Co-creating Sustainable Food Supply Chains in Taiwan:
Strategic Policy Interventions for the Big Granary Program.

Summary

The Taiwan hub of the Co-SFSC project, led by **Dr. Ying-Chen Lin** from National Taipei University, Taiwan, engages with local agricultural SMEs in Yunlin and Changhua counties. We collaborated with two key practice partners representing the "Big Granary Program" supply chain: "Uncle Sweet" (a sweet potato processing enterprise) and "Taiwan Soybean Farm" (a soybean farming and dietary education organization).

We studied these enterprises within the agri-food industry, where our intervention focused on co-creating a "Sustainability and Governance Assessment Model" through stakeholder workshops to align local practices with international standards. Preliminary findings indicate that while policy incentives have successfully encouraged crop diversification, long-term resilience requires strengthening the ESG governance capabilities of small-scale producers and fostering cross-sector collaboration to ensure the transparency and sustainability of the food supply chain.

Policy Recommendations

1. (National) Institutionalize the localized sustainability and governance assessment model: To address the governance gap where SMEs lack the capacity to adopt complex frameworks like FAO-SAFA, the government should adopt the localized assessment tool developed in this project as formal guidance. This will empower "Big Granary" enterprises to systematically track their ESG performance and align with international sustainability frameworks (such as the SDGs), ensuring they can demonstrate their social and environmental value without being overwhelmed by administrative burdens.

2. (National) Establish a cross-ministerial mechanism for policy coherence: Our analysis highlights a systemic disconnect between food security and renewable energy policies, creating uncertainty for land-use planning. We recommend establishing a permanent coordination platform between the different governmental agencies to harmonize policy objectives. This mechanism should evaluate potential trade-offs (e.g., between agrivoltaics and agricultural production zones) prior to implementation, ensuring that energy transition goals do not inadvertently compromise the integrity of strategic agricultural clusters.

3. (National/Municipal) Incentivize food and agriculture education as a public good: Practice partners (e.g., Taiwan Soybean Farm) emphasized that dietary education is vital for market expansion but constitutes a heavy financial burden. Policies should reframe these educational activities as "ecosystem services," providing specific grants or subsidies to farmers who actively engage in consumer education. This recognizes their contribution to social sustainability and reduces the reliance solely on production-based subsidies.

4. (Municipal) Mandate the green public procurement for domestic dryland crops: To address the market instability identified by supply chain stakeholders, municipal governments should implement procurement policies requiring a minimum percentage of locally sourced dry crops (e.g., non-GMO soybeans) in school lunches. This demand-side intervention creates a stable "institutional market" that de-risks the transition for farmers, supporting the Big Granary Policy's goal of import substitution.

5. (National) Shift to the collaborative governance via co-creation platforms. The project's workshops revealed that top-down policy making often misaligns with on-the-ground realities. We recommend funding regular, multi-stakeholder governance platforms that facilitate continuous dialogue between farmers, processors, and policymakers. This shift to a co-creation model ensures that policy interventions are agile, transparent, and responsive to the actual needs of the supply chain.

Research Findings

Research questions

Research Questions: Our research primarily asked: How can food supply-related policies improve food self-sufficiency? To answer this, we investigated the effectiveness of current interventions under Taiwan's Big Granary Program and examined the structural barriers impeding its success. Specifically, the project explored two critical dimensions:

(1) How can we establish a coherent governance framework to balance the competing demands of renewable energy development and food security? and

(2) How can agricultural SMEs adopt international sustainability frameworks (e.g., FAO-SAFA) to enhance their governance capacity and resilience?

Research significance

This research is critical for policymakers, as it reveals that improving self-sufficiency requires more than production subsidies—it demands a holistic integration of food and energy strategies. It is equally vital for farmers and agricultural SMEs, who are key actors in rural revitalization but struggle to navigate inconsistent policy signals and emerging ESG requirements. For consumers, effective policy interventions ensure a stable, traceable supply of domestic crops, directly contributing to national food security and trust in local agriculture.

Research findings

Key Finding 1: Systemic disconnect between food and energy policies. Our analysis of the Big Granary Program implementation identified a critical governance gap: while Taiwan pursues both food self-sufficiency and net-zero goals, these policies currently operate in silos without an integrated evaluation mechanism. The research highlights that the lack of cross-sectoral coordination creates uncertainty in land-use planning, where agricultural value chains face potential resource competition from energy development. Therefore, improving self-sufficiency requires shifting from independent policy targets to a harmonized governance model that explicitly evaluates the trade-offs between agricultural integrity and energy transition before implementation.

Key Finding 2: Governance capacity building as a policy tool. Empirical evidence from our practice partners (such as Uncle Sweet and the Taiwan Soybean Farm) revealed that policy interventions can improve resilience by equipping SMEs with governance tools. While these enterprises excel in environmental stewardship, they often lack the capacity for systematic reporting required by international frameworks like FAO-SAFA. Through the co-creation of a localized sustainability and governance assessment model, the project demonstrated that institutionalizing a simplified, localized assessment tool can help SMEs bridge the gap to international sustainability standards, ensuring that domestic food supply chains are not only productive but also governed and aligned with global SDG targets.

Conclusion

In conclusion, this project confirms that food supply-related policies can significantly improve self-sufficiency only when they address structural governance gaps. While the Big Granary Program has initiated crop diversification, its long-term success is hindered by inconsistent policy objectives between food and energy sectors and a lack of standardized ESG capabilities among producers.

Therefore, we recommend the strategic policy Interventions that include:

(1) Establishing a cross-ministerial coordination mechanism to harmonize food and energy goals, and

(2) Institutionalizing the localized governance assessment model to empower SMEs to align with global sustainability standards.

These actions will transform the Big Granary Program from a subsidy-driven program into a resilient, self-sustaining food system.

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