



OVERVIEW

Working Lands & Water

California's working lands and water sector is a powerhouse of agricultural production and innovation, driving the state's economy across a diverse set of subsectors.

Working lands in California is anchored by the Central Valley, which leads the country in agricultural production and food / beverage processing. California's robust agtech industry is driven by substantial Silicon Valley investment (e.g. AgFunder, SVG Ventures), while the state's nascent bioeconomy and blue economies are enabled by substantial organic resources (wood products, biomass) and access to the coastline.¹

California Can Capitalize on Global Opportunities in Working Lands & Water Subsectors

Sector Category:	Strengthen	Accelerate	Bet	Representative California Working Lands & Water Employers
 Agricultural Production				
The global gross production value of the agricultural production market is projected to reach \$4.6 trillion in 2024 and expected to grow at a ~4% CAGR through 2029 ²				   
 Food Processing				
Driven by growing sustainable food consumption, global revenues in the food and beverage market are expected to reach nearly \$10 trillion in 2025 ³				   
 Agtech & Farm Equipment				
Agrifoodtech startups raised \$6.7 billion globally, with investments into farm robotics / equipment growing 9% year-over-year for the past five years to \$760 million in 2023				   
 Bioeconomy				
The global bioeconomy has an estimated value of \$4 trillion and according to some projections, may grow to \$30 trillion, driven by increasing emphasis on managing climate change ⁵				  
 Blue Economy / Tech				
The global ocean economy generates \$3-6 trillion per year, with fisheries and aquaculture contributing ~\$100 billion per year and supporting 260 million jobs worldwide ⁶				  



California's Strong Base in Agriculture and Food Production Supports the Success of its Working Lands & Water Sector

Strengthen

As the **nation's leading state in agricultural production and exports**,⁷ California cultivates over a third of the country's vegetables and nearly three-quarters of its fruits,⁸ generating at least \$100 billion in agricultural production-related economic activity each year⁹

- The state is **home to some of the best agricultural science programs in the world**, including UC Davis (ranked 13th best Agricultural Science university in the world and 3rd in the U.S.)¹⁰
- California is also **home to ~70,000 farms & ranches**,⁹ with **~24 million farm acres in operation**,¹¹ mostly in the Central Valley¹²
- As of 2017, California **led the country in number of food and beverage processing plants**,¹³ including wineries (nearly 1,500), fruit and vegetable processing (333 plants), and coffee and tea manufacturing (100 plants); the subsector employed an estimated 236,000 people in 2023¹⁴

Accelerate

Grounded in California's strengths in agricultural production and food processing, **the state leads the country in agtech and farm equipment technologies**

- Agtech startups in California **attracted an average of ~\$1.5 billion in VC funding from 2020-2023**, accounting for 37% of U.S. VC funding¹⁵
- Recently, the Capital and North San Joaquin Valley regions were **recognized as a Regional Innovation Cluster for AgriFood technologies**, the only national AgriFood innovation cluster award, by the U.S. Small Business Administration (SBA)¹⁶

Bet

Looking forward, California **has an opportunity to develop its bioeconomy**, with a focus on sustainable and regenerative practices, by utilizing its substantial biomass resources (47 million dry tons in estimated biomass resource potential from logging debris, urban wood waste, and agricultural wastes¹⁷) and developing its bioindustrial and biocircular manufacturing capabilities. California also has the potential to **bolster its blue economy by leveraging the state's coastline**

- In 2023, biomass provided **~5% of California's in-state generated energy supply**;¹⁸ the industry reports that it reuses over 7.3 million tons of the state's solid wastes and residues annually¹⁹
- California plans to develop its bioeconomy by **enhancing forest restoration and funding innovation programs to develop bio-based products**, such as biofuels, while streamlining regulations and establishing tracking systems²⁰

- California's **blue economy has an estimated \$40 billion economic impact**, with annual revenues at blue economy businesses increasing by 18% and jobs by 163% over the past ten years²¹

How We Are Supporting the Working Lands & Water Sector

Forest Biomass to Carbon-Negative Biofuels Pilot Program:

Creates carbon-negative hydrogen and / or liquid fuel from forest biomass from forest vegetation management within California's Sierra Nevada²²

Organics Grant Program: Helps grow California companies engaged in food and yard waste recycling to cut climate pollution and create green jobs. The latest investment of \$130 million will lead to 114 new jobs for California's clean economy and keep over 7.7 million tons of organic waste out of landfills²³

Food Production Investment Program: Helps accelerate adoption of state-of-the-art energy farming technologies that substantially reduce energy use, costs, and GHG emissions²⁴

Farm Equipment and Machinery Sales & Use Tax

Exemption: Provides a partial exemption on taxes related to the sale, storage, or use of farm equipment, machinery and their parts²⁵

CalCompetes: Provides tax credits to working lands and water companies, including \$50 million to 11 businesses since 2022, creating over 1,000 working lands and water jobs²⁶

Upskilling & workforce initiatives:

- **AgTEC Workforce:** Improves the skills of agricultural workers in the San Joaquin Valley by aligning community colleges with industry approved certificate programs to increase wages²⁷
- **Labor Workforce Development Agency (LWDA):** Funds outreach, employment, and training services to farmworkers through initiatives such as La Cooperativa Campesina de California²⁸
- **Specialty Crop Workforce Development Program:** Engages specialty crop employers, develops training and curriculum, and conducts outreach and education to farmworkers²⁹

Employers Expanding Their Presence in California with Calcompetes Support

COMPANY HIGHLIGHTS SOURCED FROM CALCOMPETES AWARDS¹⁶



Sakata Seed America, a plant and seed manufacturer, plans to invest more than \$25 million to expand operations, creating over 50 jobs



Baldwin Richardson Foods Co., a beverage manufacturer, plans to invest ~\$50 million to expand operations, creating over 140 jobs

Working Lands & Water



Workforce Profile: Center for Land-Based Learning

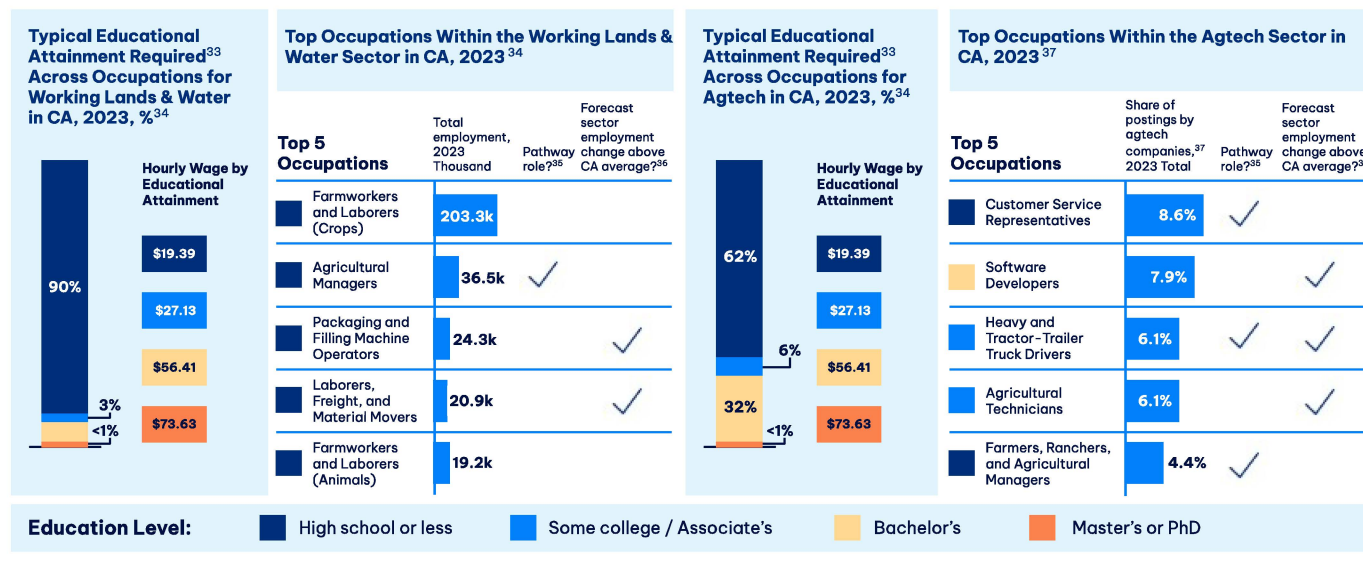
The Center for Land-Based Learning, a High Road Training Partnership grantee, aims to train incumbent English-language learner workers in farm management and agricultural operations across California.³⁰ As a leading agricultural workforce development organization in California, the Center for Land-Based Learning offers a variety of training and career advancement programs, including the California Farm Academy's Beginning Farm and Ranch Manager Apprenticeship, a two-year program of paid on-the-job training and instruction. The Center also runs Spanish-language Leadership Training, an initiative designed

to provide Spanish-speaking farm employees with essential language skills and management training to advance their careers.³¹

Working Lands & Water Offers Opportunities for All Californians

Building on a long history of agricultural production, California's working lands and water sector has the potential **to evolve in the coming decades to reflect the state's commitment to building a working lands and water economy centered on living-wage jobs and the implementation of sustainable farming and food production practices:**

- With legislation such as the Sustainable Groundwater Management Act (SGMA) and funding from Proposition 4, the state is investing in climate-focused farming techniques to create a working lands and water economy that will benefit Californians for decades to come by **doubling down on climate-focused farming techniques and long-term resource management**³²
- The working lands and water sector also has **opportunities to upskill and reskill** its workforce to build pathways into higher wage jobs with greater upward mobility for farm workers



~13%

Annual Exports

Share of U.S. agricultural exports in 2022³⁸

\$145M

USDA National Institute of Food and Agriculture Grants

In fiscal year 2023 grants to CA³⁹

~700K

Working Lands & Water Workforce

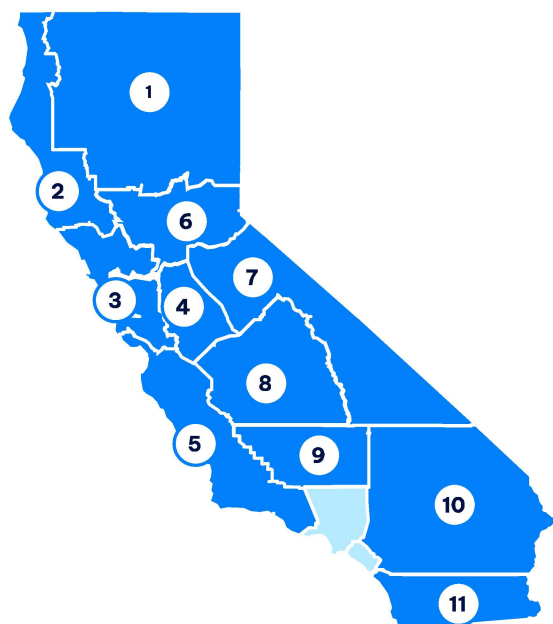
Across all subsectors in CA¹⁴

Working Lands & Water



REGIONAL OVERVIEW

Across the state's 13 Jobs First Collaboratives, **11 identified working lands and water as a regional strategic sector**. Each Collaborative also identified subsector categories within the clean economy to focus their attention and resources.⁴⁰



1 North State



Roughly \$4.5 billion agricultural production subsector, anchored by rice (~\$900 million), almonds (~\$770 million), and walnuts (~\$720 million). Positioned to develop a circular bioeconomy based on wood utilization facilities.

2 Redwood



Hub for commodities including wood (produced 54% of statewide lumber market in 2023), seafood (12% of statewide aquaculture production by market value), livestock, wine, and cannabis.

3 Bay Area



Focus on sustainable agricultural practices and agtech innovation. Emerging efforts to prioritize recruiting and upskilling indigenous and immigrant farmworker populations.

5 North San Joaquin



Grossed nearly \$11.5 billion from agricultural goods in 2022. Recently certified as an AA-rated Bioeconomy Development Opportunity Zone (BDO Zone), the first in the state, by the BDO Zone Initiative, building from progress advanced by BEAM Circular, a bioeconomy focused initiative that received funding from the Regional Investment Initiative.

6 Central Coast



Home to 125,000 individuals engaged in agricultural production, several notable agtech companies (including FarmBot and FarmNG), and top research institutions (UC Santa Barbara, UC Santa Cruz). Strong geographic positioning and existing state / federal assets (research labs, initiatives) for blue economy.

7 Capital



Agriculture, food, and wood economy jobs accounted for about 40% of total employment in the four tradable sectors as prioritized by the region in 2022. Regional leader in investment intensity in agricultural innovation (3-30x the national average), anchored by UC Davis, a leading institution worldwide for agriculture and forestry.

8 Sierra



Developing a workforce plan for managing ecosystems and establishing a biomass-based economy by converting low-value biomass materials for export for more extensive bioeconomy uses such as biofuels or wood products.

9 Central San Joaquin



Produces 25% of the nation's food, 60% of its fruits and nuts, and 30% of its vegetables, with an annual agricultural economy output of \$70 billion. Well-positioned to advance the bioeconomy subsector using renewable organic material from plants and animals to produce biofuels.

10 Kern County



Robust agriculture industry (80,000 jobs or about 15% of total employment) with plans to invest in agtech and the bioeconomy (focus on biofuels).

11 Inland SoCal



Nascent center for water quality innovation (e.g. onsite water treatment, and recycling, uncovered filtration systems) to offset waste from advanced manufacturing processes.

12 Southern Border



Agriculture contributes \$5 billion to the Imperial County economy. San Diego County generates \$1.8 billion in agriculture and seafood sales, is home to several state-of-the-art water treatment and desalination facilities, and is an emerging hub for agtech (e.g. AgX Initiative).

Sector Category: ● Strengthen ● Accelerate ● Bet



Agricultural Production



Food Processing



Agtech & Farm Equipment



Bioeconomy



Blue Economy / Tech