Impact of Natural and Man-Made Disasters and Its Effect on Toppling of Tourism Industry

(A case study of 2013 Uttarakhand flash floods)

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Abstract
In India as well as the rest of the globe, all three sectors are extremely important for the production of GDP. The service sector, which is one of these, has been seeing growth over the past few years. An essential subset of the service sector and industrial sector has been the tourist business. The tourism business has been thriving for many years, giving all the related industries a significant chance. The growth of India's economy has been greatly aided by the tourism sector, which draws a significant amount of both local and foreign visitors for both business and leisure travel. In addition to providing income to towns and nations around the world, tourism also helps the destination by creating jobs for locals. Indian heritage sites, festivals, and natural beauty are all very well-liked by visitors.

Natural and man-made calamities have been affecting the nation's tourism business for many years. Humans are severely affected by natural disasters, which severely disrupt their societal and financial lives. India's catastrophe zone region includes the states of Uttarakhand and Himachal Pradesh. These two states have the highest tourism business.

A healthy economy is crucial for the rather vulnerable economic tourism industry to thrive. The reaction of the tourism industry to a disaster demonstrates how vulnerable the sector is to unexpected alterations in the local economy. The other prior research that supports the idea that natural and man-made catastrophes will have a detrimental impact on employment in the tourism industry will be highlighted in this thesis. The paper mainly focuses on the economic effects of disasters that have occurred in the last 20 years. For the statistics, it was primarily the 2013 floods in Kedarnath that had a significant impact on all of northern India.

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INTRODUCTION-

The rise in severe flooding in past couple of years, particularly in mountainous areas, has made it imperative to create a trustworthy flood prediction system and a well-organized tourist destination. Further negative effects on the region and the local inhabitants are brought on by the

severe anthropogenic activities and environmental changes that result in the worsening of precipitation and other climatic incidences. Depending on the severity of the climate, different places have different effects from flood episodes. Precipitation is the single most important component that can affect the probability of a flash flood out of all other variables.

Despite the fact that a functioning water and drainage system has been a necessity for a very long time and is still so today. Five enduring rivers and their tributaries are characteristics of northern regions. However, these bodies of water cause chaos in nearby areas. Floods caused by the Himalayan Flesh in 2012 wreaked damage in Himachal Pradesh, Uttrakhand, and some neighboring areas of the Northern Plains. An extended period of cloud cover over northern Uttarakhand and neighboring Himachal Pradesh is what led to the abrupt, huge flash flood that included cloudburst, landslides and earth flows.

This region experienced significant rainfall from June 14 to June 17, 2013, totaling 370 mm in Dehra Dun, or roughly 375 percent higher than the average amount during a typical monsoon.

RAINFALL OF UTTARAKHAND DURING PERIODS OF FLASH FLOODS-

DISTRICT	**ACTUAL (mm)**	**NORMAL (mm)**	**DEP %**
Almora	208.7	26.3	694
Bageshawr	391.2	26.3	1387
Chamoli	316.9	22.6	1302
Champawat	351	33.5	948
Dehradun	565.4	36.8	1436
Garhwal puri	149.7	15.8	847
Garhwal tehri	327.7	22	1390
Haridwar	298.8	21.6	1283
S Nainital	506.6	38.8	1205
Pithorgarh	246.9	73	238
Rudraprayag	366.3	53.9	580
Udham singh nagar	157.7	40.2	292
Uttarkashi s	375.6	25.8	1356

Kedarnath was impacted, many of its surroundings—including the entirety of Uttarakhand and nearby Himachal Pradesh—were also destroyed. There have been floods in all 13 of Uttarakhand's districts, with four of them being the most severely hit. The severely impacted areas included Pitthoragarh, Uttarkashi, Rudraprayag and Chamoli, etc. This event is not a glacial lake outburst flood (GLOF), typically happens when a dam or moraine barrier is shattered because of the sheer pressure of the stagnate glacial water and ice that it encompasses, according to the NRSC scientists, who estimate that this lakewould have resulted in a depth of roughly 15 m. In this instance, the lake flooded as a result of severe rain, which caused the moraine wall to be overtopped and subsequently collapse. The Alaknanda basin alone has had 1356 landslides, according to the National Remote

Sensing Center, ISRO in the morning of 17th June.
Flooding was once a natural hazard, but overuse of human interference in river systems—including deforestation, course modifications, bridge and siltation, and hydroelectric project development—has rendered it a hybrid of natural and man-made hazards. The best illustration of it is the 2013 Flash Flood in Uttarakahnd, Himachal Pradesh, and its surrounding territories.

As far as we know tourism industry basically creates employment, GDP and a source of national income. Uttarakhand is a state that heavily relies on tourism, yet because of these threats, their economy is suffering. It causes issues for the tourism and hospitality industries, harms the community, dries up people's emotions, destroys livelihoods, ruins the attractiveness of the area, and eliminates a source of money.

REVIEW AND LITERATURE-

1. In their paper "Effect of Covid-19 pandemic on tourist travel risk and management perceptions," authors Muhammad Khalilur Rahman, Md. Abu Issa Gazi, Miraj Ahmed Bhuiyan and Md. Atikur Rahaman looked at the influence of the Covid-19 epidemic on visitors' travel effectiveness of the risk management attitudes. Using a sample of 716 respondents, they study visitors' views of travel danger and control, as well as the impact of the epidemic on society. According to the data, the Covid-19 epidemic has had a significant impact on travel risk and management views. The notion of travel risk and management was linked to risk management, delivery of services, transit patterns, distribution channels, avoiding overcrowded places, and cleanliness and hygiene. This study's findings serve to tourism emergencies and give potential research perspectives in the travel and tourism industry, as well as responses to improve visitors' views of travel risk andmanagement in the post-covid rehabilitation process.

2. In their paper "Terrorism–Tourism–Economic Growth Nexus in India: An NARDL Evidence," authors Santosh Kumar P.K and Sanjeev M.A explained how they used the asymmetric nonlinear autoregressive-distributed lag (NARDL)approach to investigate the causal association between terrorism and tourism and economic impact in the Indian states of Jammu and Kashmir, Assam, and Manipur. In the short term, the Granger causality estimates show that there is connection between terrorism, tourism, and economic growth (as measured by state gross domestic product—SGDP) in all three article stated. The findings show a positive relationship between SGDP and tourism in all three states, aswell as a negative relationship between SGDP and terrorism in Assam and Manipur.

3. Researchers Sanjita Jaipuria, Ratri Parida and Preeti Ray explained in their study

–The impact of COVID-19 on tourism sector in India‖ that the COVID-19 pandemic has disrupted indigenous residents overall by affecting not only foreign exchange earnings (FEE), but also multiple regional evolutions and employment prospects. The number of foreign tourists visiting India has significantly decreased in 2020. This paper uses convolutional neural networks to forecast foreign tourists' advent in India and FEE (ANN). They examine the effects of COVID-19 depending on four potential situations, taking into account lockdown and gain or loss in FEE. The findings will aid policymakers in making the right planning and decision while also maximizing the FEE.

4. Natural disasters and unexpected events are prime examples of such determining factors, as they have profound effects on individuals and society, and thus have the potential to significantly affect tourism flows, according to authors Jaume Rosselló, Susanne Becken and Maria Santana Gallegoa in their study "The effects of natural disasters on international tourism: A global analysis. —The influence of different sorts of catastrophes on foreign visitors at the national level is evaluated using an information on natural and man-made disaster occurrences and a prototype of international tourist flows. The statistics show that different sorts of events have differing influence on visitor flows. Tourism operators who make key choices about recovery, restoration, and marketing might benefit from examining the relation between catastrophic occurrences and tourism.

5. In their study "Problems and Prospects of Tourism Industry in Uttarakhand," authors Joveriya and Mariya stated that tourism has emerged among the widest service sector jobs in the modern world, generating national income as well as career opportunities, particularly for the local population, and has become a platform of economic growth and development as well as societal transfer. India, with its abundant beautiful nature and assets, such as historical sites, archaeological remnants, beautiful natural landscapes, beaches, mountains, and diverse wildlife, has a lot of tourist opportunity. Uttarakhand, also known as Dev Bhoomi or 'Inhabited of Heaven,' is a temple and shrine destination blessed witha pleasant climate, lush vegetation, and a diverse flora, in addition to a rich heritage. The purpose of this study is to solve the concept as well as the opportunities for tourist growth in the state; the research is exploratory and based on secondary data sources.

RESEARCH METHODOLOGY AND DATA ANALYSIS-

Objectives of study –

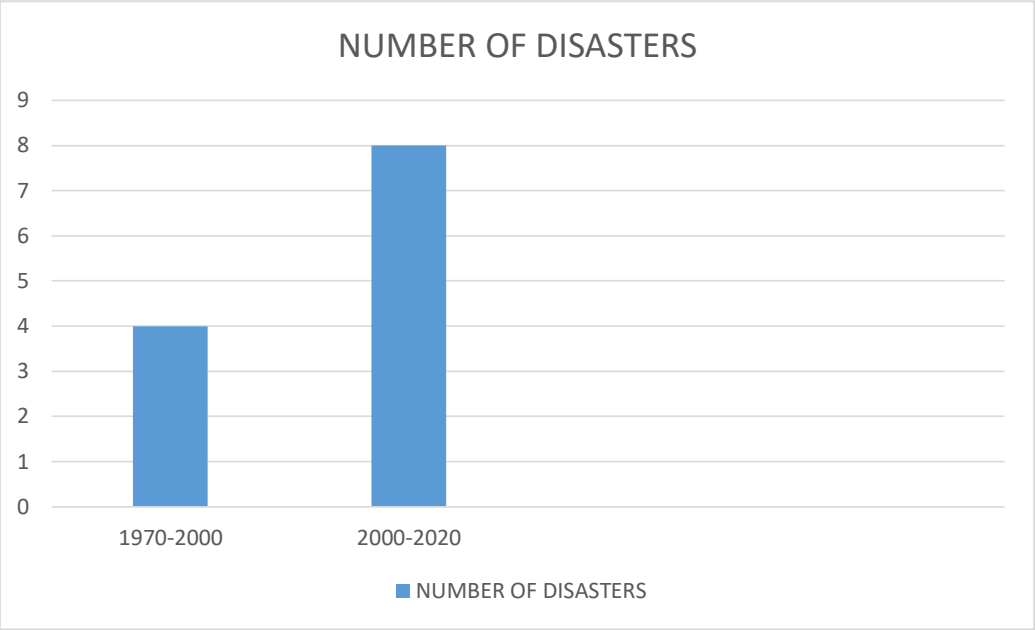
- To study the impact of natural and man-made disasters on tourism and its related industries.
- To study the dependency of local people on tourism for their livelihood.
- To study the impact of disasters on income of people.
- To study the after effect on number of tourist after calamity.
- To study the ground cause after disasters.

Scope of the study-

As stated in the study's objectives, the researcher has looked into the disasters in Uttarakhand and their effects on other northern states like Himachal Pradesh. Study basically focuses on 2013 floods.

Secondary data- Review of literature, Journals, Government data, Books and Library were taken under consideration

ANALYSIS-
FREQUENCY OF DISASTER IN EVERY20 YEARS-



As we take more notice of hazards after 2000 due to involvement of more modernization, advanced technology, but still less precautions, we are examining and evaluating the ramifications on earnings, tourism, geographic region, and the psychological condition of earning members of family because of catastrophes took place in the timeframe of 2000-2020. According to the study, there have been more natural disasters in the northern regions (Himachal Pradesh and Uttrakhand) after 2000 than there were before the 20th century. Due to the lack of development of transportation infrastructure, the reach of people to northern hilly regions was limited before the 20th century.

Therefore, as a result of improved communication, increased reach of people, development of tourism-related activities, and busy schedules as a result of increased competitiveness among people, people today prefer to spend their leisure time in tranquil settings, with hilly regions being the best for this. In steep areas, this has increased human strain, which has led to man-made disasters and, inadvertently, a multitudeof natural disasters.

TABLE SHOWS GSDP AND NSDP AT CURRENT AND CONSTANT PRICES OF UTTARAKHAND FROM 2011-2017 –

Year	GSDP (₹ Crores)		Per Capita GSDP (₹)		NSDP (₹ Crores)		Per Capita NSDP (₹)	
	Current Prices	Constant Prices	Current Prices	Constant Prices	Current Prices	Constant Prices	Current Prices	Constant Prices

2011-12	115328	115328	113456	113456	101960	101960	100305	100305
2012-13	131613	123710	127755	120084	117041	109528	113610	106318
2013-14	149074	134182	142778	128515	131814	117778	126247	112803
2014-15	161439	141278	152560	133507	143789	125702	135881	118788
2015-16	176171	152175	164277	141901	157456	135725	146826	126562
2016-17	195192	162824	179586	149806	174768	145138	160795	133534

Table shows the GDP at current and constant prices of Uttarakhand before and after flood of 2013 in Kedarnath. Table shows the less growth in GDP after occurrence of disasters. This trend continues in 2013 to 2016 till situation did not get under control.
The reasons behind them was less of technology, slow construction and low rate of recovery.

TABLE SHOWS THE RATE IN CHANGE OF GSDP AND NSDP FROM 2012- 2017 AT CURRENT PRICES-

Year	Percentage Growth Over Previous Year at Current Prices			
	GSDP	Per Capita GSDP	NSDP	Per Capita NSDP
2012-13	14.12	12.60	14.79	13.27
2013-14	13.27	11.76	12.62	11.12
2014-15	8.29	6.85	9.08	7.63
2015-16	9.13	7.68	9.51	8.06
2016-17	10.80	9.32	10.99	9.51

Table describes that growth in GDP at current prices was very low and go down greatly. Initially NSDP was 13.27% after that it fall to 11.12% and then it goes to 7.63%. GSDP also falls after 2014 to 6.85%. Thus table shows the fall in the rate of per capita NSDP and GSDP. Initially in 2013 and before that NSDP and GSDP was 14.79% and 14.12% and per capita NSDP and GSDP was 13.27% and 12.60% respectively. Then this gradually started falling. This fall is due to 2013 Kedarnath floods and this not only ruined Uttarakhand but all nearby northern areas like Himachal Pradesh and some parts

of Punjab. A great fall in NSDP and GSDP was scene after 2013, in 2014 it was seen 9.08% and 8.29%. this fall continued till 2015 due to great loss in income, construction, per capita income and it took years to regain its form. NSDP and GSDP growth rate was 9.51% and 9.3% which was very less growth. And this calamity resulted in less growth of GDP and national income and it took years to retrieve its form.

TABLE SHOWS THE RATE IN CHANGE OF GSDP AND NSDP FROM 2012- 2017 AT CONSTANT PRICES-

Year	Percentage Growth Over Previous Year at Constant Prices			
	GSDP	Per Capita GSDP	NSDP	Per Capita NSDP
2012-13	7.27	5.84	7.42	5.99
2013-14	8.47	7.02	7.53	6.10
2014-15	5.29	3.88	6.73	5.31
2015-16 RE	7.71	6.29	7.97	6.54
2016-17 PE	7.00	5.57	6.94	5.51

Figure describes the rate of GDP at constant prices ant its trend after 2013. It falls at veryhigh rate. It was gradually increasing till 2013. But after 2013 when it started falling at a great rate. In 2013 GSDP was 8.47% and NSDP was 7.53% at constant prices. But after occurrence of calamity it fall down and took at least 3-4 years to again get that pace. In, 2014 and 2015 there was a great fall of GSDP and NSDP 5.29% and 6.73%.

TABLE SHOWS THE EARNINGS IN PERCENTAGE OF PRIMARY, SECONDARY AND TERTIARY SECTOR IN 2011-2012 AND 2016-2017 AT CURRENT PRICES-

Sector	**2011-12 (At Current Prices)**	**2016-17^{PE} (At Current Prices)**
Primary	14.00	11.19
Secondary	52.13	50.40
Tertiary	33.88	38.41
Total GSDP	100.00	100.00

Table tells the role of primary, secondary and tertiary sector from 2011-12 to 2016-17and changes in it with time. In secondary sector there was a fall in earnings due to tourism sector downfall in period 2013 to 2016.

TABLE SHOWS THE COMPARISION OF GROWTH RATES IN GDP OF UTTARAKHAND AND INDIA 2012-2016-

Year	Uttarakhand		All India	
	Per Capita Income(₹)	Growth Rate of PCI (%)	Per Capita Income(₹)	Growth Rate of PCI (%)
2011-12	100305	-	63462	-
2012-13	113610	13.27	70983	11.85
2013-14	126247	11.12	79118	11.46
2014-15	135881	7.63	86454	9.27
2015-16	146826	8.06	94130	8.88
2016-17	160795	9.51	103219	9.66

Table shows the fluctuations in per capita income after the occurrence of disasters. In 2014-15 there was a fall in per capita income due to disasters occurred in 2013 and italso impacted all India per capita income.

TABLE SHOWS THE EXPENDITURE ON DIFFERENT SECTORS ANDEARNING FROM DIFFERENT SECTORS OF ECONOMY-

Item	2013-14	2014-15	2015-16	2016-17
Agriculture, forestry and fishing	2.76	2.05	2.08	5.69
Crops	-5.72	1.41	-0.93	3.38
Livestock	11.99	14.09	11.77	9.04
Forestry and logging	17.55	-7.89	-1.71	7.07
Fishing and aquaculture	17.86	6.67	6.80	6.11
Mining and quarrying	72.48	-33.30	-0.54	13.65
Primary	10.99	-4.44	1.75	6.68
Manufacturing	7.03	7.98	9.89	9.30
Electricity, gas, water supply & other utility services	-9.87	14.99	21.33	14.14
Construction	32.60	4.44	2.86	3.50

Secondary	9.66	7.73	9.34	8.67
Industry	11.61	5.76	9.04	8.81
Transport, storage, communication & services related to broadcasting	15.19	14.06	12.08	9.80
Railways	4.13	27.32	25.47	9.80
Transport by Means Other than Railways	10.82	6.88	1.65	9.80
Storage	8.46	-12.11	11.35	9.80
Communication & Services Related to Broadcasting	17.67	17.03	16.08	9.80
Trade, repair, hotels and restaurants	14.56	10.80	9.25	13.45
Financial services	12.08	12.03	11.12	9.80
Real estate, ownership of dwelling & professional services	10.13	10.22	6.04	10.74
Public administration	53.39	25.89	8.46	8.99
Other services	23.70	10.76	7.89	20.29
Tertiary	18.16	12.88	9.15	12.71
TOTAL GSVA at basic prices	12.73	7.87	8.34	9.96
Product Tax	14.10	14.31	14.55	18.75
Product Subsidies	-7.17	13.84	-5.48	7.20
Gross State Domestic Product (12+13-14)	13.27	8.29	9.13	10.80

Table shows the expenditure on different sectors and earning from different sectors of economy. from 2013 to 2016 it was very low on hotels and other traveling area. It shows earnings through hotels and restaurants were very low in 2013 and after it. The percentage earnings were very poor around 6.04% in 2014-2015. Earnings was also low in transport means which was 1.68%. communication and services related tobroadcasting gone negative in rate as -12.11%.

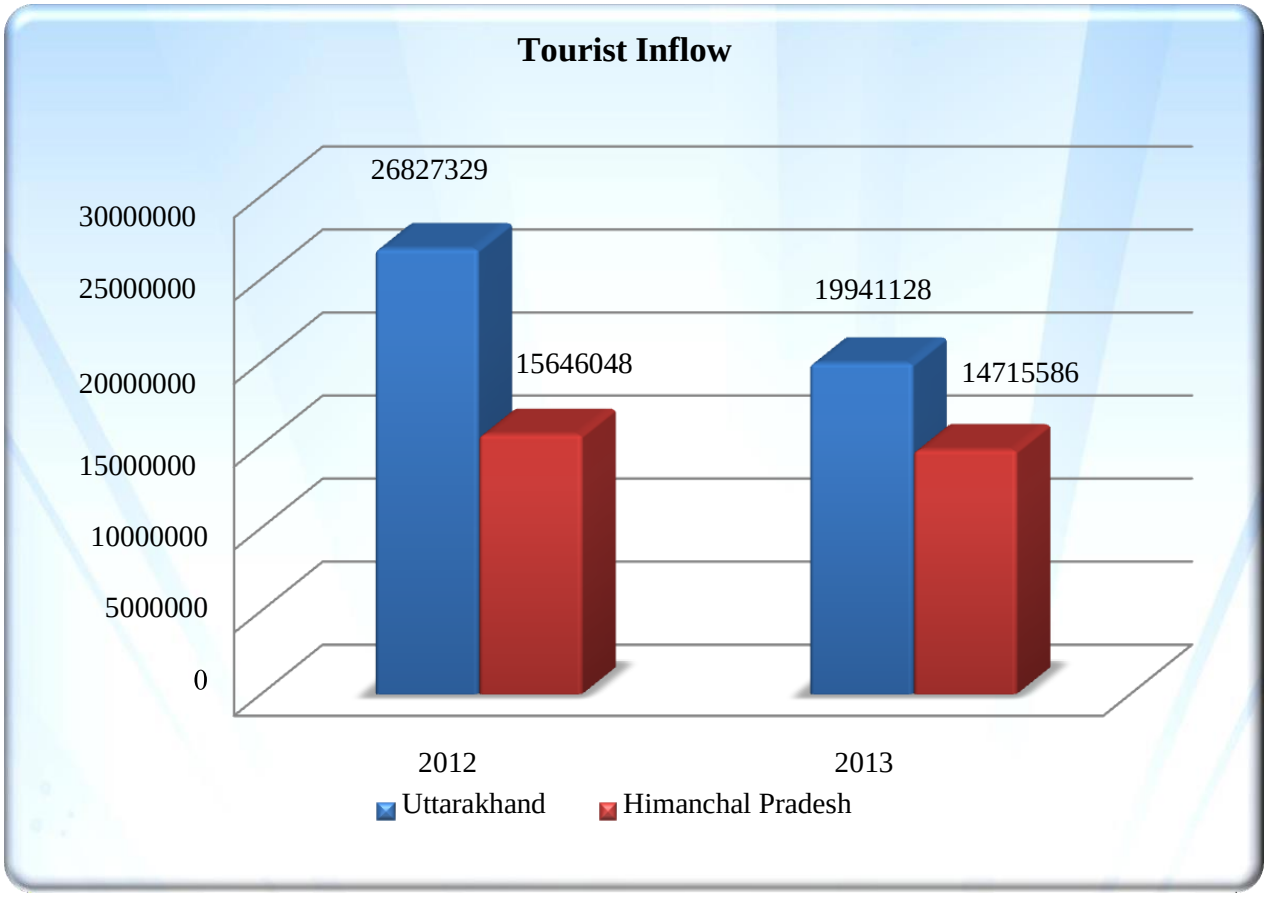
TABLE SHOWS THE AMOUNT SPENT ON REPAIR OF FOLLOWING AREAS SUCH AS HOTELS AND RESTAURANTS AND OTHER SECTORS-

	2011-12	2012-13	2013-14	2014-15	2015
Total GVA Unadjusted (Trade,Repair), Hotel & Restaurant)	1231441	1452592	1663634	1846212	2016098
TRADE, REPAIR, HOTELS& RESTAURANTS SERVICES	1231441	1452592	1663634	1846212	2016098
Public (TR & HR)	21611	24620	25937	26435	29031

PVT ORGANISED (TR)	30752	38103	43178	52548	59207
UNINCORPORATED (TR)	994399	1193923	1398828	1560942	1686641
PVT ORGANISED (HR)	59190	56544	42233	45434	64657
UNINCORPORATED (HR)	125489	139401	153458	160853	176562
Financial Intermediation Services Indirectly Measured (FISIM)	38544	43723	49654	57945	62442
Gross Value added at basic price (1-2)	1192897	1408869	1613980	1788267	1953656
Consumption of fixed capital	56086	64814	71060	79662	89557
Net Value added at basic price (3-4)	1136811	1344055	1542920	1708605	1864099

Table shows the amount spent on repair of following areas such as hotels and restaurants after the calamity which got increased ample amount in 2013 to 2016 duration. There was huge investment done on repair of roads, hotels, buildings, private and public organizations and the spending increased in every sector.

TOURIST INFLOW IN 2012 AND 2013 IN UTTARAKHAND AND HIMACHAL PRADESH-



CITY VICE TOURIST STATISTICS OF UTTARAKHAND (2012-2013) COMPARISON-

Sl. No.	Name of Tourist Destination	Year 2012			Year 2013		
		Indian	Foreigner	Total	Indian	Foreigner	Total
1	Dehradun	1686745	21884	1708629	1718783	18202	1736985
2	Rishikesh	804578	5160	809738	370216	4193	374409
3	Massoore	1199306	5985	1205291	1070925	5050	1075975
4	Pauri	106604	457	107061	65473	442	65915
5	Srinagar	324218	5192	329410	118346	2009	120355
6	Kotdwar (Swaragasram, Chilla)	329562	26914	356476	319529	15561	335090
7	Rudraprayag (without Kedarnath)	637706	800	638506	393307	329	393636
8	Kedarnath	572454	598	573052	333693	81	333774
9	Gopeshwar (Nandprayag,Mundoli, Tharali etc.)	275058	45	275103	71901	18	71919
10	Joshimath (Govindghat, Ghanghariya)	1444900	1271	1446171	418882	559	419441
11	Badrinath	1046297	322	1046619	476278	152	476430
12	Auli	32209	436	32645	29345	248	29593
13	Hemkunth Sahib	291303	318	291621	77785	76	77861
14	Velly of Flower	5069	323	5392	870	68	938
15	Tehri	964380	15899	980279	482865	13504	496369
16	Uttarkashi (Harshil, Gangnani etc.)	642459	2734	645193	268573	1268	269841
17	Gangotri	435220	332	435552	209919	320	210239
18	Yamunotri	413367	248	413615	253023	87	253110
19	Haridwar	1523187	26875	152587	127636	22611	127862

		5		50	50		61
20	Almora	101125	4373	105498	76958	3499	80457
21	Ranikheth	77315	430	77745	67432	439	67871
22	Kausani & Bageshwar	77205	940	78145	63740	792	64532
23	Pithoragarh	195123	574	195697	153127	562	153689
24	Champawat	81044	242	81286	72494	349	72843
25	Nanital	898077	8254	906331	737130	7088	744218
26	Kathgodam	129333	808	130141	118403	272	118675
27	Corbett National Park	205602	7279	212881	172598	4204	176802
28	Udham Singh Nagar	121552	1831	123383	122765	1613	124378
	Total	**28329686**	**140524**	**28470210**	**21028010**	**103596**	**21131606**

In 2013, flood and cloudburst completely destroyed Uttarakhand and some neighboring regions, including Himachal Pradesh and Jammu & Kashmir. The number of tourists and pilgrims travelling to adjacent Kedarnath, Badrinath, Joshimath, Haridwar, Rudraprayag, Gangotri, Gopeshwar and Yamunotri decreases as a result of the flood.

In 2012, 809738 tourists visited Rishikesh, which was a significant number before the flood. It decreased to 374409 during the 2013 flood year, which was a significant amount. In 2014, this figure dropped to 332988. There were fewer tourists in Kotdwar, although not by a substantial amount. Initially in 2013, there were 335090 tourists available, and by 2014, that number had decreased to 296275. Since Rudrapayag, Badrinath, and Kedarnath took the brunt of the flooding.

393636 tourists visited Rudraprayag in 2013—a record-breaking number. However, this figure abruptly decreased to an extremely high fall of 89191. It was believed that a very large number of tourists would perish 304445. It was a great fall of 77.34%.

In general, the flood's outlet and genesis were in Kedarnath, which was severely damaged and affected. The investigation of the next three years, 2012, 2013, and 2014, revealed a significant impact on tourists and pilgrims visiting. A sizable number of tourists visited in 2012; their total was 573052. Due to the mid-year start of floods and cloudbursts, it decreased to 333774 in 2013. Following a sharp decline in tourist numbers, there was a significant numerical decline, which was 40946. A notable rate of decline in the chronology of Kedarnath was the 87.7% fall rate. It took several years for the decline in tourist numbers to be reversed, and it was a significant challenge for the local population and government to recover. The disaster cost many lives, homes, and financial resources, and it left people's hearts wounded and scarred.

Additionally, located in the kedarnath and badrinath region, Gopeshwar (Nandprayag, Mundoli, and Tharali) was significantly hit by the cloudburst. The number of tourists visiting these places was

significantly impacted. Around 1446171 tourists were first counted as having visited the Gopeshwar belt in 2012. Since studies indicate that the flooding peaked in May, a significant decline in visitor arrivals was observed in 2013 around 419441. However, due to a lack of technological advancement, the impacted region, structures, people's mental states, and the transmission and communication areas advanced significantly. There was a significant decrease in tourist visitation and it dropped to 173439 as a result of the afflicted area's less improved state. The rate of decline was 58.6%.

Due to its proximity to Kedarnath, the Badrinath district was adversely impacted by the events that took place there. 476430 tourists are expected to have visited Badrinath in total in 2013, a lower but still considerable number. Then, following a horrible incident in 2013, it stopped at 159575. As a result, the rate drops to 66.50%.

Due to its connections to other major towns and its creation of a network throughout the entire nation, Haridwar is regarded as Uttarakhand's hub. The nation's capital, Delhi, is directly accessible from Haridwar. Delhi serves as a connecting link both locally and internationally, making it the center of the nation. Haridwar serves as a communication, transportation, and reachable link between many regions of Uttarkhand and the rest of the nation and the world. Due to Uttarkhand's improved accessibility, there were 15477542 more tourists arriving in 2014 than there were in 2013, yet there was no decrease in the overall number of visitors.

The damage caused by the 2013 flood and cloudburst was severe, and it has yet not fully healed. Since this phenomenon caused harm to the entire tourism industry, businesspeople, locals, agriculture, and many other sectors, they are still working to recover. This occurrence from 2013 is the foundation of our entire investigation, and it amply supports our hypotheses. Up until 2020, this incident will have a negative impact on the entire tourism industry in Uttarkhand, Himachal Pradesh, and nearby areas. After this disaster, people are still hesitant to relocate to Uttarkhand because of the loss of property, the disruption of the tourism business, the many deaths and family losses, and the inundation of people's possessions.

CONCLUSION AND FINDINGS-

Anthropogenic reasons -

- Greenhouse gases concentration and global warming.
- Excessive man-made activities in disaster areas.
- Non-management of proper rescue programs
- Absence of pre-preparedness
- Improper making of high buildings in mountain areas
- Poor technical innovation
- Anthropogenic activities creating excessive burden on porous high areas.
- Cutting of trees for preparing high tech buildings
- Non-availability of other source of income due to poor background of highly areas.

- Improper knowledge of disaster management.
- Stickiness to the old contemporary occupation practice by people.
- Lack of literacy among people

Suggestions for better tourism and mitigate disasters-

- ❖ Encouraging sensible planning for land use based on known dangers.
- ❖ Purchasing flood insurance to save your possessions
- ❖ Moving or raising buildings out of floodplains
- ❖ Installing water heaters and shelving on surrounding walls.
- ❖ Establishing, approving, and enforcing efficient building regulations
- ❖ Creating earthquake-resistant roads and bridges
- ❖ Using fire-resistant materials while building new things
- ❖ Creating and implementing a strategy in your company or community to lessenyour vulnerability to risk.

Researcher suggestions-

There are suggestions for both government agencies and privately owned hotels and travel businesses. Government should stop allowing unauthorized building and property construction in hilly areas, and private organizations should obtain a permit before beginning construction and creating any adventurous activity spots there. Consequently, this eye-checking mill lessens the effects of local calamities.

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