

Building an Innovation Ecosystem for Agriculture under the Belt and Road Initiative: What are the necessary conditions for

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The Belt and Road Initiative (BRI) aims to enhance global connectivity and cooperation across continents, including Asia, Europe, Africa, the Middle East, and potentially Latin America. Within this expansive framework, creating an innovative ecosystem for agriculture represents a critical endeavor, demanding a multifaceted and tailored approach to address the unique challenges and opportunities across BRI countries. This abstract delves into the conditions and strategic considerations necessary to cultivate such an ecosystem, focusing on agricultural innovation.

Core elements of an Agricultural Innovation Ecosystem

The innovation ecosystem for agriculture under the BRI encompasses several key elements:

- Knowledge networks and markets
- Knowledge governance
- A commitment to sustainability through “deep transitions” approach.

This ecosystem prioritizes stakeholder engagement, ensuring that various actors including farmers, researchers, and policymakers are interconnected. Access to knowledge is facilitated through digital platforms, IoT devices, and data analytics, enabling precision agriculture and the seamless transfer of technology from research institutions to the field. However, the ecosystem faces challenges, such as intellectual property rights issues with advanced tools like CRISPR, necessitating robust infrastructure support.

Strategic Mindset and Dynamic Capabilities

Adopting a strategic mindset involves leveraging dynamic capabilities for mission-driven policies inspired by Schumpeterian and Weberian traditions. This includes evaluating opportunities for transformative investments in renewable energies, sustainable agriculture, and green economy jobs, which require both public resources and private investments. The success of these investments depends on political support and a compelling call to action underpinned by a geopolitical strategy that respects the diversity and needs of BRI countries.

Cross-Cultural Collaboration and Local Contextualization

Fostering cross-cultural collaboration, emphasizing cultural sensitivity and trust-building among Chinese stakeholders and their counterparts in BRI countries is essential to this ecosystem. Solutions must be adapted to local contexts, considering climate, soil types, and traditional practices while promoting regional infrastructure development for innovation. Capacity building and knowledge transfer are paramount, advocating for integrated, sustainable, and resilient agricultural systems.

Innovation Horizon and Investment

The ecosystem must ensure access to digital platforms and advanced technologies, such as AI, biotechnology, and big data, facilitating stakeholder information exchange. Attracting investment is crucial, requiring a mix of public funding – blended finance - international support, and incentives for agri-tech startups.

Regulatory and Policy Framework

Harmonizing regulations and standards is vital, alongside government support through policies and incentives that promote innovation and sustainability. Diplomatic coordination is crucial in effectively implementing relevant policies, underlining the importance of building consensus and fostering interest coalitions.