

## Impacts Of Covid-19 On Agri Farmers In Drought Affcted Districts Of Andhra Pradesh

Shaik Khadar Basha<sup>1</sup>, Dr. Akondi Srikanth <sup>2</sup>,

<sup>1</sup>Research Scholar, K L Business School, Koneru Lakshmaiah Deemed to be University, Vaddeswaram, Guntur,

<sup>2</sup>Associate Professor, K L Business School, Koneru Lakshmaiah Deemed to be University, Vaddeswaram, Guntur,

<sup>1</sup>Email Id: khadarbasha148@gmail.com, Cell: 9440988148

<sup>2</sup>Email Id: drsrikanth.akondi@gmail.com, Cell: 95051 70111

---

### Abstract:

In India, nearly 70% of the people live in rural villages. In rural villages farmer's main income source is agriculture. Now everyone has been listening the word COVID-19 through Television, News papers, word of mouth and Social Networking sites etc., however COVID-19 is the name given by the World Health Organization on 11th February, 2020 for the disease caused by the novel corona virus SARS-CoV-2(Severe Acute Respiratory Syndrome Corona Virus 2). It started in Wuhan, China in late 2019 and has since spread worldwide. COVID-19 is an acronym that stands for **corona virus disease of 2019**. The pandemic is impacting global as well as domestic food systems especially agriculture sector. The WHO declared the COVID-19 disease to be a global pandemic. Along with the Central, State Governments have announced several policy decisions to prevent and contain the spread of the virus in their respective states. The present study focused the impacts of covid -19 on agri farmers in drought affected districts of Andhra Pradesh. The main objectives of the study are; To evaluate the impacts of covid-19 on agriculture farmers in drought affected districts of Andhra Pradesh, to examine the causes for spreading of covid-19 pandemic virus, to examine what are the precautions taken for covid-19 by the government of Andhra Pradesh for to prevent and contain the spread of the virus. This research study uses primary as well as secondary data of research. For data analysis purpose this research study uses SPSS software. Finally, this research study exhibits that how much agri farmers lost by covid-19 pandemic and what are the precautions taken by the government of AP. Along with this, this research study explains what are the precautions to be follow to people during covid-19 pandemic. This research study gives huge scope for further studies.

**Key words:** - Covid-19, Farmers, Drought, Impact and Pandemic Disease

### INTRODUCTION:

The Corona virus officially known as Covid-19, which started Wuhan in China, has so far killed over 234,105 people across the globe and infected 3,308,233 (as on May 1, 2020). The virus has spread to 187 countries. COVID-19 is the name given by the World Health Organization on 11th February, 2020 for the disease caused by the novel corona virus SARS-CoV-2(Severe Acute Respiratory Syndrome Corona Virus 2). It started in Wuhan, China in late 2019 and has since spread worldwide. COVID-19 is an acronym that stands for corona virus disease of 2019. (Vergnaud, 2020).

The WHO declared the COVID-19 disease to be a global pandemic. Meanwhile, the total number of corona virus cases in India has risen day by day. Among the most affected states, Maharashtra has the highest number of Covid-positive cases at 10,498 as on date May 1, 2020. It is followed by Gujarat (4,395), Delhi (3,515), Madhya Pradesh (2,660), Rajasthan (2,584), Uttar Pradesh (2,203), Tamil Nadu (2,323) and Andhra Pradesh (1,403). The data shows according to official figures released by the Union Ministry of Health and Family Welfare (MoHFW). To control the spread of the Covid-19 or corona virus pandemic, Prime Minister Narendra Modi announced nationwide lockdown till May. The lock down meaning the country's 1.3 billion citizens — except those engaged in providing essential services — would not step out of their homes. (Business standard.com)

### Symptoms of Corona Virus (covid-19):

The following are the main symptoms of Covid -19.

- A general feeling of being unwell
- Runny nose
- Sore throat
- Headache
- Cough
- Fever

In case someone is facing lower-respiratory tract illnesses, such as pneumonia or bronchitis, they must seek professional health immediately.

Andhra Pradesh is one of the states in India. In Andhra Pradesh total districts are 13 (Srikakulam, Vijayanagaram, Visakhapatnam, West Godavari, East Godavari, Krishna, Guntur, Prakasam, Nellore, Kadapa, Kurnool, Chittoor, Anantapur). In AP also Covid-19 pandemic spread across the all districts excludes Vijayanagaram. Hence Vijayanagaram district is called “No Corona Free District”. In AP, the total corona positive cases are 1463, recovery or discharged cases are 403 and 33 people have died here as per latest data as on date May 01, 2020. In Andhra Pradesh out of 13 districts mainly highly drought affected districts are Kurnool, Prakasam, Chittoor, Anantapuram, Kadapa. However, the research study is mainly focused on drought affected districts for evaluating of impacts of Covid-19 on agri farmers in Andhra Pradesh.

In these five districts the corona virus disease cases are more compare to other districts except Krishna and Guntur. Fifty percent cases are recorded only from Kurnool and Guntur districts. Most affected district is Kurnool. In Kurnool the Covid-19 cases are increases day by day. The Kurnool occupies fourth place in corona cases increase percentage point of view in entire India. (Lasania, 2020)

**Cases in INDIA as on date: 01-05-2020:**

Total cases	Total deaths	Total cured	
	35043	1147	8889
Name of State / UT	No. of cases	Deaths	Cured
Andaman and Nicobar Islands	33	0	16
<b>Andhra Pradesh</b>	<b>1403</b>	<b>31</b>	<b>321</b>
Arunachal Pradesh	1	0	1
Assam	42	1	29
Bihar	418	2	82
Chandigarh	56	0	17
Chhattisgarh	40	0	36
Delhi	3515	59	1094
Goa	7	0	7
Gujarat	4395	214	613
Haryana	313	3	209

Himachal Pradesh	40	1	28
Jammu and Kashmir	614	8	216
Jharkhand	109	3	20
Karnataka	565	21	229
Kerala	497	4	383
Ladakh	22	0	16
Madhya Pradesh	2660	137	482
Maharashtra	10,498	459	1,773
Manipur	2	0	2
Meghalaya	12	1	0
Mizoram	1	0	0
Nagaland	0	0	0
Odisha	142	1	39
Puducherry	8	0	5
Punjab	357	19	90
Rajasthan	2584	58	836
Tamil Nadu	2,323	27	1258
Telangana	1038	26	397
Tripura	2	0	2
Uttar Pradesh	2203	39	513
Uttarakhand	57	0	36
West Bengal	795	33	139
Unassigned	291		
Total	35043	1147	8889

Data source: Ministry of Health and Family Welfare

**Objectives: -**

The main objectives of the study are;

- To evaluate the impacts of covid-19 on agriculture farmers in drought affected districts of Andhra Pradesh,
- To examine the causes for spreading of covid-19 pandemic virus,

- To examine what are the measures/precautions taken for covid-19 by the government of Andhra Pradesh for to prevent and contain the spread of the virus.
- To explain what are the precautions to be follow to people during covid-19 pandemic.

#### **Research methodology:**

The research study uses primary as well as secondary data of research. The primary data is collect from the farmers through telephone interview and direct contact of some of the farmers in free zone areas and as well as the other secondary sources of data collecting from journals, books, official's websites etc.

#### **Review of literature: -**

Andhra Pradesh is one of the states in India. In AP, the Covid-19 is spread across the all districts except Vijayanagaram. The most affected Covid-19 districts are Kurnool, Kadapa, Guntur, Krishna, Anantapuram, Chittoor and Prakasam dist etc. In vijayanagaram District no one case is identified hence this district is called "No Free Corona Virus District".

The Covid-19 pandemic is started from Wuhan in China from a lady vendor in fish market. It causes illnesses of the respiratory tract, ranging from the common cold to severe conditions like SARS. According to the World Health Organization (WHO), a novel corona virus (nCoV) is a new strain that has not been previously identified in humans. (Business standard.com)

#### **What is the difference between Corona virus and Covid-19?**

Covid-19 is the disease caused by the novel coronavirus, which originated from China's Wuhan. World Health Organization (WHO) named the novel coronavirus "Covid-19" on February. "Co" stands for "corona", "vi" for "virus" and "d" for "disease", while "19" was for the year, as the outbreak was first identified on December 31.

According to the WHO, "there are different procedures, and purposes, for naming viruses and diseases. "Viruses are named based on their genetic structure to facilitate the development of diagnostic tests, vaccines and medicines." Viruses are named by the International Committee on Taxonomy of Viruses (ICTV). This particular virus was named "severe acute respiratory coronavirus 2" – or SARS-CoV-2.

The WHO says that "from a risk communications perspective, using the name SARS can have unintended consequences in terms of creating unnecessary fear for some populations, especially in Asia which was worst affected by the SARS outbreak in 2003". Hence, the name 'Covid-19 virus' was given.

#### **Is there a vaccine for Corona virus?**

There is no specific treatment for corona virus, and no vaccine to prevent it.

#### **Plasma therapy is a possible treatment for corona virus?**

There is no specific treatment for corona but most of the doctors around the world are dusting off a century-old treatment for infections: Infusion of blood plasma teeming with immune molecules that might help survivors beat the infection. Convalescent plasma is an experimental procedure for corona virus patients.

#### **What are the precautions for Corona virus?**

- Wash your hands thoroughly with soap regularly
- Avoid touching your eyes, nose, or mouth with unclean hands
- Avoid close contact with people who are sick
- Avoid public gatherings
- Follow Social distance
- Wear masks at any time.

#### **Top ten States with the highest number of COVID-19 cases as on date 27-4-2020:**

The covid -19 cases in INDIA are increasing day by day. The thousands of people are infecting on a daily basis by covid-19. In several states the condition is worse. As per the latest official data from the Govt of India, the total number of COVID-19 positive cases has crossed 23,000-mark, there are four states which are on top and have the bulk of these infected patients. They are; Maharashtra (6430), Gujarat (2624), Delhi (2376), Rajasthan (2000), Madhya Pradesh (1699), Tamilnadu (1683), Uttar Pradesh (1510), Telangana (960), ANDHRA PRADESH (895), Kerala (447). Andhra Pradesh state got 9<sup>th</sup> place in Corona Cases.

**STATUS OF COVID-19 IN ANDHRA PRADESH: -**

The present study analyzes the impact of covid-19 on agriculture sector in drought affected districts in Andhra Pradesh. Andhra Pradesh Is One of the States in India. Andhra Pradesh Capital Is Amaravati, Guntur Dist. In AP, the first Corona case (Covid-19) identified at Nellore Dist. A man came from Italy to Nellore dist on March 12, 2020 tested and declared positive case- The Medical and Health Department Said in Amaravati On Thursday 12, 2020. The person developed dry cough and he was admitted to the isolation ward in the Government Hospital at Nellore on his return from the European Nation on March 6. "Tests On His Blood Samples At The Virology Lab In Sri Venkateswara Institute Of Medical Sciences In Tirupati Confirmed Positive For Covid-19," The Health Department Said In A Release.(TODAY, MARCH 12, 2020).

In Andhra Pradesh total districts are 13. In AP, the total corona positive cases are 1463, recovery or discharged cases are 403 and 33 people have died here as per latest data as on date May 01, 2020. In AP, total 13(Srikakulam, Vijayanagaram, Visakhapatnam, West Godavari, East Godavari, Krishna, Guntur, Prakasam, Nellore, Kadapa, Kurnool, Chittoor, Ananatapur) districts are there out of 13 districts 12 districts are corona affected, only one district no corona free district identified i.e. vijayanagaram. Among these districts highly affected districts are Kurnool, Krishna, Guntur, Chittoor and Ananatapuram, Kadapa. In these districts some drought affected districts also there. The research study mainly focused on impacts on agriculture in drought affected districts along with other districts. The following table shows corona virus cases status as district wise as on date 01-05-2020.

**ANDHRA PRADESH STATE -DISTRICT WISE COVID-19 CASES REPORT AS ON DATE: 01-05-2020**

Name of the District	Confirmed Cases	Cured/ Discharged	Deceased
Ananthapur	67	22	4
Chittoor	80	22	0
East Godavari	42	17	0
Guntur	306	97	8
Kadapa	79	37	0
Krishna	246	37	8
Kurnool	411	66	10
Nellore	84	43	3
Prakasam	60	23	0
Srikakulam	5	0	0

Visakhapatnam	25	20	0
Vizianagaram	0	0	0
West Godavari	58	19	0
<b>Total</b>	<b>1463</b>	<b>403</b>	<b>33</b>

Source: <http://hmfw.ap.gov.in/index.aspx>

The above red marked districts are drought affected districts in Andhra Pradesh. Among the drought districts, highest cases identified in Kurnool dist (411), followed by Chittoor (80), Kadapa (79), Anantapur (67) and Prakasam cases-60. Separately the below table shows that drought affected districts corona cases report as on date May,01,2020.

Name of the District	Confirmed Cases	Cured/ Discharged	Deceased
Ananthapur	67	22	4
Chittoor	80	22	0
Kadapa	79	37	0
Kurnool	411	66	10
Prakasam	60	23	0
<b>Total</b>	<b>697</b>	<b>170</b>	<b>14</b>

Source: <http://hmfw.ap.gov.in/index.aspx>

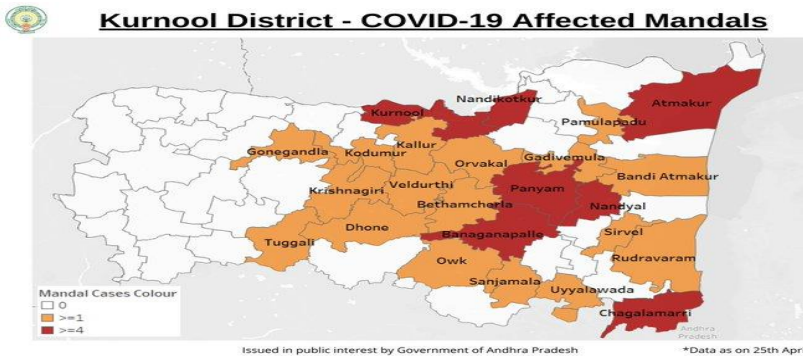
Kurnool and Guntur districts have maximum number of corona cases in the state (india, 2020). The first baby corona case was identified at Kurnool district and whose family member returned from the Tablighi Jamaat congregation in New Delhi on March 15,2020. At the same time, while the oldest, an 85-year-old woman in Anantapuram district affected corona pandemic has recovered and been discharged on April, 2020. In Andhra Pradesh 50% of Covid-19 cases are from Kurnool and Guntur Districts. (Lasania, 2020). Many of the cases that are identified in these districts are essentially people who are secondary contacts of those who had attended the Markaz Nizamuddin in March, 15, 2020 in New Delhi. (EXPRESS, 2020)

**Covid-19 worst affected drought Mandals in AP- District Wise Details:**

As a part of the Anti-Covid-19 measures, the AP state Government has released data on the worst affected mandals in each district of the state. This research study is taken only for drought affected districts data for evaluation of impacts on covid-19 on agriculture farmers. The following can be seen at the drought affects district –wise worst affected mandals in AP.

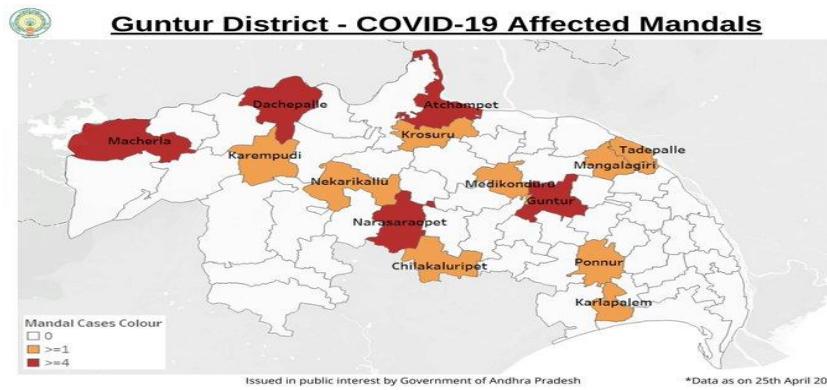
**1) Kurnool:** Kurnool reported a total of 292 cases till Monday. Currently there are 252 active cases in the district and 31 patients discharged. Nine deaths were reported till now.

**Worst Affected Mandals:** Kurnool, Pan yam, Nadikotkuru, Banagalapalli, Nandayal, Atmakur, and Chagalamarri etc.,



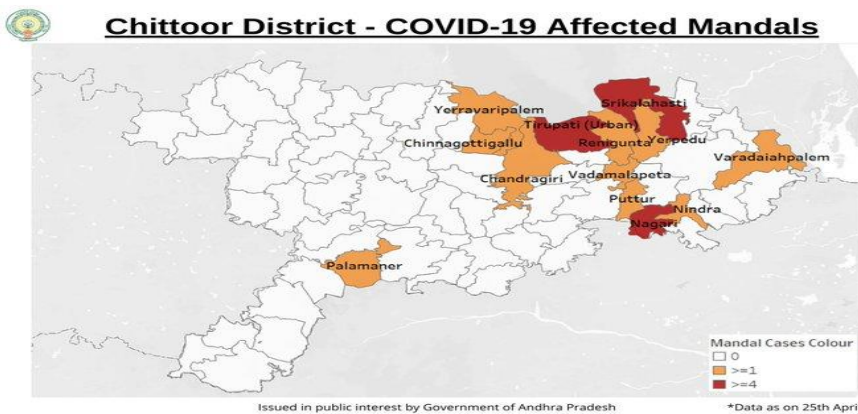
**2) Guntur:** Guntur reported 237 cases till Monday. Till now, there are 200 active cases in the district. 29 patients were discharged from the hospitals. Eight deaths were reported till now.

**Worst Affected Mandals:** - Macherla, Dachepalli, Atchampet, Narasaraopet, Guntur etc.,



**3) Chittoor:** Krishna reported a total of 73 cases till Monday. There are 57 active cases in the district and 16 patients were discharged. No deaths reported till now.

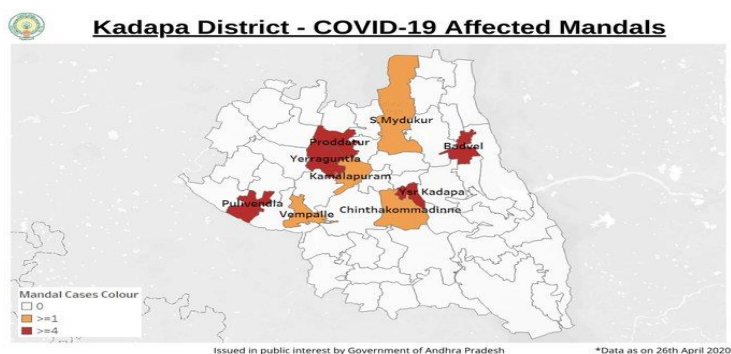
**Worst Affected Mandals:-** Tirupati(urban), Srikalahasti, Nagari etc.,



**4) Kadapa:** Kadapa reported a total of 58 cases till Monday. Currently there are 30 active cases in the district and 28 patients were discharged. No deaths were reported till now.

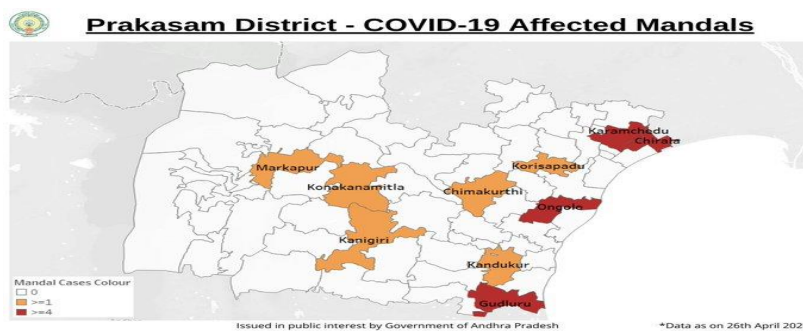
**Worst Affected Mandals:**





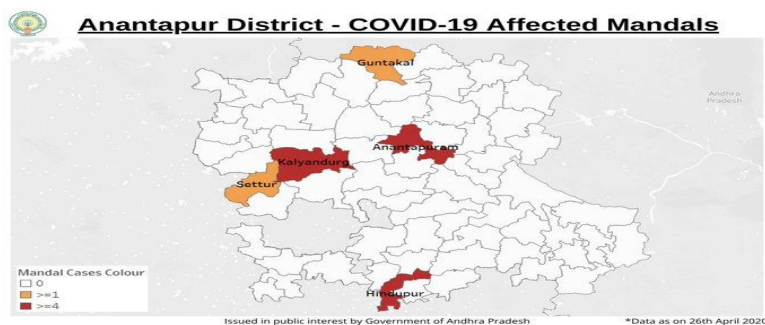
5) **Prakasam:** Prakasam recorded a total of 56 cases till Monday. Currently there are 33 active cases in the district while 23 patients were discharged. No deaths were reported till now.

**Worst Affected Mandals**



6) **Anantapur:** Anantapur reported a total of 53 cases till Monday. Currently, there are 35 active cases in the district and 14 patients had been discharged. Four deaths were reported till now.

**Worst Affected Mandals: -**



**IMPACTS OF COVID-19 ON AGRICULTURE FARMERS IN DROUGHT AFFECTED DISTRICTS IN AP:**

The Covid-19 impact fallen on Andhra Pradesh State also. In AP, the covid-19 cases are increases day by day. The corona virus cases in AP are 2452, recovered 1680 and dead 54 as on date 22.05.2020. There are 718 active cases of Corona virus in AP. A Majority of the cases are from Kurnool, Guntur, Nellore and Krishna districts. Mostly 50% of the cases came from Kurnool and Guntur districts. Andhra Pradesh Government is announced that Kurnool and Guntur districts are emerged as two major hotspots of Covid-19. The virus spread high in these districts mainly for due to secondary contacts of those who had attended the Markaz Nizamuddins religious congregation in New Delhi. So far, Kurnool alone has accounted for 343 (25.7%) of the total covid-19 cases in AP, while 283 cases were reported from Guntur. In other drought affected districts corona cases also increased day by day. Together, both the districts in AP account for 46% of all the Covid-19 cases that have been reported in the state.

The central government announced to Nationwide follow a Janata Curphew on March 22 ,2020 and again announced to strictly follow all Nationwide lack down from March 24 onwards to the across in India for control of corona virus disease. The central government is increases the lock down period step by step. The central government is announced nationwide lock down status shown below;



March 22,	-	Janata Curphew,
March 24 to April 14	-	First time lock down to Nationwide
April 14 to May 3	-	Second time lock down
May 3 to May 17	-	Third time lock down
May 17 to May 31	-	Fourth time lock down.
May 31 to June 30	-	Fifth Time lockdown continued

Due to Covid-19 pandemic in AP, the agriculture farmers facing lot of problems. The farmer's woes and Problems illustrate below;

#### **FARMERS' WOES IN AP DURING COVID-19 LOCKDOWN PERIOD:**

This research study evaluates the impacts of covid-19 on agriculture farmers in drought affected districts. The study taken only five drought affected districts in AP for evaluating the impacts of Covid-19 on agriculture farmers. They are Kurnool, Kadapa, Chittoor, Prakasam and Anantapuram. Farmer's woes in AP during Covid-19 lockdown period illustrate below;

##### **1. Kurnool district farmer's woes:**

It is one of the drought & Covid-19 affected districts of AP. In Kurnool district, positive Covid-19 cases are increases day by day. The present covid-19 cases in Kurnool as on date 22.5.2020 is 700. In Kurnool district, the farmers lost crops are onions, tomato and Vegetables.

**In Covid-19 hotspot Kurnool losses mount for ONION farmers.** In Kurnool district, hundreds of onion farmers face uncertain future and imminent losses. The national lockdown and the subsequent declaration of several areas in Kurnool, including Kurnool town as "Containment Zones" to curb the spread of corona virus has broken their supply chain. The disruption in the supply chain has led to a significant fall in onion prices.

Now, Kurnool has harvested onions in 1500 hectares of land and farmers are insecure of what to do with the produce. "Two weeks ago, onions were sold for Rs **4,000 per quintal. Now, the prices have dropped to Rs 600 per quintal," laments Chandra** Uliveni, a farmer from Hosur village in Pattikonda Mandal.

Chandra has sold 260 bags of onions. He cultivated onions in one-and-a-half-acre by incurring an expenditure of Rs 1.5 lakh. "After selling the produce at such a low price, I could only meet the transportation expense," Chandra says. Keshappa spent nearly Rs **3 lakh as production cost.**

Farmers from Kurnool usually sell onions at the Tadepalligudem market yard. However, as markets have refused to buy the produce, farmers have been forced to sell them at rythu bazaars— farmers' market that eliminates the role of the middlemen.

**However, eight places in Kurnool— Kurnool Town, Nandyal, Kodumuru, Nandikotkuru, Banaganapalle, Atmakur, Gadamemula, Paanyam and Auku-** have been declared 'containment zones'. As a result, a strict lockdown has been imposed and the rythu bazaar in Kurnool town has been shut.

While farmers seek the intervention of the government to address the crisis, the government is yet to act. "**With Rs 600 (per quintal), we can't even recover our expenditure. We should earn at least Rs 2,000 per quintal** to sustain ourselves," Chandra says.

Speaking to TNM, Raghunath Reddy, Assistant Director (AD) of Horticulture, Kurnool, says, "This is peak season for onion harvesting. Though the demand would be less during this season due to supply of onions from Gujarat and Maharashtra, the present rates are too low.

One more crop i.e., **TOMATOES** dump into market yard by farmers over low prices produce in Kurnool. (Shree, 2020)

Farmers at the Pathikonda market yard in Kurnool district dumped the tomato produce in protest over the price drop on tomatoes. The farmers were getting **only Rs 1 per Kg** which is grossly insufficient to

the farmers. But in market Present Tomato rate per Kg is 20/-. The severe price drop is way too low compared to their input costs.

**2. Prakasam district farmer's woes:** It is one of the covid-19 and drought affected districts of AP. In Prakasam district farmers cultivated crops are Mirchi or chillies, cotton, castor oil, Tobacco, red grams, Sun flower, Pulses and Vegetables like Tomato, Mesta, Lettuce, Mentikura etc., the district farmer's facing the following woes during Covid-19 during lockdown period. In Prakasam district **TOBACCO** farmers are facing lot of woes during Covid-19. The farmers are a worried lot as the ongoing tobacco purchase auction got stalled from March 21 to 31 due to Corona effect. The tobacco farmers are starting at losses as most of their quality tobacco leaf bales may get spoiled as the purchases have been stalled up to March 31.

As per official information, this year only four or five big companies are regularly attending the tobacco auctions at all 10 auction centres in the district. However, even those companies are not buying their entire quota from the farmers; instead they are rejecting many tobacco bales brought by the farmers branding those as substandard. As a result of this, the farmers are suffering huge losses.

**This season only 90 million quintals of Tobacco should be purchased from our region. But, since the beginning they are purchasing only 15 to 20 percent of their daily target.** Moreover, the buyers are rejecting more number of tobacco bales, brought by the farmers saying that quality wise those bales are not up to the mark. Mannam Srinivasa Rao, a tobacco farmer from Tangutur Mandal said every day buyers are rejecting over 40 per cent of bales.

For the last two years, tobacco farmers incurring losses and moreover with the ongoing COVID-19 outbreak, they may suffer more losses this year.

The tobacco purchasing firms are not offering good rates to farmer's crops and have also dampened the spirits of the farmers. The fact that this year the tobacco purchasing firms are not offering good rates has also dampened the spirits of farmers. The impact of Covid-19 outbreak would be there on tobacco purchases and exports this year.

However, Yadlapati Raghunath Babu, Tobacco Board chairman said so far there was no adverse impact of COVID-19 on the tobacco sector.

#### **Kadapa district farmer's woes:**

The Gollapalle farmers of YSR Kadapa district dumped **the vegetables and other crops** Kadapa. The farmers of Gollapalle in YSR Kadapa district dumped the vegetables and other crops they have grown on the road in the village as the police refused to give permission to sell their produce in the market.

While the consumers in cities and towns are making a beeline to the markets to buy vegetables in the wake of lockdown imposed due to Covid-19, the farmers in villages are struggling to sell their products due to police restrictions.

On Wednesday, in the wee hours, a group of farmers, along with their produce (various kinds of vegetables) were travelling in two trucks from Gollapalle village to sell their vegetables at the nearby market. However, the police stopped the vehicles and they didn't allow the farmers to go the market citing restrictions. (NETWORK, MAY 6, 2020)

#### **Chittoor district farmer's woes:**

In Rayalaseema, Horticulture is the important occupation. The Rayalaseema is made up of the districts of Anantapur, Kurnool, Chittoor, and Kadapa. Horticulture **comprises 14% and 20%** percent of the total area under cultivation in Chittoor and Kadapa. Due to the Covid-19 pandemic has proved to be costly for mango farmers of Andhra Pradesh's drought hit rayalaseema region. In Rayalaseema farmers are grow banana, sweet lime, water melon, musk melon and mango. Mango is an important horticulture crop of Chittoor and Rayalseema Region. **Chittoor comprises 48% and Anantapur 27% total** are under

horticulture cultivation. **Especially the TOTAPURI variety 80% of the fruit goes into making pulp.** (Mohan, 2020)

However, national level lockdown has improved to the woes of mango farmers in the area. In Chittoor district, farmers have been suffering for the last two years with a glut in mangoes and the consequent fall in rates in 2018 and a drastic fall in crop in 2019.

The farmers are facing lot of problems during covid-19 and there will be less fruit this year. **The 3.5 to 4 lakh metric tons of mango crop in Chittoor district this year.** In Chittoor district the climatic conditions are not favorable hence the mango fruits flowering is not good.

In the absence of lab, us from outside, they say the plants cannot run to their capacity due to covid-19.

**Other problems of Chittoor district: -**

- Packing Material transfer to outside problems
- Lack of labor stalks the aqua, fruit pulp and other industries.
- Lack of Transport facility
- Lack of marketing facilities. (Mohan, 2020)

**Anatapuram district farmer's woes:**

Drought – prone districts like Anantapur and Kadapa farmers are fallen as they are finding it difficult to sell their produce. In rabi season Banana is the main production in Andhra Pradesh is expected to be around **27 lakh metric tons and 70 percent of the produce is** exported to other states, with Lucknow, Delhi and other cities in northern states being the main markets. However, with the lockdown, almost all the markets are now closed.

Due to lack of farmhands, I have not harvested the crop and now with no market, **I am looking at losses of Rs 1.5 lakh.** I took loans of Rs 1 lakh and now I might not be in a position to repay Gotham, a farmer in Nutimadugu village, Anantapur district.

**Andhra Pradesh State's other districts farmer's woes:** The following are the main AP state's other districts farmer's woes.

- Horticulture and agriculture crops in several thousand hectares damaged. Paddy, harvested in some places and ready to harvest in other places also.
- The worst hit while Chilli, Mango, Banana, Maize, Tobacco, Onions and other crops too suffered substantial damage in Kadapa, Kurnool, Prakasam, Nellore, Guntur, Krishna, West Godavari, East Godavari and Srikakulam Districts.
- Over 20,000 hectares in many districts was badly hit by the untimely rain- Agriculture Department Said.
- In Krishna district paddy crop alone in over 9700 hectares was damaged and West Godavari district the paddy damage was spread over 6600 ha
- In SPS Nellore and West Godavari districts, ready-to-harvest mango is now almost lost because of the gale storm.
- In Kadapa, Kurnool, Nellore and West Godavari districts suffered extensive damage as trees were uprooted.
- In Krishna, Guntur and Prakasam districts, Chilli crop suffered severe damage.
- At many places, the harvested Chilli was left in the yards for drying up and the sudden rain left it soaked.
- In Srikakulam district, Cashew, Sunflower and Green gram are damaged.

- The the extent of damage occurred to each crop in each district –official reports said. (DBV APPRAVINDRANATH)
- Dairy Farmers and Milk Vendor facing Losses Amid Lockdown Kadapa (Video)- (XYZ, 2020,MAY,4)

#### **EXPERT DISCUSSES EFFECTS OF COVID-19 PANDEMIC ON AGRICULTURE: -**

The Covid-19 pandemic is significant effect on the world marketplace. Production losses, changes in purchasing habits and job have put a strain on the economy. The agriculture industry should be able to handle in short period but the longer it affects more. A long term shutdown it affects some commodities, such as cotton more because consumers will shy away from purchases that can be delayed on products such as home textiles and cloths. (Darren Hudson, 2020). They following points illustrate the impact of Covid-19 on agri sector.

1. Our food supply chain system is quite resilient. Due to Covid-19 the all systems have weakness we should understand. The first is labor, farm labor, labor in processing facilities, trucking; retailing etc. further closing borders in response to this pandemic exacerbates this problem.
2. Food demand changes will strain the system. While Covid-19 food supplies are ample. There is a wrong channel; it impacts to be affects on long run.
3. The commodity markets currently are a wreck. Current prices on futures exchanges are insufficient to cover the costs of production for farmers, making it hard to gain financing to plant crops.
4. The lack of profitability can be overcome in the short run through government programs but will damage the long-term viability of farms if markets do not return to some sense of normalcy.
5. In short run covid-19 impact on agriculture not much. But in long run it impacts on agriculture more because Government programs that will most likely be enacted will protect non farm labor to some extent, in the sense there will be fewer options for that labor to shift to agriculture needs. But the bigger impacts will be if immigration is curtailed significantly shrinks the available labor pool. While agriculture is rural and may be more isolated from widespread infection, there are also fewer people so that any widespread illness could impact the labor pool.
6. No, not really. If we imported the food products like fruits and vegetables etc that may be impacted due to labor shortages. For example, California, in that country fruits and vegetables are produce a good bit but imports are not taken place in India due to Covid-19 lockdown. Again the extent of the impacts depends on location and severity, immigration disruptions and duration the virus' impacts.
7. The grocery stores are because of acute demand. That is, everyone rushed stores for supplies in a short time period. This was happening to all over, stores have struggled to restock because shipments have been limited by wholesalers to spread supplies. This is not because we have limited supplies, but because demand exceeded supply at a particular point in time that was unanticipated.
8. Primarily from the labor point of view, a lock down of duration that is 6 to 8 months will strain agriculture. We do not want to overwhelm the food system for a long time. But I have full faith in our system to perform as needed and sustain us through this trying time.
9. Right now, there appears to be no reason to expect this will significantly impact planting season, either non-food products or food products. But we need the markets to stabilize.
10. Due to covid-19 all companies as well as agriculture companies also being impacted, but in terms of market capitalization. But the right now agriculture companies have traditionally been more financially conservative, but long run it impacts more. (Darren Hudson, 2020)

**Addressing COVID-19 impacts on agriculture, food security, and livelihoods in India – by Prof. Mahendra Dev, an experienced academic and policy maker in India and John McDermott, (Series Co-editor and Director CGLAR Research Program on Agriculture for Nutrition and Health, India) has given the precarious**

livelihoods of many Indians, agriculture, food security, and safety net policy etc. The COVID-19 pandemic is spread across the India, massive consequences to health and livelihoods are feared, and the government has imposed a 21-day national lockdown to limit virus transmission. According to Prof. Mahendra Dev and John Due to covid-19 the following sectors are impacted i.e., agriculture, food security and livelihoods. The economic shock will likely be much more severe of India, for two reasons.

1. Pre-COVID-19, the economy was already slowing down, compounding existing problems of unemployment, low incomes, rural distress, malnutrition and widespread inequality.
2. India's large informal sector is particularly vulnerable. Out of the national total 465 million workers, around 91% (422 million) were informal workers in 2017-18. Lacking regular salaries or incomes, these agriculture, migrant, and other informal workers would be hardest-hit during the lockdown period.
3. Here, I focus on the likely impacts on agriculture, supply chains, food and nutrition security and livelihoods.
4. COVID-19 is disrupting some activities in agriculture and supply chains. Preliminary reports show that the non-availability of migrant labor is interrupting some harvesting activities, particularly in northwest India where wheat and pulses are being harvested. There are disruptions in supply chains because of transportation problems and other issues. Prices have declined for wheat, vegetables, and other crops, yet consumers are often paying more. Media reports show that the closure of hotels, restaurants, sweet shops, and tea shops during the lockdown is already depressing milk sales. Meanwhile, poultry farmers have been badly hit due to misinformation, particularly on social media, that chicken are the carriers of COVID-19.
5. COVID-19 is an unprecedented challenge for India; its large population and the economy's dependence on informal labor make lockdowns and other social distancing measures hugely disruptive. The central and state governments have recognized the challenge and responded aggressively—but this response should be just the beginning. India must be prepared to scale it up as events unfold, easing the economic impacts through even greater public program support and policies that keep markets functioning.

#### **Andhra Pradesh Government Response to the Covid-19 Pandemic (March 24, 2020 – April 14, 2020):**

The World Health Organization declared on March 11, 2020 the COVID-19 is to be a global pandemic disease. Hence the Central and State governments have announced the several policy decisions to prevent the virus in their respective states. In this regard, we illustrate some of the key measures taken by the Andhra Pradesh Government in this regard as of April 14, 2020.

As of April 14, 2020, there are 473 confirmed cases of COVID-19 in Andhra Pradesh. Of these, 14 patients have been cured or discharged and 9 have died.

**Movement Measures:** -The Govt of AP took the following measures for restricting the movement of people in the state to contain the spread of Covid-19.

1. On March 18 and 19, the Department of Health issued orders to close educational institutions and non-essential commercial establishments such as cinema halls, gyms, malls, and swimming pools until March 31. (Andhra Pradesh, 2020)
2. On March 22, the state announced a complete lockdown till March 31. Gathering of more than four people was prohibited at any public place. Establishments providing essential goods and services were excluded from the lockdown restrictions. This was followed by the central government's announcement on a 21-day country-wide lockdown starting March 25. On April 14, the Prime Minister announced the extension of lockdown till May 3, 2020. ([7] G.O.RT.No. 237, 2020.)

#### **Essential Goods and Services**

The state government exempted certain essential commodities and services such as fruits, vegetables, milk, groceries, public distribution system through Fair Price Shops, and medicines from the lockdown. It also formed the District Level Committees headed by Joint Collector for fixing and monitoring the prices of essential food items. On April 3, the government declared that all government and private health care and medical facilities will be considered as essential services for a period of six months. (Andhra Pradesh, 2020)

**Welfare Measures:** The state government has announced the following welfare measures for the people who are in distress due to the lockdown.

1. One kilogram of red gram dal, and the ration of rice for the month of April will be provided for free to all rice cardholders.
2. A one-time support of Rs 1,000 will be provided to all rice card holding families for buying essential commodities such as groceries and vegetables. ([7] G.O.RT.No. 237, 2020.)
3. The state government will provide free ration to NGOs running old age homes and child care institutions. This free ration will include 10 kg of rice and one kg of red gramdal per resident.
4. On March 31, the State Government directed the district administration to set up Special Shelter Centers in urban areas for providing food and shelter to the migrant workers and homeless in the state. (Andhra Pradesh, 2020)

**Health Measures:**

1. Andhra Pradesh Epidemic disease Covid-19 Regulations 2020 is released for containment of Covid-19 in the state. As per these regulations, both government and private hospitals must have dedicated covid-19 isolation facilities.
2. The Department of Health issued orders on March 25, for setting up a 100 bed quarantine centre in every constituency and 200 bed quarantine centre at the district level. On March 31, certain hospitals were designated as exclusive hospitals for creating Corona positive patients. These include: (i) four hospitals at the state level and (ii) 13 hospitals at district level (one hospital per district).
3. The AP Government issued an order on April 12, prohibiting the use and spitting of smokeless tobacco or chewable tobacco/non-tobacco product, sputum in public places.
4. The government announced 100% deferment of salaries of all the elected representatives of the state and 10% to 60% deferment for all the government employees of the state. Employees of the Medical and Health Department, Police Department, and sanitation workers employed in rural and urban local bodies are exempted from salary deferment.

The Andhra Pradesh Government is taking immediate action on Agriculture sector during Covid-19 Pandemic. However, in some of the districts the agriculture farmers are get losses on their crops. The following points are shows that the AP Government is taking measures on agriculture sector during Covid-19.

1. The most affected Covid-19 districts in AP are Kurnool, Kadapa, Nellore, Prakasam, Chittoor and Anantapuram. In these districts the farmers are lost their crops. The lost crops are Onions, Maize, Tobacco, Vegetables and various fruit crops like mango, lime, sweet lime, papaya and cashew etc get losses on their crops.
2. The AP government so far has opened 1280 purchase centers across the state during Covid-19.
3. AP government starts direct purchase of paddy from farmers amid Covid-19 lockdown time. Hence, the State's intervention provides platform for agriculture farmers to sell their Rabi Produce at assured Minimum Support Price (MSP) of respective crops as all market yards are shut. (Business standard.com)

4. The first day the farmers sold 4773 tons of their paddy at different government purchase centers across Chittoor, Nellore and West Godavari districts.
5. The AP government has also instructed to all the officials to see that no price fall happens because of inadequate marketing facility or movement.
6. The 40% of the total acreage in Andhra Pradesh occupies Horticulture crops.
7. Various fruit crops including mango, lime, sweet lime, papaya, cashew and among other crops are grown in an estimated 43 lakh acres while in the state Rabi Crop area 63 lakh. (Lasania, 2020)
8. The AP Chief Minister Y.S. Jagan Mohan Reddy has instructed the procurement agencies and departments to pay farmers within 48 hours from the date of purchase by crediting the money into their accounts.
9. The Telangana government also announced similar steps to purchase of Major Rabi crops from the farmers in the season.

#### **Central Government's Response to the COVID-19 Pandemic (Apr 13-20, 2020):**

As of April 20, 2020, there are 17,265 confirmed cases of COVID-19 in India. Since April 13, 8,113 new cases have been registered. Out of the confirmed cases so far, 2,547 patients have been cured/discharged and 543 have died. As the spread of COVID-19 has increased across India, the central government has continued to announce several policy decisions to contain the spread. In this blog, some of the key measures taken by the central government between April 13 and April 20, 2020.

Source: Ministry of Health and Family Welfare, PRS.

1. The lockdown period is extended until may 3,2020 by central government with certain relaxations taking force as of April 20,2020.
2. Certain areas within hotspots demarcated as containment zones. In these zones will be restricted except for essential services such as medical emergencies and law and order related activities.
3. The ministry of Home affairs has permitted the movement of stranded migrant lab our within the state in which they are stranded for work in activities permitted after the relaxation of the lockdown on April 20,2020. These activities include industrial work, manufacturing and construction.
4. The IMF counselor has estimated the cumulative loss over 2020-21 to global GDP due to the COVID-19 economic lockdown to be around 9 trillion dollars. To combat the economic impact of COVID-19 in India, the RBI has announced several additional measures. They are;
  - (i) reduction in reverse repo rate from 4% to 3.75%,
  - (ii) targeted long-term repo operations for an aggregate amount of Rs 50,000 crore,
  - (iii) refinancing of financial institutions such as National Bank for Agriculture and Rural Development, Small Industries Development Bank of India, and National Housing Bank for a total amount of Rs 50,000 crore to enable them to meet the financing needs of sectors they cater to. (Ram, 2020)
5. The economic impact of Covid-19, the RBI announced that banks shall not make any further dividend payouts from the profits pertaining to the financial year which ended on March 31, 2020.
6. RBI has announced an increase in the Ways and Means Advances (WMS) limits 60% for states and UTs. The revised limits will be in force between April 1 and September 30,2020.
7. The Central Government prohibited all domestic and international flights will not function until May 3, 2020.
8. The Ministry of Commerce and Industry has specified that formulations made of paracetamol may be freely exported from April 17, 2020 onwards. However, the export of paracetamol active pharmaceutical ingredients (APIs) will continue to be restricted. On March 3, 2020, the export of both formulations made of paracetamol and paracetamol APIs was restricted. (Ram, 2020)



9. Indian Council of Agricultural Research (ICAR) has also issued an agro-advisory to maintain hygiene and social distancing among farmers working on their fields.
10. The Government of India has announced that the first instalment of the PM-Kisan Yojana payment to farmers, i.e., Rs. 2,000 will be paid up front to farmers, benefitting over 8.7 crore Indian farmers. It has also announced that the wages under MGNREGS will be raised from Rs. 182 to Rs. 202 per day.
11. The Reserve Bank of India (RBI) has announced a moratorium on agricultural term loans (including crop loans) for a period of three months.
12. The central and state governments have done much to allay fears in the minds of farmers by quickly announcing exemptions for the agriculture sector – seeds, labourers and farm related activities. States such as Telangana, Punjab, Uttar Pradesh among others have been very proactive in this regard.
13. The Indian Railways has been roped in to ease transport logistics of agricultural produce.
14. The government has initiated a dialogue with the exporters of agri and allied commodities to gain a first-hand account of the problems being faced by the exporters of such commodities and initiate necessary steps by making meaningful interventions for early redressal of their problems.
15. The common issues highlighted by exporters of all agri commodities related to availability and movement of labour, inter-state transport bottlenecks, shortage of raw materials due to closure of mandis, phyto-sanitary certification, closure of courier services thereby, hampering movement of shipping documents, availability of freight services, access to ports/yards and clearance of goods for imports/exports is being worked out across levels.
16. Allowing critical agricultural activity, filling in gaps in agricultural supply chains and ensuring farmer's ease is imperative for the smooth functioning of the backbone of our economy. (Mohan D. , 2020)

**Role of ICAR:** A senior ICAR official said that, in India, Government agri –research body Indian Council of Agriculture Research (ICAR) is assessing the impact of Covid-19 lockdown on agriculture and allied sectors and taking measures to minimize its effect on the country's food sector. (ICAR, 2020) Along with the Central, State Governments have announced several policy decisions to prevent and contain the spread of the virus in their respective states. (Business standard.com)

In India, the Indian Council of Agricultural Research (ICAR) is the apex body. It is coordinating, managing research and education and guiding in agriculture in the entire country under the ministry of Agriculture and farmer's welfare. ICAR is preparing documents on the possible impact on agriculture and allied sectors and take control measures to minimize the negatives so that the food system remains unaffected. (ICAR, 2020)

Meanwhile, the ICAR had declared to use their all its guest house located in different states and places for quarantine use. The Bhopal-based National Institute of High Security Animal Diseases (NIHSAD), Bengaluru-based National Institute of Veterinary Epidemiology and Disease Informatics (NIVEDI), Izatnagar-based Indian Veterinary Research Institute and Hisar-based National Research Centre on Equines (NRCE)- have required facility to do COVID-19 tests- ICAR the official said.

Further ICAR official said that the above mentioned institutes are providing food and ensuring hygiene in nearby laborer colonies. It is also contributing one – day salary of its staff, amounting 6.06 crore to PM –CARES fund to combat Covid-19. (ICAR, 2020).

## **Data Analysis & Results:**

**Data analysis with using spss tool or other relevant tool**

## **Findings& suggestions:**

1. Our food supply chain system is quite resilient. Due to Covid-19 the all systems have weakness we should understand. The first is labor, farm labor, labor in processing facilities, trucking; retailing etc. further closing borders in response to this pandemic exacerbates this problem.
2. Food demand changes will strain the system. While Covid-19 food supplies are ample. There is a wrong channel; it impacts to be affects on long run.
3. The commodity markets currently are a wreck. Current prices on futures exchanges are insufficient to cover the costs of production for farmers, making it hard to gain financing to plant crops.
4. In short run covid-19 impact not much. But in long run it impacts because Government programs that will most likely be enacted will protect non farm labor to some extent, in the sense there will be fewer options for that labor to shift to agriculture needs. But the bigger impacts will be if immigration is curtailed significantly shrinks the available labor pool.
5. The covid-19 is **impacts depends on location and severity, immigration disruptions and duration the virus' impacts.**
6. The Indian government has quickly responded to the crisis and announced a \$22 billion relief package, which includes food and cash transfers. Several state governments have announced their own support packages. The central government's relief package, called *Pradhan Mantri Garib Kalyan Yojana* (Prime Minister's plan for well-being of the poor), is aimed at providing safety nets for those hit the hardest by the COVID-19 lockdown. Nobel Prize economist Esther Duflo and Abhijit Banerji say that the government announces the \$22 billion in spending is only 0.85% of India's GDP. This is much lower than the packages passed by the United States, European and some Asian countries. India should think bigger, and be spending at least 4% to 5% of GDP. The central and state governments must spend more, even if there is one-time hike in the fiscal deficit. (Ram, 2020)
7. Government warehouses are overflowing with 71 million tons of rice and wheat. In order to avoid exclusion errors, it is better to offer universal coverage of distribution in the next few months. In AP government is providing all welfare schemes to people at door step through village/ward volunteers called secretary system. (DEV, 2020)
8. The central government has provided Rs.500 per month to the bank accounts of 200 million women via the Jan Dhan financial inclusion program. But this too insufficient. We need to have minimum of Rs.3000 per month in cash transfers for the next three months. (DEV, 2020)
9. In recent days, global media have broadcast images of hundreds of thousands of migrant workers from several states trudging for miles and miles on highways; some walked more than 1000 kilometers to return to their home villages. They should be given both cash transfers and nutritious food. (DEV, 2020)
10. 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.
11. 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.
12. The government should promote trade by avoiding export bans and import restrictions.
13. COVID-19 is disrupting some activities in agriculture and supply chains. Preliminary reports show that the non-availability of migrant labor is interrupting some harvesting activities, particularly in northwest India where wheat and pulses are being harvested. There are disruptions in supply chains because of transportation problems and other issues. Prices have declined for wheat, vegetables, and other crops, yet consumers are often paying more. Media reports show that the closure of hotels, restaurants, sweet shops, and tea shops during the lockdown is already depressing milk sales. Meanwhile, poultry farmers have been badly hit due to misinformation, particularly on social media, that chicken are the carriers of COVID-19. (Darren Hudson, 2020)

14. The AP government has established many containment clusters across AP wherever Covid-19 cases have been detected.
15. The covid-19 pandemic more impacts on mango farmers, Tobacco, Chilli and Onion farmers. The farmers are not getting reasonable prices for their crops then they get lost. Even they don't get production cost of crops.
16. The fact that this year the tobacco purchasing firms are not offering good rates has also dampened the spirits of farmers. "The impact of Covid-19 outbreak would be there on tobacco purchases and exports this year. But we are hopeful that the situation may get better in a few days and our farmers may get better price for their produce," G Umamaheswara Rao, Tobacco Board (SBC) Regional Manager (RM) said. (Express, 2020)
17. Banana production in Andhra Pradesh during the rabi season is expected to be around **27 lakh metric tons and 70 per cent of the produce** is exported to other states, with Delhi, Lucknow and other cities in northern states being the main markets. However, with the lockdown, almost all the markets are now closed. "On our part, to minimize the losses of horticulture farmers, the state government has procured 80,000 metric tons and will continue to do so in the coming days," said Chiranjeevi Chowdary, horticulture commissioner. (Mohan G. R., 2020)
18. Union Health Ministry has activated a toll-free 24x7 national helpline number, 1075, to address queries related to the infection. Anyone seeking information can also call on the number 011-23978046. The helpline e-mail ID for Corona virus is [ncov2019@gmail.com](mailto:ncov2019@gmail.com)
19. Farmers should be incentivized to move away from cash crops (say, for a year or so) and towards food crops. "Food crops" largely consist of grains, pulses, cereals, legumes (including dried beans), seeds and nuts, vegetables, herbs and spices, etc at the same time, offer better prices to farmers in local areas for food crops. (NAYYAR, 2020)
20. Additionally, both, local and state governments must empower social organizations, NGOs and different civil society members (including RWAs) to be allowed direct procurement of supplies from local farmers/farmer producer organizations (FPOs) and then ensure a more orderly, localized distribution of cooked/pre-cooked food in/across communities to avoid any possibilities of human starvation, or lack of adequate nutritional supplies. (NAYYAR, 2020)
21. Increasing the allocations for direct transfer to farmers through PM Kisan and including everyone who is actively involved in farming irrespective of where (s)he owns a given piece of land or not, from Rs 6,000 to at least Rs 10,000 per farming family for this year (2020-21). (Mohan D. , 2020)
22. To set up mobile food vans to ensure food supplies are frequent more localized and involve direct procurement of diverse food basket from farmers within different states. (Mohan D. , 2020)
23. Lastly, it is extremely vital that those involved in the supply chain logistics are provided adequate amount of safety kits and protective gear to be able to ensure safe, orderly distribution of supplies at less risk of virus transmission to those employed in these operations. (Mohan D. , 2020)

**Acknowledgements:** - My heartfelt thanks to my parents and friends for their support and motivation to make successful completion of this research article. Along with my sincere gratitude to my research supervisor for his timely guidance, support and motivation to encouraged me to make success of this article.

#### **Conclusion:**

COVID-19 is an acronym that stands for **corona virus disease of 2019**. The pandemic is impacting global as well as domestic food systems especially agriculture sector. The WHO declared the COVID-19 disease to be a global pandemic. Along with the Central, State Governments have announced several policy decisions to prevent and contain the spread of the virus in their respective states. The present study focused the impacts of covid -19 on agri farmers in drought affected districts of Andhra Pradesh. In Andhra

Pradesh total districts are 13. In AP, the total corona positive cases are 1463, recovery or discharged cases are 403 and 33 people have died here as per latest data as on date May 01, 2020. Kurnool and Guntur districts have maximum number of corona cases in the state (india, 2020). The first baby corona case was identified at Kurnool district and whose family member returned from the Tablighi Jamaat congregation in New Delhi on March 15,2020. At the same time, while the oldest, an 85-year-old woman in Anantapuram district affected corona pandemic has recovered and been discharged on April, 2020. In Andhra Pradesh 50% of Covid-19 cases are from Kurnool and Guntur Districts. (Lasania, 2020). Many of the cases that are identified in these districts are essentially people who are secondary contacts of those who had attended the Markaz Nizamuddin in March, 15, 2020 in New Delhi. (EXPRESS, 2020)

The worst affected districts are Kurnool, Kadapa, Chittoor, Anantapuram, Guntur and Prakasam district. In these districts the farmers are facing lot of problems. Especially in Chittoor and Kurnool districts farmers' woes are undescribed situation. In Kurnool district, hundreds of onion farmers face uncertain future and imminent losses. Two weeks ago, onions were sold for Rs **4,000 per quintal. Now, the prices have dropped to Rs 600 per quintal," laments Chandra** Uliveni, a farmer from Hosur village in Pattikonda Mandal. Further the Tomatoo farmers also getting losses, previous they get Kg 40/- now they get Kg 1/- only. In Prakasam District, **This season only 90 million quintals of Tobacco should be purchased from our region. But, since the beginning they are purchasing only 15 to 20 percent of their daily target.** One more crop i.e., **TOMATOES** dump into market yard by farmers over low prices produce in Kurnool. **Chittoor comprises 48% and Anantapur 27% total** are under horticulture cultivation. **Especially the TOTAPURI variety 80% of the fruit goes into making pulp.** (Mohan, 2020). In Anantapur district, in rabi season Banana is the main production in Andhra Pradesh is expected to be around **27 lakh metric tons and 70 percent of the produce is** exported to other states, with Lucknow, Delhi and other cities in northern states being the main markets. However, with the lockdown, almost all the markets are now closed. Due to lack of farmhands, I have not harvested the crop and now with no market, **I am looking at losses of Rs 1.5 lakh.** I took loans of Rs 1 lakh and now I might not be in a position to repay Gotham, a farmer in Nutimadugu village, Anantapur district. In Krishna district paddy crop alone in over 9700 hectares was damaged and West Godavari district the paddy damage was spread over 6600 ha. The Gollapalle farmers of YSR Kadapa district dumped **the vegetables and other crops** Kadapa. In Krishna, Guntur and Prakasam districts, Chilli crop suffered severe damage. In Srikakulam district, Cashew, Sunflower and Green gram are damaged. Dairy Farmers and Milk Vendor facing Losses Amid Lockdown Kadapa (Video)- (XYZ, 2020,MAY,4). The fact that this year the tobacco purchasing firms are not offering good rates has also dampened the spirits of farmers. The farmers dumped their crops on roads for didn't get Minimum Support Price in Kurnool and Kadapa districts. In anantapuram district, the banana farmers also didn't get reasonable price due to Covid-19 lockdown.

Finally, the research study evaluates that Andhra Pradesh state farmers facing lot of problems during covid-19 pandemic. The farmers of each district faced ones of the respective crop problems in their crops. After evaluation of this study Kurnool, Chittoor, Krishna, Kadapa Anantapuram and Prakasam districts farmers are get more woes and farmers didn't get Minimum Support Price for their respective crops. The other districts like Srikakulam, West Godavari, and SPS Nellore farmers are facing woes but that not impact much more.

However, the officials said that the Covid-19 pandemic not adverse impacted on agriculture sector and we took precautionary measures at time to time for control and contain of crop losses crops.

#### References: -

1. (n.d.). Retrieved from Business standard.com.

2. [7] G.O.RT.No. 237, D. o. ( 2020., April 12,). G.O.RT.NO. 237.
3. Andhra Pradesh, D. o. (2020, MAY 22). [http://hmfw.ap.gov.in/covid\\_dashboard.aspx](http://hmfw.ap.gov.in/covid_dashboard.aspx). Retrieved 2020, from <http://hmfw.ap.gov.in>.
4. AP, G. O. ( 2020., March , 31). Department of Finance, Government of Andhra Pradesh, . G.O.Ms.No.:26.
5. AP, G. O. (2020, APRIL 4). G.O.Ms.No.:27, Department of Finance, Government of Andhra Pradesh, April 4, 2020.
6. *Compendium of Instructions, Department of Health, Medical and Family Welfare, Government of Andhra Pradesh,*. (2020, april). Retrieved from <http://hmfw.ap.gov.in/COVID-19%20IEC/COMPENDIUM%20OF%20INSTRUCTIONS%20-%20COVID19.pdf>.
7. Darren Hudson. (2020). *Expert Discusses effects of covid-19 pandemic on agriculture*. Texas, Tech university: Department of Agricultural and Applied Economics.
8. DEV, S. M.-e. (2020, APRIL 8). *IFPRI*. Retrieved from WWW.IFPRI.ORG.
9. EXPRESS, I. (2020). *COVID-19*.
10. Express, T. N. (2020). *Prakasam tobacco farmers stare at losses after auction date postponed due to coronavirus*.
11. [http://hmfw.ap.gov.in/covid\\_dashboard.aspx](http://hmfw.ap.gov.in/covid_dashboard.aspx). (2020, april 14). [1] *COVID-19: Andhra Pradesh, Department of Health, Medical and Family Welfare website, last accessed on April 14, 2020,*. Retrieved from [http://hmfw.ap.gov.in/covid\\_dashboard.aspx](http://hmfw.ap.gov.in/covid_dashboard.aspx).
12. <http://hmfw.ap.gov.in/COVID-19%20IEC/COMPENDIUM%20OF%20INSTRUCTIONS%20-%20COVID19>. (2020, march 24). <http://hmfw.ap.gov.in/>. Retrieved from <http://hmfw.ap.gov.in/COVID-19%20IEC/COMPENDIUM%20OF%20INSTRUCTIONS%20-%20COVID19>.
13. ICAR. (2020, 5 4). *ICAR,NEW DELHI*. Retrieved from ICAR: <http://icar.gov.in>
14. INDIA, G. O. (2020. april-14). "PM addresses the nation for 4th time in 4 Weeks in India's fight against COVID-19" Press Release, Prime Minister's office, April 14, 2020,?PRID=1614255. [Recorded by <https://pib.gov.in/PressReleaseDetail.aspx>]. AP.
15. india, P. t. (2020). Press trust of india.
16. Lasania, Y. Y. (2020). *Nearly 50% of Andhra's Covid-19 cases are from Kurnool and Guntur dists*. Guntur: Press Trust of India.
17. Mohan, D. (2020). *Four measures that can help farmers deal with the impact of Covid-19 lockdown*.
18. Mohan, G. R. (2020). *COVID-19: Bitter lockdown for Chittoor's mango growers*. [downtoearth.org.in](http://downtoearth.org.in).
19. NAYYAR, M. (2020). *COVID-19 and Agriculture: Strategies to mitigate farmers' distress*. BUSINESS STANDARD.
20. NETWORK, N. M. (MAY 6, 2020). *Angry farmers dump vegetables on road as AP police deny permit*. NEWS METER NETWORK.
21. [News.agropages.com](http://News.agropages.com). (April 14, 2020). *Across India, a massive agricultural crisis in the making due to coronavirus shutdown*.
22. R, A. N. (2020). *Andhra Pradesh Government's response to the COVID-19 pandemic*.
23. Ram, A. B. (2020). *Central government's response to the COVID-19 pandemic (Apr 13-20, 2020)*. standard business.com.
24. Shree, k. (2020). *Andhra govt intervenes after farmers dump tomatoes at market yard*. BUSINESS STANDARD.
25. TODAY, I. (MARCH 12, 2020). *First coronavirus case in Andhra Pradesh as man who returned from Italy tests positive*. AMARAVATHI, GUNTUR DIST: PRESS TRUST OF INDIA.
26. Vergnaud, D. S. (2020). *what does covid -19 stands for?* China: Business Standard.
27. XYZ, S. N. (2020,MAY,4). *Dairy Farmers and Milk Vendor facing Losses Amid Lockdown | Kadapa (Video) [Recorded by D. A. DISTRICT]. KADAPA, ANDHRA PRADESH, INDIA.*

