Changing Agricultural Scenario and food Prospects in India: A study with Special Reference to Rajasthan

Submitted By: Vinod Kumar (JRF), Department of Geography, M. D. University, Rohtak (Haryana)

Summary of Ph.D Thesis

Historically, the debate concerning food-population balance came into lime light with the publication of much discussed Malthus ‘An Essay on the Principle of Population’ in 1798. As per Malthusian doctrine the power of population is infinitely greater than the power of land to grow. Therefore, food supply in Malthusian vision is considered as the power of regulating population size. Slightly, contrary to this Beserupian ideology explains that unless population increases the adoption of new agricultural technique is highly unlikely.

In recent times, debate concerning food-population has many off-shoots ranging from Neo-Malthusian, Medows Limit to Growth, to needs to achieve Millennium Development Goals more recently. All these off-shoots are trying to arrest changes in population in respect to changing agriculture and vice-versa. On the same lines, present thesis is an attempt to look into the behaviour of agriculture and population under changing socio-economic scenario. Trends in area, production and yield of various food crops and non-food crops were studied to determine present food status of society with reference to changes in demographic scenario of India in general and in Rajasthan in particular. Various statistical and cartographic techniques were applied to determine contours of food-population relationship. After analysing food-population relationship, thesis has suggested potential areas and some policy changes to improve future food status of the country. The issues related to food-population balance in the society are an important issue for mankind and this has hogged lime light in discussion of researchers and policy makers. With reference to India in general and about Rajasthan in particular none of above discussed theoretical viewpoints explains full situation. Analysis in this thesis definitely reveals that healthy balance of food-population which was achieved after green revolution seems to be changing. Changes in economic and social parameters have initiated many changes in agricultural sector and that all those changes are bound to have negative impact on food-population relationship.

Keeping in mind the above theoretical development, present thesis is an attempt to study changing agricultural scenario and food prospects in India in general and in Rajasthan in particular. The study has attempted to analysis the growth dimensions of population and food resources with reference to changing agricultural scenario of India and Rajasthan. Chapter 1 of this thesis deals with the theoretical understanding concerning to the issues related to food-population balance in any society.
Chapter 2, entitled as ‘Rajasthan: Land, People, Economy’, shows physiographic, cultural and demographic characteristics of the Rajasthan as it is the study area for present thesis work. After analysing physiographic and climatic potentials of Rajasthan, chapter 3 envisage to understanding behaviour of population and agriculture over changing social and economic scenario of India. Chapter 3 is divided into three broad segments for analysis, one dealing with agricultural development; other is dealing with demographic aspects of India and last but not the least, deals with understanding the association between food-population associations in India using some statistical methods.

After getting an insight of macro scenario about food-population balance in India, chapter 4 attempts reveals food-population dynamism in one of the harshest state in terms of prevailing geo-climatic conditions i.e. Rajasthan. Chapter 5 in the thesis is based on field survey based on systematic random sampling. The prime objective of this chapter is to study food-population relationship by analysing food availability, availability of PDS and problems associated with its use, food discrimination among male and female, changes in cropping pattern in the study area. This chapter has used agro-climatic regions as basic unit to deal with the problems associated to food and agro-climatic regions are selected as base for field survey. Taking 40 households each from 10 different agro-climatic regions, survey forms base in creating understanding food issues at the household level.

Chapter 6 is primarily concerning about potential suggestions for ameliorating food problems in the study area and rectify future food crisis by improving food-population relationship in India in general and in Rajasthan in particular. Chapter suggests that among major potentials areas for India in resolving food-population problems are, first, to bridge the vast gaps between the yields of different crops within region and between regions. Secondly, thrust on millets can also work towards improving food availability in the society, as millets are easier to grow and nutritive. For states like Rajasthan, millets are even more beneficial as being arid state millets are only crops which is seen with future potentials to meet the demands for food. Finally, if India can reclaim huge tracks of waste and fallow land and bring it back to cultivation with technological support, than more land can be made available for tillage, leading to jump in production.

Chapter 6 also suggests some policy alterations to improve food status of the society. These suggestions include declaration of higher Minimum Support Price for food crops in comparison to non-food crops to motivate farmers to grow more food crops. Second, Public Distribution System should be revamped in such a manner that more and more population can be brought inside the preview of food security net and diversion of food can be checked. Third, shifting of surplus food grains lying in open or in Food Corporation of India godwons to deficit regions, as food state to decay and on other millions sleep without
two meals a day. If food is distributed to deficient areas this will create more space for new crops solving problem of storage and at the same time it will harmonise distribution of food in the society. Therefore, it is suggested in this chapter that surplus food should be relocated to deficient regions without wasting time and should be done just after procuring food items.

Chapter 7 draws important conclusions that have reached in each chapter of the thesis and also presents a brief summary of the thesis. At last, this can be concluded that issues related to food-population balance in the society is an important issue for mankind and this has hogged lime light in discussion of researchers and policy makers from time and immemorial. The general discussion about food-population has always remained centred around Malthus and Boserupean debate. Malthus ideology gained more prominence as and when any region faced food problems because of population growth, whereas, Boserupean viewpoint helped in explaining changes in agricultural technology as a stimulus created by rapidly increasing population. Analysis in this thesis definitely reveals that healthy balance of food-population which was achieved after green revolution seems to be rapidly altering. Now neither India nor Rajasthan is in good position to meet the needs of rapidly changing population. Situation is even getting harder as there are changes in consumption behaviour of population with changes in income levels. People are now opting for more refined food as compare to regular food. In recent times, changes in economic and social parameters have initiated many new and far reaching changes in agricultural sector. All these changes are bound to have negative impact on food-population relationship as India is in transitory phase of development in agricultural sector. The need of hour is to frame policies in such a way that future potentials of the society can be enhanced. On one hand policies should be targeted towards fast reduction of population growth and on other policies should made to achieved accelerated growth rate in food production.