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DYNAMIC SUSTAINABILITY DEVELOPMENT AND ECO – TOURISM POSSIBILITIES IN THE STATE OF UTTARAKHAND

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Abstract

Nature has supported and maintained its existence on this planet and could preserve doing within the destiny. This ability of the earth is referred to as the sustainability of the man or woman or ecosystems or surroundings. But, as quickly because the alteration of nature’s preliminary state occurs, its ability to revert again is out of place. Objectives: To study sustainable development and eco-tourism possibilities, and how these are co-related, interconnected, and impacted by the ecological, environmental, and natural disasters dimensions in the state of Uttarakhand. Subjects and methods: The proposed examination was an exploratory, qualitative documentary survey-based study. The body of data analyzed was mustered up from multiple sources, primarily from the local people including small traditional entrepreneurs through convenient and judgmental sampling spread over 6 months, and the contents were analyzed. Results: Various fetters and obstacles were observed for sustainable development and eco-tourism enhancement. Ecological, natural disasters environmental factors, and paucity of people-centeredness were common. Formation of sustainable communities, innovation, partnership, health and environmental factors, local governance was found to be of greater importance in causing sustainable development with the boost in eco-tourism. Responsive and participatory ways, people-centered actions, and multi-level operational methodologies can do wonders in bringing about sustainable eco-tourism and development in the state of Uttarakhand. Conclusion: Sustainable development and eco-tourism in the state of Uttarakhand have wide-ranging ecological, environmental, and natural disasters effects; which continue for a long period in many locations of the state. The nature of most of the problems resembles that in many other parts of the world. The present status and higher vulnerability of these communities in the domain of sustainable development and eco-tourism suggest the need to improve ecological, environmental, developmental methods along with focused attention to local community involvement and participation.

Keywords: Sustainable Development, Ecology, Environment, Ecotourism, Natural Disaster, Exploratory, Uttarakhand, Innovation, Partnership.

1. Introduction

Nature has supported and maintained its existence on this planet and could preserve doing within the destiny. This ability of the earth is referred to as the sustainability of the man or woman or ecosystems or surroundings. But, as quickly because the alteration of nature’s preliminary state occurs, its ability to revert again is out of place. The anthropogenic sports activities of development like industrialization have brought about the indiscriminate exploitation of natural property. The problem has attained worldwide dimensions. It has brought us to a characteristic in which no longer best the opposite lifestyle paperwork inside the world, however moreover the very lifestyles of mankind are threatened. Proper handling of the surroundings, environment, and on the pinnacle of managing natural disasters will certainly enable of global human society to transport in the direction of the path of sustainable development improving doors for eco-tourism within the hills of India concurrently.

The challenge of sustainable development is the challenge of achieving environmental conservation and resource management without compromising the targets of growth and development. It is therefore a process of making human and environmental regeneration not only an end of economic growth but also a means – here the existential necessity of eco-tourism can be strongly felt. It redefines wealth and restructures qualitative development in economic growth policies. Sustainable development is in itself revolutionary since it replaces exchange value with intrinsic value, market regulation by self-regulation, and capital accumulation with de-accumulation. It is an effort and a design to raise poor countries of the world from social decadence, exploitation, global inequity, and waste. Phenomena like land degradation, desertification, loss of wetlands, and deforestation are the real constraints to the future sustainability of good agriculture everywhere in the world, and the Indian land is no exception. Biotechnology and Genetically Modified (GM) foods are a threat to the indigenous agriculture and rural economy of developing countries, besides also disturbing their village institutions and local economy.

The Stockholm Declaration of 1972 suggested that “Man is both creature and molder of his environment, which gives him physical sustenance and affords him the opportunity for intellectual, moral, social and spiritual growth. In the long and tortuous evolution of the human race on this planet a stage has been reached when through the rapid acceleration of science and technology, man has

acquired the power to transform his environment in countless ways and on an unprecedented scale. Both aspects of man's environment, the natural and the man-made, are essential to his wellbeing and to the enjoyment of basic human rights- even the right to life itself." To bring about the sustainable development and enhancement of eco-tourism in the state of Uttarakhand, natural disasters must be better responded to and managed to make a fertile possibility for the amelioration of eco-tourism along with genuine sustainable development.

Disaster aid in the prevention, reduction, and mitigation of the effects of disasters on the health of communities; the provision of appropriate treatment for those affected; and the restoration of health services and facilities to the pre-disaster situation as soon as possible. The provision of health and recovery in response to any disaster often involves mass casualty management. It includes rescue, first aid, casualty clearing, emergency, environmental health measures. Disaster management requires a different approach than emergency aid and normal public health management practices because the manner portrayed blew in the chart will cause perfect sustainability development in the state of Uttarakhand.

(Sahni and Dhameja, 2003), holds a relevant view which is pertinent in disaster management and also for sustainable development as it seeks fuller and better involvement of the states in the development of the people. The government continues to be the most important role. The government is charged with the majority of the responsibility and accountability for the security of its citizens' lives, liberty, and property. In practically every situation, the government is held responsible and accountable, especially in times of crisis. To cope with the severity of future disasters, it is critical to employ formal and non-formal steps to equip the community to anticipate possible threats.

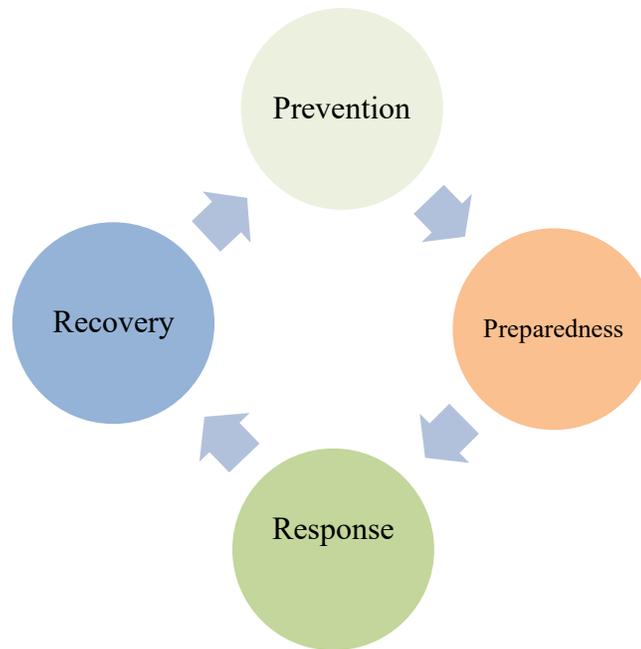


Figure: 1

"Disasters may cause ethical demanding situations which are extraordinary from traditional clinical practices. In addition, catastrophe situations are related to public fitness ethics greater than medical ethics and hence may also require more potent effort to obtain stability among person and collective rights. In addition, catastrophe conditions are associated with public health ethics greater than they do with clinical ethics and therefore may additionally require a more potent attempt to achieve stability between individual and collective rights. In public fitness, there's generally warfare among the autonomy of the character and the preference to shield and promote the health of the population. Just as in each day scientific exercise, there can be circumstances in failures that a few significantly injured patients ask for euthanasia. It ought to be emphasized that these days, euthanasia is illegitimate in public international laws in addition to most medical codes of ethics around the sector. This prohibition has also been restated via the WMA in its Declaration on Euthanasia (1987), which states that the act is unethical." Public health measures in pandemic failures, inclusive of vaccination campaigns, risk communication, quarantine, and isolation also are worth noting with appreciate to capability moral dilemmas. Clinical and wellbeing administrations assume a massive component in managing and control of failures. During crises – disasters – they don't



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stay unaffected or maintain on closing solitary. On the opposite, they pass to the prompted regions to give quick salvage, rescue, and alleviation” (Karadag and Hakan, 2012).

(Oliver Smith, 1996), in this cited work the planning process and sustainable growth is presented in an integrated and interconnected manner, as a society interacts with the environment, with its values and perceptions and engages in a series of processes over which it has incomplete control and knowledge, for example, development and planning processes, production and distribution of goods, over long periods, underlying hazards turn to disasters. Sustainable growth and development in human society are possible when there is strong support from the government part. From the ecological perspective, “disasters are totalizing events in which all dimensions of a social structural formation, involving organized human action in the environmental context in which it takes place are studied. The ecological concept of disaster as a total event involving interaction between environment and nature follows the social perspective on disaster by which hazards are understood to arise when there is lack of mutual relation between the environment and man” (Hoffman and Oliver Smith, 1999). Therefore, a state must look for proper response and management of natural disasters to encourage eco-tourism and make a firm foundation for truly sustainable development in the region.

(Kumar. S, 2021), is of the view that mechanical fortitude, solidarity stand important, and have the right to be discussed during any disaster and sustainable development planning, thus causing perfect social harmony and solidarity during a disaster and developmental period, and resulting in collectivity in the society. Disasters are inevitably social phenomena. Challenges, crisis, restart-up, hectors, learning, and experience out of these heinous disasters, which are collectively shared and socially responded spell out one verdict to humanity: - “The show must go on”. (Kumar. S, J. Srivastava, 2021), Sustainable development, disaster response, recovery, and eco-tourism are not merely topographical, geological, or climatologically issues, the response for which lay in the managerial and administrative domains, on contrary, it is a sociological issue and has to be addressed socially by putting the people in the middle, encouraging their involvement and participation, it is for the people, with the people and about the people without which sustainable development and growth of eco-tourism may stand incomplete.

The remainder of the paper is organized in the following manner. The research technique is presented in the "Methodology" section. The conceptual framework is presented in the "Sustainable development and Eco-tourism" section. The data source is mentioned in the separate section along with the “Area of study”. The discussion is presented in the “discussion” section. The section "Conclusion" comes to an end.

2. Eco-tourism can flourish only through sustainability

Through nature-based tourist activities, this eco-tourism strategy will serve as a guiding concept for conserving and preserving Uttarakhand's rich natural and cultural heritage, as well as the development of social entrepreneurial features in local communities. The policy would strive to reduce the negative effects of nature-based tourism while also expanding livelihood options for communities, acting as an incentive for conservation action in line with internationally recognized eco-tourism principles and ensuring acceptable economic returns to the state.

2.1 Eco-tourism in Uttarakhand

The state of Uttarakhand is dedicated to preserving and nurturing the state's cultural and natural heritage through a variety of sustainable and eco-tourism opportunities and activities that span conservation, innovation, partnership, community formation, local and state governance, and health and the environment. The state is working to make eco-tourism and sustainable development more people-centered, responsive, and participative, as well as functional and operational at many levels, partnership-oriented, and dynamic.

2.2. Objectives to promote eco-tourism in a sustainable manner

- To identify and promote ecotourism in an environmentally friendly manner at sites with natural, social, and cultural heritage assets throughout the state.
- To engage local communities and other stakeholders in promoting eco-tourism activities at these locations, thereby assisting them in generating alternative sources of income.
- To increase local communities' capacity in critical skills such as hospitality, interpretation, communication, cultural and natural heritage, guiding, and legal abilities for them to pursue eco-tourism as a source of alternate income.
- To bring together and align numerous stakeholders to develop and interpret the state's eco-tourism values in front of visitors.
- To provide visitors with an unparalleled experience of the state's natural and cultural legacy through eco-tourism places that are safe, secure, and well-managed.



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2.3. Path guiding philosophy of the state for eco-tourism

- The state's primary goal for ecotourism will be conservation and sustainable development based on responsible travel and respectfully involving the local population within the confines of the law. The development and administration of eco-tourism in Uttarakhand would be guided by guiding principles.
All eco-tourism operations must be conducted by the Indian Forest Act of 1927. The Forest (Conservation) Act of 1980, the Wild Life (Protection) Act of 1972, notifications issued by the Ministry of Environment, Forests and Climate Change, Government of India, the National Tiger Conservation Authority, Working Plans, and Management Plans prescriptions, orders issued by honorable courts, and guidelines issued by the Government of India and the State Government from time to time are all examples of legislation.
Eco-tourism operations will attempt to conserve local biodiversity and will serve as a vehicle for conservation education and economic benefit to local communities while maintaining their social, cultural, and traditional values.
All planning, implementation, and monitoring activities shall be conducted in strict accordance with the area's environmental and socio-cultural fabric.
The ability of local populations to generate income through ecotourism will be key to its success. Modules for capacity building will be customized training courses built in response to specific needs to carry out specific activities.
Sustainable use of locally available natural resources and a greater emphasis on green technology with the least impact on the environment and indigenous values must be assured while establishing and maintaining ecotourism sites.
For the development and maintenance of ecotourism sites, multi-stakeholder partnerships under the auspices of government agencies, using any applicable model, are encouraged. It might range from a Community-Based Tourism concept to one-on-one help in the case of Rural Tourism.
Visitors will be provided with a leisure and learning experience of nature, culture, and customs, with the number of visitors being limited by scientifically calculating the site's carrying capacity.

3. An examination of the paradigm shift for sustainability and eco-tourism

Table: 1

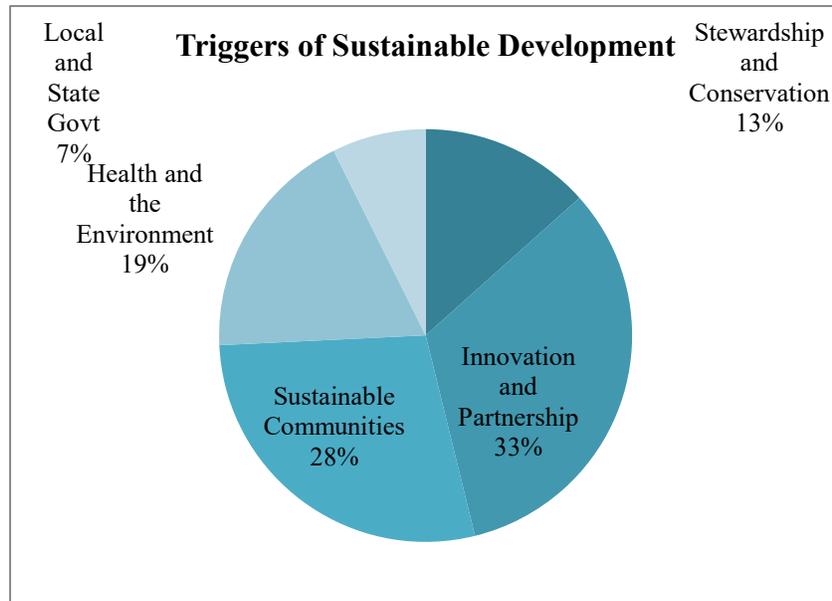
Table with 3 columns: Examined Data, Frequency, and Percentage. Rows include Stewardship and Conservation (40, 13.33%), Innovation and Partnership (98, 32.66%), Sustainable Communities (84, 28%), Health and the Environment (55, 18.33%), Local and State Governance (23, 7.66%), and Total (300, 100%).

Table – 1 show that almost 40 of respondents (13.33 percent) were found to be mindful of stewardship and conservation in sustainably promoting eco-tourism. Upwards of 55 (18.33%) of those surveyed agree that health and the environment will foster sustainability and eco-tourism in the region. 84% (28%) of respondents are of the view that sustainable communities can bring about categorical growth of eco-tourism and sustainable development, while 98% (32.66 percent) have a significant degree of mindfulness about the role of innovation and partnership to boost sustainable development and eco-tourism activities in the region. However, 23 (7.66%) of respondents hold that local and state governments can be highly instrumental in causing genuine eco-tourism expansion along with sustainable development in the hills.

Therefore, the huge majority of the respondents are estimated to bear collective mind of forming sustainable communities and ambiance to expand eco-tourism with simultaneous sustainable development 84 ((28 percent), which is quite a significant number and also causes greater possibilities to bring about mass social solidarity and commonality among the people. The number of respondents who are estimated to think of being innovative and partnership-oriented stands 98 (32.66 percent); which shows positive sides of making people socially experimental and risk-taking for collective social and economic enhancement.



Chart: 1



4. A new innovative eco-tourism

In Uttarakhand, Ramnagar, the treehouse is positioned inside the center of lush green forests. This idea changed into conceived at the beginning of this year. Booking and staying facilities are in all likelihood to be provided from January. “The tree residence concept is a superb concept to attract vacationers in distant places of the forests. This seems a perfect blend of sustainability and eco-tourism

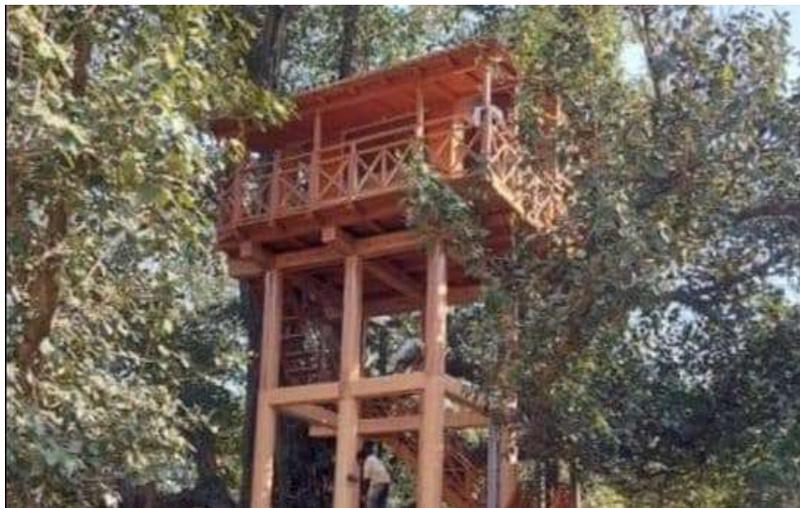


Figure: 2, Source, HT 2021

5. People’s opinions pooled on the importance of governing way and existing power structure towards eco-based sustainable development

Table: 2

Opinion Variance Analysis	Frequency	Percentage
People-Centered	49	16.33
Responsive and Participatory	88	29.33
Multi-Level	21	07



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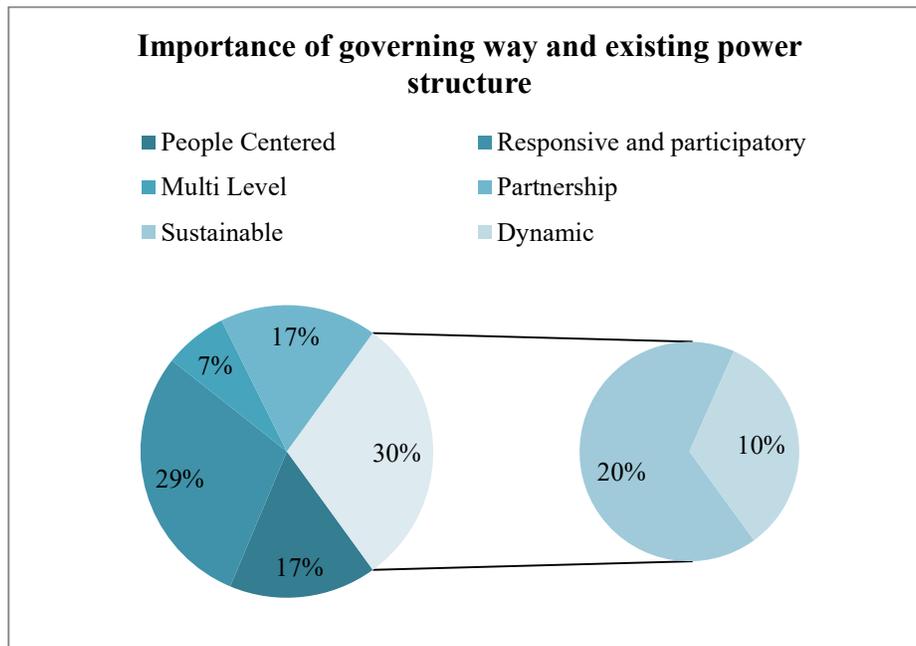
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Partnership	52	17.33
Sustainable	60	20
Dynamic	30	10
Total	300	100

Table - 2 shows that almost 49% of respondents (16.33 percent) were found to be supporting people-centered activities and programs for enhancing eco-tourism in sustainability. Upwards of 88 (29.33%) of those surveyed think that responsive and participatory approaches and methods will certainly foster sustainable development and eco-tourism in the region. 21 (07%) of respondents are of the view that multi-level engagement of the locale community can bring about categorical growth of eco-tourism and sustainable development, while 52% (17.33 percent) have a significant degree of collective thoughtfulness about the crucial role of partnership at a horizontal and vertical level to jack up sustainable development and eco-tourism activities in the region, whereas, as many as 60 (20 %) of the participants convey that sustainable focus can cause wonder in achieving balanced eco-tourism growth and sustainable development. However, 30 (10 %) of the active respondents hold the view that dynamism has the massive potential to make eco-tourism and sustainable development an existential reality and possibility in the region.

Therefore, the majority of the respondents are estimated to form a collective mind on the responsive and participatory methods to expand eco-tourism with simultaneous sustainable development 88 ((29 percent), which is quite a significant number and also serves as a common social trigger to cause mass community response and participation. The number of respondents who are estimated to think of being people-centered stands 49 (16.33); it shows positive sides of making people involved and inclusive in their collective social and economic betterment.

Chart: 2



6. Study Area

The state of Uttarakhand is blessed with great topography and extensive terrain, which makes it ecologically sensitive. It is located between the latitudes of 28.44 and 31.28 N and the longitudes of 77.35 and 81.01 E. It was extracted after the hilly landmass of Uttar Pradesh was carved off. This hilly state covers 53,483 square kilometers, accounting for 1.63 percent of India's total landmass. The state is divided into 13 districts with 95 active development blocks. The western landmass is known as the Garhwal zone, whereas the eastern landmass is known as the Kumaun zone. Dehradun, the state capital, is located in the Garhwal division. Uttarakhand is bordered on the north by China's Tibet, on the east by Nepal, on the west by Himachal Pradesh, on the south by Haryana, and on the east by Uttar Pradesh. The documented forest area of Uttarakhand is 34650.56 km², accounting for 64.8 percent of the state's total geographical area and 4.5 percent of the national forest area. It has a forest cover of 24,465 km², accounting for 45.74 percent of the

state's total geographic area and 3.61 percent of the country's forest cover. The state has a massive reservoir of exquisite biodiversity, with 6 National Parks, 7 Wildlife Sanctuaries, and 4 Conservation Reserves covering almost 8000 km². The state boasts two Tiger Reserves and the country's second-largest tiger population, with the Corbett Tiger Reserve having the world's greatest tiger density.

Nearly 4048 species of angiosperms and gymnosperms are found in Uttarakhand, with nearly 116 species being unique to the state and about 161 species being classified as rare or threatened by the International Union for Conservation of Nature. Uttarakhand's faunal richness included 102 mammalian species, 710 bird species, 124 fish species, 69 reptile species, and 19 amphibian species. The forests of Uttarakhand provide adequate habitat for highly endangered animals such as the snow leopard, Musk deer, tiger, Asiatic elephant, cheer pheasant, and king cobra. The state mammal is the musk deer, while the state bird is the lovely monal. With roots dating back to the early twentieth century, the state's over 12000 van panchayats are India's first examples of community-based natural resource management. The state's potential to emerge as a premier tourist destination for nature, wildlife, religious, spiritual, herbal, and adventure tourism is supported by all of the above factors.

Because of its natural, social, and cultural riches, Uttarakhand is in a unique position. Uttarakhand is renowned as the abode of Gods because of its pristine and gorgeous landscape and numerous holy temples. The various sights that inspire inspiration to the soul and make Uttarakhand a spiritual destination of the world include snow-capped mountains, scenic alpine meadows, majestic Himalayan crisis-crossed valleys, life-giving perennial rivers stippled with lush green forests, and high biodiversity. Uttarakhand, the Indian Union's 28th state, was established on November 9, 2000. With a land area of more than 53,483 km², this state accounts for roughly 1.67 percent of the country's total land area. According to the 2011 census, the state has a population of 10116752 people, divided into two ethnic groups: Indo-Aryans and Indo-Mongoloids. Various communities within these groupings play an important part in the state's natural resource conservation.



Figure 3. Location Map of Uttarakhand

7. Data Sources

The quantitative and qualitative data supplied is centered on "eco-tourism in the state of Uttarakhand, ecology, environment, sustainable development, and linkage with catastrophe incidence and management." Rather, data on eco-tourism, sustainable development, climate change, environmental issues, natural disasters, migration, and ecological imbalance as direct stumbling blocks to the development of eco-tourism and sustainable development can be found in a plethora of studies, mostly in one or two categories. I used careful description evaluation and contrast to check the authenticity of a variety of quantitative and qualitative documents. Eco-tourism extent analysis, natural disasters, and their socio-economic repercussions are among the walking texts of these archival data, which combine beautiful landscape, topography, and socioeconomic dimensions with specific periods. The information was gathered from a variety of sources, including individual members of various groups, the state eco-tourism department, local small traditional entrepreneurs, NGOs, CBOs, community stakeholders, social workers, environmentalists, and a variety of other people who appeared to be involved in various social, economic, political, and environmental activities to promote betterment and development in society. The second set of facts and figures came from non-governmental groups, community-based organizations, government statistics, public-private partnership data, past studies, research publications, completed projects, and a variety of other secondary sources. In addition to the aforementioned sources, public authority records have survived in great quantities and wide diversity.



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8. Methodology

The exploratory analysis method was employed in this paper. An exploratory examination is a qualitative research method that becomes useful in formulating hypotheses or testing hypotheses, simultaneously keeping the fact in mind that the research has a little knowledge on the subject under investigation, and various theories prevailing around. To begin, I mustered up certain ideas from prior research in the literature and establish a candid interpretative definition on eco-tourism in the state of Uttarakhand, sustainable development, climate change, and natural disasters, as well as their importance and effects on the overall enhancement of eco-tourism and sustainable development in the state. I additionally identify various triggers of eco-tourism, sustainability, development patterns, and environmental hazards in the overall sustainable development in the state of Uttarakhand, using qualitative exploratory analysis. Following that, I discuss some of the positives of long-term eco-tourism possibilities and sustainable development in the state of Uttarakhand, and for the rest of the communities. The elemental thrust of this particular research type is to conduct a categorical systematic study of ecotourism possibilities and sustainable development in the state, by also venturing into the dimension of ecological, environmental, and natural disasters of the state, and thus arriving at both new and valid conclusions.

9. Disaster aids a necessity to bring about sustainable development in India

Disaster aid deals with the public health management of disasters. It addresses various issues, such as casualty area management and hospital management through various strategies and actions. According to the Australian Journal of Disaster Medicine, disaster medicine involves the modification and expansion of health and medical capabilities to counter a situation, which has the potential to overwhelm the services in the situation. According to Gunn, disaster medicine is the study and collaborative application of various health disciplines to the prevention, preparedness, response, and recovery, from the health problems arising from the disaster. This must be achieved in co-operation with agencies and disciplines involved in comprehensive disaster management. Thus, disaster medicine includes the prevention, preparedness, response, and recovery aspects of health management in disasters to mitigate the adverse consequences and reduce mortality and morbidity.

Disaster brings about disruption to the human, social, monetary, and ecological lifestyles and periods of society. It brings forth interruption, loss of lifestyles, damage, obliteration, lack of capability, plague, epidemic, redirection of belongings, and large weight to the exchequer. The Medical Preparedness for Disasters, define catastrophe as a situation in which the want of hospital treatment exceeds the at once available belongings, and in which great and coordinating measures are important, if ordinary super standards are to be maintained. Consistently natural failures negatively have an impact on human lives and belongings. Therefore, causing a contrary atmosphere for sustainability and eco-tourism mainly in the hills of India.

Disaster resource is specifically centered on the effect of screw-ups on clinical and fitness offerings, and the manner they may be quality managed to lessen the huge variety of mortalities and morbidities as a result of screw-ups. It is vital to discuss the various components related to the prevention, preparedness, reaction, and recuperation of health manipulated in screw-ups. There are tries to make the issue of catastrophe an unbiased specialty of drugs because it has a unique reputation in handling instances and it includes handling numerous issues aside from direct scientific remedy of patients. Disasters are regarded as an ever-gift threat in our lives and appear like at the rise; the past few decades have visible an increase within the range of disasters and the devastation caused by screw-ups (Mileti, 1999; Quarantelli, 1998; Waugh, 2007).

In the occasion that sociology of catastrophe isn't always observed, agree with me, pathology of it has not been located out. (Gracia- Acosta 2002). This method lets in for the reconstruction of relationships among pre-event vulnerability styles and the societal impact of herbal risks and failures, or "societal relationships with nature" (Diamond and Robinson 2010, p. 1), the usage of screw-ups as "social laboratories" Emergencies and failures regularly result in significant influences on human beings' fitness, inclusive of the lack of many lives, and critical disruptions of the functioning of groups.

Every new risk exhibits the demanding situations for managing health dangers and consequences of emergencies and disasters. Deaths, accidents, illnesses, disabilities, psychosocial problems, and other fitness impacts may be prevented or reduced with the aid of emergency danger control measures related to health and other sectors. Health emergency and catastrophe chance management (Health EDRM) is multi-sectoral and refers to the systematic evaluation and management of fitness dangers, posed by dangerous occasions, along with emergencies and failures, via a combination of chance, exposure, and vulnerability reduction to prevent and mitigate dangers, preparedness, reaction, and healing. The conventional attention of the fitness quarter has been on the response to emergencies. The ongoing mission is to develop the focal point of Health-EDRM from that of response and recovery to an extra proactive approach that emphasizes prevention and mitigation, and the improvement of the community and U.S. Capacities to provide well-timed and powerful reaction and restoration. Resilient health structures based on primary fitness care on the community level can lessen underlying



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vulnerability, protect fitness facilities and services, and scale up the reaction to satisfy the extensive-ranging fitness wishes in emergencies and screw-ups (WHO, 2017).

The healthcare experts, policymakers, educators, doctors, nurses, and pharmacists should be taught. In addition, they should appropriately be trained in disaster management and preparedness because previous results make it evident that responses to disasters are inadequate. Disaster aid involves the care of victims of natural and human-made disasters, is concerned with the health, medical, and emotional aspects of disasters, and includes disaster management. Healthcare professionals need to be competent and willing to respond to disasters and need to be involved in the areas of preparedness, recovery, and mitigation. Preparedness is one of the four phases of the disaster medicine cycle. The other phases include planning and mitigation, response, and recovery (Gillani, Ibrahim, Akbar, and Fang, 2020).

Emergency medical services (EMS) responders are medically skilled professionals who respond to the scenes of disasters and other emergencies to provide assistance and medical care. These professionals are not limited to emergency response work strictly and provide necessary transportation services for patients from the pre-hospital setting to a hospital, from one hospital to another, or from a hospital to other institutions such as long-term care facilities. Additionally, many EMS personnel operate mobile integrated healthcare operations as a function of community para-medicine efforts. Individual EMS responders face a wide array of hazards when responding to an emergency or disaster. However, of the hazards faced, few may pose as significant a threat systematically as high consequence infectious disease (HCIDs). According to Brouqui (3), "highly infectious diseases are transmissible from person to person, cause life-threatening illness, and present a serious hazard in healthcare settings and the community, requiring specific control measures." HCIDs have the potential to cripple an EMS system's ability to respond to emergencies and transport patients effectively. One such example of the devastating effects of HCIDs involves the severe acute respiratory syndrome (SARS) outbreak in Toronto, Canada, in 2003. It was estimated that during the outbreak, roughly 850 paramedics experienced 1,166 SARS exposures (Richey, Fowler, Swienton, Neal, and Harris, 2021).

Disturbances in social relations, economic consequences, and temporary or definitive displacements also cause distress in disaster-affected populations. Therefore, health effects after natural disasters must be considered as physical, psychological, and social. Today, crisis communication is considered to be an integrated part of disaster health response. Access to reliable information in a language that is easily understood and culturally appropriate is part of the Core Humanitarian Standard Establishing communication and access to reliable information can facilitate health recovery and reduce mortality after disasters. From a historical perspective, public radio has been used worldwide as a communication method in emergencies and disaster situations, mainly for communication on disaster preparedness, risk awareness, or risk reduction. There are many terms to describe the use of radio in humanitarian contexts, including 'disaster radio', 'emergency radio', 'beneficiary radio', 'radio in a suitcase', and 'radio in a box (Hugelius, Admas and Murphy, 2019).

10. Discussion

It is together common international truth that sustainable improvement can best be sincerely and deeply rooted at some point of the globe, at the same time as nature, ecology, and the environment is well looked after, along with the clinical management and reaction to natural failures and artificial screw-up in human habitations, as a result ensuing in eco-tourism expansion and improvement in particular inside the hill states of India. The dramatic change in the climate could honestly make intense climatic adjustments events the entire extra not unusual and excessive. Despite this, it desires to be admitted that relevant measures toward sustainable development are not being known as into movement, by way of now not giving enough attention to surroundings, ecology, and catastrophe response to promote eco-tourism in the hilly states of India. Which is negative to lengthy-time period sustainable growth and development – especially within the context of eco-tourism within the hill states. It, therefore, turns critical to hunt for the one's gray areas in the manner of sustainable development and plan for this reason to neutralize those fetters.

The importance of making plans, organizational structure, installation, regulations, and legislative measures moreover cannot be exaggerated and overemphasized however to start with, there may be a want for frank attention to the diverse loads that voluntary compliance is the necessity to purpose sustainable development fostering environmental stability, superior eco-tourism, and well-defined disaster reaction mechanism. Mass attention and involvement preserve the vital issue to the success of sustainable improvement specifically inside the growing countries. Comprehensive architected, unique, easy to understand, and nicely-blanketed media advertising and marketing campaign with which hundreds can relate and bind themselves, need to consequently be carried out in a sustained way.

The sensitization cloth ought to be regionally applicable and include neighborhood morphological dangers and enhancement opportunities protecting each applicable size – ecology, surroundings, disasters incidence within the umbrella of sustainable



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development and increase. It has to be on the identical time and offer practical, technological, and cost-effective measures to check the pertinent model of sustainability development.

Secondly, it's far absolutely crucial to perform complete vulnerability and risk assessment of those ecological, environmental, and disaster-associated threats which can also additionally arise within the advertising and increase of eco-tourism by way of the usage of the sustainable development version. Also, the results of these analyses must be made available for the masses to broaden domestic interpretative expertise of sustainability and eco-tourism.

Finally, sustainable development is a journey of socio-economic growth and should be accompanied by the amelioration of eco-tourism in the state, and this will only happen by the "judicious utilization" of the natural resources of the state of Uttarakhand, socio-economic growth of the state is imperative for the society here, however, elements of eco – tourism enhancement and sustainability blossoms out of the initiatives of ecological protection, environmental up-gradation, proactive natural disaster response, and recovery. Therefore, the very concept of eco-tourism and sustainable development in the state of Uttarakhand needs to be incorporated, as an integral component, in every possible developmental policy framework of the state of Uttarakhand.

11. Conclusion

It can be straightaway concluded that the nation of Uttarakhand has a paucity of sustainable development strategies and eco-tourism opportunities; together with the right climatologically and environmental lower backup mechanism to ameliorate its tempo and flow towards an actual path of improvement, because of the truth the human beings here lived in could not take part in nearby making plans, geologically and ecologically hard and touchy places additionally took a big tool and delivered to the pandemonium of the existing muddle, and culturally and economically left in the back of ambience; socially due to the reality they were now not mainstreamed; economically because of the fact they were underprivileged; and politically because of the reality their collective voice changed into unheeded. The findings from this have an observed presenting occasion and effect eventualities with diagnosed risks, complemented via probabilistic chance manipulate techniques as a foundation for sustainable improvement and growth within the state by really apt utilization of natural sources to enjoy sustainable development and purpose higher possibilities in eco-tourism. Realistic sustainable developmental situations transform revel in and reminiscence into nearby statistics that can be used as a template to reduce undesirable increases and improvements these days, as it did at some stage within the past. These techniques are named for reforming public protection guidelines and growing sturdy ecological, environmental, and sustainable responses at the neighborhood and national tiers. As a corollary, historic development studies are a precious approach through the way of which to determine intervals past analogous sustainable disconnects

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