



AN EXPLORATIVE STUDY ON GLOBAL ISSUE OF COVID 19, CORONA VIRUS DISEASE IN INDIA- WITH SPECIAL REFERENCE TO TUMKUR DISTRICT IN KARNATAKA.

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Abstract

The term "coronavirus" is derived from Latin *corona*, meaning "crown" or "wreath", itself a borrowing from Greek *koronē*, "garland, wreath". The name indicates the characteristic appearance of virions (the infective form of the virus) by electron microscopy, which have a fringe of large, bulbous surface projections creating an image reminiscent of a crown or of a solar corona. Human to human transmission of coronaviruses is basically thought to occur among close contacts via respiratory droplets generated by sneezing and coughing. The interconnectivity of the coronavirus spike protein with its complement host cell receptor is central in determining the tissue tropism, infectivity, and species range of the virus. The SARS coronavirus, for example, infects human cells by attaching to the angiotensin-converting enzyme 2 (ACE2) receptor. The Research Methodology: Overall objective of the study: To examine the Corona Virus disease, diagnosis, treatment, number of cases, deaths, recovery issues. Specific objectives of the study are: 1) To examine the Outbreaks of coronavirus. 2) To examine the types of relatively high mortality, coronavirus pandemic by country and territory during 2019-20. 3) To examine the Details about the Confirmed cases and Deaths by Country, Territory or Conveyance: 4) To examine the Coronavirus COVID-19 is affecting 198 countries and territories around the world and International conveyance (the Diamond Princess cruise ship harbored in Yokohama, Japan. 5) To examine the Details about the people related to Travel history, Travel to local, Local to local. 6) To examine the details of total confirmed cases, Discharged/cured cases, Death due to COVID-19 Virus: district wise in Karnataka. Nature and source of data: The study made with the help of primary as well as secondary data. The secondary data obtained through journals, reports, periodicals, internet and news paper. The primary data obtained through by conducting personal interview to the persons through telephone in Tumkur. Total sample size is 50. Bar diagrams used for the analysis of the results of the study. The disease of Corona virus pandemic, very much dangerous and it is spreading very fast in India and also in Karnataka. Results and Discussion on Primary data base: Corona Virus disease in Tumkur District in Karnataka: Majority of the sample respondents have opined that because of the Corona virus disease people are very much scared and they felt inconvenience to engage in their day to day transactions. One Corona patient died in District hospital, Tumkur. Karnataka State Government has putting several continuous efforts to reduce the severity of the disease. But unfortunately, each day number of Corona Virus patients are increasing in India, Karnataka and obviously in the local area Tumkur. The number of home quarantine and number of positive and negative corona patients have increased substantially. The Central and State Governments have taken several steps to control COVID 19, Corona virus disease by locking down all the activities in the market.

Key Word: Respiratory Droplets, Swollen Adenoids, Bacterial Pneumonia, SARS Coronavirus, Quarantine.

Introduction

The term "coronavirus" is derived from Latin *corona*, meaning "crown" or "wreath", itself a borrowing from Greek *koronē*, "garland, wreath". The name indicates the characteristic appearance of virions (the infective form of the virus) by electron microscopy, which have a fringe of large, bulbous surface projections creating an image reminiscent of a crown or of a solar corona. Human to human transmission of coronaviruses is basically thought to occur among close contacts via respiratory droplets generated by sneezing and coughing. The interconnectivity of the coronavirus spike protein with its complement host cell receptor is central in determining the tissue tropism, infectivity, and species range of the virus. The SARS coronavirus, for example, infects human cells by attaching to the angiotensin-converting enzyme 2 (ACE2) receptor.



Evolution

The most recent common ancestor (MRCA) of all corona viruses has been estimated to have existed as recently as 8000 BCE, though some models place the MRCA as far back as 55 million years or more, implying long term coevolution with bats.

The MRCAs of the alphacoronavirus line has been placed at about 2400 BCE, the betacoronavirus line at 3300 BCE, the gammacoronavirus line at 2800 BCE, and the deltacoronavirus line at about 3000 BCE. It appears that bats and birds, as warm-blooded flying vertebrates, are ideal hosts for the corona virus gene source (with bats for alphacoronavirus and deltacoronavirus, and birds for gammacoronavirus and deltacoronavirus) to fuel corona virus evolution and dissemination.

Coronaviruses vary significantly in risk factor. Some can kill more than 30% of those infected (such as MERS-CoV), and some are relatively harmless, such as the common cold.

Coronaviruses cause diseases such as colds, fever, and sore throat from swollen adenoids, occurring primarily in the winter and early spring seasons. Coronaviruses can cause pneumonia (either direct viral pneumonia or a secondary bacterial pneumonia) and bronchitis (either direct viral bronchitis or a secondary bacterial bronchitis). The much publicized human coronavirus discovered in 2003, SARS-CoV, which causes severe acute respiratory syndrome (SARS), has a unique pathogenesis because it causes both upper and lower respiratory tract infections..

Seven strains of human coronaviruses are known, of which four produce the generally mild symptoms of the common cold:

1. Human coronavirus OC43 (HCoV-OC43)
2. Human coronavirus HKU1
3. Human coronavirus NL63 (HCoV-NL63, New Haven coronavirus)
4. Human coronavirus 229E (HCoV-229E)

– and three, symptoms that are potentially severe:

1. Middle East respiratory syndrome-related coronavirus (MERS-CoV), previously known as *novel coronavirus 2012* and *HCoV-EMC*
2. Severe acute respiratory syndrome coronavirus (SARS-CoV or "SARS-classic")
3. Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), previously known as 2019-nCoV or "novel coronavirus 2019"

The coronaviruses HCoV-229E, -NL63, -OC43, and -HKU1 continually circulate in the human population and cause respiratory infections in adults and children world-wide. Outbreaks of coronavirus-related diseases

The Research Methodology

Overall objective of the study

To examine the Corona Virus disease, diagnosis, treatment, number of cases, deaths, recovery issues .

Specific objectives of the study are

1. To examine the Outbreaks of coronavirus.
2. To examine the types of relatively high mortality, coronavirus pandemic by country and territory during 2019-20.
3. To examine the Details about the Confirmed cases and Deaths by Country, Territory or Conveyance:
4. To examine the Coronavirus COVID-19 is affecting 198 countries and territories around the world and International conveyance (the Diamond Princess cruise ship harbored in Yokohama, Japan.



5. To examine the Details about the people related to Travel history , Travel to local, Local to local.
6. To examine the details of total confirmed cases, Discharged/cured cases, Death due to COVID-19 Virus: district wise in Karnataka.
7. To examine the intensity of the COVID19, Corona virus disease in Tumkur district in Karnataka.

Nature and source of data

The study made with the help of primary as well as secondary data .

The secondary data obtained through journals,reports,periodicals ,internet and news paper.

The primary data obtained through by conducting personal interview to the persons through telephone in Tumkur.

Total sample size is 50.

Bar diagrams pie diagrams used for the analysis of the results of the study.

Table 1:Details of deaths due to Corona Virus disease.

Outbreak	Virus type	Deaths
2002–2004 severe acute respiratory syndrome outbreak	SARS-CoV	774
2012 Middle East respiratory syndrome coronavirus outbreak	MERS-CoV	Over 400
2015 Middle East respiratory syndrome outbreak in South Korea	MERS-CoV	36
2018 Middle East respiratory syndrome outbreak	MERS-CoV	41
2019–2020 coronavirus pandemic	SARS-CoV-2	Atleast 21,181

Source: Coronavirus (COVID-19) disease pandemic- Statistics & Facts
 Published by John Elflein, Mar 26, 2020

The above table indicate the severity of the Corona Virus disease which resulted in more number of deaths.

**Table 2,Coronavirus disease 2019:(COVID-19)
 2019–20 coronavirus pandemic by country and territory**

Locations	Cases	Deaths	Recov.
182	472,030	21,297	114,713
<u>China (mainland)</u>	81,285	3,287	74,051
<u>Italy</u>	74,386	7,503	9,362

Source: Coronavirus (COVID-19) disease pandemic- Statistics & Facts Published by John Elflein, Mar 26, 2020.

The above table indicate that the cases suffering from Corona virus disease more in China followed by Italy. Number of deaths have recorded more in Italy followed by China. The number of recovery more in China followed by Italy. Further, The table indicate the severity of the Corona Virus which resulted in more number of deaths.

Severe acute respiratory syndrome (SARS).

In 2003, following the outbreak of severe acute respiratory syndrome (SARS) which had begun the prior year in Asia, and secondary cases elsewhere in the world, the World Health Organization (WHO) issued a press release stating that a novel coronavirus identified by a number of laboratories was the causative agent for SARS. The virus was officially named the SARS coronavirus (SARS-CoV). More than 8,000 people were infected, about ten p Middle East respiratory syndrome (MERS)In September 2012, a new type of coronavirus was identified, initially called Novel Coronavirus 2012, and now officially named Middle East respiratory syndrome coronavirus (MERS-CoV).



The World Health Organization issued a global alert soon after The WHO update on 28 September 2012 said the virus did not seem to pass easily from person to person. However, in France on 12 May 2013, a case of human-to-human transmission was confirmed by the French Ministry of Social Affairs and Health. Apart from this, cases of human-to-human transmission were reported by the Ministry of Health in Tunisia. Two confirmed cases involved people who seemed to have caught the disease from their late father, who became ill after a visit to Qatar and Saudi Arabia. Despite this, it appears the virus had trouble spreading from human to human, as most individuals who are infected do not transmit the virus. By 30 October 2013, there were 124 cases and 52 deaths in Saudi Arabia.

After the Dutch Erasmus Medical Centre sequenced the virus, the virus was given a new name, Human Coronavirus–Erasmus Medical Centre (HCoV-EMC). The final name for the virus is Middle East respiratory syndrome coronavirus (MERS-CoV). In May 2014, the only two United States cases of MERS-CoV infection were recorded, both occurring in healthcare workers who worked in Saudi Arabia and then travelled to the U.S. One was treated in Indiana and one in Florida. Both were hospitalized temporarily and then discharged. In May 2015, an outbreak of MERS-CoV occurred in the Republic of Korea, when a man who had traveled to the Middle East, visited 4 hospitals in the Seoul area to treat his illness. This caused one of the largest outbreaks of MERS-CoV outside the Middle East. As of December 2019, 2,468 cases of MERS-CoV infection had been confirmed by laboratory tests, 851 of which were fatal, a mortality rate of approximately 34.5%.

Corona viruses are a group of related viruses that cause diseases in mammals and birds. In humans, coronaviruses cause respiratory tract infections that can be mild, such as some cases of the common cold (among other possible causes, predominantly rhinoviruses), and others that can be lethal, such as SARS, MERS, and COVID-19.

Diseases caused

Coronaviruses primarily infect the upper respiratory and gastrointestinal tract of mammals and birds. They also cause a range of diseases in farm animals and domesticated pets, some of which can be serious and are a threat to the farming industry. In chickens, the infectious bronchitis virus (IBV), a coronavirus, targets not only the respiratory tract but also the urogenital tract. The virus can spread to different organs throughout the chicken.¹ Economically significant coronaviruses of farm animals include porcine coronavirus (transmissible gastroenteritis coronavirus, TGE) and bovine coronavirus, which both result in diarrhea in young animals. Feline coronavirus: two forms, feline enteric coronavirus is a pathogen of minor clinical significance, but spontaneous mutation of this virus can result in feline infectious peritonitis (FIP), a disease associated with high mortality. Similarly, there are two types of coronavirus that infect ferrets: Ferret enteric coronavirus causes a gastrointestinal syndrome known as epizootic catarrhal enteritis (ECE), and a more lethal systemic version of the virus (like FIP in cats) known as ferret systemic coronavirus (FSC). There are two types of canine coronavirus (CCoV), one that causes mild gastrointestinal disease and one that has been found to cause respiratory disease. Mouse hepatitis virus (MHV) is a coronavirus that causes an epidemic murine illness with high mortality, especially among colonies of laboratory mice. Sialodacryoadenitis virus (SDAV) is highly infectious coronavirus of laboratory rats, which can be transmitted between individuals by direct contact and indirectly by aerosol. Acute infections have high morbidity and tropism for the salivary, lachrymal and Harderian glands.

A HKU2-related bat coronavirus called swine acute diarrhea syndrome coronavirus (SADS-CoV) causes diarrhea in pigs. Prior to the discovery of SARS-CoV, MHV had been the best-studied coronavirus both *in vivo* and *in vitro* as well as at the molecular level. Some strains of MHV cause progressive demyelinating encephalitis in mice which has been used as a murine model for multiple sclerosis. Significant research efforts have been focused on elucidating the viral pathogenesis of these animal coronaviruses, especially by virologists interested in veterinary and zoonotic diseases.



Table 3,Details about the Confirmed cases and Deaths by Country, Territory or Conveyance:

The Coronavirus COVID-19 is affecting 198 countries and territories around the world and International conveyance (the Diamond Princess cruise ship harbored in Yokohama, Japan.

Report coronavirus cases

Country, Other	Total Cases	New Cases	Total Deaths	New Deaths	Total Recovered	Active Cases	Serious, Critical	Tot Cases/ 1M pop
China	81,285	+67	3,287	+9	74,051	3,947	1,235	56
Italy	74,386		7,503		9,362	57,521	3,489	1,230
USA	68,573	+362	1,036	+16	428	67,109	1,455	207
Spain	49,515		3,647	+157	5,367	40,501	3,166	1,059
Germany	39,355	+2,032	222		3,547	35,516,	23	470
Iran	29,406	+2,389	2,234	+11	10,457	16,715		350
France	25,233		1,331		3,900	20,002	2,827	387
Switzerland	11,125	+228	164	+5	131	10,830	141	1,285
UK	9,529		465		135	8,929	163	140
S. Korea	9,241	+104	131	+42	4,144	4,966	59	180
Netherlands	6,412		356	+11	3	6,053	582	374
Belgium	6,235	+1,298	220		675	5,340	605	538
Austria	6,001	+413	42		9	5,950	28	666
Canada	3,409		36	185		3,188	1	90
Norway	3,191	+107	14		6	3,171	57	589
Portugal	2,995		43		22	2,930	61	294
Australia	2,799	+123	13		170	2,616	11	110
Brazil	2,554	59			6	2,489	18	12
Sweden	2,526		62		16	2,448	158	250
Israel	2,495	+126	5		66	2,424	41	288
Turkey	2,433		59		26	2,348	136	29
Malaysia	2,031	335	23	3	199	1809	45	63
Denmark	1,851	34		1	1,816	1,816	87	320
Czechia	1,775	121	6		10	1,759	34	166
Ireland	1564		9	5	1550		39	317
Luxembourg	1,333		8		6	1319	3	2,129
Japan	1,307		45		310	952	57	10
Ecuador	1,211		29		3	1,179	2	69
Chile	1,142		3		22	1,117	7	60
Pakistan	1,106	+43		8	21	1077	5	5
Poland	1,085	34	15	1	7	1,063	3	29
Thailand	1,045	+111	4		88	953	4	15
Finland	915	+35	3		10	902	22	165
Romania	906		17		86	803	18	47
Saudi Arabia	900		2	29		869		26
Indonesia	893	+103	78	35		780		3
Russia	840	+182	3		38	799	8	6
Greece	821		23	1	36	762	53	79
Iceland	737		2		56		679	2,160
Diamond Princess	712		10		597	105	15	
South Africa	709				12	697	2	12



Philippines	707	+71	45	7	28	634	1	6
India	693	+36	13	+111	45	635		0.5
Singapore	631		2		160	469	17	108
Panama	558		8		2	548	20	129
Estonia	538	+134	1		8	529	6	406
Qatar	537				41	496	6	186
Slovenia	528		5		10	513	14	254
Argentina	502		8		52	442		11
Croatia	481	+39	1		22	458	14	117
Peru	480		9		1	470	9	15
Mexico	475	+70	6	+1222	4	465	1	4
Colombia	470		4		8	458		9
Colombia	470		4		8	458		9
Egypt	456		21		95	340		4
Hong Kong	453	+42	4		110	339	4	60
Bahrain	419		4		190	225	2	246
Dominican Republic	392		10		3	379		36
Serbia	384		6	+2111	15	363	21	44
Iraq	346		29		103	214		9
Colombia	470		4		8	458		9
Lebanon	333		6		20	307	4	49
UAE	333		2		52	279	2	34
Algeria	302		21		65	216		7
Lithuania	290	+16	4		1	285	1	107
Armenia	290	+25			18	272	6	98
New Zealand	283				27	256		59
Hungary	261	+35	10		28	223	6	27
Taiwan	252	+17	2		29	221		11
Latvia	244	+23			1	243		129
Bulgaria	243	+1	3		4	236	8	35
Slovakia	226	+10			7	219	2	41
Morocco	225		6		7	212	1	6
Uruguay	217					217	3	62
San Marino	208		21		4	183	12	6,130
Kuwait	208	+13			49	159	7	49
Costa Rica	201		2		2	197	4	39
Andorra	188		1		1	186	6	2,433
Bosnia and Herzegovina	185	+9	3		2	180	1	56
North Macedonia	177		3		1	173	1	85
Albania	174	+28	6	+1+1	17	151	3	60
Tunisia	173		6	+1+1	2	165	11	15
Jordan	172				1	171		17
Ukraine	156	+11	5		1	150		4
Moldova	149		1		2	146	20	37
Vietnam	148				17	131	3	2
Burkina Faso	146		4		10	132		7
Faeroe Islands	140	+8			47	93		2,865



Cyprus	132		3		4	125	3	109
Malta	129				2	127	1	292
Réunion	115	+4			1	114		128
Brunei	114	+5			5	109	1	261
Kazakhstan	109	+28			2	107		6
Oman	109	+10			23	86		21
Venezuela	106				15	91	2	4
Senegal	105	+6			9	96		6
Sri Lanka	102				3	99	3	5
Cambodia	96				10	86	1	6
Azerbaijan	93		2		10	81	6	9
Belarus	86				29	57	2	9
Afghanistan	84		2		2	80		2
Palestine	84	+13	1		17	66		16
Ivory Coast	80				3	77		3
Georgia	77	+2			10	67	1	19
Cameroon	75		1		2	72		3
Guadeloupe	73		1			72	4	182
Ghana	68		4		1	63		2
Montenegro	67	+14	1			66	1	107
Martinique	66		1			65	7	176
Uzbekistan	65	+5				65	4	2
Trinidad and Tobago	60		1			59		43
Cuba	57		1		1	55	2	5
Mauritius	52	+4	2			50	1	41
Honduras	52					52		5
DRC	51	+3	3	+11		48		0.6
Nigeria	51		1		2	48		0.2
Liechtenstein	51					51		1,338
Channel Islands	46		1	+1111		45		265
Bangladesh	44	+5	5		11	28	1	0.3
Kyrgyzstan	44					44		7
Paraguay	41	+4	3			38	1	6
Rwanda	41					41		3
Bolivia	38	+6				38		3
Mayotte	36					36		132
Macao	31				10	21		48
Monaco	31				1	30		790
French Guiana	28				6	22		94
Kenya	28				1	27		0.5
Jamaica	26		1		2	23		9
Gibraltar	26				5	21		772
French Polynesia	25					25		89
Isle of Man	25	+2				25		294
Guatemala	24		1		4	19		1
Togo	23				1	22		3
Aruba	19				1	18		178
Madagascar	19					19		0.7



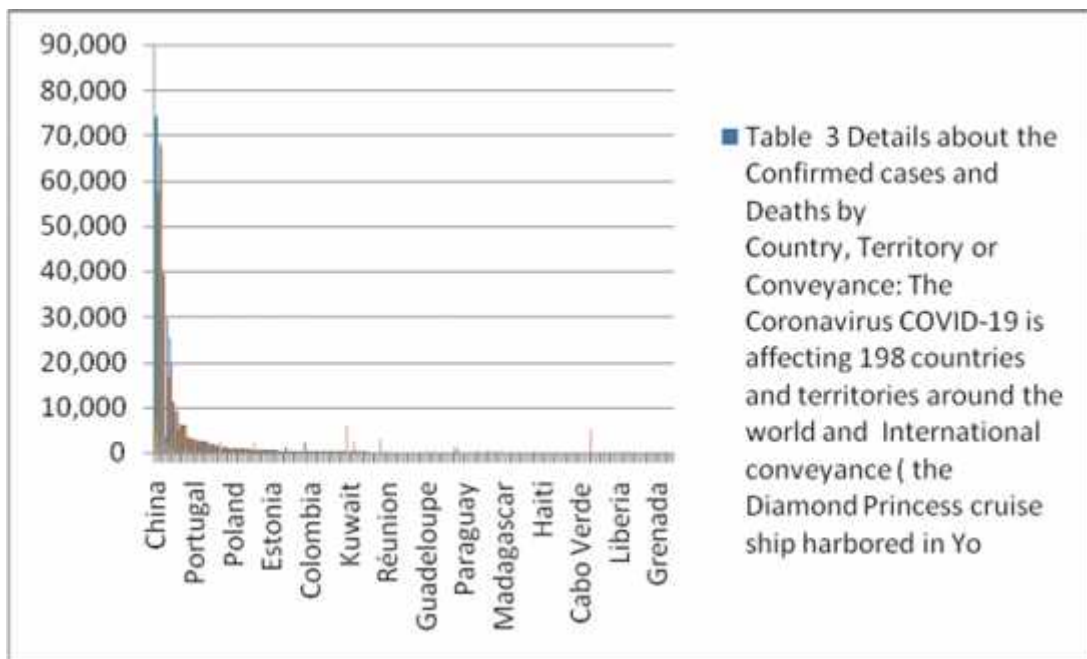
Barbados	18				18		63
New Caledonia	14				14		49
Uganda	14				14		0.3
El Salvador	13	+4			13		2
Maldives	13			8	5		24
Tanzania	13				13		0.2
Ethiopia	12				12		0.1
Zambia	12				12		0.7
Djibouti	11				11		11
Dominica	11				11		153
Mongolia	11	+1			11		3
Saint Martin	11				11		284
Equatorial Guinea	9				9		6
Cayman Islands	8		1		7		122
Haiti	8				8		0.7
Suriname	8				8		14
Gabon	7	+1	1		6		3
Niger	7		1		6		0.3
Bermuda	7				7		112
Namibia	7			2	5		3
Seychelles	7				7		71
Curaçao	6		1	2	3		37
Benin	6				6		0.5
Greenland	6			2	4		106
Guyana	5		1		4		6
Bahamas	5			1	4		13
Fiji	5				5		6
Mozambique	5				5		0.2
Syria	5				5		0.3
Cabo Verde	4		1		3		7
Congo	4				4		0.7
Eritrea	4				4		1
Guinea	4				4		0.3
Vatican City	4				4		4,994
Eswatini	4				4		3
Gambia	3		1		2		1
Sudan	3		1		2		0.07
Zimbabwe	3		1		2		0.2
Nepal	3			1	2		0.1
Angola	3				3		0.09
Antigua and Barbuda	3				3		31
CAR	3				3		0.6
Chad	3				3		0.2
Laos	3				3		0.4
Liberia	3				3		0.6
Mauritania	3	+1			3		0.6
Myanmar	3				3		0.06
St. Barth	3				3		304



Saint Lucia	3					3		16
Sint Maarten	3					3		70
Belize	2					2		5
Bhutan	2					2		3
British Virgin Islands	2					2		66
British Virgin Islands	2					2		66
Guinea-Bissau	2					2		1
Mali	2					2		0.10
Nicaragua	2					2		0.3
Saint Kitts and Nevis	2					2		38
Somalia	2	+1				2		0.1
Grenada	1					1		9
Libya	1					1		0.1
Montserrat	1					1		200
Papua New Guinea	1					1		0.1
St. Vincent Grenadines	1					1		9
Timor-Leste	1					1		0.8
Turks and Caicos	1					1		26
Total:	479,915	8,947	21,577	2992299	115,798	342,540	14,928	61.6

Source: Coronavirus (COVID-19) disease pandemic- Statistics & Facts, Published by John Elflein, Mar 26, 2020.

The above table indicate that the total deaths has recorded more in Italy, China, Spain, Iran, France followed by other Countries. Related to total recovery from the corona disease has recorded highest in China, Iran, Spain, France, total recovery has recorded highest in China, Iran, Italy, South Korea, Spain followed by other countries.





Corona virus COVID-19 has changed the world forever in a span of less than two months. Now the world would not be the same as before. No one has dreamt that a small Virus can change all of us- the way we live, the way we behave (socializing, partying, meeting people, etc.) , the way we consume things; make expenditures; do businesses; go to jobs; travel (commute) from one place to another...the impact is so great that the life has practically come to an absolute halt in few days time in the month of March 2020. This March can be called as 'Murderous March' as with the death tolls going up day by day with still nine more days to go in March people all around the world have become immovable - practically self-quarantined, a situation of self house arrest because of the havoc created by the deadly Coronavirus. This is a war like situation and even worst than world war I & world war II where every country in the world is panicked to savour its citizens from the hilariously infectious virus with each passing day. Be it China, USA, France, UK, Asia or the whole Europe every government and its citizens are facing a total lockout condition (TLC) of businesses, trades, offices, etc.

The economic scenario around the world is worst impacted due to the TLC. All sectors whether we talk of manufacturing, services like banking, transportation, education, insurance, etc. are so adversely affected that no commerce (transactions) are happening in almost every single field/sector of business. With every passing day governments are becoming helpless and clueless to find what to do to curb and control the Corona monster. It seems that all the fiction movies of hollywood and bollywood (like 'Contagion', 'Krish 3', 'Qayamat'...and even TV Serial '24 - Season 2 India') have come alive and that there is no difference between 'reel life' and 'real life'. The colossal damage to the economic/business world will take at least five years to recover and that too if nothing more dangerous occurs like this in years to come. What progress and growth in terms of economic development and enhanced quality of living the world has seen in past ten years has been wiped off completely within a span of two months, i.e., this February and March. The saying that "It takes hell of efforts to build something & takes no time to demolish it" has come alive as an ultimate truth...

At the same time with all the adversities and havoc created by the monstrous virus there is still a ray of hope or 'blessing in disguise'...for that matter I was reading today's newspaper in which it is reported that in China 70,000 people who die due to pollution every year will be able to survive at least this year. Pollution levels in all the countries around the world has come down like anything- probably to the least level in last five decades. The industrial as well as vehicle pollution in the last week of March 2020 is at the bare minimum level giving nature a space to rejuvenate and revive by cleansing the dirt created in the environment over last few decades. There is a respite from all sorts of pollution on one hand and the materialistic world syndrome (MWS) on the other. People will now get an opportunity to rethink about the MWS; MWS is a syndrome that has affected the humankind in last 4-5 decades - 'a competition to grow materialistically anyhow'. People will now have time to spend time with their family members and understand the importance of values, love, belongingness. With time to introspect now we can minimize the MWS to break the chain of endless materialism. Corona is really dangerous and lethal, however with the world showing unity and solidarity against it (all the governments, officials, health workers, various agencies and citizen action groups working day and night) will make it disappear in few months for sure if not in few days.

Cases

Table 4 Origin type:

- T – Travel-related, T/P2P – Travel related person-to-person spread (or unclear travel-related),



Patient Number	No. of Persons	Date Announced	Origin type	Origin	Location	Sex-Age	Ref(s)
1	1	9 Mar 2020	T	Austin, USA	Bangalore	M40s	
2	1	10 Mar 2020	P2P (C#1)	Bangalore	Bangalore	F40s	
3	1		P2P (C#1)	Bangalore	Bangalore	F17	
4	1	11 Mar 2020	T	Los Angeles, USA	Bangalore	M44	
5	1	12 Mar 2020	T	Switzerland, France, Greece	Bangalore	M30s	[6]
6	1	13 Mar 2020	T	Saudi Arabia	Kalburgi	M70s	[3]
7	1	15 Mar 2020	P2P (C#6)	Kalburgi	Kalburgi	F45	[4][22]
8	1	16 Mar 2020	T	USA	Bangalore	M32	[5]
9	1	17 Mar 2020	P2P (C#6)	Kalburgi	Kalburgi	M63	[4][10]
10-11	2		T	UK, Dubai	Bangalore(2)	F20, F67	[4]
12-14	3	18 Mar 2020	T	Spain, USA(C#13), USA	Bangalore(3)	M25, F56, M35	[23]
15	1	19 Mar 2020	T	Dubai	Kodagu	M35	[14]
16	1	21 Mar 2020	P2P (C#11)	Bangalore	Bangalore	F53	[16][17]
17-20	4		T	Netherland, Scotland, Saudi Arabia (C#19), Dubai	Bangalore(2), Chikkaballapur, Mysore	M39, F21, M31, M35	[16][17]
21-26	6	22 Mar 2020	T	Dubai, Saudi Arabia (C#22), France, Germany, London, Dubai	Dharwad, Chikkaballapur, Bangalore(3), Mangalore (native of Bhatkal)	M33, F64, F36, M27, M51, M22	[18][19]
27-29	3	23 Mar 2020	T	Dubai(2), UK	Mysuru (native)	M46, M38, M41	[20]



Patient Number	No. of Persons	Date Announced	Origin type	Origin	Location	Sex-Age	Ref(s)
					of Kerala), Bangalore(2)		
30	1		P2P (C#17)	Bangalore	Bangalore	F30	[20]
31-33	3		T	UK, Germany, Dubai	Bangalore(2), Bangalore (native of Kerala)	M24, M60, M22	[20]
34-36	3		T	Dubai(3)	Mangalore (native of Kerala), Uttara Kannada(2)	M32, M40, M65	[21]
37-38	2	24 Mar 2020	T/P2P (C#19, C#22)	Saudi Arabia	Chikkaballapur	F56	[21]
			P2P (C#13)	Bangalore	Bangalore	F56	[21]
39-41	3		T	Dubai, Saudi Arabia, Dubai	Mangalore (native of Kerala)(3)	M47, F70, M23	[21]
42	1		T	Guyana	Davangere (native of Chitradurga)	F37	[1]
43-44	2		T	Brazil and Argentina	Bangalore(2)	M63, F59	[1]
45-46	2	25 Mar 2020	T	Spain	Bangalore(2)	M26, M26	[1]
47-48	2		T	Athens and London	Bangalore(2)	F63, M69	[1]
49-50	2		P2P (C#17)	Bangalore	Bangalore(2)	F9, F7	[1]
51	1		T	Dubai	Udupi	M34	[1]

Source: MoHFW and karunadu.karnataka.gov.in

The above table indicate that the details about the origin and location of the Corona disease.



Table 5.Details about the people related to Travel history , Travel to local, Local to local.

Date	Travel	Travel to Local	Local to Local
09-Mar	1	0	0
10-Mar	0	2	0
11-Mar	1	0	0
12-Mar	1	0	0
13-Mar	1	0	0
14-Mar	0	0	0
15-Mar	0	1	0
13-Mar	1	0	0
14-Mar	0	0	0
15-Mar	0	1	0
16-Mar	1	0	0
17-Mar	2	1	0
18-Mar	3	0	0
19-Mar	1	0	0
20-Mar	0	0	0
21-Mar	4	1	0
22-Mar	6	0	0
23-Mar	6	1	0
24-Mar	7	1	0
25-Mar	8	2	0

Source: MoHFW and karunadu.karnataka.gov.in

It is clear from the above table that the persons travel history,travel to local and local to local.

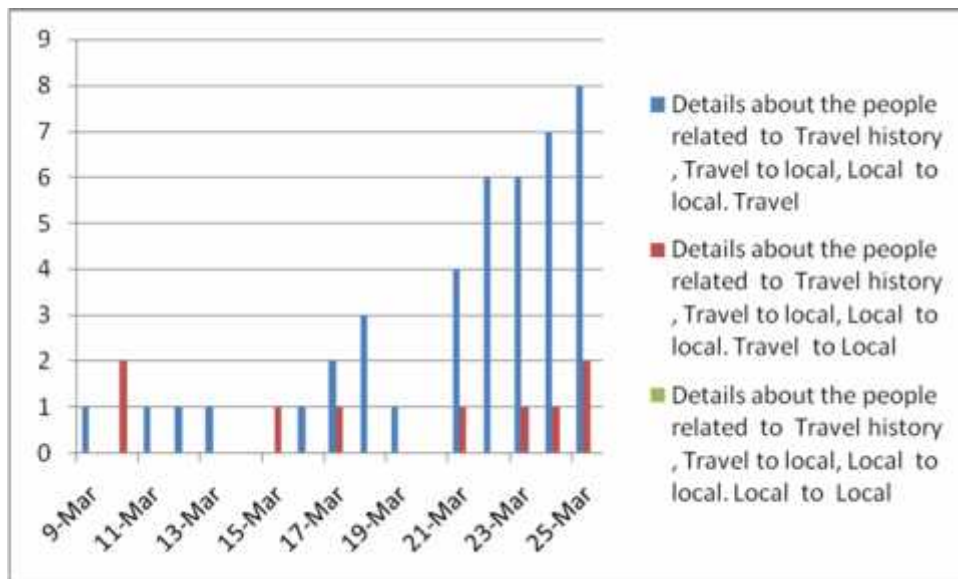




Table 6,Details of total confirmed cases, Discharged/cured cases, Death due to COVID-19 Virus: district wise in Karnataka:

Sl. No.	District	Total Confirmed cases	Discharged/Cured Cases	Death
1	Bangalore	32	3	0
2	Kalburgi	3	0	1
3	Kodagu	1	0	0
4	Chikkaballapura	3	0	0
5	Mysore	2	0	0
6	Dharwad	1	0	0
7	Dakshina Kannada	5	0	0
8	Uttara Kannada	2	0	0
9	Davangere	1	0	0
10	Udupi	1	0	0
Total	51	3	1	

Source: "Coronavirus in Karnataka: 41 cases so far, Bengaluru uses drones to spray disinfectants". The Indian Express. 24 March 2020. Retrieved 24 March 2020.

It is clear from the above table that total confirmed cases have recorded highest in Bangalore district followed by Dakshina Kannada and other districts. In Kalburgi district and Tumkur districts one each patients died suffering from Corona disease.

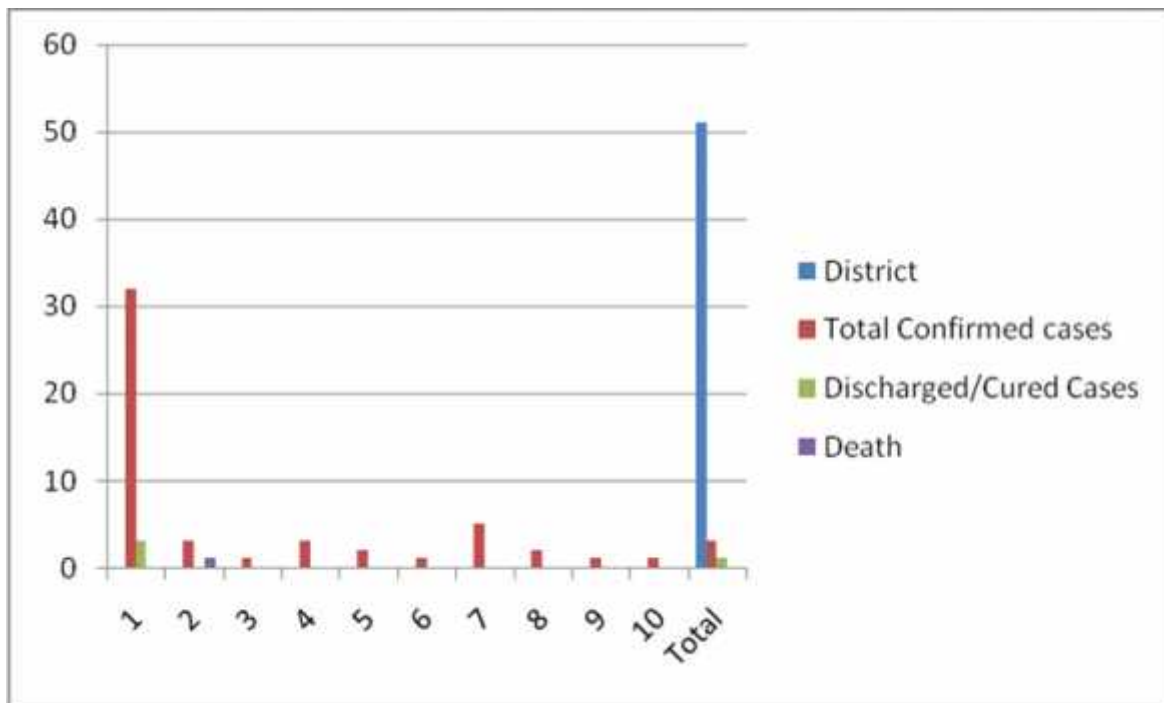


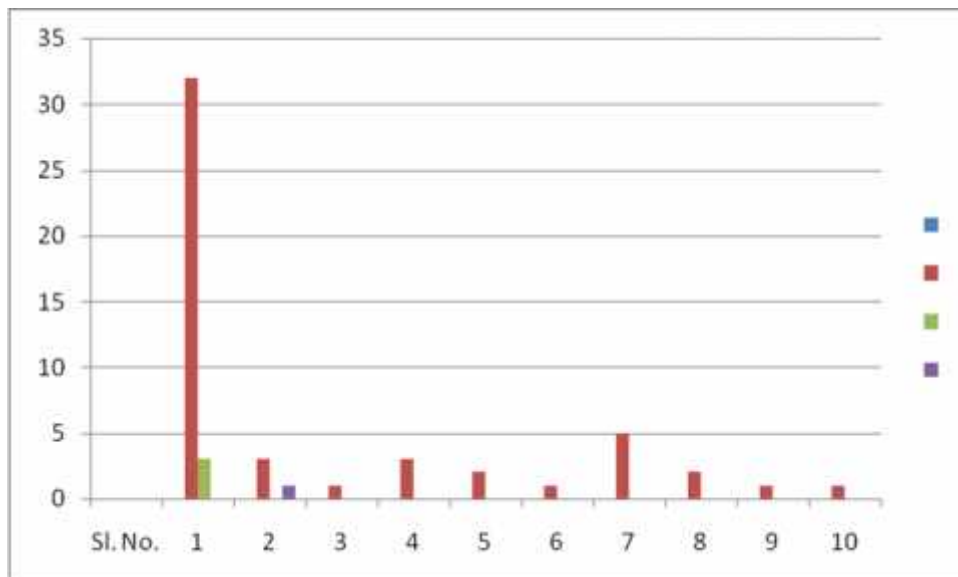


Table 7, Total Confirmed cases, Discharged/Cured cases, details of deaths as of 25 March 2020.

Sl. No.	District	Total Confirmed cases	Discharged/Cured Cases	Death
1	Bangalore	32	3	0
2	Kalburgi	3	0	1
3	Kodagu	1	0	0
4	Chikkaballapura	3	0	0
5	Mysore	2	0	0
6	Dharwad	1	0	0
7	Dakshina Kannada	5	0	0
8	Uttara Kannada	2	0	0
9	Davangere	1	0	0
10	Udupi	1	0	0
	Total	51	3	1

Source: "Coronavirus in Karnataka: 41 cases so far, Bengaluru uses drones to spray disinfectants". The Indian Express. 24 March 2020. Retrieved 24 March 2020.

It is clear from the above table that total confirmed cases have recorded Bangalore, Dakshina Kannada followed by other Districts. Number of discharged cases/ cured recorded more compared to other districts.



Results and Discussion on Primary data base

- Corona Virus disease in Tumkur District in Karnataka:

Majority of the sample respondents have opined that because of the Corona virus disease people are very much scared and they felt inconvenience to engage in their day to day transactions. One Corona patient died in District hospital, Tumkur. Karnataka State Government has putting several continuous efforts to reduce the severity of the disease. But unfortunately, each day number of Corona Virus patients are increasing in India, Karnataka and obviously in the local area Tumkur. But I hope, if there is preventive vaccine, surely COVID19, Corona Virus deadly, pandemic disease will be reduced substantially and as a result of that general public will be free from



fear and they can lead their life comfortably and inturn I can expect there will be acceleration in the faster growth rate of the economic activities and business and the Country can get relief from the health challenge so that Karnataka and Tumkur district can get the same favourable results .

Impact of Corona Virus disease on the Society, Economy and Government initiative:

Quarantine:

According to state government data, a total of 12,029 persons have enrolled for observation and 173 in total are currently in Isolation. At Health Facilities, Universal Screening of all International Passengers continues; Summary as follows:

Till 23 March 2020 - 1,27,902 passengers have been screened in Karnataka. The details of points of entry are as follows:

1. KIA Airport Bengaluru –89,963 passengers cumulative.
2. Mangalore International airport–31,917 passengers cumulative.
3. Also, 6,022 passengers have been screened at Mangalore and Karwar seaports

Economic loss

Coronavirus disease has hits over 1 crore jobs, the government's orders on Friday to close down places of commerce, industry and social assembly to prevent coronavirus cases from snowballing has seen the city devolve into a veritable ghost town in just the first 24 hours of the clampdown. At the same time, the city's purchasing and economic power has also dwindled. As financial experts across the gamut scrambled to decipher the scale of the losses, B T Manohar, a tax expert for Federation of Karnataka Chambers of Commerce and Industry warned that the loss of GST and sales tax revenue alone for the state exchequer would amount to a staggering Rs 2,000 crore, if the clampdown lasted for even a single week (Deccan Herald. 18 March 2020).

Government Initiative

On Sunday 22 March 2020, after the second meeting of the Task force formed to tackle the COVID-19. The Government announced further restriction in the form of Lokdown of 9 Districts until 31 March. All Non-Essential services in these districts were suspended. The nine Districts where COVID-19 cases reported from included: Bangalore (Rural and Urban Districts), Chikkaballapura district, Dakshina Kannada, Dharwad district, Kalaburgi district, Mysore district, Kodagu district and Belgaum district. Further, to contain community transmission of the virus, Central Government took a major decision to Lockdown entire country for a period of 21 days beginning from 25th of March. In line with Central Government's announcement, the State of Karnataka was also locked down. During the lockdown, all modes of public transport, commercial establishments were closed and any movement of people was restricted. However, shops and establishments providing essential services were allowed to be operational during the lockdown.

Conclusion

The disease of Corona virus pandemic, very much dangerous and it is spreading very fast in India and also in Karnataka. The number of home quarantine and number of positive and negative corona patients have increased substantially. The Central and State Governments have taken several steps to control COVID 19, Corona virus disease by locking down all the activities in the market. But in spite of this Corona Virus disease may enter into third stage. If the disease enters to third stage the community will be affected much and it will not be controlled so easily. I hope, with the Government continued efforts and public awareness about the personal hygiene, and if they are free from bad habits, if they care much about their health and if there is an increase in access to health care services, and if advancement in research to innovate new vaccine to prevent the disease, it is possible to eradicate the Corona virus disease stage by stage from Karnataka, other States, India and the globe.



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