

Agriculture Sector

Provide Good Innovation to Develop Sri Lanka's.

Leading the way in sustainable agricultural practices

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Current State of Agriculture in Sri Lanka 2023

The agriculture sector in Sri Lanka contributes approximately 7 percent to the national GDP. Within this sector, fisheries contribute around 1.3 percent, while the livestock sector accounts for 0.9 percent. Despite being a fertile tropical land with potential for the cultivation and processing of a variety of crops, the sector faces challenges related to productivity and profitability, which hinder its growth.



Over 30 percent of the Sri Lankan workforce is employed in agriculture, highlighting its importance to the country's economy. Efforts to enhance the agriculture sector include initiatives such as the Inclusive Digital Agriculture Transformation (IDAT) program. For the 2023/24 season, the Department of Agricultural Development has established guidelines for remitting financial subsidies directly to farmers' bank accounts to support crop production.

These steps indicate a move towards improving the efficiency and sustainability of agricultural practices in Sri Lanka





Challenges Facing Sri Lanka's Agriculture Sector

Sri Lanka's agriculture sector has been facing a multitude of challenges, impacting its efficiency and productivity. Historically, agriculture has been the backbone of the Sri Lankan economy, but its contribution to the gross domestic product (GDP) has declined from 30% in 1970 to just 7.3% in 2020, even though it remains a significant source of employment for the majority of the workforce. The sector predominantly relies on traditional farming practices, which are often inefficient and yield low productivity, further straining the already pressured agribusinesses.



The COVID-19 pandemic worsened challenges in Sri Lanka's agriculture, impacting farmers and agribusinesses. Political instability, worsened by the president's fleeing during protests, and the failed transition to organic farming led to economic unrest. Additionally, Sri Lanka's lack of export diversification—relying heavily on industrial goods like apparel—further stressed the economy. In 2023, agricultural exports accounted for only 22% of total exports, highlighting the country's vulnerability to global market fluctuations.

The Sri Lankan government is implementing a Climate-Smart Agriculture Investment Plan, funded by the Green Climate Fund, to build resilience against climate-related challenges in the agricultural sector, focusing on technological advancements, policy implementation, and sustainable farm transformation.



Technological Innovations to Improve Crop Yields and Farmer Education

The fourth industrial revolution (4IR) is driving technological innovations that can improve agricultural systems by addressing structural weaknesses. In Sri Lanka, Agriculture Prompt Engineering, integrating AI, machine learning, and data analytics, offers a promising solution to challenges like inefficient resource use, low crop yields, and climate change vulnerability.

Lassana Agri Innovations is leading efforts to reshape modern agriculture, ensuring food security, increased productivity, and long-term sustainability.

01. Precision Agriculture Technologies

02. Drones and Satellite Imaging

03. Mobile Apps and Digital Platforms for Farmer Education





Successful Agricultural Technologies in Developing Countries

Over the past decade, both public and private sectors have invested in digital agriculture in developing countries, but the impact on smallholder farmers' livelihoods remains limited. The focus is on developing agricultural value chains through new technologies, as seen in Chile's small horticultural producers. The World Bank report emphasizes the need for increased agricultural innovation and technology use to eliminate poverty, meet food demand, and adapt to climate change.



1. Drones (Kenya)
2. Mobile Apps (India)
3. Solar Irrigation (Nigeria)
4. Hybrid Seeds (Brazil)
5. Fish Farming Technologies (Bangladesh)





Climate-Smart Agriculture Practices in Sri Lanka

Sri Lanka has begun developing its first Climate-Smart Agriculture (CSA) Investment Plan to address climate change challenges, funded by the Green Climate Fund and implemented by FAO with local ministries. The plan aims to protect the agricultural sector from climate impacts. Over 1,300 farmers have received insurance payouts for crop damage due to extreme weather events.

The initiative, led by IWMI, empowers farmers with advanced technologies to improve resilience. The project promotes innovation, including better crop varieties and water management, while also focusing on providing training and support, especially for women, who currently represent only 10% of beneficiaries.





Implementation of Climate-Smart Farming in Sri Lanka

The Climate Smart Irrigation Agriculture Project (CSIAP), funded by the World Bank, is enhancing the productivity and climate resilience of smallholder agriculture in selected hotspot areas. The project is implemented across 11 districts in six provinces and has successfully rehabilitated 470 tanks across various districts. This rehabilitation work is crucial for improving water management and supporting farmers in implementing climate-smart agricultural practices. The project is being implemented across 11 districts in six provinces.



Government Policies to Encourage Innovation and Modernization

Current Policies on Agriculture Innovation in Sri Lanka

Sri Lanka is implementing several policies to modernize its agriculture sector. The matching grants scheme (MGS) encourages commercial and export-oriented agricultural initiatives, enhancing private sector investment and strengthening farmer producer organizations. The Agriculture Sector Modernization Project supported by the European Union and World Bank, aims to increase agricultural productivity, add value to outputs, and enhance market access.

The ASMP supports agricultural diversification and technology improvements, benefiting over 48,000 smallholder farmers and creating over 1500 new jobs. The Sri Lankan government recognizes the potential of emerging technological innovations, such as smart farming technologies, to address structural weaknesses in current agricultural systems. The agri-food system transformation is a critical component of Sri Lanka's sustainable development goals, aiming to ensure sustainable development and improve human well-being.



Government Incentives for Agriculture Technology in Sri Lanka

The Sri Lankan government has implemented several initiatives to promote innovation and modernization in the agriculture sector. The Capacity Building Funds offers grant funding and equity investment opportunities, as well as connections to international investors and donors.

The National People's Power Agriculture Policy aims to create 50,000 agricultural entrepreneurs over five years, reduce import dependency, and promote climate-resilient agriculture. Public-private partnerships are being enhanced, and youth engagement in agriculture is prioritized.

The Climate Smart Irrigated Agriculture Project (CSIAP) has rehabilitated 470 tanks to improve productivity and build climate resilience among smallholder farmers. These initiatives, along with mentorship from experts and the use of Hatch Co-working space and the Hatch Museum, represent a comprehensive strategy to foster innovation in Sri Lanka's agriculture sector.



Challenges and Mitigation Strategies for Integrating Advanced Agricultural Technology

Sri Lanka faces challenges in integrating advanced agricultural technologies, including deforestation, soil degradation, and loss of natural wetlands. These issues affect over a third of the land area, putting productivity under stress and threatening livelihoods.

To overcome these, Sri Lanka must adopt a combination of traditional and modern farming methods, adopting nature-inclusive practices like chena and Kandyan forest gardening, mixed cropping techniques, and analog forestry. International initiatives like the Dutch Agroforestry project can facilitate the transition towards circular agriculture and nature inclusivity.

Technological innovations from the fourth industrial revolution can enhance productivity and sustainability in agriculture, but proper governmental support is crucial. The COVID-19 pandemic has exacerbated these challenges, leading to supply chain disruptions and food security issues.



Climate-Smart Agriculture Investment Plan

Benefits for Smallholder Farmers in Sri Lanka

The Climate-Smart Agriculture (CSA) Investment Plan in Sri Lanka aims to improve the agricultural sector's resilience and productivity, particularly for smallholder farmers. This initiative is crucial as smallholder farmers are highly vulnerable to climate change impacts.

The plan introduces innovative agricultural technologies, such as improved crop varieties and efficient water resource management, to help farmers adapt to changing conditions and increase their incomes. It also provides training and research opportunities for both men and women.

The Climate Smart Irrigated Agriculture Project (CSIAP) has demonstrated its effectiveness by investing in programs focusing on high-value food crops for food security and income generation. Insurance schemes have also been introduced to support farmers in coping with crop damage caused by extreme weather conditions. To ensure smallholder farmers can access resources and knowledge, capacity building and infrastructural support are needed.

Support for Smallholder Farmers in Sri Lanka

The Climate Smart Irrigated Agriculture Project (CSIAP) in Sri Lanka is a significant initiative supporting smallholder farmers. A high-level delegation from the World Bank, including Ms. Anna Berde and Martin Raiser, visited the Climate Smart Farmer Training School in Thirappane to assess the project's progress.

The project provides resources and knowledge to help smallholder farmers adapt to climate change, including training on sustainable farming practices, improved irrigation systems, and support for crop diversification. The visit underscores the importance of international cooperation in enhancing agricultural productivity and sustainability.



Economic Incentives and Subsidies for Modern Agricultural Technologies

The Agriculture Sector Modernization Project (ASMP), supported by the European Union and World Bank, has been instrumental in promoting the adoption of modern agricultural technologies and practices in Sri Lanka.

The project aims to enhance agricultural productivity, value addition for smallholder farmers, and improve market access. It has also facilitated agricultural diversification and technological improvements, benefiting over 48,000 farmers and creating over 1,500 new jobs through investments in agribusiness organizations. The Food and Agriculture Organization of the United Nations (FAO) has introduced Good Agricultural Practices (GAP) to over 600 smallholder vegetable farmers, promoting efficient resource utilization and cost reduction.

The Farmer Field Schools Programme, funded by the European Union and FAO, trains 6,000 smallholder paddy farmers in sustainable cultivation practices, emphasizing the Integrated Plant Nutrient Management approach. Despite these efforts, challenges such as low productivity, poor product quality, and climate change persist in the Sri Lankan agriculture sector. Innovative private sector initiatives, such as Lassana Agri Innovations, are also contributing to reshaping modern agriculture in Sri Lanka.





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Thank You.

