



The Backbone of Pakistan: Revitalizing Agriculture through Innovation

Pakistan's agricultural sector is not merely an economic segment; it is the backbone that nourishes the nation's populace and propels its economic progress. Employing over 37% of the labor force and contributing roughly 46% to GDP through direct and indirect linkages with other sectors, the importance of agriculture is paramount. It serves as a crucial source of foreign exchange, significantly impacting our current account balance by as much as \$15 billion, thereby underscoring its vital role in the country's financial stability.

Amid the challenges faced by this sector, innovative and unconventional solutions emerge as beacons of hope. These approaches are essential for overcoming the current stagnation and transforming traditional practices into a modern, efficient, and sustainable agricultural framework. The recent Agri-Connections conference in Lahore exemplified this belief, bringing together diverse stakeholders to foster progress and innovation.

At the conference, the ZarZaraat agri start-up competition, sponsored by The Bank of Punjab, was introduced. This platform aims to bridge the gap between agricultural start-ups and necessary capital by showcasing innovative technologies to potential investors. This initiative reflects a commitment to nurturing agricultural entrepreneurs' growth.

International models of agricultural innovation were also highlighted, providing guidance for Pakistan's future. The vision of Pakistani farmers directly connecting with consumers, similar to India's BigBasket platform, is achievable. Likewise, the success of Hello Tractor in Africa serves as inspiration for Pakistani agricultural machinery service providers, helping

smallholder farmers adopt mechanized farming through mobile technology, which enables on-demand tractor bookings and enhances productivity.



Zafar Masud
President & CEO
The Bank of Punjab

Innovation's scope extends beyond technology. Strategic approaches from other countries offer valuable lessons. China's focus on food security, supported by government grants and specialized science parks, offers a blueprint for Pakistan. Ethiopia's resolution of credit access issues through a land-titling program illustrates effective government intervention. Vietnam's public-private partnerships, particularly in overcoming financial literacy barriers and collateral constraints, highlight the importance of collaboration. Colombia's empowerment of women-owned agricultural businesses through microfinance partnerships provides insights into inclusive economic development.

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Collaboration is crucial for these success stories. A united effort from the government, private sector, financial institutions, and agricultural communities is vital for unlocking Pakistan's agricultural potential. Streamlining regulations, investing in rural infrastructure, and promoting sustainable practices are essential pillars for this transformation.

The challenges faced by Pakistani farmers are unique but not insurmountable. Platforms like ZarZaraat offer tangible solutions through innovation. The modernization of agriculture can significantly boost export orientation. A World Bank study suggests that Pakistan can increase its agricultural exports by up to 50% by 2025 through diversification and improved output quality.

Effective water management is crucial in Pakistan, where poor resource management is prevalent. Smart irrigation systems, as proposed by ZarZaraat, could significantly improve water use efficiency. The International Water Management Institute estimates that Pakistan could save up to 12.5 million acre-feet of water annually with precision agriculture techniques like smart irrigation.



Post-harvest handling is another critical issue. Innovations like mobile cold storage solutions and supply chain management platforms, showcased by Godaam Technologies at ZarZaraat, could revolutionize how farmers store and sell produce, reducing losses and maximizing

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profits. The World Bank estimates that Pakistan loses 30-40% of its agricultural produce due to poor post-harvest handling. Strategic investments in logistics and storage can significantly reduce these losses.

Access to capital remains a significant challenge for farmers. Connecting them with microfinance institutions and crowdfunding platforms, as facilitated by ZarZaraat, is crucial. Digital marketplaces identified at ZarZaraat, such as Digitt+, could open new avenues for farmers, connecting them directly with consumers and ensuring fair prices for their produce. The International Food Policy Research Institute estimates that new technology adoption in developing agrarian economies can potentially increase farm incomes by up to 200%, leading to poverty reduction and improved livelihoods for millions of Pakistani farmers.

Pakistan's agricultural renaissance hinges on learning from global leaders and fostering an innovation - friendly environment. By harnessing the collective strength of all stakeholders, Pakistan can unlock the full potential of its agricultural sector, paving the way for prosperity and growth.

About the Author: The author is a development and social impact-focused banker and public sector specialist, currently serving as the President and CEO of The Bank of Punjab.

