

## GROWTH TREND AND SUPPLY RESPONSE OF MUNGBEAN IN BANGLADESH

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### ABSTRACT

The purpose of this study was to estimate the growth trend and supply response of mungbean in Dhaka, Chittagong, Khulna, and Rajshahi regions of Bangladesh during the period of 1980-81 to 1996-97. The linear and exponential growth functions and Nerlovian partial adjustment model were used for this purpose. Area and production of mungbean grew at a rate of about 11% in Bangladesh. These also showed a significant positive growth in all the regions except Rajshahi. The annual absolute growth and the annual compound growth rates in area and production were found the lowest and insignificant in Rajshahi region. The average annual growth and the annual compound growth rates of yield were found positive and insignificant in Dhaka and Khulna but significantly positive in Chittagong. These rates were the lowest and negative for Rajshahi region. The growth of yield in overall Bangladesh was only 0.436 percent. The annual compound growth rate of retail price was found the highest for Khulna (8.070 percent) and the lowest for Rajshahi region (7.081 percent). This rate of growth for wholesale price as a consumer goods, wholesale price as a crop, and harvest price were found positive and highly in all the regions. The lagged price of competing crop and lagged mungbean area significantly influenced current area in Chittagong region. The influence of the time variable in determining area negative for Rajshahi indicating technological backwardness in mungbean cultivation. In Dhaka region, yield response was found significantly negative to lagged own price and positive to time trend. The price and non-price variables were found significant and positive in determining yield response in Khulna region except time trend. The yield response was found significantly positive to time factors for Chittagong region and own yield lagged by one year for Rajshahi region. Production response was only influenced by own production lagged by one year for Khulna region. The short run price elasticities ranged from -0.102 to 0.824 in case of area, from 0.035 to 0.450 in case of yield, and from 0.047 to 0.776 in case of production, while the long run elasticities ranged from -0.113 to 4.68 in case of area, from -0.051 to 4.891 in case of yield and from -0.089 to 0.776 in case of production. The farmers of Dhaka region, compared to other region, take less number of years to adjust their area to a desired level. The farmers of Chittagong region compared to other regions take less numbers of years to adjust their yield to a desired level and in case of overall Bangladesh the farmers were found quick to realize the effect of price changes through production.