



INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

RISING COVID-19 IN THE VILLAGES OF UTTARAKHAND, A POLICY ISSUE

Prashna Mishra

Research Scholar

Political Science Department

Kumaun University, Nainital

Covid crisis has shut the entire globe. India is the worst impacted by this **biological disaster**. The virus has reached all the states of India. Despite all possible virus preventing efforts, the second wave has found its way to the remotest villages of the country. Uttarakhand is a little mountainous state in North India. It is experiencing the worst phase of the second wave of this biological calamity. Despite its difficult terrain, the virus reached the region with ease and is causing multiple losses of life and livelihood. This research paper analyses the reasons behind this sporadic jump of the lethal Corona to the impossible terrains. It also showcases both the efforts and the lapse in the health infrastructure and the political will, amidst the uproar of life to stumble the corona crisis.

Key Words: Covid-19, Corona crisis, vulnerability, biological disaster, remote areas, lockdown, policy mechanisms, Community Health Centers (CHCs), Primary Health Center (PHCs).

Objectives

- To study the reasons behind the sporadic jump of corona cases in the remote areas of Uttarakhand.
- Showcase the policy measures undertaken in context of combating the biological disaster.

Methodology

The research paper takes **Uttarakhand** as its **Universe**. Its selected **unit** is- **Remote areas of the State**. The data regarding the research is majorly **Secondary**, while some data is based on **individual experience**. Various government reports, books and magazines, NGOs works, internet, newspapers, etc were consulted, studied and analyzed in the detail, for obtaining quality and authentic information. The data is then placed in the tabular format. The data is quantified by using deductive approach. The conclusions are then drawn on the basis of available information.

RISING COVID-19 IN THE VILLAGES OF UTTARAKHAND,

A POLICY ISSUE

THE INDIAN STATE OF UTTARAKHAND



(map of Uttarakhand from google)

Uttarakhand is the **Northern State** of **India**. It is also called **Devbhoomi**, due to numerous Hindu pilgrimages in the state. It comprises of the natural environment of **Himalayas**, the **Bhabar** and the **Terai** regions. It borders the Tibet autonomous region of China to the north, the Sundarpaschim Pradesh of Nepal to the East, the Indian state of Uttar Pradesh to the South and Himanchal Pradesh to the West and North West.

The state has **two divisions**- **Garhwal** and **Kumaun**. It comprises of **13 districts**. The **winter capital** of the state is **Dehradun** and the **summer capital** is **Gairsain** (Chamoli district). The **High Court** of the state is located in **Nainital**.

The two most important **Holy Rivers** of the **Hinduism**, originate in the glaciers of **Uttarakhand**, the **Ganges** at **Gangotri** and the **Yamuna** at **Yamunaotri**. The state hosts the **Bengal Tiger** in the **Jim Corbett National Park**. It is the first and the oldest National Park of India.

It is a multi-ethnic state. It comprises of all the Varnas (Brahmins, Kashtriyas, vaishyas, shudras). The Scheduled Tribes like, Jaunsari, Bhotiya, Tharu, Buksa, Raji, Jad and Banrawa, etc are the residents of the state. More than fourth-fifth of the population of Uttarakhand is Hindu. Muslims, Sikhs, Christians, Buddhists and Jains constitute the remaining population.

Uttarakhand was carved out of **Uttar Pradesh** on **9th November, 2000**. The demand for a separate Uttarakhand began in 1897 itself. Finally, the **Uttarakhand Movement** formed India's **27th state**.

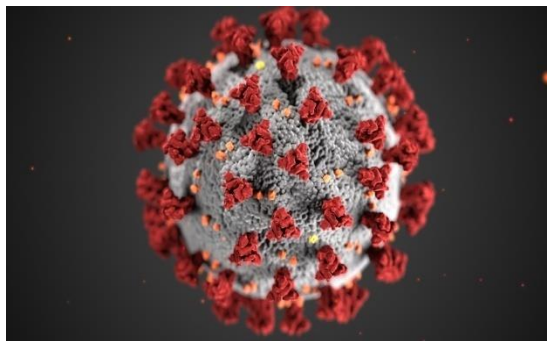
It is the second fastest growing state of India. Its Gross State Development Project (GSDP) at constant prices doubled from Rs.24786crore in Financial Year 2005 to Rs.60898crore in the Financial Year 2012. The contribution of service sector to the GSDP of Uttarakhand was over 50% during the Financial Year 2012. (Wikipedia)

Agriculture forms an important sector of economy of Uttarakhand. Basmati rice, wheat, soybeans, groundnuts, course cereals, pulses, apples, oranges, pears, peaches, lychees, etc form important crops and fruits of the region. Above 80% of terrain is mountainous. Thus, yield per hectare is not quite high. Other key industries of Uttarakhand are- Hydropower and tourism. There is further prospective development in IT, ITES, bio-technology, pharmaceuticals and automobile industries. The service sector of Uttarakhand includes- tourism, IT, higher education and banking. It is also one of the favorite destinations for adventure sports like, paragliding, rafting, bungee jumping, etc.

S.NO	BASIC INFORMATION	STATISTICS
		(As Per Census 2011)
1.	Total area with respect to entire India	53,483 kilometer square
	<ul style="list-style-type: none"> • % of mountainous terrain 	86 percent
	<ul style="list-style-type: none"> • % of forest cover 	65 percent
2.	Total population	1,00,86,292
	<ul style="list-style-type: none"> • Number of males 	51,37,773
	<ul style="list-style-type: none"> • Number of females 	49,48,519
	<ul style="list-style-type: none"> • % of Population in Rural areas 	69.77 percent
	<ul style="list-style-type: none"> • % of Brahmins 	20 percent
	<ul style="list-style-type: none"> • % of Schedule Caste 	18.76 percent
3.	Population Density	189 people per square kilometer
4.	Gender Ratio	963/1000 males
5.	Total Fertility Rate	2.3
6.	Literacy Rate	78.82 percent
	<ul style="list-style-type: none"> • % of literate males 	87.4 percent
	<ul style="list-style-type: none"> • % of literate females 	70 percent

(Table-i)

COVID-19, the Pandemic of 21st Century



(Corona Picture from google)

Corona (Covid-19) is an infectious disease caused by **SARS-CoV-2** virus. Most people infected with this virus experience- mild to moderate respiratory illness and recover without any special treatment. Old and infirm people and those with medical problems like- cardiovascular disorder, diabetes, respiratory issues, cancer, etc are more prone to corona virus due to weak immune systems. Corona is recorded as lethal. It is transmitted by a single touch, cough and sneeze. Its tracing has proved to be a difficult task. Social distancing, wearing of masks and regular use of sanitizers are the most effective measures of prevention.

Corona is believed to originate in **Wuhan, China (Asia)** and soon disseminated to the entire globe. The **World Health Organization (WHO)** declared it- the **Pandemic** on **11th March, 2020**. It is declared pandemic because it affected almost the entire globe and significant proportion of people. Other declared pandemics were- Swine flu (2009), HIV/AIDS (1981), Spanish flu (1918), etc. Covid-19 is termed as **zoonotic**. It is found to spread from the **Wet Markets** of Wuhan. Wet markets are the **meat markets**. They are prevalent at many places of the world. China's Wuhan is famous for its **wet market**. The market serves the **fresh meat** of **varietyful animals** (**Bats, pangolins**, etc) to the consumers. Corona virus is believed to be transmitted from the bats or pangolin types of animals.

Statistics of the Corona Victims around the Globe.

Affected Population	Infected and Survived Population	Number of Deaths
169,094,775	150,837,138	3,512,510

(changing daily- from Wikipedia)

COVID-19 in Uttarakhand

- **Statistics**

Number of Infected	Number of recovered	Number of Actives	Number of Deaths
3,15,590	2,54,654	49,579	5972

(From Wikipedia- changing daily)

- **Impact of Covid-19 in Uttarakhand**

CORONA Virus has hit the entire globe. It reached **India** on **30th January, 2020**. Gradually, a sporadic spread of CORONA virus was in all states. The first case of corona virus reached **Uttarakhand** on **15th March, 2020**. Since, then the cases have seen a rampant rise in state. The only effective measures, to prevent the infection are- social distancing, wearing of face masks, hygienic practices. Social distancing formed a formalized structure as **LOCKDOWN**, nationwide. Therefore, a nation-wide lockdown was proclaimed on **24th March, 2020**. However, Uttarakhand had already announced mini lockdowns before the national lockdown. Since, then the state and the entire country have undergone huge setbacks.

Uttarakhand is a little developing unit of India. Above 80% is the mountainous region. Its economy is fuelled by agriculture, tourism, adventure sports, educational hubs, etc. The dominant service sectors in Uttarakhand are- Tourism and adventurism.

The lockdown has disturbed the entire supply chains and transportation mechanisms. The trade of agricultural products has become quite difficult. Even the domestic markets have little material due to lack of supply. The exports and imports both are halted. The perishable crops are wasted and the abundant crops lag storage capacity. Therefore, these crops were sold at cheap rates. This deprived the farmers even of the cost prices of harvesting and sowing. The lack of supply of agricultural products has caused food insecurity, while inflation is at the mast.

According to the **Tourism Board**, the estimated tourists visits in the Uttarakhand during 2006 were about 18.99 million by domestic tourist and 0.1 million by foreign tourists. The next 14 years reported further surge in the tourism industry. Since tourism serves as a major revenue source to the government and livelihood income for the native people, the government developed various infrastructures (roads, rest houses, tourist clubs, etc) and introduced various public schemes (Veer Chandra Garhwali Scheme, Home stays Schemes, etc) to boost the economy.

But, the covid crisis has frozen the entire economy. The initial wave of Corona dropped the tourism to the nil position. This state has suffered massive unemployment. The entire nation has suffered more than 1.8 million job losses (internet).

There are various migrants in Uttarakhand seeking informal jobs in the other states. The massive influx of the returnee migrants further disturbed the balance of the state economy. Uttarakhand has suffered a revenue loss of about Rs.7000 to Rs.8000 crore due to the lockdown (internet).

Further the **Digitization of education** made it difficult even for the elite scholars to have an easy access to education. At one end, India is a developing nation. Therefore, the hardware for online education (laptops, smart phones, connectivity, costly recharges, etc) is still a luxury for major population. Over that, Uttarakhand being a mountainous state has difficult connectivity terrain. Therefore, the education has also become a distant dream now, especially for the poor. The school dropout rates are likely to increase especially among females.

There is a nationwide increase in Gender Based Violence (GBV). The mounting pressures on males as prime breadwinners, women losing jobs, etc are a cause of instability in the family. The already existing habits of tobacco, alcoholism, etc have further amplified related GBV.

Some laborers on not finding alcohol, due to closed stores, consumed alcoholic sanitizers.

(amarujala archive).

The revenue generated from alcohol shops further declined costing immense loss to the government. Due to lockdown, people were left stranded in identified places, costing security and economy both. Not only this, the pawn shops, grocery markets, vaccine stores, etc illegally hoarded essential commodities for illicit profits. At certain places Organized Crimes (organ trade, smuggling in human body, etc) were also suspected.

Thus, Uttarakhand was no different a state from other states amassing subordinate disasters.

- **Covid-19 in the villages of Uttarakhand**

Uttarakhand comprising of a mountainous and difficult terrain has many remote regions. Those regions are difficult to access and reach. The first phase of Covid crisis was halted in these areas due to the adoption of strict policy measures and phases of curfew like lockdowns. But, the second wave has surged the Covid-19 crisis in the villages.

With the gradual upliftment of lockdown, the intra- state and inter-state movements resumed. This gradually led to the sporadic increase in COVID cases. The Hindu pilgrimage season of **Mahakumbh** is blamed by many for this mighty upsurge. The gradual lifting up of restrictions regarding marriages, funerals and the other traditional festivals worked as a catalyst for the spreading of the virus. The lethal virus require mere an element of touch to strengthen its clutches.

The return of the migrant workers, people turning towards isolated mountains to preserve their lives from the virus, etc contributed to Covid in this region. Moreover, **the rising natural disasters in this region, like cloud bursts, floods, landslides, etc further intensify the covid crisis.** These disasters block the natural pathways disturbing all the communication links to health care facilities. Further, the geographic altitude makes the availability of plenty of Oxygen necessary for the mountainous populations. Since, the corona is believed to attack mostly on the lungs, the need of ample Oxygen further rises on the mountains.

The danger further aggravates when the innocent mountainous population lacks any knowledge about the spread of this lethal virus. They simply consider it a form of common cold and let the medical ill aggravate. Thus, amplify the mortality ratio.

The already **Migration suffering** remote areas developed good reasons for leaving mountains. This time it is more a **Medical migration**. This medical migration has exposed the political claim of development in the regions. Uttarakhand has **578 Primary Health Centers (PHCs), 79 Community Health Centers (CHCs)**. The state has only **83 beds per lakh people**. There are many vacancies in the medical occupation in the state. **There are 701 vacancies in Group A, 187 vacancies in Group B, 5035 vacancies in Group C and 351 Vacancies in Group D (amarujala archive, 20th May, 21)**. The CHCs and the PHCs lack even the basic medical facilities. They do not have the doctors and nurses. There are certain medical centers, which are run by the pharmacists. With all the discrepancies they remain closed for most of the days.

Table of medical discrepancies in remote areas

S.no	District	Remote regions	Discrepancies
1	Dehradun	Remote areas of Chakrata, Tuyri, Kalsi, Vikasnagar, Sahaspur, Herbertpur, Doewala, Rishikesh, Mussorie, etc	Lack all medical services.
2	Pauri	Chailusain and others	Lack of Oxygen plants, medical staff. 12 of the staff were found corona positive. This further impaired their responsibility as the corona warrior.
3	Chamoli	CHCs of Karnaprayag, Ghat, Gairsain, Pokhri, Tharali, etc.	There are doctors but the centers lack medical facilities. <ul style="list-style-type: none"> • CHC Gairsain has only 5 staff members in place of 12. It has an ultrasound machine but no radiologist. • CHC Joshimath is only a referral center. • The entire district has only 102 doctors despite the capacity of 171.

4	Haridwar	Padartha, Laldang, Meerpur, Bhadrabad, etc	<ul style="list-style-type: none"> • In absence of doctors and facilities, even the normal medical checkups are not possible. • CHC Padhartha has no Covid center. • Laldang PHCs has miniscule medical staff with respect to the population of 50,000. • The hospital in Meerpur is more like a haunted Bungalow. Past 17 years it hasn't started. • The hospital of Aurangabad consist only one Pharmacist.
5	Tehri	Remote regions	<p>11 CHCs but none has Corona facilities.</p> <ul style="list-style-type: none"> • 16 vacant post of doctors. • Lack of staff nurse.
6	Rudraprayag	Remote regions	CHC Jakholi and Agastyamuni are developed as covid centers.
7	Udham Singh Nagar	Remote regions	<p>Lack of doctors has caused inconvenience.</p> <ul style="list-style-type: none"> • 27 PHCs in the district have only two doctors. • Despite 216 vacancies of doctors, there are only 131 doctors available. • Narayanpur PHC of Rudrapur has no Doctor. • Only 26 Ambulances on 18 lakh people.
8	Pithoragarh	Remote regions	CHCs and PHCs of the region lack

			<p>doctors, nurses, technicians and other staff members.</p> <ul style="list-style-type: none"> • 63 CHCs, PHCs, APHCs and allopathic hospitals have only 142 doctors despite the vacancy of 187. • Base hospital has a ready Oxygen plant unit but lacks machine. • 13 Ambulances on 5.20 lakh people.
9	Nainital	Many regions	<p>Covid treatment facilities are available only in Haldwani's Sushila Tiwari hospital and some private hospitals.</p> <ul style="list-style-type: none"> • CHCs and PHCs in Bhabar and mountainous regions have no Covid facilities. • CHCs have no facilities of Ultrasound and X-ray inspite of available doctors. • CHCs of Okhalkhanda, Bheental, Bhawali have no Ambulance and ultrasound facilities. • Julikot has a PHC but lacks doctors and facilities. • On 10 lakh population, ambulance available only in Nainital and Garampani.
10	Champawat	Many regions	<p>The 21 hospitals in the district comprise only 63 doctors despite the vacancy of 107 doctors.</p> <ul style="list-style-type: none"> • 8 PHCs only have 16 doctors. • At some places, health visitors are attending patients.

			<ul style="list-style-type: none"> • Not even one PHC has facility for X-ray and blood test. • Almost all big hospitals have ambulances. But, interior areas lack ambulances.
11	Bageshwar	Many regions	<p>In absence of doctors and medical facilities, the medical centers have turned into Referral centers at these places.</p> <ul style="list-style-type: none"> • There are no radiologists at Kanda and Kapkot.
12	Almora	Many regions	<p>There are 9 CHCs and 66 PHCs. All are in bad conditions. It has one Ambulance on 16,000 people. Among 22 ambulances only six has ventilator facility.</p>
13	Uttarkashi	Many regions	<p>The existing CHCs and PHCs are being prepared for rapid covid test.</p>

(amarujala archive, table-ii)

There are dozens of covid cases and there is panic all around. The nearest testing centers are many kilometers apart and the lockdown has further raised problems of transportation and communication.

Kuldeep Rawat (resident of state) stated, for a proper testing, one has to travel 90 kms to Srinagar Medical College or to Dehradun that is 250 Kms from the village. (TNN)

Few Infected Estimates in the villages of Uttarakhand.

Region	Infected Cases
Pauri Garhwal (Majhgoan, Kurkhyal)	83
Uttarkashi (Kishanpur, Pal Barsu)	74
Tehri Garhwal	300
Rudraprayag (Bhatwadi, Maniguh)	40

(Amarujala archive, table-iii)

Over 5000 infected people are found in the villages.

According, to the social activist, **Anup Nautiyal**, Uttarakhand has witnessed steady increase in COVID cases in the hilly remote areas. However, the health facilities in the hills are quite weak. Therefore, the burden will further rise on the hospitals of plain areas.

The Mussorie based Physician **Dr.Sunil Sanon** echoed similar concerns as Mr.Nautiyal. He added, it is necessary to safeguard the individuals continuing with the livelihood practices (workers, labors, utility drivers, vegetable vendors, milk suppliers, etc)

There was an explosive spike of 1800% in active cases of Uttarakhand from March 31 to April 24 (while Mahakumbh). Since May 2021 **27.5%** increase of covid cases are reported in the hill areas of the state (internet).

Policy Measures to combat corona crisis.

- Some villages are declared containment areas. They are divided into categories of Red, Green and Yellow. Thus barring all possible activities spreading corona virus.
- The infected are put in home isolation.
- Corona kits are distributed to the infected in isolation.
- If conditions worsen, the infected are transferred to the nearest Covid Care centers.
- The medical officials are trying to reach far off places to receive samples.
- The oximeters are distributed at different care centers.
- Restrict lockdown measures are introduced again.
- The occasions and festivals have special guidelines restricting the congregation and assemblage of the individuals.
- Aaganwadi workers are active contributors at this stage of the pandemic.
- The markets and busy mandis are either closed or restricted.
- The corona curfew has been extended at various places.
- New hospitals and covid centers are inaugurated by the government with Oxygen support beds.

- The Uttarakhand government has given strict instructions to the hospitals to provide data of the Covid-19 deaths to the state control room on the same day. If the data is not provided, it will be a punishable offence.
- Ad-hoc appointments are made on the vacant posts of CHCs and PHCs. The students of final year nursing are given temporary appointments as the Corona Warriors.
- According to **Chief Medical Officer (CMO), Dr. Anoop Dimri**, regular efforts are being made to upgrade remote areas of CHCs and PHCs.
- Char Dham Yatra is postponed.
- The Maha kumbh was organized quiet well. During the end, it also turned to symbolic shahi snan.
- State Disaster Response Force (SDRF) has taken the responsibility of 20 villages for combating Covid. Two policemen will be posted in every village. They will have all the required equipments and materials (vaccines to Oxygen) for combating the biological disaster.
- According to **DIG Riddim Agarwal**, in the first phase Garhwal's 14 villages and Kumaun's 6 villages are adopted by SDRF (State Disaster Response Force). All the Covid care activities will be carried out by them.
- New Oxygen plants are sanctioned in Almora, Haldwani, etc. Overall seven new Oxygen plants will be established.
- Vatsalya Yojna is initiated to help the children orphaned due to Covid19.
- Regular and rapid Vaccination drives are being held.
- The Department of Medical Health and the Family Welfare, government of Uttarakhand released the guidelines on Covid-19 on their website.
- A committee is constituted to arrest the spike in Covid-19 cases.
- Kanwar Yatra was also restricted.
- Covid care centers are created at certain places.
- Screening at the borders and the contact tracing were held in large numbers on the borders.
- State government took control of all the private hospitals which constituted more than 100 beds and reserved 25% of these for the Covid-19 patients.
- The government has approved 578.34 lakhs for an Oxygen supply line in the district and sub-district hospital.
- According to the **Chief Secretary- Sri.Utpal Kumar Singh**, there are 20,000 Covid-19 beds of which 243 are with ICU and 126 with the ventilators (internet).
- The government Doon Medical College is declared as the, Centre of Excellence for the clinical management of Covid-19 in the state.
- The Chief Minister has announced Rs.50 lakhs for every hospital dealing with the Covid-19 in the state.
- The Central government increased the state's Oxygen quota from 183 metric tons to 300 metric tons on the order of the Uttarakhand High Court.
- There are various relief packages for the poor sections of society, street vendors, etc.
- The banks have raised their moratorium and decreased their interest rate on the loans. Haldwani, Isolation and institutional quarantine facilities are available in all districts.
- 24*7 Covid-19 testing facility is available in the government medical college Dehradun and Srinagar, Garhwal.
- The state activated the Disaster Management Act and the State Epidemic Act.

- **Parallel to the state government efforts of combating Corona crisis, the Central government has released various schemes (Ujjawala, MNGREGA, Ayushman Bharat, etc) and relief packages to support and assist all sections of society in this crisis hour. They also include state funds, various financial relief programs, etc.**
- **The Prime Minister of India, Sri Narendra Modi has further urged the Panchayati Raj Institutions (PRIs) and the Urban Local Governments (ULBs) to actively participate in fighting against the covid crisis.**

Issues with the Policy mechanism

- The state government has demanded 10,000 concentrators, 10,000 Oxygen cyclinders, 30 pressure swing Oxygen plants. This is a demand for 200CAP and 200 BiPAP machines and one lakh pulse oximeters.
- The cremation of infected individuals has faced conflict. The state government has assured cremation under strict union guidelines. Still, there occur regular issues regarding infected dead bodies.
- The laxity in the management of MahaKumbh led to rapid surge of covid cases in all the regions of Uttarakhand.
- With the spread of corona virus, the state is also witnessing the outbreak of **black fungus, white fungus and yellow fungus**. The state has declared black fungus as the epidemic.
- The remote areas have no testing labs. Thus, people are treating themselves with the symptoms of common cold.
- Moreover the testing centers are quite far from the remote mountain residents. Almost every family comprises members with the symptoms of covid-19.
- The district administration and health departments are aware of the situation but have lagged in setting the testing facilities in the villages.
- The villages even lack thermometers and oximeters. Moreover, the recently distributed oximeters by a Member of Legislature (MLA) from the legislature fund were claimed to give wrong readings.
- **Infact, the Chief Medical Officer (CMO), Chief Medical Superintendent (CMS), many MLAs were also found infected.**
- There are people who showed similar signs of infection even after testing negative. No arrangements for further tests are made.
- There is lack of medical staff in the entire state, lack of medical resources, technicians, etc.
- There are Oxygen plants, but there distribution is non-uniform.
- Uttarakhand has maximum vacancies in Group-A, Group-B, Group-C, Group-D services. Many CHCs and PHCs lack even ordinary clinical facilities.
- CHCs are more referral points than treating stations. No CHC has ventilator or the Oxygen facility. If there are machines, there are no technicians to run them.
- The CHCs and PHCs of mountainous areas lack ambulances. Even if they are present, they lack oil, right tyre, etc. In such circumstances, costly transportation is the only source of assistance.
- For 143 corona centers, only 56% reported vaccination (internet).
- The vaccination drive is also improper. At some places, there are miniscule vaccines in relation to population, whereas some areas reported stealing and hoarding in vaccines, whereas some medical experts put the wrong dose in negligence, etc.

- The administration of Uttarakhand is also criticized for putting faith over covid crisis. His policies regarding religious gatherings have been questionable.
- AASHA and Aganwadi workers spend money from their pocket to purchase sanitizers, gloves and masks.
- The mismatch, lack of coordination, dissatisfied corona warriors, corruption and dishonesty, etc has further aggravated this crisis.

Recommendations

- Tough times have exposed great discrepancies in all the development proclamations of the government. All of these need to be addressed.
- Health sector entail huge investment. A greater part of GDP must be spent in health sector.
- The remote areas shall be installed with efficient communication and connectivity links. This can be done with the help of modern technologies.
- The digitization of Education is good idea but the education of poor and vulnerable sections shall also be ensured.
- There shall be quick upgradation of all the medical facilities in the state.
- A separate disaster policy for the vulnerable section should be installed.
- Gender based disaster policy are entailed to prohibit Gender Based Violence.
- There shall be some kind of restrictions on the liquor market.
- Corruption is an all time problem. Without its eradication, any manageable catastrophic event will result into a mighty disaster.
- A quick vaccination drive shall be raced. More centers, more medical staffs, more vaccines, etc need to be installed.
- More apps like Aarogya Setu shall be introduced for better contact tracing.
- There shall be proper relief packages (food, clean water, education facilities, shelter places, medication, etc) for a successful lockdown. Basic needs of everyone should be fulfilled.
- The public shall hold their representatives accountable for the laxity in all management.
- Bureaucratic delays and red tapism should be managed in order to combat the covid crisis.
- Medical vacancies shall be immediately filled, even if on ad-hoc bases for now.
- There should be a regular inspection of all the government CHCs and PHCs to upgrade their medical facilities.
- The private hospitals should be scrutinized for their costly treatment. There shall be strict punishment for the hospitals charging high on the Golden card, Ayushman Bharat Card and covid treatment.
- Screening process and RTPCR negative report requirement shall be mandatory for all the inter-state and intra-state movements. They shall hold special importance while travelling on the mountains.
- The discrepancies mentioned in the table two shall be addressed in quick mode to combat this crisis, etc.
- AASHA and Aganwadi workers need to be incentivized for active role in such crisis.
- The Central government and state governments shall have independent and separate ministries for the Disaster Management with specified cell for different sectors.
- Awareness and information dissemination is a necessary element in risk reduction and disaster management.

There can be many more suggestions, but prima facie the Uttarakhand government entails larger GSDP on its health sector. Since, the weakness in one sector drags down all the other sectors.

References

- A Comprehensive Analysis of COVID-19 Outbreak Situation in India, Gaurav Pandey, Ranjan Gupta, Saibal K.Pal
- Cooperative Federalism in Context of Disaster Management, With Special Reference to the Kerala Floods, 2018, Mishra Prashna, IOSR Journals of Humanities and Science, Volume-26.
- Covid-19 Epidemic in Srilanka: A Mathematical and Computational Modelling Approach to Control, S.S.N Perera, S. Jayasinghe, WPTM Wickramaarchchi
- Gender and Changes in Tsunami Affected Villages in Nanggroe Aceh Darussalam Province, OXFAM, December 2005
- Gender and Natural Disasters, ILO, Geneva, September 2000
- Gender Issues in Recovery from the December 2004 Indian Ocean Tsunami- the Case of Sri Lanka, UN/ISDR, Bangkok, June 2008
- Gender Mainstreaming in Disaster Reduction, UN/ISDR, Geneva, March 2002
- Indian Ocean Tsunami through the Gender Lens, Insights from Tamil Nadu, Oxfam International and NANBAN Trust, 2008
- Institutions, Organizations and Gender Equality in an Era of Globalisation, Gender and Development Vol. 11, No 1, May 2003
- Monitoring Sexual and Reproductive Health and Rights in the Context of Disasters in Asia, Internal Document - Tsunami Resource Center, 2008
- Some Reflections on Gender Mainstreaming and Intersectionality, Development Bulletin No 64 pp.82-86, 2004
- The Tsunami's Impact on Women, Oxfam International, March 2005
- Training of Trainers Manual on Gender Mainstreaming in Disaster Risk Management, GOI-UNDP, June 2008
- The 2015 Nepal Gorkha Earthquake: An Overview of the Damage, lessons learned and Challenges, H.Hazarika, K.Kasama, K.Tsukahara, N.P Bhandary, R.K Pokhorel, Y.Kajita

- Update on the World Bank Response to the Tsunami Disaster, World Bank, Washington DC, April 2005
- Women as Equal Partners, GOI-UNDP Disaster Risk Management Program, June 2008
- Women's Participation in Disaster Relief and Recovery, Population Council Inc., 2005
- Aiyar, S.P. and Mehta Usha, Essays on Indian Federalism, Allied Publishers, Bombay, 1965.
- Aleaz Bonita, Struggles of Indian Federalism, Punthi- Pustak, Calcutta, 1997.
- Alexandrowicz, C.H., Constitutional Developments in India, O.U.P., Madras, 1957.
- Austin, Granville, the Indian Constitution: Cornerstone of a Nation, Clarendon Press, Oxford, 1966.
- Arnold and de Cosmo, 2014. Building social resilience: Protecting and Empowering Those Most at Risk. Global Facility for Disaster Reduction and Recover (GFDRR).
- Bannerjee, Krishalay, Regional Political Parties in India, B.R. Publishing Corporation, New Delhi, 1984.
- Basu, D.D., Constitutional Law of India, Prentice Hall, New Delhi, 1997.
- Basu, D.D., Commentary on the Constitution of India, S.C Sarkar and Sons Pvt. Ltd., Calcutta, 1956. Benson, C., Twigg, J. and Rossetto, T., 2007. Tools for Mainstreaming Disaster Risk Reduction: Guidance Notes for Development Organizations.
- Birkmann, J. 2006. Measuring vulnerability to promote disaster-resilient societies: conceptual frameworks and definitions. In: Birkmann, J. (ed.) Measuring vulnerability to natural hazards: towards disaster resilient societies. Tokyo: United Nations University, 2006, pp. 9-54.
- Brown, D., McGranahan, G. and Dodman, D. 2014. Urban informality and building a more inclusive, resilient and green economy. IIED (International Institute for Environment and Development).
- Carol L Schmid, Conflict and Consensus in Switzerland, University of California Press, Berkeley, 1981.
- Chanda Ashok, Federalism in India: Study of Union-State Relations. Gorge Allen and Unwin, London, 1965.
- Carpenter, A. 2013. Resilience in the Social and Physical Realms: Lessons from the Gulf Coast. Background Paper prepared for the 2013 Global Assessment Report on Disaster Risk Reduction. Geneva, Switzerland: UNISDR.
- CDKN (Climate and Development Knowledge Network) 2014. Risk-informed decision-making: An agenda for improving risk assessments under HFA2. CDKN Guide, April 2014.
- Credit Suisse, 2013: Global Wealth Report 2013. Research Institute, October 2014. Zurich, Switzerland