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CORONA VIRUS: A CURSE OR AN OPPORTUNITY

Raghav Milind Joshi. SYBA, Department of Political Science

Introduction:

A novel coronavirus has catapulted across the ever-evolving interface between humans and wild places relentlessly spreading coronavirus disease amongst humans and bringing immense suffering and death to the farthest reaches of our planet. The COVID- 19 pandemic has brought to humanity an unexpected situation that drowned them in oceans of fear and uncertainty about their future and their health safety. The world is in turmoil. This pandemic has caused immense suffering to everyone. It's a worldwide crisis. Coronavirus is the only name all over the world's newspaper now. Now the noticeable fact is where the world is heading. We can always draw some positive side from a bad, negative situation. Although this epidemic has had a devastating effect on the world, it can also be seen as an opportunity. This essay will cover the worst cases as well as the opportunistic aspects of the effects of the coronavirus.

Corona Virus: A Curse:

The COVID-19 pandemic has led to a dramatic loss of human life worldwide and presents an unprecedented challenge to public health, food systems, and the work-life of people. The economic and social disruption caused by the pandemic is devastating. Millions of people are at risk of falling into extreme poverty. Some are already facing extreme poverty caused by economic disruption. Nearly half of the world's 3.3 billion global workforces are at risk of losing their livelihoods. Informal economy workers are particularly vulnerable because the majority lack social protection and access to quality health care and have lost access to productive assets. Without the means to earn an income during lockdowns, many are unable to feed themselves and their families. In last year border closures, trade restrictions, and confinement measures had prevented farmers from accessing markets, including for buying inputs and selling their produce, and agricultural workers from harvesting crops, thus disrupting domestic and international food supply chains and reducing access to healthy, safe and diverse diets. The food security and

nutrition of millions of women and men are under threat because of the lost jobs of breadwinners in their families. The lack of income sources and a lack of social support spurred many of them to continue working, often in unsafe situations, thus exposing themselves and their families to additional risks. Because of the imposed confinement and the increasing number of the contaminated cases, many persons have been impacted negatively and started manifesting signs of psychological distress such as insomnia, eating disorders, hallucinations, mood disorders, phobias, addictive behaviors, family Violence. The quarantine has triggered the unconscious repressed thoughts and has forced their return exposing the individuals to their deepest psychological conflicts and has weakened their defense mechanisms. The economic impact of the COVID-19 pandemic in India has been largely disruptive. India's growth in the fourth quarter of the fiscal year 2020 went down to 3.1% according to India's growth in the fourth quarter of the fiscal year 2020 went down to 3.1% according to the Ministry of Statistics. The World Bank and rating agencies had initially revised India's growth for the fiscal year 2021 with the lowest figures India has seen in three decades since India's economic liberalization in the 1990s.

Corona Virus: an Opportunity

No matter how serious and sad all of this is, there are upsides as well. With opportunities, I mean general opportunities that are available for most people affected by the crisis. The current crisis offers some opportunities as well. Before this COVID-19 epidemic, we had stacked our week with social gatherings and entertainment such as going to the theater, birthdays, cinema, restaurant, bar, sports club, gym, music, festivals, concerts, and what is more. Suddenly, all of that is cancelled or forbidden, giving us significant amounts of extra time. And still, life goes on. The opportunity is that we can spend this time on other things—or even better, on nothing and enjoy the free time. We have time to spend on the things we love doing like cooking, spending time with our family, etc. We have time to discover ourselves. We have time to focus on our hobbies like sketching, painting, crafts, writing, reading, doodling, and to grow ourselves with these hobbies. We can also utilize this free time by connecting with our old friends and relatives. Another opportunity is that we got conscious regarding our health. All of a sudden we started taking care of our health. Before this epidemic, we were so busy with our life, our hassles, corporate jobs, living in a polluted environment which affected our health so much that even youngsters were also started getting diagnosed with severe chronic diseases. But now almost everyone is concerned about their health. Right now this is really a good chance to focus on our health and improve it by doing regular exercises, practicing yoga, and

breathing exercises which will definitely benefit us in our further life. It is also a good way to be away from the distress in our lives.

The quarantine has triggered the unconscious repressed thoughts and has forced their return exposing the individuals to their deepest psychological conflicts and has weakened their defense mechanisms. Even though this difficult situation disturbed the coping strategies of the students, it offered them also the opportunity to go through the different psychological phases of the confinement starting from the survival phase till the integration one, and provided them with the possibility to reorganize their personality features confronting their inner psychological troubles. The return of the repressed pushed the students out of their comfort zone and helped them with the guidance of the office of Counseling and disability to manage their psychological strain retrieving their darkest secrets that couldn't be maintained anymore in their unconscious.

Although this COVID-19 situation has some positive effects still it is a curse to a lot of people living in this world. Somehow we need to get out of this pandemic as soon as possible by taking all the preventive measures.

COLLATION POLITICS IN INDIA AT CENTRAL GOVERNMENT: HISTORICAL PERSPECTIVE

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Abstract

Indian democracy is living vibrant democracy .from Indipendence it has been over 70 years of successfully practicing democracy (except emergency in 1977). The study of Collation Politics In India have seen major changes and as concept it is in it's youth stage. As a multiparty system India have larger numbers of political parties and in diverse nations like India different political opinion formation of verious political parties in order to formation of government collective compromise or collaboration is likely to happen. This paper describes historical glimpse and discusses various dimension of coalition governments India.

Keywords: Collation, multiparty system, stage of Collation Politics

Methodology

The current research study falls under the category of ex post facto and analytical research. The methodology adopted therefore, is historical and descriptive in nature. And tabulation of data; and data analysis procedures. Hence, the study relies on both the primary as well as secondary data.

Phases of Coalition Government

- **1. Pre-Election Coalition:** It means adjustment between the parties. This type of coalition is very important as it occurs prior to election. It fosters better understanding between the political parties in general and the party members in particular which provides a common platform and attracts the voters on the basis of a joint manifesto.
- **2. Post-Election Alliance:** Unlike pre-election alliance, here the understanding between the parties or the leaders representing them occurs only after they are done with the general election. It is a union to share political power and run the government. It is a compromise or agreement after the election. In other words, it is an opportunistic type of coalition.

Features of Coalition Government in India

We can identify the following features of coalition politics in India. They are:

- 1. A coalition government is organized by two or more political parties.
- 2. Coalition politics is a collaborative, co-operative effort in which some political parties together exercise political power i.e., form a government to make binding decisions for the whole society.
- 3. At times some political parties form a pre-poll alliance and contest the elections collectively by fielding common candidates in various constituencies. After getting a majority in the elections, the coalition partners collectively form a government.
- 4. At times when no party is in a position to get a majority some parties form a coalition for organizing government. The coalition partners then share the exercise of power of the State. Gomson makes it clear that-"it is the joint use of resources to determine the outcome of a decision in a mixed motive situation involving more than two units".
- 5. The exercise of power is undertaken for implementing the agreed politics and programmes. In case the coalition alliance or group is organized before the elections a common election manifesto is prepared, adopted and released.
- 6. The coalition alliance either elects or selects a coalition leader in advance or elects such leader after the elections. The coalition government is organized under the leadership of such a person.
- 7. Coalition government is always based on a compromise or agreement. In decision-making all the coalition partners try to practice decision making by consensus. Each coalition partner has toaccommodate the wishes, desires and policies of the other partners.
- 8. A coalition government has usually a large sized Council of Ministers because all the coalition partners have to be given a berth in the Ministry however, 97th Amendment of the constitution restricted 15 percent

of the total members. On the basis of these features coalition politics comes into operation either through a pre-pollcoalition alliance or through a post-poll alliance which is in majority in the legislature. ormation of Collation government at center,

Above table is time line of coalition governments from 1977 To 2019 before that first three loksabha congress party have single party rule though others political parties ware their like communist party reginal party have central presence at central as less or weaker oppositional party but after 1977 coalition government largely come in to Indian central politics.

Generally, the coalitions are formed on account of one of the following three reasons:

1. No single political party is able to secure a working majority in the popular house on account of the

Table 75.1 Formation of Coalition Governments at the Centre

SI. No.	Period	Coalition	Prime Minister (Party)	Partners
1.	1977– 1979	Janata Party	Morarji Desai (Congress (O))	Congress (O), Bharatiya Jana Sangh, Bharatiya Lok Dal, Socialist Party, Congress for Democracy, Chandra Shekhar Group (former congressmen) and others.
2.	1979– 1980	Janata Party (Secular)	Charan Singh (Janata(S))	Janata (S) and Congress (U). Congress (I) supported from outside.
3.	1989– 1990	National Front	V.P. Singh (Janata Dal)	Janata Dal, TDP, DMK, AGP and

presence of multiparty system. Under the circumstances a number of likeminded political parties form the coalition to provide a workable majority and run the government. France provides a typical example of this type of coalitions.

2. Secondly, in a bi-party system a deadlock may be created due to even balance between two political parties. This may lead to one of the two parties allying itself with a minor group such as neutrals or

defectors to tilt the majority in its favour.

3. Thirdly, a coalition may be necessitated by a national crisis when various political groups may suspend their political strife and collaborate in the general cause of protecting and promoting their National interests.

CONCLUSION:

After independence the first loksabha election was held in 1952 from then over 70 years India have seen vibrant democracy and first two decades rule majority congress party from 1977 coalition government formulate in only few able to complete their full term largely ended before there completion of tenure. India has experienced multi – party coalition governments which can be regarded as a kind of accommodated politics with all varieties of political parties ideologically poles apart ranging from regional to national coming together in broad coalitions.

References and Bibliographic:

- 1. M laxmikant ,*India polity* ,6th English edition ,TMH publication page number 1221.2020.
- 2. George Thomas Kurian, editor in chief James E. Alt
- 3. Simone Chambers, Geoffrey Garrett ,Margaret Levi Paula D. McClain ASSOCIATE EDITORSTHE ENCYCLOPEDIA OF POLITICAL SCIENCE, vol 1to5
- 4. C Q press A Division of SAGE Washington, D.C.2011.
- 5. Kashyap, C. Subhash (Ed.), "Coalition Government and Politics in India," Uppal Publishing House, New Delhi, 1997.
- 6. Chandra Bipan, Aditya Mukherjee and Mridula Mukherjee, India after Independence, New Delhi, Penguin Books.2009.

IMPACT OF PANDEMIC ON CORPORATE SECTOR

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Introduction -

Covid pandemic! the contagious disease spread by novel corona virus has stuck the world for almost 2 years now. Since the end of 2019 the world has seen sudden change. In terms of Politics, Administration, Health, Education, Employment and so on. On this occasion this is research article written about how pandemic has affected employment or in other words how the effect of pandemic is on Corporate sector.

Impact on Corporate Sector:

A corporate is a sector where all the financial employments are involved. Bussiness, Service sector, Industries, small scale production hubs etc. This article will primarily look in brief about what impact does corporate sector faced. Impact of employees, impact on their personal life, impact on the production, the service sector and so on.

Impact on Pharmaceuticals and Biotechnology Industries:

Pharmaceutical sectors are those where the active medical ingredients are produced. Intermediatory medicines tablets are produced. Pharma sector is the major contributor of Indian economy. During pandemic pharma sector saw very significant growth. An increasing demand for medicines and API led to the increase in productions. Pharmaceutical companies were set on battlefield to tackle the ongoing pandemic. There has been seen a mixed impact on pharma sector. One such research is done in one company. During research following observations were made.

- As pandemic started the large number of workers were reduced.
- The migrants which were working in this company had to leave their jobs because of forced lockdown which led them to leave for their native places as many of them lost their jobs
- ➤ Most of these migrants were laborers or the unskilled personals.
- The company employes its employee in 2 ways viz 1) contract based and 2) company employee.
- ➤ The contract based employees had to suffer the loss of employment.
- > The reduction of number of employees had directly affected the company's permanent employees.
- ➤ All other workload were directed on this peoples.
- The permanent employees had to work on extra shifts.

- The working hours were rose to 12 to 14 hours/day
- > Though promotions and transfer of employees were paused
- ➤ Though employees were getting paid extra for their extra hours still there wasn't an increase in their basic salary.
- The reason given to them was the cost was been invested into the machinery.

The increasing demand for medicines led to increase in work load on machinery of the company. The increased production led to high production cost and subsequently to high product price. The demand for medicines rose very high and so does its prices. Biotechnological companies saw some demand for work force. The primary task of the biotech companies was to test the covid samples, therefore there was a demand for skilled personals. Vaccine production required to tested in sample bottles that required man power which further created a small amount of employment to small population of skilled graduates.

Impact on Other Industries and Service Sectors:

What pandemic affected the most is the service sectors, tertiary and quaternary sectors. IT industries, Hospitalities, Hotels, Gyms. Real estate this are the sectors which were hit most due to pandemic. The forced lockdown left many unemployed due to cut in employee's numbers by companies. The small scales industries were literally forced to shut down. Many skilled and unskilled employed lost their jobs. Small retailers business were also affected, educational sector had hit worst. Teachers were forced to work with minimum payment in private schools and colleges. Home tutors were closed as communicating was not allowed due to corona virus being contagious. Gyms were closed as it was place were peoples gather together. Movie halls, Concerts drama studio were closed and so its workers lost employment.

Positive Impact of Pandemic:

Though pandemic gave a deep wound to employment sector/ But it also gave some new innovative ideas and some better platform for employment. The online platform became common to all to work. Many IT and INFORMATION sectors switched their work through online mode. Work from home became an alternative. Schools were conducted through online lectures and Meetings online. This led to growth in Telecommunication business growth. Many online businesses were set up like apps which provided online meetings. Softwares were developed so that peoples could work from home. Sales and marketing became online that reduced the travelling cost. Online trading became a common business. Stock markets saw a drastic change due to online trading. New skills like freelancing were developed. Freelancers, Consultants became popular through online platform. Youngsters were seen to start channels on OTT platform. Content based channels were telecasted on Social media. Media houses and TV networks saw

a huge upsurge in their business. The backoffice work also gave a good employent who could work from home.

Post Pandemic:

With certain restrictions government had allowed to unlock step by step. Slowly the small scale business are going to start. Once again there will be fresh opportunities to the corporate sectors

Conclusion:

Pandemic saw a huge loss in employment in some sectors and at the same time it created some innovative medium of employment. Yes there is obvious impact on the mental health of peoples.

REFERENCES:

- **1.** Company employees
- 2. Business owners
- **3.** Economic times e-newspapers
- 4. Google

कोरोना काळातील देवदूत

जगताप प्रथमेश संजय, एमए पार्ट -1 राज्यशास्त्र विभाग , आबासाहेब गरवारे कॉलेज ,पुणे गोषवारा-

स्वच्छता हा प्रत्येकाच्या आयुष्यातील अविभाज्य घटक आहे. इंग्रजीत म्हण च आहे cleanliness is next to godliness. आपण स्वतःच्या घरातल्या स्वच्छतेकडे लक्ष देत तसच सार्वजिनक स्वच्छते कडे द्यायला हवं नाहीतर किमान जे घराच्याआधी गाव स्वच्छ करतात त्यांना सहकार्य करायला हवं. आज महामारी मुळे आपल्याला कळतय की सार्वजिनक स्वच्छता हे आपलं प्रधान कर्तव्य असायला पाहिजे.

सूचक शब्द- स्वच्छता, कामगार, स्वच्छता दूत, देवदूत, सुरक्षा, श्रमिक संघ, कामगार युनियन.,

प्रस्तावना-

स्वच्छता कामगार बऱ्याच आवश्यक सेवा देत आहेत. यामध्ये रस्ते साफ करणे, कचरा हटविणे, पाण्याच्या टाक्या साफ करणे, मनुष्य आणि प्रयोगशाळांमधून निरुपयोगी वस्तूंची साफसफाई करणे इ. यासाठी बऱ्याच वेळा अशा लोकांकडे ना सेनेटिझर असतो किंवा त्यांचा चेहरा मुखवटादेखील नसतो. या सर्व लोकांची आकडेवारी सध्या उपलब्ध नाही. भंगी किंवा शौचालयाने भरलेल्या स्कॅव्हेंजर्सचे प्रमाण अचूकपणे सांगणे कठीण आहे. सरकारी आकडेवारीनुसार, 182,000 लोक या व्यवसायाशी संबंधित आहेत, तर मानवाधिकारांशी संबंधित लोकांच्या मते, या व्यवसायासह 770,000 लोक संबंधित आहेत.

देशभरात कोरोनाच्या संकटाच्या पार्श्वभूमीवर अनेकांना स्वच्छतेचं आणि स्वच्छता कर्मचाऱ्यांचं महत्व पटू लागलयं. स्वच्छता कर्मचाऱ्यांची जबाबदारी डॉक्टर्स मेडिकल स्टाफ आणि इतर अत्यावश्यक सेवा देणाऱ्या कर्मचाऱ्यांएवढच आहे.

स्वच्छता दूत की देवदूत-

आज आपण सर्वच जण कोरोनाचा प्रादुर्भाव होऊ नये म्हणून काळजी घेत आहोत. सर्वच देशातील हाउसिंग सोसायटीतील सभासद ज्या छोट्या-छोट्या कारणावरून एकमेकांशी भांडत असायचे, आज त्याच सोसायटीतील सर्व सभासद खांद्याला खांदा (सोशल डिस्टंसिंग ठेवून) लावून काम करत आहेत. अर्थातच त्यांचा मुख्य भर सोसायटीमधील स्वच्छतेवर आहे. साफसफाईच्या मुद्द्याने सर्वांनाच एकत्र आणलं आहे. एरवी सफाई कामगाराचा अनादर करून बोलणारे सभासद आज आदरपूर्वक, नम्रतेने सफाई कामगारांशी बोलत आहेत. आज त्यांना या स्वच्छतादुताचं महत्व कळालं असून त्याला काय हवंय नकोय देखील विचारलं जात आहे. त्यांना त्यांचाच हा सफाई कामगार फक्त स्वच्छतादूतच नाही तर खरा देवदूत वाटायला

लागलाय. कारण तो जर एक दिवस आला नाही, तरी खूप अस्वच्छता पसरून रोगराई वाढू शकते, अशी त्यांना आता भीती वाटू लागली आहे. या अस्वच्छतेने आपल्याकडे कोरोनाचा प्रादुर्भाव होऊ शकतो आणि आपण आजारी पडू ही भावना आता सर्वसामान्यांमध्ये घर करू लागली आहे.

देशभरात कोरोनाच्या विषाणूचा प्रादुर्भाव दिवसेंदिवस वाढत चालला आहे. अशावेळी प्रशासन शहरातील सर्व नागरिकांना स्वच्छ आणि निरोगी राहण्याचं आवाहन करत आहे. परंतु घाणीच्या साम्राज्यात काम करत असणाऱ्या कामगारांकडे पण तेवढ्याच आक्रमकतेने, त्यांच्या सुविधांकडे लक्ष देण्याची गरज असल्याचा सूर, सफाई कामगारांसाठी काम करत असणाऱ्या संघटनांमधून उमटत आहे.

आपला साफसफाईशी संबंध फक्त आपल्या घरापुरता मर्यादित असतो. घरात साचलेला कचरा इस्टिबनमध्ये टाकला की आपली जबाबदारी पूर्ण होते. परंतु, संपूर्ण सोसायटीतील त्या कचऱ्याचा प्रवास पुढे कसा होतो, हे जाणून घेण्याची कधीही तसदीही आपण घेतलेली नसते. कारण तसं जाणून घ्यावं अशी गरजही कधी वाटली नाही. आपल्यासाठी सफाई कामगार कचरा घेऊन जातो, दिवाळी सणाला तो आलाच घरी तर दिले तर दिले 200-500 रुपये बोनस म्हणून द्यायचे, इतकाच काय तो सफाई कामगारांशी संबंध. अनेक लोकांना तर त्याचं नावही माहित नसतं. ते त्यांना 'कचरावाला' म्हणूनच संबोधतात. याला मात्र काही अपवाद असल्याचं चित्रही काही ठिकाणी पहिलं मिळतं. काही सभासद त्यांना घरच्याप्रमाणे वागवतात. त्यांच्या सुख दुःखात सहभागी होतात, वेळप्रसंगी मदत करतात. कोरोनाच्या काळात या सफाई कामगारांना आवर्जून किराणामाल प्रवताना दिसत आहेत. मात्र अशी उदाहरणं फार कमी आहेत.

15 वर्ष स्वतः सफाई कामगार म्हणून काम करणारे आणि सेवा निवृतीनंतर सफाई कामगारांच्या मुलांसाठी शाळा चालवणारे रमेश हरळकर आज सफाई कामगार परिवर्तन संघ, ही संघटना चालवतात. ते सांगतात की, "सफाई कामगारांच्या प्रश्नांचा लढा खूप मोठा आहे. आज कोरोनामुळे त्यांचं महत्त्व लोकांना कळतंय, ही चांगली गोष्ट आहे. मात्र सफाई कामगारांचं काम हा आजही एक विशिष्ट समाजातील व्यक्तीच गेली अनेक दशके करत आला आहे. या समाजासाठी मोठं काम उभं करण्याची गरज असून, त्याला आरोग्याच्या सर्व सुविधा आज दिल्या गेल्या पाहिजेत. आजही सफाई कामगार महापालिकेने बांधून दिलेल्या वस्त्यांमध्ये राहतो. त्या वस्त्यांची अवस्था अत्यंत बिकट झालेली आहे. आज प्रत्येक सफाई कामगारांच्या वस्तीत पाण्याची नळाची खास लाईन दिली गेली पाहिजे, म्हणजे कामगार कामावरून जेव्हा घरी जाईल तेव्हा पहिला तो त्या नळाखाली स्वच्छ होऊन घरात प्रवेश करेल."

"आज कोरोनाच्या या परिस्थितीत वैद्यकीय क्षेत्रातील आणि पोलीस सेवेतील कर्मचाऱ्याचा सहभाग आहे, तेवढाच सहभाग किंबहुना त्यापेक्षा जास्त काम आज सफाई कामगार करत आहे. कोरोनाशी युद्ध करणारे सफाई कामगार हे स्द्धा योद्धेच आहेत." आज देशभरात कोट्यवधी लोकं साफसफाईचं काम करत आहेत. आपल्याला राज्यातील उदाहरणं घायची झाली तर अंदाजे तीन लाखापेक्षा जास्त सफाई कामगार आज राज्य शासन, महापालिका, नगरपालिका, जिल्हापरिषदेत कायमस्वरुपी तत्वावर काम करत आहेत. तर 50 हजारांपेक्षा जास्त सफाई कामगार कंत्राटी पद्धतीने याच विभागात काम करत आहे. खासगी ठिकाणी काम करणाऱ्या सफाई कामगाराची संख्या तर खूप मोठी आहे. मात्र खरी कामाची कसोटी लागते ती राज्य शासन, महापालिका, नगरपालिका, जिल्हापरिषदेत काम करणाऱ्या सफाई कामगाराची. कारण तुमच्या घरातून, कार्यालयातून ते डिम्पंग ग्राऊंडवर कचरा नेण्याची प्रामुख्याने जबाबदारी ह्यांच्यावरच असते. त्यांना या सेवेसाठी अत्यावश्यक सेवेचा दर्जाही बहाल करण्यात आला आहे. कचरा वाहतूक श्रमिक संघ आणि महाराष्ट्र म्युनिसिपल कामगार युनिअन, ही संघटना कंत्राटी सफाई कामगारांचे प्रश्न मांडण्याचं काम करत असते. ह्या संघटनेचे जनरल सेक्रेटरी, मिलिंद रानडे, सांगतात की, "माझ्या मते सर्वच सफाई कामगारांना स्वयं सुरक्षा किट मिळणे गरजेचे आहे. आज ही लोकं आपला जीव धोक्यात घालून काम करत आहेत. त्यांचं दर आठवङ्याला जनरल मेडिकल चेक-अप केलं जाणं गरजेचं आहे. ज्याप्रमाने केंद्र सरकारने आरोग्य क्षेत्रातील कर्मचाऱ्यांना 50 लाखाचं विमा कवच प्रदान केले आहे. त्याचप्रमाणे ते सफाई कामगाराला पण केले पाहिजे असे मला वाटते."

निष्कर्ष

सफाई कामगारांचं या काळात येणार महत्व पुढच्या काळात जेव्हा कुठलाही साथीचा आजार नसेल त्यावेळी असंच राहणे गरजेचं आहे. शिवाय शासन या सर्व सफाई कामगारांच्या आरोग्याची तसेच त्यांना सुरिक्षिततेच्या दृष्टीने लागणाऱ्या सर्व साधनांची काळजी घेईल, असा विश्वास खरं तर व्यक्त करायला हरकत नाही. कारण आपण प्रत्यकाने हे लक्षात ठेवलं पाहिजे, जान है तो जहान है. त्यामुळे येत्या काळात आपल्या परिसरातील स्वच्छता अप्रतिम ठेवायची असेल तर आपल्याला या स्वच्छतादूताची काळजी घेतली पाहिजे. प्रशासन त्यांच्यपद्धतीने काम करेल, मात्र या सफाई कामगारांना 'कचरावाला' हाक न मारता किमान आदर देऊन त्यांच्याशी दोन शब्द प्रेमाने बोललात तरी त्यांना बरं वाटेल. एवढी जबादारी नागरिक म्हणून नक्कीच पार पडू शकतो.

संदर्भ

- 1. विकिपीडिया,
- 2. संतोष आंधळे यांचा ब्लॉग,
- 3. एबीपी माझा न्य्ज चैनल.

THE IMPACT OF COVID-19 ON LOCAL SELF INSTITUTIONS

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Introduction:

The COVID-19 pandemic has created a catastrophe not seen or heard in almost a century. The world is reeling under the brutal devastation caused by a severe health crisis along with an inevitable economic crisis looming across all sectors. It also has a profound effect on local governance around the world, which is trying its best to micro-manage the crisis and provide timely and prompt relief to the affected and aggrieved. In addressing the pandemic local self governments & institutions are standing at the frontline. Amidst the usual work load of ensuring local development, local self-governments are also playing an important role in protection initiatives to help the citizenry combat the covid-19 pandemic. It is involved in ensuring protective measures by means of enforcing social distancing, distribution of ration and other amenities to the affected communities, management of transportation and ambulance system, disposal of waste, as well as examining that the preventive means and response teams are well-equipped to deal with any unforeseen circumstances. In public places, institutions and markets are made to follow the government guidelines of social distancing from each other, weaning protective covering such as masks, mandatory installation of sanitizers, ensuring availability of essential services, night curfew etc. The urban local body is made responsible to ensure that the protocols are followed. This crisis has provided a critical analysis of the local governance structure in terms of its response to any medical emergency, transparency, accountability which influences all spheres of the local and urban governance.

It is no exaggeration to say that the local government bodies are at the front line in serving people, they are the first alarming agency at the time of any crisis such as the present covid-19 pandemic. Some of the major challenges faced by the local self institutions are summarized as follows. It is a known fact that the scarcity of resources is the most serious problem plaguing most of the local governments. The pandemic has further increased the scarcity which can result in hazardous results at the local level. The gap between rich and poor has been enlarged in the recent times. The pandemic has also aggravated the gender disparity since women are indiscriminately affected during the pandemic. The cases of domestic violence have risen sharply according to one study, and therefore, the job of local police has increased manifold. They have to deal with the additional task of maintaining law and order while settling local disputes. The loss of employment has further fueled the inequalities. Managing several agencies together and devoting all resources to deal with the pandemic is another serious challenge the local governing bodies have faced in recent times. How the local bodies deal with the challenges will serve as a model for the long-term success

of disease control and livelihood support as the pandemic proceeds.

Strategies:

Countries around the world have undertaken a wide range of strategies to halt the spread of COVID-19 and control the economic fallout left in its wake. Rural areas of developing countries pose particular difficulties for developing and implementing effective responses owing to underdeveloped health infrastructure, uneven state capacity for infection control, and endemic poverty. The critical role of local governance in coordinating pandemic response can be analysed by examining how state authorities are attempting to bridge the gap between the need for rapid, vigorous response to the pandemic and local realities. The urgency of COVID-19 response has galvanized new kinds of cross-sectoral and multi-scalar interaction between administrative units involved in coordinating responses, as local governments have assumed central responsibility in the implementation of disease control and social security mechanisms. In many states, the long term investment in democratic local government and arrangements for incorporating women within grassroots state functions has built a high degree of public trust and cooperation with state actors, while local authorities embrace an ethic of care in the implementation of state responses. Governance is as vital to understanding the trajectory of COVID-19 impacts, recovery, and its impact upon society, as biology, demography, and economy.

The role of apex level local governance for carrying out response to COVID-19 is extremely critical. While administrative authorities like the DM are ultimately in charge, they rely heavily on local level institutions for many different aspects of response. In many cases, only the local institutions have the knowledge, legitimacy, and coordinating capacity to do so. Disease response is not a straightforward application of predefined biomedical guidelines; but the character of governance – the nature of institutions, their capacities, and legitimacy – shapes how state responses will unfold over the long-term. Such factors also deserve much attention in the trajectory of coping with COVID-19.

At the ground level, the local self government has been involved in micro coordinating the crisis by dealing with local vendors and shopkeepers, small businesses, medical facilities at local levels such as Mohalla clinics, as well as taking care of contact tracing and quarantine facilities for people to curb the spread of covid-19 virus. Peoples coming from corona affected states and countries had to be monitored at regular intervals while providing basic amenities and constant care in case of a local disease breakout. In most cases, local governments have been providing quarantine centres with food through community kitchens. The social distancing norms have also transformed the structure of tourism, transportation, and trade, and local bodies have been trying at their level to minimise the economic impact of covid. In many

cases small business have been an important sources of revenue and employment generating agency which if not properly managed can paralyze the economy. The imposition of lockdown has created tremendous difficulties for people to find even basic facilities such as ration, medical equipments, water resources, etc. The local governments have been charged with proper monitoring and implementation of lockdown protocols. In response and to mitigate the severe effects of lockdown, there have been phased opening of critical infrastructure such as local transportation, educational institutions for high school students, canteen facilities and PDS for people below the poverty line, etc. Such forms of collaboration across institutional seem likely to afford greater flexibility to negotiate actions on the ground. Whether and to what extent these novel forms of coordination may leave a lasting imprint on local institutional practice remains to be seen.

Policies:

Policy interventions is another area that impacts the covid-19 response mechanism. India's Panchayati Raj institutions and other local governments such as municipalities, have expanded the roles and capacities of local governments. In some case, robust, long-term support for local governments as a key arena for empowered local governance has made these institutions into a formidable force for confronting the present pandemic, exemplified by a strong degree of trust and collaboration between state actors and citizens. These histories of institutional support over the past two decades may be as important for COVID-19 responses as any of the policies quickly designed since the emergence of the virus.

The experience of coordinating responses to COVID-19 shows how large shocks can serve as a key force to propel institutional change. This is particularly notable in contexts such as India, which has a notoriously inflexible bureaucratic machinery. In the present context, the urgent need for rapid responses together with central directives to coordinate actions have led to new kinds cross-sectoral and multi-scalar collaborations for the implementing of response actions down the village level.

Conclusion:

"[Now] it is corona and corona only... The whole world is working for one thing." – remarked the Additional District Magistrate, Rajasthan. In conclusion, one can analyse some of the ways in which responses to COVID-19 have been coordinated at the local self institutional level. There has been a collective effort undertaken by a combination of low-level administrative authorities, elected village governments, and other state and civil society groups to manage the covid-19 crisis. These efforts represent a mammoth undertaking that has not only greatly expanded the roles and functions of local governments but also led to new forms of institutional interaction with administrative authorities across

corruption acr	more freedom, providing adequate budgetary support as well as maintaining transparency and prevent corruption across sectors. It is high time that the governments take notice of the important role player the local authorities and work for the development of the same at the local levels.					
the local author						
References: Youtube, Sciencedirect.com, ijcmph.com, local newspapers.						

COVID 19 IMPACT ON AGRICULTURE SECTOR

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Abstract:

India is an agricultural country. Smallholder farmers are a crucial part of the food value chain in India, as well as a critical element of the global food system. The COVID-19 pandemic has brought new risks that threaten livelihoods as well as food security. India is home to about 120 million small holder farmers who contribute over 40% of the country' grain production, and over half of its fruits, vegetables, oilseeds and other crops. Much of the global share of food staples such as rice and wheat come from India, and almost half of the population in India depends on agriculture for their livelihood. Every year, Indian farmers face risks such as low rainfall, price volatility and rising debts. But risks from the COVID-19 pandemic are putting new challenges in front of a sector that is already under threat. The agricultural value chain in India has been adversely affected by the COVID-19 crisis and the 21 day nationwide lockdown. The 21 day nationwide lockdown come at an unfortunate time for farmers, as it was the harvest season for the Rabi (winter) crop. The lockdown created both a shortage of labor and equipment. This indicates that the pandemic affected on Indian agriculture and allied sector by various aspects.

Objectives:

This study examines the impact of Covid-19 pandemic on Agriculture and its allied sector. This also show devastated impact of 21 Day Nationwide lockdown on harvesting crops and supply chains. Assistance of Covid-19 relief package, immediately after lockdown help farmers to upcoming farming seasons. Covid-19 impacted India's agriculture market severely and it will take time to recover from its impact. Covid-19 pandemic also made us realize importance of Agriculture and allied sectors. This shows that impact on World economy due to various aspect of covid-19 on World's Biggest Agriculture sector.

- 21 Day Nationwide lockdown
- Importance of Agriculture
- Role of India in World Economy
- India's Agriculture Market
- Agriculture Sectors and Supply Chains
- India's Covid-19 Social Assistance Package
- Crop Losses (Rabi & Kharif)

• Impact on Crop Harvesting

Vedic literature provides some of the earliest written record of agriculture in India. Rigveda hymns, for example, describes plowing, fallowing, irrigation, fruit and vegetable cultivation. Other historical evidence suggests rice and cotton were cultivated in the Indus Valley, and plowing patterns from the Bronze Age have been excavated at Kalibangan in Rajasthan. Before the 18th century, cultivation of sugarcane was largely confined to India. A few merchants began to trade in sugar – a luxury and an expensive spice in Europe until the 18th century. Sugar became widely popular in 18th-century Europe, then graduated to become a human necessity in the 19th century all over the world. Sugarcane plantations, migrations in the 19th century and early 20th century – of people from Africa and from India, both in millions – influencing the ethnic mix, political conflicts and cultural evolution of Caribbean, South American, Indian Ocean and Pacific Island nations. With agricultural policy success in wheat, India's Green Revolution technology spread to rice. However, since irrigation infrastructure was very poor, Indian farmers innovated with tube-wells, to harvest ground water. When gains from the new technology reached their limits in the states of initial adoption, the technology spread in the 1970s and 1980s to the states of eastern India, Bihar, Odisha and West Bengal. The lasting benefits of the improved seeds and new technology extended principally crop area. In the 1980s, Indian agriculture policy shifted to "evolution of a production pattern in line with the demand pattern" leading to a shift in emphasis to other agricultural commodities like oilseed, fruit and vegetables. Farmers began adopting improved methods and technologies in dairying, fisheries and livestock, and meeting the diversified food needs of a growing population. The agricultural & allied sector carries immense importance for the Indian economy. It contributes nearly one-sixth to the Indian national income and provides employment to nearly 50% of the workforce. It is fundamental for ensuring food security of the nation and also influences the growth of secondary and tertiary sector of the economy through its greatly influences achievements on many other fronts. For instance, World Development Report 2008 released by World Bank emphasizes that growth in agriculture is, on average, at least twice as effective in reducing poverty as growth outside agriculture. Agricultural growth reduces poverty directly, by raising farm incomes, and indirectly, through generating employment and reducing food prices. In other words, a thriving agricultural sector is a boon for most sectors of the Indian economy. With a population of 1.27 billion India is the world's second most populous country. It is the seventh largest country in the world with an area of 3.288 million sq kms. It has a long coastline of over 7,500 kms. India is a diverse country where over 22 major languages and 415 dialects are spoken.

With the highest mountain range in the world, the Himalayas to its North, the Thar desert to its

West, the Gangetic delta to its East and the Deccan Plateau in the South, the country is home to vast agro- ecological diversity. India is the world's largest producer of milk, pulses and jute, and ranks as the second largest producer of rice, wheat, sugarcane, groundnut, vegetables, fruit and cotton. It is also one of the leading producers of spices, fish, poultry, livestock and plantation crops Worth \$2.1 trillion, India is the world's third largest economy after the US and China.

Agriculture, with its allied sectors, is the largest source of livelihoods in India. 70 percent of its rural households still depend primarily on agriculture for their livelihood, with 82 percent of farmers being small and marginal. In 2017-18, total food grain production was estimated at 275 million tonnes (MT).

India is the largest producer (25% of global production), consumer (27% of world consumption) and importer (14%) of pulses in the world. India's annual milk production was 165 MT (2017-18), making India the largest producer of milk, jute and pulses, and with world's second-largest cattle population 190 million in 2012. It is the second-largest producer of rice, wheat, sugarcane, cotton and groundnuts, as well as the second-largest fruit and vegetable producer, accounting for 10.9% and 8.6% of the world fruit and vegetable production, respectively. India is the largest producer of pulses, okra, mango, banana and lemon and the second largest producer of wheat, rice groundnut, potato, tomato, onion, cabbage, cauliflower, brinjal etc.

India produces more than one fifth of global production of paddy and pulses. Similarly, it contributes to more than twenty per cent of global production of many of the horticulture crops such as okra, cauliflower, brinjal, banana, mango and papaya.

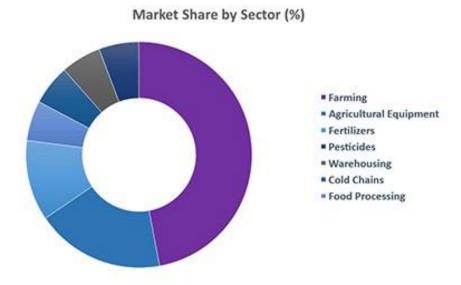
India's Position in World Agriculture							
Item	India (Million Tonnes)	World (Million Tonnes)	India's % Share Rank		Next to		
1. Crop production							
(A): Total Cereals	294	2849	10.3	Third	China, USA		
Wheat	93.5	749.5	12.5	Second	China		
Rice (Paddy)	159	741	21.4	Second	China		
Total Pulses	17.6	82	21.5	First			
(B): Oilseeds							
Groundnut (in shell)	7	44	15.6	Second	China		
Rapeseed	6.8	69	10	Third	Canada, China		
2. Fruits & Vegetables							
Vegetables & Melons	120	1075	11.2	Second	China		
Okra	5.5	9	62.0	First			
Potatoes	44	377	11.6	Second	China		
Tomato	18.4	177	10.4	Second	China		
Onion (dry)	19.4	93.2	21	Second	China		
Cabbages & other Brassicas	9	71.2	12.3	Second	China		
Cauliflower & Broccoli	8.2	25.2	32.5	Second	China		
Brinjal	12.6	51.3	24.5	Second	China		
Fruits excluding Melons	91	866	10.5	Second	China		
Banana	29.1	113.2	25.7	First			
Mango and Guava	18.8	46.5	40.4	First			
Lemon & Lime	3	17.3	17.2	First			
Papaya	5.6	12.6	44.4	First			

Source: FAOSTAT

The COVID-19 crisis has exposed the vulnerability of India's agriculture and food markets. Both demand and supply shocks emphasize the need for reforms to connect farmers to markets, ensure adequate labor supplies, and create safety nets to make them more resilient.

While supply chain and workforce vulnerabilities hurt farming of all scales and forms in India, the most affected have been dairy farming, floriculture, fruit production, fisheries, and poultry farming. There is a need for agricultural market reforms, safety nets to ensure reasonable working conditions, and to decentralize food systems to make them more resilient. The government should provide specific protections for those most affected. Strengthening social protection schemes should include encouraging farmers to join farmer producer organizations (FPOs), providing them easy access to credit, and investing in capacity building and guidance on digital and direct marketing solutions. Encouraging agri-tech start-ups to work with FPOs and smallholders and ensuring transparent rules of the game could help improve both input and output supply chains.

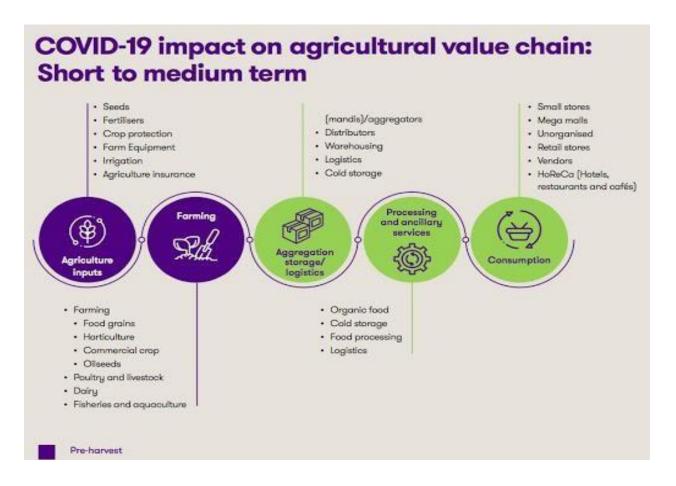
Indian Agriculture Market



Source: www.expertmarketresearch.com

The government has correctly issued lockdown guidelines that exempt farm operations and supply chains. But implementation problems leading to labor shortages and falling prices should be rectified.

Keeping supply chains functioning well is crucial to food security. It should be noted that 2 to 3 million deaths in the Bengal famine of 1943 were due to food supply disruptions—not a lack of food availability. Farm populations must be protected from the coronavirus to the extent possible by testing and practicing social distancing. Farmers must have continued access to markets. This can be a mix of private markets and government procurement. Small poultry and dairy farmers need more targeted help, as their pandemic-related input supply and market-access problems are urgent. Farmers and agricultural workers should be included in the government's assistance package and any social protection programs addressing the crisis. As lockdown measures have increased, demand has risen for home delivery of groceries and E-commerce. This trend should be encouraged and promoted. The government should promote trade by avoiding export bans and import restrictions.



PM-JDY scheme aims for financial inclusion by opening a savings bank account for the unbanked adult person. The existing benefit includes INR 2 lac insurance coverage. Under PM-GKY, there is a provision of additional benefits in cash transfer of three instalments of INR 500 each to the 204 million women account holders for April, May, and June 2020. Estimates of the overall assistance package's impact on agricultural inputs' procurement for the 2020 kharif season show similar patterns for both kernel and nearest-neighbor matching procedures. For all farmers, we find the assistance package had a significant positive impact on the acquisition of agricultural inputs. In terms of magnitude, the result shows that the package's beneficiaries were 17 percentage points more likely than non-beneficiaries to purchase the agricultural inputs immediately after receiving the government assistance. In the case of seeds, the results reveal that beneficiaries of the assistance package were about 14 percentage points more likely than non- beneficiaries to purchase seeds for the 2020 kharif season immediately after receiving the assistance. A fall in the farm prices of a range of commodities in agriculture. Tomato growers in Maharashtra are reported to be receiving not even Rs 2 per kg. Grape growers are reported to be facing an aggregate loss of Rs 1000 crore because of the crisis, as demand has fallen. Wheat prices in Madhya Pradesh are reported to have fallen from Rs 2200/Q to about Rs 1600/Q by March 25, 2020. For many crops, these prices are also below the Minimum Support Prices announced. In Punjab, vegetables that were sold at Rs 15/kg are reportedly being sold at a mere Rs 1/kg. In Delhi's mandis, the price of broiler chicken has fallen from Rs 55/kg in January 2020 to Rs 24/kg in March 2020. In Tamil Nadu, egg prices are reported to have fallen from Rs 4/egg to Rs 1.95/egg over the same period.

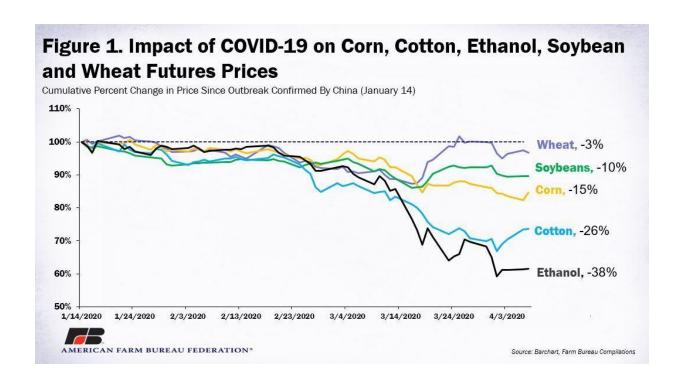
Rabi losses:

Farmers have harvested their Rabi crop. But sales have been impacted as COVID-19 infections have risen and mandis (wholesale markets) have remained closed since April 2021 due to lockdown-like restrictions in many states. During the first wave, there were some supply chain issues related to the produce's transport from the primary mandis to the secondary and bigger markets. But this time around, there are several concerns about taking the produce even to the primary mandis due to rising COVID-19 cases in rural areas and imposition of lockdowns. Last year, even though the lockdowns were more stringent, primary mandis at village level were largely kept out of the restrictions. This was because the infections were low or nil in rural procurement, most of the wheat crop has been lifted. But this is not the case in other wheat-producing states like Uttar Pradesh (UP), Madhya Pradesh (MP), and Rajasthan. Comparative data of wheat arrivals between May 1-May 21, 2021 and the same period last year shows the arrivals are dismal. In MP, the arrivals are down by 2.3 million tonnes compared to last year—

a 77 per cent decrease, data collated from Agmarknet, a government portal, shows. In UP, they are down by 36 per cent. "It looks like more than 50 per cent of the overall wheat crop is still stuck in states like Rajasthan, UP, Maharashtra, and MP," Prasanna Rao, co-founder and chief executive, Arya, a warehousing and finance platform for farmers and farmer per cent. In Maharashtra, the onion Rabi crop, which is harvested between March and May, is ready. But farmers have been unable to sell as all mandis in the state, including Lasalgaon, Asia's largest onion mandi, have been closed since May 12. The Rabi crop has a longer shelf life. But unseasonal rainfall in the last few days has led to the growth of fungus in some stored stocks, Almost 40 per cent farmers are not being able to sell their onion crop in Maharashtra. Farmers use the money they get from sale of this crop to buy seeds and fertilizers and prepare for the next crop like maize, cabbage and soybean in June. But they have no cash in hand this time. Another major worry among farmers is that once the mandis open, there will be a sudden increase in arrivals which will result in a depression of prices for them.

Kharif losses: Even with the rise in cases and deaths, there is optimism about the performance of the agriculture sector, especially after the India Meteorological Department's forecast of a normal monsoon in 2021. The latest data from the Food and Agriculture Organization's (FAO) Food Price Index further boosts this. It shows that global food prices in May were at their highest levels since May 2014. This too could benefit Indian farmers. There is also hope that the disease situation would be much better by the time sowing for Kharif starts from mid-June. But on the other hand, the possibility of farmer families getting infected is also real and may impact sowing operations.

The situation in rural areas is not completely known. We still don't know the extent of the disease. If the pandemic is not brought under control, the Kharif sowing operations will be impacted. Everything depends on progress of the disease.



The return of many migrant workers to their homes has meant that harvest operations are not taking place smoothly, and many farmers are being forced to leave the crop in the field. Losses to farmers will be the highest in such cases. While mechanical harvesters can be used, lockdown regulations disrupt their free movement. Further, in some places, a shortage of drivers/operators for these harvesters has also been reported. As machine repair shops are closed and mechanics become unavailable for work, spare parts are not easily available, leading to many machines being left unused. In the rice mills of Kerala, reports indicate a shortage of migrant workers, which has led to these mills not procuring adequate supplies of paddy from farmers. Farmers have either not harvested at all, or have harvested and left the product near the fields.



Figure 1 labor migration

- ❖ We have studied that impact on Agriculture and it's allied & sector & How Covid-19 impacted on World Agriculture market.
- ❖ We also seen that Covid-19 pandemic disturbed Indian Agricultural System
- ❖ When India was hit by first wave covid-19 from January to June 2020, agriculture turned out to be a bright spot.
- ❖ Government released social assistance package for covid-19 pandemic to support farmers for crop harvesting. It also took step to ensure that farmers will get proper MSP for crops.
- ❖ This research shows how agriculture sector is important in various aspects of world economy.

References:

- 1. Department of Economic Analysis and Research-NABARD
- 2. M. S. Swaminathan Research Foundation blog
- 3. The Hindu Article
- 4. www.researchgate.net
- 5. www.downtoearth.org.in
- 6. www.indiawaterportal.org
- 7. www.ifpri.org
- 8. www.iscri.org
- 9. www.consultancyasia.com

कोव्हिड आणि राजकारण

सिद्धी संदीप कुलकर्णी, MA - I. राज्यशास्त्र विभाग.

गोषवारा -

जग आता इतकं जवळ आलं आहे की मनुष्याच्या जीवनाची व्याप्ती कमी होत चालली आहे. जगामध्ये कोणत्याही भागात एखादी गोष्ट घडली तरी त्याचा परिणाम प्रत्येकाच्या आयुष्यावर होतो. कोणतीही परिस्थिती आपण कशी हाताळतो यावर भविष्य रेखाटलं जातं. युद्ध, महायुद्ध, रोगराई अशी अनेक संकटं आतापर्यंत संपूर्ण जगाने पाहिली आहे आणि त्यातून स्वतःला सावरलं देखील आहे. यामध्ये प्रत्येक जन आपल्या क्षमतेनुसार योगदान देत असते. देशातली / राज्यातली सामाजिक भूमिका, प्रशासकीय आणि शासकीय भूमिका अशा परिस्थितीत महत्त्वपूर्ण ठरते. देश किती स्वावलंबी आणि पायाभूत सुविधांनी परिपूर्ण आहे यावर संकटाचे निवारण अवलंबून असते.

स्चक शब्द -

अर्थ, व्यापार, योजना, शासन, कोव्हिड, राजकारण, विरोधी पक्ष, सुविधा, हॉस्पिटल्स, सुरक्षा, WHO, EU

उद्दिष्ट्ये -

महामारी काळातील जागतिक आणि भारतीय राजकारणाचा आढावा घेणे.

पद्धत -

देश विदेशातील काही राजकीय विश्लेषकांनी लिहिलेले लेख, मांडलेला अभ्यास यांचे विश्लेषण आणि पुनःअध्ययन करून प्रस्तुत विषय सादर करत आहे.

प्रस्तावना -

जगभरात कोरोना विषाण्चा प्रसार झाल्यानंतर त्याचा उगम शोधण्यासाठी प्रयत्न होत आहेत. या आधी देखील जगात अनेक विषाण्चा प्रसार झाला आणि विध्वंस झाला. प्लेग सारख्या महामारीने तर तीन वेळा मृत्युतांडव केला. प्लेग आणि कोरोना या विषाण्साठी चीनला जबाबदार ठरवले जाते. 2010 मध्ये 24 पॅलिओ बायोलॉजिस्ट च्या संघाने सादर केलेल्या अहवालानुसार तीन ऐतिहासिक महामारी झाल्या त्या एकाच प्रकारच्या जिवाण्मुळे (येरेसिना पेस्टीस / वाय. पेस्टीस) झाल्या. या जिवाण्ची निर्मिती चीन किंवा चीनच्या जवळपासच्या प्रदेशात झाली आणि इतर साथीच्या रोगांप्रमाणे त्याचे संक्रमण झाले. हा प्रसार बहुतेकदा पश्चिम आशियात सिल्क रोडद्वारे आणि आफ्रिकेत चिनी प्रवाश्यांद्वारे समुद्रामार्गे झाला. आज ही कोरोनाच्या प्रसारासाठी अनेक देश चीनला जबाबदार ठरवत आहेत. त्याचा उगम आणि प्रसाराबाबत अनेक प्रश्न आहेत, ज्यांची समाधानकारक उत्तरे शोधण्यासाठी उच्च पातळीवर अनेक प्रयत्न होत आहेत. याचा परिणाम आंतरराष्ट्रीय राजकारणासोबतच राज्यांच्या परस्पर संबंधांवर होत आहे. जगातील सर्वच राष्ट्रांची आर्थिक परिस्थिती आणि सामाजिक आरोग्य ढासळताना दिसत आहे.

स्वामी विवेकानंद म्हणतात की 'जग ही एक महान व्यायामशाळा आहे जिथे आपण सगळे स्वतःला बलवान बनविण्यासाठी आलो आहोत' आणि आज ही परिस्थिती पूर्णतः विरुद्ध आहे. ही व्यायामशाळा एका विषाणूने व्यापली आहे, प्रत्येक राष्ट्र स्वतंत्रपणे स्वतःला सावरण्याचा प्रयत्न करत आहे, बलवान होण्यासाठी झटत आहे.

जग, कोव्हिड आणि राजकारण

कोणत्याही प्रकारच्या संबंधांमध्ये महत्त्वपूर्ण असतो तो संवाद आणि आंतरराष्ट्रीय संबंधांमध्ये संवादासोबतच व्यापार, राजनय, सहकार्य. या सगळ्यावरच परिणाम झाल्याचे दिसून येते. आंतरराष्ट्रीय वाहतूकीवर आलेली मर्यादा देशा-देशातील प्रत्यक्ष संबंध दूरावण्यास कारणीभूत ठरत आहे. तरी देखील आधुनिक सुविधा, संपर्क यंत्रणा यांमुळे संवाद आणि सहकार्य बह्तांश प्रमाणात शक्य झालं आहे.

कोव्हिडचा सर्वात मोठा प्रादुर्भाव युरोपात झाला तो देखील सुरुवातीच्या काळात जेव्हा कोव्हिड कसा आला त्याची लागण झाल्यास उपचार काय करावे याबाबत सगळेच अजात होते. जगातील सर्व वैज्ञानिक याबबत अभ्यास / संशोधन करत होते तर प्रशासन आरोग्य सुविधांसोबत झगडत होते. वाढता कोरोनाचा प्रादुर्भाव, रुग्नांचे वाढते प्रमाण आणि मृत्युमुखींची वाढती संख्या याचा सर्वात मोठा परिणाम झाला तो युरोपच्या अर्थकारणावर. आजच्या काळात EU ही आर्थिक/ व्यापारी संघटना सर्वात यशस्वी मानली जाते पण, या परिस्थितीमुळे युरोपिअन युनिअन (EU) ची आर्थिक स्थिती ढासळली . जर्मनी, फ्रान्स या देशांनी स्वतः जवळील वैद्यकीय उपकरणे आणि इतर साहित्यांची निर्यात करण्यास मनाई केली होती. सर्व युरोपिअन देशांनी आंतरराष्ट्रीय सीमा बंद केल्या होत्या. स्पेन चे पंतप्रधान पेड्रो सँशेन यांनी EU विषयी वक्तव्य करताना म्हटले होते की 'जर आताच आपण या आर्थिक संकटावर मात करण्यासाठी एकत्र येऊन परिणामकारक उपाय योजना केली नाही तर आपण युरोपिअन प्रकल्पाला अधिक धोक्यात नेत आहोत ज्याचा परिणाम त्रासदायक असेलच पण दीर्घकालीन देखील असेल.'

महासत्ता अमेरिकेत देखील संपूर्ण जगापेक्षा परिस्थिती वेगळी नव्हती परंतु त्यांची परिस्थिती हाताळण्याची पद्ध्त वेगळी होती जी काही काळानंतर त्यांच्या अंगलट आलेली दिसून येत. अमेरिकेने अतिअत्मविश्वास दाखवून सुरुवातीला कोरोना प्रसार रोखण्यासाठी कोणतेही प्रयत्न केले नाही. लॉकडाऊन, सामाजिक अंतर किंवा मास्क लावणे देखील अमेरिकेला पसंत नव्हते पण काही काळानंतर जस जशी रुग्नसंख्या वाढू लागली तसे या निर्णयाची फलप्राप्ती दिसू लागली.

अमेरिकेने या सर्व परिस्थितीसाठी चीनला जबाबदार धरले ही तर जगजाहीर बाब आहे. कोरोना हा मनुष्यिनमीत किंवा कृत्रिम आहे असे आरोप लावून जागितक आरोग्य संघटनेवर त्याबाबत चौकशी करण्यासाठी समर्थक देशांसोबत मिळून दबाव आणला गेला. आंतरराष्ट्रीय स्तरावर कोरोनाचा उल्लेख चायिनज व्हायरस असा करण्यापासून ते जागितक आरोग्य संघटनेचे (WHO) निधी स्थिगित करण्यापर्यंत सर्व प्रकारचे प्रयत्न केले. जागितक

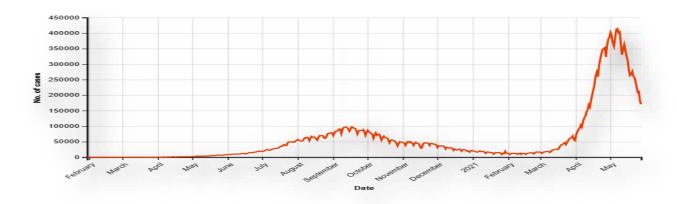
आरोग्य संघटनेने देखील चीनमध्ये जाऊन कोरोनावर संशोधन करण्याचा अयशस्वी प्रयत्न केला.थोडक्यात काय? तर, महामारीचे देखील राजकारण व्हायचे ते झालेच.

प्रत्येक देशाने ही परिस्थिती सावरण्यासाठी आपापल्या क्षमतेनुसार सर्व प्रयत्न केले पण 'पराधीन आहे जगित पुत्र मानवाचा' म्हणजेच परिस्थिति अनेकदा आपल्याला हतबल करते. अशावेळेस आठवण होते ती आईची. असच त्यांच्याबाबतीतही झालं असणार जे आपला मायदेशसोडून इतर देशात वास्तव्य करतात. भारताने अशा नागरिकांच्या बाबतीत संवेदनशीलता दाखवून 'मिशन वंदे मातरम' अंतर्गत परदेशातील भारतीय नागरिकांना पुन्हा परतण्यासाठी मदत केली.

भारत, कोव्हिड आणि राजकारण

27 जानेवारी 2020 ला भारतात कोरोनाचा पहिला रुग्न आढळला. युरोपातील परिस्थितीमुळे सावध झालेल्या भारताने सुरुवाती पासूनच सावधतेने पाऊले उचलण्यास सुरुवात केली. संपूर्ण भारतामध्ये कोरोनाने शतक गाठायच्या आतच भारताने लॉकडाऊन जाहीर केला. सुरुवातीच्या काळात मूलभूत सुविधा प्राप्त करण्यासाठीच देशाला संघर्ष करावा लागला. मास्क, पी.पी.ई किट च्या निर्मितीपासून ते टेस्टींग कीट ची निर्मिती आणि उत्पादन करणे इथूनच सुरुवात झाली. भारताच्या इतिहासात कोकण रेल्वे हा असा एकमेव प्रकल्प आहे जो वेळेत पूर्ण झाला, अशी सामाजिक आणि राजकीय परिस्थिती असताना अख्ख्या देशात दोन टेस्टिंग लॅब ते प्रत्येक तालुक्यात टेस्टिंग लॅब हा प्रवास भारताने अल्पकाळात पूर्ण केला ही कौतुकास्पदच गोष्ट आहे. या काळात भारताच्या प्रशासकीय यंत्रणेने केलेल्या कार्यामुळे भारतातील संक्रमण होण्याचा वेग इतर देशांच्या तुलनेत सुरुवातीला कमी होता भारतातील रुग्णसंख्या देखील संपूर्ण लोकसंख्येच्या 1% देखील नव्हती. तरी देखील संपूर्ण

अनलॉक होण्यासाठी भारताला नऊ महिन्यांचा कालावधी लागला.



भारतातील पहिल्या लाटेबद्दल राजकीय दृष्टीकोनातून विचार केल्यास असे लक्षात येते की कोरोनावर मात करण्यासाठी भारतातील संघराज्य प्रणाली महत्त्वपूर्ण ठरली. भारतीय संविधानाने केंद्र सरकार आणि राज्य सरकार यांच्यामध्ये केलेल्या अधिकारांच्या विभागणीनुसार आरोग्य विषय हा राज्यांअंतर्गत येतो , त्यामुळे भारतातील सर्वच राज्य सुरुवातीपासून आरोग्य यंत्रणेच्या बाबतीत पूर्णतः केंद्रावर अवलंबून नव्हती. राज्ये स्वतःच्या अधिकार क्षेत्रात निर्णय घेण्यास स्वतंत्र होती. उदा. केरळमध्ये जेव्हा पहिला रुग्ण आढळला तेव्हा केरळ राज्याने स्वतःच्या राज्यात लॉकडाऊन जाहीर केला. यामुळे राज्याबाहेर संक्रमण होण्याचा धोका कमी झाला. असे असले तरी केंद्राने आपती व्यवस्थापन कायद्यांतर्गत संपूर्ण देशात 24 मार्च 2020 रोजी देशव्यापी लॉकडाऊन जाहीर केला. कोरोनाच्या पहिल्या लाटेचा संपूर्ण देशाने एकजुटीने सामना केला. जनतेचे सहकार्य, विरोधी पक्षांनी घेतलेली सहकार्याची भुमिका आणि राज्य शासनाने केंद्रावर दाखावलेला विश्वास यामुळेच पहिली लाट आटोक्यात आणण्यात भारत यशस्वी झाला.

भारत लोकसंख्येच्या बाबतीत जगात दुसऱ्या क्रमांकावर तर लोकसंख्येच्या घनतेत प्रथम क्रमांकावर म्हणजेच भारतामध्ये संक्रमणाचा वेगाचा धोका अतिशय मोठा आहे परंतु स्थानिक पातळीवरील योग्य नियोजन, उपाय योजना यांमुळे तो धोका टाळला गेला. मुंबई सारखा भौगोलिकदृष्ट्या छोटा, लोकसंख्येच्या प्रमाणात मोठा आणि आर्थिक बाबतीत

अतिशय महत्त्वचा असणारा प्रदेश केवळ योग्य नियोजन, उत्तम प्रशासकीय यंत्रणा यामुळे कोरोनाच्या थैमानापासून बचावला. मुंबईतील धारावी हा भाग स्लम एरिआ आहे जो अशियातील सर्वात मोठा स्लम एरिआ समजला जातो. अत्यंत दाटीवाटीची वस्ती, राहणीमानाचा कमी दर्जा, गरिबी यांमुळे ग्रासलेल्या या प्रदेशात सुरुवातीला संक्रमणाचे प्रमाण मोठे होते परंतु मुंबई महानगरपालिकेने राबवलेल्या मॉडेलमुळे अल्प काळातच संक्रमणाचे प्रमाण आटोक्यात आले.

लोकशाही पद्धतीत एकवेळ देश थांबतो परंतु राजकारण किंधच थांबत नाही. ऑगस्ट, सप्टेंबर 2020 नंतर कोरोनाचे प्रमाण जसे जसे कमी होऊ लागले तसा तसा राजकारणाचा व्हायरस संक्रमित होऊ लागला. पुन्हा चळवळी, पुन्हा आंदोलने, पुन्हा विरोध असं सगळं राजकारण सुरू झालं. शिक्षण, पिरक्षा अगदी देवसुद्धा नऊ - दहा महिने थांबला पण निवडणूका, प्रचार सभा, आंदोलन हे काही थांबू शकलं नाही. जनतेच्या जीवापेक्षा जनतेची मतं, जनतेची सहानुभूती मिळवण्याला प्राधान्य दिलं गेलं. शेतकरी आंदोलन, बंगाल - आसाम - केरळ येथील निवडणूका, निवडणूकांमध्ये निघणाऱ्या रॅली, प्रचार सभा यासाठी उफाळलेली गर्दी , लोकांच्या मनात कमी झालेली कोरोनाची भिती यामुळे वाढलेला निष्काळजीपणा, पुन्हा पुर्ववत आयुष्य जगण्याची अती घाई, कोरोनाचे सतत बदलत जाणारे धोकादायक स्ट्रेन यांमुळे कोरोनाचे संक्रमण प्रचंड प्रमाणात वाढले.

कोरोनाच्या दुसऱ्या लाटेत नवीन स्ट्रेनमुळे परिस्थिती अत्यंत गंभीर झाली. ग्रामीण भागात संक्रमणाचे प्रमाण प्रचंड वेगाने वाढले. कोरोना रुग्णांची संख्या गेल्या वर्षी पेक्षा दुप्पट होऊन वाढली. रोगाचे गांभीर्य माहित असून सुद्धा पहिल्या लाटेनंतर योग्य प्रमाणात वैद्यकीय सुविधा वाढविल्या गेल्या नाहीत. महामारी कायमची गेली या अत्मविश्वासात असणारे शासनाचे याकडे दुर्लक्ष झाले. आरोग्य सुविधांवर प्रचंड येणारा ताण, औषध, इंजेक्शन, रुग्णांची वाढती संख्या, नैसर्गिक आपती या सर्वांनी सरकारची चांगलीच परिक्षा घेतली. सुदैवच म्हणावं लागेल की तो पर्यंत लसीकरणाची मोहिम सामान्य नागरिकांसाठी सुरू झाली होती. यामुळे ज्येष्ठ नागरिकांमधील संक्रमणाचे प्रमाण कमी होण्यास मदत

झाली. मात्र तरूणांच्या लसीकरणास तोपर्यंत सुरूवात झाली नव्हती त्यामुळे रुग्णांमधील जास्त प्रमाण तरूण वर्गाचे होते. अखेर भारताच्या सर्वोच्च न्यायालयाने यात लक्ष घातल्यामुळे सरकार भानावर आले आणि स्थिती नियंत्रणात आणण्यासाठी प्रयत्न सुरू केले.

पुन्हा इतकी गंभीर परिस्थिती असताना देखील राजकारण मात्र थांबले नाही. दोष - आरोप चालूच राहिले. लसी, औषधे, व्हाँटिलेटर यांच्या पुरवठ्यावरून राज्य - केंद्र यात वादाची ठिणगी पडली. विशेष म्हणजे केंद्राकडून मिळणाऱ्या सर्व गोष्टी तेथेच कमी पडल्या जिथे विरोधी पक्षाचे सरकार होते. अर्थात सर्वोच्च न्यायालय यावेळेस कोरोना परिस्थितीची स्वतः दखल घेत असल्यामुळे असं होण्याची शक्यता कमी आहे पण पुन्हा कितीही म्हटलं तरीही राजकारणच ते!

येथे अजून एक नमूद करावं वाटतं ते लसीकरणाबद्दल. 1 एप्रिल 2021 पसून महाराष्ट्रात सर्वत्रच 45 वर्षांच्या पुढील नागरिकांच्या लसीकरणास सुरूवात झाली परंतु अहमदनगर शहरात ती 30 मे पासूनच झाली. माझ्याच कुटुंबातील काही व्यक्तींनी तो 30 मे रोजी घेतली त्याचा मेसेज आला 8 मे रोजी आणि पहिल्या लसी नंतर येणाऱ्या प्रमाणपत्रावर तारिख आली 15 मे! मला अजूनही हा घोळ कळलेला नाही. जर असंच इतर लोकांच्याबाबतीत देखील होत आहे. आता प्रश्न हा आहे की हे फक्त नगर मध्येच चालू आहे की इतर ठिकाणी देखील? जर असं चालू असेल तर हा काळाबाजार आहे. लसी कमी पडतात अशी तक्रार करणं मग चूक आहे. सरकारी रुग्णालयातील अत्यंत ढिसाळ कामाचे हे उत्तम उदाहरण आहे. लसींचा काळाबाजार, लसींचे राजकारण, आपल्या पक्षातील कार्यकर्त्यांना कोणत्या तरी हॉटेलमध्ये लसीकरण करणं यासाठी जर आपण नेतृत्व निवडून दिलं असेल तर मग आपण गप्पच राह्या.

निष्कर्ष -

माध्यमांनी केलेल्या सर्वेक्षणानुसार असे दिसून येते की भारताने दुसरी लाट देखील दोन महिन्यात सावरली आणि पुन्हा एकदा स्वतःला सिद्ध करत आहे. आंतरराष्ट्रीय पातळीवर भारतावर अनेकदा वाढत्या कोरोनावरून टिका झाली पण भारताने मुत्सद्देगिरी आणि सुधारणा करून पुन्हा एकदा प्रतिष्ठा मिळविल्याचे दिसून येते. CAA, NRC या प्रकरणांमुळे टिकाकारांच्या नजरेत भरलेला सत्ताधारी पक्षाने विशेषतः पंतप्रधान नरेंद्र मोदी यांनी महामारी नियंत्रणामुळे प्रसिद्धी प्राप्त केली. विरोधी पक्षांनी देखील सहकार्या सोबतच कानउघडणी केल्यामुळे भारत या संकटातून लवकर सावरत आहे. मुख्य म्हणजे प्रशासकीय यंत्रणा किती कार्यक्षम असू शकते याची जाणीव जनते सोबतच स्वतः प्रशासनालासुद्धा झाली.

प्रत्येक संकट हे परिक्षा घेत असतं. त्यात आपण पास होतो की नापास हे महत्त्वाचं नसतं तर त्यातून मिळणारा अनुभव आणि शिकवण महत्त्वाची असते. या महामारीने प्रत्येक माणसाला, प्रत्येक देशाला आणि जगालासुद्धा आयुष्याकडे बघण्याचा नवीन दृष्टीकोन दिला आहे. विकसित देश आणि अविकसित देश यांमधले अंतर दूर करून कोणीही परिपूर्ण नसतो हे सिद्ध केलं आहे. सहकार्य वाढविण्याची नवीन संधी उपलब्ध करून दिली आहे. अनेक देशांनी इतर देशांना सहकार्य करून नव्याने द्विराष्ट्र संबंधांची पायाभरणी केली आहे. लसींचा पुरवठा, औषध पुरवठा या मुत्सद्देगिरीचा वापर करून आंतरराष्ट्रीय संबंधांना नव्याने चालना दिली आहे.

परस्परावलंबित्व हे आंतरराष्ट्रीय राजकारणातील महत्त्वचे तत्व असले तरी स्वावलंबन हा जीवनाचा गुण असायला हवा आणि हेच आपला देश या संकटातून शिकला. आत्मनिर्भर भारत हे नवे ध्येय आपल्याला प्राप्त करून दिले.

संदर्भ यादी -

1. Indian News Media

- 2. https://en.wikipedia.org/wiki/Impact_of_the_COVID19_pandemic_on_polits
- 3. https://www.thehindu.com/books/books-reviews/a-pandemic-and-thepolitics-of-life-review-a-raging-virus-and-its-impact-on-the-marginalised/article34505298.ece
- 4. https://www.tandfonline.com/doi/full/10.1080/00396338.2020.1819641
- 5. Articles by Sudipa Dutta and A.J.P. Taylor
- 6. The India Way book by Dr. S. Jaishankar
- 7. Audio clips of Mr. Shailendra Devalankar.

BOX OFFICE ANALYSIS OF BOLLYWOOD MOVIES (1994-2020)

Yash, Mihir, Hrishikesh, Manasi, Ruhi and Tanishq Department of Statistics

Introduction:

Everyone loves a good movie! From animated classics to franchise action movies, movies appeal to many different groups of people and offer wonderful escapes from reality. The cinema of India consists of films produced in the nation of India. Cinema is immensely popular in India. Every year more than 1800 films get produced in various languages in India. Mumbai, Chennai, Kolkata, Hyderabad, Kochi, Bangalore, Bhubaneshwar-Cuttack and Guwahati are the major centers of film production in India. As of 2013, India ranked first in terms of annual film output, followed by Nigeria, Hollywood and China. In 2012, India produced 1,602 feature films. The Indian film industry reached overall revenues of \$1.86 billion (₹93 billion) in 2011. In 2015, India had a total box office gross of US\$2.1 billion, the third largest in the world. In 2011, Indian cinema sold over 3.5 billion tickets worldwide, 900,000 more than Hollywood. The overall revenue of Indian cinema reached US\$1.3 billion in 2000. The industry is segmented by language. The Hindi language film industry is known as Bollywood, the largest sector, representing 43% of box office revenue. The combined revenue of the Tamil and Telugu film industries represent 36%. Prominent movie industries include Tamil, Telugu, Malayalam, Kannada and Tulu cinemas.

Another prominent film culture is Bengali cinema, which was largely associated with the parallel cinema movement, in contrast to the masala films more prominent in Bollywood and Southern films at the time. Indian cinema is a global enterprise. Its films have a following throughout Southern Asia and across Europe, North America, Asia, the Greater Middle East, Eastern Africa, China and elsewhere, reaching in over 90 countries. Biopics including Dangal became transnational blockbusters grossing over \$300 million worldwide. Millions of Indians overseas watch Indian films, accounting for some 12% of revenues. Music rights alone account for 4–5% of net revenues. This project tries to create a fluid model of probable factors that essentially defines the present trends of Box Office success of Bollywood films. It uses an mixture of qualitative research looking intensively on the content specificity of the successful films and an empirical observational statistical study of the data obtained from the box office records and trade reports. It argues that the traditional methods of ensuring success like the star power and big productions are a thing of the past. The present trend and the future course of the success of Bollywood films will depend upon niche content generation, character driven narrative, and creative use of digital technology.

Today's Use of Analytics:

The use of analytics in the film industry to predict success or attempt to produce "box office hits" is different than using past intuition about movies; it is different than following a set formula or plan that has appeared to have worked in the past. Rather, analytics in movies, as in any other industry is about finding useful patterns in the data that are not visible to the naked eye and can be exploited for gain. As with many other industries right now, analytics as common practice is still relatively new to the film industry. There are, however, some techniques and data collection being analyzed and considered in marketing and other decisions. IBM is one of the leaders in predictive analytics and it has been partnering with movie studios to collect data to determine what it is about a movie that audiences like. Along with information like the studio, the actors, the budget, and more, IBM is also collecting data on audience sentiment, meaning the company is using audience and critic scores from multiple sources as well as key words in reviews to gather an audience's overall feelings towards a movie.

Methodology:

The films in the present study are selected solely on Box Office data obtained from established sources. The observations made are entirely based on the relation between production costs, revenue and driving factors like IMDB rating, genre, CBFC rating, release month, director and cast are studied to come up with the initial steps towards a comprehensive model to predict movie success in Bollywood. The present study employs critical content analysis and observational statistical study on a sample size of 1000 films from 1994-2020 based on Box Office collection. Descriptive Statistics: We used categorical variables to look at whether a movie was successful or not. Time Series: Forecasting the total budget and total revenue collected by the bollywood film industry in 2021 through 2024 using exponential smoothing. Hypothesis Testing: Chi square tests to establish the dependency of the variables. Linear Regression: Linear regression will be used to determine the weight of each factor that contributes to the box office of a movie. Logistic Regression: A logistic regression model will be used in order to predict the probability of the success of a movie based on the Budget and Rating it carries.

Ordinal Logistic Regression:

- 1. To fit an ordinal logistic regression model in order to predict the probability of the Success of a movie based on the independent variables.
- 2. To fit an ordinal logistic regression model in order to predict the Verdict of a movie based on the independent variables.

Observation and Analysis Overview:

We performed an analysis on a large data set of approximately 1,000 movies. The data includes many different types of information about each movie, ranging from the release date, the director, the studio, to other information like the budget, the box office earnings, and ratings from different sites. We analyzed this data set to determine what contributes to a movie being a "success". For this, we defined success in financial terms, basing the success of a movie on the amount of money it earns in comparison to the movie's budget. We began this analysis by performing some descriptive analytics on the data set. Through this analysis, we interpret some interesting trends in the data pertaining to what successful movies have in common. This analysis was mainly done through the examination of charts, which will be produced using the software R and excel. We then performed some predictive analytics on the data set. Through this analysis, we provide a model for predicting whether a movie will be a success or not, then examine the factors that are most important to making that prediction. We have also provided a model for predicting how much money a movie will earn at the box office as well as the factors that are important to those predictions. This model building and predicting will be done through the use of the software R-studio, and then some graphics will be produced in Excel for further understanding.

Data preparation and structure:

The original data set contained information about 1000 movies released between January 1994 and December 2020. There were many different pieces of information recorded for each movie, this included release date, budget, studio, director, genre, IMDB rating, cast, director, overseas collection, India gross and total box office earnings. To prepare the data for analysis, we removed some of the movies with missing variables. We then removed some variables that did not feel were important for analysis, making the variable count twenty-five. We removed the unwanted movies and variables in Excel before transferring the data to R-studio to be cleaned further. As we will be looking at success or failure in a categorical sense and a numerical sense, the cleaning of the data will be different for the two criteria. With the categorical success or failure descriptive and predictive analytics, other categorical variables will be used. With the numerical success or failure descriptive and predictive analytics, other numerical and categorical variables will be used.

The selection criterion of successful movies was based on profit percentage earned according to box office collection. The formula used for calculation of profit percentage is, Profit % (PP) or Success = $(otal\ Net\ Gross\ (N) - Budget(B)\)/\ Budget\ (B)$ Where, Total Net Gross (N): This is the amount collected at the box office minus entertainment and service tax. Cinemas across India report this figure although multiplexes now also report gross figures. Most films have territory figures but some small budget films on few prints have only a final total as they collected very slowly over time. A film released with one or two prints can be collecting 5-10k somewhere a couple of years after release. With

such low figures, it is easier to put up cumulative figure Budget (B): This is the approximate cost of the making and releasing of the film (Production budget plus prints & advertising). It is not the price the film has been sold for, if sold. There are some films where talent is not on remuneration but profit sharing so fair market value for that talent is added to give a clearer picture. The small budget films are judged with release patterns and the cast. In the past, some of these films took out just 1 or 2 prints and these were exploited whenever they got a cinema to play them in keeping print costs to a minimum. These figures are approximate guide, as only makers know the exact figure. With box office figures there are theatres collections to validate a figure but with budgets, there is nothing to validate them.

Descriptive statistics:

As we know, descriptive statistic is a summary statistic that quantitatively describes or summarizes features from a collection of information, while descriptive statistics is the process of using and analyzing those statistics. Descriptive statistics is distinguished from inferential statistics (or inductive statistics) by its aim to summarize a sample, rather than use the data to learn about the population that the sample of data is thought to represent. This generally means that descriptive statistics, unlike inferential statistics, is not developed on the basis of probability theory, and are frequently non-parametric statistics. Even when a data analysis draws its main conclusions using inferential statistics, descriptive statistics are generally also presented. For the descriptive analytics portion, we used categorical variables to look at whether a movie was successful or not. We also looked at some average values of numerical variables.

Conclusions:

The use of data analytics in the movie industry will only continue to grow in the future. The industry has only scratched the surface of all of the possibilities for using analytics to make successful movies. Using descriptive analytics can help a company decide on what month to release a movie, what a movie should be rated, whether or not to hire a famous director, or what genre movie to produce. Likewise, a screenplay writer can use descriptive analytics to help choose what distributors he or she wants to pitch a movie to and much more. Once a movie is already made and ready for release, studios can use predictive analytics to predict how much money the movie will earn at the box office. With information like the budget, the genre, the top billed star, the planned month of release, and the planned week of release, studios would be able to estimate box office earnings, so when the movie is finally released, the studio could study whether the movie earned more or less than expected. If a movie earned less money than expected, the studio can go back to descriptive analytics to try to find some commonalities between the movie and movies that earned a similar amount; the same could be done if the movie

earned more than expected. Then, this data can be added to the predictive model to better tune the model so that it might predict more accurately the next time. This analysis only covered data about the movies themselves and did not include any outside data such as countries released or ticket sale demographics. With movie data and demographic data, studios could use descriptive analytics to target marketing towards specific groups, as mentioned in the introduction.

References:

- 1. https://harvardcs109.weebly.com/pre-production.html
- 2. http://www.sthda.com/english/wiki/chi-square-test-of-independencein-r https://www.edureka.co/blog/logistic-regression-in-r/
- 3. https://stats.idre.ucla.edu/r/dae/ordinal-logistic-regression/https://www.investopedia.com/terms/w/wilcoxon-test.asp
- 4. Pulkit-Jain-Dr-Rajdeep
- 5. The_Main_Determinants_of_Bollywood_Movie_Box_Office
- 6. What Makes a Movie Successful _ Using Analytics to Study Box Office https://en.wikipedia.org/wiki/Lists_of_Bollywood_films
- 7. https://en.wikipedia.org/wiki/Bollywood

A STUDY OF STUDENTS' CHALLENGES IN ONLINE LEARNING

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Abstract:

Due to an outbreak of coronavirus, a nationwide lockdown is imposed. Most of the routine activities are affected and shifted to online mode. Educational institutes started conducting lectures through online mode. This sudden change has not been easy to adopt for both teachers and students. This study was undertaken to understand the challenges faced by students while learning online. A survey was conducted using a questionnaire. Collected data was analysed using statistical tools. This study concludes that though university and teachers are helping students to learn online, students face various challenges while adopting online learning.

Keywords:

Covid-19, education, in-person interaction, online learning, screen time.

Introduction:

Due to an outbreak of coronavirus, a nationwide lockdown is imposed. Most of the routine activities are affected and shifted to online mode. Educational institutes started conducting lectures through online mode. This sudden change has not been easy to adopt for both teachers and students. This study was undertaken to understand the challenges faced by students while learning online.

E-learning, despite posing challenges for both instructors and students has been the latest wave of education, is already having a fair show. Here students need to equip themselves with technical proficiency to decode the course material whereas instructors need to put in intensive work and time to design the instruction. The problems faced by student's need to be solved through proper initiatives for the students' future benefits. There are 5 common problems faced by students in e-learning classes. The switching of traditional classroom to virtual classroom i.e. from learning face to face from an instructor to computer-based training makes the learning experience entirely different for students. Students with a "traditional" mind-set find it difficult to adapt the online discussions or creating a web page demand springing into action. As their resistance to change doesn't allow them to adapt to the online learning environment. While passive listening and note taking are expected in a traditional classroom, it takes time for them to get accustomed to course management systems (cms) and the

methods of computer-based education. However, they need to accept the new learning circumstances with an open mind and heart. Discussing the benefits of eLearning with their peers may change this

mind-set and the view towards understanding the benefits of eLearning. And it will help students to be prepared for online classes.

Many online learners lack self-motivation, much to their surprise it is a very essential requirement for e-learning. As difficulties in handling a technological medium also seem insurmountable, many of the learners fall behind and nurture the idea of giving up. Students need to equip themselves for future challenges in their education and careers and they must find the motivation to follow the new educational trends. Though this is hard to practice, students need to understand that it is necessary in order to reap the benefits in the future, and only a positive attitude will help them overcome the challenges in e-learning. (Kumar, 2015)

Methodology:

The objective of this study was to understand problems faced by students while learning through online pedagogy. For this study a questionnaire was developed and an online survey was conducted using google form. The data was collected from the students who were learning through online platforms. The collected data was analysed using frequency distribution tables, percentages and graphs.

Data analysis:

Table 1: Descriptive analysis of demographic variables.

Characteris	tics	Frequency	Percentage
Age (in	Below 18	29	13.74%
yrs)	18-20	154	72.99%
	20-22	15	7.11%
	Above 22	13	6.16%
Gender	Female	123	58.29%
	Male	88	41.717%
Education	Arts	9	4.27%
	Commerce	41	19.43%
	Science	161	76.30%

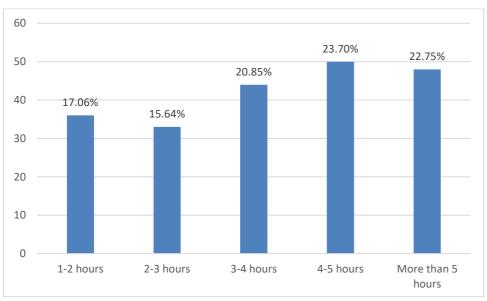
(source: field data)

13.74% respondents belong to below 18 age group, 72.99% respondents belong to 18-20 age group, 7.11% respondents belong to 20-22 age group & 6.16% respondents belong to above 22 age group. There are 58.29% female respondents whereas 41.71% are male respondents. There are 4.27% arts respondents, 19.43% commerce respondents & 76.30% science respondents. (Table 1)

Table 2: Frequency distribution of time spent on online learning.

Time spent on online learning	Frequency	Percentage
1-2 hours	36	17.06%
2-3 hours	33	15.64%
3-4 hours	44	20.85%
4-5 hours	50	23.70%
More than 5 hours	48	22.75%
Total	211	100%

Chart 2: Bar-diagram showing time spent on online learning distribution.



(source: field data)

There are 17.06% students who spend 1-2 hours' time on online learning and 15.64% who spend 2-3 hours ,20.85% who spend 3-4 hours, 23.7% who spend 4-5 hours and there are 22.75% students who spend more than 5 hours on online learning. (Table 2 and Chart 2)

Table 3: Frequency distribution of comfortability with spending more time on screen.

Comfortability with spending more time on screen	Frequency	Percentage
Maybe	53	25.12%
No	85	40.28%
Yes	73	34.60%
Total	211	100%

(source: field data)

There are 25.12% students who may be comfortable with spending more time on screen ,40.28% students who are not comfortable with spending more time on screen and 34.60% students who are

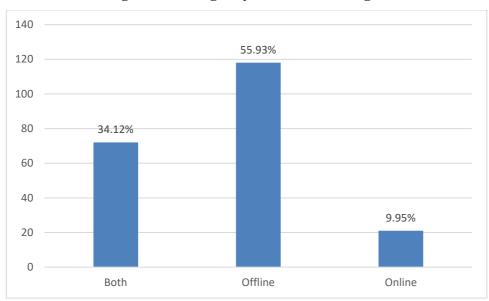
comfortable with spending more time on screen. (Table 3)

Table 4: Frequency distribution of easy mode of teaching.

Easy mode of teaching	Frequency	Percentage
Both	72	34.12%
Offline	118	55.93%
Online	21	9.95%
Total	211	100%

(source: field data)

Chart 4: Bar-diagram showing easy mode of teaching distribution.



(source: field data)

According to an online survey there are 34.12% who feel both modes are easy to understand. 55.93% feel offline mode is easy to understand and 9.95% feel online is easy to understand. (Table 4 and Chart 4)

Table 5: Frequency distribution of Effectiveness of online learning

Effectiveness of online learning	Frequency	Percentage
Maybe	87	41.23%
No	73	34.60%
Yes	51	24.17%
Total	211	100%

(source: field data)

There are 41.23% students who say that online learning may be effective, 34.60% students who say that online learning is not effective and 24.17% who say that online learning is effective. (Table 5)

Table 6: Frequency distribution of online education is costly.

Maybe	32	15.17%
No	116	54.97%
Yes	63	29.86%
Total	211	100%

According to a survey 15.17% says that online learning may be costly ,54.97% says it is not costly and 29.86% says that it is costly. (Table 6)

Table 7: Frequency distribution of online education is convenient.

Is Online Education convenient	Frequency	Percentage
Maybe	60	28.44%
No	70	33.18%
Yes	81	38.38%
Total	211	100%

(source: field data)

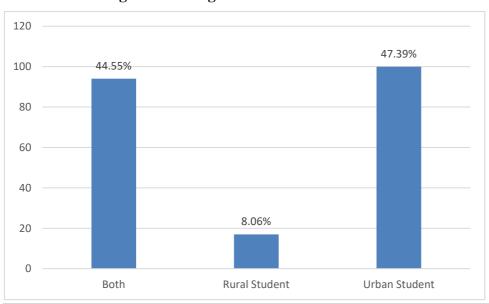
According to the survey 28.44% says online education may be convenient, 33.18% says it is convenient and 38.38% says it is not convenient. (Table 7)

Table 8: Frequency distribution of online education convenience for type of student.

Online Education is Convenient for-	Frequency	Percentage
Both	94	44.55%
Rural Student	17	8.06%
Urban Student	100	47.39%
Total	211	100%

(source: field data)

Chart 8: Bar-diagram showing online education convenience distribution.



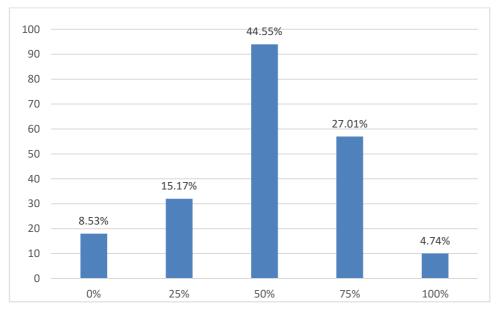
According to a survey 44.55% online education is convenient for both, 8.06% online education is convenient for rural students and 47.39% online education is convenient for urban students. (Table 8 and Chart 8)

Table 9: Frequency distribution of how much you understand online teaching.

Comprehension through online teaching	Frequency	Percentage
0%	18	8.53%
25%	32	15.17%
50%	94	44.55%
75%	57	27.01%
100%	10	4.74%
Total	211	100%

(source: field data)

Chart 9: Bar-diagram showing the understanding level of online teaching distribution.



(source: field data)

According to survey 8.53% student understand 0% online teaching, 15.17% student understand 25% online teaching, 44.55% student understand 50% online teaching, 27.01% student understand 75% online teaching, 4.74% student understand 100% online teaching. (Table 9 and Chart 9)

Table 10: Frequency distribution of do you feel lack of in-person interaction.

Lack of in-person interaction	Frequency	Percentage
Maybe	51	24.17%
No	34	16.11%

Yes	126	59.72%
Total	211	100%

According to a survey 24.17% people may feel lack of in-person interaction, 16.11% people feel no lack of in-person interaction and 59.72% people feel lack of in-person interaction. (Table 10)

Table 11: Frequency distribution of do you think online teaching provides the same benefits as face-to-face lectures do.

Benefits of online teaching same as face to face lectures	Frequency	Percentage
Maybe	35	16.59%
No	141	66.82%
Yes	35	16.59%
Total	211	100%

(source: field data)

According to survey 16. 59% of people say online teaching provides the same benefit as face-to-face lectures, 66.82% say it is not providing the same benefit as face-to-face lectures and 16.59% say yes it provides the same benefit as face-to-face lectures. (Table 11)

Table 12: Frequency distribution of learning from home can easily distract you as you have to manage everything in one room.

Learning from home can easily distract	Frequency	Percentage
Agree	84	39.81%
Disagree	10	4.74%
Neutral	52	24.65%
Strongly agree	54	25.59%
Strongly disagree	11	5.21%
Total	211	100%

(source: field data)

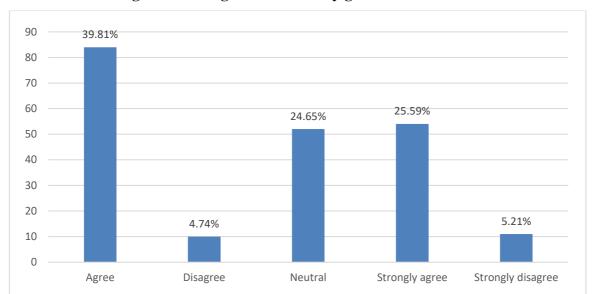


Chart 12: Bar-diagram showing if one can easily get distracted in online lectures distribution.

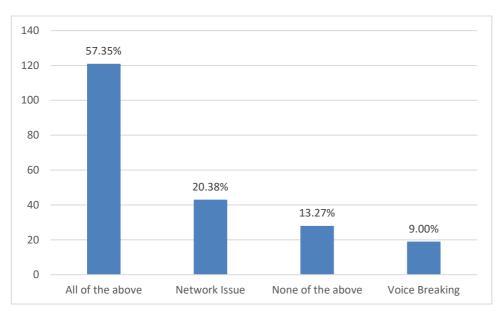
For this question there are 39.81% of people who agree, 4.74% of people disagree, 24.65% of people are neutral, 25.59% of people strongly agree and 5.21% of people strongly disagree. (Table 12 and Chart 12)

Table 13: Frequency distribution of which problem do you always face in online class.

Problem in online class	Frequency	Percentage
Voice Breaking	19	9.00%
Network Issue	43	20.38%
Both	121	57.35%
None	28	13.27%
Total	211	100%

(source: field data)

Chart 13: Bar-diagram showing problems faced in online classes distribution.



20.38% face network issues, 9.00% face voice breaking, 57.35% face both problems and 13.27% face no problem. (Table 13 and Chart 13)

Table 14: Frequency distribution of if you think online classes affect student mental health and causes strain on their eyes.

Online classes affect student mental		
health and causes strain on their eyes	Frequency	Percentage
Maybe	37	17.54%
No	23	10.90%
Yes	151	71.56%
Total	211	100%

(source: field data)

According to survey 17.54% people says may be online classes affect student's mental health and causes strain on their eyes, 10.90% people says no online classes don't affect student's mental health and causes strain on their eyes and 71.56 % people says yes online classes affect student's mental health and causes strain on their eyes. (Table 14)

Table 15: Frequency distribution of how helpful are your teachers while studying online.

Helpfulness of teachers while studying online	Frequency	Percentage
Extremely helpful	34	16.11%
Helpful	83	39.34%
Not at all helpful	14	6.64%
Slightly helpful	31	14.69%
Very helpful	49	23.22%
Total	211	100%

90 39.34% 80 70 60 23.22% 50 40 16.11% 14.69% 30 6.64% 20 10 0 Extremely helpful Helpful Not at all helpful Slightly helpful Very helpful

Chart 15: Bar-diagram showing how helpful teachers are in studying online.

(source: field data)

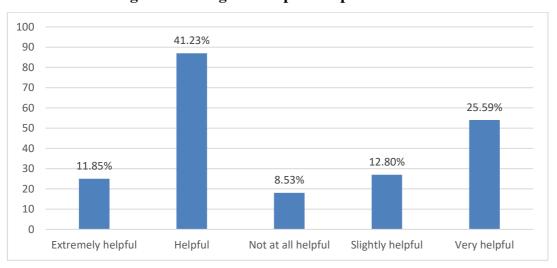
16.11 % students think that teachers are extremely helpful, 39.34 % students think that teachers are helpful, 6.64 % students think that teachers are not at all helpful, 14.69 % students think that teachers are slightly helpful, 23.22 % students think that teachers are very helpful. (Table 15 and Chart 15)

Table 16: Frequency distribution of how helpful was the class material provided to you.

Helpfulness of class material provided	Frequency	Percentage
Extremely helpful	25	11.85%
Helpful	87	41.23%
Not at all helpful	18	8.53%
Slightly helpful	27	12.80%
Very helpful	54	25.59%
Total	211	100%

(source: field data)

Chart 16: Bar-diagram showing how helpful the provided class material was.



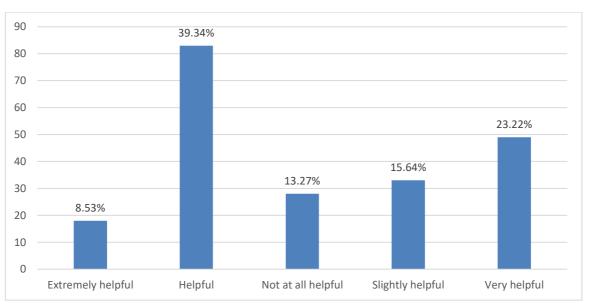
There are 11.85 % students who think material is extremely useful, 41.23 % students who think material is helpful, 8.53 % students who think material is not at all helpful, 12.80 % students who think material is slightly helpful, 25.59 % students who think material is very helpful. (Table 16 and Chart 16)

Table 17: Frequency distribution of how helpful your [school or university] has been in offering you the resources to learn from home.

Help from School or University	Frequency	Percentage
Extremely helpful	18	8.53%
Helpful	83	39.34%
Not at all helpful	28	13.27%
Slightly helpful	33	15.64%
Very helpful	49	23.22%
Total	211	100%

(source: field data)

Chart 17: Bar-diagram showing how helpful the offered resources were to learn from home distribution.



(source: field data)

8.53 % students think that university is extremely helpful, 39.34 % students think that university is helpful, 13.27 % students think that university is not at all helpful, 15.64 % students think that university is slightly helpful, 23.22 % students think that university is very helpful. (Table 17 and Chart 17)

Result and discussion:

Most of the respondents in this study are from the age group 18-20 years. Female respondents are more in number then male respondents. Maximum respondents are from science stream (Table 1). On an average students spend more than 3 hours online learning (Table 2). Few students are comfortable spending more time on screen whereas few are not (Table 3). Most of the students feel offline mode is easy to understand (Table 4). Most of the respondents are not sure if online learning is effective or not (Table 5). Most of the students say that online learning is costly (Table 6). Few students say online education is convenient and few say it is not convenient (Table 7). Very few students feel that online education is convenient for rural students (Table 8). Very few students understand online teaching (Table 9). Maximum students feel there is lack of in-person interaction (Table 10). Most of the students say online teaching does not provide the same benefit as face-to-face lectures (Table 11). Maximum students agree that learning from home can easily distract (Table 12). There are more students who face network issues and voice breaking problems (Table 13). Maximum number of students says that online classes affect student's mental health and cause strain on their eyes (Table 14). Most of the students think that teachers are helpful while learning online. (Table 15). Maximum number of students think provided material is helpful (Table 16). Most of the students think that university is helpful (Table 17).

Conclusion:

This study was undertaken to understand the challenges faced by students while learning online. This study concludes that though university and teachers are helping students to learn online, students face various challenges while adopting online learning. These challenges include: network issues, audio problems, increased screen time, difficulty in coping up with online learning, doubt about effectiveness of online learning, inconveniences while learning online, difficulty in understanding online learning, lack of in-person interaction, lot of distractions at home, bad effect on health.

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References:

kumar, s. (2015, july 10). 5 common problems faced by students in elearning and how to overcome them. Retrieved march 31, 2021, from elearning industry: https://elearningindustry.com/5-common-problems-faced-by-students-in-elearning-overcome