



**MODELING AND FORECASTING OF BEEF, MUTTON, POULTRY MEAT
AND TOTAL MEAT PRODUCTION OF PAKISTAN FOR YEAR 2020 BY
USING TIME SERIES ARIMA MODELS**

SHAKEEL NOUMAN¹ AND MASOOD AMJAD KHAN

1: Assistant Chief, Planning & Development Department, Lahore

2: Government College University, Lahore

ABSTRACT

We use historical time-series data reported in data table to review trends in beef , mutton, poultry meat and total meat production. In this regard, first we use data from 1971-72 to 2007-08 to estimate a time trend for beef, mutton, poultry meat and total meat production. This time trend is estimated by employing an exponential function of the form $Y_f = ce^{bt}$, where Y_f is for meat production and t depicts the year. The estimated parameters are highly statistically significant, while the overall explanatory power of the model is very high since $R^2 = 0.99$. These results indicate that annual growth rate of meat production from 1971-72 to 2007-08 is 5% over per annum. In 2020 the projected annual growth of total production of meat will be in Pakistan , China, India and Developed world is 1.6,2.9,2.8 and 0.7 per year respectively. Similarly the total productions of meat in Pakistan in 2020 are estimated to be 4.7 million metric tons. where in 2020, China, India and develop world will be 86, 8 and 121 respectively. In 2020the per capita production is forecasted to be 25.2 kg/annum in Pakistan, 60 kg in China, 6 kg in India and 87 kg in Developing World. If we look at the production of the Beef , mutton, Poultry and meat in Pakistan , the annual growth production rate of beef is 0.6%, mutton is high and poultry meat is 1.2% so the total meat is 0.7% . The total production through 1993 for Beef, Poultry and Meat had been 35,27 and 100 million metric tons respectively and will be increased till 2020. it will be 38 million metric ton for beef, 38 million metric ton for mutton, 36 for poultry and 121 for meat. The per capita production of beef, poultry meat