

AGRI. BUSINESS SUPPLEMENT

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BUILDING CLIMATE-SMART WHEAT FIELDS THROUGH FARMER AWARENESS

(Dr. Hafiz Muhammad Mohsin Raza, OGII/Head Compliance & Coordination Unit, General Services Division, ZTBL)

Punjab is the heart of Pakistan's wheat production, supplying the staple food that feeds millions of people. Yet, changing weather patterns, rising temperatures, irregular rainfall and increasing climate-related risks are making wheat cultivation more challenging with every passing season. While these challenges cannot be avoided entirely, farmers can reduce their impact by adopting climate-resilient farming practices. However, before any new technology or farming method can be adopted, farmers must first understand its value and know how to use it.

A recent study conducted across six major wheat-growing districts of Punjab offers valuable insights into how well farmers understand climate-resilient agricultural practices and which groups of farmers are more likely to embrace new knowledge. The findings highlight both encouraging progress and important gaps that need attention if Pakistan's wheat sector is to remain productive and resilient.

A Snapshot of Wheat Farmers in Punjab

The study gathered information from 384 wheat growers representing different agro-ecological zones of Punjab. Most respondents were experienced farmers who had spent more than two decades in wheat cultivation. Nearly half cultivated less than five acres of land, reflecting the dominance of smallholder farming in Pakistan.

The survey also revealed that formal education levels remain relatively low among many growers. While years of farming experience provide valuable practical knowledge, limited education can make it more difficult for farmers to access, understand and apply new agricultural technologies. This underlines the continued importance of extension services, field demonstrations and farmer-to-farmer learning.

Most farming households relied on a combination of crop production and livestock as their main source of income, helping them spread risks associated with fluctuating weather and market conditions.

Farmers Are Becoming More Aware of Climate-Smart Practices

One of the encouraging findings of the study is that awareness of several climate-resilient farming practices is already fairly strong among wheat growers.

Farmers showed the greatest familiarity with ridge sowing, seed priming, compost application, raised-bed planting, drill sowing, proper irrigation management and the use of farmyard manure. These practices are increasingly recognised for improving water-use efficiency, promoting healthy crop establishment, conserving soil moisture and reducing production risks during uncertain weather conditions.

The growing awareness of these practices reflects the positive contribution of agricultural extension programmes, research institutions, input suppliers

and farmers' own experience in adapting to changing climatic conditions.

Many growers also demonstrated reasonable understanding of reduced tillage, zero tillage and improved crop management techniques. Although these practices are not yet universally adopted, awareness continues to improve as farmers gain exposure through demonstrations and interactions with fellow growers.

Important Knowledge Gaps Still Need Attention

Despite encouraging progress, the study also points to several areas where awareness remains limited.

Intercropping emerged as the least understood climate-resilient practice among wheat growers. Similarly, awareness of integrated pest management and improved post-harvest handling techniques was comparatively low. Many farmers also require greater understanding of climate-resilient crop varieties and balanced nutrient management.

These gaps are significant because climate resilience does not end when the crop is harvested. Better pest management, improved storage and post-harvest practices can reduce production losses, improve grain quality and increase farm income. Likewise, diversified cropping systems can strengthen resilience against pests, diseases and weather-related shocks while improving soil health over time.

Bridging these knowledge gaps will require practical, field-based training rather than relying solely on printed materials. Demonstration plots,

farmer field schools, digital advisory services and community-based learning can play an important role in making these technologies easier to understand and adopt.

Who Is More Likely to Be Climate-Aware?

The study found that awareness of climate-resilient agriculture does not develop evenly across all farming communities.

Older and more experienced farmers generally displayed better awareness because of their longer exposure to changing weather patterns and farming challenges. Farmers with higher levels of education were also more familiar with improved production practices, highlighting the role of education in accessing and understanding agricultural information.

Similarly, growers operating larger farms or earning higher annual incomes tended to possess greater awareness. Their stronger financial position often enables them to participate in training programmes, interact with extension workers and experiment with improved technologies.

Interestingly, the study found that land tenancy had little influence on farmers' awareness. Whether land was owned or leased did not significantly affect knowledge of climate-resilient practices. Instead, access to information, education, farming experience and economic resources emerged as the more important factors shaping awareness.

The findings also indicated that farmers with greater awareness generally achieved better wheat

yields, reinforcing the idea that informed farming decisions can contribute to improved productivity.

What Do These Findings Mean for Pakistan?

As climate variability continues to intensify, building farmers' knowledge will become just as important as providing improved seed or fertiliser. Awareness is the foundation upon which successful adoption of climate-smart agriculture depends.

For policymakers, the findings reinforce the need to strengthen agricultural extension services and ensure that training programmes reach smallholders, who often have fewer opportunities to access new information. Communication should be practical, localised and delivered in languages and formats that farmers can easily understand.

Digital technologies also offer promising opportunities. Mobile advisory services, weather alerts, interactive helplines and social media platforms can complement traditional extension systems and provide farmers with timely guidance throughout the cropping season.

Financial institutions also have an important role to play. Banks supporting agricultural development, including ZTBL, can integrate farmer awareness initiatives with agricultural financing by encouraging borrowers to adopt climate-resilient technologies alongside credit support. Linking finance with knowledge can help farmers invest more confidently in practices that improve productivity while reducing climate-related risks.

Preparing Wheat Farming for the Future

Climate change is transforming agriculture across Pakistan, making resilience an essential

requirement rather than an option. While many wheat growers are already familiar with several climate-smart farming practices, considerable opportunities remain to strengthen awareness in areas such as intercropping, integrated pest management and post-harvest handling.

The study clearly demonstrates that informed farmers are better positioned to make sound production decisions and achieve improved crop performance. Expanding access to practical training, reliable advisory services and modern agricultural information will therefore be critical for strengthening Pakistan's wheat sector.

Building climate resilience begins with building knowledge. By equipping farmers with the right information, practical skills and institutional support, Pakistan can protect wheat production, improve rural livelihoods and strengthen national food security in an increasingly uncertain climate.

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SILAGE: TURNING FODDER INTO A YEAR-ROUND FEED BANK

For a dairy farmer, feed is one of the biggest recurring costs and its availability can change considerably with the season. Green fodder may be plentiful at one time of the year and difficult to obtain at another. When good-quality fodder becomes scarce, the farmer may have to depend more heavily on purchased feed. Silage offers a practical way to deal with this seasonal gap. In simple terms, silage is green fodder preserved through controlled fermentation. Properly prepared silage can be stored for months and used when fresh fodder is not readily available.

WHY DOES SILAGE MATTER?

Livestock is at the heart of Pakistan's rural economy. According to the *Pakistan Economic Survey 2025-26*, livestock contributed 62.45 percent of agricultural value added and 14.64 percent of Pakistan's GDP during the year.

For dairy farmers, maintaining a consistent supply of good-quality feed is important for animal health and milk production.

This is where silage can help. Instead of relying entirely on whatever green fodder happens to be available in a particular month, farmers can prepare and store fodder when it is abundant. It is essentially a feed bank for the farm.

WHAT CAN BE USED FOR SILAGE?

Maize is one of the most commonly used crops for silage because it can provide good energy content and produces substantial biomass. Other suitable forage crops can also be ensiled, depending on their characteristics and local conditions.

The important thing is not simply to cut a crop and put it into a pit or bag. Successful silage depends on the crop's moisture level, chopping, compaction, exclusion of air and proper sealing. If these steps are poorly managed, the feed can spoil instead of fermenting properly.

THE BASIC PROCESS

Making good silage is not complicated, but it requires care. The crop is harvested at an appropriate stage and chopped into relatively small pieces. The chopped material is then packed tightly into a suitable silo, pit, bunker or bag. The most important objective is to remove as much air as possible.

Once the material is sufficiently compacted, it must be sealed properly so that oxygen cannot enter. Under these conditions, naturally occurring lactic-acid bacteria ferment the plant sugars and preserve the fodder.

If air continues to enter, undesirable microorganisms can grow and spoil the feed. This is why poor compaction or damaged covers can turn an otherwise good crop into wasted feed.

QUALITY MATTERS MORE THAN SIMPLY HAVING SILAGE

A properly fermented product generally has a pleasant acidic smell and retains much of its useful nutritional value. Mould, excessive heating, foul odour or visible spoilage are warning signs that something went wrong during preparation or storage. Farmers should therefore pay attention to:

- Harvesting the crop at the appropriate moisture level.
- Chopping it uniformly.
- Compacting the material properly.
- Sealing the silo immediately.
- Preventing rainwater and air from entering.
- Inspecting the storage area regularly.
- Removing only the amount required for feeding and keeping the remaining material covered.

SILAGE CAN REDUCE SEASONAL PRESSURE

One of the biggest advantages of silage is that it separates fodder production from fodder use. A farmer can prepare silage when a crop is available in sufficient quantity and then use it during periods when green fodder is less available.

This can make feed planning more predictable. However, silage should not be considered a complete replacement for a balanced livestock ration. Animals also require appropriate protein, minerals, vitamins, clean water and other nutrients according to their production stage.

A dairy animal producing large quantities of milk has different nutritional requirements from a dry

animal or a growing calf. The ration should therefore be balanced according to the animals' needs.

MACHINERY IS MAKING SILAGE EASIER

Silage preparation can be labour-intensive when done manually. Modern forage harvesters and silage machinery can make harvesting, chopping and handling much faster. This is particularly useful for commercial dairy farms and farmers producing silage on a larger scale. But machinery ownership is not necessary for everyone. Small farmers can potentially use custom-hiring services or purchase silage-making services from specialised operators. This is an important point for Pakistan's small and medium-sized livestock farmers.

A BUSINESS OPPORTUNITY BEYOND THE DAIRY FARM

Silage is not only a feed-management option. It can also become a small agricultural business.

Farmers with suitable land and machinery can produce silage for neighboring dairy farms. Custom silage-making services can provide an additional source of income while helping other livestock farmers obtain feed. This type of local service can be particularly useful in areas with clusters of dairy farms.

It also creates a possible role for agricultural finance. Investment in suitable harvesting, chopping, packing and storage equipment can make sense where there is sufficient demand.

A FEW MISTAKES CAN BE EXPENSIVE

Farmers preparing silage for the first time should avoid trying to do everything on the basis of guesswork. Common problems include harvesting at the wrong stage, excessive moisture, inadequate compaction, poor sealing and leaving opened silage exposed to air.

Technical guidance can prevent many of these problems. Agricultural universities, livestock departments, extension services and experienced dairy farmers can provide useful advice on crop selection, harvesting stage, storage and feeding.

THE BIGGER PICTURE

Pakistan's livestock sector is already a major contributor to agricultural income. Improving the availability and quality of feed can therefore have benefits beyond an individual dairy farm. Better feed management can help farmers maintain milk production more consistently, reduce dependence on purchased green fodder during shortage periods and make better use of seasonal fodder crops. The principle is simple: *“When fodder is available, preserve it. When fodder is scarce, use the stored supply”*.

Silage is not a miracle solution, and it does not eliminate the need for proper livestock nutrition. But when prepared correctly, it can give farmers something extremely valuable.

For Pakistan's livestock farmers, that control can translate into a more predictable and potentially more profitable farming operation.

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SBP UPDATES

SBP Launches Landmark Initiative: Teenagers Can Now Open Independent Bank Accounts

In an important move to build a financially savvy young generation, the State Bank of Pakistan (SBP) has launched a new framework for teenagers' accounts enabling them to independently own and operate bank accounts and digital wallets. The framework is designed to empower the country's youth to save securely, transact confidently, and develop responsible financial habits. This initiative is a cornerstone of SBP's Strategic Plan 2023-28 and the National Financial Inclusion Strategy (NFIS) 2024-28, which prioritize youth inclusion.

SBP releases Half- Year Report FY26 on The State of Pakistan's Economy

Pakistan's macroeconomic stability strengthened further in H1-FY26 despite global trade uncertainty and domestic floods, although the Middle East War poses risks to inflation, external trade, remittances, and economic activity through supply chain disruptions. Economic indicators improved, with lower average National CPI inflation and stronger external buffers supported by SBP's FX purchases, net financial inflows, prudent monetary and fiscal policies, structural reforms, favorable commodity prices, and the IMF program. Fiscal consolidation and lower interest payments turned the fiscal balance into a surplus for the first time since FY02, while the primary surplus remained at last year's level. However, sustained high growth requires deep-rooted reforms to address low savings and investment, weak competitiveness, falling exports, subdued FDI, and the low tax-to-GDP ratio. The Report also highlights Pakistan's high climate vulnerability despite its low global emissions contribution, noting that low preparedness, high emissions intensity, and limited climate financing

pose significant economic risks and require greater investment in climate mitigation and adaptation.

SBP Unveils New Official Website Effective July 1, 2026

The State Bank of Pakistan (SBP) launched its redesigned official website on July 1, 2026, providing a faster, easier and more user-friendly digital experience for citizens, businesses, financial institutions, researchers, journalists and other stakeholders. The new website offers simplified navigation, easier access to information and bilingual English and Urdu options. Developed after extensive research and stakeholder consultations, the revamped website is an important step in SBP's digital transformation and reflects its commitment to transparency, innovation and stakeholder engagement.

Quarterly Payment Systems Review of Q3 FY26

The State Bank of Pakistan (SBP) has released its Quarterly Report on Payment Systems for January to March 2026. The report provides an overview of key payment trends through formal banking and payment channels and does not include transactions conducted outside the banking/payment system. During the quarter, 3.7 billion retail payments amounting to PKR 168.8 trillion were processed, with 92 percent conducted through digital channels, including mobile banking, internet banking, USSD, ATMs, POS, e-Commerce and call center IVR banking. Digital payments reached 3.4 billion transactions worth PKR 68 trillion, reflecting growing adoption of digital payment methods. Mobile app-based payments dominated, with 2.9 billion transactions through apps offered by branchless banking players, banks and EMIs. Raast also maintained strong growth, processing 742.1 million transactions worth PKR 23.3 trillion.

MANAGEMENT TIPS

THE QUESTIONS GREAT MANAGERS ASK

Managers are often promoted for having answers. But as responsibilities grow, one of the most valuable leadership skills may be knowing when **not** to provide one. When employees bring a problem to a manager, the natural response is to diagnose it, offer a solution, and move on. Efficient? Yes. But over time, this can create dependency: employees learn to take problems upward rather than think through them themselves.

A Different Approach

Good questions can uncover information, improve conversations, encourage learning, and help people take greater ownership. Instead of immediately saying, "Here's what we should do," try asking, "What problem would this solve?"

The question doesn't mean you agree with the idea. It simply gives the employee an opportunity to explain the thinking behind it. Thoughtful questions can improve learning, relationships, and decision-making and help employees develop their own solutions.

Building Better Conversations

Not every question produces the same response. "Why did you do that?" can sound like criticism. "What led you to that decision?" invites explanation.

Instead of asking, "Who is responsible for fixing this?" try "What do you think the next step should be?"

The goal isn't to make employees solve everything alone. It is to help them develop the judgment to solve more problems themselves.

Creating a Culture of Curiosity

Managers also shape the culture through how they respond when employees speak up.

When someone raises an unexpected concern, try "Tell me more." When someone proposes an unconventional idea, ask "What makes you think this could work?". These responses signal that questions, uncertainty, and different perspectives are welcome. That matters because teams are more likely to learn and speak openly when people feel safe raising concerns and acknowledging mistakes.

Knowing When to Lead

Employees sometimes need a clear decision, direction, or resource. If a manager responds to every issue with another question, the approach can feel evasive. The real skill is knowing when to answer and when to inquire.

A useful test is: Will giving the answer solve today's problem or help prevent the employee from learning how to solve tomorrow's? If the second is true, pause before giving the solution. Ask one more question.

A Small Change

Try changing your next one-on-one conversation. Alongside tasks and deadlines, ask:

"What are you most excited about? What's getting in your way? What decision are you wrestling with? What would you do if you had complete freedom? What do you need from me?"

These questions can transform a routine status meeting into an opportunity to surface problems, develop judgment, and understand what motivates people.

The strongest managers aren't necessarily those with the fastest answers. They may be the ones who know *which question to ask next*.

Source: Harvard Business Review

NATIONAL NEWS

MIDDLE EAST CONFLICT: AGRI SECTOR HIT HARD BY SUPPLY DISRUPTIONS

Agriculture and basmati rice trade are facing major pressure from the Gulf conflict as disruptions in energy, fertiliser and fuel supplies threaten the upcoming Kharif season. Global basmati exports by India and Pakistan, which reached 6.85 million tons in FY2024-25, are expected to fall to around 6.4–6.5 million tons, mainly due to lower Indian shipments, delays, higher freight and insurance costs, and payment issues in West Asian markets. Analysts also estimate that India, Bangladesh and Thailand could lose 11–13 million tons of rice output, around 2.5–3pc of global production. Industry experts warn that the next two to three weeks will be crucial for rice sowing, with fertiliser, LNG and diesel supplies through the Strait of Hormuz key to protecting crop yields across the region.

PUNJAB ALLOWED POTATO EXPORTS INTO RUSSIA

Russia has allowed potato imports from Punjab, effective April 8, 2026, lifting phytosanitary restrictions imposed in May 2025. Initially, three Pakistani exporters have been approved, while more companies may be added after meeting Russian requirements. The move comes as Pakistan expects a bumper potato crop of around 12 million tons and could help absorb surplus stocks, support farmers, stabilize local prices and boost foreign exchange earnings. Officials said efforts are also underway to facilitate B2B links between Pakistani exporters and Russian buyers.

CENTRAL COTTON RESEARCH INSTITUTE (CCRI) ADVISES GROWERS TO ADOPT HEATWAVE PROTECTION STEPS

The Central Cotton Research Institute (CCRI) Multan has advised cotton growers in Punjab and Sindh to take immediate steps to protect crops from the ongoing heatwave, with temperatures expected to reach 46°C–50°C. CCRI Director Sabahat Hussain recommended light irrigation during cooler hours and a foliar spray of potassium sulphate, zinc sulphate and borax. Farmers were also advised to apply urea at the flowering and boll formation stage, remove bollworm-affected flowers, install pheromone traps and inspect fields at least twice a week to control pest attacks and minimize crop losses.

ADB TO FINANCE KP'S AGRI SECTOR PROJECT WORTH USD239.13M

The Asian Development Bank (ADB) is likely to finance the USD239.13 million Khyber Pakhtunkhwa Resilient Irrigated Agriculture Livelihood Development Project (KPRIALDP), which aims to improve irrigation, water management, agricultural research, extension services, forestry and wildlife. The project includes rehabilitation of the Pehur Main Canal command area covering 14,385 hectares, irrigation of 4,424 hectares in Mardan and Nowshera, and development of 1,466 hectares in Chitral. Officials said the project could boost cultivated and irrigated areas, crop productivity, employment and food security, with modern irrigation and high-value crops also being promoted.

Source: Business Recorder

ZTBL NEWS

MEASURES FOR FUEL CONSERVATION

As per the current economic landscape, ZTBL ensures resilience and operational stability by introducing sustainable measures. Accordingly, all employees are advised to adhere to the following guidelines for meticulous compliance:

- i. Whenever possible, replace physical site visits and in-person intra branch/ office meetings through zoom/ video conferencing.
- ii. All tours programs must be pre-approved and routes should be planned using the most fuel-efficient routes, and “trip-pooling” is highly encouraged for executives touring to similar locations.
- iii. Employees should coordinate with colleagues living in the same vicinity to share commutes and reduce financial burden on individuals.
- iv. To meet the desired results, usage of fuel should be reduced by 25% monthly in litres across the country including Head Office.
- v. The compliance will be monitored at Head Office level.

INCREASE IN RATE OF SPECIAL CONVEYANCE ALLOWANCE TO DISABLED EMPLOYEES OF THE BANK

The BOD in its 131st meeting held on 12.05.2026 has enhanced existing rates of Special Conveyance Allowance from Rs. 4,000/- to Rs. 6,000/- per month w.e.f 01.5.2026. this allowance is admissible to those disabled employees of the bank who have been declared/ certified as disabled person by an authorized Medical Board and in possession of valid CNIC bearing “Special Person” mark identification. This allowance shall be sanctioned by HR

Operations Department to eligible employees of the bank on case to case basis.

FACILITATION OF MERCHANT OPERATIONS WITH IMPLEMENTATION OF DIGITAL PAYMENT SOLUTION (QR CODE)

In continuation of the Operations Division Circular regarding merchant accounts, the Technology & Innovation Group has successfully initiated the issuance of QR Codes for merchant accounts and executed successful transactions. Accordingly, the process for onboarding merchants onto digital payment platforms has now been fully operationalized. In order to ensure compliance with regulatory requirements and achieve the targets assigned by SBP, all branches are advised to actively identify and open new merchant accounts, ensure completeness and accuracy of merchant data/information at the time of account opening, and promptly share the required merchant information with the Digital Operations Department for issuance of QR Codes.

Branches are further advised to facilitate and educate merchants regarding the usage of QR-based digital payment solutions to promote adoption and usage, and ensure timely follow-up to achieve assigned targets within stipulated timelines. This initiative is of significant importance for promoting digital payments, enhancing financial inclusion, and ensuring compliance with SBP directives. All concerned branches and their respective Regional Management are advised to carefully review the instructions and accord this matter the highest priority to ensure achievement of SBP-assigned targets within the stipulated timelines and maintain strict compliance.