

REVITALIZING THE AGRICULTURAL SECTOR OF PAKISTAN (SESSION 1)



WEBINAR – FEBRUARY, 2021

INTRODUCTION TO IQBAL INSTITUTE OF POLICY STUDIES (IIPS)

Iqbal Institute of Policy Studies, an independent policy research institute, conducted a webinar on Revitalising the Agriculture Sector of Pakistan. The webinar focused on the challenges that are faced by the agriculture sector of Pakistan along with the underlying causes and proposed future strategies for sustainable growth.



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The agriculture sector is considered an indispensable part of Pakistan's economy. Apart from contributing 19% to the national GDP, the sector absorbs 42 percent of the country's labour force. However, the agricultural sector, mainly the farmers, are faced with various issues, which have slowed down the sector's growth and performance. Keeping in mind the challenges faced by the agriculture of Pakistan and the opportunities for growth in the sector, Iqbal Institute of Policy Studies has organised a webinar on the topic: Revitalising the Agriculture Sector of Pakistan.

SESSION OBJECTIVES

1. To discuss the role of agriculture in the resuscitation of the economy of Pakistan.
2. To expound on the challenges faced by farmers in Pakistan.
3. To analyse the impact of technology on the agriculture sector.
4. To lay out a minimum reform agenda for the agriculture sector of Pakistan.

OUR DISTINGUISHED SPEAKERS



Dr Yousaf Zafar T.I

Former chairman PARC



Rabia Sultan

Progressive farmer &
Agricultural expert



Dr. Shujat Ali

Member IIPS Advisory
Board



Dr. Khaqan Hassan Najeeb

Public Policy Advisor



**Lt Gen Haroon
Aslam (Retd)**

President IIPS Advisory Board



The details of speakers and video of webinar may be found on:

https://www.facebook.com/watch/live/?v=73969433350276&ref=watch_permalink

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DR. SHUJAT ALI
MEMBER OF IIPS ADVISORY BOARD

According to Dr Shujat Ali, agriculture in Pakistan is nearing collapse. Agriculture remains an important pillar of Pakistan's economy. Its contribution towards the GDP has fallen from 53 percent to just 19 percent since 1947 while staying at an average of 20 percent over the last three decades. The decade of 1960 saw significant advancement in agriculture due to the green revolution, where agriculture grew by 5.1 percent, but the following decade of 1970 saw a decline in agricultural growth to less than 3 percent. In the 1980s, due to the commissioning of the Tarbela Dam and a breakthrough in cotton variety which doubled the productivity of the crop, agriculture again observed a growth rate of 5.4 percent. Lastly, the decade of the 90s also remained favourable to agriculture from a policy perspective. But since the beginning of the millennium, agriculture has been in a state of neglect. The first decade of the new millennium saw a growth rate of around 2.6 to 3 percent, while the growth rate remained fixed at 2.2 percent in the second decade, the lowest decadal growth in Pakistan's history. Considering that Pakistan's population growth rate stands at 2.4 percent and the agricultural growth rate at 2.2 percent, Pakistan is no longer a food sustainable country. If steps are not taken to change this scenario, Pakistan cannot sustain its population, and a crisis of food security is looming in the future. Agriculture also remains an important source of input and raw materials to other sectors of the economy with substantial backward and forward linkages in the textile, sugar, tobacco, food, and beverage industry. Based on Pakistan's performance over the last ten years, Pakistan has become a net importer of goods. For the first time in Pakistan's history, the government will simultaneously import sizable chunks of three major crops, including sugar, wheat, and cotton, at the cost of \$2.5 billion. That is in itself a massive burden on the already depleted foreign exchange resources. This dismal situation is greatly attributable to policy neglect of the agriculture sector and not realising its role and potential in the overall function of the economy.

DR. SHUJAT ALI
MEMBER OF IIPS ADVISORY BOARD (CONTINUED)

The policy framework of Pakistan prioritised the services sector in the first decade of this century, with growth and performance increasing in the telecommunications, finance, and industry sector. A high priority was placed on infrastructural development by building highways, metro busses, and electricity generation plants in the following decade. It is not to say that growth in these sectors was not necessary, but agriculture seemed to take a back seat in efforts aimed at building institutions and developing a robust policy framework for the future of Pakistan.



RABIA SULTAN

PROGRESSIVE FARMER & AGRICULTURAL EXPERT

According to Rabia Sultan, successive governments have neglected the agriculture sector over the past three decades. Taking a look at Pakistan, a land blessed with fertile alluvial plains, the Indus basin, four seasons, and every type of land from deserts to mountains, it is not understandable how such a country lost its focus on the agricultural policy. Farming infrastructure has also remained stagnant over the decades, hampering the farmers' ability to grow and store their produce. Due to this, farmers are forced to distress sell their crops at peak times. In the horticulture sector, the farmer is forced to sell his produce at a low price because no value chain exists for horticultural products. Countries that developed these value chains have achieved significant contributions from their agricultural sector. In 1988, under the National Agricultural Commission, a comprehensive agricultural policy was drafted for revamping agriculture in Pakistan, but its implementation remained problematic. Successive policies of 1991 and 2004 were also treated in the same fashion, and proper implementation could not be seen. Unless action is taken to mitigate the crisis looming over Pakistan's agriculture, the sector will experience a further decline. Another challenge that has plagued Pakistan over the last 20 years is an institutional failure in different sectors. Many institutions conduct research on agriculture, but they don't have financial support or government backing.

RABIA SULTAN
PROGRESSIVE FARMER & AGRICULTURAL EXPERT

Cotton production has dropped from 14 million bales to just 6 million bales, and the Central Cotton Research Institute (CCRI) struggles due to financial constraints and government neglect. The agriculture sector's performance declined, particularly after the 18th amendment, because of a lack of uniformity in policies, funding, and expertise among the provinces. The private sector offered to take over, but subsequently, in 2016, the textile industry stopped paying tax on cotton bales which led to a slash in the funding of the CCRI. This resulted in the halting of all research projects. Another major factor that impedes Pakistan's agricultural growth is the severe disconnect between academia, research, and extension of that research.

While looking at the national and progressive farmer yield, it can be seen that progressive farmers obtain an average of 4.6 tons per hectare compared with the national average of 2.6 tons per hectare. The national average also contains the high yield of progressive farmers, which means that small farmers' actual average remains lower. Pakistan does not have the fiscal space to import cotton. The green revolution has ended, and post green revolution challenges have started. The excessive use of chemical fertilisers has ruined the quality of land, and something needs to be done to increase the organic matter in the soil. There is also a serious need to introduce greater mechanisation. Billions of rupees are spent on importing inferior quality palm oil because the duty structure has impacted oilseed production negatively. Pakistan also lacks diverse machinery for different stages of farming. Farmers also lack training, and there is an urgent need to develop employable education for the rural youth population by bringing entrepreneurs to rural areas, restarting agricultural development. Lastly, special districts need to be created for each crop to enhance research and provide specific services required by each crop. The credit requirement for the agriculture sector is nearly Rs 1 trillion, but the formal sector does not have that capacity and off-market loans are offered to farmers at a high markup rate of 13 to 15 percent. The middleman who provides finance to these farmers knows each farmer's potential according to his crop and later buys the produce at a discounted rate leading to distress selling and the financial burden of loan.



DR YUSUF MIRZA T.I. FORMER CHAIRMAN PARC

Dr Yusuf Mirza, highlighted that food security is vital to our strategic safety, water security, and health security. The mechanisation of the agriculture sector started after the green revolution with the introduction of tractors and thrashers. Still, it is essential to reflect on the impact of technology on the agriculture sector of Pakistan. During the green revolution, there was no barrier to technological advancement, and the World Bank, along with USAID, helped procure 40000 tons of Maxipak seeds developed in Mexico. Experts related to different fields of agriculture also visited Pakistan frequently. As a result, there was a strong presence of ownership by the ruling elites and the country's leadership became extensively involved in the process. It was a success story for Pakistan as new seeds, fertilisers, and pesticides were adopted, plus new irrigation systems were introduced.

Pakistani agriculture became an opportunity for international donors, with support from the International Food Policy Research Institute and the Bill and Melinda Gates Foundation. But the green revolution remained focused on two crops, namely, wheat and rice. Pakistan only invests 0.18 percent of its agriculture GDP on agricultural research, which is the second-lowest even in the SAARC countries. The lowest is Bhutan, with a population of only 400k. India stands at 0.4 percent, and China invests an impressive 2 percent of its agricultural GDP on agricultural research. Pakistan cannot continue to depend on foreign funding for agricultural research. All educational institutions related to agriculture in Pakistan were built by USAID and not the Government of Pakistan. USAID funds do not come without restrictions, as currently, no research can be carried out on soya bean and canola plant. Despite all this, Pakistan introduced poultry farming which is a part of agriculture. Presently, the poultry industry has surpassed the sugar cane industry, which is the largest industry after textile. Pakistan saw a production of 16 billion eggs in the last year alone.

DR YUSUF MIRZA T.I
FORMER CHAIRMAN PARC

The investment in poultry farming is massive, at around Rs 1200 billion, but poultry remains the cheapest form of meat despite this massive cost compared to mutton, beef, and fish. The Atomic Energy Commission developed the first laser and land leveller technology in Pakistan, and the Punjab government deployed it through service providers. This laser technology became an essential tool in Pakistan's agriculture and helped save a lot of water for irrigation. In the early 70s, Pakistan imported honey bees through PARC. As a result, Pakistan became self-sufficient in honey and exported it to different countries, including Saudi Arabia, Oman, Qatar, and the Middle East. Also, crops that have previously not been possible to harvest in winters, like cucumber, are now quickly being farmed due to technological advancements. Seed import of Pakistan has seen a sharp increase from 800 million to 16 billion, mainly due to private sector interest in this area. There are now plants that manufacture seeds for exports. The Potohar valley is now being transformed into an olive valley with Rs 2.2 billion worth of projects being carried out by the Punjab government in the area. Fifty thousand acres is projected to become olive gardens with the Government importing machinery from Italy for oil extraction. Pakistan currently imports 1200 tons of olive oil from Spain and Morocco. With ripe olive fields in Baluchistan and the Chakwal district of Punjab, it is hoped that Pakistan will one day become an exporter of Olive oil. The world is changing at a swift pace. After the green revolution, Pakistan missed several technological revolutions, such as the biotech revolution and the IT revolution. Pakistan remains a founding member of the World Trade Organisation (WTO), and as agriculture is considered a tradeable commodity, there are intellectual property rights associated with it. Pakistan became restricted by global standards of trade in its agricultural sector. Although a ten-year grace period was given to Pakistan to achieve compliance with international standards, the infrastructure and machinery required to comply could not be developed. In 2005, it became known that Pakistan could not use BT cotton due to the signing of the WTO agreement, placing a barrier for future technological innovation. The Government of Pakistan does not take ownership of the agriculture sector, and whatever development can be seen is due to private sector investment.

**DR. KHAQAN HASSAN NAJEEB
PUBLIC POLICY ADVISOR**

According to Dr Khaqan Hassan Najeeb, agriculture has more importance than fiscal or energy policy. If Pakistan is to grow its economy, then the agriculture sector must provide impetus to the manufacturing industry to enable Pakistan to excel internationally and domestically. Stability in prices can only be achieved through agriculture. The world has witnessed three types of agriculture revolutions: the green revolution, gene revolution, and precision agricultural reform. Since Pakistan only benefited from the green revolution, the most critical task is to increase agricultural productivity. Pakistan has agricultural productivity of less than 50 percent in five staple crops. Due to this decreased productivity, Pakistan imported \$4 billion worth of cotton, wheat, and sugar cane. Therefore, Pakistan should focus on the productivity of agriculture for reform in the policy agenda. Another important aspect of agriculture is the availability of water. Canal water intake stands at 104 MAF, whereas the output is at 52 MAF. This means that half of the water used in agriculture is wasted, and, in a country, which is considered water-scarce by experts, it is indeed an alarming situation. Thirty-seven percent of Pakistan's people are food insecure at the moment, while food availability and nutrition content also remain low, translating into weakness in population development. Pakistan is poised to become the fifth most populous country globally, with a population growth rate of 2.4 percent. Therefore, the value of agriculture cannot be ignored, and competence and productivity have to become the foundation steps for future endeavours in reviving agriculture. Pakistan also experiences a strong government role in the agricultural sector trade, which has hurt the import and export of wheat and sugar. There is a need to liberalise the market so that farmers can export their products easily. The Government should not busy itself with such a level of details, and a market should be formed to determine prices for crops.

**DR. KHAQAN HASSAN NAJEEB
PUBLIC POLICY ADVISOR**

The Government should also make a targeted subsidy scheme which should be used to reduce the cost of doing business. Be it giving fertilisers, help in mechanisation, or watercourse lining, everything should increase productivity. Supply chains have always remained an issue, and more significant interventions are now needed. Experts in logistics are required to create synergy between the federation and the provinces. Although agriculture remains a devolved subject after the 18th amendment, the Federal Government should empower the sector's growth. The world is also experiencing an IT revolution. Artificial intelligence is rapidly changing the agricultural landscape, and the cost of input is going down due to better planning. China Pakistan Economic Corridor (CPEC) also presents a massive opportunity for the agricultural sector as it includes making agricultural development zones. These zones are linked to the next phase of Pakistan's agriculture. The export surplus, given Pakistan meets the WTO regulations, will allow Pakistan to enter the food processing phase.

KEY TAKEAWAYS

- Agriculture has remained an important pillar of Pakistan's economy, but its contribution to the GDP has fallen from 53 percent in 1947 to just 19 percent at present while staying at an average of 20 percent over the last three decades.
- Agriculture also remains an important source of input and raw materials to other sectors of the economy with huge backward and forward linkages in the textile, sugar, tobacco, food, and beverage industry.
- For the first time in Pakistan's history, the country will be simultaneously importing sizable chunks of three major crops, including sugar, wheat, and cotton, at the cost of 2.5 billion dollars.
- The reason for this dismal situation is greatly attributable to policy neglect of the agriculture sector and not realising its role and potential in the overall function of the economy.
- Pakistan's whole economy is dependent upon cotton, and the Central Cotton Research Institute (CCRI) is struggling due to financial constraints. Performance of the agriculture sector declined, particularly after the 18th amendment, because of lack of uniformity in policies, funding, and expertise among the provinces.
- A major factor that impedes agricultural growth in Pakistan is the serious disconnect between academia, research, and extension of that research to the farmers.

KEY TAKEAWAYS

- Pakistan only invests 0.18 percent of its agriculture GDP on agricultural research, which is the second-lowest even in the SAARC countries. The lowest is Bhutan, with a population of only 400k. India stands at 0.4 percent, and China invests an impressive 2 percent in agricultural research.
- The investment in poultry farming is massive, at around Rs 1200 billion, but despite this massive cost, poultry remains the cheapest form of meat in comparison to mutton, beef, and fish.
- The Government of Pakistan does not take ownership of the agriculture sector, and whatever development can be seen is due to private sector investment.
- The world has witnessed three types of agriculture revolutions, namely, the green revolution, gene revolution, and precision agricultural reform. Since Pakistan only benefited from the green revolution, the most important task is to increase agricultural productivity.
- Pakistan has agricultural productivity of less than 50 percent in five staple crops. Due to this decreased productivity, Pakistan imported \$4 billion worth of cotton, wheat, and sugar cane.
- In Pakistan, canal water intake stands at 104 MAF, whereas the output is at 52 MAF. This means that half of the water used in agriculture is wasted, and, in a country, which is considered water-scarce by experts, it is indeed an alarming situation.

KEY TAKEAWAYS

- Progressive farmers obtain an average of 4.6 tons per hectare compared with the national average of 2.6 tons per hectare. The national average also contains a high yield of progressive farmers, which means the actual average of small farmers remains even lower.
- The credit requirement for the agriculture sector is nearly Rs 1 trillion, but the formal sector does not have the capacity and off-market loans have a high markup rate of 13 to 15 percent.
- China Pakistan Economic Corridor (CPEC) also presents a massive opportunity for the agricultural sector as it includes making agricultural development zones. These zones are linked to the next phase of Pakistan's agriculture. It is the export surplus, given Pakistan meets the WTO regulations, that will allow Pakistan to enter the food processing phase.

MINIMUM REFORM AGENDA

- Pakistan has agricultural productivity of less than 50 percent in five staple crops. Due to this decreased productivity, Pakistan imported \$4 billion worth of cotton, wheat, and sugar cane. Therefore, Pakistan must focus on the productivity of agriculture for reform in the policy agenda.
- Pakistan is already considered among the world's most water scarce countries. As agricultural utilisation of water leads to wastage of nearly half of all the water intake, immediate action must be taken to address the situation to protect Pakistan's water reserves.
- The agriculture market is subject to strong government regulation which impacts the import and export of wheat and sugar crops. The government should adopt the liberal model for markets and allow the market to determine the price of crops.
- The Government should make a targeted subsidy scheme which can be used to reduce the cost of doing business. Be it giving fertilisers, help in mechanisation, or watercourse lining, everything should increase productivity.
- Supply chain has always remained an issue, and more significant interventions are now needed. There is a greater need to create synergy between the federation and the provinces to facilitate logistics.
- Though agriculture remains a devolved subject after the 18th amendment, yet the Federal Government should continue to play its role for empowerment of the agri sector, ensuring higher productivity.

MINIMUM REFORM AGENDA

Information technology is being extensively employed in agriculture sector. Artificial intelligence, satellite sensing, and use of drones has resulted in greater yield, conservation of energy/water and efficient use of pesticides. Pakistan needs to modernize its agriculture sector in this realm.

China Pakistan Economic Corridor (CPEC) also presents a massive opportunity for the agricultural sector as it includes making agricultural development zones. It's a great opportunity to revitalize our agriculture sector with the assistance of Chinese agri experts.

Upcoming Webinar Report

Revitalising the Agriculture Sector of Pakistan (Session 2)

Session Objectives

- The role of federal and provincial governments in revitalizing the Agri sector
- The role of technology in uplifting the Agri sector
- Increasing the crop yield and optimum utilization of water,
- How to facilitate farmers and enhance their productivity