

# ECONOMIC IMPACT OF CLIMATE CHANGE ON TOURISM WITH SPECIAL REFERENCE TO ERNAKLAM DISTRICT

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## Abstract

In 2018, south Indian state of Kerala was affected by the worst floods and landslides that it has experienced since 1924. The natural disaster of August 2018 resulted with in the loss of lives, livelihoods and caused destruction to houses, roads and various infrastructures. It is clear that just like last year, Kerala recorded extremely heavy rainfall in the second week of August lasting just a few days, this year too, there has been inconsistent rainfall throughout the season. A top India Meteorological Department (IMD) official said, “The intensity of rainfall has been high. It is more common nowadays, and we can attribute it to climate change. In the coming years as well, we can expect high-intensity rainfall.” . In the changing climate scenario, frequency of extremely/exceptionally heavy rain episodes is increase at the expense of a decrease in the number of light/ moderate rainy days. This has serious implications for flood conditions. The productive sector of the economy including agriculture, industry and infrastructure suffered substantial losses during the flood period. Tourism industry is one among them. Tourism contributes to about 10 per cent of the state’s GDP and is responsible for about 15 lakh jobs as per the State Planning Board report 2017. A key development in the “Coming of Age” of tourism in the eyes of policy makers was undoubtedly the development of tourist multiplier model as first developed by Archer (1973) in his study of Anglessy, “The Impact of Domestic Tourism”. ‘Kerala - Gods Own Country’ has become a well- recognised tourism brand and the state has achieved impressive growth in foreign tourist arrivals in particular. Tourism of Kerala has evolved over time and is today an integral part of the overall service sectoral economic activity. The present work is an attempt to show how the flood economically affects the tourism industry in Ernakulam district. The random sampling technique was used for this study. The primary data was collected from the District Tourism Promotion Council (DTPC) in Ernakulam district. The economic impact of flood on tourism is evaluated on various contexts such as domestic revenue earnings, foreign exchange earnings and employment generation.

Key Words: Climate Change, Flood, Tourism, Foreign Exchange earnings, Domestic Revenue Earnings, Ernakulam District, Kerala.

## INTRODUCTION

Rain has become a worry of Keralites. It was not the case two years ago. We have been a region aplenty with rains through this that we have managed to run the social cycle of the place. However, a devastating flood last year had ruined all the spirits and the very name of rain send shudders down the spine

of every Malayali. The flood last year was, we thought, a freak phenomenon. A once-in-a-while thing! But, it was not.

This year rains proved it coupled with monstrous landslides. Something had gone terribly bad. The pre-monsoon (March-May) season over the state had witnessed a rain deficiency of 55 per cent, and the monsoon season until July 15 experienced 46 per cent reduction and the administration had begun to prepare for a drought situation. Until July 2, the state had received just 365.99 mm rain against the normal of 697.8 mm. But within a week, on August 10, the rainfall deficiency had dropped to just 8 per cent, as the state was pounded by heavy rain over a few days. However, with an exceptionally heavy rain spell, the rain decline sprang up to 'normal', pointing out the vigour of the downpour. This is a remarkable shift in the recent monsoon rain pattern. In the changing climate scenario, frequency of extremely/exceptionally heavy rain episodes is increase at the expense of a decrease in the number of light/ moderate rainy days. This has serious implications for flood conditions.

The economic projection of tourism 2019 was lowered as a result of wide spread devastation. The tourism sector workers are susceptible to indirect damage, as tourist attraction spots are destroyed by flooding and tourists avoid visiting impacted areas. In this paper I am trying to analyse the economic impact of flood on tourism.

The concept of tourism developed during the period between the two world wars. Two Swiss Professors, Hunziker and Karf, came out with the following definition of tourism, which was later adopted by the International Association of Scientific Experience in Tourism (AIRST).

Tourism is the sum of phenomenon and relationships arising from the travel and stay of non-residents, in so far as they do not lead to permanent residence and are not connected with any earning activity.

Tourism industry is becoming one of the incentive for the growth of Indian economy. Looking at the development and growth of the industry it is now becoming one of the developing industry in India. As talking about the tourism industry it holds the strategic impact in the Indian economy providing several social and economic benefits. Like, employment opportunity and foreign exchange revenue for the government of the country, along with that it also support to the development or expansion of other industries such as agriculture, construction, handicrafts etc are some of the important economic benefits provided by the tourism industry. In addition investment in infrastructure facilities such as transportation services, accommodation facilities like hotels, motels and restaurants and other tourism related services lead to an overall development of infrastructure in the economy.

All in all tourism as an industry has vital importance as a 'tool' for rapid economic development in developing countries. The importance of tourism as a contributor to economic growth is so widely accepted that year after year throughout the world a massive investment continues to pour in its development. Notably, while planning for the development of tourism industry, sufficient attention should be given to the

important economic criteria, viz. Efficiency of capital utilization labour intensity of investment and time span of gestation.

It is generally observed that the gestation period is comparatively shorter and the margin of profit certainly greater in tourism industry than it is in most other industries. Moreover, tourism calls for comparatively moderate investment compared to other industries. A countries tourism consists of what is already part of the country, its climate, scenery, history, monuments, art, tradition, festivals and the people. The tourist who spends so much of his saved income seeks little more than a pleasant change to a new environment for a holiday, what he takes back with him are just impressions and souvenirs.

Among the Indian states Kerala plays an important role in travel and tourism industry. Geographically, Kerala is a blend of an excellent landscape with palm-lined beaches, thick rain forests, plantation-covered hills and beguiling rivers and lakes. It is considered to be one of the cleanest and the most peaceful part of India. 'Gods Own Country', 'One of the ten paradise found', 'Spice Garden Of India' etc are the most apt names given to this state.

## ROLE OF TOURISM IN ECONOMIC DEVELOPMENT

1. Given the inelasticity of our traditional exports and an ever-increasing competition on this front we will have to tap a new source to earn foreign exchange to offset our chronic deficit. The world has moved from a three-dimensional economic structure to a four-dimensional one (tourism being the fourth-dimensional in the world of Andre Siegfried) and in our case the fourth-dimensional offers the greatest scope for development.
2. It is a labour-intensive industry and can help to provide jobs to the millions of unemployed and underemployed.
3. Tourism has been defined as a “ light industry requiring no capital”. There is no other industry, which would yield foreign exchange in such a short time with so little capital investment (excluding investment on infrastructure).
4. Tourism has a far-reaching impact on the economy. It has been estimated by Chechi and Company that every rupee spent by a visitor multiplies 3.2 to 4.3 times, the variation in range depending upon the leakage in the economy.
5. And finally, its acceleration effect. The accelerator effect concerns the money, which will be invested in the production of capital goods. While this will increase their supply for one thing the demand will be accelerated for another. The result will be more intense 'multiplier effect'. Both the effects by reinforcing each other would ultimately boost the economy.

## TOURIST ARRIVAL INTO KERALA

Now a days people are ready to spend their valuable time for entertainments and pleasure trips. We can see there is a huge acceptance of travel and tourism in all over the country which in turn leads to a tremendous increase in the number of domestic tourist arrival at a greater proportion than foreign tourist.

**Domestic tourist arrival into Kerala**

Year	Number of domestic tourist arrival	% of variation over previous year	Total revenue earned from the domestic tourist (in crores)	% of variation over previous year
2015	1,24,65,571	6.59	26,689.63	7.25
2016	1,31,72,535	5.67	29,658.56	11.11
2017	1,46,73,520	11.39	33,383.68	12.56
2018	1,56,00,000	6.31	36,528.01	9.42
2019	9,38,6676	-	-	-

Source : Kerala Tourist Statistics

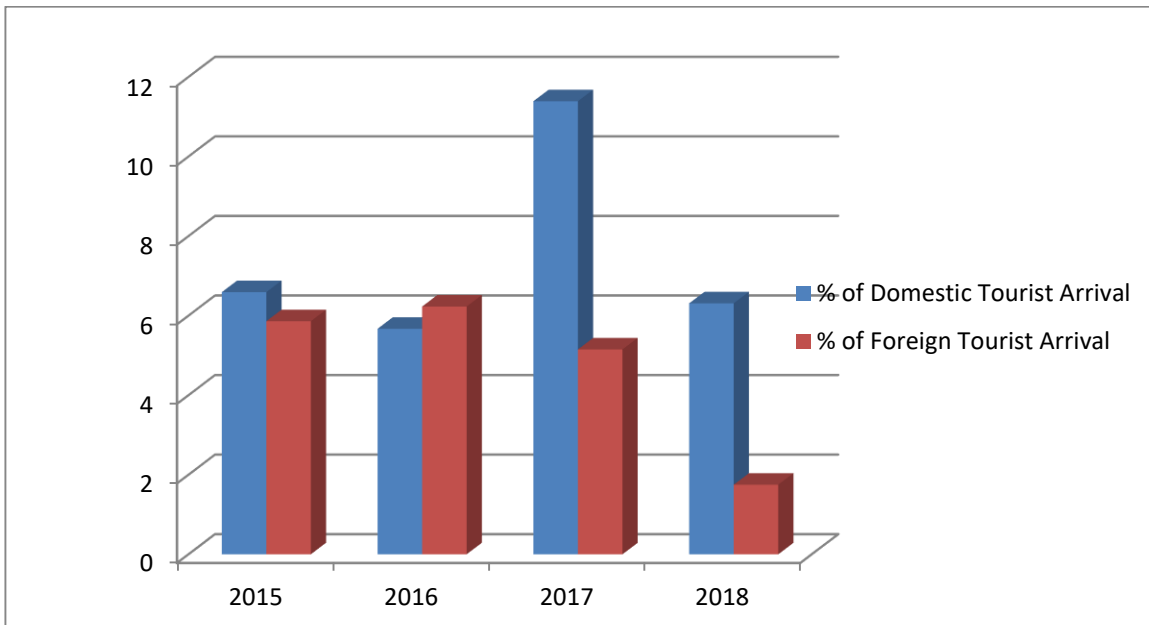
From the above table we can understand that in the year 2017, there is a highest increase in the percentage of domestic tourist arrival and revenue earned from the domestic tourists as compared to the previous years. In 2018, the total number of domestic tourist arrival is highest but the percentage of growth shows a decreasing trend. In spite of flood and landslides in 2018, the increase in the number of domestic tourist arrival was mainly due to the Tourism Departments sustained promotion campaigns from November last year. The first among these campaign was IT'S TIME FOR KEALA' campaign from November 2018 to January 2019.

**Foreign Tourist Arrival into Kerala**

Year	Number of foreign tourist arrival	% variation over previous year	Foreign exchange revenue	% of variation over previous year
2015	9,77,479	5.86	6,949.88	8.6
2016	10,38,419	6.23	7,749.51	11.51
2017	10,91,870	5.15	8,392.11	8.29
2018	11,11,000	1.5	8,764.46	4.45
2019	6,04,789	-	-	-

Source: Kerala Tourist Statistics

The percentage of increase in the foreign tourist arrival and foreign exchange revenue is highest in the year 2016 as compared to the previous years. In 2018, the percentage of increase in both foreign tourist arrival and foreign exchange revenue was very low.



From the above graph we can understand that in every year the percentage of domestic tourist arrival is higher than that of foreign tourist arrival.

**MONTHLY WISE TOURIST ARRIVAL INTO KERALA DURING 2018 AND 2019**

In order to get the correct picture of economic impact of flood on tourism, we have to analyse monthly wise tourist arrival into Kerala during 2018.

**Tourist arrival into Kerala during 2018**

Months	Number of Domestic Tourist Arrival	Number of Foreign Tourist Arrival
January-March	38,77,712	4,40,694
April- June	41,49,122	1,67,666
July- September	12,92,570	10,0000
October- December	62,80,596	402640

Source : The Week Magazine

The lowest number of tourist arrival both domestic and foreign is marked between July to September, which was the flood effected months. But after that we can see a strong revival of the state that showing an increased number of domestic tourist arrival. Increase in the number of tourist arrival indicates increase in the foreign exchange revenue and vice versa.

### Tourist Arrival into Kerala during 2019

Months	Number of Domestic Tourist Arrival	Number of Foreign Tourist Arrival
January-March	41,90,468	4,22,469
April- June	47,73,739	1,82,320

Source : The Week Magazine

From the above table there is a positive trend in domestic tourist arrival but a decreasing trend in foreign tourist arrival. The main reason for that decreasing trend may be the fear of foreigners about the flood and infrastructure destructions.

### TOURIST ARRIVAL INTO ERNAKULAM DISTRICT

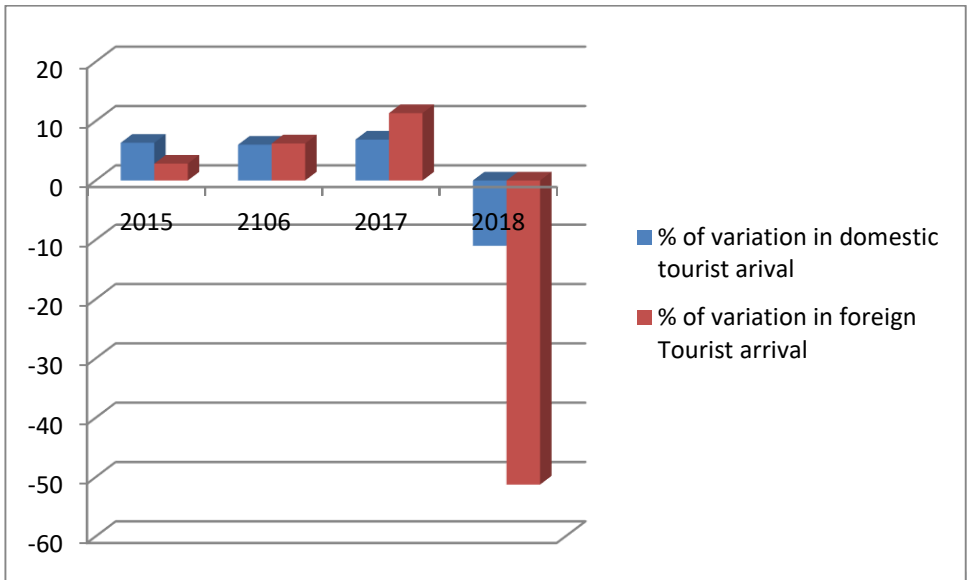
Ernakulam/ Kochi region is the highest industrial and tourism contributor to the state's GDP. Kochi, a most important port city on the west coast of India by the Arabian Sea is a part of the district of Ernakulam in the state of Kerala. Kochi is often called by the name Ernakulam, which refers to the eastern part of the mainland Kochi. Fort Kochi is a region in the city of Kochi and is part of a handful of water-bound region toward the south-west of the mainland Kochi, and collectively known as Old Kochi. Ernakulam district government also conduct Kochi-Muziris Binale , which was a major attraction for foreign tourists.

### Domestic and Foreign Tourist Arrival into Ernakulam District

Year	Number of domestic tourist arrival	% of variation over previous year	Number of foreign tourist arrival	% of variation over previous year
2015	28,97,894	6.36	3,83,643	2.85
2016	30,73,159	6.04	4,07,653	6.25
2017	32,85,088	6.9	4,53,973	11.36
2018	29,22,138	-11	2,21,275	-51.25
2019	19,79,646	-	1,73,273	-

Source : Kerala Tourist Statistics

During 2018 there is showing a negative growth in both domestic and foreign tourist arrival to Ernakulam. This negative growth is higher in the case of foreign tourist arrival(-51.25 per cent) rather than domestic tourist arrival(-11 per cent). The highest number of both domestic and foreign tourist arrival was marked in the year 2017. In this year there was a 6.9 per cent growth in domestic tourist arrival and 11.36 per cent growth in foreign tourist arrival.



**MONTHLY-WISE TOURIST ARRIVAL DURING 2018 AND 2019**

It is important to understand monthly-wise tourist arrival data to get a clear picture of domestic and foreign tourist arrival during 2018. Due to flood in August, our infrastructure facilities got damaged. Road, rail way and airports were completely stuck with water and landslides. Because of this reason, the number of tourist arrived was very low and it also difficult get correct data during this period (July-September).

**Tourist arrival into Ernakulam District during 2018**

Months	Number of Domestic tourist arrival	Number of foreign tourist arrival
January-March	8,87,922	22,667
April- Jun	8,12,696	86,088
July- September	-	-
October- December	7,21,520	72,520

Source: Tourist Statistics 2018

Tourism industry was bucked the negative trend in foreign as well as the domestic tourist arrivals in the aftermath of last year calamitous floods, attracting 72520 visitors from abroad.

### Tourist arrival into Ernakulam District during 2019

Months	Number of Domestic tourist arrival	Number of foreign tourist arrival
January- March	9,96,091	86,215
April- Jun	9,83,555	87,058

Source : The Week Magazine

### CONTRIBUTION OF TOURISM SECTOR TO EMPLOYMENT

Tourism is an important engine for economic growth due to its forward and backward linkage stronger than any other sectors linkage in the economy. This strong linkage create multiplier effect on employment and poverty eradication. According to International Labour Organisation, one job in tourism industry creates 1.5 additional or indirect job in tourism related economic activity.

Tourism sector contribution to the total employment of Ernakulam between 2015 and 2019

Share in employment (in per cent)		
District	Direct impact	Indirect Impact
Ernakulam	8.34	14.6

Source : Primary data

Restaurants, food outlets, bars, clubs , tour operators, travel industry and guides, workers in the boats, and government staff will includes in the direct employment section. The indirect employment generating segments are fast food and beverage counters/shops, commercial establishment/shops ( prominent being jewellery, textiles, souvenirs, daily use products, etc), travel insurance, amusement parks, local transportation, currency exchange, media and other entertainment products and services. Moreover, public transport vehicles, taxis, auto rickshaws and shops cater mostly to the local population. The extent of usage of many indirect employment-creating sectors by tourist would be minuscule, compared to their usage by the local population. Considering this aspect, the value of estimated employment generated by tourism in these sectors in not reliable.

### CONCLUSION

Tourism is perhaps the only ‘marketed’ or ‘marketable’ transfer of funds, short of foreign grants, which can bring valuable foreign exchange to a country without any exchange and export of merchandise. The state government has realised the immense potential of tourism, which is now poised to become a major industry in Kerala. But in 2018 August, Kerala experienced an abnormally high rainfall which leads to a severe flooding in 13 out of 14 districts in the state. Among the 14 districts in Kerala, Ernakulam registered the highest increment in footfall with an increase of tourist arrival in the state at an impressive 18.86 per cent in the first quarter of 2019 as compared to the figures of corresponding period with in the previous year. There is a positive relationship between the number of tourist arrival, revenue earnings and employment



generation. After experiencing worst flood in almost a century, the tourism sector in Kerala is slowly leading towards recovery.

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