The impact of the Covid-19 pandemic on broiler farms in Moncongloe District, Maros Regency South Sulawesi

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Abstract. The Covid-19 pandemic has an impact on all sectors of the economy including broiler farming. The purpose of this study was to determine the impact of the Covid-19 pandemic on broiler chicken farming in Moncongloe District, Maros Regency. This research was conducted in August - September 2020. The data collection method used literature review, observation and interviews. The broiler chicken farm industry and business owners are feeling the positive and negative impacts of the Covid-19 pandemic. The positive impact is the increasing number of people who open businesses in the food and beverage sector, including those using broiler as raw material. Indirectly, this will increase the demand for broilers on the producer side. The negative impact is that the price of chickens is always fluctuating and a fairly drastic drop in the price of live chickens has caused farmers to suffer losses. The condition of the decrease in the number of sales is also felt by restaurants, hotels and restaurants due to large-scale social restrictions in Makassar City, which are intermediate consumers.

1. Introduction
Indonesia is one of the countries where the genetic diversity of livestock is high, in the database of the FAO Domestic Animal Diversity Information System (DAD-IS) (2020), there are approximately 206 families of large ruminants, small ruminants, poultry and pigs. The existence of Animal Genetic Resources (AnGR) is expected and should be able to support the availability of animal feed from livestock, in order to reduce the burden of food and feed imports. Most of these tufts are made up of local cattle found in the area and have adapted well to their breeding environment [1].

One of the livestock businesses that are widely used as a livelihood by rural communities is the broiler chicken farm which plays an important role in educating the nation's life. The development of broilers has increased production in the last ten years. According to [2], data for 2019 shows that the population of broilers in Indonesia reaches 3.15 billion with the largest production centers in Java, namely West Java (25.37%), Central Java (19.01%) and East Java (14.60).

Ministry of Agriculture data for 2019 shows the trend of increasing consumption of chicken meat in the last five years, an average of 1.96%, and an average per-capita production growth rate of 1.39%, meaning that consumption growth is higher than production. Based on this, there is a large enough opportunity for broiler farms to become a strategic business to develop [3].

Entering 2020 the world community was shocked by the emergence of cases of pneumonia from a new type of Corona-Virus infection from Wuhan City, China. China is listed as the country that first reported cases of Covid-19 in the world, originating from local cases that spread throughout the world
by means of transmission caused by imported cases from outside the area of origin and local transmission between residents. One of the transmission of the Corona virus is from the air which makes the spread of Corona-Virus between humans very fast and difficult to stop, therefore from that case the Government, especially the DKI Government at that time, implemented the Large-Scale Social Restrictions for the first time in Indonesia then followed by several other cities to prevent the possible spread of Covid-19. According to [4], Indonesia recorded that the average number of positive cases per day for 14 days was 4,161 cases/14 days.

The Large-Scale Social Restriction Policy is contained in Government Regulation (PP) Number 21 of 2020 concerning Large-Scale Social Restrictions in the Context of Accelerating Handling Covid-19 [5]. The scope of that policy are school and workplace holidays, restrictions on religious activities, and restrictions on activities in public places/facilities. The implementation of the that policy reduces people's buying interest, therefore consumption is threatened to experience a significant decline. Based on the thoughts that have been put forward, a study entitled "The Impact of the Covid-19 Pandemic on Broiler Chicken Farms in Moncongloe District, Maros Regency".

2. Materials and methods
This research was conducted in August–September 2020 in Maros Regency. Sources of data used in this study are primary and secondary data. The data collection method used literature review, observation and interviews. The population in this study were all broiler farmers in Maros Regency. The sample in this study were 96 broiler farmers used the Slovin formula. The data were analyzed descriptively. To find out the impact of Covid 19 pandemy before, after and when new normal, indicators are used as in Table 1.

Table 1. Indicators for measuring the impact of Covid-19 on broiler farming in Maros Regency.

| No. | Indicator                        | Description                                                                 |
|-----|----------------------------------|-----------------------------------------------------------------------------|
| 1.  | Before Covid-19 Pandemic         | Positive and negative impacts that occurred on broiler chicken farming before the outbreak of the Covid-19 pandemic. |
| 2.  | After Covid-19 Pandemic          | Positive and negative impacts that occurred on broiler chicken farming after the Covid-19 pandemic. |
| 3.  | After New Normal                 | Positive and negative impacts that occur on broiler chicken farming after the implementation of the New Normal. |

3. Results and discussion
The impacts are faced by broiler chicken breeders in Maros Regency after the Covid-19 pandemic, it is necessary to know how livestock business was before the Covid-19 outbreak, after the Covid-19 outbreak and after the implementation of the new normal by the government. Table 1. shows that there are three measurement indicators that assess how the impact of Covid-19 on livestock businesses before the Covid-19 pandemic, after the Covid-19 pandemic and after the new normal. Of the 96 broiler breeders who were sampled in this study, the results showed that prior to the Covid-19 pandemic, livestock business actors felt the benefits of their livestock business, where some of them made this livestock business their main livelihood.

However, after the outbreak of the Covid-19 pandemic in Moncongloe Subdistrict, Maros Regency, the breeders felt very badly and there was absolutely no positive impact they felt. The purchase price of live chickens which suddenly dropped due to the selling price was far from the production price made broiler breeders stop raising livestock, in addition to that the decline in sales turnover made the breeders worse off. This is in line with [6] stated that the positive and negative impacts of course will not be separated from social and economic aspects. The first negative impact that can be felt immediately due to the corona virus outbreak is the decline in economic growth. However, if the
lockdown is not immediately enforced, the virus will continue to enter areas that were not previously infected and worsen an area that is already infected.

**Table 2.** Farmers who felt the positive and negative impacts before, after and post the Covid-19 Pandemic.

| Period                                | Impact                      | Frequency (person) |
|---------------------------------------|-----------------------------|--------------------|
|                                       | Positive                   | Negative           |
| Before Covid-19 Pandemic (2019 - February 2020) | Sales Turnover (Stable) 96 | Sales Turnover (decreased) 0 |
|                                       | Price DOC, Feed, etc. stable 96 | Price DOC, Feed, etc. decreased 0 |
| After Covid-19 Pandemic (March 2021 – May 2020) | Sales Turnover (Stable) 0 | Sales Turnover (decreased) 96 |
|                                       | Price DOC, Feed, etc. stable 0 | Price DOC, Feed, etc. decreased 96 |
| Covid -19 Pandemic (New Normal) (start June 2020) | Sales Turnover (Stable) 35 | Sales Turnover (decreased) 64 |
|                                       | Price DOC, Feed, etc. stable 49 | Price DOC, Feed, etc. decreased 47 |

In Table 2, show that that before the Covid-19 pandemic, the turn-over of 96 breeders was stable even though sometimes the price of chickens went up and down, but community activities that were not limited by anything kept the economic cycle going, as well as the DOC price, feed, etc. Sometimes it fluctuates but it has no impact because demand is stable. If we look at the period after the Covid-19 pandemic, the impact felt by all farmers was negative, where an excess of chicken production occurs but buyer interest falls, this results in a drop or decrease in DOC prices. Entering the new normal, 35 breeders have felt the positive impact, and 49 breeders feel that the price of DOC and feed has returned to stability. Farmers who have felt the positive impact after the new normal are breeders who have started to open frozen and frozen food chicken businesses, but 64 other breeders still rely on fresh chicken businesses. The positive impact after the new normal includes the prospect of developing frozen food chicken meat.

According to farmers in Moncongloe District, Maros Regency, one of the factors in the decline in sales turnover was due to the implementation of PSBB (Large-Scale Social Restrictions) the implementation of this PSBB has made hotels, restaurants, schools and some offices closed, therefore the closure of some of these places has reduced the demand for chicken meat. This was recognized by [7] the COVID-19 pandemic in Indonesia has reduced the demand for chicken meat. This has been triggered by hotels, restaurants, caterers, to school canteens and offices, as well as warteg that have
reduced their activities and production, some have even chosen not to operate or to close. As a result, there was an oversupply of chickens in the market so that prices at farmer level fell.

After 3 months of passing the emergency response period and the PSBB, the Indonesian government began exploring the implementation of a new normal life and loosening the PSBB. On May 28, 2020, the Central Government through the Minister of National Development Planning/Head of Bappenas on May 28, 2020, in a press conference with Minister of Foreign Affairs Retno Marsudi and the Expert Team of the Covid-19 Task Force to deliver the Covid-19 Productive and Safe Society Protocol towards a New Normal, live side by side with Covid-19 [8]. New Normal is a term for a new behavior that must be applied by the community while adhering to health protocols to minimize transmission of Covid-19. After the new normal was implemented by the government and the relaxation of the PSBB there was a positive impact felt by broiler chicken farming businesses, namely several restaurants, hotels and offices have started operating, even food and beverage business actors have started to emerge which helps broiler chicken farm businesses get new food. but the increase is not very significant. The negative impact after the new normal is implemented is still the same as after the outbreak of the Covid-19 pandemic because the selling price of live chickens is still unstable which sometimes suddenly drops dramatically. According to [7] since the end of last year the price of chickens at the farmer level has fallen due to excessive production.

4. Conclusion
The Covid-19 pandemic has a positive impact, namely people who started to open businesses in the food and beverage sector which made the demand for chicken meat increase even though it was not too significant. The negative impact of the Covid-19 outbreak is that chicken prices have fluctuated very much. The very low decline in the price of live birds caused farmers to suffer losses. The number of restaurants, restaurants that have closed and the occupancy rate of hotels has decreased, causing the demand for broiler chickens to drop dramatically.

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