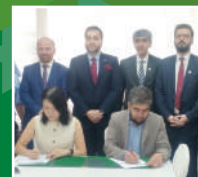




DELEGATION OF THE AGRICULTURE DEPARTMENT VISIT TO THE PEOPLE'S REPUBLIC OF CHINA



Agriculture Department
Government of the Punjab



13 - 18 October 2025

PURPOSE:

**STRENGTHENING COOPERATION
IN AGRICULTURAL
MECHANIZATION, DIGITIZATION,
FOOD SECURITY,
TECHNOLOGY DEVELOPMENT
& TRANSFER**

BACKGROUND

A high-level delegation from the Agriculture and Livestock Department of Punjab, Pakistan, visited the People's Republic of China from October 13 to 18, 2025. The visit was headed by the Honourable Minister for Agriculture and Livestock, Punjab, and comprised senior department officials, representatives of major agricultural organizations, and technical specialists.

The main aim of the visit was to strengthen agricultural cooperation between Punjab and China by exchanging knowledge, establishing institutional partnerships, and showcasing modern agricultural technologies. The delegation aimed to identify opportunities for collaboration in agricultural mechanization, livestock development, precision and digital agriculture, and sustainable resource management. Furthermore, the visit aimed to engage with the Asian Development Bank (ADB) and leading Chinese public and private sector organizations, including research institutes, universities, and technology companies to identify avenues for investment, technology transfer, and joint ventures. These interactions were designed to support the modernization of Punjab's agriculture sector, improve farm productivity and resilience, and promote value addition, employment generation, and rural economic growth. The visit also aligned with the broader vision of the Government of Punjab to make agriculture profitable, sustainable and globally competitive, contributing to food security and export

growth through innovation, partnership, and capacity building.

The visit yielded significant outcomes in terms of establishing new partnerships, advancing technical collaboration, and identifying investment opportunities for Punjab's agricultural sector. Several Memoranda of Understanding (MoUs) and Commitments of Cooperation (CoCs) were finalised with leading Chinese research institutes and technology companies, covering areas such as seed development, mechanization, crop protection, livestock enhancement, digital agriculture, and climate-smart practices. These engagements laid the foundation for joint research programmes, technology transfer, and the setting up of pilot and demonstration centres in Punjab.

The mission also reinforced Punjab's strategic alignment with China's modern agricultural innovations, particularly in AI-based farming, precision mechanization, and sustainable resource management. The outcomes of the visit are expected to accelerate agrarian transformation in Punjab, increased farm productivity, enhance value addition, and strengthen bilateral co-operation under the shared vision of agricultural modernization and rural prosperity.

During the visit, the delegation held several high-level meetings and took part in discussions, exhibitions, and other prominent forums. A summary of the key meetings attended by the delegation is provided below.

MEETING WITH ADB, CHINA RESIDENT MISSION

A high-level delegation from Pakistan met with the Asian Development Bank's (ADB) China Resident Mission to discuss program planning and strategic project implementation. The meeting focused on promoting private sector growth and strengthening environmental and social safeguards. The delegation requested ADB's support in providing technical assistance and training to facilitate the adoption of advanced agricultural machinery aimed at



enhancing productivity. They also explored opportunities for collaborative research on innovative technologies and sustainable agricultural practices. Additionally, the delegation sought guidance on establishing a coordination mechanism to ensure effective planning, implementation, and regular progress monitoring. In response, ADB agreed to extend advisory services, capacity-building initiatives, and training programs for local farmers and entrepreneurs.

MEETING WITH CAMDA, CHINA



Mechanization Platform to support human resource development and other collaborative initiatives. CAMDA provided an informative briefing on fostering sustainable growth in China's agricultural machinery distribution sector, highlighting the importance of stakeholder collaboration, standardization, operational efficiency, training opportunities, and the development of strong partnerships for trade fairs.



A meeting was convened with the China Agricultural Machinery Distributors Association (CAMDA) to strengthen the agricultural machinery supply chain and promote mechanization through industry-wide coordination. The objective was to gain insights into China's progress in agricultural mechanization and explore avenues for enhanced cooperation and technology transfer. Discussions also focused on establishing the Punjab-China

MEETING WITH NAFRA, BEIJING, CHINA

A meeting was held with the National Food and Strategic Reserves Administration (NAFRA), an organisation that promotes the sustainable development of China's agricultural machinery distribution sector. NAFRA serves as a vital bridge between the government, manufacturers, distributors, and end users, working to enhance efficiency, standardisation, and modernisation in the agricultural machinery market. It also plays a central role in fostering trust among stakeholders, providing market information and training, advocating policy reforms, and organising trade fairs and exhibitions. Furthermore, NAFRA is committed to expanding its nationwide service network and strengthening after-sales support.

The Pakistani delegation expressed strong interest in understanding China's institutional mechanisms and the evolution of its agricultural machinery enterprises. Discussions also covered prospects for technology transfer and enhanced collaboration through agricultural machinery expos and technical forums.

Following the meeting, a Certificate of Cooperation (CoC) was signed with private service providers to promote technology transfer aimed at reducing post-harvest grain losses and supporting research on grain quality and processing.



MEETING WITH PIESAT INFORMATION TECHNOLOGY CO LTD, BEIJING, CHINA



A key meeting was held with PIESAT Information Technology Co. Ltd., Beijing, to advance the development of an AI-driven agricultural early warning system in Pakistan. PIESAT specialises in satellite remote sensing, ground system development, Geospatial Information Systems (GIS), Big Data analytics, precision agriculture solutions, disaster monitoring and early warning systems, and remote sensing technology R&D. During the session, the delegation discussed areas including satellite monitoring, cloud-based support systems, data integration, capacity building for digital agriculture enterprises, technical training, and long-term collaboration and technology



transfer in Punjab. It was noted that, in partnership with SinoPak, PIESAT has already implemented an IT-based software system in the Cholistan region of Punjab to estimate crop yields using GIS satellite mapping across different growth stages.

Following extensive discussions, both parties agreed to sign a cooperation agreement encompassing data-driven crop monitoring, yield forecasting, and agricultural decision-support systems. The agreement also includes the development of satellite-based crop monitoring platforms and agriculture dashboards, with existing initiatives to be expanded and scaled up progressively.

MEETING WITH GOLD DAFENG, CHINA

Gold Defung China, a leading agricultural machinery company active in Pakistan, hosted the delegation for a detailed discussion on its operations and future collaboration prospects. The company designs and manufactures a wide range of farm equipment, including combine harvesters, rice transplanters, and other mechanised tools for grain and rice farming. It places strong emphasis on technological innovation to develop efficient, high-performance, and intelligent agricultural machinery suited to both domestic and international markets. Gold Defung maintains an extensive sales and service network across China and exports its products globally, ensuring accessibility and comprehensive customer support. The company also provides maintenance services, spare parts, and technical training for farmers and distributors to improve equipment efficiency and

minimised downtime. Through these initiatives, Gold Defung continues to promote agricultural modernisation in China, particularly in rice- and wheat-producing regions. The Pakistani delegation showed strong interest in the company's plan to set up a manufacturing plant in Punjab dedicated to producing advanced agricultural machinery



suited to local needs. Both sides agreed to sign an MoU to establish and operate the plant in Pakistan, including other services with private sector support. This project intends to boost Pakistan's agricultural productivity and efficiency by introducing high-quality equipment and integrated systems for marketing, sales, and after-sales support, possibly through a joint venture with local private sector partners.



MEETING WITH FECC, MARA



An important meeting was held with the Foreign Economic Cooperation Centre (FECC) of the Ministry of Agriculture and Rural Affairs (MARA) of China. The FECC plays a central role in promoting international agricultural cooperation and development. Its key functions include coordinating and implementing bilateral and multilateral agricultural cooperation projects with organisations such as FAO, IFAD, and the World Bank; managing the planning, execution, and evaluation of foreign-funded agricultural development initiatives, particularly in the areas of poverty reduction, rural development, and sustainable agriculture; facilitating technical assistance and knowledge exchange through technology transfer, training programmes, and expert exchanges; and conducting policy research to provide recommendations that strengthen China's agricultural diplomacy and global engagement.

During the meeting, both parties discussed opportunities for joint research in crop productivity, pest management, seed development, mechanisation, and climate-smart agriculture. It was agreed to facilitate the exchange of knowledge, technology, and expertise through collaborative projects, supported by designated focal points in both countries to ensure effective coordination. The Pakistani delegation emphasised Punjab's interest in attracting investment and technical collaboration to enhance agricultural productivity and sustainability. Both sides agreed to establish joint working groups to develop specific project proposals, oversee implementation, and strengthen long-term cooperation in agricultural research, innovation, and technology transfer for mutual benefits.



VISIT OF WORLD AGRIFOOD INNOVATION CONFERENCE



During the visit, the delegation attended the World AgriFood Innovation Conference (WAFI 2025), held in partnership with Jingwa and China Agricultural University. The theme was “Resilient Food Supply for Agrifood Systems Transformation,” emphasising Artificial Intelligence (AI) as a key tool for building a healthy, sustainable, and inclusive food future. WAFI 2025 provided a platform to encourage collaboration among government agencies, industry leaders, academia, research institutions, and other stakeholders in the agri-food sector.



The delegation participated in the Reducing Food Loss and Waste Forum and the AI-Enabled Digital Intelligent Livestock Farming session, both emphasising innovative approaches to sustainability and productivity. They also toured various expo stalls showcasing AI-driven robots and new tools for disease and weed control, including practical demonstrations of AI technologies used in pest and weed management to explore their potential application in Punjab's agriculture sector

Visit to Jingwa Agricultural Science and Technology Innovation Center (Jingwa Center), Beijing

The delegation visited the Jingwa Agricultural Science and Technology Innovation Center (Jingwa Center) in Beijing. The Jingwa Center serves as a hub for cutting-edge advancements in high-efficiency irrigation systems,

high-value agriculture, agricultural artificial intelligence (Agri-AI) technologies, and advanced agricultural machinery.

The visit provided an opportunity to explore collaboration with world-leading enterprises engaged in research, innovation, and technology integration across these domains.

Discussions focused on investment opportunities in Punjab, technology transfer, and the development of strategic partnerships between Chinese private enterprises and the Punjab Agriculture Department to accelerate agricultural modernization.

A key outcome of the visit was the signing of Memoranda of Understanding (MoUs) between the Jingwa Center and the Punjab Agriculture Department for the Establishment of three Centers of Excellence in Punjab, Seed technology transfer initiatives, and joint research programs in agricultural innovation.

These agreements marked a significant step forward in China-Pakistan agricultural cooperation, paving the way for enhanced productivity, innovation, and sustainable development in Punjab's agriculture sector.



MEETING WITH SYNGENTA GROUP

A key meeting took place with Syngenta, a global leader in crop protection solutions and advanced seed technologies. Syngenta's product range includes herbicides, insecticides, fungicides, biological controls, and seed treatments that help farmers defend crops against weeds, pests, diseases, and environmental challenges. The company also offers high-yielding, resilient hybrid seeds for major crops like maize, soybeans, vegetables, and cereals, focusing on

improving traits related to productivity, disease resistance, and climate adaptability. Additionally, Syngenta provides precision agriculture tools and digital platforms that utilise monitoring and data analytics to assist farmers with decisions on planting, irrigation, and crop protection.

During the meeting, the delegation showed strong interest in leveraging Syngenta's extensive experience and operational network in Pakistan to strengthen advanced crop protection programmes, particularly drone-based spraying, to boost productivity and sustainability. Syngenta emphasised its agronomic, research, and technological expertise, supported by resources from Syngenta China and Syngenta Group China (SGC). The Government of Punjab reaffirmed its commitment to facilitating regulation and creating an enabling environment for collaboration.

Both parties also discussed confidentiality obligations to protect proprietary and project information during and after the collaboration. It was agreed that Syngenta will establish a Demonstration Centre in Pakistan to showcase modern crop protection methods, including drone spraying. This initiative will combine Syngenta's technical expertise with the Government's support to foster innovation and sustainability in agriculture. An MoU was also signed at the sideline of the meeting by parties.



MEETING WITH YTO GROUP, HENAN, CHINA

The delegation visited the YTO Group Corporation manufacturing plant, where discussions focused on the objectives of the visit, ongoing cooperation, and potential areas for strengthening agricultural and technological collaboration.

YTO Group is a leading enterprise in agricultural and industrial machinery manufacturing. The company produces a comprehensive range of tractors—small, medium, and large—as well as combine harvesters and other farm implements. It also develops diesel engines, walking tractor engines, and powertrains for agricultural and industrial applications. In addition to agricultural

machinery, YTO manufactures construction equipment such as road rollers, bulldozers, and loaders. The company invests heavily in research and innovation to enhance engine performance, fuel efficiency, and smart farming solutions. With exports to over 100 countries, YTO contributes significantly to global agricultural development by promoting full mechanisation and designing machinery suited to diverse climates, terrains, and farming conditions. The delegation expressed strong interest in establishing a manufacturing plant for agricultural machinery in Punjab, aimed at boosting local mechanisation, generating employment, and strengthening Pakistan's agricultural sector. It was agreed that YTO will provide technology, machinery designs, and technical training, while Pak Tractors will manage local operations, site preparation, production, marketing, and sales. The Punjab Agriculture Department will facilitate regulatory alignment and ensure the project's consistency with regional agricultural objectives. A Commitment of Cooperation (CoC) was signed by both parties to formalise the collaboration for setting up the manufacturing plant. The project will be implemented in phases, ensuring confidentiality of proprietary information and adopting mediation as the preferred mechanism for dispute resolution.



VISIT OF ADB PROJECT SITE



The delegation visited an Asian Development Bank (ADB)-supported rice project in China designed to address smog and environmental challenges arising from crop residue burning. The project demonstrates innovative and sustainable approaches to rice straw management through the cultivation of *Stropharia rugosoannulata* (Wine Cap Mushrooms), which effectively utilise straw as a growing medium, reducing open-field burning and air pollution.

The site features a comprehensive straw collection and storage facility and integrates an advanced “Straw-Feed-Fertilizer” circular farming system, which converts agricultural residues into animal feed and organic fertilizer, promoting a low-carbon and

resource-efficient model of agriculture. Additionally, the project includes an 11,000-cubic-metre biogas plant that processes organic waste to produce clean energy, further supporting environmental sustainability and rural income generation.

The delegation’s visit provided valuable insights into China’s practical models for sustainable straw management and pollution control. The experience highlighted the potential for adopting similar integrated systems in Punjab, Pakistan, to reduce smog caused by residue burning, improve soil fertility, and promote renewable energy generation through biogas production.



VISIT TO GUANGDONG MODERN AGRICULTURAL EQUIPMENT RESEARCH INSTITUTE, GUANGZHOU



The delegation visited the Guangdong Modern Agricultural Equipment Research Institute, a leading institution recognised as the “Think Tank for China’s path to rural modernization” and a pioneer in developing digital and intelligent agricultural industries. The Institute plays a vital role in promoting smart agriculture, digital transformation, and mechanization across China’s rural economy through applied research, innovation, and industrial integration. It focuses on areas such as intelligent agricultural equipment, big data applications, precision farming systems, and the development of digital platforms to support decision-making in agriculture and rural affairs.

During the visit, the delegation was briefed on the Institute’s work in developing AI-driven machinery, sensor-based

monitoring systems, and integrated digital solutions for farm management and resource optimization. Both sides discussed potential collaboration in digital agriculture, smart mechanization, and capacity building for agricultural modernization in Punjab.

It was agreed to establish a joint working group comprising two representatives from the Punjab Agriculture Department (Hafiz Abdur Rehman and Muhammad Wasim) and two representatives from the Guangdong Modern Agricultural Equipment Research Institute. The working group will develop a framework for cooperation, focusing on technology transfer, joint research, and pilot projects aimed at introducing intelligent agricultural equipment and digital farming systems in Punjab.



Agriculture Department Government of the Punjab

