

# PIDE's PRESCRIPTION FOR BETTER AGRICULTURE IN PAKISTAN



Muhammad Faisal Ali and Abedullah

## ► **AGRICULTURE SECTOR IN PAKISTAN**

The agriculture sector is a cornerstone of Pakistan's economy, yet it faces several challenges that hinder its productivity, profitability, long-term sustainable growth, and contribution to food security. As a result, Pakistan's per-acre yield remains well below the international average despite being one of the top ten global producers of several agricultural commodities. Regardless of multiple initiatives and efforts, Pakistan's agriculture sector failed to achieve the required production to help shift major crops' yield closer to the international averages. Therefore, at the first stage, it is crucial to document the key issues, policies, and practices that prevent us from fully realizing the potential of agriculture in Pakistan. At the second stage, there is an urgent need to address those issues by introducing reforms that can lead to economic transformation aimed at unlocking greater productivity and profitability.

Addressing these challenges necessitates a comprehensive and integrated strategy. The Pakistan Institute of Development Economics (PIDE) has undertaken the task of identifying and documenting the critical issues within the agricultural sector. These challenges include low productivity, the provision of unnecessary and poorly targeted subsidies in input and output markets, the presence of monopolies in these markets, excessive regulation, the deterioration of natural resources such as water and soil, and environmental degradation. Beyond merely documenting these problems, the institute has focused on empirical, evidence-based research to propose economically viable solutions aimed at enhancing the efficiency of agricultural markets. This includes optimizing resource markets like land and water, improving input markets such as seeds and fertilizers, and streamlining output markets for key crops including wheat, fruits, and vegetables.

The comprehensive findings of this evidence-based research have been shared through a series of reports, knowledge briefs, newspaper articles, blogs, and policy papers. PIDE has highlighted the urgent need for reforms across various agricultural markets. These reforms aim to create more efficient and competitive input-output markets by reducing bureaucratic barriers, deregulating the input markets (such as seeds and fertilizers) and output markets (including wheat, fruits, and vegetables), eliminating government intervention in price setting, and addressing monopolistic practices, particularly in the output sectors.

This document seeks to summarize PIDE's holistic approach to transforming Pakistan's agricultural landscape by liberalizing input-output markets. Building on PIDE's research during the past five years, it outlines the key recommendations designed to enhance the efficiency and competitiveness of the agricultural markets.

## **AGRICULTURAL INPUT MARKETS**

### **Liberalize Seed Industry**

Genetically pure and high-quality seeds are imperative to achieve the objective of high productivity in the agriculture sector. However, the current regulatory processes involve numerous steps and engage multiple government departments, resulting in significant delays and costs. It has badly damaged the growth and potential benefits of both agriculture and the seed sector. Different stakeholders are involved in the development and marketing of seed business considering that the seed sector is over-regulated. Due to over-regulation private sector is reluctant to invest in research and development of the seed sector because the private sector believes that the reputation of a brand is more valuable than the approvals from the Federal Seed Certification and Registration Department (FSC&RD). The government is spending more than 800 million per annum on FSC&RD but its certification does not earn any value in the market. Hence, there is a pressing need to liberalize the seed sector by transitioning from a centrally managed variety approval system. The proposed way forward by Abedullah and Ali 2023<sup>2</sup> & 2024<sup>3&4</sup> is summarized below

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<sup>2</sup><https://pide.org.pk/research/revitalising-the-seed-industry-in-pakistan/>

<sup>3</sup><https://pide.org.pk/research/evaluation-of-seed-industry-way-forward/>

<sup>4</sup><https://pide.org.pk/research/rethinking-the-seed-industry-in-pakistan/>

- Abolish the stringent process of seed certification to attract private sector investment and to create space for its growth. Currently, a poorly regulated seed market promotes low-quality seeds, affecting agricultural productivity adversely
- A transition from a centrally controlled variety approval system to a free market mechanism is an urgent requirement, where entry and exit are free without any restriction.
- The role of public sector in the seed production business and price regulation needs to be abolished.
- Granting intellectual property rights IPRs system should be more transparent and justified, which is only possible with the engagement of the private sector.
- There is a need to establish specialized courts having sufficient knowledge and expertise about biosafety systems, tools, genes, and procedures used in the development of transgenic varieties to decide confrontation on IPRs or the existing courts should seek the technical expertise from the relevant experts.

## **Abolish Fertilizer Subsidies**

Similarly, our research revealed that fertilizer subsidy is not an effective policy tool to offer low prices to consumers because it is observed that the contribution of fertilizer subsidy in reducing retail prices is negligible. An average family of 5 persons which consumes 15 maunds of wheat, 2 maunds of rice, and 30 kg of sugar in a year will get a monetary benefit of Rs.893 per annum (Rs.74/month) in terms of low prices against the subsidy of Rs.200 billion on fertilizer (Abedullah, 2021)<sup>5</sup>.

## **Economic Water Pricing for Irrigation Water**

Offering heavy subsidies on irrigation water is another policy failure to achieve the highest possible productivity and sustainable utilization of this valuable natural resource. In the presence of low water prices farmers have no advantage to invest in water-saving technologies (drip irrigation and sprinkling), leading the country toward serious water crises. It requires comprehensive reform to implement water pricing mechanisms to incentivize its efficient use. This may involve restructuring Abiana's charges or implementing marginal water pricing systems to discourage excessive usage. The loss to the government due to the absence of economic water pricing or water charges is estimated to be in the range of Rs.677.56 billion and Rs.899.05 billion per annum, accounting for 0.81 percent to 1.07 percent of the country's GDP (Ali and Abedullah, 2024).

## **Formal and Informal Credit Market**

The arthi operates within the informal credit market, providing financial assistance to small farmers. This role is essential given the inefficiency of formal financial institutions that has hampered by its lengthy procedures.

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<sup>5</sup><https://pide.org.pk/research/fertiliser-subsidy-an-ineffective-policy-tool-to-offer-low-prices-of-basic-food-commodities/>

Arthies not only offer credit but also act as intermediaries, helping farmers sell their produce. They provide flexibility in credit repayment, often adjusting terms based on farmers' financial circumstances or crop failures. However, they charge significantly higher interest rates than formal lenders, which some view as exploitative. Despite this, farmers frequently rely on arthies due to the flexibility and lack of stringent conditions compared to formal banking channels. While arthies play a critical role in supporting farmers, especially during crises but the financial burden they impose on farmers raises concerns. The study proposes that formal institutions could learn from the arthi model to better penetrate the agricultural credit market, emphasizing the need for reforms in the formal credit system to offer more farmer-friendly solutions (Abedullah and Naurin, 2022)<sup>6</sup>.

## **Land Reforms through Agricultural Land Consolidation**

Pakistan's agricultural landscape is characterized by small and fragmented land holdings. The average landholding size is relatively small, making it challenging for farmers to adopt modern farming techniques, mechanization, and efficient resource management. Agricultural Land Consolidation (ALC) is a land management procedure that entails restructuring, reorganizing, or redistributing land holdings by reducing the number of plots or parcels to create larger, more efficient, and more logically shaped land holdings. Therefore, ALC can be a tactical solution to handle phenomenon of decreasing farm sizes, allowing better access to modern agricultural technologies, economies of scale, and improved productivity. This, in turn, would benefit small farmers by lowering production costs and enhancing profitability. It would lay the foundation for a more prosperous and sustainable agricultural future. This transformation will not only bring benefits to farmers but also play a significant role in boosting food security, fostering rural development, and contributing to overall economic growth (Ali, 2023<sup>7</sup> &<sup>8</sup>).

## **Invigorate Agricultural Land Market**

The transfer of agricultural land serves as the fundamental building block of land markets. Surprisingly, when assessing factors influencing overall agricultural production, the issue of a fragile land market is often overlooked. The process of transferring agricultural land from seller to buyer involves numerous participants and can take several months to complete the process in Pakistan. Each transaction typically takes around 3 to 4 months and is marred by multiple instances of corruption. Costless and hassle-free transaction of land is almost impossible. Land prices in Pakistan have always been inelastic because it is considered an important asset for maintaining social status and political power. To invigorate the agricultural land market in Pakistan, a few reforms are prerequisites (Rose, 2023)<sup>9</sup>.

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<sup>6</sup><https://pide.org.pk/research/the-role-of-arthi-in-agriculture-marketing-an-exploiter-or-facilitator-of-farmers/>

<sup>7</sup><https://pide.org.pk/research/agricultural-land-consolidation/>

<sup>8</sup><https://pide.org.pk/research/land-reforms-through-agricultural-land-consolidation/>

<sup>9</sup><https://pide.org.pk/research/the-neglected-tale-of-agricultural-land-markets/>

- Land transfer regulations in Pakistan are outdated, stemming from pre-partition laws. Needs update
- Revisit Land Transfer Fees and eliminate the DC rate system. IF DC rates are necessary then fix them at market rate. Moreover, the valuation of agricultural land should be based on factors like location, amenities, soil type, and distance from the market.
- To combat corruption at the transaction level, it is recommended to decrease the land transfer fees and computerize all the land record.

## ▶ **AGRICULTURAL OUTPUT MARKETS**

### **Eliminate Support Prices and Subsidies**

Government interference through price support has considerably reduced the efficiency of agricultural markets. Additionally, this intervention places a substantial financial burden on the government, making it unsustainable in the long term, particularly given the budget deficits. PIDE is continuously advocating to end the support prices for the crops as these policies have failed to achieve their intended outcomes of offering low prices to consumers. Rather, fixing MSP has led to transfer taxpayers' money to flour mills and the middlemen without creating any benefit to producers or consumers (Jalil et al., 2020<sup>10</sup>, Abedullah 2020<sup>11</sup>, Rose and Abedullah 2023<sup>12</sup> & 2024<sup>13</sup>, Rose and Ali 2024<sup>14</sup>). The implementation of the Minimum Support Price (MSP) has placed a significant financial burden on the government, primarily through the procurement process, which is funded via bank loans, institutional involvement, and specific budget allocations. Additionally, there is a forego loss due to reduced acreage allocation to competing crops, which are more profitable than wheat. In 2023, the procurement process alone resulted in a cost of approximately Rs. 168 billion, with institutional budgets amounting to Rs. 260 billion, and lost benefits from reduced acreage allocation under competing crops reaching around Rs. 11 billion. The cumulative burden, exacerbated by circular debt accumulated over the years has reached to Rs. 907 billion, implying that the current MSP implementation is not sustainable. (Ali and Abedullah, 2024)<sup>15</sup>.

### **Deregulate Sugar Market**

The complexities and challenges in Pakistan's sugar industry, including its production, regulation, and the recent sugar crisis were also explored at PIDE by Abedullah et. al., (2020). Key points include:

<sup>10</sup><https://pide.org.pk/research/wheat-support-price-a-note-for-policy-makers/>

<sup>11</sup><https://pide.org.pk/research/does-free-market-mechanism-offer-a-win-win-situation-to-wheat-consumers-and-the-government/>

<sup>12</sup><https://pide.org.pk/research/wheat-import-doors-not-closed-yet/>

<sup>13</sup><https://pide.org.pk/research/subsidies-vs-market-forces/>

<sup>14</sup><https://pide.org.pk/research/revitalising-agriculture-road-to-green-revolution/>

<sup>15</sup><https://pide.org.pk/research/the-cost-of-government-interference-in-agricultural-markets/>

- Pakistan is an important global player, ranking 7th in sugar production and export. Despite this, recent crises highlight issues related to export subsidies, which contributed to increased domestic sugar prices.
- There is a misconception that sugarcane is replacing cotton but our empirical findings reveal that other crops, such as maize and rice, have expanded more at the expense of cotton due to higher profitability and productivity of these crops.
- Unlike wheat, the government does not directly procure sugarcane, and thus, the support price acts merely as a benchmark. The lack of competition among sugar mills, caused by restrictive regulations like the "License Raj" and import tariffs, contributes to cartelization and reduces market efficiency.
- Sugarcane is often criticized for being water-intensive. Though sugarcane produces more output per liter of water than other crops but its monetary return per liter is significantly lower compared to cotton, maize, and rice, highlighting inefficient water use.
- The crisis in 2019-2020 was driven by export approvals despite declining production, leading to price hikes. Poor regulatory oversight and market manipulation by sugar mills exacerbated the situation.

PIDE recommend the deregulation of the sugar market, elimination of entry barriers for new mills, and reduction of trade restrictions to foster competition and improve market efficiency. (Abedullah et. al., 2020)<sup>16</sup>.

## **Abolish to implement DCO Prices for Fruits and Vegetables**

On day to day basis, Deputy Commissioner Office (DCO) announced prices of fruits and vegetable and grain prices are announced on weekly basis. The prices announced by DCO office called DCO prices. Although, market committed at the Tehsil level is responsible to announce these prices on the behalf of DC office. For perish commodities these prices are announced after adding 15% to 20% in the auction prices in the whole sale market (Mandi). However, this increase does not cover the different costs (transport, wastage, labor, electricity, rent etc.) faced by the retailer. Resultantly, DCO prices are not being observed in the real market. Moreover, monitoring cost for its implementation is too high, implying that implementation of DCO prices is neither economically feasible nor practically viable. Therefore, PIDE has recommended that govt. should not interfere in the market by fixing prices (Abedullah and Naz, 2023)<sup>17</sup>.

## **Storage Facilities and Private Procurement**

Agricultural storage facilities in Pakistan face significant challenges that reduce efficiency and profitability. These facilities, classified into grain storage and cold storage but in both cases, it is three times less than the required capacity, with distant locations in regions like KPK and Baluchistan.

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<sup>16</sup><https://pide.org.pk/research/the-sugar-industry-of-pakistan-understanding-structural-and-regulatory-underpinnings-of-the-current-sugar-crisis-3/>

<sup>17</sup><https://www.aciar.gov.au/sites/default/files/2024-05/adp-2017-024-final-report.pdf>

Government restrictions, especially on private wheat procurement, discourage private investment in this sector. Consequently, existing facilities are inadequate. Due to poor infrastructure, lack of ventilation, temperature control, and pest management, leading to high post-harvest losses. Storage inefficiencies result in losses of around 10 percent for grains and 22 percent for fruits and vegetables. These losses, particularly from poor storage handling, costing Pakistan's agriculture sector about Rs. 315.41 billion annually (Ali and Abedullah, 2024)<sup>18</sup>.

Therefore, PIDE proposed that the government should allow and encourage the establishment of private storage facilities on a larger scale to significantly reduce post-harvest losses. By lifting restrictions on private sector involvement, particularly in the case of key crops like wheat, private investment in modern, well-equipped storage infrastructure could be stimulated. This would help to address the current insufficiency in storage capacity, improve the distribution of facilities across rural areas, and enhance the overall quality of storage, including better ventilation, temperature control, and pest management systems. Ultimately, this shift would lead to a reduction in spoilage, preservation of produce quality, and an increase in farmers' profitability by allowing them to store their crops and sell them at better prices when market conditions are favorable.

## **Research and Development:**

Diverting the resources incurred on subsidies and implementing the minimum support price towards R&D in a sustainable manner could play a significant role in enhancing productivity. If we lift our average production to our progressive farmer's production in five major crops it could add Rs. 1722 billion to our economy. To achieve this, restructuring of seed market can play an emergent role (Abedullah and Ali, 2024)<sup>19</sup>.

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<sup>18</sup><https://pide.org.pk/research/the-cost-of-government-interference-in-agricultural-markets/>

<sup>19</sup><https://pide.org.pk/research/evaluation-of-seed-industry-way-forward/>