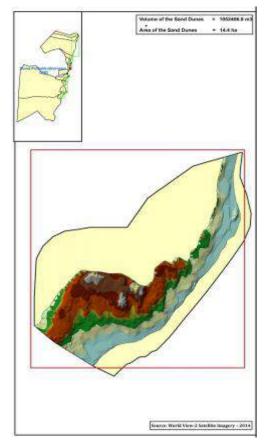
Name of the Sand dune	Area (Ha.)
Arugam Bay	91
Panama	167.8
Pothuvil	57.6
Jalaldeen Squre	6.9
Sinna Pudukuduiruppu	14.4

Table: The main sand dunes in Arugam Bay

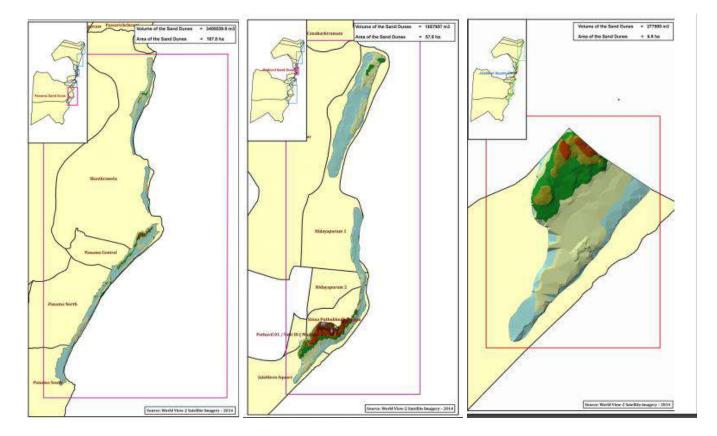
Source: Source: ANTHROPOGENIC ACTIVITES ON COASTAL SAND DUNES: EVIDENCE FROM PANAMA TO SANGAMANKANDA COASTAL STRETCH, SRL LANKA, KNJ Katupotha * and K.M.S. Perera ** * Department of Geography, University of Sri Jayewardenepura and Department of Coast Conservation and Coastal Resource Management District Project Office Ampara, Sri Lanka



Arugam Bay Sand Dune



Sinnapudukuduiruppu Sand Dune



Panama Sand Dune

Pottuvil Sand Dune

Jaladheen Square Sand Dune



3.2.2) Historical and Archeological Attractions

a) Arugam Bay as a place of long antiquity

Arugam Bay inherits a culture and monumental ruins of long antiquity as its written history runs back to the period of Anuradhapura Kingdom.

Anuradhapura Period

Historic records of Arugam Bay reveal that during the period of King Kavanthissa (205-161 BC), in early Anuradhapura period (around 02 BC) the area was belonged to 'Ruhunu Rata' which extended around the southern part of the country including a part of the east. Predominantly, the boundary of Ruhunu Rata was up to Mahaweli River from down south of the country.

The area had been enrolled with a historic incident belongs to the period of King Kavanthissa (205-161 BC; king of the Ruhunu Rata). As per the legend, the Princess Viharamahadevi, the daughter of King Kelanithissa had landed (from Kelaniya after being sent away to the ocean by his father as a sacrifice to avoid a massive disaster of sea floods which was believed to be happened due to a curse resulted as one of the past crimes committed by him) at the place where the Muhudu Maha Viharaya is presently located. The legend says that the Komari area got its named because it is a place where the King Kavanthissa had been searching for the Princess asking 'Ko Kumari?' meaning 'Where's the Princess?' in Sinhala.

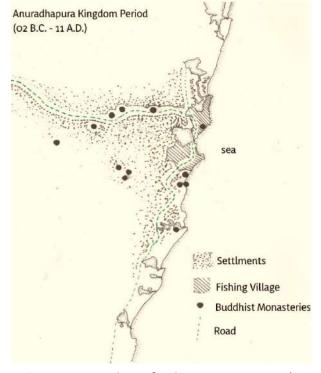


Figure: A conceptual map of settlements in Arugam Bay during the period of Anuradhapura Kingdom

Further, it states that the present *Magul Maha Viharaya* is the Magul Maduwa (Wedding Hall) where the wedding ceremony of the King Kavanthissa and Princess Viharamahadevi was took place.

It is believed that these two temples; Muhudu Maha Viharaya and Magul Maha Viharaya were constructed by the King Kavanthisa to commemorate this incident. Moreover, according to that story at that time the area consisted as a fishing village. From that era, the area had some settlements and there were many Buddhist monasteries around that. Existing Archaeological ruins are evidence for that.²

² *NOTE-: The conceptual maps indicating the expansion of settlements in Arugam Bay have been prepared as per the information gathered though a

comprehensive review of several historical document & records

Kandyan Period

During the Kandyan Kingdom Period the area had become more populated with the arrival of refuge communities. Around 1505 A.D. the West Coast of the country were attacked from time to time by the Portuguese and those refuge communities were gradually settled in other parts of the country. As a result of the attack which was which was led by Captain de Saa, 4000 Muslim families were escaped to Kandyan Kingdom. At that time the King Senarath (king of the Kingdom from 1604 -1635 A.D.) who ruled the Kingdom had given refuge and settled them in Pottuvil area. This incident can be identified as the beginning of Pottuvil as a Muslim community dominated area.

British Period

Historical records state that the refugees of the Uva-Wellassa rebellion were settled down at Panama area which is to southwards from Arugam Bay in 1818 A.D. It is believed that the Panama village was formed and expanded starting with this incident. However, Panampattu is the current last settlement found at the south corner of east coast in Sri Lanka. The Panama is known as a serene village with undisturbed village character and traditions and customs of Sinhala community living there.

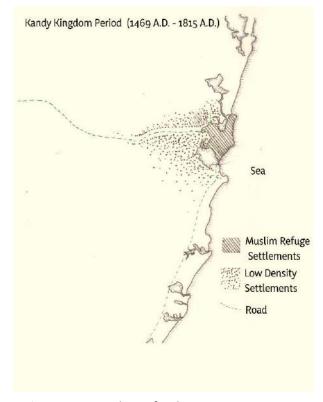


Figure: A conceptual map of settlements in Arugam Bay during the period of Kandyan Kingdom

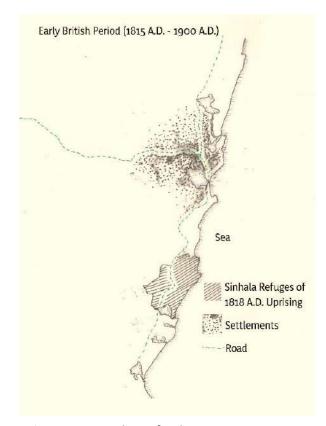


Figure: A conceptual map of settlements in Arugam Bay during the British Period

a) The evidences of Arugam Bay's long antiquity as tourist attractions

Arugam Bay and its surrounding area inherits a number of archeologically important historical monuments and sites which reveal its pride as a historical settlement area. The uniqueness of Arugam Bay is that it is not only a place of natural attractions such as surf breaks, splendid beaches, hidden forests, lagoons, sand dunes and wildlife but also it is a place of history and heritage. There are no many tourist destinations in Sri Lanka which are blessed with number of diverse attractions as Arugam Bay is.

Majority of the archeological sites located within Arugam Bay Tourism Planning Area (Pottuvil & Lahugala DSDs) are Buddhist religious places. There are also two main Hindu temples frequently visited by pilgrims. These sites are concentrated in two main locations such as Panama and Lahugala. Both Panama and Lahugala are Sinhala community dominated serene villages located in close proximity to Kumana and Lahuagala National Parks respectively.

Among declared archeologically important sites, only few sites are frequently visited as the other sites are located deep within the Kumana and Lahugala National Parks thus are not directly accessible due to prohibited or poor access.

03rd Post Archeological site Abaysinghapura Natabun Viharaya Aththaani Pillar Bambaragasthalawa Naga Pabbata Monastery Ruins in Kumana BuduPatuna Crocodile Rock - kudakalliya Pahankanda Natabun Viharaya Elephant Rock Ancient Viharaya Hulannuge Heda Oya Archaeological Site Kandagindagama Natabun Viharaya Kiriwehera Rajamaha Viharaya Kudumbigala Monastery Complex Kunukola lagoon Buddhist Viharaya Lahugala Bogahalanda Archaeological Site Lahugala Elakatuwa Welyaya Archaeological Site -Lahugala Kotawehera Raja Maha Viharaya Magul Maha Viharaya Mani Naga Pabbatha Viharaya -Sastrawela Muhudu Maha Viharaya Neelagiri Stupa Panama Wewevehera Rajamaha Viharava Parana Govipola Archeological Site Radella Archeological Site I Radella Archeological Site II Radella Resover Archeological Site Sengamuva natabun Viharaya Sengamuwa Pansalgoda Archaeological Site Veherakama Buddhist Ruins Yal Potha Archeological Site

Table: Declared archeologically important sites withinArugam Bay Tourism Planning Area



Figure : Declared archeologically important sites within Arugam Bay Tourism Planning Area

Frequently Visited Archaeological Sites in North of Arugam Bay at Lahugala Area

• Neelagiri Stupa

'Neelagiri Stupa' (Neelagiriseya) located hidden in the vast jungles of Lahugala Forest within the boundary limits of Lahugala DSD, is the largest Buddhist Stupa in Eastern Province. It was built by the King Kavantissa (205 – 161 BC) and was renovated by deferent rulers in Kings Period from time to time. It says that the stupa and the monastery were names 'Uttara Seevali Pabbata Viharaya' in its glory days. Neelagiri Stupa is also thought to be the 'Maha Nuggala Stupa' where the King Kawanthissa requested his ten chief generals and the Maha Sanga to be impartial in the case of any dispute over the throne between his two sons, Prince Dutugemunu and Prince Saddhathissa.



Figure : Neelagiri Stupa at Lahugala

According to the archeological excavations, it has been revealed that the Neelagiri Stupa is a part of a large monastery complex. The present extent of this site is 36 ha and within that lies the remaining structure of the Stupa which us 182m in circumference and 22m in height. The ruins of the stupa are accompanied by a giant cave temple complex scattered in decay and giant stairways of seven feet of width lead to a series of caved carved with drip ledges, built to house the mediating monks.

Major access to Neelagiri Stupa is led down through paddy land and forest areas while crossing beautiful water streams. The surrounding natural setting of the area also helps to attract tourist to the site.

Magul Maha Viharaya

As explained in the previous section, the Magul Maha Viharaya is said to be built by the King Kavanthissa to celebrate the matrimony of Princess Viharamahadevi and himself. However, the story is yet to be proven by oldest archeological evidence. The archeological evidence found in the form of a stone inscription states that the temple was constructed by the King Datusena and was renovated by a second Viharamahadevi, the wife of King Buwanakabahu IV and again by the King Parakramabahu V during 14th Century A.D.



Figure : Magul Maha Viharaya

Situated in the forest reserve of Lahugala – Kithulana National Park and within the boundary limits of Lahuhala DSD, Magula Maha Viharaya carries the look of a lost city hidden among the towering trees of the jungle and also many characteristics not found in other temples of Sri Lanka.

The 200 acre site is scattered witj temple complexes and granaries set apart from any other temple and said to have been the home to 12,000 Arahants some 2000 years ago. The Stupa built on a high terrace with three staircases leading up to it, is the main element of the site. The Magul Maha Viharaya seems to have been designed to serve the purpose of a

• Kotawehera Viharaya

'Kota Vehera' belongs to the period of Anuradhapura Kingdom. It is located few miles away from the Yalpotha village in the Monaragala – Pottuvil main road which is approximately 10 km away from the Pothuvil town centre and 15 km away from the Arugam Bay tourism area. Kotawehera is a ruined temple with a derelict stupa atop a mountain.

There is a legend related to Kotawehera that surrounds the birth of King Dutugemunu. The legend says that a novice monk who lived in a temple called Kotapabbatha Vihara had been building a road to the 'Akasa Chaithya' or the stupa in the sky but had fallen gravely ill during the course. As per the legend, this novice monk had been bade by the King Kavanthissa and his wife to be reborn as their first son. monastery as well as a fortress as food, weapons and animals had been kept in preparation for the Dutugemunu-Elara war.

The temple complex itself consists of three courtyards, exterior, interior and central and the outer yard comprises of heavy stone wall with seven ponds, which provided water to the temple. One of the unique elements within Magul Maha Viharaya is the unusual Sandakadapahana (Moonstone) where mahout accompanies the elephant and Bodhi-ghara which was also the marriage Dias of Princess Viharamahadevi and King Devanampiyathissa.

However, the link between the mythical 'Kotapabbatha Vihara', the ruins in Yalpotha is made through a small stone inscription found at the foot of the 150 steps long stairway leading to the stupa on top of the rock. The inscription states that the rock stairway was made by a novice monk 'Wachigamakahi Therasa'. However, this link between the legendary story and the Kotawehera is yet to be ascertained through further archeological investigations.



Figure : Kotawehera Viharaya

The stupa on the top of rocky mountain is a place where the tourists can experience a panoramic view of the area and it is one of the

Muhudu Maha Viharaya

Despite the above mentioned three historical sites, 'Muhudu Maha Viharaya' is located within a built up area, in close proximity to Pottuvil town. Further it is situated near a wide beach with sand dunes which enhances the significance of the site. The Vihara complex was built by King Kavanthissa (205 - 1661 BC). Ruins of historical shrine room and many other attractive artefacts can be seen within the Vihara premises. In British period there

main reasons why a lot of foreign tourists are attracted to this place.

had been 264 acres belonging to the temple. According to the Gazette Notification in 1965 the land area had been shrunk to 30 acres and as of now there is only 03 acres of land belongs to the temple and remaining part has been built up and occupied for the settlements of Muslim community of the area.

Frequently Visited Archaeological & Cultural Sites in South of Arugam Bay at Panama and Okanda Areas

Kudumbigala Monastery

Kudumbigala Monastery is situated in the boundary between Kumana National Park and the Kudumbigala-Panama Wildlife Sanctuary at a short distance from the eastern beach of Panama. Kudumbigala Monastery consists of more than 500 cave accommodation. The monastery had been designed to house the meditating Arhants of Anuradhapura away from the busy urban life. Kudumbigala is said to have its glorious peak at the time of King Dutigemunu in the 1st century BC. One of the cylindrical shaped stupa on the top of the mountain can be accessed through rock steps and many other stupa with same unique shape but of smaller size lying within the monastery premises are believed to enshrine the remain of the Arhants.



• Okanda Dewalaya

Okanda Dewalaya is believed to be the location where God Skanda first sailed to Sri Lanka in a golden boat. As per the legend it is that golden boat which was turned into a rock and which still stands on the Okanda Beach and is known as 'Ran Oru Gala'. Okanda Dewalaya is held in reverence by many irrespective of the religion, race or creed. However, the origin of the temple is unknown although the signs of an ancient monastery is found nearby. The belief of archeologists is that the temple being located close to the beach would have increased its importance with many seafaring men seeking its blessing before and after a journey.

Although the ancient Dewalaya was in much simple form, it has been renovated in the form

of a South Indian Kovil structure by the Hindu devotees. Okanda Dewalaya is a destination of mass pilgrimage as nearly 30,000 pilgrims from the northern and eastern coasts of Sri Lanka arrive in a procession to Okanda in order to commence the long walk that may take weeks through the Yala National Park to the temple of God Skanda in Kataragama. This annual event is known as 'Pada Yathra' or foot pilgrimage and is undertaken focusing the Esala festivities in Kataragama. The devotees pray for Lord Skanda's blessings and assistance prior to commencing their journey through the thick jungles of Yala amidst the wild beasts.

Besides the local pilgrims, Okanda Dewalaya is also visited by foreign tourists who go on Kumana Safari and surfing at Okanda Beach.



Figure : Okanda Dewalaya

Other Archeological Sites in Arugam Bay which are not yet Popular among Tourists

Both local and foreign tourist are attracted to the historic sites which are located close proximity to Arugam Bay (Ex: Muhudu Maha viharaya, Magul Maha Viharaya & Kotavehera). Further to that some architecturally significant archaeological sites are located within the forest reservation and due to that those sites are not yet exposed and frequent. Bambaragasthalawa Naga Pabbata and Bowattalage Monastery Ruins in Kumana Sanctuary and Budupatuna ancient Mahayana Shrine complex lying deep inside the Kumbukkan Forest Reserve in Wila Oya are best example for that.

• Sasthrawela Viharaya

Sastharawela Viharaya had been the residence of five hundred Arhants and had been known as the Pabbatha Bodhigiri Viharaya. It is believed to be constructed by the King Kavanthissa during the 2nd Century BC. Among the ruins of once a grand monastery complex, there is a stone inscription which states that King Maha Dhataka Maha Naga, son of Pudakana Gamini Abhaya had built and donated the monastery to the Maha Sangha. At the bottom of the hill, there are ruined remains of a large stupa which is almost 500 feet in circumference and 60 feet in height. The stairway opening to the upper caves opens into a large cave within which lies the remains of a large reclining Buddha statue almost 30 feet in length and destroyed by the treasure hunters.

Sastharawela can be accessed from Arugam Bay in 15 min drive by safari jeep, threewheel and minu motorcycle and in 1 hour by bicycle.

Bowattegala Monastery

Bowattaegala is an ancient monastery of 3rd century BC located high on the banks of Kumbukkan Riven hidden within dense jungle. The monastery is said to be built by the ten noble brothers of Kataragama, known in the history as the 'Kataragama Kshathriya'. A rare an lengthy cave inscription details the genealogy of these Southern Royals who ruled the southern and eastern provinces of Sri Lanka under the regime of main King in Anuradhapura.



Meanwhile the monastery had been added with splendors by many successive Kings and provincial nobles throughout the history.

Bowattegala Monastery can be reached by 3 hours drive by the safari jeep. The journey to the monastery through the deep jungle can be adventurous and exploring thus it can be promoted as a good tourist destination.



Figure : Bowattegala Monastery

 Nagapabbatha Monastery in Bambaragasthalawa

Nagapabbatha in Bambaragasthalawa is an ancient monastery hidden within the Kumana National Park a few kilometers away from the Kudumbigala Forest. The ruins of the monastery are scattered over early 60 acres of jungle and it includes 36 feet reclining Buddha statue which moves devotees to tears. The giant statue is made out of a mixture of clay and lime and it had been built inside a cave which had protected it from the hardships of the nature. It is believed to have been built between the 4th and 8th century AD. There is a 200 feet long cave with partitioned interiors and plastered walls which carries an



Figure : Nagapabbatha Monastery

inscription that states the monastery is named 'Nagapawathasenasana' and was built by a donor named 'Mithra' during 1st to 3rd century BC.

Worshipping halls, preaching halls, alms halls, toilet and bath facilities which still remain in ruins amidst the monastery grounds are interesting features for those who explore historical ruins. However, all these ruins are hidden without even having direct reachable by foot. Nearly ten ruined stupas built in the 4th century AD stand on the rock cliffs facing the south-eastern beaches and it can be assumed that these would have been the white beacons beckoning seafarers of a country whose land is filled with saffron robed monks and people who follow an age old Dhamma.

• Tharulengala Monastery/ (Habuthala Viharaya)

Known to be the largest drip-ledged caves in Sri Lanka, the Tharulengala Monastery is located few hundred meters away from the Karanadawela reservoir and nearly 14km away from Lahugala. The monastery is believed to be built by King Kavanthissa before the 2nd century BC on a 633 feet tall hillock The monastery is home to some of the largest dripledged caves in Sri Lanka.

The signs of brick layered interiors and polished and cemented inner walls indicate that the cave would have been used as a worship or a gathering hall for the monks of the monastery whereas a nearby cave which is of 200 feet in length with the same interior finish is assumed to have been used as a community quarter. The third largest cave in the complex is a cave styled as a shrine room. This cave is situated near the entrance of the monastery and it is 175 feet long, 31 feet broad and 35 feet high and houses 41 feet reclining Budhha statue.

It is believed that the Vedda community would have occupied this place before the monastery was constructed as the earlier drawings done by Vedda community including scenes of hunting, war and animal flocks which have been revealed underneath the plastered and mural adorned inner walls and ceilings of the cave.

The site is ideal for photography, sightseeing, pilgrimage, hiking, climbing and wildlife thus has huge potential to be promoted as an attractive tourist destination.³

³ *NOTE – The detailed descriptions of different archeological and natural attractions in and around Arugam Bay were prepared based on the information given in;

Wonder of Panampattu Sri Lanka – A Comprehensive Tourist Guide; Lahugala DSD & Tourism Bureau, Eastern Provincial Council, Tricnomalee

3.3 Emergence of Arugam Bay as a Tourism Destination

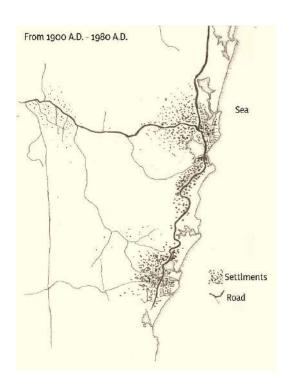


Figure: A conceptual map of settlements in Arugam Bay during the late-British and postindependence periods

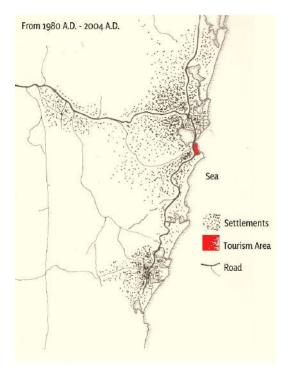


Figure: A conceptual map showing the settlements and tourism area in Arugam Bay during the period from 1980 - 2004

3.3.1) Arugam Bay in the late-British and Post-independence Periods

With the development of Ampara-Monaragala Road, Pottuvil Town gradually developed as the main entrance node for Arugam Bay and Panama as it is located at the intersection of Ampara-Monaragala Road and Panama Road.

Furthermore, with the development of the Gal Oya scheme in 1949, Ampara (78 Km away from Arugam Bay) got developed as a town and began to act as a feeder town for Arugam Bay and Panama area. Until end of middle twentieth century, the Arugam Bay and surrounding area had rural characteristics where the fishing industry and agriculture were the sound economic sectors in the area.

3.3.2) Emergence of Tourism in Arugam Bay

Emergence of the tourism in Arugam Bay area began in the early 1980s. Before 1980 the area was a fishing village. In early 1980 hippie tourists had visited the area for sea bathing. It says that these tourists who loved the nature had enjoyed the beach covered by forest and used to have naked baths at the beach. After observing the huge waves of Arugam Bay, it says that they had tried to ride the waves using coconut studs in place of modern day surfing boards. Gradually the message that 'Arugam Bay is a good surf point' had passed to a larger crowd of tourists as a word of mouth by those who had experienced the waves of Arugam Bay. Consequently, the number of tourist arrivals at Arugam Bay had gradually increased. However, it is also said that initially during 1970s, Arugam Bay had been a tourism resort for planters in the hill country who sought warmer climate for rest and relaxation.

Observing this increasing trend of tourist arrivals at Arugam Bay, the local fisherman community in Arugam Bay had been thoughtful on how to provide accommodation facilities to these tourists and had started renting their kadjan huts for them. Afterwards, as the number of tourist arrivals gradually increased, local fishermen had started to build small guest houses. As per the tourist arrivals records, the year 1985 had been a peak season in Arugam Bay. Further, records state that, the accommodation facilities including around 10 hotels had been 100% occupied by tourists in the year 1986 although there had not been any other supporting facilities.

3.3.3) Gradual Development of Arugam Bay's Tourism Industry amidst the Civil War in Sri Lanka

Arugam Bay was affected in 1987 by the civil war. During the period from 1987 to 2009, Arugam Bay's tourism industry had many ups and downs due to the impact of civil war as well as the Tsunami Disaster in year 2004. Even though Arugam Bay was affected by civil war in 1987, the tourist still continued to visit Arugam Bay although they had to face many difficulties due to poverty in the area and to lack of basic amenities such as water and electricity. However, amidst all the chaos tourist had never given up on Arugam Bay and had continued to visit. It says that the tourists were fond of the wild nature in Arugam Bay, its waves and also the organic food served by the locals such as hot rotis, big bananas and coconut sambol etc. Even though tourism industry gradually expanded, in 1990 the industry was severely affected by the civil war.

The industry attempted to rise again in 1992 with the start of a few number of guests arriving back at Arugam Bay. Gradually, tourists had explored nearly 12 surf breaks and it had become more popular amidst the impacts of war from time to time.

By 2001, the area also had been popular destination within the island and many locals also had started visiting Arugam Bay. By this time, the tourists had identified other attractions in and around Arugam Bay such as Yala, Kumana and Lahugala National Parks and other cultural and archeological sites and these places had been promoted by the hoteliers and those who had involved in Arugam Bay's tourism industry.

By this time, the Sri Lanka Tourism Board and other responsible state agencies had also identified the importance of Arugam Bay as a popular tourism destination and had undertaken several planning interventions in favor of development and promotion of Arugam Bay's tourism industry. These planning interventions will be elaborated in the subsequent sections.



3.3.4) The impact of the catastrophic events; Tsunami in 2004 & civil war during the period from 2005 - 2009

On 26th of December 2004, Tsunami waves destroyed the tourism strip at Arugam Bay completely tearing down the built structures of hotels, guest houses and restaurants and also causing the loss of many valuable lives of both locals and tourists. However, the locals and the tourists who had visited Arugam Bay in the past supported the hoteliers to rebuild their business back.

Several planning interventions were undertaken to bring back the Arugam Bay's tourism industry back to track and as a result it was growing up slowly. However, with the sudden start of civil war back at an intensive level, the tourism industry in Arugam Bay was doomed again. As per the stories told by the local community, most of the hoteliers had completely lost their businesses and had faced difficulties to survive and protect their lives as well.

Finally, with the end of civil war in May 2009, many interventions had been undertaken to develop tourism in Arugam Bay. The development programs carried out under the political manifesto at that time which is Mahinda Chinthana had focused on developing relevant infrastructure such as roads, water, electricity and other utilities and also on implementing environmental protection programs, participatory community driven sustainable tourism programs and other tourism promotional programs.

As a result of these interventions, Arugam Bay achieved a continuous growth in its tourism industry which was evident by the rapid increase of tourist arrivals, and higher ranks in international tourism & surfing rankings. ⁴

⁴ *NOTE – The above elaboration on the development of tourism industry in Arugam Bay has been prepared based on the paper; Raisal I. & Gunapalan S.; A Case study on Tourism Developments in Arugam Bay Tourism Destination from Stakeholders' Perspective; Proceedings of the Second ARC, FMC, SEUSL – 2014; 85-90

3.4 Past planning interventions that influenced Arugam Bay's journey as a tourism destination

As explained the in preceding section, the Arugam Bay's tourism industry had number of ups and downs since its beginning in 1980s. Several planning interventions that were made at different times to promote tourism at Arugam Bay have influenced its journey towards a most popular tourism destination in the world so far.

Most of these tourism planning interventions have been carried out by then the Ceylon

a) The First Tourism Master Plan (1967-1976)

 Identification of East Coast as one of the five Tourism Resort Regions in Sri Lanka

With the establishment of the Ceylon Tourist Board in year 1966, it prepared the first tourism master plan for the island as it was in effect for the period of 1967-1976. This plan had identified 05 tourism resort regions and one of Tourist Board (Present Sri Lanka Tourism Development Authority). However, apart from that some planning interventions and policy applications have been conducted within the considered Arugam Bay Tourism Planning Area throughout the past decades by other state agencies responsible for management of forest and wildlife, coast conservation and lagoon protection and archeological conservation etc. as well.

the five regions was the East Coast Resort Region. It was the first time in tourism planning history that the east-coast was designated as a tourism region. Even though the master plan envisaged the development of all five resort regions simultaneously, East Coast lagged behind the other regions sue to problems of accessibility and trending tour patterns in other competing regions; westsouth, hill country and historic cities.

b) The Second Tourism Master Plan (1992 – 2001)

G Inclusion of the first detailed tourism planning intervention at Arugam Bay **99**

The second Tourism Master Plan prepared by the Ceylon Tourist Board as in effect for the period of 1992-2001 had identified 14 tourism zones which have varying tourism characteristics and activities. Among these 14 tourism zones, two of them namely 'East Coast' and 'East Inland' are in the Eastern Province. One of the proposals of the plan which had the focus on east coast was to develop a new resort area on the south-east coast to complement the south-east zone tourism product and to develop new resort areas at other designated locations on the east coast. In "East Inland," the strategy was to develop international wildlife attractions, new north-south tour routes through the area and enhance domestic pilgrimage and tourism facilities in the zone. For the first time, Arugam Bay had been identified within the Tourism Mast Plan as one of the destinations to carryout major integrated development programs. The other destinations identified in the east coast were Trincomalee (including Nilaveli), Passikudah/Kalkudah. Under this particular program, the priority had been to carry out a detailed field survey of the East Coast to identify, designate and protect areas for future planned tourism development.

The following observations had been made by the planning team with regard to Arugam Bay.

• The difficulties due to less accessibility and lack of communication facilities at Arugam Bay

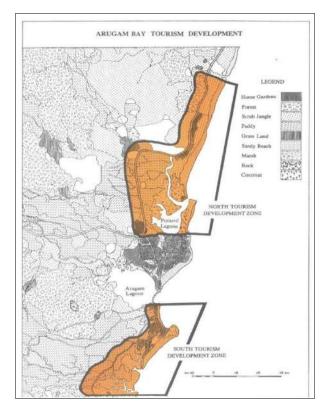


Figure: Two Tourism Development Zones identified in Arugam Bay by the Tourism Master Plan (1992-2001)

- Even though the water and electricity supply had been adequate to meet the demand at that time, the need to enhance the supply to further support the growing demands
- Arugam Bay and Pottuvil area being benefited from the village reawakening programme in the Moneragala area, with a new spine access road creating a trunk service route to enable distribution to developing areas

Following these observations, the planners had assumed a green field site for a total new infrastructure installation as a part of the resort development in the region.

Physical Development in Arugam Bay

Under the physical development component of the plan, it had identified two tourist development areas as shown in the figure for the said green field development. By that time, the Pottuvil and Arugam Bay area had been already developed thus these two Greenfield development zones were identified from north and south areas. The north zone stretched out towards Komari Lagoon while the south zone stretched towards Panama.

The Northern Development Zone was located to the north of Pottuvil Town and separated from the town by the Pottuvil Lagoon. It had a 8 km coast line and comprised mainly scrub with sandy beaches.

The South Development Zone included the existing unregistered tourist facilities and the prime surfing beach located south of Pottuvil Town and Arugam Lagoon. It had a 4.5 km coast line and comprised predominantly flat, sandy terrain with sand dunes bordering the beach.

It was proposed that both zones be declared Tourist Development Areas and that they be frozen to protect them from all development until detailed land use plans were drawn up and adopted. It was proposed to develop the identified two zones in two phases and accordingly, the south zone was proposed to be developed in the first phase.

The development concept and proposal for the Southern Development Zone included two hotels and a cultural complex, beach and recreation club located on a 2 hectare site adjacent to the surfing beach and upgrading and protection of existing tourist area in the first phase.

In the second phase, the Northern Development Zone to commence with a holiday village complex located immediately north of Pottuvil Lagoon. A Jetty arrival also was included. Infrastructure for the first phase South Development Zone included water, electricity, sewage, solid waste and roads.

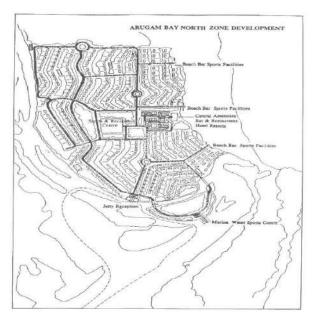


Figure: North Zone identified in Arugam Bay by the Tourism Master Plan (1992-2001)

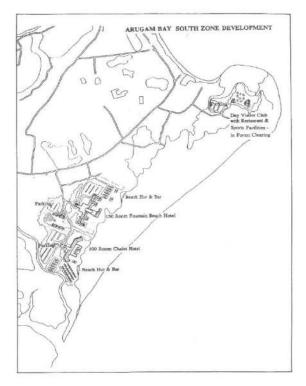


Figure: South Zone (near the surf point) identified in Arugam Bay by the Tourism Master Plan (1992-2001)

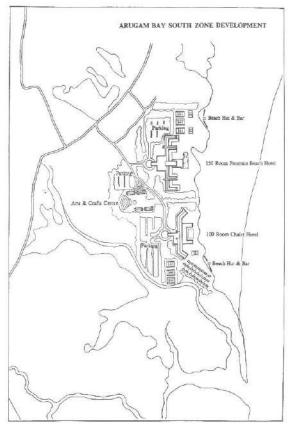


Figure: South Zone (south of surf point) identified in Arugam Bay by the Tourism Master Plan (1992-2001)

Target Markets

The target markets for Phase 1 development in the South Development Zone comprised;

- Circuit tourists covering one or more of the following; wildlife, hill country, southern attractions, country circuit including the Ancient Cities Zone
- Activity and/or health related beach holidays
- Beach sejour tourism combined with a circuit tour
- Twin centre holiday combining with other centres in Sri Lanka
- Touring base for archaeological and wildlife a excursions

- Special interest markets including bird and wildlife
- Domestic tourism will also be attracted predominantly by the rest house development upgrading of existing low-grade facilities and the beach and recreation facilities in the area

For Phase 2, in the North Development Zone, it was proposed to impose a greater emphasis on longer-staying tourists for a week combined with a tour, or for a stay of two or more weeks.

Development Benefits

Realization of the South Development Zone was estimated to generate a total of 1200 direct and indirect employment opportunities. The projected annual direct foreign exchange generation was US\$ 6.3 million (at 1991 values) by the third year of operation of the resort. An important additional benefit of the development is that it stimulates tourist activity on the East Coast and in the South East Tourism Zone, thus helping to spread geographically the benefits of tourism and to broaden the product range of Sri Lanka.

Strategic Land Usage

In the proposed strategic land usage and coastal zoning for Arugam Bay, the following were suggested within the plan:

- Residential land for fishing communities
- Boat and fishing net storage areas
- Siting of high polluting industries (and all uses incompatible with tourism) away from tourism areas
- Scenic areas which should not be developed

- Public access routes which should not be obstructed
- As an interim measure pending the completion of the coastal plans, a moratorium on development in selected areas should be declared.
- For scenic areas strict controls on visual aspects to include
 - Development to blend with the landscape
 - o Scenic views are not obscured
 - Scenic routes are not overdeveloped

Plans for tourism resorts should include land reserved as a "buffer zone" where further development is not permitted. EIA procedures for new development were to be streamlined.

Considering the comprehensive details of the Arugam Bay Tourism Development Plan derived within the Tourism Master Plan (1991-2001), and comparing its proposals with the current development setting in Arugam Bay south and north areas, it can be understood that these proposals had played a big role in shaping up these areas into their current status. If it weren't for these proposals, the development of Arugam Bay; especially in North and South areas wouln't have happened and many of the surf breaks and tourist attractions in the north and south would have still remained unexposed and would have been an untapped potential.

c) SLTDA Internal Paper on East Coast Development - 2005

After the liberalization of Eastern Province and the subsequent establishment of the civil administration in the province, the SLTDA had prepared a Paper on the East Coast Development. It gives a detailed account of the actions taken by the SLTDA to declare several areas in the Eastern Province suitable for tourism development as "Tourism Development Areas" (TDA) by obtaining the Cabinet approval.

Based on the previous studies, it has also made an assessment of the tourism development potential of the East coast and also provided a comprehensive inventory of the tourism resources available in the Province as identified by the various planning teams.

d) Strategic Tourism Development Plan for Eastern Coast of Sri Lanka - 2009

"Reawakening East" was one of the major initiatives of then the political manifesto 'Mahinda Chinthana' which induced many of the developments in Eastern Coast. One of the ADB funded projects under this initiative focused on the tourism development in the Eastern Province. This project was in four main phases such as; assessing the current situation of tourism development in the Eastern Province along with identifying the opportunities that can be taken at the present time, focusing on the strengths of the East Coast and availability of resources for tourism development in the Districts of Trincomalee, Batticaloa and Ampara, providing guidance to encourage the development of sustainable tourism development and plan of action and preparing a strategic marketing plan to provide the basis for the promotion of tourism recreation in Eastern Province. This particular plan was published in March, 2009 and the specifics of the plan which is related to Arugam Bay and its surrounding are as follows. The plan had acknowledged the existence of below mentioned natural, cultural and historical attractions.

- Panama Most South Eastern village in Sri Lanka bordered by Kumana National Park
- The Vedda community. There are a number of settlements of this community still retaining their traditional life style and living in their natural environment
- The wide cultural diversity, due to the variety of ethnic groups and religions. Also stated is the presence of smaller ethnic groups indigenous to the province, such as Dutch and Portuguese Burghers, Malays and Gypsies

Among 15 sub projects identified to be implemented within Eastern Province by this plan, Handicraft Training for Women in Arugam Bay, Pottuvil Visitor Centre Development and Hotel Staff Training and

- Pilgrimages an ancient tradition associated with the Eastern Province is the Pada Yathra (the walk to Kataragama via Pottuvil/Kumana to worship God Muruga)
- Religious worship presence of many places of worship of historical and religious interest, e.g Magul Maha Viharaya, Kudumbigala Forest Retreat and Okanda Malai Hindu Temple (Ampara district)
- Marine Tourism with opportunities for whale, dolphin and turtle watching.

Hotel Service Training for unemployed youth across all three districts in the province were the key proposals applicable to Arugam Bay Tourism Planning Area.

e) Participatory Coastal Zone Restoration and Sustainable Management in the Eastern Province of Post-Tsunami Sri Lanka – 2009

The Participatory Coastal Zone Restoration and Sustainable Management in the Eastern Province of Post-Tsunami Sri Lanka project had been designed to achieve the development goal of rehabilitating 'tsunami-affected ecosystems in Sri Lanka to provide full ecosystem services including adaptation against extreme climate events'. The project was funded by the IFAD and even though the agreements were signed in 2009, the project became operational during the period of 2012-2016.

The project was undertaken by the Department of Coast Conservation and

Coastal Resources Management under the supervision of the Ministry of Mahaweli Development and Environment. The main objective of the project was to enhance socioeconomic conditions of the local community in the east-coast of post-tsunami Sri Lanka.

As elaborated in the sections 3.3.3 & 3.3.4, Arugam Bay's tourism industry was severely affected by the civil war and as well by the Tsunami disaster. There were many both private and public interventions which supported the Arugam Bay's tourism industry to rise again. As mentioned in the section 3.3.4, many local and foreign tourists who had visited Arugam Bay prior to Tsunami had helped the hoteliers to build back their businesses. Simultaneously, many state agencies had also attempted with planning interventions to induce the tourism development in Arugam Bay and this project is an example of such attempts.

The core value of this project had been the community participation and community driven sustainable tourism development. Thus, this project had introduced a new tourism activity and a participatory concept which is the community led lagoon safari in Kottukal/ Ureni and Panama lagoons. The two community based organizations linked with this project had been the 'Fishermen Employees Co-op Society' and the 'Ureni Rural Fisheries Society'. Under the project, the participants of these two societies had been given appropriate training and provided with required equipment to run a smooth, conveneient and most importantly safe lagoon safaris in the Kottukal/ Ureni and Panama lagoons.

f) Eastern Province Tourism Development Action Plan 2010-2012

This was an interim Action Plan pending the formulation of a National Tourism Development Plan. The main objective was to prevent uncontrolled, unregulated and haphazard development and also to identify the projects which could be financed by tourism authorities with external funding assistance for the entire Eastern Province.

The specifics of the project based action plan relevant for Arugam Bay for the period 2010-2012 were:

- Institution and capacity building
- Trunk road highways development
- Hotels/Resorts and Ancillary facilities development

- The plan had identified Arugam Bay as a surfing destination had developed in an unplanned way and although the accommodation facilities needed to be upgraded to conform with to SLTDA standards, the owners needed concessionary loans to do so.

- The plan had proposed an alternative beach resort for surfing to develop as a planned resort with high standards
- A Land Bank for development of tourism in Komari, Kottukal, Peanut Farm, Arugam Bay, Panama beach areas
- Creation of fishermen's wharfs
- Elephant viewing platforms at Lahugala
- Bird viewing platforms at Kumana
- Beautification of places of religious/cultural/archaeological importance
- Pilgrim rests for domestic tourists
- Camping accommodation

g) Eastern Development Plan 2012-2016 – Eastern Provincial Council, Trincomalee

The Eastern Development Plan developed by the Eastern Provincial Council was for a period of 5 years from 2012 – 2016 based on the Vision – "East to be the Best Province in Human Values, Governance and Quality of Life". The four pronged development strategy comprised of; Enhancing the Quality of Life, Promoting Sustainable Development, Good Governance and Securing Human Values. The Plan adopted a sectoral framework to facilitate easy adoption by the provincial administration for implementation purposes. Of the six sectors identified, the subject of Tourism comes within the sector Industrial Development.

The Plan recognizes the fact that the East Coast Region was one of the five resort regions identified in the first Tourism Master Plan, 1967-1976, as having high potential for tourism development in Sri Lanka. It also recognizes that the Central Government through SLTDA, the provincial administration, Pradesha Sabha and some private small scale Entrepreneurs are providing the services for the tourists. Accommodation, infrastructure, common utilities, waste disposal, travel arrangements, meals are provided far below quality levels and at very small amounts.

The Gap analysis revealed the following deficiencies in the existing system of service provision for the tourists in the Eastern province.

- Absence of Institutional arrangements for the promotion of Tourism in the Eastern Province,
- Poor access to the province through land, sea or air.
- Lack of supportive infrastructure. (utilities)
- Human resource development.

The Development Goal was to increase the real income of Eastern Province through the development of Tourism Industry and make the people aware of the role as real citizens of the Province. The Thrust Areas identified were:

- I. Strengthening the role of Provincial Council in tourism development of the Province
- II. Promote Eastern Tourism Packages
- III. Develop Human Resources for tourism
- IV. Create Awareness to people of the East about Tourism Industry

However, the outputs listed in each of these thrust areas are in general to the Eastern Province with only specific mention of Arugam Bay as Arugambay and Pasikuda are recommended to be developed as a tourist area especially for skating, swimming and water sports.

h) Guidelines for Tourism Related Buildings in Arugam Bay Pradeshiya Sabha - 2013

Lahugala and Pottuvil PS areas were declared as 'Urban Areas' through the gazette notification no. 1399/16 on 30th June 2005 under the Urban Development Authority Law No. 41 of 1978. With that, Urban Development Authority, became the responsible state agency to manage the physical developments within these areas. Accordingly, a Zoning Plan for Arugam Bay and Pottuvil areas had been drafted by the Ampara District Office. As a part of that process, a set of guidelines for tourism related buildings in Arugam Bay Pradeshiya Sabha area had been identified and they have been put into practice after obtaining the approval of the Main Planning Committee of UDA on 19th August 2013 at the meeting no. 10/2013.

As per the draft zoning plan of Pottuvil PS, it had identified two zones in which most of the tourism activities were already concentrated. The special guidelines are applicable to these two special zones namely, Zone 01 – Sinnaullai and Zone 02 – Kalapukattu.

The overall set of guidelines include four types such as;

- Guidelines for Tourist Hotels in Pottuvil
- Permissible Uses
- Common Guidelines
- Extra Guidelines

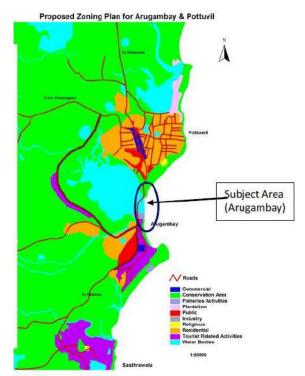


Figure: Proposed Zoning Plan for Arugam Bay & Pottuvil drafted by the Ampara District Office of UDA



Figure: The special two zones for which the special guidelines related to tourism buildings are applied

Hulannuge Victor Estate 2 Kandahindagama Hular nugee West LahugalaDewalagoda Perani Lahugala Pansalgoda San Panama West Panama South

Even though, a number of planning interventions have been made within last four decades focusing on the overall development of the entire Eastern Province as well as particularly on tourism sector, following plans were the key plans which had a direct impact on tourism development in Arugam Bay.

- Arugam Bay Integrated Development Programme Identified by the Second Tourism Master Plan (1992-2001)
- Participatory Coastal Zone Restoration and Sustainable Management in the Eastern Province of Post-Tsunami Sri Lanka – 2009
- Eastern Province Tourism Development Action Plan 2010-2012
- Guidelines for Tourism Related Buildings in Arugam Bay Pradeshiya Sabha -2013

Most of the projects proposed by these plans have been already implemented and also have contributed largely to the promotion of tourism in Arugam Bay as well as to manage the developments to some extent without disturbing its natural and cultural values.

However since none of these plans have been made considering the Arugam Bay and its surrounding area as the key focus, the level of detail and the scope is much wider thus it does not completely covers all aspects linked to tourism in Arugam Bay. More over these plans have identified and implemented several projects to meet the timely requirements and to achieve given targets within the considered contexts, thus have not deeply considered the overall functionality of the Arugam Bay tourism planning area, the linkages among different attractions and sites, relationship between the local community and the tourism functions, the role of support infrastructure and the global and national positioning of Arugam Bay as a competing tourism destination within a holistic frame.



3.5 Present Tourism Functional Pattern in Arugam Bay

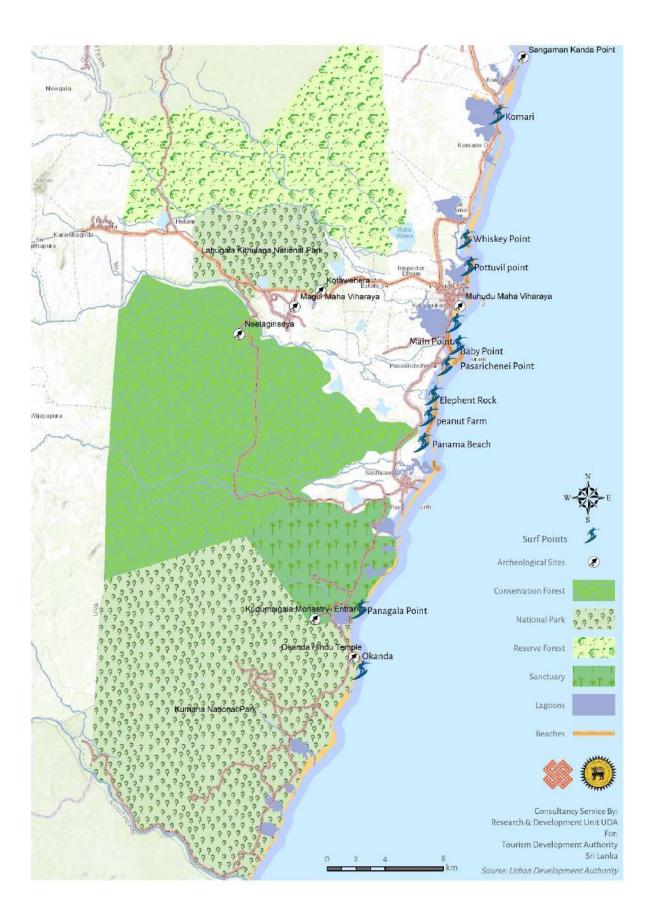
The considered Arugam Bay Tourism Planning Area is 1098 km² in extent and it includes natural areas such as large forest reserves, lagoon areas and built up areas such as town centers, residential clusters/ villages and as well as special tourism clusters. When preparing the Arugam Bay Tourism Development Master Plan, it is important to identify the tourism functional boundary including the special tourism activity clusters and tourism trails on which tourists daily travel in between different tourism clusters. Also, it is important to understand the functional relationship between the tourism clusters with other land uses and activities in the area.

3.5.1) Tourism Clusters in Arugam Bay

The active tourism clusters in Arugam Bay can be identified by studying the locations of tourist attraction places and agglomerations of tourism related services and facilities such as accommodation facilities, food & restaurants, shopping areas and tourism related service products (Example: Ayurvedic spa, yoga, surf schools, surf boat repairing & renting places etc.).

a) Distribution of Tourist Attractions

The different types of tourist attractions located within the boundary limits of Arugam Bay Tourism Planning Area were explained in the previous sections 3.1.1, 3.2.1 and 3.2.2. (b) as popular surfing breaks, natural attractions and historical, archeological and cultural attractions respectively. The locations of these different types of attractions are important as accessibility is one major reason which influences the popularity and promotion of any tourist attraction.



b) Frequently Visited Attractions and Tourist Travel Patterns

Even though there is a wide range of choices of attractions to visit in Aruagm Bay, not all of them are popular and frequently visited due to relative distance among attractions, level of accessibility and preferences. As summarized above, there are three main types of tourism attractions and the below table indicate the distance to different attractions from the main destination.

No.	Name of the Tourist Attraction	Distance	Time
01	Main Point	o km	0 min
02	Baby Point	o km	0 min
03	Cobra Point (Pasarichenai Beach)	750 m	05 min
04	Crocodile Rock	2.6 km	10 min
05	Pottuvil Point (Kottulal Point)	4.8 km	10 min
06	Mahudu Maha Viharaya	5 km	12 min
07	Elephant Rock	6.9 km	13 min
08	Nagapabbatha Viharaya, Sasthrawela	7.1 km	15 min
09	Pottuvil Lagoon	7.5 km	20 min
10	Peanut Farm beach	7.8 km	15 min
11	Ureni Lagoon	12.3 km	21 min
12	Panama Beach	14.6 km	25 min
13	Panama Lagoon	15 km	27 min
14	Panagala Point	15.7 km	29 min
15	KotaweheraViharaya	16 km	26 min
26	Panagala Point	18 km	35 min
16	Crocodile Lake, Panama	18.5 km	33 min
17	MagulMahaViharaya	19.2 km	23 min
18	Lahugala National Park	19.4 km	28 min
19	Komari Lagoon	21 km	30 min
20	Neelagiri Stupa	23 km	36 min
21	Sangamankanda Point	26 km	43 min
22	Komari Beach/ Light House Point/ Green Point	25.4 km	44 min
23	Kudumbigala Monastery	26 km	49 min
24	Tharulengala Raja MahaViharaya	28 km	38 min
25	Okanda Dewalaya	30.4 km	60 min
27	Kumana National Park	44 km	90 min

Table: Distance to different surrounding attractions from Arugam Bay

Depending on the distance and travel time, the tourist attractions of Arugam Bay can be zoned as shown in the Figure "Visit Frequencies of Arugam Bay's Tourism Attractions located within different Travel Time and Distance Zones" Further the map indicates the visit frequency of different attractions thus the relationship between travel time and visit frequency of attractions also can be identified. The significance of different tourism attractions based on their visit frequencies has been calculated using the results of the survey conducted in the month of June, 2019.

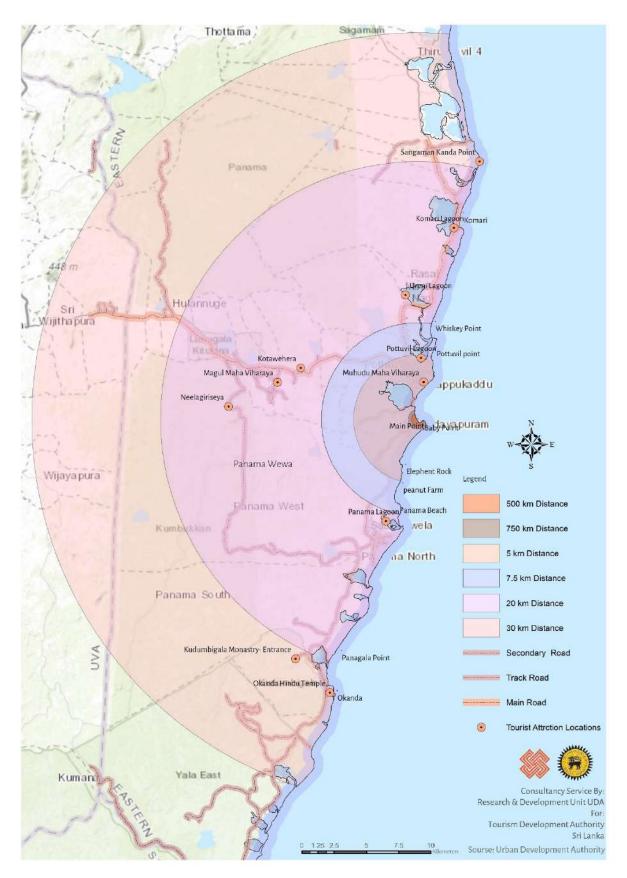


Figure : Visit Frequencies of Arugam Bay's Tourism Attractions located within different Travel Time and Distance Zones

The distance to different attractions from the main destination; the main tourism strip at Arugam Bay is also an influencing factor which determines the popularity and visit frequency of different attractions. The probability of visiting different attractions in Arugam Bay has been estimated using the survey data, online reviews, direct observations and secondary observatory data obtained from local host community. Accordingly, *Main Point in Arugam Bay, Kumana National Park, Whiskey Point, Elephant Rock, Peanut Farm and Pottuvil Point* found to be the mostly visited attractions in Arugam Bay.

	Probability of Visiting the Attraction
Main Point	86%
Kumana National Park	34%
Whiskey Point	31%
Elephant Rock	28%
Peanut Farm	21%
Pottuvil (Pttuvil point)	14%
Okanda	14%

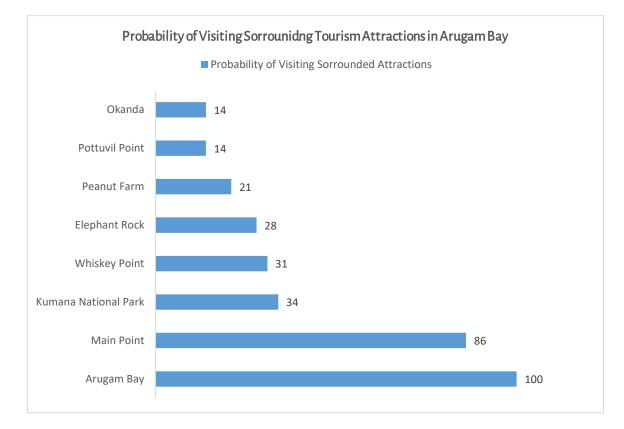
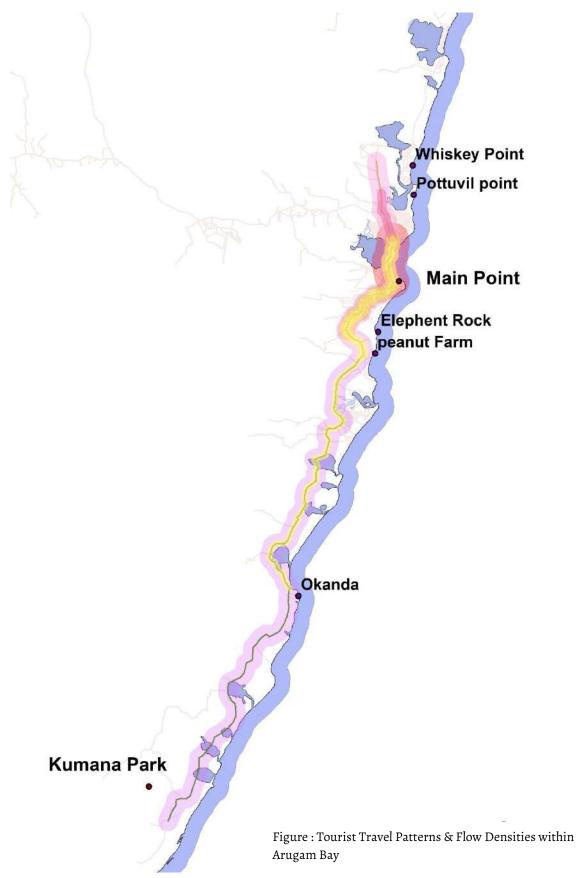


Table : Probability of Visiting Different Attractions in Arugam Bay

Further the following flow pattern and flows densities were identified based on the probability of tourists visiting different tourism attractions.





b) Distribution of Tourism Related Services and Facilities in Arugam Bay

There are different types of tourism related services and facilities, and among them accommodation facilities, Restaurants and food stalls, shopping places and complementary services such as Ayurvedic spa, yoga classes, surf schools, surf board repairing and renting places are the main categories of services that can be observed within Arugam Bay Tourism Planning Area.

• Accommodation Facilities

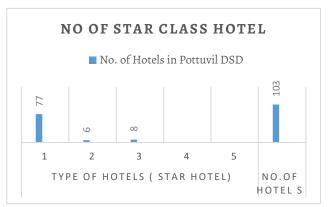
There are different types of accommodation facilities located within the boundary limits of Arugam Bay Tourism Planning Area such as hotels, guest houses, private cottages; villas, bungalows & cabanas, tourist hostels, homestay and camping etc. However, most of the accommodation facilities in Arugam Bay Tourism Planning Area are concentrated within the 1km long tourism strip parallel to the Main Street of Arugam Bay.

<u>Hotels</u>

1 Star Hotels - 77



3 Star Hotels – 08 ***

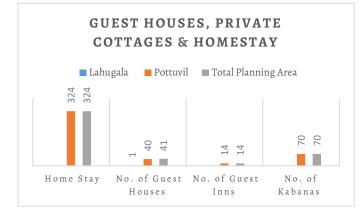


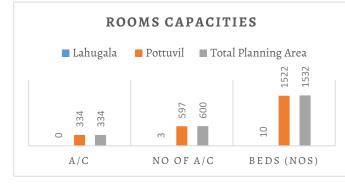
Guest Houses, Private Cottages & Homestay

A majority of accommodation facilities in Arugam Bay fall into the categories of Guest Houses & Private Cottages as mentioned below.

It is important to know that the most frequent accommodation type in Arugam Bay is the Homestay and there had been 324 homestay ventures within Pottuvil DSD by 2017. It can be expected that these numbers have considerably increased during the past two years.

The total number of air-conditioned and non-air conditioned rooms as at 2017 are recorded to be 600 and 334 respectively. Also, the total number of beds has been recorded as 1532.





Tree houses are also an interesting type of accommodation facility offered at Arugam Bay. There are many Tree houses rented by the guest house and hotel owners which offer a unique experience to the tourists.



Camping

follows.

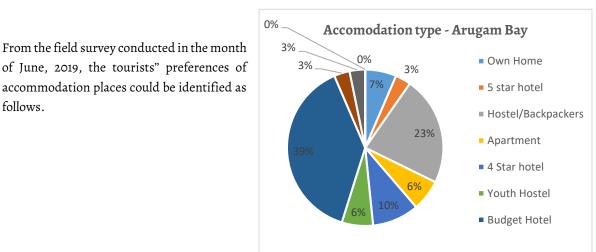
Camping at Kumana & Lahugala National Parks is also one of the accommodation options available at Arugam Bay Tourism Planning Area. There are

different types of camping facilities depending on the duration and facilities available.



Even though there had been 103 number of both registered and unregistered hotels in Arugam Bay as per the Resource Profile Data in 2017, the total number of accommodation facilities including hotels, guest houses, homestays and bungalows that are approved by the SLTDA in whole Ampara District is recorded to be 65. Among these 65 accommodation facilities, there are only 05 approved hotels.

Interestingly, the number of accommodation facilities that have been advertised in the internet in July, 2019 was 181 which almost 3 times the approved number of accommodation facilities by the SLTDA. Also, it is important to note that even though there are 449 number of total accommodation facilities recorded in the Resource Profile of Pottuvil DSD – 2017, only a number less than one fourth of all those facilities are approved by the SLTDA.



Tourists' Choices of Accommodation Facilities

As per the above graph, it can be identified that the majority (39%) of the tourists interviewed had stayed in Budget Hotels whereas 23% of tourists had stayed in Hostels. In that case, majority of the tourists who had visited Arugam Bay during the month of June had preferred low budget accommodation facilities over star range classy standard hotels.

Price Range of Accommodation Facilities

Usually the price range of accommodation facilities in Arugam Bay varies from LKR 1000 (US\$ 5.5) – 60,000 (US\$ 332) depending on the class, standards of the facilities and the location. The double room rates of around 40% of the units are below Rs. 5000 (US\$30) while around 10% charge over Rs. 20,000 (US\$ 120). The most popular range appears to be Rs. 2,000 to 3,000 with around 14% belonging to this category.

The variation of prices of accommodation facilities is shown in the below map, and from that it can be identified the facilities near or in vicinity of the beach offer higher prices compared to those located

6 Considering the distribution of accommodation facilities, main strip of Arugam Bay can be identified as the main tourist destination in Arugam Bay. It is the main service area or the rest in Arugam Bay from which tourists travel to other attractions and return for food and rest.

towards the inland especially on the landside of the main tourism strip at Arugambay.

At the same time, it was observed that the prices of normal facilities such as 1 or 2 star or guesthouses located at emerging tourism attraction places such as Peanut Farm and Whiskey Point relatively lower than those of Arugam Bay main tourism strip. Nevertheless, it was also observed that there is a trend of emerging star class hotels in the attraction sites far from the main strip such as Peanut Farm and Whiskey Point which offer accommodation facilities at relatively higher prices.

Double Room Rate per night (Rs)	No. of Units	
Less than Rs. 1000	-	4
1000 < 2000	-	8
2000 < 3000	-	25
3000 < 4000	-	19
4000 < 5000	-	15
5000 < 6000	-	14
6000 < 7000	-	6
7000 < 8000	-	16
8000 < 9000	-	11
9000 < 10000	-	4
10000 < 11000	-	9
11000 < 12000	-	8
12000 < 14000	-	8
14000 < 16000	-	5
16000 < 20000	-	3
20000 < 30000	-	14
30000 < 40000	-	1
40000 < 50000	-	2
50000 < 60000	-	1
60000 & Over	-	2

Figure : Price ranges of accommodation facilities in Arugam Bay



Figure : Price variation of accommodation facilities in Arugam Bay

• Food & Restaurants

The main food and restaurants area serving the tourists in Arugam Bay is also the main strip. There are a number of restaurants and food stalls which offer different types of menus with both Sri Lankan and international dishes. There are a variety of food serving places including hotel restaurants & bars, food restaurants, pubs, bars & lounges and café etc. The price of food can vary from LKR 500 (US\$ 2.77) to LKR 2000 (US\$ 11) per person depending the menu selected and the place of eating.

The restaurant and bar culture in Arugam Bay main tourism is very unique and attractive especially due to the creative physical appearances of restaurants and cafes. Every restaurant and café in main strip of Arugam Bay has its own design and style which also adds to its value and ultimately to the price of food you enjoy. More attractive the ambience of the place is, more expensive the food is in restaurants at Arugam Bay.

The main strip becomes a very attractive and interactive place in the evening with unique style of lighting which highlight each restaurant's classy designs of walls, facades, furniture and overall interior and exterior spaces.

Besides the Arugam Bay main strip, there are also some food & restaurant areas placed near the other attractions especially surf breaks such as Peanut Farm and Whiskey Point etc. which serve the tourists who visit during the day time.





• Shopping

The main shopping items in Arugam Bay are the clothes, jewelries, ornaments and arts & crafts and these are also predominantly located at the Main Strip of Arugam Bay. Just as the restaurants & cafes, these shops are also unique in their physical appearance and style. There are nearly 10 to 20 number of clothes, jewelries and arts & crafts shops located within the Main Strip at Arugam Bay. The prices of the products at these shops are bit expensive when compared to the local market products as its target market is the international tourists rather than the locals.

- Other Tourism Service Products
 - Ancillary Tourism Service Products

There are some other ancillary tourism service products offered at Arugam Bay such as Ayurvedic Spas, Yoga Centres, Surf Schools, Cooking Classes, Surf Board Repairing Centres and Beauty Salons etc. which are also frequently placed at the Main Strip of Arugam Bay.

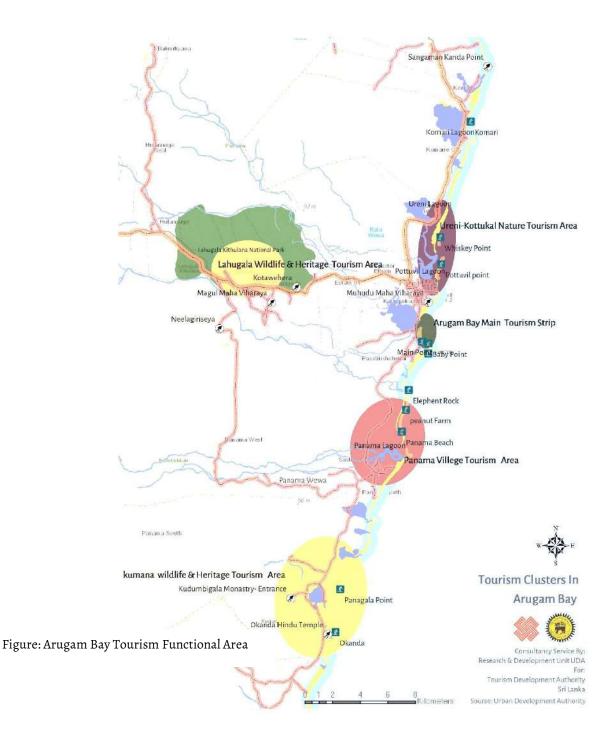
3.5.2) Arugam Bay Tourism Functional Area

Identification of the Arugam Bay Tourism Functional Area was done considering the following criteria.

- distribution of tourism attractions
- locations of frequently visited tourism attractions
- tourism travel patterns and flow densities
- distribution of tourism related services and facilities

Accordingly, it was identified that the Arugam Bay Tourism Functional Area extends from Arugam Bay towards north up to Sangaman Kanda Point and towards south up to Okanda Beach along the coast. Also it extends towards west up to Lahugala National Park along the Colombo-Batticaloa Highway and towards south-west up to Kumana National Park along the Panama – Kumbukkana Road.

Arugam Bay Tourism Functional Area is formed of few tourism activity clusters with different characteristics and functions.



The different characteristics and functions of identified tourism activity clusters within the Arugam Bay Tourism Functional Area are elaborated in the following sections. Arugam Bay Tourism Functional Area can be broadly divided into two main zones such as Coastal Tourism Belt and Inland Tourism Area.

3.5.3) Tourism Activity Clusters within Arugam Bay Tourism Functional Area

a) Coastal Tourism Belt

The Coastal Tourism Belt which extends from Sangaman Kanda Point at north to Okanda Beach at south is about 50km long and consists of several attractive beaches, surf breaks, lagoons and forest reserves as well as some cultural and historical sites. At present, four distinctive tourism clusters can be identified within the coastal tourism belt and they are; Arugam Bay Main Tourism Strip, Ureni-Kottukal Nature Tourism Area, Panama Village Tourism Area and Okanda Cultural Tourism Area.



Figure: Conceptual Cross-section showing the distinctive tourism clusters within the Coastal Tourism Belt of Arugam Bay Tourism Functional Area



Figure: Conceptual drawing Main Road Arugambay

• Arugam Bay Main Tourism Strip

The Main Tourism Strip at Arugam Bay is the pinnacle point of the Arugam Bay Tourism Functional Area. The total length and width of the Main Tourism Strip is about 1km and average of 200m – 300m from the shoreline towards the inland. As explained in the section 3.5.1 (c), more than 80% of the accommodation, food, shopping and other ancillary toruism facilities are located within the Main Tourism Strip of Arugam Bay. Moreover, the most popular and most visited surf break; the Main Point is also located within this tourism strip.

The culture and ambience of the Arugam Bay Main Tourism Strip is unique due to the behavioral patterns of both tourists and host community and due to physical appearance of the built fabric of the strip. The streetscape of the Main Street; the spine of the Arugam Bay Main Tourism Strip is unique due to the architecture of the hotels, restaurants, cafes, jewelry & other arts & crafts shops and other stalls and their façade designs. Most of the facades are decorated in simple yet colorful designs furnished with uncommon yet environmental friendly materials such as wood, coconut husks, cadjan and palm leaves etc. The architecture and design of the streetscape of Arugam Bay Main Tourism Strip reflects the original character which has been there during its early tourism days mixed with the hippie tourism culture

As explained in the section 3.3, it was the hippie tourists who had first explored Arugam Bay during 1980s when the hippie tourism was trending all over the world. The hippie tourism character had been there during 2008 as stated by Malcolm Crick in his book; Resplendent Sites; Discordant Voices: Sri Lankan and International Tourism in 2008.

Hippies are known to be feeling free and open minded and the places where free-thinking hippies like to visit and find others like them are known to be hippie destinations. Hippie tourists like to interact with like-minded people and learn from each other. Thus, hippie destinations offer many opportunities for interactions along with activities such as yoga, diving, surfing, cooking, story-telling, relaxing, exploring and partying etc.



The key characteristics of Arugam Bay Main Tourism Strip which makes it one of the Hippie Tourism Destinations are;

- Independent-minded travelers
- Backpackers and low budget tourists
- Relaxed local culture
- Extra friendly host community
- Interactive tourists
- Vibrant night-life & large crowd open parties
- Ureni-Kottukal Nature Tourism Area

With the existence of Ureni – Kottukal (Pottuvil) lagoons and the presently operated community led lagoon safari program, this area has become more of a nature based tourism area. The Ureni – Kottukal Nature Tourism Area lies nearly 8km northwards from Arugam Bay. The popular surf

• Panama Village Tourism Area

Panama is the last settlement in the south-east coast of Sri Lanka. It is an ancient coastal farming village located 15 km southwards from Arugam Bay Main Point. Panama is known for its serenity hidden within its untouched natural environment. Peanut Farm located northwards from Panama is a famous surf break as well as popular tourism attraction again with hippie tourism character. In between Peanut Farm Beach and the Panama Beach lies another famous surf break; the Elephant Rock. Panama Lagoon is also another attraction, in which tourists can experience lagoon safaris as elaborated in the section 3.2.1 (b).

Furthermore, what's interesting at Panama is its serene villagescape surrounded by large acres of paddy lands and edged by Kudumbigala – Panama Sanctuary, Panama Lagoon and the white sandy

- Frequent use of alcohol, local drugs such as cannabis (marijuana)
- Creative building facades with well-lit verandahs & balconies backed with artistic paintings and wall arts
- Catchy radical designs made-out of simple disposable items and signed with styled lettering and radical phrases
- Locally produced unique arts & crafts, jewelries, clothes & ornaments made out of natural items unique to the area

break, Whiskey Point is also located within this area and this cluster has been identified as a trending destination of relatively up-market hotels and guest-houses which targets the affluent tourists.

Panama beach. Besides its natures' beauty Panama is immersed with warm hospitality. Panama is known to be a community based tourism destination where the tourists are welcome to share the local houses and have the village experience. At Panama, the tourists are offered to experience the Sri Lanka's diverse lifestyles, its deep rooted culture, traditional organic cultivation practices and life style of the Sri Lankan farmers. Panama offers safety accommodation with affordable prices while ensuring the well-being of tourists. Local foods offered at Panama such as pittu, roti and hoppers such delicious organic foods make the tourists' experiences memorable. There are nearly 10 number of homestay facilities currently available at Panama Village Tourism Area. (Source: Travel Sri Lanka 2016; blogspot.com)

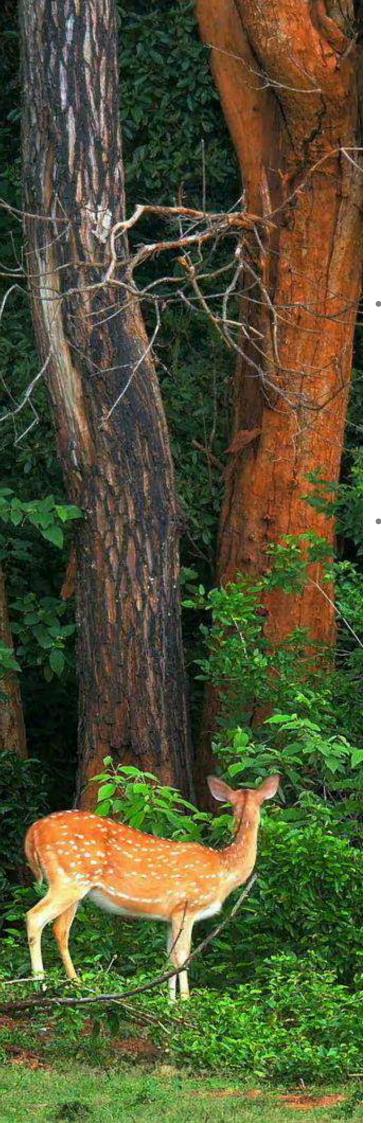
• Okanda Cultural Tourism Area

Even though the Pottuvil-Panama (B 374) road literally ends at Panama, the rough dirt track road (B 355) having a dead end at the Kumana National Park entrance, leads to Okanda. Okanda is a seasonal settlement for local fishers and we as an annual pilgrimage destination due to the existence of Okanda Dewalaya as elaborated in the section 3.2.2. (b).

Okanda and its surrounding is home to many natural and historical attractions such as Kudumbigala – Panama sanctuary, Kudumbigala Monastery, Kumana National Park, Okanda Beach and the Surfing Break. The drive to Okanda from Panama through the Kudumbigala – Panama sanctuary is sensational albeit slow. The scenery is a mix of wetlands and savanna and there is a variety of wildlife and often elephants at either sides of the road.

Okanda is mainly a cultural tourism as it is an annual (due to a large number of pilgrims) as well as a year-round destination (for local tourists visiting Okanda Dewalaya as well as Kudumbigala Monastery). However, it is also a place for a wildlife tourism as it is surrounded by Kudumbigala-Panama sanctuary and Kumana National Park.





b) Inland Tourism Area

The Inland Tourism Area consists of separately located two Wildlife & Heritage Tourism Areas namely Lahugala Wildlife & Heritage Tourism Area and Kumana – Kudumbigala Wildlife & Heritage Tourism Area.

Lahugala Wildlife & Heritage Tourism Area

There are number of archeologically important historical attractions located in close proximity to Lahugala National Park such as Neelagiriseya, Kotawehera, Magul Maha Viharaya and Tharulengala thus it can be identified as wildlife and heritage tourism cluster.

Kumana – Kudumbigala Wildlife & Heritage Tourism Area

There are three hidden historical heritages hidden within the deep jungles of Kumana National Park such as Bowattegala Monastery, Nagapabbatha Monastery in Bambaragasthalawa and Kudumbigala Monastery which make it an ideal wildlife and heritage tourism cluster.

3.5.4) Types of Tourism in Arugam Bay

Moreover the above mentioned different types of tourism which can be observed at different tourism clusters, the main tourism type in Arugam Bay is Sun & Beach tourism. In addition, the tourists also can enjoy eco-tourism as a blend of nature and village tourism present in Panama and Lahugala villages areas amidst Kumana and Lahugala Forests reserves. Since, surfing is the main tourism activity and also the most popular attraction of Arugam Bay, Adventure Tourism can also be claimed to be one of the tourism types there.

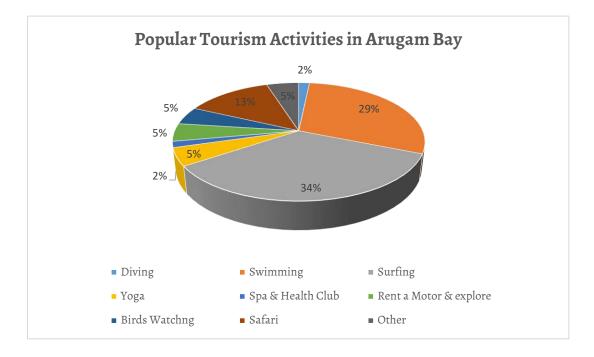


Figure: Tourist Activities in Arugam Bay Tourism Planning Area

The above graph which has been compiled based on the tourists perception survey conducted at Arugam Bay Tourism Planning Area in June, 2019 reveals that majority (34%) of the tourists who had visited Arugam Bay had engaged in surfing and whereas nearly 29% had enjoyed swimming and 2% had enjoyed diving. Therefore, this confirms that the most enjoyed tourism type in Arugam Bay is the 'Sun & Beach Tourism'. However, the fact that 'wave surfing' is the predominant tourism activity in Arugam Bay makes it an Adventure Tourism destination as well. Even though, Arugam Bay has many characteristics of hippie tourism, its splendid bleaches and surrounding wildlife and historical attractions also make it a family travel destination. As explained in the section 2.3.1, Sri Lanka has been ranked as the No. 05 in the Top Family Travel Destinations in the World as per the Intrepid Travel Index, 2018. During the field visits to Arugam Bay, several tourists who had visited with families including children could be observed.

3.6) Tourists Arrivals at Arugam Bay

As explained in the previous section, the Arugam Bay Tourism Functional Area expands over a wide geographical area due to existence of a variety of tourism attractions and clusters functionally linked with main Arugam Bay tourism destination. Due to

3.6.1) Volume of Tourists

As per the records (source; Stakeholder meeting Hoteliers Association), the annual tourist arrived at Arugam Bay in 2018 has been 160,000. the variety of different attractions, there are nearly six tourism types blended together with the main type of Sun & Beach Tourism. This variety also attracts a variety of both local and international tourists to the Arugam Bay Tourism Planning Area.

Arugam Bay has experienced a continuous growth of tourist arrivals since 2011 with the end of Civil War in May, 2009. The annual average growth rate is recorded to be 6%.

The annual tourist arrived at Arugam Bay in 2018 – 160,000 The annual tourist arrived at Arugam Bay in 2015 – 130,000 The annual tourist arrived at Arugam Bay in 2011 – 100,000 Source: Stakeholder meeting Hoteliers Association Annual average growth rate – 6%

Estimated annual tourist arrival at Arugam Bay in 2030 – 329,200 (Based on Business as Usual (BAU) Scenario with annual Growth Rate of 6%)

3.6.2) Tourism Season in Arugam Bay

Sri Lanka as an island keeps on year-round seasonal weather pattern in coastal areas by means of rains and winds which hit the coastline from different directions. This pattern activates the coastal patches in different time periods for surf options as such Unawatuna and Hikkaduwa in the Southwest Coast, Weligama in the South Coast and Arugam Bay in the East Coast. Accordingly, the number of tourism arrivals fluctuate in these patches and shift from one patch to the other.

As elaborated in the section 3.1.2 (a), the surfing season in Arugam Bay is from May to October thus it's tourism season is also the same starting from April to October. The records state that the 73% of tourists visit Arugam Bay during its season from April to October. In 2018, the 125,000 tourists had visited Arugam Bay during the season.

Month	% of Tourists	
January	5	
February	5	Season of the
March	4	Arugam Bay
April	5	in again Day
May	8	
June	17	
July	17	}-
August	17	
September	5	
October	4	
November	5	
December	5	

Figure: Monthly tourist arrival at Arugam Bay

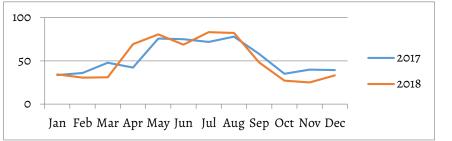
Source: Tourism & Coastal Development on the Southeast coast of SL by ICUN SL The table and figure below give an indication of the seasonal tourism pattern of the hotels in Arugam Bay. Compared to the East Coast hotels, the seasonal variation in Arugam Bay ranges from between 20% to 80% indicating a big seasonal gap. The high season spreads over a period of nearly 6 months while the off-season months have

Month	2017	2018
January	70.7	72.17
February	76.1	74.73
March	74.5	75.94
April	66.8	63.42
May	68.1	66.47
June	74.9	69.32
July	69.1	72.33
August	79.3	80.38
September	79.1	77.33
October	73.2	70.19
November	68.3	63.50
December	75.4	70.61

Table: Monthly Hotel Occupancy Rates in the East Coast of Sri Lanka in 2017 & 2018 produced extremely low occupancies. This consolidates the fact that the main motivation to visit Arugam Bay is surfing. However, to mitigate these extremes of seasonality and make Arugam Bay a year-round destination, other attraction in the area has to be promoted, especially among the local tourists.

Month	2017	2018
January	33.6	34.3
February	36.1	30.7
March	47.9	31.0
April	42.4	69.3
Мау	75.8	80.7
June	75.0	68.7
July	72.0	83.3
August	78.0	82.3
September	58.0	48.3
October	35.2	27.2
November	40.0	25.2
December	39.4	33.3

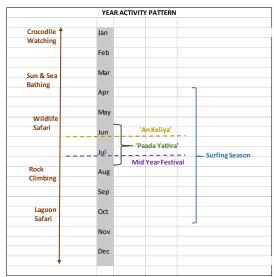
Table: Monthly Hotel Occupancy Rates in Arugam Bay in 2017 & 2018



Source: SLTDA Figure: Monthly Hotel Occupancy Rates in Arugam Bay in 2017 & 2018

The activity calendar shown in the figure shows that even though Arugam Bay's main tourism season spans from April to October, it has the potential to act as a year-round destination as it offers diverse tourism activities throughout the year.

> Figure: Activity Calendar Source: Field Observation



The most frequent average duration of stay in Arugam Bay was recorded to be 3 to 4 nights whereas the second most frequent stay was 15 days to 1 month. This is an interesting phenomena unique to hippie tourism destinations where young backpackers are used to enjoy the local culture and special tourist activities at the destination, (surfing in this case) for a relatively longer period of time.

Further, it was found that 2 nights stay, 5 - 7 days stay and also 8 - 14 days stay are also equally frequent in Arugam Bay. This consolidates with the fact that there are number of surf camps offered at Arugam Bay in match with these periods of stays.

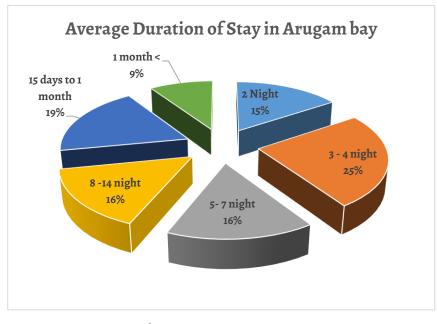


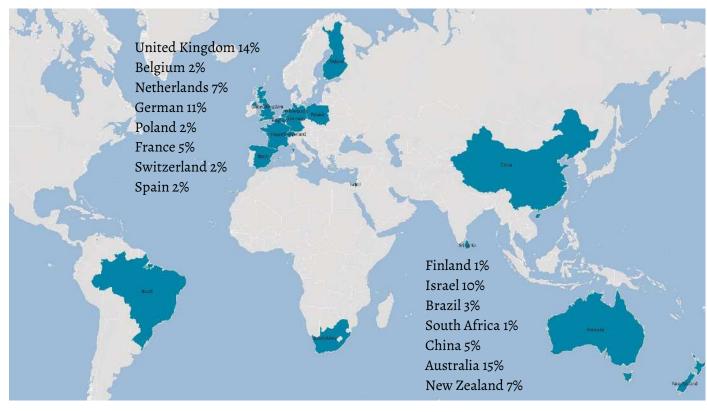
Figure: Average Duration of Stay in Arugam Bay Source: Field Survey

3.6.4) Types of Tourists

11% of the tourists visiting Arugam Bay was found to be local tourists during a field survey conducted at Arugam Bay Tourism Planning Area in June, 2019. The local tourists visiting Aruagm Bay is recorded to be 12% out of total annual tourist arrivals. Most of the local tourists visit Arugam Bay to enjoy its beaches and to visit surrounding cultural and heritage sites and National Parks. A certain amount of local tourists also visit Panama Village Tourism Area to enjoy its serenity. The pilgrims visiting Okanda Dewalaya during its season of Pada Yathra which is nearly 2 – 3 months not usually counted under Arugam Bay's tourists as these pilgrims usually do not visit surrounding attractions like normal tourists.

When categorizing by the country, it can be identified that majority of the tourists visiting Arugam Bay are from developed countries such as Australia, England, Germany, Israel, Netherlands, New Zealand, China and France.

Categorization of Tourists by Country



Source: Field Survey

Categorization of Tourists by Age

More than half of the tourists visiting Arugam Bay are young tourists who are in between 20 to 29 years of age. This consolidates with the fact that Arugam Bay's special hippie tourism character as younger tourists are more independent and free-minded travelers who freely enjoy the local culture and well mix with the fellow tourists and host communities. The survey results has indicated that Arugam Bay is an inclusive tourist destination irrespective of gender as both male (48%) and female (52%) tourists had visited Arugam Bay in equal portions



Figure: Categorization of Tourists by Age

Source: Field Survey

Categorization of Tourists by Occupation

When considering the occupation of the tourists who visited Arugam bay, even though majority of them are young travelers who are in between 20 to 29 years of age, they are engaged in reputed occupations as businessmen, educationists and professionals. The usual assumption is that the hippie tourists/ the backpackers are freewandering travelers without good occupations, yet the situation is different in Arugam Bay. True enough that Arugam Bay is visited by many backpackers and not by affluent travelers, but yet they are tourists coming from developed countries and who have good education qualifications and are engaged in designated occupations.

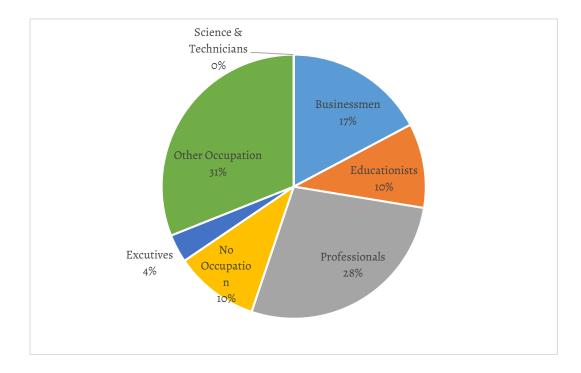


Figure: Categorization of Tourists by Occupation

Source: Field Survey



3.7) Host Community in Arugam Bay

The host community is a fundamental component of any tourism system.

In this plan, the 'Host Community in Arugam Bay' is defined as the Sri Lankans who are engaged with Arugam Bay's tourism activities directly or indirectly within the considered Arugam Bay Tourism Planning Area.

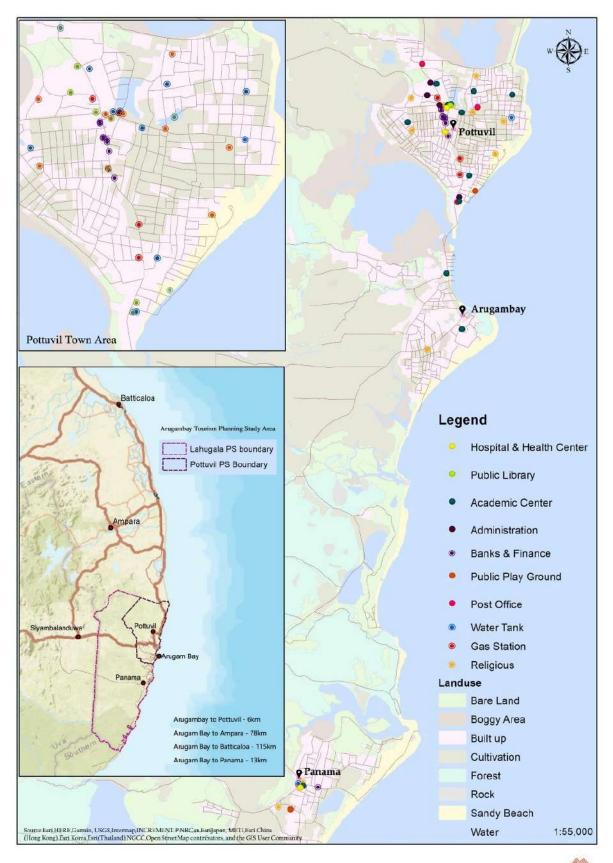
The reason why, the term Sri Lankans is used instead of local community in Arugam Bay is because, there are a lot of tourism service providers from outside of Arugam Bay who have been either settled permanently or seasonally and act as key players of Arugam Bay's Tourism Industry. Since, their engagement in Arugam Bay's tourism industry has been static and significant, they are also considered as the host community of tourism system in Arugam Bay.

3.7.1) Settlement Pattern in Arugam Bay

Arugam Bay Tourism Planning Area is a combination of both town and village areas. The main town is the Pottuvil Town and it is also the main feeder town of Arugam Bay Tourism Functional Area as well as of the surrounding rural villages. Pottuvil Town is located where the Colombo – Batticaloa Road (A 004) intersects with the Pottuvil – Panama Road (B 374). The other small scale town centres within Arugam Bay Tourism Functional Area are Arugam Bay, Panama and Sinhapura. Arugam Bay town and the main

tourism strip is located 6 km southwards from Pottuvil Town whereas Panama village centre is locater 19km southwards from Pottuvil Town. As both the Lahugala and Pottuvil DSD areas fall within the boundary limits of Ampara District, Ampara Town is the main regional level administrative and commercial service centre for Arugam Bay Tourism Planning Area. Ampara town is located about 78km northwards from Arugam Bay while Batticaloa the second regional city established about 115km towards north.

FEEDER TOWNS of ARUGAMBAY



Prepaired by: R&D Division - Urban Development Authority - for Arugam Bay Tourism Development Master Plan

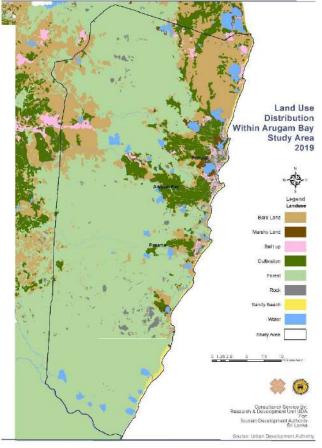


Figure: Land Use Distribution in Arugam Bay Tourism Planning Area

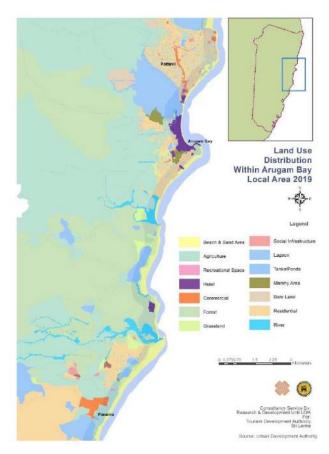
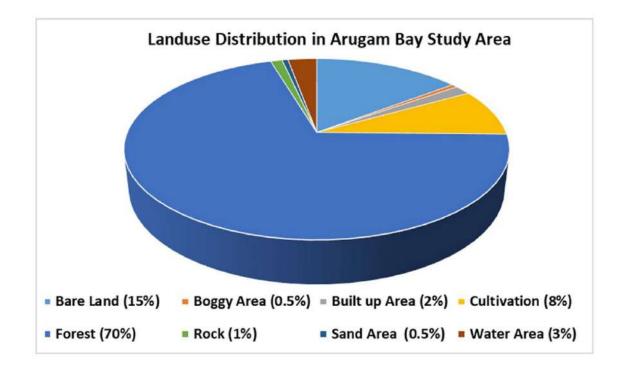


Figure: Land Use Distribution in Arugam Bay Tourism Planning Area

According to the land cover distribution within the Arugam Bay Tourism Planning Area, the highest extent of land is covered with forest and scrub lands. As a percentage it's about 70%. The cultivations or the agriculture which stands as the major economic activity in the area has distributed over 8% of total planning area while about only 2% is covered by the built up uses. One of the major land cover type which is the inland water cover is about 3% of the total land cover except the shore line which is 97 km in The 3% of water area includes six length. lagoons named as Ureni Lagoon,Komari Lagoon, Pottuvil Lagoon, Arugam Lagoon and Panama Lagoon. And study area also consists of number of tanks, water holes, ponds etc. which can basically identified as seasonal water retention areas.

Kumbukkan Oya bounded to the southern part of study area where as Heda oya flows across the study area and meet the ocean at Arugam Lagoon and Crocodile rock area in Arugam Bay. In relation with these hydro system 0.5% of land area consist with boggy/marshy. Moreover the most significant geographic features such as sand and rocky area distributed consecutively 0.5% and 1% from total land cover.

Within this land use pattern, the tourism related land use distribution is limited to the Main Tourism Strip at Arugam Bay and the coastal belt. There are only few spots having the hotels at Panama area. Commercial land coverage can be detect along the main roads at Pottuvil and Panama area



3.7.2) Population Characteristics in Arugam Bay

(a) Population Size

Total population of Arugam Bay Tourism Planning Area in 2018 – 56,183

Total population of Pottuvil DSD Area in 2018 – 46,073 (82% of population in total planning area)

Total population of Lahugala DSD Area in 2018 – 10,110 (12% of population in total planning area)

(Source: statistical hand book)

Total population of Arugam Bay Tourism Planning Area in 2011 – 43,723

Total population of Pottuvil DSD Area in 2011 – 34749

Total population of Lahugala DSD Area in 2011 – 8900

(Source: Department of Census & Statistics, 2012)

Average Annual Population Growth Rate – 0.2

b) Population Density

Total Extent of Arugam Bay Tourism Planning Area 1098 sqkm

Average Population Density in Arugam Bay Tourism Planning Area in 2018 –

Total Extent of Pottuvil DSD Area – 280.17 sqkm

Average Gross Population Density in Pottuvil DSD Area in 2018 – 167 persons per km² (Moderate Density)

Total Extent of Lahugala DSD Area – 818.42 sqkm

Average Gross Population Density in Lahugala DSD Area in 2018 – 12 persons per km² (Very Low Density)

Reference

Population Density in Ampara District in 2018 - 144 persons per km²

Population Density in Sri Lanka in 2018 – 325 persons per km²

Population Density in Colombo District in 2018 – 3,417 persons per $\rm km^2$ (The highest district wise

population density)

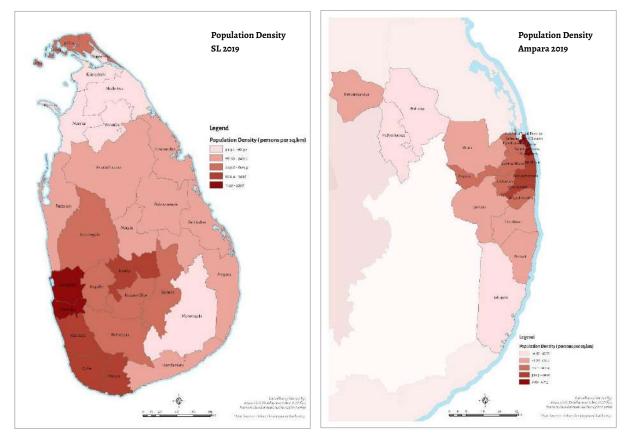


Figure: District wise Population Density Distribution in Sri Lanka

The population density of Pottuvil DSD area is 124, which is relatively denser than Lahugala DSD area which has a very low density about 10 people per square kilometer. Pottuvil town is relatively more developed with urban facilities than the village areas of Lahugala DSD, thus Pottuvil town and its surrounding settlements areas are denser than the areas of Lahugala DSD.

Figure: DSD wise Population Density Distribution in Ampara District

The physical condition of the land, existing resources and climatic factors mainly influence the population density of an area. Lahugala DSD consists of large amount of natural forestry and there is less natural forest area in Pottuvil DSD. Land use policies and regulation directly affected population density distribution in nature reserve areas. The factors such as the presence of main roads, relatively higher road density and the convergence of other infrastructure facilities in Pothuwil DSD rather than the Lahugala area have contributed to increase the population density in Pottuvil DSD. The following map illustrates how population density has been scattered near natural forest reserves.

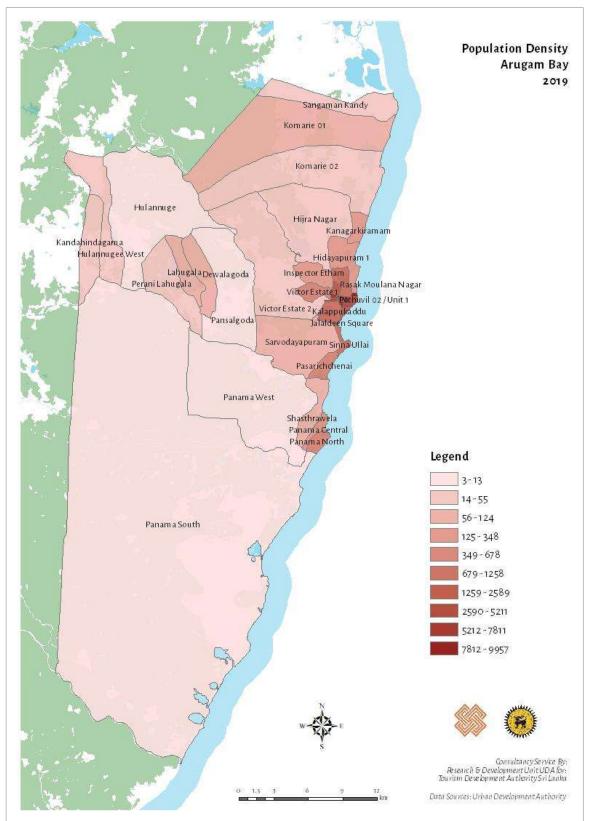


Figure: Population Density Distribution in Arugam Bay Tourism Planning Area

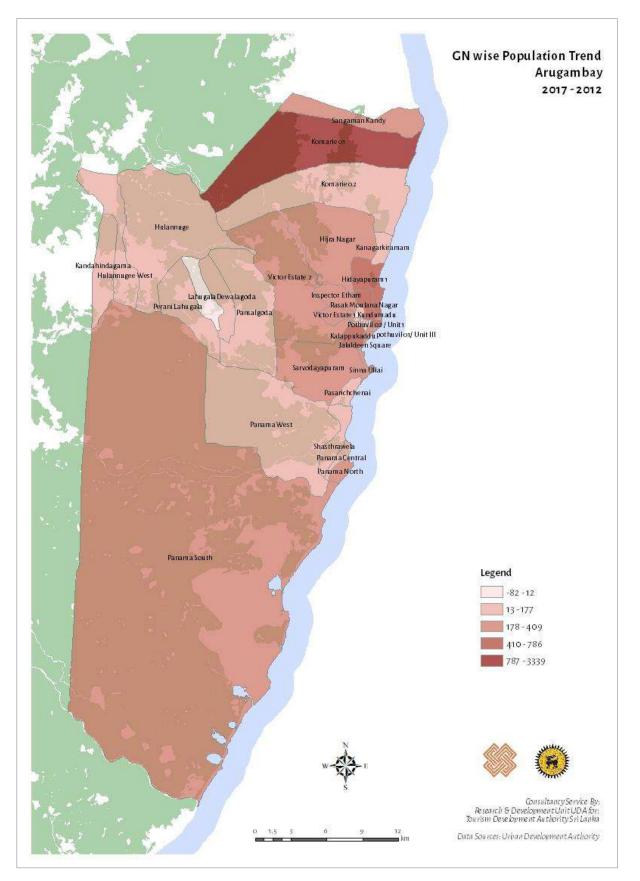
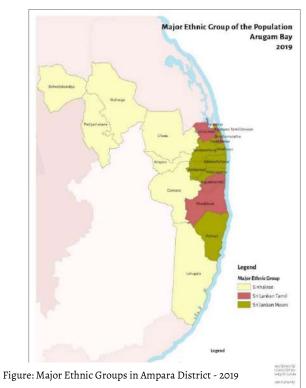
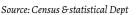


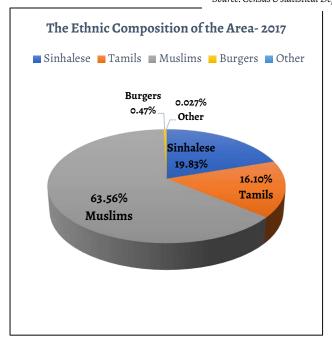
Figure: Comparison of Population Density Distribution with the Distribution of Natural Forests in the Arugam Bay Tourism Planning Area

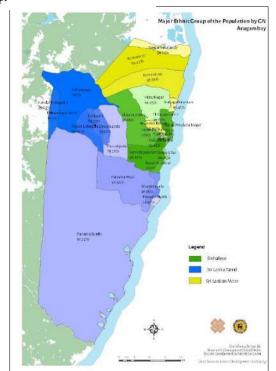
b) Ethnicity Profile

The village settlements located within Arugam Bay Tourism Functional Area are Panama, Lahugala, Sinhapura etc. Most of the village settlements located within Lahugala DSD are small in size and have majority of Sinhalese community whereas most of the settlements located within Pottuvil DSD area are Muslim community predominant settlements. The fact that Lahugala area is predominantly Sinhalese, while the Pottuvil area has a large Muslim population is also one of the factors which has caused the large variation in the population densities of Pottuvil and Lahugala DSD areas. It is a common feature of the Muslim settlements to have relatively higher population densities and it is evident that this is the main reason for the increase in population density in the Pottuvil DSD area as well.









Area	Total	Ethnicity				
		Sinhalese	Sri Lankan Tamil	Indian Tamil	Sri Lankan Moor	Other
Amapara	691,000	267,623	120,245	2	301,215	1915
Pothuvil	37,039	877	7,521	-	28,641	-
Lahuagala	9,483	8,708	764	-	-	11

Figure: The ethnic profiles of Amapara District and Lahugala and Pottuvil DSDs



3.7.3) City culture and subcultures in existence

Arugambay is an area which consists of different subcultures. Subcultures of this area can be highlighted from three main aspects, such as Ethnicity/ Religion, Dress/ Attire and Food. Considering the ethnicity and religion Sinhala, Muslim & Tamil are the main three ethnicities which can be identified in the Arugambay area. These three groups are clustered in specific locations, and they have their own and unique subcultures inside those clusters.

Thinking about Sinhalese cluster in the area, they are mainly located in the west and south parts of the planning area. Especially in Lahugala, Panama south and Panama west areas. According to the existing folk's stories, these Sinhalese believe that they are in origin from the people who escaped from the famous "Uwa Wellassa Karalle". Agriculture is the primary employment of these people, and they are very skilful in it because it is inheriting from their ancestors. Most of the subcultures within this group were emerged based on agriculture. Mainly they used to worship local deities which are related to their livelihoods. Most of the activities, festivals and cultic are related to the paddy field and agriculture. Especially in Panama, area they used to worship local deities (Cultic practices) like 'Parakasa deviyo'. People of this area has a strong faith in Goddess Patthini. They practice rituals for the Goddess Ptthini in every year. One of the central rituals of the Pattini cult is the "Ankeliya", the Horn Game. In this area, people organize the Ankeliya festival in the month of August in every year for the tribute to the Pattini Goddess.

The next subculture which can be observed in the planning area is Muslim subculture. They are mainly clustered along the coastal line, especially in the RM Nagger, Hidayaprram, Kanagarkiramam, Victor estate 1 & 2 and Sarvodayapuram areas. The main livelihood of this group is business / trade activities and activities. Some of these are related to the tourism industry. They have their unique subcultures associated with the Islamic religion. They live in cluster type landscapes and more dense settlements. Houses have public, semi-public and private domains. Some homes have verandas to facilitate interactions with outsiders and strangers. Walls or fences (enclose) have been built for privacy, and this has become a part of the culture. When it comes to the Tamils in the area, they are specially located in the northern part of the planning area, usually in Komarie OI & O2 and Sangaman Kanda areas. The main religion of these people are Hinduism. Accordingly, all the festivals, rituals and cults are based on their religion. As in the Sinhalese culture, these people also have unique religion based structures and festivals, which represent their subcultures such as Okanda Murugan temple, Okanda Valli Amman kovil etc. As elsewhere discussed in the section, religion is the main component which influences to emerge different unique subcultures of the area.

As religion and ethnicity, the dress also represents the subcultures of this area. Especially the Muslim community is the majority ethnic group of this planning area, and their main dress code is hijab and abaya and burqa and salwars. They usually go for black or sober colours. When considering the dress patterns of other communities living in this area, they do not wear (or not much favour) westernized dresses and styles, though this area is highly open to the tourism industry.

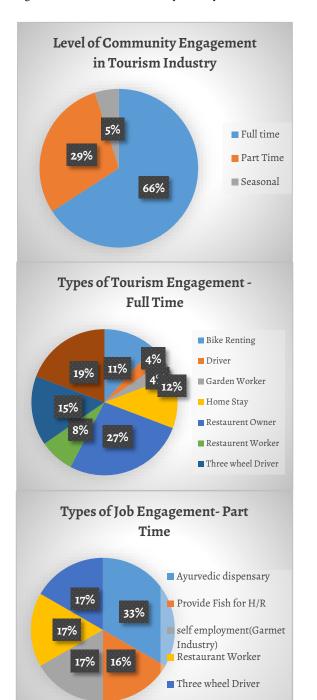
As stated above, food occupies a special place in the subcultures of this area. Since this area is based on agriculture, it appears that they prefer more Sri Lanka food. Even though this area is a rapidly developing area as a tourist destination, there is no such a variety of food. Moreover, the food culture of this area is not very much focused on fast food and western foods. Nevertheless, as found in the other regions of Sri Lanka, local fast food varieties such as Kottu, Hoppers, and a variety of Rotties are available at local shops. The less expensive local food varieties give a different taste for international tourists.

As discussed above, this area has vibrant subcultures, and it is an opportunity to enhance this area in terms of cultural tourism by promoting cultural activities such as Ankeliya and other festivals. Further, they can attract tourists by celebrating the local heroes who are in their folk stories and local culture.



3.7.4) Community Engagement in Tourism Industry of Arugam Bay

According to Pottuvil and Lahugala Resource Profiles 2017, the direct community engagement in tourism sector in both DSDs are recorded as 2.3% which is considerably a low value. Further, the majority of the community is involved in agriculture sector followed by fishery.



Even though, the field survey conducted in June 2019 covering Arugam Bay, Panama, Whisky Point and Komari tourism clusters by the planning team, as it was revealed that nearly 54% of residential community is directly or indirectly engaged in the tourism industry. Accordingly, it is proven than majority of the residential community in these clusters are engaged in tourism sector.

Among the people who are engaged in the tourism industry, 66% of them were found to be engaged on full-time basis where as 30% of them engaged on part-time basis and the rest of 5% on seasonal basis.

When considering the types of engagement, the majority (27%) of full-time engaged population were found to be either restaurant owners or workers at restaurants. 19% of the full time engaged population were working as hotel workers, 15% as three-wheel drivers, 12% running homestay businesses and 11% renting bikes.

Among the part-time engaged population, the majority's (33%) occupations were related to ayurvedic dispensary category, and other parts are representing similar percentages as 17% threewheel drivers, restaurant workers, garment industry and 16% providing fish for hotels and restaurants.

Chapter 04 Planning Arugam Bay with People

Public Consultation for Arugam Bay Tourism Development Master Plan





4.1) Public Consultation Process of Arugam Bay TDMP

There isn't any doubt that we need new, creative ways to better involve citizens, communities and other stakeholders into any kind of physical planning intervention as final outcomes would definitely influence their lives and livings. For this reason, Arugam Bay Tourism Development Master Plan (Arugam Bay TDMP) incorporated the Participatory Approach to reach the stakeholders who may be affected by, or may affect the plan and continued a substantive and two-way conversation in order to achieve sustainable development in every aspect in the area.

Participatory Approach enables incorporation of local knowledge, skills and resources in the design of the plan which leads to effectiveness and successful completion. In this way, participation can ensure that the plan which is being implemented responds to people's needs. Furthermore, it is more valid, more timely and useful.

As elaborated in the section 1.6.1, it is the strategic planning process which is followed for preparation of Arugam Bay Tourism Development Master Plan and Stakeholder Consultation is one of the key steps to be undertaken during the stage of Background Studies. The idea is to understand the planning context in the perspectives of different stakeholders. Therefore, different methods were adopted to consult stakeholders and to learn more on community and general public's perceptions on Tourism in Arugam Bay.

Surveying of online reviews on Arugam Bay, conducting community and tourists' perception survey in field and carrying out a series of stakeholder meetings were the main three methods used to collect data and stakeholder perceptions on different aspects related to tourism in Arugam Bay.

4.2) Surveying of Online Reviews of Arugam Bay

The quality of tourism in Arugam Bay was evaluated through a virtual tourists' survey. There, the tourist's opinions and experience on Arugam Bay tourism were considered through generated comments in different form of channel information such as blogs, social media and reviews. Nowadays most of the travelers visit these channels before planning their trip and never forget to leave a comment mentioning their travel experience to help other travelers. Hence these reviews made a significance and revolutionary change in modern traveling world.

Trip Advisor is the world's largest and widely used travel platform which shows hotel and restaurant reviews, accommodation, bookings and other travel-related content. As recorded in the site there are 412 reviews of Arugam bay visitors where 48% marked Arugam bay as an excellent location as a surfing destination. Those who marked Arugam Bay as an excellent destination had highly appreciated the beach experience and surfing. Other than that sea food is also an enjoyable flavor in this surfer's paradise. Motor bikes and Tuk Tuk Rides are the most popular transport modes to travel across this dry land by spending 20- 30 minutes. Furthermore, as mentioned by the travelers most eye-catching moments and chilling activities are fishing boats which return in the morning, safari, beach parties with cocktails & drinks, Bird watching, Yoga and Ayurvedic Spa.

"It truly is a surfer's paradise, with a main point in Arugam Bay itself and various others within 15-20 minutes by Tuk Tuk'

'Lots to do, surf schools, safarı, tuk tuk hıre, general beach lıfe and the food was ıncredible. Great place to chill out, or be active. Do yoga and/or drink beer'

'The vibe in A-bay is very relaxed and pretty much everything revolves around surfing. There are many good spots to surf easily accessible by tuktuk.'

This was favourite beach...for the December season. Arugambay best restaurant THE SKETCH Indian dish seafood also best food I recommend going to all restaurant.

This beautiful beach is my favorite place to visit and also we can find best seafood here.

As I'm not a beach person, it's hard to appreciate these kind of places but this was a nice place with an incredibly long stretch of sand. Waves were a bit scary but that's the power of nature for you!

This area is one of the best in Sri Lanka -Surfing, chilling on the Beach, Drinking and eating at of the nice Restaurants at the beach or going on tuk tuk or jeep Safari is great there!



4.3) Community & Tourists' Perception Surveys

Community & Tourists Perception Surveys were carried out at Arugam Bay Tourism Planning Area from 6th to 9th of July 2019. The survey was carried out by a team of 15 members and the team also included 5 number of Tamil speaking enumerators. The two questionnaire surveys are attached. (Annexure I & II).

The some of the key results of the community and tourists perception surveys have already been presented in the previous chapter especially in sections 3.6 and 3.7.

GG 90% of tourists would like to visit A-Bay again

70% of tourists are satisfied about personal safety & security of the area.

76% of tourists are attracted to the natural environment. 🤊 🤊

Tourist's suggestions for future plan

- We like the way it is. Please keep A'Bay this way
- I would like if there were some nail bars, beauty salons where girls can enjoy some quality time
 - Need more sunbeds, Information center and direction maps
 - Sanitation improvements, Eco friendly tourism development
 - Provide more shade on the beach

Most preferred activity in A-Bay is surfing

Worst experiences of A'Bay

"Aggressive attitude of tuk tuk drivers and drunk fishermen"

"Trash on the beach"

"Locals are not accepted in party on Saturday"

4.4) Stakeholder Meetings

Participation of different parties for Arugam Bay TDMP was operationalized depending on the context and field in which they are currently involved and expertise. Accordingly, various stakeholder group categories were addressed through stakeholder meetings for making of the plan. Such stakeholder groups included hoteliers, service providers, local authority members and officials, administrative officials, and other relevant institutions such as Ministry of Fishery and Aquatic Resources, Water board and Electricity board.

Common Stakeholder Workshop	- 8 th July 2019
Stakeholder Meeting with Hoteliers	- 7 th July 2019
Stakeholder Meeting with Local Authority Representatives	- 8 th July 2019
Stakeholder Meeting with Ministry of Fishery and Aquatic Resources	- 25 th July 2019

The following sections brief on each stakeholder meeting and their major outcomes.

4.4.1) Common Stakeholder Workshop

The Arugam Bay TDMP planning team believes that stakeholders need to know early enough about changes the plan would bring and its likely impacts. Moreover, when everything is explained early enough, plan acceptability is promoted and enhanced. Further, participants representing the community are also advantaged as they are given the opportunity to influence and share control with the planning team in hand in hand over the initiatives, decisions and resources which affect them. The planning team ensured the participation of every representative through interactive methods rather than giving a definite period of time for a few participants to present their point of view. Initially, the planning team elaborated the expectations and concerns of the Arugam Bay TDMP to convey a better picture on as to what it actually is. Then, every participant/ representative was grouped according to his/ her area of expertise and experience. These groups were asked to categorize the problems, strengths/ potentials they identified or face in their daily routines and finally they were given the task to identify future projects which could be initiated to overcome such problems and enhance strengths and potentials of the Arugam Bay Tourism Planning Area.

The Stakeholder Participants

Local Authority-

• Chairmen of Pottuvil Pradeshiya Sabha and Lahugala Pradeshiya Sabha

Administrative

- District and Divisional Secretariats
- Divisional Forest Office
- Survey Depart
- GNDs- Relevant GN officers

Service Providers

- Ceylon Electricity Board
- Road Development Authority
- National Water Supply & Drainage Board

Tourism promotional and management agencies

• Chamber of Tourism

Environment related agencies

- Marine Environment Protection Authority (MEPA)
- Central Environment Authority
- Department of Fisheries & Aquatic Resources
- District Disaster Management Coordinating Unit
- Department of Wildlife & Conservation
- Coast Conservation Department
- Department of Agrarian

Community-Based Organizations

- Fishery Community
- Panama Lagoon Fishery Community

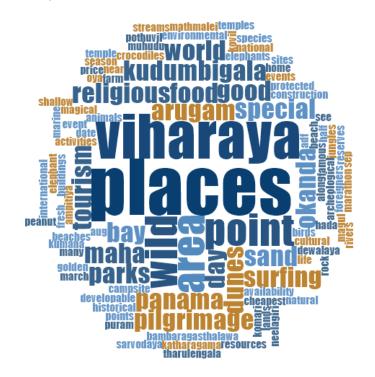
a) Major Outcomes

The outcomes of the stakeholder workshop was very reliable as the groups participated had provided many aspects and concerns which every community group and stakeholder agencies actually experience in Arugam Bay. Hence, these outcomes were analyzed through a qualitative analysis techniques (Word Cloud Analysis by NVIVO software) and was used for identifying the problems and potentials of the area as below.

Problems identified



Strengths and Potentials Identified



Ongoing Projects and Proposed Projects





4.4.2) Stakeholder Meeting with Hoteliers in Arugam Bay

The Hoteliers Association of Arugam Bay which represents the hotelier community was concerned a main party from whom ideas and comments should be considered in the Arugam Bay TDMP as it is a tourism-oriented plan. It was held as a casual discussion and the hoteliers brought forward many of their priority concerns and individual points of view. Such were;

• Lack of infrastructure facilities, electricity, water and sewer facilities and parking and pavement facilities.

- Need for transportation facilities along with developable roads and road widening requirements to make the time duration shorter for the journey.
- Need for open spaces and recreational parks and its impact on tourism.
- Need for an information center to direct both local and foreign tourists with reliable and correct information.
- Need of linking fishery and aquatic activities for the benefit of tourism related activities.
- Need for a professional body to educate and train the service providers in order to make them perform to the excellence level of duty.



4.4.3) Stakeholder Meeting with Ministry of Fishery and Aquatic Resources

The meeting was held mainly to discuss on 'Integrated Lagoon Master Planning Project' which is a planning attempt of Ministry of Fishery and Aquatic Resources. Respective individuals attended the discussion and clarified many doubts and concerns. Some of them were;

- Tourism promotional areas It was taken into discussion as to which areas need to be promoted as tourism areas. Amidst of different perspectives the final conclusion was to promote all tourism areas as there are a massive number of developable lands with a potential to provide an exceptional experience to the visitors.
- The level of detail of the plan It was discussed that UDA's approach for planning differs from the Lagoon Master Plan as it expects a greater extent in detailing the proposed projects in Arugam Bay TDMP.
- Conflict between Fishery & Hotel Community – The Lagoon Master Plan has

4.4.4) Stakeholder Meeting with

Local Government Representatives

The Local Government Representatives from Pottuvil and Lahugala represented the local community in the planning area as they involve in community related decision making and implementation. On the other hand, it is considered the local authority representatives could influence the general community as they are keener to the common opinion of the general public than other professionals. Thus, a formal discussion was held in order to bring forward priority concerns of the general public. Such were; not addressed this conflict as their intention has been to protect the lagoons in the area from unauthorized encroachments. Thus, it was discussed that Arugam Bay TDMP should provide solutions for this matter.

Points which were taken into discussion apart from the above are as below;

- Importance of developing a website to convey reliable information to the interested parties.
- Importance of setting out Individual sewer pits or community sewer pits instead of waste water disposal system considering its major draw backs.
- Exiting level of volume capacities of the roads towards the destination. It was confirmed that the existing roads are adequate to provide transportation demand up to the year 2035

The final conclusion of the meeting was to incorporate the studies of the Lagoon Master Planning Project considering the compatibility in further planning activities and collaboratively work with the each other in the future.

- The change of attitude of the locals towards tourism industry in the recent past and the rising number of service providers entering the tourism industry to enjoy the benefits of it.
- Shortage of physical and social infrastructure in the area around Arugam Bay – the need of developing transport facilities around the area and the gradual expansion of road network along with alternative transport modes such as, sea

plane and aero plane were considered to be timely concerns.

- Shortage of drinking water in the area, hence, the need of continuing Heda Oya project and introducing projects for Hulan Oya and Maha Weva.
- The need for systematic waste management and waste water management in Arugam Bay Area.
- The need for a sustainable environment to conserve these ecosystems which are of great ecological value such as natural reservoirs, conservation areas, sand dunes, lagoons and natural beaches.

- The need to create outdoor nature parks for the leisure and recreation of the tourists and dwellers in the area.
- The possibility of easing selected elements of the civil law that are applicable to tourists in the area.

In the end, it was confirmed to consider the above proposals in making the Arugam Bay Tourism Development Master Plan and discuss more in the future.



Chapter 05

The Need of Arugam Bay Tourism Development Master Plan

5.1) Identification of the Need of Arugam Bay Tourism Development Master Plan

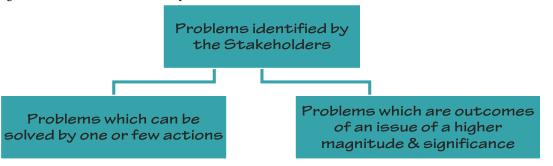
The purpose of any planning attempts is usually either to address an existing issue or to achieve a set target. Some planning attempts serve both the purposes by drawing a path to achieve a set vision while addressing some of the prevailing issues. Anyway, it is important to identify the purpose of the plan when preparing one.

In order to identify the real need which the plan should address, it is important to thoroughly analyze the existing problems in terms of their context, magnitude and significance against the potentials which exist within the context to overcome the identified issues. At the same time, it is also important to foresee the future challenges and external constraints which might affect any type of future planning intervention.

According to the strategic planning process, the identification of problems and potentials is followed by the background studies and initial stakeholder meeting. The problems and potentials in the Arugam Bay Tourism Planning Area were first sighted during the background studies and the stakeholder consultation process. Following to that, the observed all types of problems and potentials were deeply analyzed and screened in order to identify the real issues within the present context, potentials available to overcome these issues and challenges that might disrupt future development.

5.2) Identification of Problems in Arugam Bay Tourism Planning Area

As explained in the section 4.4.1, the stakeholders were given the opportunity to express their ideas on prevailing problems in Arugam Bay Tourism Planning Area. As a result, a number of problems which range across a wide scope were revealed and these were mainly divided into two categories as followed.



The problems which seemed to be results of some other issues that are of a higher magnitude and significance were screened to be further analyzed using Root-Cause Analysis Technique as presented in the Annexure III. Problems which need to be further analyzed

5.3) Identified Problems in Arugam Bay Tourism Planning Area

This chapter presents the prevailing problems of Arugam Bay Tourims Planning Area which were identified through the initial screening and then deeply analyzed and perceived in the planning point of view.

- 1) Possible threats for natural attractions in Arugam Bay Tourism Planning Area due to encroachment, pollution and over-exposure
- 2) Archeological Attractions in Arugam Bay Tourism Planning Area being vandalized due to encroachment, lack of maintenance and lack of due attention
- 3) Inadequacies in infrastructure facilities disturbing the smooth functioning of tourism activities in Arugam Bay
- 4) Tourism Investments being discouraged due to Land Tenure and Ownership Issues and disputes
- 5) Some of the tourism products and services offered at Arugam Bay Tourism Planning Area not being in conformity with the minimum quality standards

5.3.1) Possible threats for natural attractions in Arugam Bay Tourism Planning Area due to encroachment, pollution and over-exposure

As explained in the section 3.2.1, Arugam Bay is blessed with a variety of natural attractions such as splendid beaches, a chain of lagoons, sand dunes and dense forests full of wildlife and bird species. The sustainability of Arugam Bay's tourism industry depends of the protection of these natural

a) Encroachment of Lagoons

As elaborated in the section 3.2.1 (b), Arugam Bay Tourism Planning Area consists of a chain of lagoons located along the coast of Arugam Bay. There are nearly 13 lagoons located within Arugam Bay Tourism Planning Area which are distributed over 2072 ha of land accounting for 1.8% of the total planning area.

Central Environmental Authority, Coast Conservation Department, Department of Irrigation and Department of Fisheries and Aquatic Resources are the state bodies to conserve and manage the lagoons in Sri Lanka. The lagoons and their environs are protected by the Coast assets. However, during the stakeholder meeting and the initial screening of the area, it was revealed that some of these natural elements are vulnerable for encroachment and pollution. Therefore, the severity of this problem was assessed as elaborated below.

Context

Conservation Act No. 57 of 1981, National Environmental Act (NEA) No. 47 of 1980, Fisheries and Aquatic Resource Act No 02 of 1996. As per the Coast Conservation Act, the lagoons lying within landward limit zone of 300m from high water line is regulated by the CCD. Apart from that, the lagoons include within the demarcated 2km buffer zone of CCD has to maintain 100m reservation from the lagoon bank. When considering the existing surrounding land uses of lagoons in Arugam Bay, only Arugam Bay, Panama, Kottukal Urani and Komari lagoons are located in close proximity to developed settlement areas thus they are the lagoons which are prone to encroachment.

Magnitude

The National Wetland Directory of Sri Lanka prepared by the Central Environmental Authority (CEA), The World Conservation Union (IUCN) and the International Water Management Institute (IWMI), Colombo, Sri Lanka in the year 2006 has indicated the threat levels of lagoons in Sri Lanka and the below table indicates the threat levels of lagoons located in Arugam Bay Tourism Planning Area. The threat level of each wetland has been assigned an overall threat status (high, moderate or low), based on the magnitude of the current disturbances and threats, and pressures related to development activities. (National Wetland Directory of Sri Lanka, 2006)

Name of the Lagoon	Threat Level
Pottuvil	Moderate
Arugam	Moderate
Lahugala-Kithulana Tank	Low

Table: Threat levels of Lagoons in Arugam BaySource: The National Wetland Directory of Sri Lanka, 2006

• The Case of Arugam Bay Lagoon

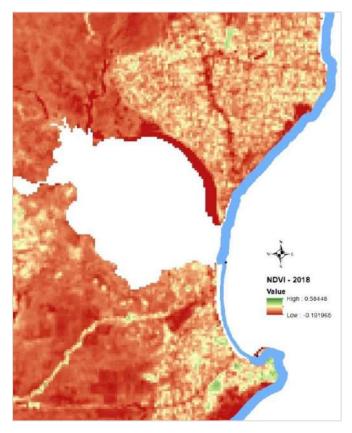
The lagoon is located in Arugam Bay and the coastline in the area contains sand dunes, headlands and broad barrier beaches. It is connected to the sea by a narrow channel and is seasonally tidal. Much of the area has been altered for human use, either for agriculture, human settlements, or tourism development. It has been observed that developments are gradually sprawling towards Arugam Bay Lagoon which is located bordered to a dense development area in Pottuvil DSD. The magnitude of the encroachment level was assessed using a series of satellite images from 2001 to 2009.



Sprawl of Developments towards Arugam Bay Lagoon – Northern Side (2002 – 2018)



Sprawl of Developments towards Arugam Bay Lagoon – Sothern Side (2001–2019)



As per the NDVI index which analyzed for the year 2018, it has clearly evaluated the sprawl in reference to the Arugam Bay lagoon as follows.

Close observation of above satellite image series and the NDVI analysis results shows that the Arugam Bay Lagoon reservation has been encroached gradually since 2001. As it has been stated in the National Wetlands Directory in 2006, Arugam Bay indicates a moderate threat level due to this long term gradual encroachment.

"Unplanned and unregulated tourism development including construction within the setback areas and encroachment into the wetland area have degraded natural habitats, along with extensive cattle grazing and land clearing for agriculture. Sand mining is carried out near the lagoon mouth and may affect its hydrology and salinity by causing the bar to remain open for a longer period." - National Wetlands Directory, Sri Lanka - 2006

As many of the stakeholders and the community had pointed out, the main reasons behind the encroachment of Arugam Bay Lagoon is due to not having physical demarcation of the lagoon reservations.

Significance

Even though, the magnitude of the encroachments doesn't seem to be very high, as the area of encroachment is relatively low compared to the overall extent of the lagoon and the available large patches of similar natural environmental features in the area, the significance of the impact of lagoon encroachment is considerably high.

Lagoons are an important feature of the natural system and also it is home to numerous flora and fauna species including a variety of endemic species. Hence, any damage caused to lagoon eco-system can considerably disrupt the ecological balance of the system. On the other hand, lagoons in Arugam Bay area are special tourism attractions that make a sought destination of nature and eco-tourism. On the other hand, there is a considerable portion of local community who depends on this special eco-system along with their livelihoods such as lagoon fishing and due engagement in ecotourism activities.

Moreover, the population in the Pottuvil DSD has been growing rapidly at a growth rate of 6%, thus it is an indication of rapid expansion of settlements. In that case, even though the magnitude of lagoon encroachment is

b) Pollution in Lagoons

Lagoon pollution can also be understood as one of the outcomes of lagoon encroachment as well. However, encroachment is not the only cause of lagoon pollution. Lagoons can be polluted due to lagoon fishing activities where motor-boats and other mechanical machineries & equipment are used for fishing in lagoons. Further, the other main sources of relatively low at present, it can be increased greatly as for the to expected rapid expansion of settlements. Therefore, it is a timely requirement to address this issue in the current context and take necessary measures to completely avoid any possible encroachment of lagoon environs.

The Department of Coast Conservation and Coastal Resources Management has initiated a Plans Development Lagoon Master Programme with the aim to protect lagoons and its environs while managing fish production to enhance the economic status of the community. Accordingly, several Master Plans are being prepared for Arugam Lagoon, Ureni-Kottukal Lagoon and Panama Lagoon etc. which could be considered as one of the potential projects to which would take necessary measures to safeguard the lagoons in Arugam Bay.

However, this problem will be a key consideration in Arugam Bay Tourism Development Master Plan as its significant impact on Arugam Bay's tourism development.

lagoon pollution is the direct discharge of waste water and sewage into lagoons and draining of agrochemicals to the lagoons from adjacent paddy lands.

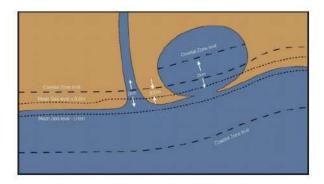
As explained in the previous section, the lagoons which are located close to human settlements are more vulnerable to be polluted.

c) Beach Encroachment

Beach encroachment is quite common in Arugam Bay Tourism Planning Area as beach is the most valuable asset in Arugam Bay and

Context

Management of coastal environments in Sri Lanka comes under purview of Coast Conservation Department. The Coast Conservation Act No, 57 of 1981 defines the 'coastal zone' as;



Any development taking place within the defined coastal zone, should have development clearances from the Coast Conservation Department. Further, the Urban Development Authority also has

declared 1 km width of coastal belt around the

everyone tries to utilize it in the maximum way possible. This issue was highlighted at the stakeholder meeting as well.

'The area lying within a limit of three hundred meters landwards of the Mean High Water line and a limit of two kilometers landwards of the Mean Low water line and in the case of rivers, streams, lagoons, or any other body of water connected to the sea either permanently or periodically, the landward boundary shall extend to a limit of two kilometers measured perpendicularly to the straight baseline drawn between the natural entrance points thereof and shall include the waters of such rivers, streams and lagoons or any other body of water so connected to the sea'

country as an 'urban development area', thus UDA also has its say in developments taking place within the coastal belt.

Magnitude

Even though, 300m coastal zone is declared as a buffer zone, more than 21% of the area has been encroached and from that about 68% are tourism related establishments. The satellite images show how the coastal areas have been encroached and developed gradually over the time. The encroachment of beach can be identified as both long-term and short-term process. The above satellite images prove the long-term and large-scale beach encroachment that has taken place over decades of time. On the other hand, short term or temporary encroachment of beach happens every day as a casual activity. This happens mainly along the Main beach Strip of Arugam Bay, where the restaurant owners and hoteliers slowly encroach the beach with their temporary structures and casually push their activities towards the beach

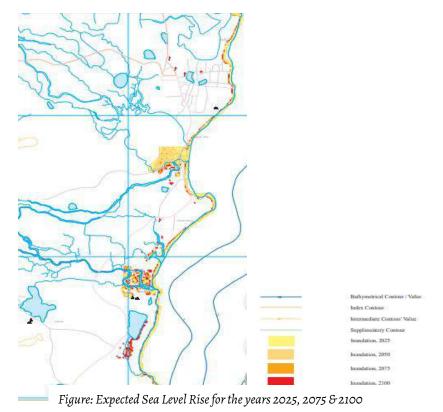


Source: ANTHROPOGENIC ACTIVITES ON COASTAL SAND DUNES: EVIDENCE FROM PANAMA TO SANGAMANKANDA COASTAL STRETCH, SRL LANKA, KNJ Katubotha * and K.M.S. Petera ** * Department of Geography, University of Sri Jayewardenepura and Department of Coast Conservation and Coastal Resource Management District Project Office Ambata, Sri Lanka

Significance

The impact of short term or temporary encroachment of beach may not be severe at the current context, yet it is important to have a sound regulatory mechanism to manage the activities at beach and its utilization by the private hoteliers and restaurant owners. The negative impacts of these small scale encroachments are laid upon the tourists as it discriminates the rights of tourists and public to enjoy the beach without disturbances.

Further, the studies have shown that Arugam Bay coast is prone to be affected from sea level rise. And it shouldn't be forgotten that Arugam Bay was once hit by Tsunami thus it's a hazard prone area. 0.15m sea level rise has been predicted for the by year 2025 and this will make a significant impact for the tourism activities distributed over 10 km lengthy coastal belt.



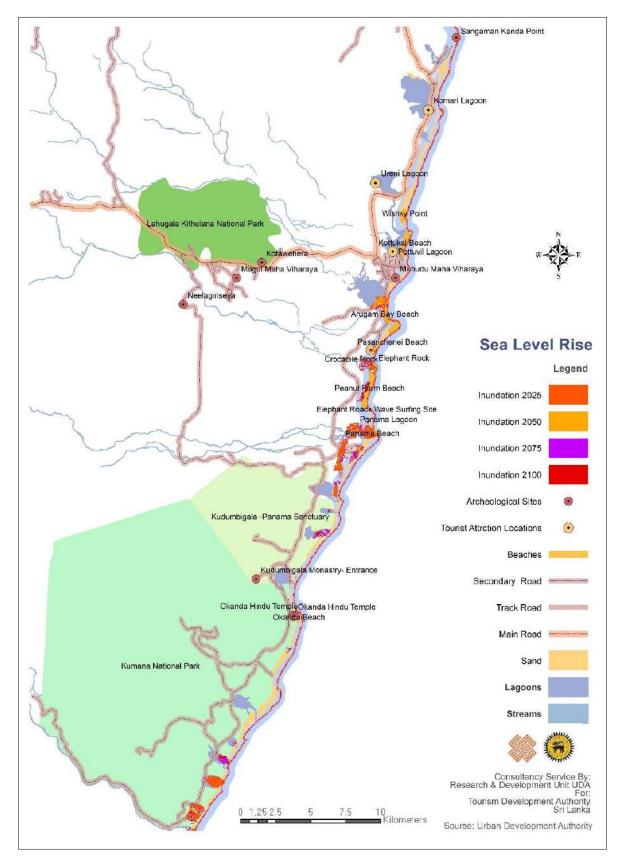


Figure: Expected Sea Level Rise for the years 2025, 2075 & 2100

The above two maps show the severity of the impact of sea-level rise on Arugam Bay's coastal activities. Most of the attractive beaches and lagoons and even the most functional Main Tourism Strip at Arugam Bay are predicted to be inundated by sea-level by 2025, 2075 and 2100 gradually. In this situation, protection of beaches and natural sand dunes at Arugam Bay Tourism Functional Area is not an option but a mandatory requirement. On the other hand, as beach is one of the major tourism potentials of Arugam Bay, it is important to conserve it in order to ensure sustainability in tourism development. At the moment 18 % of beach (10km length) is used and can be used for tourism related activities. Therefore, the impact or the damage it may cause in an event of Tsunami or a sudden rise of sea-level is significantly high. Thus, it is one of the main aspects considered in preparing the Arugam Bay Tourism Development Master Plan.

d) Coastal Pollution

One of the major impacts of beach encroachment is the coastal pollution. Severity of this issue is, the beach is currently used for many tourist activities and Arugam Bay's tourism is mainly based on this precise aqua system. As per the researches, Marine water quality results of Arugam bay beach revealed that, average pH (8.15 ± 0.1) and temperature ($30.9\pm$ 1.92 oC) were within the recommended ranges for recreational sites and turbidity value (9.52 ± 0.58 NTU) was below the maximum permissible limit.

Recorded average pH values are indicated slightly alkaline conditions and pH values gradually increase from fishery site to surfing site. Turbidity values of bathing site are higher than other sites which may be due to high density of bathers and trampling activities in bathing site. Mean Dissolved oxygen (7.51± 0.32 mg/l) was above the minimum recommended criteria, suggests that the marine water was well oxygenated and was not experiencing any oxygen deficiency at that time. Dissolved Oxygen values were higher in bathing site than surfing and fishery site.



e) Encroachment of Sand Dunes

Context

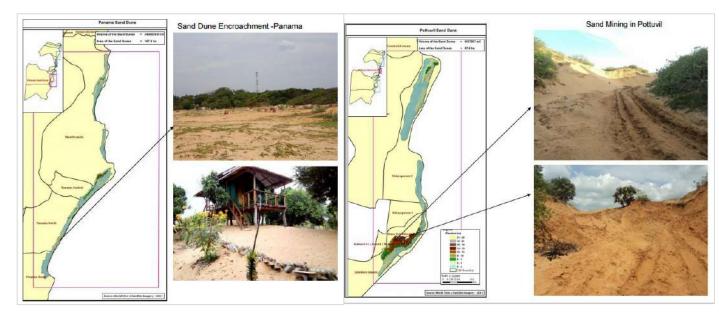
The sand dunes that had formed over a period of time and which would have served as a barrier against the gushing force of water when the tsunami struck are not there anymore. The origin of sand dunes is very complex. An abundant supply of loose sand in a region generally devoid of delta), a wind energy source sufficient to move the sand grains and a topography, whereby the sand particles lose their momentum and settle out are the main prerequisites needed to form a sand dune.

Approximately, there's 340 ha of Sand dunes in the Arugam Bay Tourism Planning Area and the names and extents of the major sand dune are as follows.

Name of the Sand dune	Area (Ha.)
Arugam Bay	91
Panama	167.8
Pothuvil	57.6
Jalaldeen Squre	6.9
Sinna Pudukuduiruppu	14.4



Source: ANTHROPOGENIC ACTIVITES ON COASTAL SAND DUNES: EVIDENCE FROM PANAMA TO SANGAMANKANDA COASTAL STRETCH, SRL LANKA, KNJ Katupotha * and K.M.S. Perera ** * Department of Geography, University of Sri Jayewardenepura and Department of Coast Conservation and Coastal Resource Management District Project Office Ampara, Sri Lanka



Source: ANTHROPOGENIC ACTIVITES ON COASTAL SAND DUNES: EVIDENCE FROM PANAMA TO SANGAMANKANDA COASTAL STRETCH, SRL LANKA, KNJ Katupotha * and K.M.S. Perera ** * Department of Geography, University of Sri Jayewardenepura and Department of Coast Conservation and Coastal Resource Management District Project Office Ampara, Sri Lanka

Significance

Formation of these dunes has taken place through a long period of and it is a continuous process. Therefore, if it is covered with unauthorized constructions it would cause a severe impact to the environment. Also these sand dunes attract a considerable number of tourists to the area, especially, these picturesque dunes against a sky of blue or a full moon, with perfectly contoured shadows of ripples and undulating crests, have always been favorite subject of photographers.

Sand dunes are not a familiar landscape in Sri Lanka, thus the presence of sand dunes at Arugam Bay makes it even more special in the tourism industry as well as many other industries such as filming, videography, advertising, photography and researching etc. In this background, the protection of sand dunes has been considered as one of the key concerns of Arugam Bay Tourism Development Master Plan.



5.3.2) Archeological Attractions in Arugam Bay Tourism Planning Area being vandalized due to encroachment, lack of maintenance and lack of due attention

Context

Arugam Bay is one of the tourist destination which highly enriched with archaeological values that embedded with evidence of Sri Lanka's ancient history. Muhudu Maha viharaya,Magul Maha Viharaya ,Kudumbigala Monastry, Mani Naga Pabbatha Viharaya and Neelagiri Maha Seeyaa are being considered as places with most ancient historical artifacts and evidence of Sri Lankan civilization that dating back around 2000 years .Muhudu Maha Vihara is located near the edge of sea coast east in the Pottuvil Town attached Panama Divisional Secretariat Division . A large number of artifacts that testify the stories King Kawanthissa and queen Viharamahadewi are buried under sand dunes in addition to artifacts which are discovered. Magul Maha Viharaya and Neelagiri Maha seya also inherits with history dated towards 1st and 2nd centuries and can be considered as highly sensitive areas with archaeological values. However these places are acting as hidden places which are merely abandoned and neglected. Due to vandalism and encroachment issues, values of the places are being degraded and become a controversial matters that entangled with ethnic and political discourses where archeology dragged in to danger ends.

Magnitude

Encroachments of Muhudu Maha Viharaya has been a significant incident which still in the discourse where has gone out of control of legal hands due to ethnically sensitive reasons and lack of information on true pact and figures about land ownership and boundary demarcation.

Encroachment of Muhudumaha viharaya premises

Area was declared as archaeological conserved area by act on 1951 Jan 21. conserved area was 70 acres 3 roods 13 perches. Then Archaeological department revised the declaration on 1965 May 28. Conserved area was 30 acres 3 roods 13 perches. According to the Ven Warakapola Indrasiri thero, chief incumbent of the temple, extend of the temple after encroachments are shown below

- 1980-20 acres- 35% encroachment from conserved area
- 1990-15 acres -50% encroachment from conserved area
- 2005-7 acres- 76% encroachment from conserved area
- 2013 3 acres -90% encroachment from conserved area

Vandalism actives were severely effect on Muhudu Maha Viharaya and Neelagiri Maha Seeya during last few decades.Mani naga pabbatha, part of Kudumbigala monastery and chethiya pabbatha remain as isolated and neglected places which are dragged in to vandalism.

Significance

In order to achieve a diversified tourism attraction destination, characteristics and image of native settings are crucial. In addition to beach, eco, and cultural tourism interest Arugam Bay is rich with potentials for historical site based tourism. But, when historical image of sites are degraded due to encroachment and vandalism ,magnitude of diversification become less where and clearly affect tourism. According to the rates of encroachment in business as usual scenario, most of the sensitive sites are to be disappeared with in the next decade of time where clearly bring a treat for diversification. Significance will be of this matter lay beyond a planning solution. However enactment of regulations with boundary demarcation is highlighted as a planning intervention for this matter

5.3.3) Inadequacies in infrastructure facilities disturbing the smooth functioning of tourism activities in Arugam Bay

The term infrastructure is vague, yet in here it will be discussed on the inadequacies of the infrastructure which is directly important for smooth functioning of tourism in the Arugam Bay Tourism Planning Area. The section will elaborate on two types of infrastructure; infrastructure and service facilities at tourist attraction sites such as toilets, bathing areas, resting areas, lifeguard

a) Infrastructure & Service Facilities at Tourist Attraction Sites

Surf Points are the main attraction in Arugam Bay and surfing, swimming, other water sports and sun bathing are the most frequent tourism activities in the area. Therefore, when promoting Arugam Bay as a tourism destination much attention should be

Context

It was identified that some surf points and beaches are already equipped with facilities up to a certain level yet there are some points which do not have least basic facilities required. It was observed the that the surf points and beach attractions located in close proximity to main tourism strip, town centers and settlement areas tend to have supportive facilities rather than remotely located points. Even though, some attractions are already provided with some facilities, some of these are not properly managed and maintained.

It was highlighted by the service providers and other stakeholders of the area on the inadequacies of following facilities.

- Street and path way defining Lightings

services and first-aid services etc., common tourism related service amenities such as tourist information centres, resting centres, hospitals & dispensaries, super-markets, tourist police and help centres etc. and supportive infrastructure & utility networks such as road network, pipe-borne water, electricity, waste water & solid waste management systems etc.

paid to provide it with required facilities to support above activities. It is not only for surf breaks and beaches, but necessary facilities should be provided at all types of tourism attraction sites.

- Sign boards/directions and navigations
- Drinking water (Pipe born Purified water)
- Bathing facilities
- Garbage collecting bins and a proper system
- Lockers for visitors
- Resting places
- Security Guard & Life Guards
- Surfing equipment renting places
- Tele communication facilities (WIFI zones)

Magnitude

However, after reviewing several case studies and literature related to facilitation of surfing beaches, it was identified that such beaches should be facilitated with following features.

- Drinking Water facility
- Washrooms & bathing & Facilities
- Locker facility
- Surfing equipment providing centers
- Street lighting and other common electricity facilities

- Medical Facilities (First aid)
- Cafeteria/ Food stoles
- Sunbathing chairs & Beach Umbrellas
- Mini huts
- Taxi Services/Bike/Tuk Tuk

Based on world surfing beach standards, the following matrix was developed to evaluate each surf beach of Arugam Bay in terms of availability of standard facilities.

Facility	Main Point	Whisky Point	Pasarichenei Beach	Elephant Rock	Peanut Farm	Panama	Okanda
Drinking Water facility	A/ Prvt /NS	NA	NA	NA	A/ Prvt/NS	NA	NA
Washrooms & bathing Facilities	A/ Prvt / NS	NA	NA	NA	A/ Prvt/NS	NA	NA
Locker facility	NA	NA	NA	NA	NA	NA	NA
Surfing equipment providing centers	A/ Prvt /S	A/ Prvt/S	NA	NA	A/ Prvt/NS	NA	NA
Street lighting and other Common Electricity facilities	NA	NA	NA	NA	NA	NA	NA
Medical Facilities (First aid)	NA	NA	NA	NA	NA	NA	NA
Cafeteria/ Food stalls	A/ Prvt /S	A/ Prvt/NS	NA	NA	A/ Prvt/NS	NA	NA
Sunbathing chairs & Beach Umbrellas	A/ Prvt /S	NA	NA	NA	NA	NA	NA
Mini huts	A/ Prvt /NS	NA	NA	NA	A/ Prvt/NS	NA	NA
Taxi Services/Bike/Tuk Tuk	A/ Prvt/NS	A/ Prvt/NS	A/ Prvt/NS	A/ Prvt/NS	A/ Prvt/NS	A/ Prvt/NS	A/ Prvt/NS

A – Available	NA – Not Available	Bad
Pub- Public	Prvt – Private	Good
S – Satisfied	NS – Not Satisfied	Better

Table: Level of infrastructure availability

As per the above analysis, it can be identified that Main Point of Arugam Bay has most of the standard facilities to an acceptable level whereas Whiskey Point & Peanut Farm Beach have moderate level of facilities. All other four beaches do not have any facilities as all on sites.

However, it is important to note that some of the tourists who were interviewed stated that they are satisfied with the current facilities and they do not want Arugam Bay to be more facilitated and more commercialized. It seems that non-availability of required basic amenities is also one of the characteristics admired and enjoyed by the tourists. In that case, the requirement to facilitate the attractions and selection of the attractions which need to be facilitated should be done more carefully considering this aspect as well. This point was highlighted by the hoteliers as well during the stakeholder, emphasizing the need to creatively facilitate the attractions without disturbing its natural setting and its ambience.

Significance

As per the records, around 300 of people can be seen in each point during the season (April to October). Therefore, the basic amenities such as wash rooms, fresh water bathing facilities, shady areas, life guard services and medical facilities etc. should be provided at all surf beaches to facilitate the huge crowds of tourists. However, the provisioning of these facilities should be carefully handled without disturbing the natural setting and the ambience of the area.

b) Common Tourism Related Service Amenities

As Arugam Bay is a world-famous tourism destination, nearly 125,000 (plz check the number.) tourists visit Arugam Bay during its season. However, one of the problems observed was that Arugam dosent have some of the common standard

1. Hospital & Medical Facilities which match international level standards

facilities that a tourism destination of this level of attraction should have. This problem was significantly highlighted at the stakeholder meeting as well and some of such key basic amenities can be identified as follows,

- 2. A bus terminal
- 3. Super market facilities

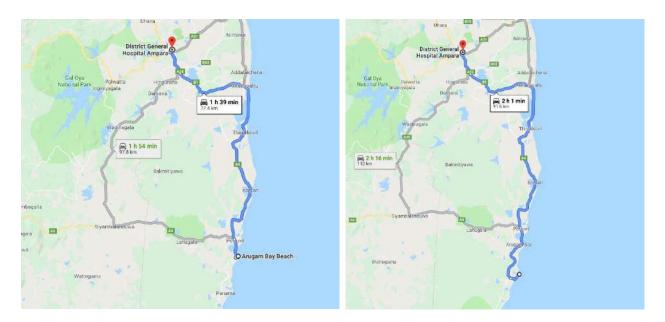
1. Hospitals & Medical Facilities

Lack of proper hospital and medical facilities is one of the main problems highlighted at the stakeholder meeting. Arugam Bay is an adventure tourism destination, where there is a high risk of tourists getting injured or meeting with accidents. Some of such accidents and injured have been reported during fast few years. In case of such event, the injured are usually taken to the Pottuvil Base Hospital. However, the Pottuvil Base Hospital is not equipped with standard facilities to treat the patients with severe conditions thus have to transfer them to the nearest district hospital in Ampara. However, Ampara district hospital is 77.4 km away from from potuvil and 91Km away from Pnama. One of the major concerns is the lowquality standards of the hospitals as most of the foreign tourists expect and demand the good quality standards when it comes to medical conditions.

In addition to the district hospital, Ampara also has;

- A Regional Blood Centre
- A Physical & Mental Rehabilitation Centre

However Ampara District Hospital in not easily and convenientlý accessible in emergency situations.



Distance from Arugambay, Panama to Nearest General Hospital

2. Bus Terminal (Transport Hub)

Many tourists use public bus transportation to access Arugam Bay as it is mainly a destination of backpackers. In the existing situation, the buses are parked in a small land plot adjacent to the Branch of National Savings Bank. However, there isn't any built structure as a thus tourists face a lot of difficulties when they wait at the bus stand to get a bus. On the other hand for tourists who get off at Pottuvil Bus stand after a long ride in the public bus, there isn't any wash room or resting area facilities to refresh. This is a situation, which cannot be accepted in a major tourist destination like Arugam Bay.



3. Super Markets

There are some "food cities" and "self-service shops" but they don't adhere with standards which and there are no wide range of local and imported products which fulfill the requirements of tourists.

As an example, some shops have foods and some have electronic goods, but there is no quality place to provide a wide range of shopping experience under one roof. As an Isolated, and unique tourist destination in tourism industry this area should have a one fully loaded shopping mall or super market which have all varieties of good and services. Presently using traditional food cities concept will not match to this area and should have real shopping experience at Arugam Bay as it is a place visited by tourists coming from various countries who have different kind of requirements to fulfil within their stay at Arugam Bay to match with their own lifestyles. On the other hand, it is important to remember that there is a culture that tourists tend to stay at Arugam Bay for longer periods of time as elaborated in the section 3.6.3 Hence, it's obvious that these tourists have more needs and wants to fulfil their stay at Arugam Bay and more attention should be paid on this regard.

c) Supportive Infrastructure & Utilities Networks

Internal Road Network and Connectivity Context

As explained in the section 3.5.1, the tourist attractions in Arugam Bay Tourism Planning Area have distributed over a large area thus the connectivity between different attractions plays a major role in determining the popularity and the visit frequencies of each attraction.

The main arterial connecting Arugam Bay Tourism Planning Area with the regional cities is the Colombo - Ratnapura - Wellawaya – Batticaloa Road (A 004) which is considered to be a prominent arterial road in Sri Lanka. The road traverse through the study area entering at 293 km and leaving the study area at 310 km.

There are two main roads running via Arugam Bay Tourism Planning Area and these two roads can be identified as the collector roads connecting the above main arterial at the Pottuvil Town intersection. They are, B355 Panama -Kumbukkana (17.70 km) and B374 Potuvil - Panama (17.70 km) which serve as main internal roads within the Arugam Bay Tourism Planning Area.



Figure: Road Network of the study area.

In addition, there are other types of roads in the area which are maintained by the pradeshiya sabha and Provincial Road Development Authority (Eastern Province) which act as local roads providing further access to the interior land in Arugam Bay Tourism Planning Area. Currently the main arterial road, A004 has been developed to standard two-lane facility with asphalt concrete surface.



Figure: Road surface of A 04 road

B 374 is a single lane road at most of the road length, however it is a two-lane road at Pothuvil

town area and the road has been developed with asphalt concrete surface.



Figure: Road surface of B 374 Road

355 is a single lane road with gravel surface and having a dead end at Kumana national park.

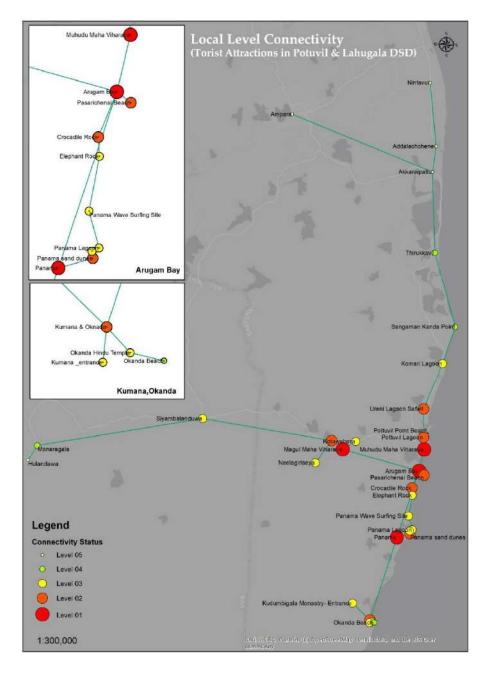


Figure 8 5: Road surface of B 355 road

Magnitude

Most of the tourist attractions are mainly accessible through this local road network. The issues are also mostly related to these local area roads which are not in very good conditions. Most of these roads are travel roads and currently in dilapidated conditions. Thus travelling along these roads is quite difficult and time consuming. As it's the road network which gives access to many of the attractions in Arugam Bay, it sometime discourage the tourists to visit these attractions leading its way for the demotion of these unique attractions.

The accessibility of different attractions within Arugam Bay Tourism Planning Area can be evaluated with the level of connectivity of each attraction. Accordingly, the connectivity analysis has been performed by using the different attractions within the Arugam Bay Tourism planning area. As per the results shown in *following figure the* most accessible attractions within Arugam Bay Tourism Planning Area are, Panama, Muhudu Maha Viharaya and Magul Maha Viharaya. Other tourist locations within Arugam Bay are distributed in close proximity and consist with moderate connectivity level. Therefore what it required is, to enhance the transport facilities to reach certain locations.



In addition, the traffic levels in main arterial and the two collector roads in terms of average daily traffic have been estimated as follows. The current traffic condition was collected through Pneumatic road tube counters and the future traffic condition was estimated by the JICA STRADA traffic forecasting model.

Road Name	ADT (veh/day)	ADT (veh/day)			
	2018 (Existing)	2030 (Estimated)			
A 004 (Arterial)	1077	1643			
B 374(Collector)	4136	6310			
B355 (Collector)	512	730			

Table 3: Present traffic data (ADT)

Significance

The above traffic volume estimations for year 2030 reveal that traffic volumes are expected to be increased by 2030 thus it is import to be concerned about maintaining and upgrading the road conditions to match the demands. Even though upgrading the road conditions can be viewed as a positive measure in city planning as improved accessibility leads to development, it might not be the case for a tourism destination like Arugam Bay which is treasured for its unique rural and naïve character. During the perception survey, most of the tourists commented that they like Arugam Bay for what it is and did not compliant about the difficulties in accessing different attractions. However, it was observed that not many tourists had visited the hidden sites located far away from the main tourism strip. Therefore, it is important

The following figures illustrate the different access roads available at present to reach the identified tourist attraction locations. to evaluate the real need of enhancing the connectivity and accessibility among different attractions and how to do it innovatively without disturbing its unique rural character enjoyed by many tourists.

Nevertheless, it shouldn't be forgotten the fact that these local roads which connect different remotely located attractions are also the same which serve the local community of the area. The prevailing poor road conditions significantly make an adverse effect on the lives of the local community. In that case, it is important to consider this aspect in evaluating the need of upgrading the local roads, as sustainable tourism development means the satisfaction of both tourists as well as the host community.

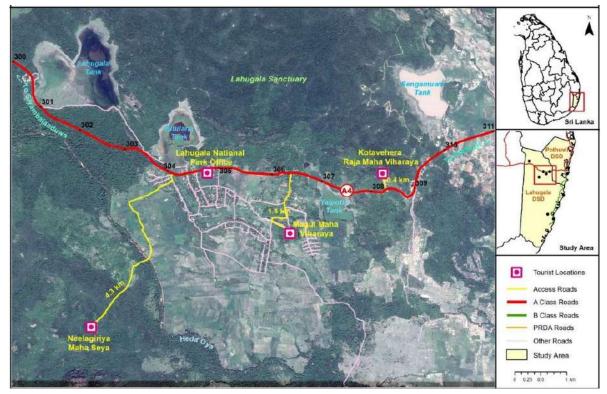


Figure: Internal Road Network in the Arugam Bay Tourism Planning Area



Pipe Borne Water Supply

Pipe borne water consumption is relatively high in any tourism destination thus it is a compulsory service which facilitates the smooth functioning of tourism related activities. However, it was revealed that there is a shortage of pipe borne water supply within Arugam Bay Tourism Planning Area, thus a detailed analysis of this problem was performed.

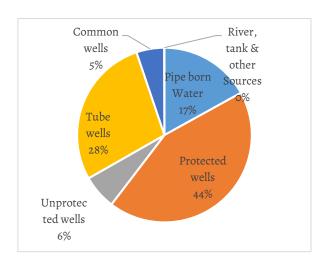
Context

There are different types of water sources available in the Arugam Bay Tourism Planning Area as mentioned below.

- Pipe-borne water
- Protected wells
- Unprotected wells
- Tube wells
- Common wells (mostly shallow wells, located close to surface water bodies
- Rivers/streams, irrigation tanks and other surface sources

Lahugala

The population of Lahugala DSD is 10,110 (as of 2017, belonging to 3,349 households. The livelihood of the majority is agriculture and related activities, while they fulfil their agriculture water requirement through irrigation tanks and agro-wells, and due to inadequacy of irrigation water, they consistently rely on rain-fed cultivation systems. Most of the households, fulfill their domestic water requirements by abstracting water from shallow wells and tube wells, while a limited number of houses have pipe-borne water which is provided by a community-based water supply scheme, which has been funded by the Presidential Secretariat Office. This project distributes water for only 418 households (about 12% of the population) by way of a storage tank

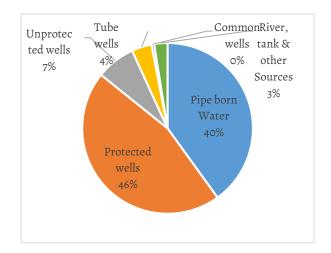


Pottuvil

The population of Pottuvil DSD is 46,073 (as of 2016), belonging to 11,828 households. The majority of them are engaged in both tourismand commercial-related activities. Pipe-borne water and protected shallow well water have been their primary sources of obtaining water for their domestic and commercial uses. Lack of wastewater disposal systems has caused extensive groundwater pollution (mainly fecal contamination of ground water), while over extraction of ground water has caused salinity levels to rise to unacceptable levels. The salinity levels (and associated parameters, such as conductivity, sodium and chloride levels, etc.) and microbiological quality levels of ground water obtained from shallow wells is much higher than the Standards/Guidelines stipulated for drinking water (Sri Lanka Drinking water

located at the school, which is filled daily. During stakeholder consultation meetings, it was noted Lahugala area has no reliable water supply sources, and no service is provided by the National Water Supply & Drainage Board or the Local Authority (Lahugala PS). Therefore, lack of water supply (for domestic consumption and irrigation requirements) has been identified as the most significant challenge faced by the residents, farmers and business communities of the area, which is also recognized as the biggest obstacle for any further development, both social and economic and more importantly tourism development.

Standards (SLS 614-2013), WHO Drinking Water Guidelines, EC Drinking Water Directives and USEPA Primary Drinking Water Regulations), and the quality of potable water does not comply with both local and international standards which is a significant concern for the tourism industry as well as for the well-being of the residents.



Magnitude

Although about 14050 households and most of the hotels and restaurants in the Pottuvil DSD are connected to the water supply provided by NWSDB, the water availability is minimal. Pipeborne water is available only for about 1 hour per day, and the quantity available is far less than what is demanded by the hotels and the households. The average demand per day is around 6,200 m³; however, the actual distribution reaches quantities less than 500 m³/day during the dry season (See Following Table). While Arugam Bay and its uniqueness attract world attention in industry. Government has been failed to provide necessary infrastructure for this vibrant area.

Apart from the above-mentioned water sources, the drinking water needs for hotels and restaurants are mostly provided by packaged water (bottled water). As mentioned earlier, the average tourist arrival per year is around 158,000 (seasonal + offseasonal arrivals), and their drinking water need is around 800,000 liters.

April – October (Season)	125,000 Tourists
November – March (Off-Season)	33,000 Tourists

Existing Demand- Tourist / Domestic

According to the *"Water Supply & Sanitary Engineering, Industrial Water Demand", Domestic Per*

Capita Consumption of Water in Sri Lankan Cities is 135 Liters per Day. So, the Demand for the water in Arugam bay is shown below.

Present water Demand of Domestic Sector

	Total Population	Domestic Per Capita Consumption of Water in Sri Lankan (m ³)	Total Water requirement for day m ³
Lahugala	10,110	0.135	1,364.85
Pottuvil	46,073	0.135	6,219.85
Total	56,183		7,584.70 m ³

Present water Demand of Tourism Industry

Lahugala & Pottuvil DSD	Tourists arrival per day	Tourism industrial Per Capita Consumption of Water for a bed in Sri Lankan (m3)	Total Water requirement for day m ³
Season	584	0.180	105.12
Off Season	219	0.180	39.42
Total	803		144.54

Total water requirements for both the sectors are 7,729.24 m3 per day in the Arugam Bay Tourism Planning Area. (Lahugala DSD & Pottuvil DSD).

Significance

The significance of this issue can be evaluated in terms of the financial cost born by the people of Arugam Bay due to shortage of pipe borne water supply.

According to the "Handbook for Water Consumers" (NWSDB), the water requirement (cooking & drinking) for a family for a day is around 20 L, which will cost nearly Rs.7, 500. If people of this area use bottled water for their drinking and cooking purposes, that will cost

= 15,177 Households X Rs. 7,500/30 = Rs. 3,794,250 per day

However, if the NWSDB provides pipe-borne water supply to the two DSDs, households can obtain water at a very affordable price.

Number of Households X Cost of average consumption for a family.
15 units per month in Sri Lanka)
= 15,177 X Rs. (520.00/30)
Total Cost per day = Rs. 263,068 per day

Pipe-borne water daily capacity

Pottuvil area has pipeline coverage of the NWSDB; However, water is available only for an hour each day. Most hoteliers partially manage their demands by filling their tanks within that limited period of time water availability. According to their statistics and predictions, at present, the water supply is less than 1,000 m³ per day for Pottuvil area, though the demand in the covered area is 6,325 m³/day. The total water demand in Pottuvil is 7,102 m³/day, which is predicted to increase to 9,864 m³/day by

Reliability of pipe-borne water (availability of 24 hours)

According to the Population prediction that was done for 2030, the demand for water will increase as shown below: Therefore, if the NWSDB provides water to these areas it will cost Rs.17.33 for a family per day. This will solve so many problems faced by the residents and commercial establishments due to the lack of potable water.

This shows that at the present context, people in Arugam Bay are bearing people extra expenditure for portable water. They had to spend Rs.250 for drinking and cooking purposes. According to Household Income and Expenditure Survey 2016, Department of census & Statistics the median household expenditure per month is Rs. 36,323, out of which expenditure on food and drinks per month is Rs.20, 936 in the Ampara District. Therefore, approximately 36% of food and drinks expenditures are spent on water. It is clearly not affordable for the house hold.

2035. Therefore, there is a clear deficit at present between the quantity of water supplied at present and the water demand (Demand: 6,325 m³/day for the covered area, Supply has been consistently less than 1,000 m³/day).

For Panama area, the current water demand is 962 m³/day which will rise to 1,322 m³/day by 2035..

	Total Population (growth rate 0.027)	Domestic Per Capita Consumption of Water in 2030 (m³)	Total Water requirement for day m ³
Lahugala	14,361	0.160	2,297.76
Pottuvil	65,446	0.160	10,471.36
Total	79,807		12,769.12 m ³

Total Water requirement in 2030 (with Non-Revenue Water (NRW) 25%)

15,961.4 m³

From these estimates, it is clear that the water demand increases further. According to the NWSDB, they are planning a water supply project based on Kumbukkan Oya-Heda Oya Reservoir Project to augment the water supply in the future. Further, the proposed Heda Oya Reservoir Project is planning to supply 10,000 m3 per day for Pottuvil and 2,000 m3 per day for Panama. According to the population predictions, the proposed project can meet the water demand.

Estimation of Average Demand for Pottuvil area (¹Population growth rate: 1.6%)

N	GND	GN Division	Populat	Demand	Connectio	Covered	Cover	Popul	Demand
0	No.		ion 2019	2019	ns	Population	age %	ation	2039
				(m³/day)				2039 ¹	(m³/day)
1	P/01	Pottuvil-1, Unit 1	788	142	197	772	98%	1,082	195
2	P/02	Pottuvil-1, Unit 2	1,190	214	297	1,142	96%	1,635	294
3	P/03	Pottuvil-1, Unit 3	1,298	234	324	1,272	98%	1,783	321
4	P/04	Jalaldeen Squar	1,561	281	390	1,483	95%	2,145	386
5	P/05	Sarwodayapura	2,702	486	676	2,297	85%	3,712	668
6	P/06	Sinna	2,492	449	623	2,417	97%	3,423	616
		Pudukkudiyiruppu							
7	P/07	Pottuvil 2 Unit 2	1,398	252	349	1,356	97%	1,920	346
8	P/08	Pottuvil 2 Unit 3	953	171	238	934	98%	1,309	236
9	P/09	Kundumadu	1,234	222	309	1,209	98%	1,695	305
10	P/10	Inspector Eatham	950	171	238	912	96%	1,305	235
11	P/11	Vattiveli	803	144	201	787	98%	1,103	198
12	P/12	Pottuvil Town	555	100	139	550	99%	763	137
13	P/13	Pakkiyawatte 1	1,125	203	281	1,103	98%	1,546	278
14	P/14	Pakkiyawatte 2	1,114	200	278	1,092	98%	1,530	275
15	P/15	Kalappukkaddu	3,603	648	901	3,495	97%	4,949	891
16	P/16	Victor Estate 1	1,538	277	385	1,492	97%	2,113	380
17	P/17	Victor Estate 2	1,753	316	438	1,700	97%	2,408	433
18	P/18	Sinna Ullai	1,418	255	355	1,404	99%	1,948	351
19	P/19	Pasarichchenai	1,709	308	427	1,675	98%	2,347	423
20	P/20	Hidaya Puram 1	1,771	319	443	1,736	98%	2,433	438
21	P/21	Hidaya Puram 2	1,394	251	349	1,380	99%	1,915	345
22	P/26	Hijra Nahar	751	135	188	735	98%	1,031	186
23	P/27	RM Nahar	3,037	547	759	2,976	98%	4,172	751
24	P/22	Sangaman Kandy	829	149	207	746	90%	1,139	205
25	P/25	Kanagarkiramam	831	150	208	0		1,142	205
26	P/23	Komarie	1,373	247	343	0		1,886	339
27	P/24	Komarie 2	1,284	231	321	0		1,764	318
		Total	39,454	7,102	9,864	34,665	88%	54,196	9,755
		Total (covered)	35,137	6,325	8,785	33,919	97%	48,266	8,688

No	GND No.	GN Division	Population 2019	Demand 2019 (m³/day)	Connections	Covered Population	Coverage %	Population 2039 ¹	Demand 2039 (m³/day)
1	PP/2	Panama (S)	1,368	246	342	1,341	98%	1,879	338
2	PP/3	Panama (W)	870	157	217	852	98%	1,195	215
3	PP/4	Panama (N)	1,473	265	368	1,443	98%	2,023	364
4	PP/5	Panama Central	762	137	190	747	98%	1,047	188
5	PP/6	Sasthirawela	874	157	219	857	98%	1,201	216
		Total	5,347	962	1,336			7,344	1,322

Estimation of Average Demand for Panama area ('Population growth rate: 1.6%)

Waste Water Management

Context

The study area does not have a piped sewerage system. Most of the households and other buildings establishments (offices, and hotels, and commercial buildings) have their own wastewater collection and on-site disposal systems. These individual households and commercial establishments are dependent on septic tanks and disposal of wastewater are through soakage pits. An on-site system is one that collects and disposes of wastewater (with or without treatment) on site where wastewater is generated. A proper on-site system like a septic tank facility comprises two built facilities - a wastewater collection/holding

system, and a land application system, and the soil beneath the land application system. It usually consists of a sealed septic tank, and a soil leach or drain field or in some case a leach pit. The typical sanitation system consists of a sealed septic tank which discharges directly to a soakage pit

However, only a few of the systems in the urban area have soakage pits that are sufficiently sized and have sufficient percolation rates. This is due to high-water table and non-availability of space for proper septic-soakage systems. However, the systems in operation in Pottuvil town and Arugam Bay is effectively off-site systems as it often relies on disposal of sewage sludge collected by gulley bowsers which are emptied off-site.

Magnitude

In terms of wastewater management, the present system in the study area needs major interventions. The issues related to the current system (only limited to tourism development sector: Sinna Ullai and Kalappukattu and Pottuvil Urban area) are as follows: i. The entire study area is dependent on septic tanks or pit latrines (mainly individual households). This includes all residential areas, town center, hotels, restaurants and other commercial establishments, administrative buildings, etc.

- ii. Unfortunately, most septic tanks are not accordance with built in standard environmental engineering specifications. It was also found that in most cases both black water and grey water are directed to the septic tank. This can reduce biological digestion resulting in more sludge accumulating in the tank. Therefore, it becomes necessary to empty these septic tanks more frequently. The Pottuvil Pradeshiya Sabha is equipped to handle this demand having only one gully bowzer. Although management of individual septic tanks are the responsibility of the owners, due to malfunctioning of most of them the local authority has intervened. The Pottuvil Pradeshiya Sabha charges Rs.3, 500-4,000 for emptying one septic tank using these Gulley Bowsers.
- iii. The Pottuvil Town centre and the areas where hotels and restaurants are located in

Significance

As a whole, the wastewater management system in the study area is inadequate. The suitability of an existing sanitation practice is strongly interconnected to the water supply, the soil type, proximity to the beach (e.g., Sinna Ullai area) and the Arugam Bay Lagoon (Kalappukattu area) and groundwater depth. High groundwater levels make it difficult to operate an on-site system entirely satisfactorily. There are two aspects to this:

• Satisfactory disposal of the effluent Impact on ground water quality, coastal water and beach quality, Arugam Bay lagoon water quality

The first aspect depends not only on the depth of water table but on the permeability of the soil. Heavy clay soils will exacerbate the difficulties in some locations. The existing practice of surface discharge of the septic tank effluent to some extent reduces the problems of disposal provided it is the Arugam Bay area have serious issues of small plot sizes which do not provide adequate space for the construction of septic tanks and soakage pits. As a result, most septic tanks are undersized. According to the information gathered by conducting a field survey, it was found that less than 20% of the septic tanks located in Arugam Bay coastal area function properly. Therefore the local authority is compelled to empty them frequently.

iv. Other large scale establishments such as the STF have their own wastewater collection and treatment systems. The STF separates grey water and purifies it by passing it through filter beds. These are located about 200 m away from the source of wastewater generation. The wastewater flows in open drains to the filter beds, thus assisting the aeration process.

transported away before it causes a nuisance, and is probably a historical reason behind the practice. However, poor operation of septic tanks (e.g. inadequate de-sludging) reduces the quality of the septic tank effluent, as noted above.

The second aspect is related to the use of groundwater. When ground water is used as drinking water, contamination from on-site sanitation is always a potential risk. To reduce the risk of contamination, it is usual to adopt a minimum hydraulic time of 25 days from the bottom of the disposal point to the groundwater, as this allows sufficient time for die-off of the microorganisms before they reach the groundwater. With groundwater less than 5 m below the bottom of the discharge point, for all soil types, there is high risk of organisms reaching the groundwater in unacceptable concentrations.

The risk to extracted groundwater quality depends on the actual aquifer from which the well draws water, and on mechanical/hydraulic barriers included as part of the well construction. If a well sources water from a deeper aquifer but has inadequate sealing at the top of the well, there is a high likelihood of contamination from shallow groundwater. Systems being constructed should be appropriately checked and inspected to ensure they will meet environmental standards.

The most important reason for having a proper wastewater collection and a treatment system is to keep the coastal and beach areas clean by not allowing untreated wastewater to contaminate such areas. The objective would be to protect public health, keep the beaches and coastal waters free of any contaminants, pathogenic microorganisms, and free of any nuisance (e.g., due to bad odor, unpleasant landscapes due to pollution).

The present housing density of the study area does not justify the development of a pipe borne sewerage system to cover the entire Pottuvil Town area and Arugam Bay area. When designing a suitable arrangement, the following aspects need to be considered:

There is no site specific data on causes of low sanitation coverage, or open defecation uses in the coastal areas and areas close to the lagoon.

- Insecure land tenure consequently lack the willingness to invest in on-site sanitation.
- Rented premises tenants are unlikely to invest, and landlords will not invest without associated regulations and enforcement.
- Lack of adequate water supply this particularly affects the overall provision of sanitation facilities.
- Lack of political will to invest and support sanitation/wastewater management programs.

- i. All the large establishments should be encouraged to develop their own wastewater collection and treatment plants. Treated effluent must comply with national environmental standards, before the use for irrigation purposes or discharged to a watercourse or the bay area.
- In residential areas having plot sizes of more than 150 m² septic tanks should be used. Households should be informed about the basic environmental regulations of managing a septic tank. They should also be encouraged to install "ready-made" septic tanks which are manufactured to environmental engineering specifications in place of in situ construction.
- iii. Town Centre (Pottuvil, Sinna Ullai area) the heavily built-up and densely population areas could be provided with a separate sewerage system, but a suitable location for a wastewater treatment plant requires investigation. As for Tourism Development, the discussion is limited to Arugam Bay area.

However, generic causes in these areas for not investing in proper wastewater treatment systems are often related to:

- Inappropriate approaches to manage sanitation and wastewater related issues.
- Neglect of consumer preferences.
- Lack of informed technological choices that allow for different affordability levels or user preferences.
- Ineffective promotion and low public awareness.
- No facilities that allow access and use by the disabled.
- Lack of funds to spend on proper wastewater systems

Solid Waste Management

Solid Waste Management is the largest municipal expenditure, but benefits have been often uncertain and are not maximized. Inadequate municipal solid waste management is negatively impacting public health, the environment and attractiveness across the area, especially the Pottuvil town area, beach front, SInna Ullai and Kalappukattu where touristic activities are flourishing.

The tourism sector is likely to suffer the most from inadequate solid waste management in Arugam Bay Tourism Planning Area. Piling up of garbage,

Context

Solid waste generation is mainly due to two sectors: (i) Municipal solid waste (MSW) (households, commercial establishments including markets, shops, restaurants and hotels, institutions excluding hospitals and medical centres etc.) and stray animals, vermin and pests and the nuisance created by improper collection and disposal of solid waste can obviously cease the tourism destination forever. Therefore it is important to maintain high level of cleanliness in the destination in order ensure the sustainable tourism development.

At Arugam Bay, Pottuvil and other areas, enhanced waste management at local level is possible and affordable, and can simultaneously address objectives for sustainable development, public health, environmental quality and local governance.

(ii) Industrial and hazardous waste (factories, hospitals and medical centres etc.). The details contained in this section mainly refer to the former category, i.e., MSW generated in Arugam Bay Tourism Planning Area.

Street Cleaning and Primary Collection

Street cleaning is carried out regularly in the Pottuvil PS area, including Ulla and Kalappulattu areas. However, according to the survey carried out, the households and the commercial sector (e.g., hotels), mentioned that the collection is not very systematically done in certain areas. The survey among the hotel sector revealed that the collection is done daily in some parts (only during weekdays), weekly in some parts and no collection at all in other areas. The commercial areas of the PS, marketplaces and public places such as the bus stand and the beachfront areas are cleaned regularly, and the solid waste is transferred directly to the dumping ground at Sarvodayapuram. Drains are cleaned regularly, to avoid stagnation of water and also to avoid local flooding during rainy days. All the hotels and commercial entities have their own collection bins: some hand over the garbage on the day of collection, others have their own temporary chambers to store waste until collection



Collection and Transportation

Collection of solid waste depends on the areas of intensity. Collection in commercial areas (e.g., Pottuvil town area, Ulla areas) is regular while in residential areas it is once or twice a week. The PS area has been divided into 9 zones of which solid waste is collected daily in 3 of the zones. Waste is collected once a week in all other 6 zones. Some of the scheduled waste (hazardous and pathogenic waste) generated at hospitals is incinerated at the hospital site, but certain amounts of such waste are collected by the council and mixed with general household solid waste. Table 3 provides basic details of their operations and equipment.



Figure: Tractors for collection of MSW (Left). A tractor tips MSW at the dump yard at Sarvodayapuram

Item		Unit	Area
			Pottuvil PS
Solid waste	Domestic	kg/day	4,370 (Collection 1,000–2,000)
generation	Commercial		9,460 (Collection 6,000–7,500)
	Institutional		570 (Collection 500)
	Street sweep		240 (Collection 240)
	Hazardous/industrial/		N.A.
	Pathogenic		
	TOTAL		15,000 (Collection 7,000–10,000)
Management Staff		Number	Engineer/Works Superintendent: 0
			Technical Officer: 01
			MOH/PHI: 0
			Environmental Officer: 0
			Supervisors: 01
			Drivers: 02

Solid waste Management – Present Status

		Labourers: 11 (permanent: 08; Causal: 03)
Compactors	Number	1 (out of service)
Tractors	Number	2 + 2 (out of service)
Trucks	Number	I
Gulley Bowser	Number	1 + 1 (out of service)
Collection	Times/ week	Once a week (households) Daily or once in three days (commercial, hotels, restaurants) Daily in marketplaces and public areas
Locations of significant amounts of waste are generated		Tourist hotels: 175 Restaurants: 200 Schools: 02 Market places: 02 Supermarkets and shops: 75 Institutions entities: 20 Coastal areas



Figure: Three tractors and a gulley tank mounted on a trailer abandoned

Organic Waste Composting

Composting is not done at present. The Pottuvil PS had submitted proposals to various sources, including Pilisaru and NSWMSC, for funding to establish composting yards but have not received any satisfactory response for funding the projects. Composting is not done at household levels either.

Sorting and Recycling of non-biodegradable waste

There is no adequately established system for recycling of waste. There are private collectors for metal and paper/cardboard, where modest sums are paid for such material. Glass and plastics have no demand from these collectors, other than for clear glass bottles. There are also private operators who visit the areas for collecting large plastic items such as broken plasticware and household items for an exchange of similar items depending on the weight of recyclable material. There is a non-governmental organisation ("Waste Less Arugam Bay" – funded by USAID and Rice & Carry) which is active in the Arugam Bay area and promotes recycling of PET bottles and plastics. Waste Less Arugam Bay (WLAB) aims to reduce the amount of plastic waste generated in Arugam Bay by offering holistic solutions to the waste plastics problem. They recycle, suggest alternatives and educate the stakeholders and operate within Arugam Bay.



Figure: PET bottles being collected and bailed to be transported for recycling by Waste Less Arugam Bay (Source: Waste Less Arugam Bay)

Final Disposal

The area does not have a proper sanitary solid waste management system. Solid waste is collected by the local authorities and dumped on forest land at Sarvodayapuram, 4–5 km away from the Town, see location in Figure 6. The dump yard has been built in the middle of a forest patch, which is connected with the Lahugala Sanctuary. It is not clear whether the PS has conducted any environmental assessment before the development of this dump and obtained necessary approvals. Also, it is not clear whether the PS has obtained an Environmental Protection License to operate the dump yard.

(Note: Municipal solid waste and other solid waste composting plants with a capacity of 10 or more metric tons per day; Solid waste recovery/recycling or processing plants with a capacity of 10 or more metric tons per day; Solid waste disposal facility with a disposal capacity of 10 or more metric tons per day need to obtain an EPL).

It is an open dump of about 4 Hectares (see Figure 6). The land presently in use would be

adequate to cater for average population growth for at least the next 30 years. To prevent odour it has been the intention to cover the deposited waste every day with a layer of earth. Unfortunately, neither the PC nor the dumpsite has machinery suitable for the task. During the rainy season the area becomes a serious environmental concern. The solid waste has been burnt regularly, and such open burning is a severe environmental threat. This practice should be debarred immediately.

The existing waste dump is located in a forested area. However, the land use map (Figure 6) shows that there are settlements located close to the disposal site as well as the site is within an environmentally sensitive area. A 'no development' buffer zone should, therefore, be placed around the waste disposal site. There are presently no guidelines in Sri Lanka regarding buffer zones, but in other countries this can vary between 100 and 300 m. The present forest land is ideal as a buffer zone.



Figure: Open dump at Sarvodayapuram (6.853506N, 81.791465E) (Source: Base map generated from Google Earth)



Figure: Open burning of solid waste at Sarvodayapuram

There is a well-constructed sorting area available at the Sarvodayapuram dumpsite, however, it is apparently not being used. Recyclable items sorted at the dumpsite have been piled up at various locations around the sorting bay. The scavengers mentioned that although they sort recyclable items such as PET bottles, glass bottles and aluminium cans, they find it challenging to find buyers for such items.



Figure: Recyclable items have been sorted at the dumpsite, however, there no regular buyers for such items



Figure: Sorting and Storage area is not properly utilised

Magnitude & Significance

Waste generation and collection patterns in

the Ampara District categorised into each local

authority are shown in below Figure

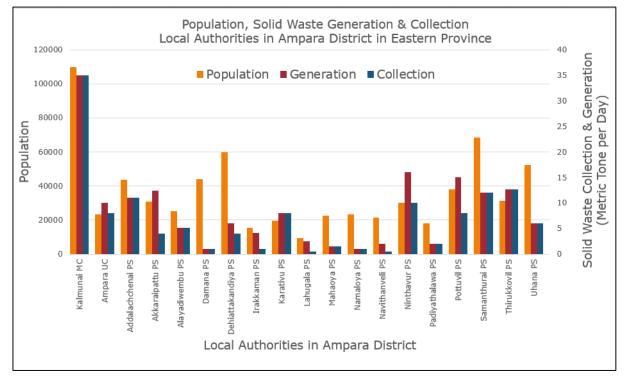


Figure: Solid Waste Generation and Collection in Ampara District

Source: University of Moratuwa & NSWMSC (Unpublished data, 2013).

It has been estimated that about 15 MT/day of MSW is generated within the Pottuvil PS division. The generation pattern has been estimated to be as follows:

- Household: 4.73 MT/day
- Commercial: 9.46 MT/day
- Institutional: 0.57 MT/day
- Street sweepings: 0.24 MT/day

Note: Agricultural waste, industrial waste, construction and demolition waste, etc. have not been taken into consideration, Out of the MSW generation, about 7–10 MT/day is collected by the Pottuvil PS.

Solid Waste Composition

Solid waste composition studies were conducted in Ampara by University of Moratuwa for the NSWMSC in 2013. The composition of Municipal Solid Waste (MSW) in Pottuvil Pradeshiya Sabha is given in Figure 2, which can be used as a design guide since the population characteristics, social conditions and settlement attributes are similar at present. The biodegradable component has been divided into short term and long term, depending on the waste characteristics.

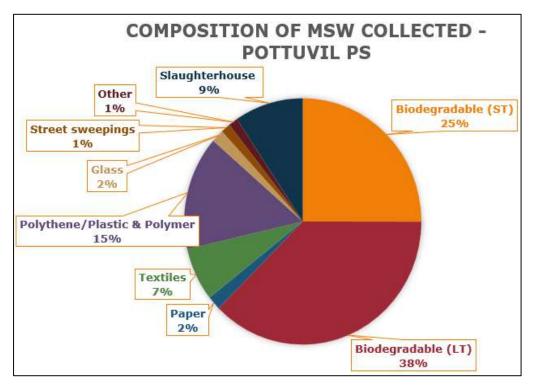


Figure2: Composition of Solid Waste – Pottuvil PS, Ampara District Source: University of Moratuwa & NSWMSC (Unpublished data, 2013)

The composition of the MSW collected at Pottuvil has its inherent characteristics. Notably, polythene and plastic composition is relatively high. The short-term biodegradable component is relatively low, whereas long term biodegradable component is larger than the short-term component. Glass, paper and textile waste are also notably high. These higher figures show the potential of recycling of such wastes. Slaughterhouse waste account for a significant proportion of the waste collected. This also needs proper collection and disposal. The percentage of biodegradable component is low compared with what has been observed in other Districts where short term component is about 40-50% and long term component is 15-30%, depending on the collection pattern (especially sorted or unsorted) of MSW (an analysis carried out by the University of Moratuwa in 2017). Percentage composition depends on the source of collection, pattern of collection, and alternative methods of waste management (recycling of waste, etc)

5.3.4) Tourism Investments being discouraged due to Land Tenure and Ownership Issues and disputes

Commonly, it is known secured land tenure conditions stimulate land users to implement best practices on the particular lands and invest

Context

In Sri Lanka, tourism is an immensely booming industry as the hidden natural resources are now been recognized by all over the world as a result of the end of nearly-three-decade-long armed conflict. The Eastern Province has significant untapped potential as it is furnished with some of the premier destinations in the country including world class surfing sites, secluded lagoons, national parks, wildlife sanctuaries and a very large number of heritage sites dating back over 2,000 years. Thus, tourism sector is not new to Arugam Bay Area and it is certain increasing stability in the area would open up opportunities and maximize economic progressively more towards better developments. Such enabling environment becomes crucial for the sustained success of a tourism destination.

benefits to local communities. Moreover, by expanding tourism in the east Sri Lanka's tourism seasonality would extend and allow for a more diversified tourism activity mix.

These eminent tourism destinations have gradually drawn the attention of investors with massive investment volumes. Hence, improved investment climate, unbiased and transparent application of rules, regulations and standards, clear and reliable land tenure and ownership and provisions of local infrastructure are important for the sustainability of prospective investments.

Magnitude

When compared to other tourism provinces, Eastern Province suffers from severe underinvestment in physical and technical capacity. Administrative short falls such as lack of clarity of administrative boundaries, illegal encroachments, government lands being released to private parties in an unaccountable and non-transparent manner and complicated licensing and registration procedures have led to mitigate the incentive on investments. The civil war conflict which took place for three decades, the tsunami disaster, destruction to documentation and paucity of available documentation have been the external obstacles to make it extremely difficult to prove ownership or the extent of boundaries in the area. On the other hand, many are unaware of whether

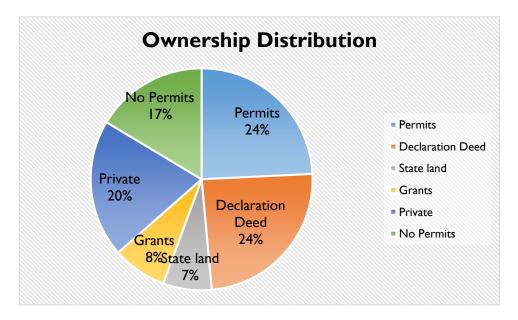
the land is private or state land, further complicating the status of ownership and control (Land in the Eastern Province Politics, Policy and Conflict Bhavani Fonseka and Mirak Raheem, May 2010).

Eventually these short comes have discouraged users of land from implementing highest and best practices despite the fact of great number of developable lands. As a result, only a few star class hotels but a massive number of ungraded low budget guesthouses or temporarily built shelters are found in the tourist destinations.

Significance

An enabling environment (policy, regulation and promotion) is important for the sustained success of a tourism destination. Clear and transparent application of regulations, rules and standards should be consistently implemented at all levels of Government to ensure equitable development. Thus it is necessary to encourage and establish a greater level of transparency in the application of policies and regulations, i.e. tracking system for permits, publish a code of conduct, publication of minutes, etc. Coordination between Government agencies and at all government levels starting at the ground level will ensure a sound investment climate. Hence, the Government has the responsibility to review problems faced by people and come up with solutions that address administrative short falls such as the lack of clarity of administrative boundaries and the legal system needs to be widely used as businesses are very concerned about some aspects of regulations.

If those arrangements are secure, users of land have an incentive not just to implement best practices for their use of it, but also to invest more.



Ownership distribution of Beach face lands (Within 500m)

Source: DSD – Pothuvil

5.3.5) Some of the tourism products and services offered at Arugam Bay Tourism Planning Area not being in conformity with the minimum quality standards

Context

Tourism is considered as a social, cultural and economic phenomenon which involves with the movement of people. These movements of travelers associate with many activities as they are placed out from their usual environment which leads to imply tourism expenditure. Tourism expenditure encompasses wide variety of tourism products to facilitate physical and psychological satisfaction to tourists during their stay. These tourism products focus on facilities and services such as package travel (package holidays and package tours), accommodation, food & drinks, transport, recreation, culture, and shopping etc.

Arugam Bay tourism culture poles apart from the other tourism cultures of the country as the city is

Magnitude

The foregoing account was based on the official statistics of the SLTDA confined only to hotels. Although the information on the performance of guesthouses and homestays are not available.

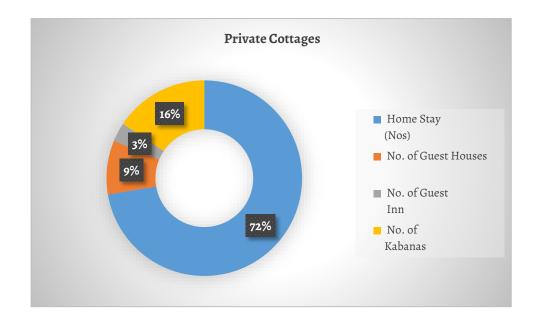
In July 2019 the internet has listed 181 accommodation units in and around Arugam Bay area. Though most units appear to have been covered this number may be an underestimate. However the important point to note is that the total listed in the internet is almost 3 times the approved units by the SLTDA.

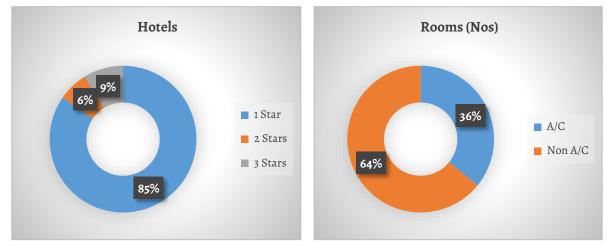
Following figures indicate the composition of each category of accommodation places which are established within Lahugala and Pottuvil DSDs.

formed shaped along with historical hippy tourism. Accordingly, most of the accommodation places including 1 star to 3 star class hotels, private cottages home stay, guest houses, guest inn & kabanas, restaurants and bars follow the same culture when designing their interior and outer appearance. Though these places maintaining the architectural character, their concern on maintaining the **quality** of these tourism products is the matter. Accommodation is a matrix of tourism where appropriate choice of quality accommodation based on their targeted customer groups is required in order to expand and develop the tourism industry.

Presently the approved establishments in the Ampara District are as follows: out of these less than 1% establishments are in A-Bay area.

Category	Units	Rooms
Hotels	5	95
Guesthouses	32	450
Homestays	27	98
Bungalows	1	5
Total	65	648





In Arugam Bay private cottage category accommodations are the most common which is about 30%. Among those Home Stay units are the most demanding private cottage type which is about 72%. Apart from that there's a trend for renting rooms of residential units for the tourists which are comparatively low budget type. As a percentage this category is about 60% of the total no of accommodation places in Arugam Bay. In Arugam Bay very few no of star grade hotels are established and out of those 85% are 1star followed by 3 star and 2 star grade hotels. In this background it is difficult to do regular inspections to measure the quality standards maintained in these places and the quality of their services as the majority of are not registered and approved. As it was observed by the planning team and by the stakeholder meetings most of these places were unable to achieve the given mandatory requirements for accommodations in Sri Lanka by the Tourism Act No 38 of 2005.

Significance

Arugam Bay as a surfing city targets the international market .Thus it is necessary to maintain better quality in terms of service products, appearance, cleanliness, character and behaviors. The city image installed in new comers or fresher's minds is built via the experiences we offered where they tourists of who visited A-Bay. There for this maintaining better quality products within a given standard frame has become a crucial factor to enhance the image of the city.

Under the section 48 (4) of Tourism Act No 38 of 2005 all tourist services shall be registered with the Sri Lanka Tourism Development Authority. It shall be an offence to provide any tourist services which has not been registered in the Sri Lanka Tourism Development Authority. According to the section 48 (10) and section 63 (2) of the said Act any enterprise or tourist service with no proper registration and however this situation has led to make it a difficult task to maintain and regulate the standard required. license will become a punishable offence. But as mentioned above, when most of the accommodations are not approved and listed by the SLTDA it finds difficult to maintain the given standards.

Ultimately this affects the whole image of the city because nowadays most of the travelers share their experiences through different online platforms such as social media, review sites, blogs etc. Information about a tourism city online platforms speedily share all over the world which could be a huge impact as many tourists who search before planning their trip. Hence, the tourism satisfaction is the most significant factor of attracting more tourists in coming year as well as to ensure the existence of the tourism industry of the particular destination.

5.4) Identified Potentials in Arugam Bay Tourism Planning Area

5.4.1) Majority of the Tourists visiting Arugam Bay come from Developed Countries with a High Purchasing Capacity.

As for the survey carried out by the planning team in Arugam Bay, it was identified that a majority of tourists who visit the destination has a tertiary educational and occupational background. On the other hand, it was also noticed that a majority of foreign visitors are from well developed countries as indicated in (Section 3.6.4). Thus, it can be assumed that they possess a higher purchasing capacity compared to tourists from developing countries. Accordingly, it directs to the possibility of stepping forward from accommodation improvement to the enhancement of the quality of products and services at a good price. However, these should be done more innovatively and creatively in order to offer a unique experience to them.

5.4.2) Arugam Bay having the best surf breaks in the world and Asia

Arugam Bay is well-known around the world for the unique experience it offers to its visitors. For this reason, it has been capable enough to dwell among the top rankings consistently along the years. These rankings as pointed out in (Section 3.1) could definitely attract a better number of visitors to the destination if the infrastructure and other amenities are adequately provided.

5.4.3) Arugam Bay having a variety of tourist attractions to meet a yearround destination

As indicated in (Section 3.2) the planning area consists of a significant amount of premier destinations in the country including world class surfing sites, secluded lagoons, national parks, wildlife sanctuaries and a very large number of heritage sites. These equip Arugam Bay to perform as a year-round destination and conquer the tourism industry with its untapped potentials.

5.4.4) Availability of 63% of Labour Force in Arugam Bay

As for the statistical indicators in Pottuvil and Lahugala Divisional Statistical Handbooks – 2018, sixty three percent (63%) of labour force in the above areas is capable to incorporate in future developments. Thus, there is a potential to improve the current services and products along with the support of the labour force in order to earn a higher revenue.

5.4.5) Ongoing and planned projects and policies

Ongoing Projects-

I. Lagoon Master plan by Ministry of Fisheries and Aquatic Resources

The Arugambay and Panama Lagoon project is to be implemented by The Ministry of Fisheries and Aquatic Resource (MFAR) with the financial assistance of Sri Lanka Government after to develop Integrated Master Plans for two lagoons. The kingpin of this project is to develop a feasible Integrated Master Plan for each selected Lagoon/

- Public infrastructure development
- Fisheries Infrastructure development
- Aqua culture development
- Development of tourism industry
- Urban/township Development
- Livelihood development
- Community resettlement

II. World surfing competition at Arugam Bay Sri Lanka and would strengthen its place as a first-class surf tourism destination

With the growing success as a surfing destination, Sri Lanka has received the opportunity to host the World's most accomplished surfers in a World Qualifying Series competition this September in Arugam Bay.

This exciting opportunity is a perfect showcase for the growing world of surfing in Sri Lanka and would strengthen its place as a first-class surf tourism destination. For many years' surfers have travelled from far to experience the magical waves Estuary to assist to uplift the economy of the country and the living standards of lagoon-based stakeholder communities. The Master Plan will link the aforesaid key sectors to contribute largely for the improvement of GDP. The contribution of key stakeholders will strengthen the economic activities, and development in Ampara district.

- Dredging or cleaning
- Economic generation through community participation community based management
- institutional arrangement
- Lagoon based eco system

of Arugam Bay and now it may present itself on the world stage of competition surfing. The World Surf League is the home of professional surfing. World Qualifying Series events are given Star Ratings and this particular event would be a 6-starevent, the highest rating in this series, up with the Hawaiian events and attracting the very best of professional surfing's top performers World Surf League events are expecting to bring around USD 450,000 of direct revenue to the area where the competitions are held.

Proposed Projects-

III. Solar power street light projects to facilitate surfing area

IV. Heda Oya Water Supply Project

The present water flow of the Heda Oya which is the main water supply source for the supply of safe drinking water for the people residing in Lahugala, Pottuvil, Paanama and Siyambalanduwa and for the tourist zones of Pottuvil and Panama, is not adequate to meet the demand for drinking water. The cabinet has already granted approval for the implementation of a project to construct a reservoir by building a dam across the Heda Oya and the proposal made by Hon. Rauff Hakeem, the Minister of City Planning and Water Supply, to select a suitable contractor following the 'Swiss Challenge' procurement procedure to implement the Heda Oya Water Supply Project, concurrently with that project, was approved by the Cabinet.

Policies related to Arugam Bay area –

I. Tourism Development Areas

Arugam Bay has identified as a Tourism Development Area in Sri Lanka Tourism Strategic Plan 2017-2020

II. National Parks in Sri Lanka

The Forest Department has identified and Lahugala Kithulana as the main National Parks in Sri Lanka and therefore iintroduces rules & regulations in order to ensure the maximum protection of wildlife & habitats within National parks.



III National Physical Plan

In the National Physical Plan for 2050, the area surrounding Arugambay has been designated as a Conservation area and coastal Environmental Sensitive Area, thus enabling the area to be protected in the next 30 years through a series of physical plans.



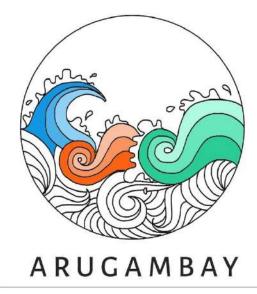
IV Master Plan for Pre identified Lagoons

The Arugambay and Panama Lagoon project is to be implemented by The Ministry of Fisheries and Aquatic Resource development (MFARD) with the financial assistance of Sri Lankan Government after developing Integrated Master Plans for the two lagoons. The objective of this assignment is to develop an integrated Masterplan which will link sectors such as fisheries, tourism, education, Agriculture, etc. to contribute largely for the improvement of GDP of the country as a whole.



Chapter 06

The Planning Framework



TOURISM DEVELOPMENT MASTER PLAN 2020-2030

6.1 Vision

'Akaw! Arugam Bay'

Surfers' Hidden Paradise

6.2 Vision Statement

Arugam Bay to be a clandestine surfing destination amidst wilderness of east horizon of Sri Lanka, having to offer diverse tourism experiences throughout the year with secluded lagoons, sparkling beaches, green forests, wavy sand dunes and inherent culture.

Fascination of surfing is undeniable. Arugam Bay is a destination which allows anyone to experience the unique sensation of surfing and become a part of the surfing lifestyle as perfect waves are certainly found there. Moreover, this bliss on earth is capable to offer the surfer an unparalleled experience which no other place could offer with virgin surfing points hidden in wilderness. Arugam Bay has significant untapped potential as it is furnished with some of the premier destinations in the country. The lagoons, beaches, forests and sand dunes in this area form a unique environmental setting. On the other hand, the heritage sites dating back over 2,000 years and the inherent culture each village holds within the planning boundaries manifests the pride and glory of a magnificent past. Thus, as for the vision, Arugam Bay is truly crowned as the paradise of Eastern Province. Thus, it is capable to bring people together and improve economies.

Accordingly, the vision of Arugam Bay Tourism Development Master Plan is set to create a fascinating tourist destination in order to offer a once in life time experience to its visitors along with strong emphasis on the unique and sensitive environmental settings which will not be compromised during implementation.

6.3 Goals

Goal 01 - "The Premier Surfing Destination in the World which offers most varied surfing sites and experiences".

Goal 02 - "Most diversified year around tourism destination in Asia complemented with virgin ecosystems and mysterical aroma of last village of eastern Sri Lanka".

Goal 03 - "A Sustainable Tourism Economy within a smooth, Sensed and Responsible Tourism Space in east coast of Sri Lanka".

6.4 SWOT Analysis

Goal 01 - - "The Premier Surfing Destination in the World which offers most varied surfing sites and experiences"

Relatively extended surfing season compared to other surfing destination around the country

- Arugam Bay : April to October (7 months)
- Weligama Beach -: November to March (5 months)
- Unawatuna Beach : November to March(5 months)
- A-Bay being located within Dry Zone which hosts a favorable natural environment for surfers
 - Average annual rainfall, air temperature and wind speed of A-Bay are 1493 mm, 32 °C and 18.9 kmph respectively.

- Okanda

- Pasari Chenai

- Baby Point– for beginners

• Average pH, temperature and turbidity values of marine water are 8.15, 30.9 °C and 9.52NTU respectively

• A-Bay being composed of eleven surf points favorable for all 5 levels of surfers

- Arugam Bay Main point
- Whisky Point for beginners
- Panama
- Elephant Rock
- Pottuvil Point
- Light house
- Peanut Farm– for beginners
- Present existence of 26 + surfing camps annually/ monthly/seasonally in A-Bay.

Sri Lanka and A-Bay being ranked at the top in the world as best surfing destinations;

- A-Bay Ranked as 8th best in Asia by Lonely Planet (2018),
- A-Bay ranked among 14 World's Best Surf Destinations by www.travelchannel.com(2019)
- ranked A-Bay as 46th best by CNN travel(2013),
- ranked Sri Lanka as 07th best in the worldby www.booksurfcamps.com(2019)
- Ranked among 5 best in Asia (2019)

• On August 3, 2016 the International Olympic Committee has been officially confirmed inclusion of surfing for 2020 Beijing Olympic Games.

- Surfing, recognized as one of the fastest growing sports with an exponential growth rate between 12% 16% annually
 - Growing exponentially at 12% per year, the current surfing population is estimated at approximately 23 million participants
 - According to Ponting and O'Brien (2014), latest estimates suggest there are currently 35 million surfers, who practice their wave-riding activities in at least 162 countries (Martin & Assenov, 2012).
- Capability to host International Competitions

WEAKNESSES

- Unavailability of policies, guidelines and facilities to promote surfing in Sri Lanka
- Aggressive attitude of the local community
- Low interaction and participation of local tourists in surfing activities
- Comparatively less no of experienced surf trainers, and life guards
- Less no of registered surfing camps
- Total Coliform and Escherichia coli concentration are high in bathing sites
- No kitesurfing schools and equipment in Arugambay
- Wind is not so consistent like in the west coast

• Risk of natural disasters

- Other competing Asian surfing destinations
 - such as Bali, Indonesia

THREATS

Goal 02 "Most diversified year around tourism destination in Asia complemented with virgin ecosystems and mysterical aroma of last village of eastern Sri Lanka"

- 76% of total area of A-Bay being composed of natural elements which are supportive to promote diversified tourism activities;
 - 74% of total land covered by forest patches including Kumana,Lahugala Natonal Parks/ Kubukakan Conservation Forest/ Kudumbigala -panama Sanctuary/ Bakmitiywa tibirigolla reserve forest
 - 1.8% of total land covered by lagoon including Komari, Ureni, Pothuvil, Panama and Arugam Bay Lagoons
 - 10km lengthy, 30 to 40 m wide beach strip
 - 340 ha (0.3%) of sand dunes
- Present existence of archaeological and historical monuments located within the planning area are potential to promote cultural tourism to function year-round tourism;
 - Seven important archeological sites namely Sangaman Kanda, Muhudu Maha Viharaya, Kotawehera Magul Maha Viharaya, Neelagiri Seya, Kudumbigala Monastry and Okanda Hindu Temple.
- **Present establishments of affordable accommodation places** including star category hotels and homestay, varying within in the price range from 2000 lkr to 1 5000 lkr with the approximate average of 4500 Lkr.
- Availability of diversified activities which can be integrated with the tourism such as livelihood activities (fishery, agriculture)/ cultural events (Ankeliya in Panama, Pada Yathra, worship events)/ recreational activities (beach parties-Mambo Beach Partyl, Hipster- Funky De Bar Party/YMCA Party/ Whisky Point Party and musical events)
- A-Bay having connected with Colombo via five no of access corridors with different senses and diversified tourism activities such as beach tourism, heritage tourism, cultural tourism, eco based tourism, agro tourism.
 - Colombo,Galle,Hambanthota,Monaragala ,Arugam bay
 - Colombo,Kandy,Nuwara Eliya ,Badulla Monaragala,Arugam bay
 - Colombo,Kandy,Nuwara Eliya ,Bandarawela ,Ella,welawaya, Monaragala,Arugam bay
 - Colombo, Panadura, Rathnapura, wellawaya, Monaragala, Arugan bay
 - Colombo, Panadura, Rathnapura, Bandarawela, Ella, Badulla , Monaragala, Arugambay
- Having accessibility towards diversified tourism destinations within shorter travel time varying from 10mins to 1 hour.

- A-Bay being identified as a Tourism Development Area by Sri Lanka Tourism Strategic Plan 2017-2020 and being designated as a conservation and coastal environmental sensitive area by National Physical Plan 2050 enabling to be protected in the next 30years through a series of physical plans.
- Existing and proposed infrastructure development projects such as; Solar power street light projects to facilitate surfing area/ Heda Oya Water Supply Project

- A-Bay as a 4th order city in the national scale in terms of rail and road accessibility reflects the less regional connectivity of the city which discourages to magnetize tourists to the area.
 - Encroachment of lagoons, sand dunes and coastal belt resulting changes in morphological development and their formative process is reflected in Arugam Bay lagoon and Sinna Ullei/ Arugam Bay/ Komari sand dunes
 - A-Bay having low activity density comparing to other similar surfing destinations around the world; by referring to case studies with similar characteristic surfing cities, 38 complementary activities have been listed and only 16 are currently being identified in A-Bay which is about 42% to the total.

• Future possibility of having 0.15m sea level rise along the 10km lengthy coastal belt by the year of 2025 where Arugam Bay, Panama and Peanut Farm areas are highly vulnerable for inundation.

Goal 03 - "A Sustainable Tourism Economy within a smooth, Sensed and Responsible Tourism Space in east coast of Sri Lanka"

- Increasing rate of tourism arrival will serve to increase the local economy of the planning areatourist arrival of 2011, 2015 and 2019 is recorded as 100,000,130,000 and 160,000 while projected tourist arrival for the 2030 with the rate of 6% which is about 329,203
- Majority of foreign tourists who visit Arugam Bay represent developed countries with annual per capita income of more than 40,555.585 USD- among them 45% represent professional and business group.
 - 23% of total planning area is having developable lands and 56% of sea front (500m Buffer) area is having developable lands which depicts that area is capable of serving the increasing tourists in future.
- Current accommodation facilities are adequate for the tourists arrived to the area even during the surfing season.

A-Bay having adequate electricity and solid waste management facilities while solid waste open dump yard being located at Sarvodaya Puram with enough capacity.

- Pottuvil, A-Bay and Pananam are well connected cities with having same level connectivity.
- 76% of total area of A-Bay being composed of natural elements and hosts unique architectural designs to enhance character of the area.

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- Proposed Hada Oya project by National Water Supply and Drainage Board expected to supply 10,000 m3 for the Pothuvil DSd and 2000m3 to the Lahugala DSD.
- Highway extension of Matara to Mathala and Yatch marina project of Galle will able to connect Southern and eastern part of country.
- Arugam Bay being identified as a feasible and consideration route for New Tourism Development by the National Tourism Strategic Plan 2017-2030.

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- National GDP contribution from the tourism sector of Arugam Bay is about 0.2% (1800mn) which was calculated by considering the average per day expenditure of tourist within the range of 68-75 US\$. ("Developing a Demographic Profile of Adventure Tourist Visiting Arugam Bay Sri lanka,"by Pathirana H.P.S, Samarathunaga W.H.M.S)
- **A-Bay is having less employment and less no of tourism sector engagement** According to the Statistical Hand Book of Pothuvil and Lahugala DSDs of 2018, labor force of the area is about 64% of total population and among them only 59% are employed. Further, only 543 are engaged in tourism industry of the planning area.
- Only 27% of total lands having clear land ownership and all other 73% having permits and declaration deeds which cannot be sold or changed the use of the property. This will discourage the investor who are coming to invest in the area.
- A-Bay being consisted of small land plots where only 13% of lands plots are above 100 perch which would discourage large scale investments.
- **21% of developments being located within the restricted and conservation zone** which are identified by the Coast Conservation Department where 63% of above developments are hotels.
- No five star and four star hotels available within the planning area and there are only 77 of one star hotels, 6 of 2 star and 8 of 3 star. (Statistical Hand Book of Pothuvil and Lahugala in 2017)
- The connectivity between east costal and south costal being disconnected due to Yala National Sanctuary
- 8 hours travel time being taken to reach Arugam Bay from Katunayake and the only available public transportation mode is bus transportation.
- **Current water supply of planning area is inadequate** to cater the demand of 7700m3 as the existing supply is only 1000m3
- No sewer connection available at least for the developed areas of planning area.

6.5 Concept Plan

Gateways of Arugam Bay; the Surfers' Hidden Paradise

As per the concept plan, Arugam Bay; the Surfers' Hidden Paradise is accessible via two Green Gateways such as Lahugala from West and Komari from North. For those who enter Arugam Bay from west through the Colombo – Battocaloa Highway via Moneragala, Lahugala will be the main Gateway. Lahugala Gateway is a green gateway which is also the entry point to Lahugala National Park. Thus it will also be an elephant view point. Lahugala will be a welcoming tourist service point where the long travelled tourists can pause for a while to first feel the aroma of this mysterious tourism destination.

For those who enter from the northern side from Battocaloa via Colombo – Battocaloa Highway, Komari will be the main gateway which will also serve as a service point just as Lahugala Gateway.

Pottuvil as the last town at the southern edge of east coast

The true surfers' paradise is actually the 54 km long coastal stretch where a number of surfing breaks are placed hidden beside either the dense jungles, wavy sand dunes or sparkling lagoons. The green corridor which runs towards the coast from Lahugala Gateway intersects the coastal belt of Arugam Bay at the small town named Pottuvil. Pottuvil is the last town at the southern edge of east coast thus it is the last service town where any tourist taking a right turn and travel towards south can buy the main supplies required for the rest of the stay at Arugam Bay.

Mysterical Corridor of Arugam Bay

Towards the south from Pottuvil Town is the Mysterical Corridor of Arugam Bay. When someone travels further south more he or she will encounter the mysteriousness of Arugam Bay. At the south edge of the Mysterical Corridor will be the last inhabited village of south-east which is located next to the Yala Forest Reserve. The road running from Pottuvil via Arugam Bay to the south ends at the small yet legendary village named Panama. Panama has its own secrets inherited by its long history and deep rooted culture. Panama will be one of the three tourist destinations within Arugam Bay where tourists are given the choices of accommodation such as camping amidst the jungle or homestay in the

village. Tourists who choose their accomodation at the south edge of Mysterical Corridor of Arugam Bay will be able to experience and explore quite a lot of mysteries carried by villagers in the form of cultural and religious events such as 'An Keliya', 'Paththini Pooja' and Okanda Dewalaya Perahara. In addition, the tourists will also be able to explore a number of heritage sites hidden amidst the dark jungles of Kumana, Kudumbigala and Yala Forests such as Kudumbigala Monastery, Okanda Dewalaya, Nagapabbatha Monastery in Bambaragasthalawa and Bowattegala Monastery.

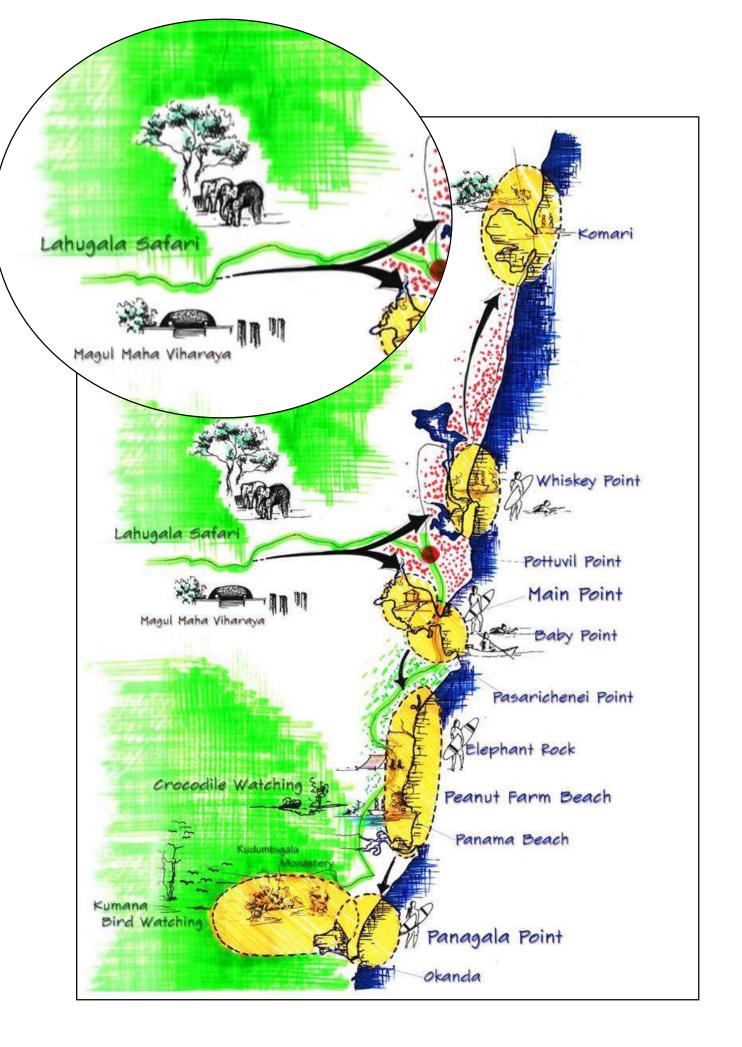
As the mysteriousness increases southwards along the Mysterical Corridor starting from Pottuvil, the vibrancy of the corridor increases northwards from Panama to Arugam Bay as the activity diversity and intensity rapidly increases when heading towards Arugam Bay from Panama.

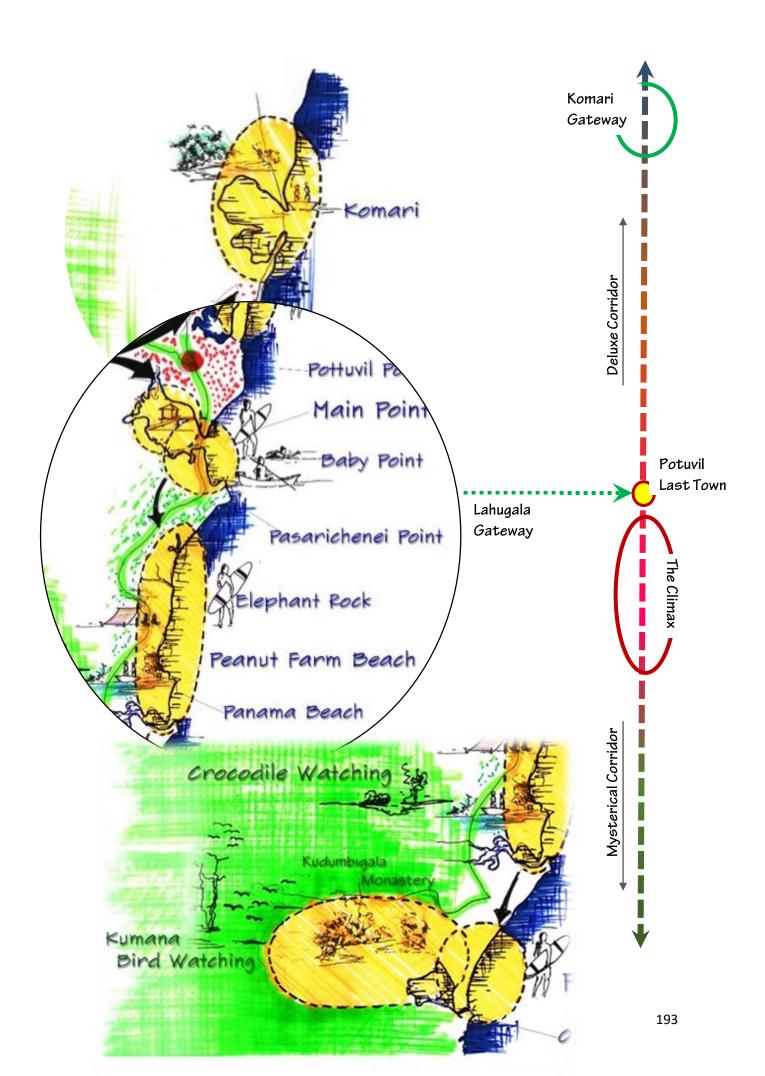
Deluxe Corridor of Arugam Bay

Deluxe Corridor of Arugam Bay which spans northwards from Pottuvil Town will carry an entirely different character with compared to the Mysterical Corridor. Towards the north, the extravagance character of the corridor will increases making Komari one of the exclusive and high end accommodation destination of Arugam Bay. When travelling towards north

The Climax; Arugam Bay Main Tourism Strip

The zenith of the Surfers' Hidden Paradise is the Arugam Bay Main Tourism Strip which spans approximately 1km towards Pottuvil Town starting from the Main Point. Arugam Bay Main Point will be the main surfing point in future as well and it will be the place to host large scale surfing competitions, festivals and will be the most vibrant place of Arugam Bay; the Surfers' Hidden Paradise. from Pottuvil Town will be attractions such as Kottukal Lagoon, Whiskey Point and Sangaman Kanda which provide comparatively high end accommodation facilities. While the extravagance character increases towards Komari from Pottuvil Town, the vibrancy of the corridor increases from Komari to Pottuvil Town.





URBAN DEVELOPMENT AUTHORITY

Sethsiripaya Stage 01, Battaramulla, Sri Lanka Tel : +94 112 873 637 E-Mail : info@uda.gov.lk

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