

# The COVID-19 pandemic: Impact Assessment on Poultry Farming in Aurangabad District of Marathwada region.

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## Manuscript details:

Available online on <http://www.ijlsci.in>

ISSN: 2320-964X (Online)

ISSN: 2320-7817 (Print)

## Cite this article as:

Naphade ST and Patil PS (2021) The COVID-19 pandemic: Impact Assessment on Poultry Farming in Aurangabad District of Marathwada region, *Int. J. of. Life Sciences*, Special Issue, A16: 1-4.

Article published in Special issue of National Conference on "Recent Trends in Science and Technology-2021 (RTST-2021)" organized by Department of Environmental Science, Shri. Dnyaneshwar Maskuji Burungale Science & Arts College, Shegaon, Bhuldhana, and Department of Botany Indraraj Commerce and Science College Shillod, Dist. Aurangabad, Maharashtra, India date, February 22, 2021.



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## ABSTRACT

The COVID-19 is a major and wide global issue concern to the health of human being, it can lead to various severe problems created adverse impact on various agro-based sectors including poultry farming. Researchers from different fields have studied about the issues and have addressed the possible impacts of COVID-19 on variety of complex issues and problems associated with the poultry farming. Therefore, the present study aimed at to assessed the condition and challenges of COVID-19 by linking its impact on poultry farming with dependent peoples. The pandemic and lockdown impacted the overall poultry production system. This creates a results in drastic reduced value of consumption of poultry products. The study was conducted based on primary data collection, during the same period and its connection with poultry farming, its production, demand and supply was analyzed. Due to the situation of COVID-19 farmers faced various issues related to their need like low income, labor issues, starting of production, transportation problems, low demand of consumers, financial issues were identified. The present study shows that the impact of COVID-19 and its overall scenario on three different selected poultry farms in Aurangabad district. To assessing the impact on these farming a systematic study carried out with the help of collection of primary data from the study area, which provides the information about the impact on different parameters in the poultry farming.

**Keywords:** COVID-19, Poultry Farming, Aurangabad, Marathwada.

## INTRODUCTION

In the year 2019, December 31<sup>st</sup>, in Wuhan, Hubei Province, China, reported the first cases of infection of a new corona virus (2019-nCoV) by (WHO, 2020), which generate and spread the disease known as COVID-19 (Wang, 2020). The disease occurred by corona virus, COVID-19, is a newly infectious disease caused by severe acute respiratory syndromes (SARS-2) i.e. corona virus 2 and it is the member of coronaviridae known to infect particularly the human beings, (Anderson et al., 2020). After some period the disease spread over in majority countries in the world.

The World Health Organization (WHO) has officially declared the corona virus a global pandemic, as of 21 May 2020, there had been more than 6,86 million corona virus cases and 398483 deaths worldwide (World meters 2020). Now, due to COVID-19 creates global health problem and it also affecting the normal development of the various sectors of the society. The pandemic situation disturbing all components of the life including humanity. Many people are staying at their home to minimize the transmission and spreading of the corona virus in the worldwide. Most of the countries are adopting some preventive measures against the pandemic situation, like compulsory lockdowns, restriction in travel, social distancing, work from home, online works wherever possible. During the COVID-19 pandemic period the agricultural related production is affected. The economic status of the various country is mostly dependent on agriculture activities, poultry sector is one of the major activity run in the country. Now not only the world but also all parts of the country is struggling to combat impact of Covid-19 by disrupting industries and agricultural fields including poultry farming along with the dependent peoples. Poultry plays an important role in the diet of the people in various community due to easily available and economical for deadly growing poor population. Poultry sector is not only playing an important role in maintaining nutritional demand but also it help to improve the socioeconomic status of the farmers.

The poultry farming takes several diversified forms and productivity depends upon land, human resources and skill, infrastructure and capital. The socio-economic and political situation also plays a significant role in development and existence of the poultry industry. I almost all over the world, poultry industry production is becoming increasingly organized, specialized and shaping in to an industry of national economical importance. The poultry farming can provide an alternate to the farmers in the region reeling under repeated drought spell. Maharashtra is amongst the leading states for commercial layer farming and broiler farming. Sources indicated that government of India has focused on promoting “desi” poultry along with bio-secure environment. It intends to create an opportunity for small farmers specially in the weaken sections of the society. The government has taken decision to promote poultry farming in tribal and backward regions of north Maharashtra and Marathwada. (Khapre, 2015).

Due to over spreading of Corona virus the strict lockdown applicable in India. It has directly impacted to various agriculture activities including poultry farming. Major population in India is depends on the agricultural activities and thus found the impact of this situation on the agriculture activities. It shows variation in different part of the country. The lockdown also has severely impacted to the rural population particularly farmers have been impacted due to lockdown on their livestock rearing, (Kelkar Bhakti 2020). In India rural areas constitutes maximum poultry production whereas urban area constitutes maximum consumption (NAPEP, 2017). Transportation of poultry production has become completely compromised as a results of lockdown, (Kolluri et al. 2020). National smallholder poultry development trust, the largest poultry enterprises fir dalit and tribal women of the country was severely compromised and losses in their turnover due to covid situation, (Kanitkar and Tushir 2020). India at present, is the fourth largest poultry production in terms of volume, (Shukla, 2020), the incidence of COVID-19 pandemic at the beginning of the year brought an unpredictable impact on the poultry sector, (Biswal, 2020). Considering the fact of COVID-19 the aim of the present study is to analyze the direct or indirect impact of COVID-19 on the selected poultry farming in Aurangabad district of Marathwada region.

## **MATERIAL AND METHODS**

The present study was conducted among the three different selected poultry farms in Aurangabad district of Marathwada region, under the administrative division of Aurangabad. The poultry farms in district Aurangabad were selected and categorized as small, medium and large poultry farms depending on the bird rearing capacity. The three poultry farms were randomly selected as sample for this study. The whole area of the Aurangabad division is fully locked due to spreading of COVID-19. Considering the severity and spread of disease in the study area, it was not possible to do extensive fieldwork, with a wider and a larger samples. Thus in the form of three different poultry farms were chosen as a sample for the study. For collecting the information and data the study was conducted based on primary data sources collected by applying a tools such as telephonic interview. Use of telephonic interview to conduct the study during such

lockdown period and helped to collect the data quickly. The data were collected by the survey methods including a semi-structured questionnaire. The questionnaire focused the questions on impact on poultry farming, poultry transportation, status of market and consumer demand. Individual interviews and telephonic interviews with poultry farming dependent communities were conducted in these three different poultry farms from the district Aurangabad of Marathwada region. Information was obtained about the problems faced by the farmers during the pandemic situation. The detailed studies were undertaken with a view to find out the issues and pandemic associated problems among the poultry farmers.

## RESULTS AND DISCUSSION

Three different category of poultry farm according to the rearing capacity of birds were selected in this study area. Those were small, medium and large poultry farms. In this study the farmers and dependent peoples were involved from small, medium and large poultry farming. COVID-19 Scenarios in the study area by observing through the media and many experts from the government bodies mention that detection of the infected persons due to the lack of monitoring and schedule of insufficient test. During the study period the increase trends of positive cases in the study area was found. Many people from the study area did not follow the suggested quarantine and found to meet friends and family and travel here and there. To control the situation the government shut down all educational institutions, government also banned all political, social, cultural, and religious gatherings in the country. Response of the poultry farmers and dependent communities on COVID-19 People who were solely dependent on poultry farming i.e. rearing of poultry, poultry selling and poultry farming were facing difficulties to combat emerging COVID-19 situation. During the study and according to

obtained data it was observed that large poultry farmer could not go out for their necessary demand regarding the poultry due to COVID restriction while medium and small poultry farmers mentioned COVID put adverse impact on their poultry production due to scarcity of input and service provider. All the farmers reported that COVID-19 would negatively affect resource of poultry dependents income due to restrictions placed on them.

Due to COVID-19 the poultry production system and dependent in the study area is facing a crisis. In addition to affecting the public health sector, COVID-19 has covered the country's economy, business activities, transportation, food supply, food security and more. The lockdown situation has made the food supply worse respectively. Supply of poultry resources that play an important role in the diet and nutrition of the people is also become disrupted. The study found that COVID-19 was affecting the poultry production system in two significant aspects, the supply and demand for food. These two aspects were directly related to food of the people. Its adverse impact on consumer demand and consumption. The findings also agreed with global situation where 820 million people were more vulnerable with incurable starvation and less access to consume nutritious diet (Siche 2020). Poultry farmers prohibited from working on their fields and unable to collect necessary essentials by selling their products in the market, ultimately low income families faced more problems. Impact on poultry farmers and hatcheries COVID-19 directly and indirectly hampered poultry food production system drastically. Marginal poultry farmers use the birds mainly to meet home consumption demand and sold the remaining production that added money to their family income. Poultry farmer and the entrepreneurs indicated that transportation of poultry, feed and other necessary inputs was the main problem.

**Table 1:** Obtained information about the impact of COVID-19 on poultry farming from Aurangabad district.

Category of Poultry Farm	Impact of COVID-19 on different parameters of poultry farming							
	Panic	Illness	Labor	Consumers	Production	Transportation	Financial	Income
Small	++	++	++	+++	++	++	+++	+++
Medium	+++	++	+++	+++	+++	+++	+++	+++
Large	+++	++	+++	+++	+++	+++	+++	+++

(+: Minimum Impact, ++: Moderate Impact, +++: Maximum Impact)

Large poultry farmers also reported that they couldn't sell mature birds due to transportation complexity and low market demand but the farmers spent extra money to feed the birds that ultimately reduced family income and increase expenditure as well. All Poultry Farmers reported that they could not start new farming cycle due to unsold birds that also declining the selling price of poultry and adverse impact in the poultry farming. Farmers reported that gradual weight loss due to inadequate food supply day after day, due to lack of medicine, necessary ingredients and improper management of the farming were getting abnormal growth of the birds Because of these problems, farmers, workers, hatchery owners and related members were facing losses which ultimately could have a long term impact on poultry economy. During the pandemic period their life and life of the people associated with them became more difficult than before. Poultry farmers and allied peoples faced major problems to lockdown periods like low rate of poultry, low income, lack of alternative income generating activities, low consumer demand, meanwhile a majority of the labor engaged in processing and marketing were unemployed. Poultry farmers faced problems related to illness and unemployment were the main issues. They become stay at their home due to the situation and stop their source income.

## CONCLUSIONS

The pandemic known as deadly COVID-19 disease has significant impacts on human and agriculture activities, with poultry farming. Farmers compromised due to movement restrictions, reduced in demand of poultry products its impact on the poultry farmers and associated people. So it is necessary to take the action against the issues occurred due to corona virus particularly to the poultry farmers and associated people from the rural area. This paper will contribute to the scenario of current COVID-19 pandemic and its impact on poultry farming in the study area.

## Acknowledgement:

Authors are thankful to Principal, Yeshwantrao Chavan Mahavidyalaya, Sillod, Dist. Aurangabad (M.S.) India for providing laboratory and library facilities and also thankful to the poultry farmers and other respondent in the study area for their time and sincere cooperation and help during the work.

**Conflicts of interest:** The authors stated that no conflicts of interest.

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