San Luis Obispo County Farmer Perspectives on Water Management and the Sustainable Groundwater Management Act (SGMA)

San Luis Obispo County FARM BUREAU

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Results from a 2019 farmer survey

Background

California is currently implementing the Sustainable Groundwater Management Act (SGMA), which became law in 2014. SGMA requires local groundwater sustainability agencies (GSAs) to develop sustainable water management plans and implement them to achieve groundwater sustainability (defined by avoidance of six undesirable results) by 2040. Agriculture is the largest human user of water in California; therefore farmers are an important stakeholder for SGMA implementation and achieving water sustainability. This research surveyed farmers in four California counties (Fresno, Madera, San Luis Obispo, and Yolo) to understand their perspectives on water issues, current and future water management practices, SGMA and policy preferences. This brief details the results of the survey for San Luis Obispo County, where 93 farmers responded to the survey. The survey was deployed via mail in the spring of 2019 in collaboration with the San Luis Obispo County Farm Bureau.

Key Findings

1. The majority of farmers are concerned about groundwater issues and believe they are occurring now or in the next five years.
2. Farmers have already adopted many water management practices, and are likely to adopt more in the future.
3. Majority of farmers believe the SGMA process is being managed locally and farmers are involved, but less than half understand the process or think its fair and know how to participate.
4. The majority of farmers support incentive programs, recharge credits and permits for new wells.
5. Majority of farmers believe SGMA is necessary in SLO and California; however, they don't believe other farmers think SGMA is necessary in these places.

Farmer and Farm Characteristics

Farmer respondents (84% male, 14% female, 1% prefer not to answer) were on average 63 years old, had farmed 24 years in SLO and 70% were full-time farmers. Average farm size was 318 acres, with 79% on average owned by the farmer. The most common crop types were vineyard grapes (45%), fruits crops (34%), cattle on pasture/rangeland (20%), hay and alfalfa (11%), and nut trees (8%). Most common water sources (in a "normal year") groundwater only (71%), mix of surface and groundwater (14%), no irrigation (13%) and irrigation through surface water only (4%). Farmers indicated in which GSAs they had land, with the most frequent White areas (39%), Estrella-El Pomar-Creston Water District (21%), and Paso Basin- County of San Luis Obispo (18%).

Current and Future Water Management Practices

Farmers in the region have already adopted many water management practices, most commonly drip irrigation (74%), crop insurance (40%), and monitoring technologies (39%) (Figure 1). Among non-adopters, farmers also indicated interest in adopting multiple water technologies in the future (Figure 2) especially drip irrigation (65%), water monitoring technology (58%), and soil moisture sensors (55%).

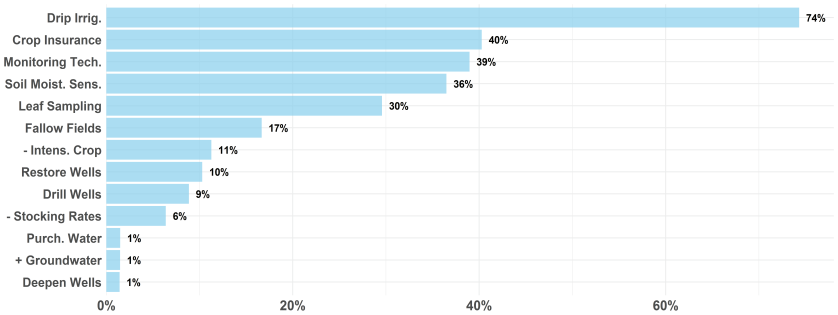

Figure 1. Current farmer adoption of water scarcity management practices.

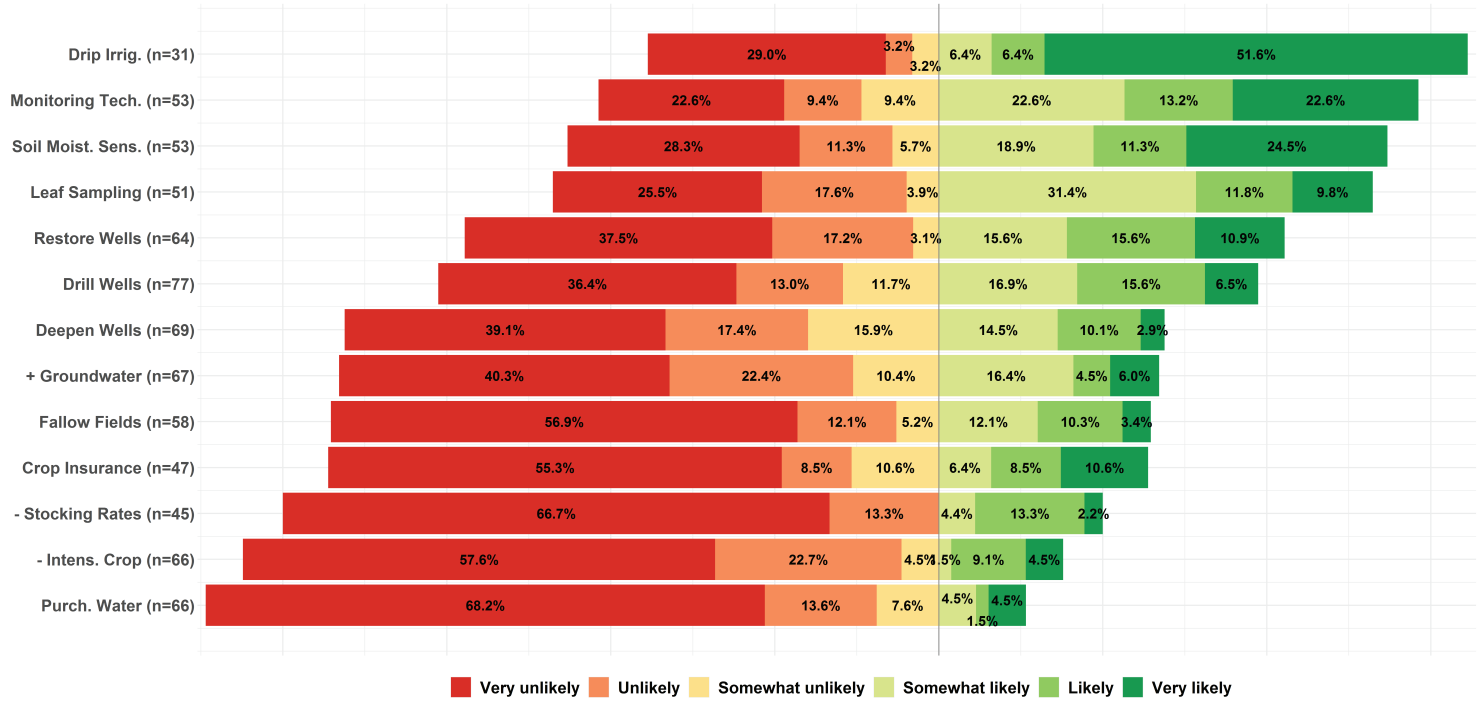

Figure 2. Farmers' likely adoption of water scarcity management practices.

Concern for Groundwater Issues

The majority of farmers (59% or greater) are at least somewhat concerned with each of the six SGMA undesirable results (Figure 3). As well, the majority of farmers believe that these undesirable results are already happening or will occur in five years. (Figure 4).

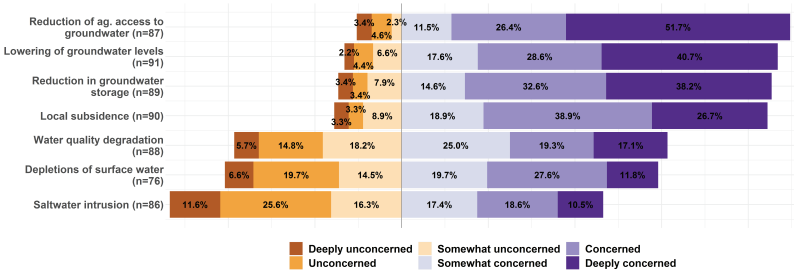

Figure 3. Farmer concern for groundwater management conditions (i.e. SGMA undesirable results" in San Luis Obispo County).

Farmer Preferences for Groundwater Sustainability and SGMA

The majority of farmers at least somewhat agree that the SGMA process is being managed locally (64%), is fair (40%), and has involved farmers (65%). However, fewer than half of all farmers agreed that they knew how to participate (46%) or clearly understood the SGMA policy process (40%). (Figure 5). Most farmers believe that water allocation based on standard crop water requirements (70%), historical average pumping (68%), and correlative rights (56%) are at least somewhat fair. The majority of farmers prefer well metering (54%) but 49% prefer standard crop water requirement indexes for water monitoring in the future, if necessary.

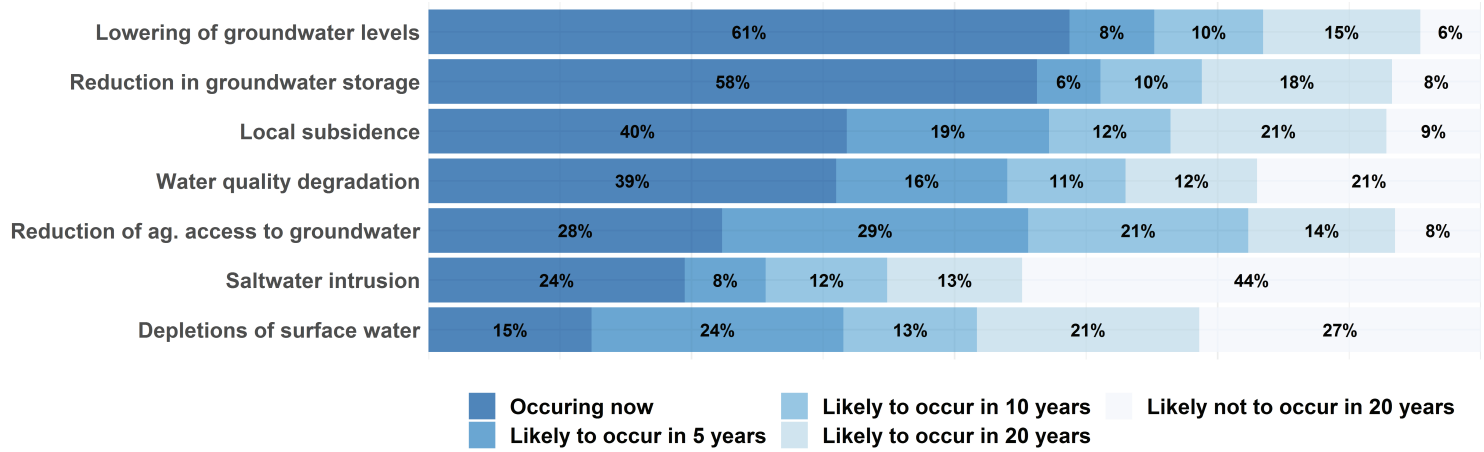

Figure 4. Farmer perceptions of likely timeframe in which groundwater management conditions will occur without interventions.

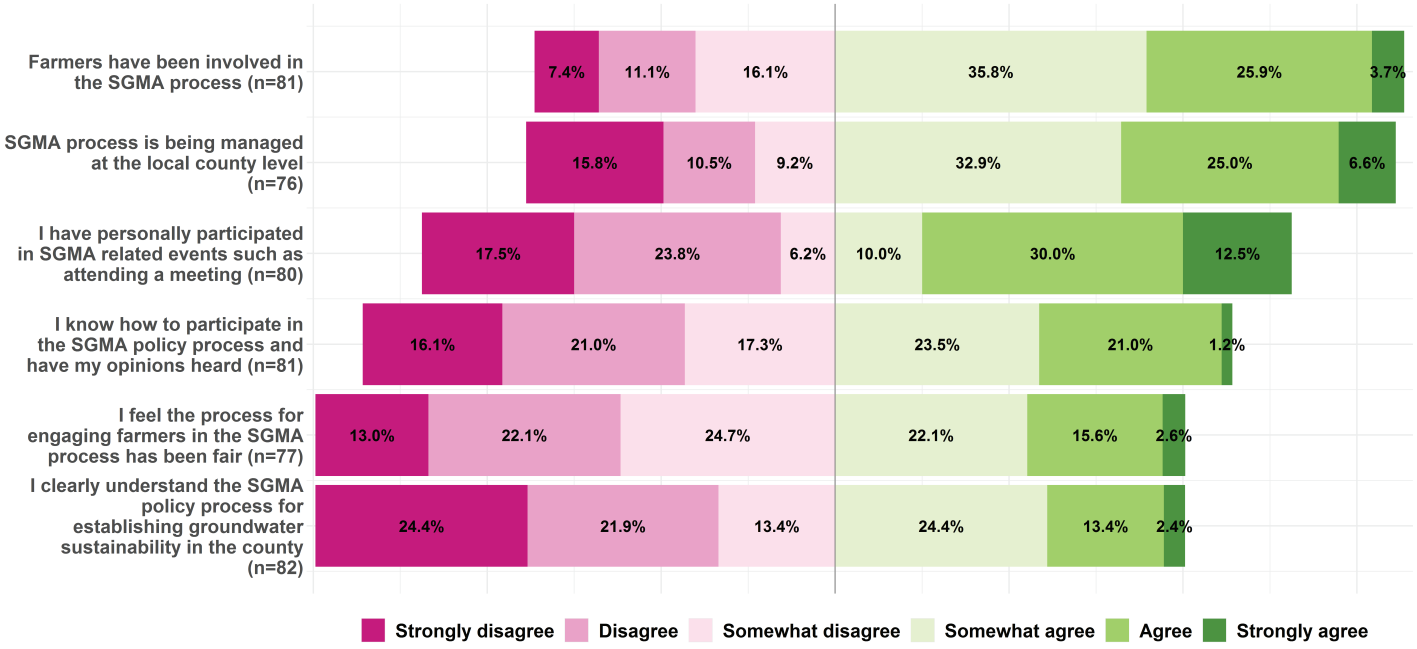

Figure 5. Farmer perceptions of SGMA policy process and participation

Farmers have mostly received information about SGMA from commodity organizations or grower cooperatives (21%), and the GSA (17%), and State/Regional Water Resources Control Board (17%); however, they would most trust information about SGMA from the University of California Cooperative Extension and County Agricultural Commissioner (40% each). These same two organizations are the ones that farmers would also like to receive SGMA information from (40% UC Cooperative Extension, 38% County Agricultural Commissioner). Farmers support a diversity of water policy and management strategies that may be components of SGMA (Figure 6).

SGMA Cost and Policy Need

Most farmers believe that SGMA is necessary in both SLO County (58%) and California (62%); however, the majority of farmers don't believe that other farmers think SGMA is necessary in SLO County (21%) or California (28%) (Figure 7). This suggests a disconnect between farmer's individual policy preferences and those of their peers. Nineteen percent of farmers believe SGMA will be affordable to implement; on average, costing $438 per acre.

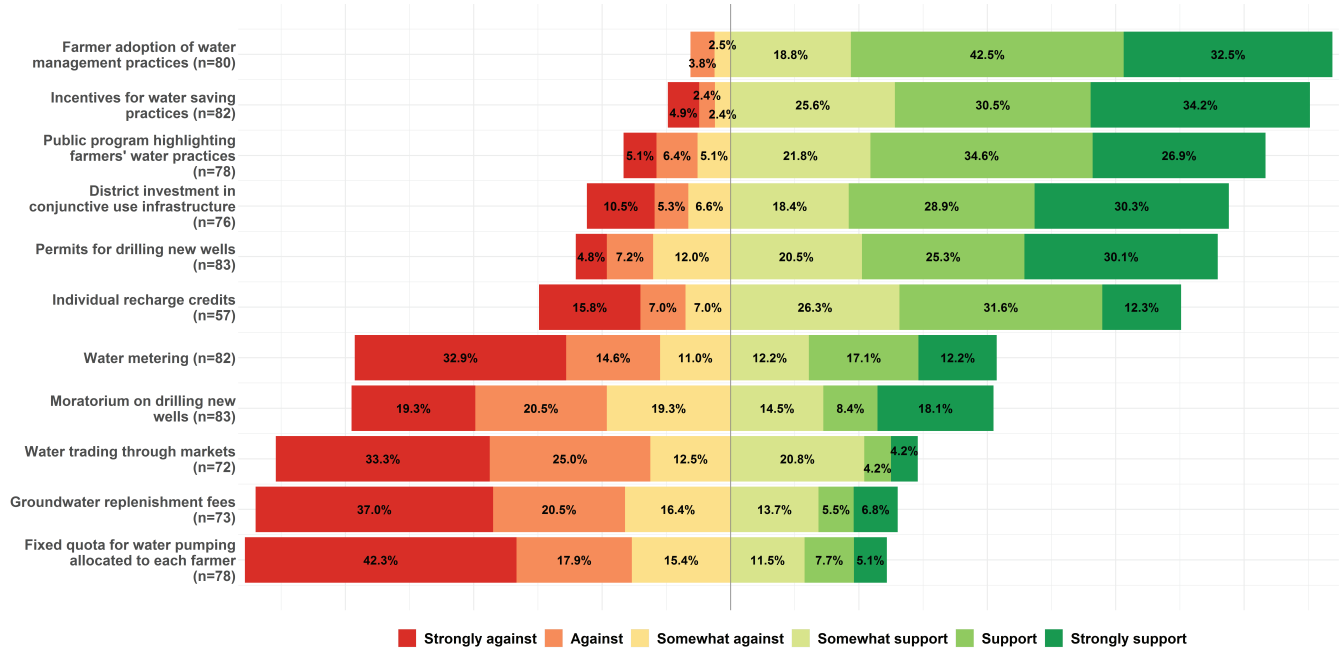

Figure 6. Farmer preferences for potential water management options.

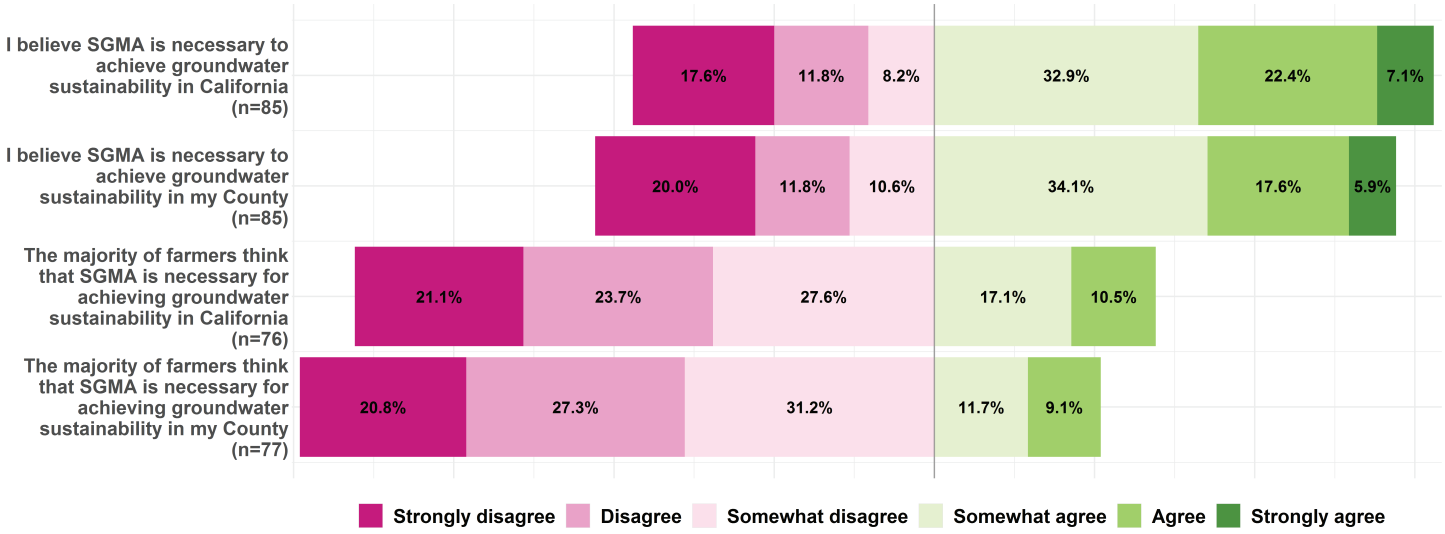

Figure 7. Farmer support for SGMA in San Luis Obispo County and California.

Perceptions of Change

Farmers expressed a number of changes in land, policy and climate had occurred recently. A majority of farmers felt that urban land use (89%) and corporate-owned farms (87%) had increased in the last five years. Conversely, 83% of farmers felt that family owned farming operations had decreased in the same time period. The majority of farmers also felt that the amount of reporting and paperwork with regulations (94%) as well as the number of regulations for farms (92%) had increased in the last five years while 61% felt that farmer engagement in the policy process increased. Most farmers (57%) felt that surface water allocations had stayed the same. The majority of farmers (72%) agreed that the global climate is changing, average global temperatures are increasing (68%), and human activities are an important cause of climate change (51%). As well, a majority of farmers felt that climate change presents more risks than benefits to agriculture globally (55%); however, only 49% agreed that climate change presents more risks than benefits to agriculture in SLO County. Finally, fewer than half (45%) agreed that water availability has changed because of climate change (Figure 8).

Acknowledgements

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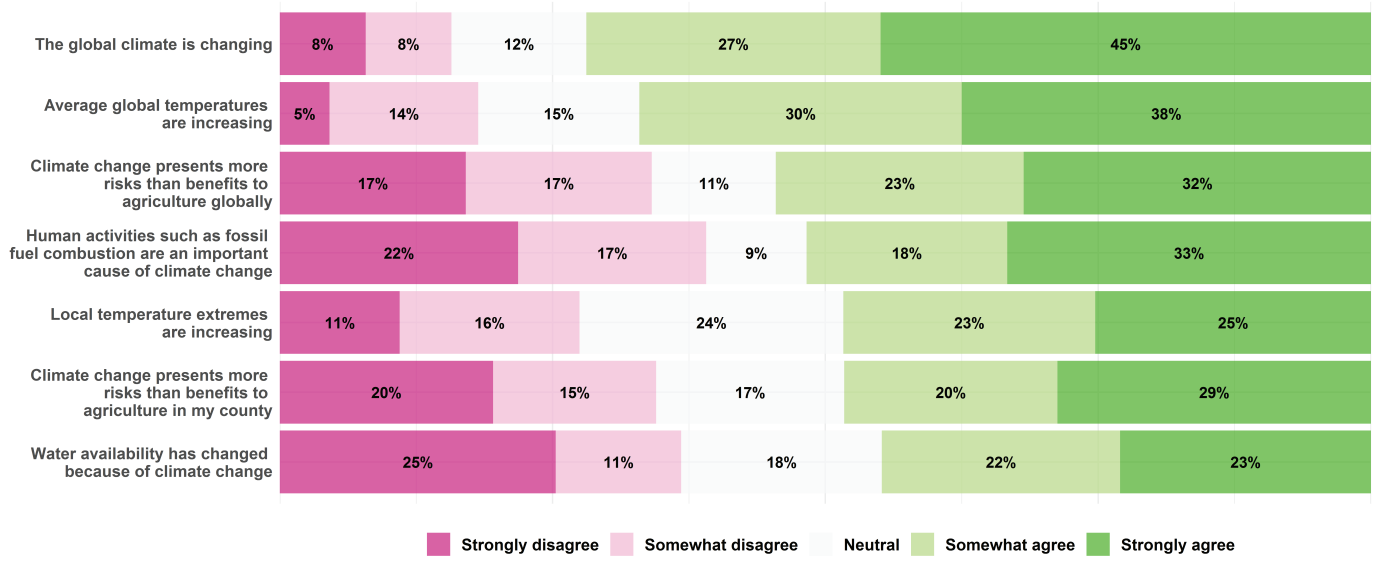

Figure 8. Farmers' level of agreement with climate change and weather risk statements.