

# Harnessing Innovation for Climate Resilience: Uzbekistan's Community-Centric Solutions

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# Agenda

**01** Navigating Uzbekistan's  
Future: Challenges and  
Opportunities

**02** Smart Agriculture:  
Cultivating a Prosperous  
Future for Uzbekistan

**03** Unlocking Agricultural Potential  
in Uzbekistan Through Strategic  
Partnerships

**04** Conclusion

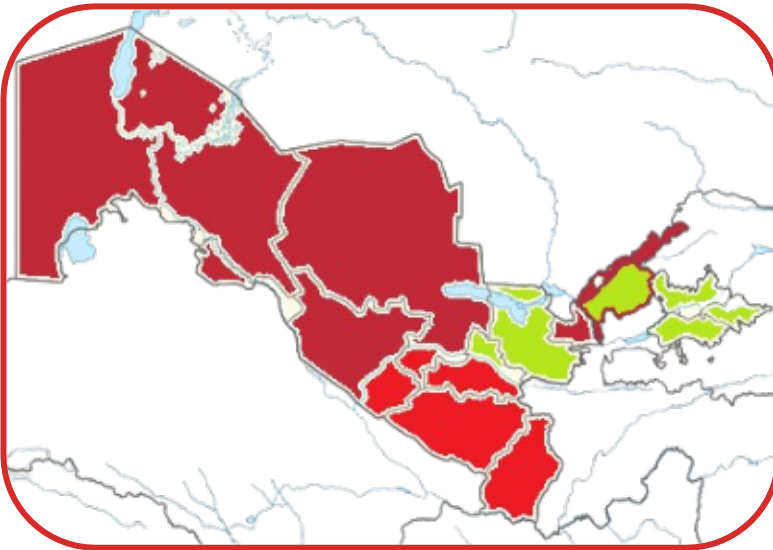
# 01

# Navigating Uzbekistan's Future: Challenges and Opportunities

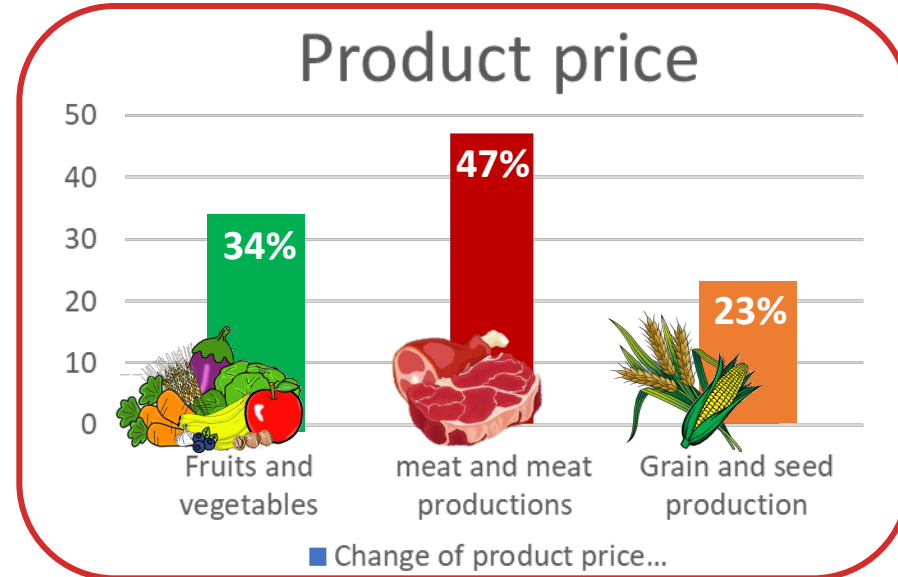


**1.5°C**

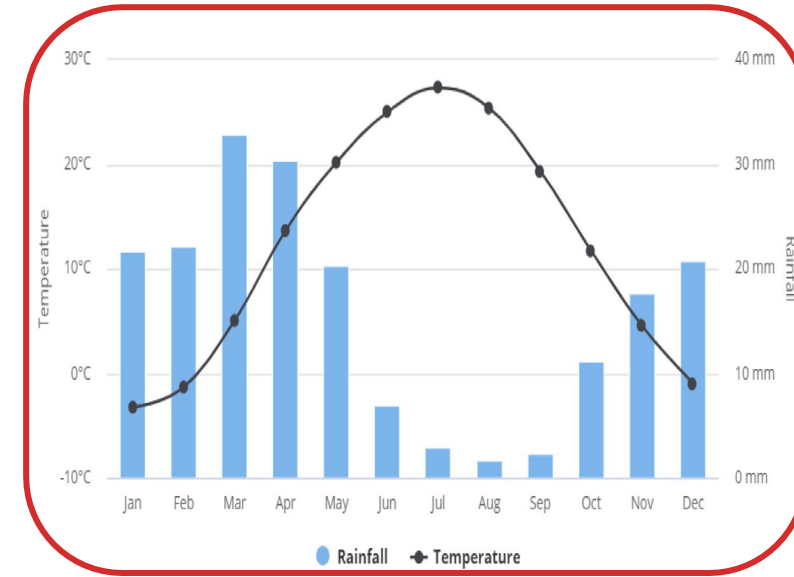
Over the past few decades, Average temperatures in Uzbekistan have increased by **1.5° C**, exacerbating water scarcity. This is particularly concerning for agriculture, which consumes more than **90%** of the country's water supply.



- The region has enough water resources
- the region has a shortage of water resources
- the region has a water deficit



Over **3 million** hectares of land suffer from water erosion - over the course of a season, the average loss of fertile soil due to this reason reaches **80 tons**



the ratio of rainy days from water collection based on climate change is minimized to **27%**

# 01

# Navigating Uzbekistan's Future: Challenges and Opportunities



## IMPLEMENTATION

Implementation of technologies adapted to the climatic and geographical characteristics of Uzbekistan.



## DEVELOPMENT

Development and implementation of innovative technologies for agriculture



## CONSIDERATION

Consideration of collaboration with international organizations for the implementation of technologies aimed at climate conservation.

# 02 Smart Agriculture: Cultivating a Prosperous Future for Uzbekistan



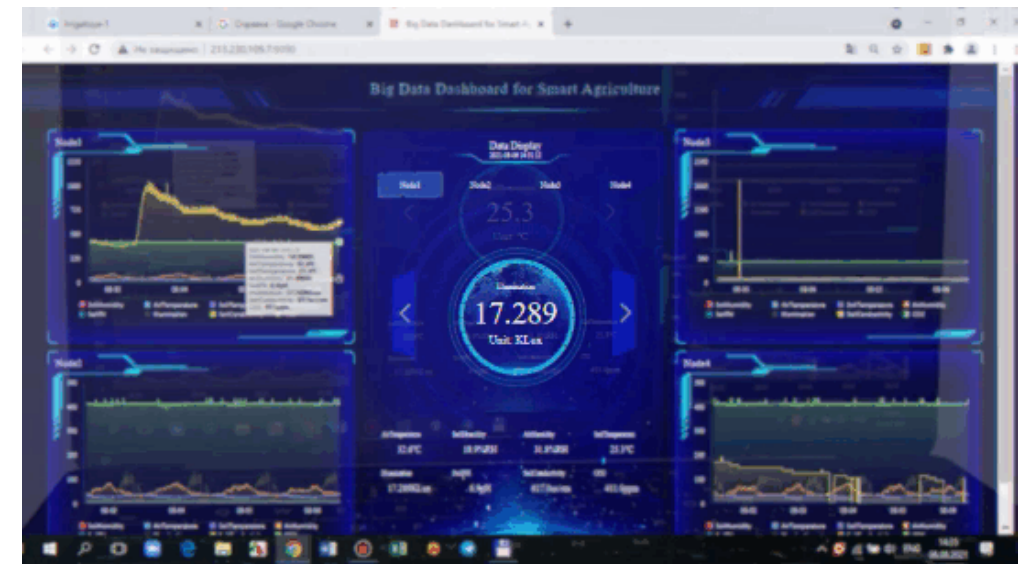
Uzbekistan stands at the cusp of a technological revolution in agriculture. As the country seeks to address the challenges posed by climate change, water scarcity, and the need for sustainable growth, embracing advanced technologies has become imperative. Smart agriculture is not just a trend—it's the future of farming, offering innovative solutions that can transform the agricultural landscape of our nation.

In this presentation, we will explore three cutting-edge technologies that are driving this transformation:

**1. Self-Driving Electric Trucks:** Revolutionizing the transportation of agricultural goods with eco-friendly, autonomous vehicles that enhance efficiency and reduce costs.

**2. Self-Driving Helicopters:** Bringing precision to aerial farming tasks such as spraying and monitoring, ensuring that every inch of farmland is utilized to its fullest potential.

**3. Drone Monitoring Systems:** Providing real-time, data-driven insights into field conditions, enabling farmers to make informed decisions that maximize yield and minimize resource use.



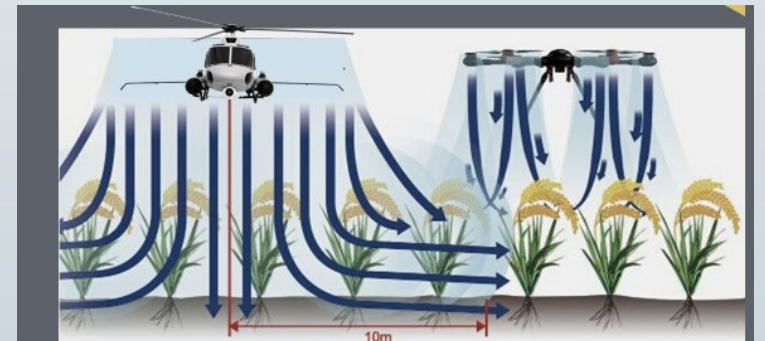
# ZAMINDAR



## Self-Driving Helicopters: Revolutionizing Aerial Farming

- Autonomous Operation: Covers up to 500 hectares per day with precise, GPS-guided flight paths.
- High-Resolution Imaging: Equipped with 4K cameras and multispectral sensors for real-time crop health monitoring.
- Precision Spraying: Reduces chemical usage by 30% with targeted application, leading to better yields and lower costs.
- Efficiency Gains: Cuts labor costs by 50%, with a response time to agricultural issues improved by 40%.
- Sustainability: Enhances resource management, contributing to a 20% increase in overall farm productivity.

Self-driving helicopters are leading the way in smart agriculture, making farming in Uzbekistan more efficient, sustainable, and profitable.



# "DRIVERLESS ELECTRIC TRACTOR"

ELECTRIC POWER DRIVEN SPECIAL AGRICULTURAL TRACTOR

## HIGH PRODUCTIVITY

There is the possibility of plowing and leveling the 0.5 hectares of land for 2 hours.

## AUTOMATIC CONTROL SYSTEM

Drive-free based on artificial intelligence

# HETA



## FAST AND COMPACTNESS

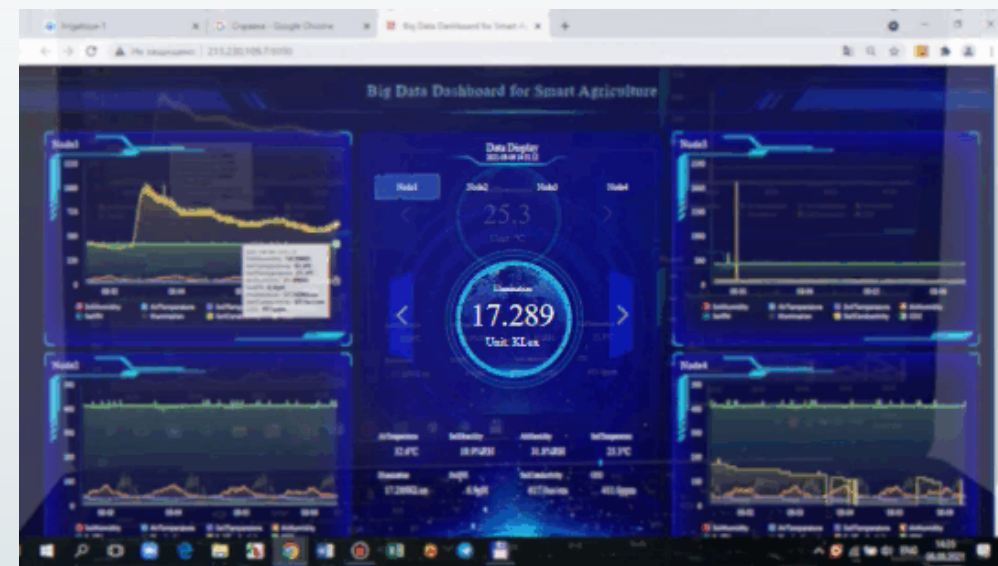
With a speed of 100 km/h, it covers 200 km with a power of 1 stroke

## PRICE

Can compete with other state-of-the-art technologies and cost up to 18%



A pilot project of “Smart” agriculture has been created using systems of management, monitoring and data processing



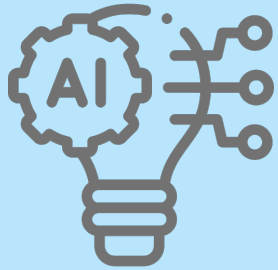
In the showroom the full concept of pilot project of “Smart” agriculture is presented by taking into account the online monitoring of technologies applications at the scientific and educational site



# 03

## Unlocking Agricultural Potential in Uzbekistan Through Strategic Partnerships

Uzbekistan's agricultural future hinges on strong, strategic partnerships that drive innovation, sustainability, and economic growth.



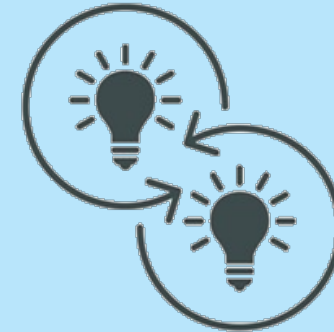
### **Innovation & Technology**

Collaborating with global tech leaders can integrate AI-driven farming, precision agriculture, and advanced irrigation, boosting yields by 30% and optimizing resources.



### **Sustainability**

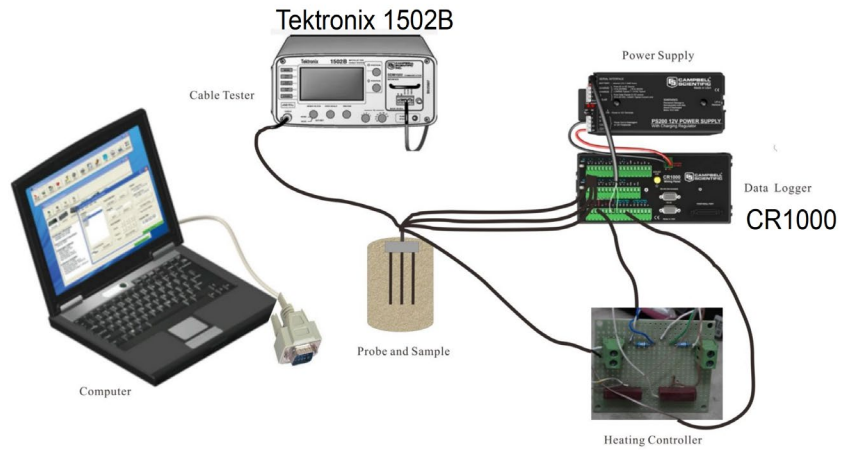
Partnering with environmental experts will promote eco-friendly practices, reducing chemical use and leading the region in sustainable farming.



### **Knowledge Transfer**

Joint ventures with top agricultural institutions can build capacity, ensuring the sector's resilience and competitiveness.

# EDUCATIONAL AND RESEARCH CENTERS. SCIENCE AND TECHNOLOGY PARK (PRECISION FARMING)



**Intelligent sensing for agriculture**



# EDUCATIONAL AND RESEARCH CENTERS. SCIENCE AND TECHNOLOGY PARK (PRECISION FARMING)

- 5 ha of land allocated as a Pilot area for Precision Farming Project studies;
- **“Smart and Farm water management and precision farming” joint Uzbek-Chinese applied project being conducted;**
- Irrigation techniques and smart sensors and units (\$100,000) were brought from China and installed



# EDUCATIONAL AND RESEARCH CENTERS. SCIENCE AND TECHNOLOGY PARK (PRECISION FARMING)



- University and the USA LINDSAY/ZIMMATIC company installed center pivot sprinkler irrigation technology on 7,2 ha land on the research farm;
- Education and research project are being conducted



# Thank you for your attention



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