

FOOD INSECURITY OF RICE IN PAKISTAN

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ABSTRACT

The study of Food Insecurity of rice in Pakistan was to evaluate the impact of insecurity of rice on people of Pakistan. In Pakistan the rice stands for a situation where at one side there is rice available but on the other side the people don't have enough accessibility of rice. The study will focus on qualitative research as this research phenomenon is comparatively new in Pakistan. Such study is rare so it is difficult to collect the data regarding the progress of Food Insecurity in Pakistan on rice. The research is based on the potential of rice and products in Pakistan related to the agriculture institutions, private representatives and government's representatives. One of the biggest findings of this research was the gaps between realities and policies. The implementation from research will help government authorities, policy makers, market committees, traders, brokers, and exporters to understand the overall dynamics and mechanism of rice sector in Pakistan.

Keywords: *Accessibility, Safe, Nutritious and Healthy Rice.*

INTRODUCTION

Pakistan is an agriculture country and agriculture plays an important role in her economy. The contribution is over 21% of GDP and it's the largest sector in terms of contribution in GDP. This sector is a primary supplier of raw materials to downstream industry contributing to Pakistan exports. In Pakistan there are two principal crops "Kharif" and "Rabi". The season of sowing "Kharif" begins in month of April to June and harvesting in month of October to December. The season of sowing "Rabi" begins in month of October to December and harvesting in month April to May. The rural areas of Pakistan face more challenges for development due to poverty and number of problems i.e. social, economic and technological factors. (Finance Ministry of Pakistan, 2013 and Pakistan Research Repository - Higher Education Commission, 2013)

Introduction of food insecurity in Pakistan

Food insecurity is an issue which has risen up to global level. Food insecurity stands for a situation where quality food is either not available or not accessible to the public. This is one of the serious issues socially, financially and economically for any society. There are greater chances of anxiety and distress among the nation which will result in undesired behaviour and response from the people. There is always a direct or indirect impact on the economy of adverse quantitative and qualitative conditions on the economy; hurting its progress and development affecting its position creating a negative impact on the social, financial and economic domains of a country.

What does “Food Insecure” mean?

Definition of Food Insecurity is people do not have proper access to a sufficient quantity of affordable, nutritious food. Food insecurity means when people are not getting proper physical or economical food to safe, nutritious and socially acceptable manner for their life. (Oxford Dictionaries & Feeding America, 2013)

Pakistan export of organic food (in terms of Sugarcane, Wheat and Rice)

Wheat: Wheat is a leading food grain of Pakistan and staple diet of people. It occupies a central position in formulation of agricultural policies. Harvest of wheat improved with healthy fertilizer and rainfall in pre harvest period. It accounts for 3.1% to GDP and around 14.4% value added to agriculture. (Agriculture, 2014)

Sugarcane: Sugarcane is a cash crop grown in Kharif season of Pakistan. It is mainly grown for sugar and sugary production. It provides raw material to sugar and sugar-related products. On average sugarcane production in our country is round between 45-50tons, which is very low as compare to international market of sugar. It accounts for 0.8% to GDP and around 3.6% value added to agriculture. (Agriculture, 2014)

Rice: Rice is a seed of monocot plants “Orvza Sativa” it’s the most important staple food for a large part of the world. Rice is the 3rd largest crop in term of area after wheat and cotton. Basmati rice is a highly valued among the varieties of rice and it’s valued for its aroma and flavour. In Pakistan rice grown is of high quality to meet the ends of export to international and national demands. It accounts for 1.4% to GDP and around 6.4% value added to agriculture. (Agriculture, 2014)

PROBLEM BACKGROUND

Food insecurity crisis begin with the old system where local communities are aware of the insecurities in Pakistan, so that no one can be left without food. It should go for higher production which can be achieved through green revolution based on climate resilient farming. Pakistan is an agricultural country but yet at the same time it is the very same country which has been facing issues when it comes to availability, accessibility and utilization of food. This is a quite disturbing phenomenon because these massive productions in main crops of Pakistan's are a part of an integrated system.

Problem Statement: "People of Pakistan do not have access to sufficient, safe and nutritious rice for active and healthy life".

Objectives

1. To state the issues Pakistanis are facing in rice cultivation.
2. To find out why they do not have access to safe and nutritious rice.

Significance of study

The benefits are derived from this paper on an important issue relating to the progress of the economy of Pakistan. It will pave the way for policy makers in Pakistan and contribute to the existing knowledge regarding food policy.

Scope of study

The study covers different aspects of insecurity of rice in Pakistan. The study is limited to the local rice market. Local market players are selected for research purpose. It emphasized on different market levels, roles of market players in the market channels, price setting, the cost benefit analysis of production of rice, cost, storage, transport and market information will be the centre of the study.

LITERATURE REVIEW

ASEAN and Global Rice Situation and Outlook

Last three years the price of grain is fallen. Rice traders of many nations view that food security can only show in term of self sufficiency

production policies. The main objective is to let it to be improved through R&D, Logistics and Infrastructure. This will help more to stabilize rice trading companies with all these efforts in future it is expected to have stable future. (Wailes & Chavez, 2012)

Potential Markets of RICE

Potential markets of rice exports of our rice, is the import of rice without duty from other countries should allow them to enter in the market. Millers are encouraged to install parboiled rice units to meet the demand of parboiled rice in the world. Private sector is more activate in distribution of rice to export them to other countries. (Khan & Khan, 2010)

Export Potential of Fine Rice from Pakistan

The production of the fine rice could be raised substantially through creating adequate water supply and sufficient economic incentives. A change would increase in the exportable surplus, other varieties are being introduce to international market, improvement of the quality of the product and the incentives to cultivate the world market in favour of Pakistan. (Hussain, 1990)

National Nutrition Survey

According to National Nutrition Survey there is a change over last decade in terms of maternal and nutrition of children. National Nutrition Survey is done after every 10 years and last time it was held in 2001. The report of NNS says that caused by nutrition, iodine and zinc. Pakistan is increasing the rates of constant and sensitive malnutrition primarily due to poverty, high illiteracy rates among mothers which lead to food insecurity. (Aga Khan University, Pakistan's Ministry of Health and UNICEF, 2011)

Food Security in Pakistan: Can It Be Achieved?

Pakistan is unable to place a control on prices of foods and need to be maintained the food grain leveled and prices too. Pakistan's history tells us that the rice and cotton are the foreign exchange of earning. There are two meaningful policies to control the situation on food, firstly farmers should provide a good incentives and secondly to control on rapid growth of populations. If these things are in hand then there is only solution is to

increase the volume of yield by extending via adapting new technologies and investment on irrigation system. (Maqsood & Siddiqui, 1995)

Agriculture and Food Security in Pakistan

Research system should be reshaping in terms of focus, mandate, management and manpower planning and development. Research should be on high value crops, livestock, fisheries, post-harvest handling, irrigation water management and management of soils problems need to be given much higher priority. The research companies should focus on technology demonstration and spread different messages via using different modes of electronic technology. (Arif, 2007)

Food Security and its Determinants at the Crossroads in Punjab, Pakistan

The crossroads of Punjab are being investigated on three districts level, north, south and central Punjab. During the survey the Central Punjab is having a good level of education of graduation and South and North Punjab having intermediate level of education. Overall shows a positive sign of earners in household and improved by targeting fulfilling the needs of households. (Bashirab, Schilizzia & Pandita , 2012)

Role of gender and intra household dynamics in Pakistan

There is decline overall of poverty level and human resource development level is becoming more stressful in offices and other work situations. Women of Pakistan in rural areas have limited resources to access to control over productive. The surveys should conduct and focus on lower middle classes and lower classes in which quantitative and qualitative data are required on social, economic and demographic. (Nazli & Hamid, 1997)

Child Malnutrition in Pakistan: Trends and Determinants

In case of Pakistan having a positive impact of per capita expenditure but there is no association with authorities. There are three major reasons, so first poverty is increased but the prevalence rate of underweight declined. Second, poverty in Pakistan is largely considered a rural trend. A large segment of rural population depends on own food production. Third, welfare organizations are helping and support to poor families. The children's nutrition is reducing due to unhealthy food because of diarrhea, it reduce the health and food converts energy of human body. (Arif, Nazir , Satti & Farooq, 2012)

Have Policies in Pakistan Been Effective for Improving Food Security?

The most important is to understand the policies on agriculture are implementing by our government. The problem lies on we do not have been gone through proof reading and assessments of polices. This areas are been neglected by our authorities but few incentives were taken but no further affects on improving food security. The assessments of polices are on national level not on disaggregated level i.e. household level, the assessments represents to average report and ignore the impact. Our government and authorities should assessment food polices implement those polices in a better way towards progress and improving food security. (Bashir & Schilizzi, 2012)

Climate-Change Aspersions on food security of Pakistan

Pakistan agriculture uses river water for irrigation system and from there agriculture is produced. There is climate changing and effecting directly and indirectly to our agriculture. The current situation of climate is day by day is getting worst due to melting of glacier, plants nutrients are unavailable and leading to greenhouse. Last some few years Pakistan is facing extreme climate changes causing of floods, drought, cyclones and different issues we are facing it and we are not making any kind solutions to stop or improve the conditions we are facing it. (Iqbal, Arifgoheer & Khan, 2009)

Global warming

The global climate is changing due to temperature is creating large impacts on global warming i.e. floods, droughts and cyclones. The past temperature trends over Pakistan are seen very much tallying with the global trends, whereas future projections show that the rate of increase of average temperature over Pakistan is higher than the increase observed globally. The adverse effects of climate change on the coastal ecosystems of Arabian Sea mainly due to the threat of sea level rise and due to the increased variability of river flows in the Indus River System flows under the changing climate. (Sheikh, Iqbal, Ali and Khan, 2009)

The State of Food Security in Pakistan: Future Challenges and Coping Strategies

Pakistan is a underdeveloped country where agriculture sector is most important due to providing primary healthy food to fast growing population. There is a need of tremendous efforts to narrow down the

gap between population growth and domestic food. Seriously it affected to rural areas where already food insecurity was there and caused increased country wide. There are numbers of challenges are facing by our agriculture, different industries related to directly or indirectly. (Ahmad & Farooq, 2010)

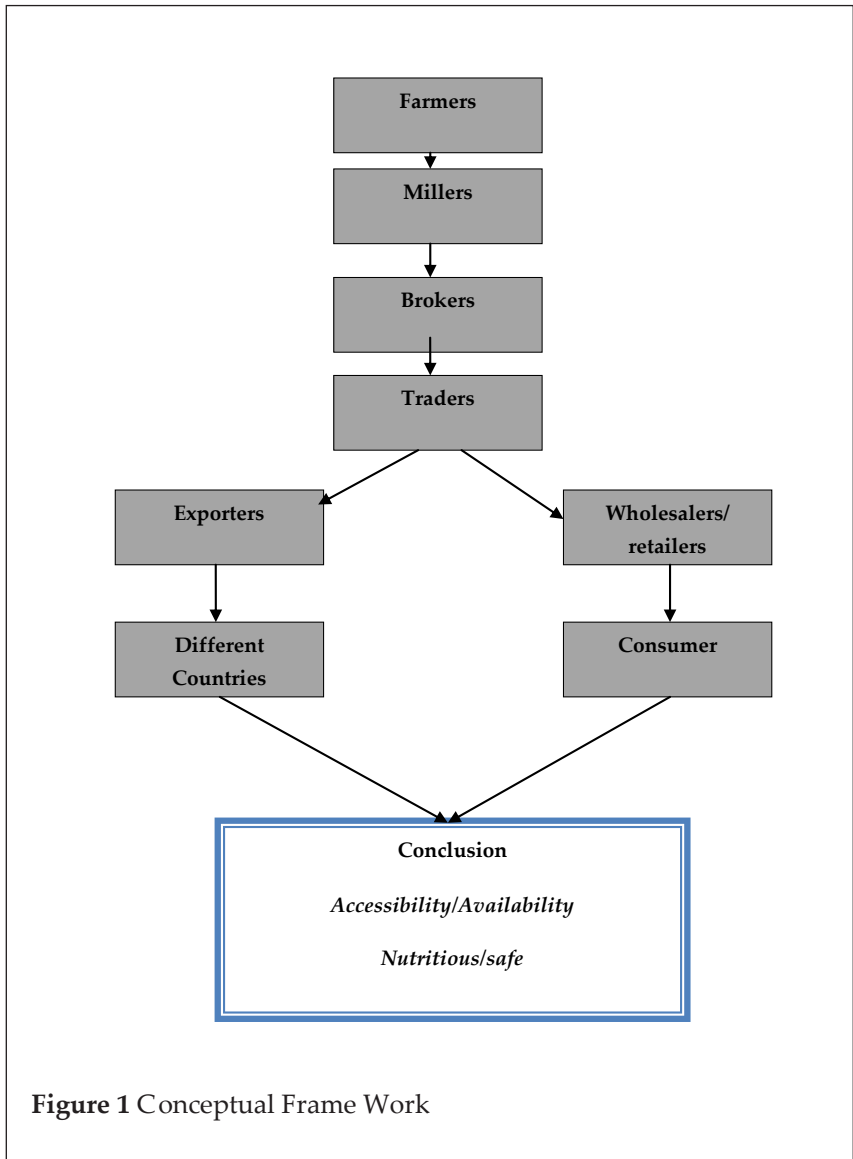


Figure 1 Conceptual Frame Work

RESEARCH METHODOLOGY

The study is qualitative research. Since, this phenomenon is rare and very few studies are done on this particular topic, so it is difficult to collect the data regarding the progress of Food Insecurity in Pakistan on rice. A qualitative research would help out in getting the proper results regarding the subject. It will help in establishing an in depth understanding of insecurity of food in Pakistan on rice. This study helps in finding out the reasons of problems and how can they minimize the risk in Pakistan and to establish what the current situation of this industry is.

Data Collection

The data has been collected through a questionnaire and interviews were conducted from the representatives/employees of different organizations in local market. The respondents were from Governments i.e. Trade Corporation of Pakistan, Rice Export Corporation of Pakistan, Quality Review Committee, Traders, millers, exporters i.e. S.J International, Karim Karobar, Gul Ahmed CG Ltd, Cosmos Trading Co, Al Noor Rice Traders and they were 25 representative. Interviews were conducted and due to limitation, some interviews were conducted on telephonic manner and through Skype.

FINDINGS AND ANALYSIS

- 1) **Export:** Rice has performed more than satisfactory in handsome earning of foreign exchange. All the exporters have to check their product through a Quality Review Committee (QRC). QRC plays an important role in verifying the rice up to standardized level of rice which includes 20% of add mixture (8% of IRRI-6 & 9 and 12% of basmati-386 is included in Basmati rice) and rest 80% should be basmati rice. QRC issue certification to customs to release their rice to export otherwise they can't export rice. Most of the respondents said that because of the huge export of rice the available quantity is not enough and it affects the price and quality of rice in local market.
- 2) **Mode of transportation:** Another problem identified is the mode of transportation of the rice. The rice is transported on truck which carry round 25 to 50 tons of rice and the railway system now days are unreliable. When the rice is coming from the Punjab it takes 3 to 4 days and from Sindh it takes around 2 days to deliver at Karachi for export or distribution within the cities.

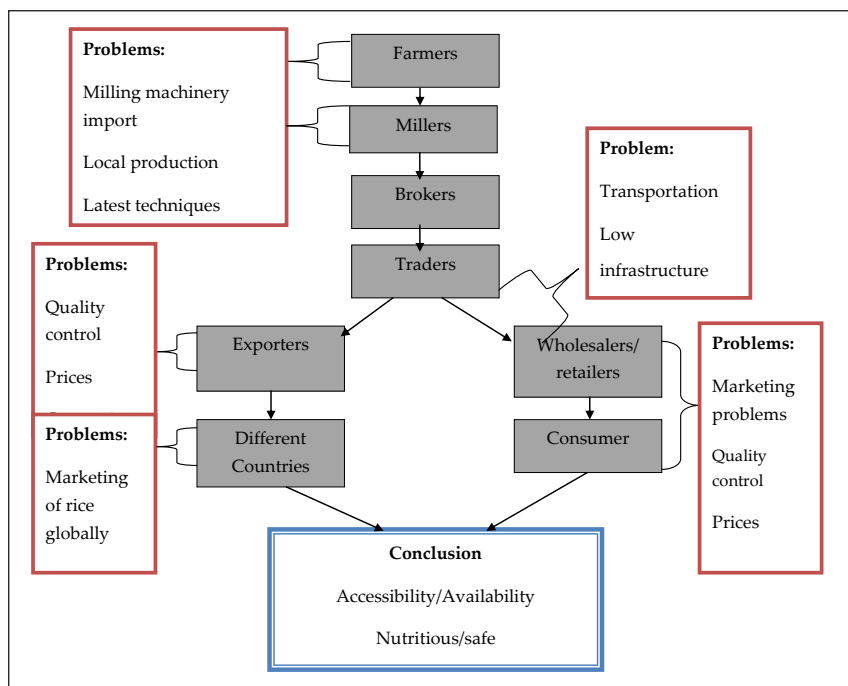
- 3) **Nutrition, Safe & Sufficient (Quality):** Variety of Basmati long grain rice grown in Pakistan and notable for its fragrance and delicate, nuanced flavor. Cooked grains of Basmati rice are characteristically free flowing rather than sticky, unlike most other kinds of long-grain rice and uniquely identified by its fragrance. General people are conscious towards rice and highly influenced towards nutrition food. Due to artificial ways of cultivation the nutrition of rice is being affected which creates doubt in the consumers mind related to quality.
- 4) **Technology, cultivation and Harvesting:** Pakistan is still practicing the old traditional method of cultivation and harvesting due to which the production is of low quality. Seeds are made at Rice Researcher Institute at Kala Shah Kaku, Pakistan. They are producing around 25% of seeds (local seed) and rest 75% of seeds are imported mostly from America.
- 5) **Prices:** Prices are determined by supply and demand of a commodity. Rice is no more controlled by the government under prices commission. Pakistani traders have no price mechanism. They export rice on cheaper price if they bought cheap rice in the local market. Dollar (currency) plays an important role because if it goes up the rates in Pakistan increase and vice versa. It all depends on dollar rates at international market.
- 6) **Issues in Rice Productivity:** Food Security Ministry and Food departments of all provinces are doing appropriate measures for distribution of food around the country. A survey was conducted from public sector says the 44% of irrigation system, canals, distribution on farm and water channels are facing major issues in productivity, 24% the proper machinery are not being used for harvesting and trashing and many people still use 20% of old tradition.
- 7) **Gap between Reality and Policies:** Gap lies between government and private sector, what is written on policies and they don't want to follow and they don't create understanding within them which causes lack of trust between government and private sector. There are some limiting factors to be improved for collaboration of government and stakeholders. When factors are improved, the productivity will increase and the international image will be recognized.
- 8) **Climate/Other Challenges:** The famer aspects the scarcity of water, fertile land, climate change, pests and diseases balanced fertilizers are challenges faced by them. Rice is grown in open field hence climate has direct impact on its production and yield.

The irregular floods unexpected in raining season and there is no proper drainage system to drain the water and the flooding is one of the major issues faces by rice producer in Pakistan.

DISCUSSION

Findings of the research indicate that Pakistan is producing low quality rice due to using of old traditional methods of cultivation as compared to other international markets, which are using new techniques to increase the production and quality too. Dollar (currency) plays an important role because if it goes up, the rates in Pakistan increase and vice versa. We are losing international market reputation because of quality is getting lesser due to inferiority is replaced by superiority.

Research helps to find out major issues faced by the producers in productivity. The farmers are concerned with the scarcity of water, fertile land, climate change, pests and diseases balanced fertilizers are challenges faced by them. Rice is grown in open field hence climate has direct impact on its production and yield. Hence any change in climate will be detrimental to its productivity.



There are some limiting factors which needs to be improve for collaboration of government with stakeholders. It includes suitable land, water irrigation, quality and promising seed particularly basmati, plant protection, post harvest and storage constraints associated with stored grain insect pests. When these factors are improved, the productivity will increase and the international image will be recognized.

CONCLUSION

In Pakistan, losses in quantity and quality of rice grain cause gaps. Problems of insecurity of rice are due to socio economics, management, institutional and policy makers. The knowledge gap can be reduced by transferring the new knowledge of technologies and techniques of farming mechanisms to producers and miller and every concerned at the grass-root level. Practice will make farmers to increase and maintain the yield and production of rice.

RECOMMENDATIONS

Following are a few recommendations:

1. Pakistan should improve the fertile soil and maintain them by using new technologies.
2. Making of small dams so they can store water and distribute equally in fields
3. Transportations of roads and railways should be improved so that the supply of rice arrives on time without any delay.
4. Famers need training and technical support on modern rice farming by utilizing new techniques properly from government sector and private sector

LIMITATIONS

The study observed some limitations like the data was collected from respondents across Pakistan through telephone and Skype.

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