

Activation Plan: Strategy Overview

Sector: Working Lands & Water: Agricultural Production, Ag Tech, Bio Economy & Food Processing

(Regional Plan Part 2, Chapter 3A Target Sector Strategies - Agriculture pages 70-80; and Chapter 3C Additional Regional & Community Development Strategies - Water pp. 133-134)
<https://www.kccd.edu/kern-coalition/resources.html>

Topic

Target Sector Strategy - Brief Overview (Regional Plan Part 2 Ch 3A pp. 70-72)

Sub-topic

a. Describe the proposed target sector strategy. Regions may have already included this information in their Regional Plan Part 2 submission. If so, please summarize that content here.

Agriculture remains Kern County's largest employment sector and a foundation of its economy. The strategy for agriculture focuses on modernizing the sector through the adoption of Ag Technology innovations, expanding value-added processing, addressing workforce challenges, and ensuring environmental sustainability. By integrating advanced technologies and addressing climate-related risks, Kern County can maintain its competitive advantage while improving economic opportunities for local residents, especially in disinvested communities.

b. Explain why this sector was prioritized for immediate action.

Agriculture is the backbone of Kern County's economy and identity. However, the sector faces challenges such as climate change, regulatory pressures, and workforce shortages. Modernizing agriculture through value-added processing, sustainable practices, and workforce development will not only ensure its long-term viability but also create pathways for equitable economic growth in the region.

c. Provide an overview of tactics (minimum of 5) to focus implementation over 12-18 months (to be detailed in the "Tactical workplan template")

Tactics include expanding entrepreneurship opportunities in Ag Technology, convene industry and governance leaders for agriculture, develop training programs for agriculture workforce needs, strengthen community engagement in agriculture

initiatives, secure funding for agriculture modernization, and provide technical assistance to agriculture stakeholders.

Operating Structure to Organize and Execute

See organizational structure at: <https://www.kccd.edu/kern-coalition/index.html>

a. Describe the organizational model for executing the sector strategy (including staff roles, operations, and governance model)

- i. Individual Entities serving as Regional Convenors may elect to serve as a Sector Investment Coordinator role subject to approval by consensus or majority vote of regional conveners.
- ii. Regional Convenor / Sector Investment Coordinators' will utilize their existing organizational model (staff and operations), and will report to the Kern Coalition, Subregional Collaborative, and Governance Council) in this new role.
- iii. Regional Convenors / Sector Investment Coordinators' will assign or contract with individuals or entities with the requisite expertise in each industry sector and/or sector strategy to ensure timely and effective strategy implementation.

b. Identify regional partners for implementing tactics (including their roles and existing engagement with California Jobs First)

Existing Partners

- i. Kern EDC, B3K, KCCD
- ii. The Ravi & Naina Patel Foundation Regenerative Garden located at KCCD's Bakersfield College Delano Educational Center, in partnership with the Bakersfield College Agriculture Dept., White Buffalo Foundation & TomKat Ranch
- iii. California Renewable Energy Laboratory (CREL), a department within Kern CCD
- iv. National Renewable Energy Laboratory (NREL)
- v. UCSD Scripps Institution of Oceanography (UCSD SIO) partnering with Kern CCD regarding climate change, water, and agriculture data management tools
- vi. Existing Kern Coalition CJF communities & members and other CBO groups in the region.

New or Potential Partners

- vii. Kern County Farm Bureau, KC SGMA, UC Cooperative Extension Office

Resourcing Across the Strategy

Kern Coalition is in the process of identifying funding opportunities in alignment with Regional Plan Part 2 strategies.

Regional Convenor / Sector Investment Coordinator or Industry Sector Consultant to determine Resourcing Across the Strategy funding sources, priorities, totals, and remaining balances.

a. Summarize total costs required to support strategy execution.

- i. Upgrade: Transition worker to higher-skilled jobs
- ii. Expand: Bring in new high-quality jobs in technology & value-added food products
- iii. Regenerate: leverage expertise to incorporate regenerative practices

b. Describe existing financing awarded/approved and associated sources, including utilization of Regional Investment Initiative Catalyst and Sector Coordination resources.

- i. Upgrade: Federal and state education workforce funding (US DOE, US ED, & CCCCO)
- ii. Expand: (unknown / TBD) private financing
- iii. Regenerate: (unknown / TBD) federal and private funding to provide technical assistance and to support the formation of co-ops.

c. Describe remaining funding required, potential sources that have been identified, and the general approach to securing investment

i. Potential funding sources:

US DOE, US DOL, CCCCO, USDA, private funding and financing to Upgrade: workforce skills, Expand: the number of high quality value-added food / ag tech jobs; and Regenerate: provide technical assistance to incorporate regenerative practices and form regenerative farming co-ops.

Goals and Metrics Across the Strategy (Regional Plan Part 2, Ch. 3A, pp 72-74; and Ch. 3D, pp. 133-134)

a. Identify measures for sector-level outcomes expected from interventions over the next 5-10 years (e.g., increases in target sector employment and number of quality jobs)

- i. Regenerate: Establish Kern County as a leader in regenerative practices and agriculture technology (Ag #3)
- ii. Expand: Increase in high-quality jobs in agriculture technology and value added food processing (Ag #2)
- iii. Upgrade - transition workers to higher-skill jobs in Ag Industry (Ag #1)

b. Identify measures to track shorter-term progress towards desired sector-level outcomes (do not include measures linked to individual tactics, as those can be included in the tactical workplan template below)

- i. Develop infrastructure to support the adoption of precision agriculture, regenerative farming practices, and ag tech. (Ag #3a)
- ii. Foster new co-ops dedicated to sustainable farming methods (Ag #3b)
- iii. Educate & support the adoption of precision agriculture, regenerative farming practices, and ag tech (Ag #2a&b)
- iv. Incentives to shift to value-added processes or increase ag tech (Ag #2c)
- v. Increase awareness of existing and emerging skilled jobs (Ag #1a)
- vi. Provide entry- and incumbent worker training in ag tech, climate change data tools: evapo-transpiration, water management, etc. (Ag #1b)
- vii. Provide financial support for ag tech training (Ag #1c)
- viii. Reduce water usage through regenerative and precision agriculture practices and alternative irrigation methods (Ch 3A Ag #2; Ch 3D).

c. Describe expectations for reporting progress on measures

- i. Kern Coalition and/or its subcommittees will determine funding and reporting priorities.
- ii. Kern Coalition funded projects will provide project-specific reporting aligned with the CJF goals and objectives.

Dependencies and Challenges Kern Coalition is in the process of identifying dependencies, challenges, and mitigation strategies.

a. Describe key dependencies and risks to tactical work plan execution and how the strategy addresses them

i. Dependencies & Challenges:

- a) Insufficient infrastructure for water management (Ch 3D), transportation (p. 70), and energy reliability (food processing Ch 3A p. 70)
- b) Climate change impacts, such as extreme weather, drought, and groundwater shortages, pose significant threats to agriculture (Ch 3A, p. 76)
- c) Persistent disparities in high quality jobs among historically disinvested community members (Ch 3A, p. 75)
- d) Training programs for non-English speaking agricultural workers in low-paying occupations for higher paying jobs (Ch 3A, p. 75)

ii. Mitigation:

- a) Improved water management infrastructure (Ch 3D, p. 133-134)
- Improved transportation infrastructure (Ch 3A, p. 70)

- Improved energy reliability for food processing facilities (Ch 3A, p. 52)
- b) Improved K18 climate change training (UCSD Scripps Institution of Oceanography) regarding impacts on the agriculture industry and data management tools
- c) Engage with industry and job placement entities to ensure qualified underrepresented community members have access to high quality jobs (Ch 3A, p. 75)
- d) Engage the K-18 education institutions to ensure that workforce training for high quality jobs is available for non-English speaking incumbent agricultural workers (Ch 3A Ag #1b & 1c, p. 73)

Activation Plan: Tactical Workplan Template

Reference: Regional Plan Part 2 pp 70-80 and pp 133-134

Tactic & Overview

Tactic 1: Expanding Entrepreneurship Opportunities in Ag-Tech

a. Purpose:

- i. Support small businesses and startups in developing innovative agricultural solutions, with a focus on addressing water usage, labor shortages, and climate challenges.

b. Program Design:

- i. Establish an agriculture-focused innovation hub offering shared workspaces, prototyping equipment, and access to mentorship.
- ii. Provide tailored support for startups working on water management, precision agriculture, and climate resilience technologies.

c. Team: Who will be leading the tactic and what partners will be involved in implementation

- i. Lead: BHC, CAPK
- ii. Partners: B3K, KCCD, KIM CLC

d. Cost: Operating (space, staff, equipment, etc.) and program-specific costs, including potential funding sources

- i. The costs to implement the tactic are still being determined. As outlined in the Activation Plan, the Regional Convenor / Sector Investment Coordinator will work with an Industry Sector Consultant to determine resourcing across the strategy funding sources, priorities, totals, and remaining balances.

e. Potential Metrics:

- i. Number of ag-tech startups supported.

- ii. Funding raised by businesses.
- iii. Jobs created in the ag-tech sector.

Tasks, Responsible Parties and Timeline

Task 1: Host small business resource fairs in five subregions to share information about Ag-tech entrepreneurship

Leads: BHC, CAPK, B3K

Timeline: August 2025

Task 2: Organize Ag-Tech startup entrepreneur groups to showcase their innovative farming solutions to local farmers and potential investors, encouraging connections and adoption of new technologies.

Leads: BHC, CAPK

Partners: B3K

Timeline: June 2025

Task 3: Share available resources regarding small businesses/entrepreneurship programs

Lead: BHC, CAPK

Timeline: March 2025

Tactic 2: Convening Industry and Government Leaders

a. Purpose:

- i. Foster collaboration between agricultural stakeholders to address shared challenges and align on sustainability goals.

b. Program Design:

- i. Host Agriculture Roundtables to align on issues like water usage, labor regulations, and climate resilience.
- ii. Publish an annual roadmap identifying key policy recommendations and regional investment priorities.

c. Team: Who will be leading the tactic and what partners will be involved in the implementation

i. Lead: BHC, CAPK

ii. Partners: B3K, KIMCLC, KCCD, KEDC, KC Farm Bureau

d. Cost: Operating (space, staff, equipment, etc.) and program-specific costs, including potential funding sources

- i. The costs to implement the tactic are still being determined. As outlined in the Activation Plan, the Regional Convenor / Sector Investment Coordinator will work with an Industry Sector

Consultant to determine resourcing across the strategy funding sources, priorities, totals, and remaining balances.

e. Potential Metrics: Measures to assess progress toward the tactic

- i. Number of convenings hosted
- ii. Number of policy recommendations adopted

Tasks, Responsible Parties and Timeline

Task 1: Organize meetings / roundtable with policymakers, industry leaders, ag tech developers, community stakeholders and representatives from area farmers, vendors, and food processors to align local priorities.

Leads: BHC, CAPK

Co-Leads: KIM CLC, B3K, KCCD

Timeline: March 2025

Task 2: Establish a working group to explore water-use efficiency and alternative irrigation methods.

Leads: KIM CLC, BHC

Co-Leads: CAPK, BHC, KCCD

Timeline: April 2025

Task 3: Publish a roadmap for advancing sustainable agriculture and value-added processing.

Leads: KIM CLC, B3K, KCCD

Timeline: February 2026

Tactic 3: Developing Training Programs for Agricultural Workforce Needs

a. Purpose:

- i. Equip the workforce with skills to meet the demands of modern agriculture, including ag-tech and sustainable practices.

b. Program Design:

- i. Partner with local colleges to develop training programs in irrigation technology, value-added processing, and farm management.
- ii. Launch bilingual training programs to expand accessibility.
- iii. Partners: KHSD, KCSOS, KEDC, KCFarm Bureau

c. Cost: Operating (space, staff, equipment, etc.) and program-specific costs, including potential funding sources

i. The costs to implement the tactic are still being determined. As outlined in the Activation Plan, the Regional Convenor / Sector Investment Coordinator will work with an Industry Sector Consultant to determine resourcing across the strategy funding sources, priorities, totals, and remaining balances.

d. Potential Metrics: Measures to assess progress toward the tactic

i. Number of participants trained.

ii. Certifications awarded.

iii. Job placement rate.

Tasks, Responsible Parties and Timeline

Task 1: Identify workforce gaps in sustainable farming and ag-tech.

Leads: KCCD, KIM CLC

Timeline: February 2026

Task 2: Develop 1-2 pilot training programs focusing Ag-tech occupations (e.g. precision ag, irrigation, etc.)

Leads: KCCD, KIM CLC, BHC

Timeline: September 2025

Task 3: Develop paid internship opportunities with Ag-tech employers for program participants.

Leads: KCCD, KIM CLC

Timeline: September 2025

Tactic 4: Community Engagement

a. Purpose:

i. Ensure agricultural advancements benefit all Kern County residents, especially those in disinvested communities

b. Program Design:

i. Host bilingual workshops to educate residents about career opportunities and new farming practices.

ii. Partner with nonprofits for targeted outreach in rural areas.

iii. Develop tailored outreach strategies for rural and underserved areas.

c. Team: Who will be leading the tactic and what partners will be involved in implementation

i. Lead: BHC, CAPK

ii. Partners: Local non-profits

d. Cost: Operating (space, staff, equipment, etc.) and program-specific costs, including potential funding sources

i. The costs to implement the tactic are still being determined. As outlined in the Activation Plan, the Regional Convenor / Sector Investment Coordinator will work with an Industry Sector Consultant to determine resourcing across the strategy funding sources, priorities, totals, and remaining balances.

e. Potential Metrics: Measures to assess progress toward the tactic

i. Number of residents engaged.

ii. Satisfaction scores from participants.

Tasks, Responsible Parties and Timeline

Task 1: Develop a toolkit for local nonprofits and other community stakeholder groups to educate communities about ag-tech careers.

Leads: BHC, CAPK

Timeline: August 2025

Task 2: Host bilingual community meetings in all five subregions to gather community input and promote ag-tech opportunities and provide pathways to involvement.

Leads: BHC, CAPK

Timeline: March 2025

Task 3: Develop community newsletters to provide updates on progress and a digital platform to crowdsource ideas (Monthly or Quarterly)

Leads: BHC, CAPK

Timeline: April 2025

Tactic 5: Resource Development

a. Purpose:

i. Secure and attract state, federal, local and private funding to support sustainable farming, water conservation, and climate resilience.

b. Program Design:

i. Identify state, federal, and private funding opportunities for manufacturing projects.

ii. Build partnerships with private investors for infrastructure projects.

iii. Convene potential partners for investment discussions.

c. Team:

i. Lead: CAPK & KCCD

d. Cost: Operating (space, staff, equipment, etc.) and program-specific costs, including potential funding sources

i. The costs to implement the tactic are still being determined. As outlined in the Activation Plan, the Regional Convenor / Sector Investment Coordinator will work with an Industry Sector Consultant to determine resourcing across the strategy funding sources, priorities, totals, and remaining balances.

e. Potential Metrics: Measures to assess progress toward the tactic

i. Total funding secured.

ii. Number of funded projects.

Tasks, Responsible Parties and Timeline

Task 1: Identify grant opportunities and partners to collaborate and apply for federal/state grants to expand/implement clean energy projects

Leads: CAPK, KCCD

Timeline: March 2025

Task 2: Host a webinar for investors/funders to showcase clean energy opportunities in Kern County

Leads: B3K, KCCD

Partners: CAPK, KIM CLC, BHC

Timeline: September 2025

Task 3: Form a partnership with private/public sector investors to fund clean energy projects.

Leads: B3K, KCCD

Partners: CAPK, KIM CLC, BHC

Timeline: TBD

Tactic 6: Technical Assistance

a. Purpose:

i. Help farmers adopt new technologies, improve efficiency, and meet sustainability standards.

b. Program Design:

i. Offer workshops on ag-tech adoption and meeting environmental regulations.

ii. Conduct assessments to identify resource and infrastructure gaps.

c. Team:

i. Lead: KIM CLC

ii. Partners: KEDC, KCCD, B3K

d. Cost: Operating (space, staff, equipment, etc.) and program-specific costs, including potential funding sources

i. The costs to implement the tactic are still being determined. As outlined in the Activation Plan, the Regional Convenor / Sector Investment Coordinator will work with an Industry Sector Consultant to determine resourcing across the strategy funding sources, priorities, totals, and remaining balances.

e. Potential Metrics:

i. Number of businesses and stakeholders receiving technical assistance.

ii. Workforce gaps identified and addressed.

iii. Number of reports and analyses completed.

Tasks, Responsible Parties and Timeline

Task 1: Develop a values guide to drive decision-making and ensure ag-tech project proposals align with equity and sustainability principles.

Leads: CAPK, BHC

Timeline: March 2025

Task 2: Perform a regional assessment of infrastructure and resource gaps that hinder the adoption and growth of agricultural technologies.

Leads: KIM CLC, KCCD, B3K

Timeline: February 2026

Task 3: Conduct a comprehensive workforce supply-demand analysis to identify skills gaps and opportunities in ag-tech industries.

Leads: KCCD, KIM CLC

Timeline: February 2026