

IMPACT OF COVID-19 ON AGRICULTURE**Prof. Vinit Nimkar, Shridhar. B. Khambe & Sourabh.P. Dhongade***Department of Information and Technology, Changu Kana Thakur Arts, Commerce and Science College, New Panvel, Navi Mumbai.***Abstract:**

Sometimes we are surprised by circumstances occurring in our life just as we see that the entire world faced an extraordinary pandemic situation. In 2020 coronavirus started spreading worldwide during that time to stop the spread of coronavirus infection, many countries started lockdown. In India first case of covid-19 was reported in Kerala, on January 27, 2020. The first complete lockdown was declared on March 24, 2020, in the entire nation for 21 days. This lockdown impacted many sectors, through this research paper we mainly study its impact on agriculture, in this research, we synthesize good and bad impacts of lockdown on the agriculture sector, and also we collected data from farmers to show the impact of covid-19 on their life. We have collected all the data in those districts in Maharashtra where most farmers are affected, throughout our research we have shown how lockdown had impacted agriculture and what steps are needed to be taken for farmers to recover from these situations.

Keywords: *Impact on agriculture, farmers, Strict lockdown covid-19.*

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Introduction

India is an agricultural country, India's number of farmers recorded officially is from 90 million to almost 150 million. But if we see farmers, conditions are worst for many reasons, like climate changes, droughts, etc. Farmers experience problems because their needs are not completely met. Coronavirus spreading across the globe is a significant event during these times.

Because of this, we studied the impact of covid-19 on agriculture, every specific thing has its own positive and negative aspects so we have studied the impact of covid-19 on Indian agriculture's positive as well as negative impact. The year 2020-21 is bitter for all world because of the covid-19 pandemic and lockdown. The Indian economy was saved by the Indian agriculture sector during the financial year 2020-21 when all sectors faced a slowdown. Indian economy saw contraction for the first time since independence.

On 31 May 2021, the national statistical office released data showing that India's GDP rate is -6.16% when other sectors' growth rate was decreased, but the agricultural sector growth rate showed a positive increase by 3.63%. The reasons behind these were good monsoon, post-monsoon (October to December) Winter

(November to February), pre-monsoon (March to May) all seasons of 2019-20 were better. Another reason for the increased GDP rate in agriculture is, during the lockdown period the government of India set up PDS ration shops and other stores that sell food, groceries, fruits and vegetables, milk, meat and fish, animal fodder, seeds, and pesticides.

The main Impact of strict lockdown was on the demand side in the agriculture sector as the demand for agriculture products had decreased. Since many sources were closed during strict lockdowns such as hotels, restaurants, roadside eateries, bakeries, wedding receptions, and other public functions were canceled because of the pandemic, as a result, the demand-side was impacted. Normally if demand decreases, then the price decreases, but this is not happening with agriculture because of the policy of the Indian government. India government supported farmers, government policymakers analyzed the demand-side problem, then suggested the government make policies regarding the increase of demand. So Indian government increased procurement, the government started various schemes, the government increased MSP (minimum support price), also government started the PM-KISAN scheme through this scheme government sent money into farmer's bank accounts since the government has taken these measures the demand-side problem was sorted, and market demand for agriculture goods has increased.

These are some positive aspects of covid-19 on the agriculture sector, but we conducted the survey verbally so we understand some of the challenges farmers experienced like It was difficult for farmers to purchase farming related equipment from the market, farmers were unable to buy seeds in shops because of strict lockdown that's why food production was affected, also because of strict lockdown farmer faced a labor shortage, due to strict lockdown all the APMC(Agriculture Produce Market Committee) bhaji mandi's and other markets are closed that's why farmers income were affected, also farmers faced difficulties in transporting the goods from one place to another, that's why we decide to conduct the survey on those districts where strict lockdown is applied by government.

Literature Review:

Our study of the impact of covid-19 on agriculture is based on some articles or data gathered from the internet then we understand data is available based on a particular organization's point of view but researchers are not collecting data from ground level. During the study of the impact of covid-19 on agriculture, we have conducted a survey in those districts where the impact of covid-19 is worst. we collect data from Sangli, Satara, Kolhapur, Ratnagiri, states of Maharashtra.

In the first reference article, we study the impact of covid-19 on Indian agriculture written by AG Adeeth Cariappa, Kamlesh Kumar Acharya, Chaitanya Ashok Adhav, R Sendhil, P Ramasundaram [1]

In second reference article was written by S. Mahendra Dev from this article, we study addressing the covid-19 impact on agriculture [2]

The third reference article was published by Dailia Streimikiene, Thomus Balezentis, Artiom Volkov, Erika

Ribasauskiene, Mangirdas Morkunas and Agne Zickiene from this article we study the negative effects of covid-19 on agriculture [3]

The fourth reference article was published by Jasim Uddin Ahmed, Saifun Akter, Kausar Ahmed Majumder. From this article, we study the impact of covid-19 on agricultural production [4]

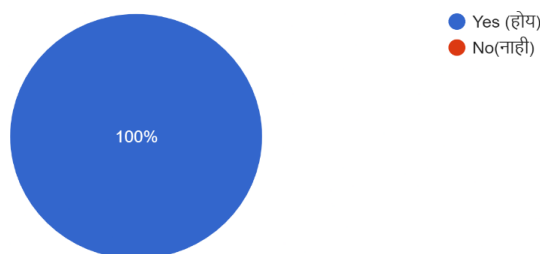
The fifth reference article was published by Emma C. Stephens, Guillaume Martin, Mark van Wijk, Jagadish Timsina, and Val Snow. Published online 2020 May 20. DOI: 10.1016/j.agry.2020.102873. from this article, we are studying the impact of covid-19 on agriculture and the food system [5]

Methodology:

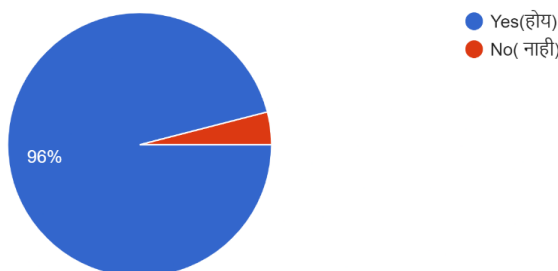
Primary data: In this phase, we conduct a survey in the area of the worst affected district of Maharashtra. We are conducting a survey online through google forms as well as we are conducting a survey through offline mode.

During the survey, we asked some of the following questions to farmers.

What is impact of covid-19 lockdown on your day to day life.?(लॉकडाऊनमुळे तुमच्या दैनंदिन जीवनावर काय परिणाम झाला का..?)
 51 responses



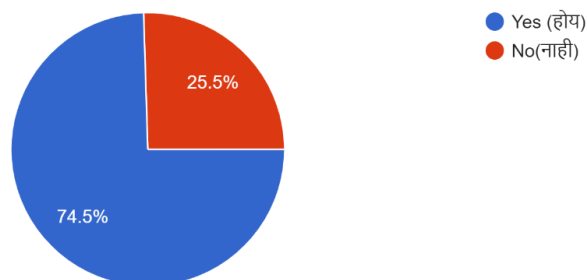
During lockdown,did you faced any difficulties in farming.?(लॉकडाऊनमुळे तुम्हाला शेतीकरण्यात काही अडथळे आले का...?)
 50 responses





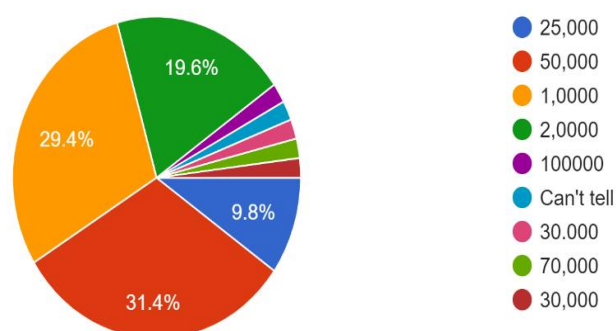
Did you face any difficulties doing business on the sideline during lockdown...?(जोडधंदा जैसे की दूध उत्पादन कुकुट पालन यासारख्या उद्योगांवर लॉकडाऊनचा काही परिणाम झाला का...?)

51 responses



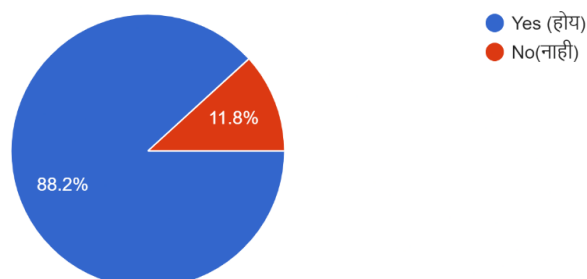
How many loss facing you during lockdown..?(लॉकडाऊन मुळे तुमचे किती नुकसान झाले...?)

51 responses



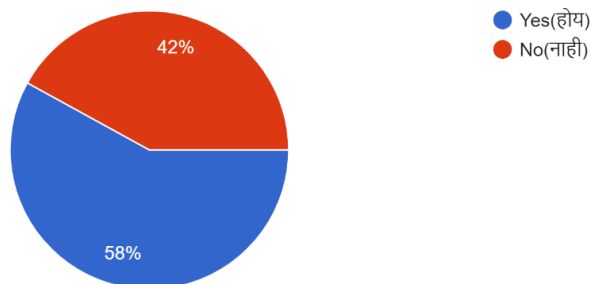
Did you take any loan because of sudden COVID situation...?(अचानक आलेल्या कोरोना परिस्थितीमुळे तुम्ही कर्ज घेतले का...?)

51 responses



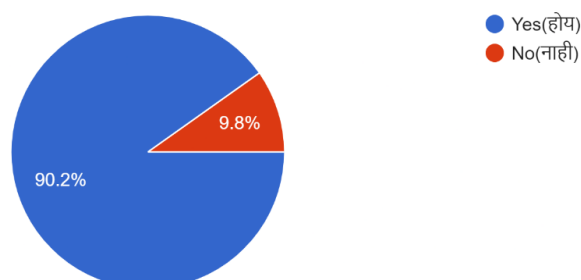
When chemical prices increase during lockdown then do you buy any chemical for crops...?(रासायनिक खतांच्या वाढलेल्या किमतीमुळे तुम्ही रासायनिक खते खरेदी केली का...?)

50 responses



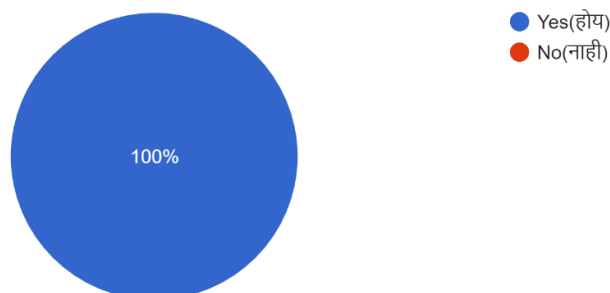
In lockdown did you face difficulties for finding labour work...?(लोकडॉनमुळे शेत मजूर मिळण्यास तुम्हाला काही त्रास झाला का...?)

51 responses



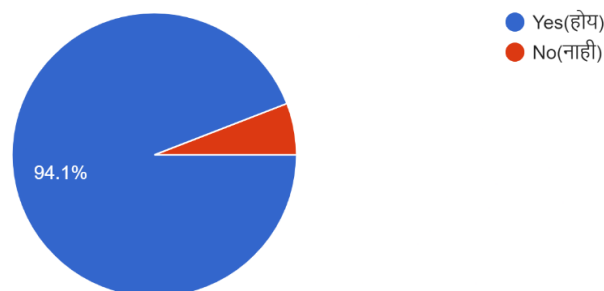
Did you experience any mental stress during lockdown...?(कोरोना परिस्थितीमुळे तुम्हाला काही मानसिक त्रास सहन करावा लागला का...?)

51 responses



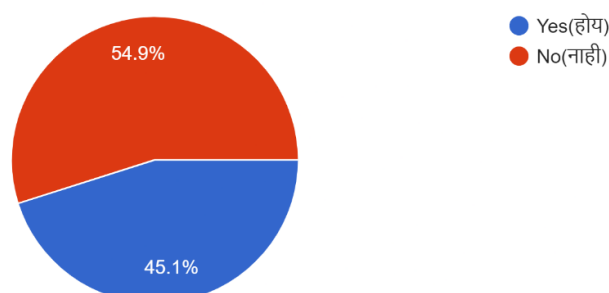
Did you face any difficulties because of climate change...?(वातावरणातील झालेल्या बदलामुळे त्याचा तुमचा शेतातील पिकांवर काय परिणाम झाला का...?)

51 responses



Do you sell any agriculture products during lockdown...?(कोरोना काळात तुम्ही शेतीमाल विकला का)

51 responses



Secondary data: Study of the impact of covid-19 on agriculture we collect primary data from some articles and newspapers as well as some research papers during that time we are understanding what methods were done by researchers and which types of analysis were done by researchers. During this study we understand researchers are not collecting data from the ground level so we are decided, to collect data from the ground level and study how covid-19 impacts farmers' life.

Result and Discussion:

During the lockdown, we read a lot of articles in newspapers and blogs on the agriculture sector, saving the economy, and stuff. Articles mentioned that all sectors were going to slow down because of pandemics and strict lockdowns etc, the agriculture sector saves the Indian economy, but in reality, farmers are facing many hardships because of this lockdown, we think that the agriculture sector saves the Indian economy and stuff, but ironically farmers are facing many difficulties. We are often confused regarding the news that we hear, see and read so we don't understand what is actually happening in the current situation. So, we have decided to study what is happening with farmers, that's why we have selected this topic.

During the discussion phase, we communicated with some farmers to understand what is actually happening and which difficulties are faced by the farmer and we are also curious to understand the truth behind the agriculture sector growth.

Conclusions:

As per our survey on small groups of farmers. We were able to understand lockdown affected farmers, their daily routines as well as difficulties faced by farmers in their daily farming work. Lockdown affected farmers' sideline businesses as well, many farmers lost 30k to 2,0000 because of the lockdown.

Agricultural products cannot be sold in the market due to the lockdown situation; this scenario had forced farmers to take loans from banks. Farmers are getting loans from banks, but they face frustration. Farmers are not buying chemical fertilizers due to the increased price of chemicals and fertilizers. Moreover, farmers have difficulty finding workers for doing farming-related work. In this survey, we are noticing some of these problems.

As we study the impact of covid-19 on agriculture, we understand that in the agricultural sector, India's GDP rate is good and the agriculture sector saves the Indian economy, but farmers face more difficulties than normal due to lockdown, demand side presents difficulties for farmers, However, during that period of time the Government of India gave farmers relief from lockdown by putting agriculture goods in the Essential Commodities Act so that farmers could sell their products in the market according to government regulations. As a result of our study of the impact of COVID-19 on agriculture, we have a clear understanding of the current situation. Our proposal is to have farmers turn to zero-budget farming rather than use chemical fertilizers. In addition, we suggest that farmers sell their goods directly to consumers, thus selling their products by themselves.

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