

## **An analysis on performance and seasonality of Coastal Tourism in West Bengal**

**ANIRBAN BAITALIK<sup>1\*</sup> AND SANKAR MAJUMDER<sup>2</sup>**

<sup>1</sup>Research Scholar and <sup>2</sup>Professor

<sup>1</sup>Palli Charcha Kendra, Visva-Bharati, Santiniketan (W.B.) India

<sup>2</sup>Department of Rural Studies, Palli Charcha Kendra, Visva-Bharati, Santiniketan (W.B.) India

### **ABSTRACT**

This paper is an analysis of the performance and seasonality of coastal tourism in the state of West Bengal. Performance of coastal tourism has been considered in terms of tourist arrivals. Seasonality has been measured by Seasonality Indicator (SI) and Gini-Coefficient (G). It is revealed that tourist arrivals at various coastal tourist spots are increasing continuously over the years. But each coastal tourist spot is suffering from specific type of seasonality. Development of coastal tourism therefore, requires specific policies and projects for specific spot.

**Key Words :** Coastal tourism, Gini-coefficient, Seasonality Indicator, Tourist arrivals

### **INTRODUCTION**

Tourism is considered as one of the fastest growing sector. In many developed and developing countries tourism has been designed as a leading sector for the purpose of stimulating economic growth and development. Over time, an increasing number of tourist destinations have opened up and large amount of investment is coming in this sector. Modern tourism is becoming a key driver for rapid socio-economic development. Therefore, tourism is now recognized as an emerging, diverse and profitable sector everywhere in the world as well as in India and in West Bengal.

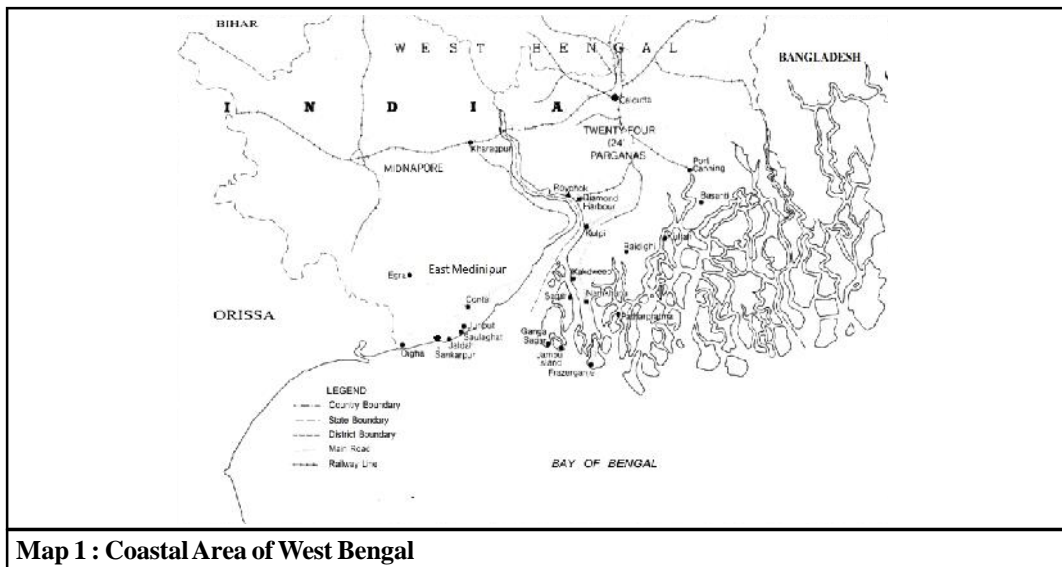
West Bengal is a land of splendid destinations with rich cultural and historical heritage, diversified flora & fauna, sun-sea-beaches, mysterious mangroves, snow clad mountains and wildlife. The coastal stretch of West Bengal is about 220 Km. long (IESWM and ISRO, 2001) along the shoreline of Bay of Bengal. The coastal area of West Bengal is endowed with many virgin beaches, fishing harbours and Sundarban Mangrove Forest (UNESCO World Natural Heritage Site). Coastal area of Ganga Sagar is another dimension for pilgrim tourism. All these attract large number of international and domestic visitors to the coastal areas of West Bengal.

#### **Objectives :**

1. To know the components of coastal tourism development in West Bengal.
2. To study the performance of coastal tourism in West Bengal.
3. To study the seasonality of coastal tourism in West Bengal.

**Study area :**

Two districts of West Bengal having coastal boundary, viz., Purba Medinipur and South 24 Parganas have been selected for empirical investigation. The coastal area of West Bengal lies between 87°25'E and 89°E latitude and 21°30'N and 23°15'N longitude, covering an extensive area of land along the Bay of Bengal coast.

**METHODOLOGY**

Analysis is based on secondary data. Seasonality analysis has been done on the basis of data available only from 2008-2015 (for Digha and Bakkhali) and 2012-2015 (for Ganga Sagar and Sundarban). Performance of coastal tourism has been expressed by number of tourist arrivals. Seasonality Indicator (SI) and Gini Coefficient (G) have been considered to measure the seasonality of tourist arrivals in each year. Value of Seasonal Indicator varies from 1/12 to 1. If number of visitors arriving is constant for every month, then the seasonal indicator is 1 and if number of visitors arriving concentrates on one month then the seasonal indicator is 1/12. Lower value indicates higher seasonality. Following Bigovic (2012) Seasonal Indicator has been calculated by:

$$SI_i = \frac{\bar{y}}{y_{\max}}$$

where,

$SI_i$  = Seasonal Indicator value of the  $i$ th year

$\bar{y}$  = average number of tourist arrivals in a month during a particular year; and

$y_{\max}$  = highest number of tourist arrivals during a month in that particular year

The value of Gini-coefficient varies from 0 to 1. Higher value indicates higher inequality that means existence of tourism seasonality and *vice-versa*. For the purpose of this study following formula has been used to calculate Gini-coefficient (Lundrop, 2001).

$$G = \frac{1}{6} \sum_{i=1}^n (x_i - y_i)$$

where,

$x_i$  = Ratio order (*i.e.* 1/12, 2/12, 3/12,.....12/12); and

$y_i$  = Cumulative relative frequency of tourist arrivals in rank by ascending order

## RESULTS AND DISCUSSION

### Components of Coastal Tourism in West Bengal :

The state of West Bengal has long length of coastal belt along the shoreline of Bay of Bengal, dotted with several wide-flat sandy beaches, which are vital components of coastal tourism in the state. Beside the beaches, coastal sand dunes with outstanding morphological features and casuarinas groves are additional attractions of coastal tourism in the state.

Apart from the beaches, the coastal area of West Bengal is a home of Sundarban mangrove forest with rich biodiversity, which plays a significant role in coastal ecotourism development. Coastal mangrove ecosystem of the Indian Sundarban region in the state of West Bengal is the most prominent feature characterised by the abundance of Sundari (*Heritiena fomes*), Gewa (*Excoecaria agallocha*), Goran (*Ceriops decandra*) and Keore (*Sonneratia apetala*) etc. The total area of Sundarban mangrove forests is about 10000 Sq. Km. (3900 Sq. Mile) of which nearly 4000 Sq. Km. (1500 Sq. Mile) is located in the state of West Bengal.

Beside the natural attractions, other components, such as fishing harbours/fish landing centres, pilgrim sites, amusement parks, gardens, watch towers, cruises, marine aquarium, and science centres etc. serve as manmade attractions of coastal tourism development along the coast of West Bengal.

Table 1 : Major components of Coastal Tourism Development in West Bengal		
Components	Purba Medinipur District	South 24 Parganas District
Beach	<b>Well Known</b>	<b>Well Known</b>
	Digha, Shankarpur, Mandarmoni, Tajpur, Udaypur,	Bakkhali-Frasurganj
	<b>Less Known</b>	<b>Less Known</b>
	Chandpur, Junput, Gopalpur, Bankiput, Baguran, Haripur, Digha Mohana	Kalas Dwip, Jambu Dwip, Kanak Island
Mangrove Forest and Wildlife	-	Sundarban National Park
Pilgrim Site/ Religious Place	Kapalkundala Temple	Ganga Sagar/Sagar Island
Fishing Harbour/Fish Landing Centre	<b>Big Size</b>	<b>Big Size</b>
	Shankarpur, Patuaghat, Deshapran	Raychak, Dimond Harbour, Kakdwip, Namkhana, Chemaguri, Sagar, and Jambu
	<b>Medium and Small Size</b>	<b>Medium and Small Size</b>
	Jaldha, Dadanpatrabar, Cheausuli, Soula, Haripur, Junput, Baguran-Jalpai, Sonamui, Kadua, Gopalpur, Bankiput	Falta, Noorpur, Kulpi, Fasurganj, Raidighi, Domkal, Sitarampur, Hatipitha, Kanamuri, Moragali, Harinbhaga
Sanctuary	-	<ul style="list-style-type: none"> <li>• Pakhiralaya Bird Sanctuary</li> <li>• Haliday Island Wildlife Sanctuary</li> <li>• Kanak Sanctuary Beach for Olive Ridley Turtle</li> </ul>

Table 1 contd...

Contd... Table 1

Other Attractions	<ul style="list-style-type: none"> <li>• Digha Science Centre</li> <li>• Amarabati Lake cum Park</li> <li>• Marine Aquarium Regional Centre (MARC)</li> <li>• Cashew Nut Processing Centre and Research Unit</li> <li>• Kajal Dighi and Toy Train</li> <li>• Dipak Mitra's Snake Farm</li> <li>• Dadanpura Salt Extraction Centre</li> <li>• Dariapur Light House</li> <li>• Digha Biswa Bangla Uddan</li> </ul>	<ul style="list-style-type: none"> <li>• Nature Interpretation Centre at Dhanchi</li> <li>• Watch Tower at Bagna</li> <li>• Picnic Facilities at Dabu</li> <li>• Tigar Rescue Centre cum Sanctuary at Dhanchi</li> <li>• Nature Trail/Reptile House/Fishing Angling Platform at Sajnakhali</li> <li>• Sudhanyakhali and Sajnakhali Watch Tower</li> <li>• Dobanki Watch Tower</li> <li>• Bhagbantpur Crocodile Project</li> <li>• Buridabri Nature Trail and Watch Tower</li> <li>• Netidhopani Wildlife Camp</li> <li>• Jharkhali Ecotourism Hub</li> <li>• Kankramarir Char</li> <li>• Ghoramara Island</li> </ul>
Nearby Attractions	Talsharee Beach and Chandaneswar Temple of Orissa	-

Source: Compiled by the Author

### Performance of Coastal Tourism in West Bengal :

Performance of coastal tourism in terms of foreign and domestic tourist arrivals at various popular coastal tourist spots in the state of West Bengal have been discussed in the following sections.

### Tourist Arrivals at Digha and Bakkhali :

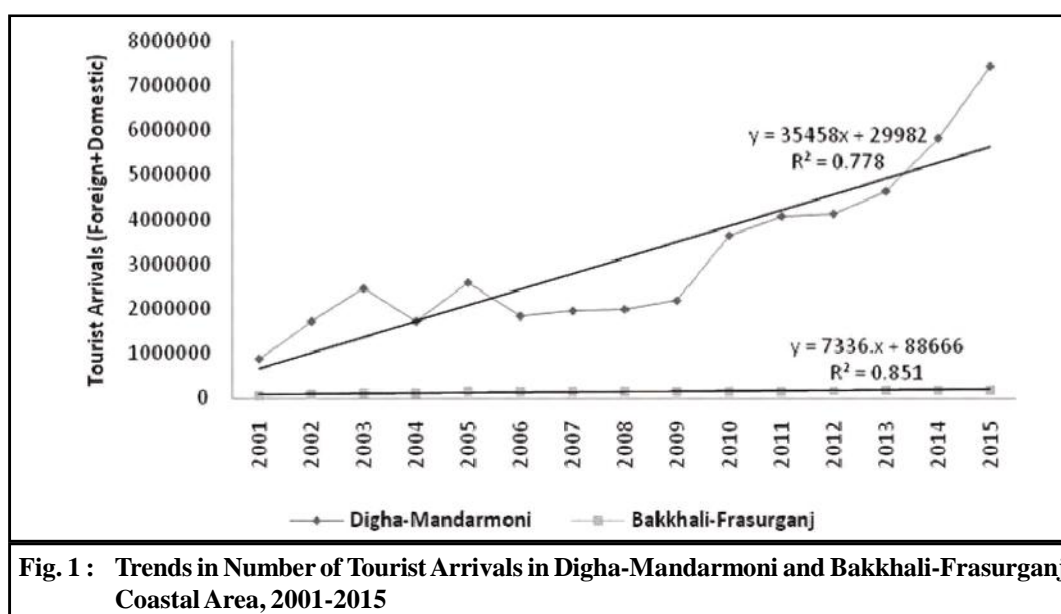
Year-wise Foreign Tourist Arrivals (FTAs) and Domestic Tourist Arrivals (DTAs) at Digha and Bakkhali beach area have been presented in Table 2.

Table 2 : Year-Wise Tourist Arrivals at the Major Beach Resorts of WB (Digha and Bakkhali)												
Year	Digha						Bakkhali					
	No. of Tourist Arrivals			Annual Year to Year Growth Rate (%)			No. of Tourist Arrivals			Annual Year to Year Growth Rate (%)		
	Foreign	Domestic	Total	Foreign	Domestic	Total	Foreign	Domestic	Total	Foreign	Domestic	Total
2001	3168	873737	876905	-	-	-	114	62174	62288	-	-	-
2002	20448	1699273	1719721	545.45	94.48	96.11	193	91960	92153	69.30	47.91	47.95
2003	29978	2428118	2458096	46.61	42.89	42.94	385	111936	112321	99.48	21.72	21.89
2004	32505	1686727	1719232	8.43	-30.53	-30.06	499	125215	125714	29.61	11.86	11.92
2005	89291	2500921	2590212	174.70	48.27	50.66	1346	145400	146746	169.74	16.12	16.73
2006	55320	1780443	1835763	-38.05	-28.80	-29.13	3240	148563	151803	140.71	2.18	3.45
2007	56749	1895830	1952579	2.58	6.48	6.36	3383	143874	147257	4.41	-3.15	2.99
2008	4050	1981265	1985315	-92.86	4.51	1.68	9451	151007	160458	179.37	4.96	8.96
2009	6800	2177695	2184495	67.90	9.91	10.3	3640	158341	161981	-61.49	4.86	0.95
2010	5052	3633543	3638595	-25.71	66.85	66.56	3283	155095	158378	-9.80	-2.05	2.22
2011	4322	4069342	4073664	-14.45	11.99	11.96	1952	161787	163739	-40.54	4.31	3.38
2012	4184	4120826	4125010	-3.19	1.27	1.26	2500	171027	173527	28.07	5.71	5.98
2013	16276	4620655	4636931	289.00	12.13	12.41	2934	176316	179250	17.36	3.09	3.3
2014	24805	5796310	5821115	52.40	25.44	25.54	3076	181606	184682	4.84	3.00	3.03
2015	31175	7398550	7429725	25.68	27.64	27.63	3135	186895	190030	1.92	2.91	2.9

Source: Department of Tourism, Government of West Bengal

From Table 2, it can be seen that foreign tourist arrivals at Digha have increased from 3168 in 2001 to 31175 in 2015 showing about ten times increase over the span of 15 years. On the other hand domestic tourist arrivals have increased from 873737 to 738550 showing about nine folds increase during the same period. The Compound Annual Growth Rate (CAGR) of FTAs and DTAs was about 16.47% and 15.31%, respectively. But the year to year growth rates of tourist arrivals show wide variations during this period. Negative growth rates of total tourist arrivals were observed during 2004 and 2006. Incredible growth rates of total tourist arrivals were found during 2002 (96.11%), 2003 (42.94%), 2005 (50.66%) and 2010 (66.56%).

Table 2 also shows that the foreign and domestic tourist arrivals at Bakkhali-Frasurganj coastal area during 2001-2015. FTAs and DTAs have increased from 114 to 3135 and 62174 to 186895, respectively during 2001-2015. During this period the Compound Annual Growth Rate (CAGR) was about 24.73% for FTAs and 7.63% for DTAs.



**Fig. 1 : Trends in Number of Tourist Arrivals in Digha-Mandarmoni and Bakkhali-Frasurganj Coastal Area, 2001-2015**

**Tourist Arrivals at Ganga Sagar and Sundarban :**

Year-wise domestic and foreign tourist arrivals at the Ganga Sagar and Sundarban coastal area have been presented in Table 3.

Year	Ganga Sagar						Sundarban					
	No. of Tourist Arrivals			Annual Year to Year Growth Rate (%)			No. of Tourist Arrivals			Annual Year to Year Growth Rate (%)		
	Foreign	Domestic	Total	Foreign	Domestic	Total	Foreign	Domestic	Total	Foreign	Domestic	Total
2010	-	-	709779	-	-	-	2428	65191	67626	-	-	-
2011	-	-	739553	-	-	4.19	2694	88452	91146	10.96	35.68	34.78
2012	8307	769198	777505	-	-	5.13	3197	87742	90939	18.67	-0.80	-0.23
2013	9107	844825	853932	9.63	9.83	9.83	5543	113150	118693	73.38	28.96	30.52
2014	8665	951395	960060	-4.85	12.61	12.43	5645	187950	193595	1.84	66.11	63.11
2015	2510	1520300	1522810	-71.03	59.80	58.62	8495	272800	281295	50.49	45.14	45.3

Source: Department of Tourism, Government of West Bengal

From Table 3, it can be seen that FTAs at Ganga Sagar have decreased from 8307 in 2012 to 2510 in 2015 and DTAs have increased from 769198 to 1520300 for the same period. The year to year growth rates of total tourist arrivals have increased during 2013-2015, as compared with the previous years and the Compound Annual Growth Rate (CAGR) of total tourist arrivals was about 13.57% over the span of six years. An incredible growth rate of total tourist arrivals was recorded in 2015 which was about 58.62%.

Table 3 also shows that, FTAs and DTAs at the Sundarban coastal areas have increased 3197 to 8495 and 87742 to 272800, respectively during 2010-2015. The Compound Annual Growth Rate (CAGR) of total tourist arrivals was about 26.82% over the span of six years.

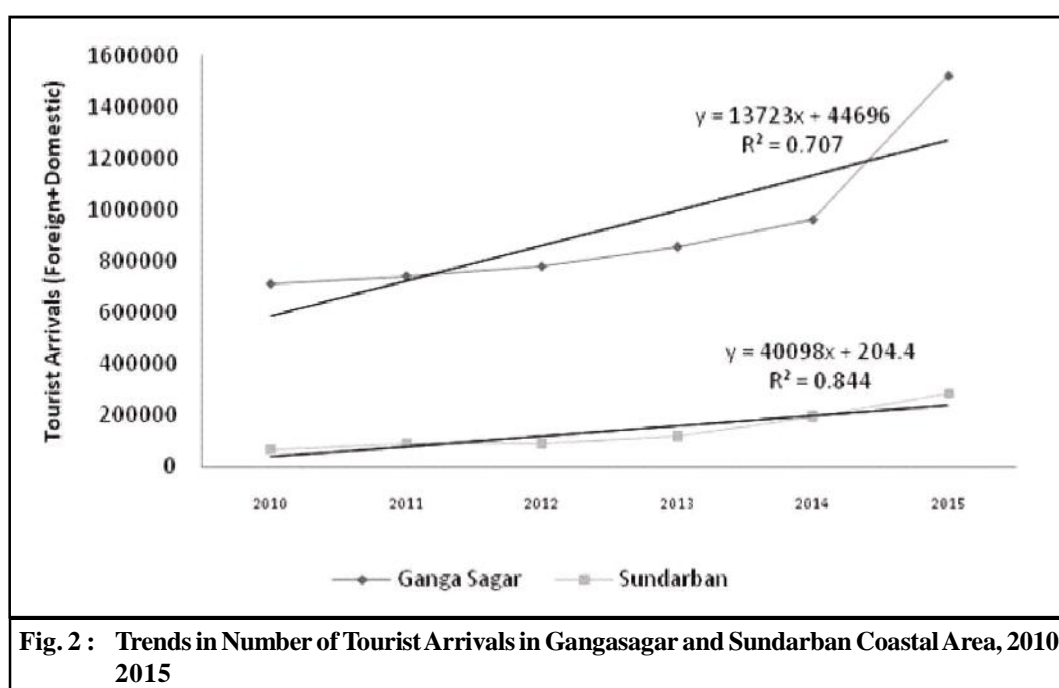


Fig. 2 : Trends in Number of Tourist Arrivals in Gangasagar and Sundarban Coastal Area, 2010-2015

### Seasonality of Coastal Tourism in West Bengal :

Seasonality in tourism is a universal problem. Factors, such as climatic condition (natural seasonality) and availability of public holidays (institutionalised seasonality) influence on the seasonality of tourism. Seasonality in tourism can be understood in various ways. It can be understood in terms of the arrivals of the tourists, transactions of the different tourism products (i.e. accommodation, transport, restaurant etc.), flow of traffics, employment in tourist establishments etc. Seasonality Indicator (SI) and Gini-Coefficient (G) have been used to measure the seasonality of tourist arrivals in each year. Lower value of Seasonal Indicator indicates higher seasonality. On the other hand higher value of Gini-coefficients indicates higher inequality that means existence of tourism seasonality. Seasonality in terms of number of tourist arrivals at various popular coastal tourism spots of West Bengal has been discussed in the following sections.

### Seasonality of Tourist Arrivals at Digha-Shankarpur-Mandarmoni :

Data on month-wise (seasonal variation) tourist arrivals at Digha-Shankarpur-Mandarmoni coastal area is presented in Table 4.

Month	Year-wise Tourist Arrivals							
	2008*	2009*	2010*	2011*	2012	2013	2014	2015
January	178487	189407	233056	374537	607593	982130	1589723	2571853
February	182914	194225	244741	373092	617833	990925	1608758	2599683
March	162478	172430	243242	374022	617264	991286	1608550	2599836
April	151670	157981	330486	359421	689907	1049328	1739235	2788563
May	181600	192640	356453	367621	724074	1091695	1815769	2907464
June	179263	188400	362171	367528	729699	1097227	1826926	2924153
July	115635	125101	162210	380615	542825	923440	1466265	2389705
August	122522	132467	214382	218400	432782	651182	1083964	1735146
September	238733	257978	373248	165246	538494	703740	1242234	1945974
October	162818	179336	350422	345650	696072	1041722	1737794	2779516
November	154092	192740	365406	360840	726246	1087086	1813332	2900418
December	155103	201790	402778	386692	789470	1176162	1965632	3141794
Total	1985315	2184495	3638595	4073664	7712259	11785923	19498182	31284105
Average	165442.9	182041.3	303216.3	339472.0	642688.3	982160.3	1624849.0	2607009.0
Seasonality Indicator	0.69	0.71	0.75	0.81	0.81	0.84	0.83	0.83
Gini Coefficient	0.097	0.095	0.136	0.086	0.084	0.080	0.081	0.081

\*Tourist arrivals data only for Digha

Source: Department of Tourism, Government of West Bengal

Table 4 shows that the values of the Seasonal Indicator were around 0.70 and above during the period 2008-2015, which indicates the less seasonality in terms of tourist arrivals at Digha-Shankarpur-Mandarmoni coastal area. The values of Gini-coefficient during the same period leads to a conclusion that Digha-Shankarpur-Mandarmoni coastal area is not suffering from extensive seasonality in terms of tourist arrivals. The values of Gini coefficient for the year 2008 and 2015 have been calculated as 0.097 and 0.081, respectively. It reveals that inequality of the month-wise number of tourist arrivals was higher in 2008 compared to that of 2015.

Month-wise domestic tourist arrivals at the Digha-Shankarpur-Mandarmoni coastal area during 2008-2015 is illustrated in Fig. 3.

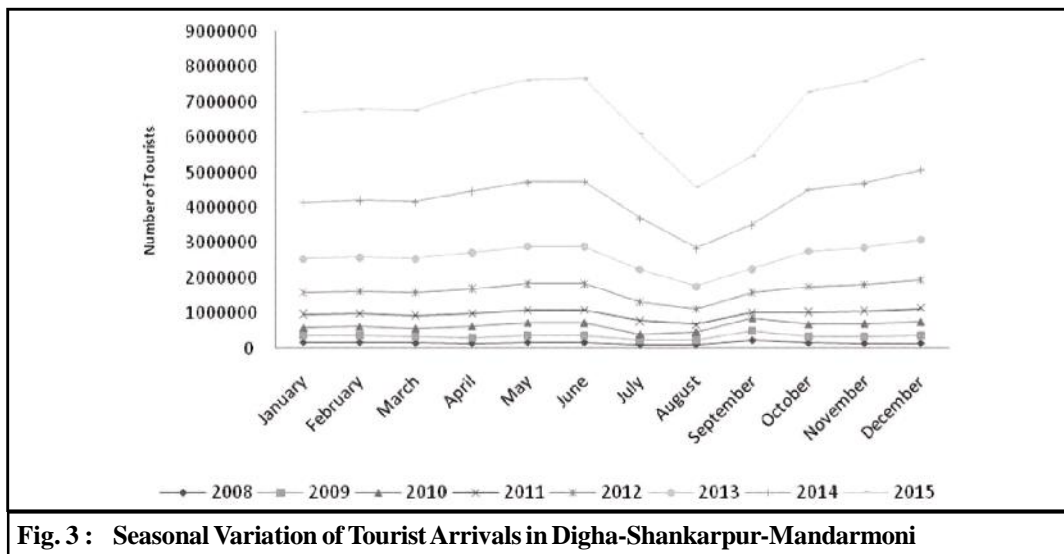


Fig. 3 : Seasonal Variation of Tourist Arrivals in Digha-Shankarpur-Mandarmoni

It appears in Fig. 3, shows that there is no significant seasonality except a mild upswing trend in the months of April-May (may be the effect of long term summer vacation of children), and October-December (may be the effect of Puja holidays and winter recess) and a mild declining trend in the months of June-August (may be the effect of rainy season) during the period 2008 to 2015. Development of tourism infrastructure and modern recreational facilities makes the Digha-Shankarpur-Mandarmoni coastal area all season destination. Tourist flow in this area is nearly same round the year. But it increases during long term holidays.

### Seasonality of Tourist Arrivals at Bakkhali-Fraserganj :

Data on month-wise (seasonal variation) tourist arrivals at the Bakkhali-Fraserganj coastal area is furnished in Table 5.

Table 5 : Seasonality of Tourist Arrivals at Bakkhali-Fraserganj Coastal Area								
Month	Year-wise Tourist Arrivals							
	2008	2009	2010	2011	2012	2013	2014	2015
January	22182	24920	22795	16151	17734	18500	19635	20230
February	20639	21666	22100	15701	16125	16545	17300	17700
March	4236	4249	4570	16566	16700	17445	17600	17845
April	16095	16106	22284	22297	22400	22989	23348	23500
May	17624	13647	21877	22322	22650	22773	23596	24000
June	13463	13473	13911	14766	16990	17024	17059	17300
July	4838	4852	6786	6189	6700	7061	7260	8359
August	4865	4878	4778	8556	8751	8896	9041	9186
September	5610	5623	6069	7983	10212	10569	10878	10900
October	15867	17497	9819	9819	10565	11323	11500	11900
November	16345	16358	10345	10345	11200	11525	11700	12565
December	18694	18712	13044	13044	13500	14600	15765	16545
Total	160458	161981	158378	163739	173527	179250	184682	190030
Average	13371.5	13498.42	13198.17	13644.92	14460.58	14937.5	15390.17	15835.83
Seasonality Indicator	0.60	0.54	0.58	0.61	0.64	0.65	0.65	0.66
Gini Coefficient	0.262	0.281	0.295	0.210	0.193	0.188	0.189	0.181

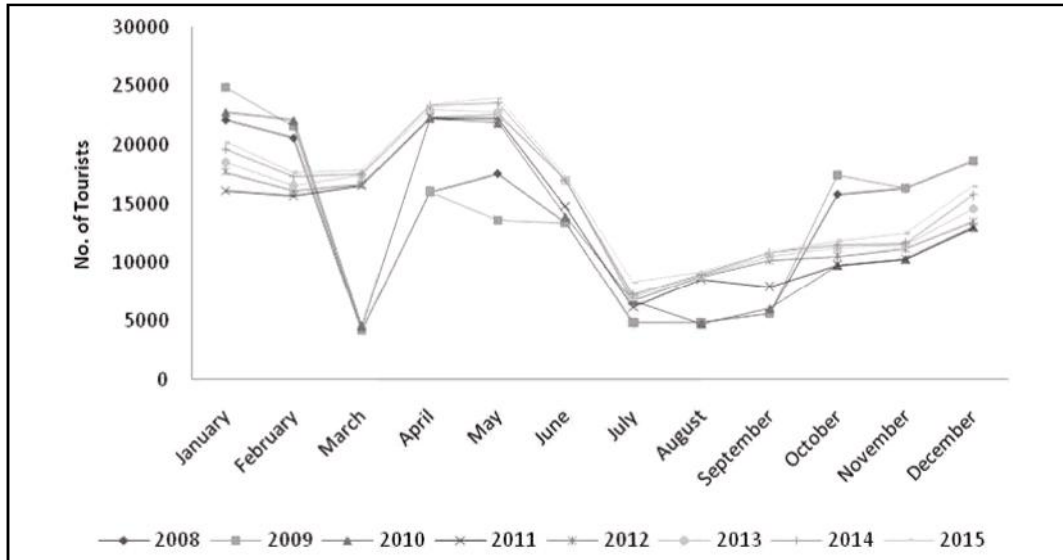
Source: Department of Tourism, Government of West Bengal

Table 5 shows that the values of Seasonal Indicator were around 0.54 to 0.65 during the period 2008 to 2015, which indicates the moderate seasonality in tourism business at Bakkhali-Frasurganj coastal area. The values of Gini-coefficients for the same period also revealed that the inequality in the monthly distribution of number of tourist arrivals at Bakkhali-Frasurganj coastal area. The values of Gini-coefficient have decreased from 0.262 in 2008 to 0.181 in 2015 which revealed the slight neutralisation of seasonality in the last few years.

Month-wise tourist arrivals at the Bakkhali-Fraserganj coastal area during 2008-2015 is illustrated in Fig. 4.

Fig. 4 shows that there is a 'lean' season in the months of July to September and a 'mild peak' season in the months of October to December and a 'peak' season in the months of January to May. Number of tourist arrivals in the other months is moderate. Bakkhali-Fraserganj coastal area is less developed beach tourism destination compared to the Digha-Shankarpur coastal area. Therefore, normal tourist flow generally increases in the weekend holidays and long vacation period





**Fig. 4 : Seasonal Variation of Tourist Arrivals at Bakkhali-Frasurganj**

(mid April to May-Summer Vacation). Generally tourist flow increases after the rainy season and this flow persists till February (*i.e.* during post monsoon period).

**Seasonality of Tourist Arrivals at Ganga Sagar :**

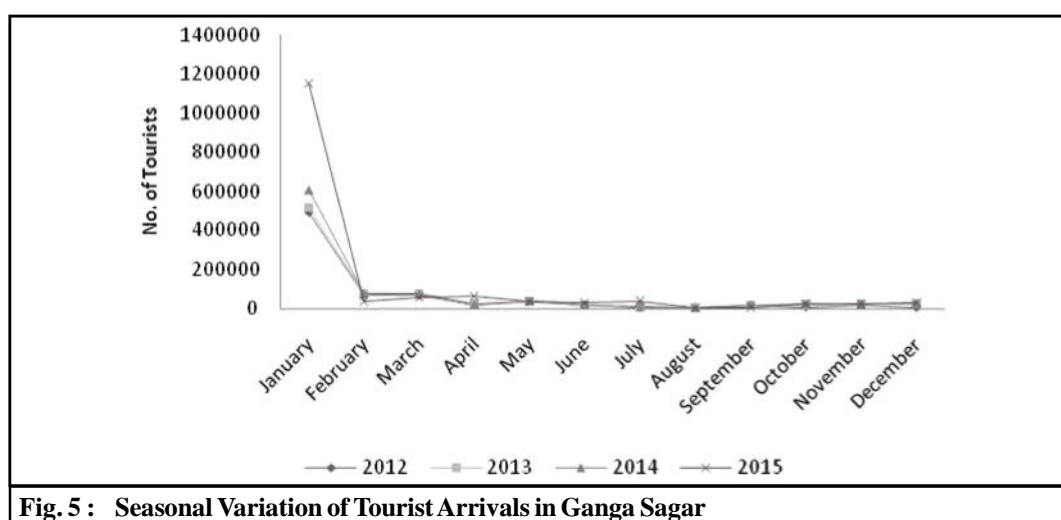
Data on month-wise (seasonal variation) tourist arrivals at the Ganga Sagar coastal area is presented in Table 6.

<b>Table 6 : Seasonality of Tourist Arrivals at Ganga Sagar</b>				
Month	Year-wise Tourist Arrivals			
	2012	2013	2014	2015
January	488063	519100	610215	1150500
February	71130	75360	76890	36270
March	70720	74940	76470	60050
April	21928	23214	24580	64265
May	37030	38865	40760	38520
June	17558	19248	19960	32710
July	6600	9425	9990	42050
August	8775	5205	5490	6800
September	17875	19315	20480	8425
October	9028	20545	22065	25570
November	21313	22350	25360	27075
December	7485	26365	27870	30575
Total	777505	853932	960060	1522810
Average	64792.08	71161.0	80010.83	126900.8
Seasonality Indicator	0.13	0.14	0.13	0.11
Gini Coefficient	0.692	0.659	0.674	0.735

Source: Department of Tourism, Government of West Bengal

Table 6 shows that the values of Seasonal Indicator were very low (below 0.15) during the period 2012 to 2015, which indicates the extensive seasonality in terms of number of tourist arrivals at Ganga Sagar. The values of Gini-coefficient for the same period were above 0.65, which leads to a conclusion that Ganga Sagar is suffering from extensive seasonality in terms of tourist arrivals. The values of Gini-coefficient for the year 2012 and 2015 have been calculated as 0.692 and 0.735, respectively. It revealed that inequality of the month-wise number of tourist arrivals have increased in 2015 compared to that of 2012.

Month-wise tourist arrivals at the Ganga Sagar coastal area during 2012-2015 have been depicted in Fig. 5.



**Fig. 5 : Seasonal Variation of Tourist Arrivals in Ganga Sagar**

Fig. 5 show that there is significant seasonality in terms of tourist arrivals at Ganga Sagar. The significant observation from the data is the appearance of a 'lean' season in the months of April to December and a 'peak' season in the months of January. Number of tourist arrivals in the months of February to March (mild peak season) is moderate compared to April-December. Generally tourists avoid the Ganga Sagar after two months of Mela due to the lack of tourism infrastructure as well as safety and security.

#### Seasonality of Tourist Arrivals at Sundarban :

Data on month-wise (seasonal variation) tourist arrivals at the Sundarban coastal area is presented in Table 7.

Table 7 : Seasonality of Tourist Arrivals at Sundarban Coastal Area				
Month	Year-wise Tourist Arrivals			
	2012	2013	2014	2015
January	12160	12925	13812	36800
February	12198	12910	13798	35200
March	12164	12875	13760	31000
April	8106	8581	9090	18600
May	11399	11755	12395	14200
June	6070	6327	9775	11300

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July	1646	2450	9920	12080
August	1540	2670	12540	13150
September	5528	8100	16355	16465
October	6795	12300	20400	24350
November	8178	13150	28000	30750
December	5155	14650	33750	37400
Total	90939	118693	193595	281295
Average	8711.583	9891.083	16132.92	23441.25
Seasonality Indicator	0.71	0.68	0.48	0.63
Gini Coefficient	0.273	0.219	0.229	0.236

Source: Department of Tourism, Government of West Bengal

From Table 7, it can be seen that the values of Seasonal Indicator were above 0.60 during 2012-2015 (except 2014) and the values of Gini-coefficient for the same period were around 0.22, which indicates the moderate seasonality in terms of number of tourist arrivals at the Sundarban coastal area.

Month-wise tourist arrivals at the Sundarban coastal area during 2012-2015 has been depicted in Fig. 6.

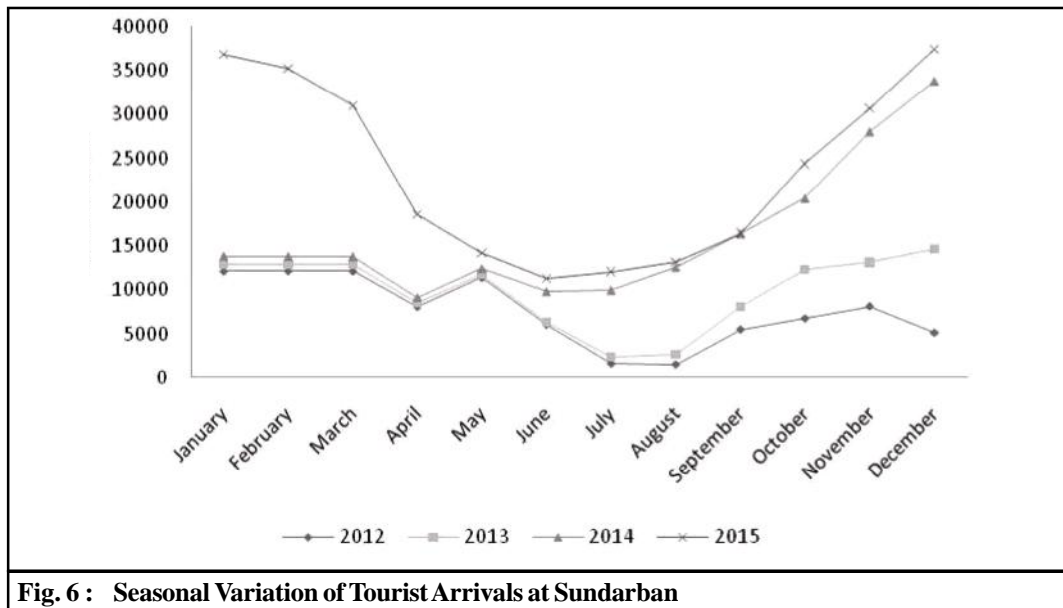


Fig. 6 : Seasonal Variation of Tourist Arrivals at Sundarban

Fig. 6 show that there is significant seasonality of tourist arrivals at the Sundarban coastal area. The diagram significantly presents that months between April and September (except May) are marked as 'lean' season and months between October and March are marked as 'peak' season for tourist arrivals at the Sundarban coastal area. Tourist flow increases in the month of May due to long term summer vacation of children/students.

### Conclusion :

On the basis of above discussions it can be concluded that beaches along with fishing harbours

and Sundarban mangrove forest area are major components of coastal tourism development in the state of West Bengal. Among the coastal tourist sites, Digha-Shankarpur-Mandarmoni beach area attracts huge numbers of tourists every year compared to the Bakkhali-Frasurganj coastal area. Ganga Sagar Island mainly attracts religious minded peoples from all over the India during the Sagar Mela (in the months of January-February) as it is one of the famous scared Hindu pilgrim sites in the country. Sundarban coastal area is famous for its mystery mangroves with rich biodiversity which attracts both domestic as well as international visitors. Seasonality of tourism in terms of tourist arrivals has found for each coastal tourist spots in the state. But it was mild at Digha-Shankarpur coastal area, moderate at Bakkhali-Frasurganj and Sundarban coastal area and very high at Ganga Sagar. Climatic conditions and institutional holidays are the main determinant factors in the seasonality of tourism along the coast of West Bengal. The impact of seasonality in coastal tourism can be minimised by extending tourist season, offering different attractions, revamping the destination, making destination unique and prestigious, adding non-conventional recreational attractions etc.

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