Gomal Univ.J.Res.
Vol. 8 No. 1&2 pp 95-105 (1988)

Printed in Pakistan

RICE PRODUCTION FORECAST MODEL FOR PAKISTAN

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Received 26-9-87
Accepted 09-3-88

ABSTRACT

With a view to forecast rice production, six separate models for rice area and yield were developed two each for Punjab, Sind and Pakistan. Explanatory variables like water availability, procurement price, area under improved varieties and average maximum temperature were used. Procurement price, water availability, area under improved varieties and average maximum temperature showed significant results. The model can be used to predict the production estimates well before the harvest within reasonable tolerance limits.

INTRODUCTION

Rice is a major foreign exchange earner and an import supplement to the staple diet of the people of Pakistan. The acreage and production of rice in Pakistan during the past five years (1983-84 to 1987-87) averaged 4.87 million acres and 3.26 million tonnes per year, respectively, while the average export earnings over the corresponding period were 4.49 million rupees, or 14 percent of the total foreign exchange earnings.

The present system of estimating the acreage and production of rice and other crops based on sample surveys involves considerable delays, but the planners and policy makers require timely information for decisions on export commitments and domestic food requirements.

While improvement in the size and design of sample and the associated requirements of staffing strengths, training of field staff, logistic arrangements for field work and computer processing of the data are needed to provide reliable and timely availability of acreage and production estimates of all crops at the district, provincial and national levels, the alternative approach of forecasting models should also be explored. The purpose of the present study is to develop a forecasting model for the estimation of rice production in Pakistan.

Cummings [7] and Askari & Cummings [4] in their supply