

Supplementary Material

1 Supplementary Tables

Supplementary Table 1. Dataset generated during the literature review including the original variables regarding ecological, social and economic sustainability aspects extracted from the 39 publications considered.

Supplementary Table 2. Number of studies per year and underlying references.

Year	Number of studies	References
2000	1	(Cone and Myhre, 2000)
2005	1	(Lang, 2005)
2006	1	(Guthman et al., 2006)
2008	1	(Russell and Zepeda, 2008)
2009	1	(Hardesty and Leff, 2010; Galt et al., 2012)
2012	2	(Galt et al., 2012; MacMillan Uribe et al., 2012)
2014	3	(Farmer et al., 2014; Moellers and Bîrhală, 2014; Obach and Tobin, 2014)
2015	1	(Wilkins et al., 2015)
2017	4	(Allen et al., 2017; Carolan, 2017; Rossi et al., 2017; Vassalos et al., 2017)
2018	5	(Christensen et al., 2018; Izumi et al., 2018; Morgan et al., 2018; Pérez- Neira and Grollmus-Venegas, 2018; White et al., 2018)
2019	7	(Chen et al., 2019; Galt et al., 2019; Jablonski et al., 2019; Matzembacher and Meira, 2019; Paul, 2019; Samoggia et al., 2019; Sitaker et al., 2019)
2020	5	(Diekmann, 2020; Espelt, 2020; Fremstad and Paul, 2020; Mert-Cakal and Miele, 2020; Zhen et al., 2020)
2021	5	(Atakan and Yercan, 2021; Cristiano, 2021; Gugerell et al., 2021; Medici et al., 2021; Mills et al., 2021)
2022	1	(Hunter et al., 2022; Jilcott Pitts et al., 2022)

Supplementary Table 3. Number of studies per research area reported in Web of Science.

Research area	Number of studies
Agriculture	14
Environmental Sciences & Ecology	11
Science & Technology - Other Topics	11
Sociology	6
Nutrition & Dietetics	4
Engineering	3
Geography	3
Business & Economics	2
Food Science & Technology	2
History & Philosophy of Science	2
Public Administration	2
Public, Environmental & Occupational Health	2
Social Sciences - Other Topics	2
Anthropology	1
Behavioral Sciences	1
Development Studies	1
Education & Educational Research	1
General & Internal Medicine	1
Physical Geography	1
Urban Studies	1

Supplementary Table 4. Number of variables with positive, neutral, negative or unclear effects in each sub category.

Dimension	Category	Sub category	Positive	Neutral	Negative	Unclear	CSA farms	Studies
Ecology	Soil	Fertility	0	0	0	0	0	0
Ecology	Soil	Erosion	0	0	0	0	0	0
Ecology	Soil	Density	0	0	0	0	0	0
Ecology	Soil	Climate	0	0	0	0	0	0
Ecology	Inputs	Water	1	1	0	1	8	2
Ecology	Inputs	Vehicles/machinery	5	1	2	11	112	8
Ecology	Inputs	Electricity	0	1	0	2	7	3
Ecology	Inputs	Pesticides	5	0	1	1	9	3
Ecology	Inputs	Fertilizer	14	0	3	2	57	4
Ecology	Inputs	Seeds	1	0	0	2	2	2
Ecology	Inputs	Seedlings	1	0	0	1	2	2
Ecology	Inputs	Material/technology	0	2	0	4	2	2
Ecology	Inputs	Energy	7	0	0	2	57	4
Ecology	Outputs	Climate	4	1	0	9	17	4
Ecology	Outputs	Production	0	0	0	3	25	3
Ecology	Outputs	Environmental impact	1	0	0	0	7	1
Ecology	Outputs	Energy	4	2	0	0	1	1
Ecology	Biodiversity	Crop diversity	0	0	0	2	64	2
Ecology	Biodiversity	Plant diversity	0	0	0	0	0	0
Ecology	Biodiversity	Livestock diversity	0	0	0	1	48	1
Ecology	Biodiversity	Animal diversity	0	0	0	0	0	0
Ecology	Biodiversity	Land use	0	0	0	0	0	0
Social	Team	Knowledge/Learning	1	0	1	2	68	5
Social	Team	Trust	0	0	0	0	0	0
Social	Team	Diversity/inclusion	0	0	1	8	83	2
	Team	Fluctuation	0	0	0	0	0	0
Social						2		
Social	Team	Income	4 4	2 0	0	1	2110	5
Social	Team	Satisfaction	=				23	3
Social	Team	Full time/part time	0	0	0	4	59	4
Social	Team	Buffer capacity	0	0	0	0	0	0
Social	Members	Knowledge/Learning	4	2	0	0	8	3
Social	Members	Trust	0	0	0	0	0	0
Social	Members	Diversity/inclusion	0	16	48	38	166	21
Social	Members	Fluctuation	0	0	0	10	187	8
Social	Members	Satisfaction	0	0	0	2	13	2
Social	Members	Engagement	3	1	0	6	30	7
Social	Members	Identification	1	1	0	1	16	3
Social	Members	Distance	0	0	0	1	5	1
Social	Members	Supply	1	0	0	3	13	4
Social	Members	Behavior	39	21	0	8	33	11
Social	Members	Well-being/health	7	6	1	0	6	2
Social	Farm	Transparency	0	0	0	1	19	1
Social	Farm	Attractivity	0	0	0	0	0	0
Social	Farm	Goals/visions/strategies	0	0	0	1	19	1
Social	Farm	Bidding	0	0	0	0	0	0
Social	Farm	Community building	1	0	1	1	10	3
Social	Surroundings	Cooperation	0	0	0	1	56	1
Social	Surroundings	Competition	0	0	0	0	0	0
Social	Surroundings	Rejection/Recognition	0	0	0	0	0	0
Social	Surroundings	Knowledge	0	0	0	4	56	1
Economy	Farm	Products	0	0	0	2	43	2
Economy	Farm	Management	3	0	0	1	20	2
Economy	Farm	Age	0	0	0	9	174	9
Economy	Farm	Distribution	0	0	0	3	48	3
Economy	Farm	Marketing channels	2	1	0	1	46	3
Economy	Costs	Labor	0	0	0	0	0	0

Economy	Costs	Running costs	1	9	3	19	33	5
Economy	Costs	Investments	0	2	0	0	7	1
Economy	Revenues	Membership fees	1	0	1	9	152	10
Economy	Revenues	Donations	0	0	0	1	19	1
Economy	Revenues	Subsidies	0	0	0	1	4	1
Economy	Revenues	Projects	0	0	0	0	0	0
Economy	Financial resources	Liquidity	0	1	0	1	37	2
Economy	Financial resources	Equity ratio	0	0	0	0	0	0
Economy	Financial resources	Balance	8	2	1	1	97	7
Economy	Financial resources	Diversification	0	0	0	0	0	0
Economy	Financial resources	Contract duration	0	0	0	0	0	0
Economy	Operating area	Yard	0	0	0	0	0	0
Economy	Operating area	Operating area	0	0	0	11	166	10
Economy	Operating area	Farm size	0	0	0	0	0	0
Economy	Range	Shares	0	0	0	14	191	12
Economy	Range	Access	1	0	0	0	16	1
Economy	Range	Innovation	0	0	0	0	0	0
Economy	Range	Productivity	2	0	2	2	26	4

2 References

- Allen, J. E., Rossi, J., Woods, T. A., and Davis, A. F. (2017). Do Community Supported Agriculture programmes encourage change to food lifestyle behaviours and health outcomes? New evidence from shareholders. *International Journal of Agricultural Sustainability* 15, 70–82. doi: 10.1080/14735903.2016.1177866
- Atakan, P., and Yercan, M. (2021). Community supported agriculture as a domain of economic exchange: Models, social capital and performance of three community supported agriculture groups in Turkey. *New Medit* 20, 33–51. doi: 10.30682/nm2103c
- Carolan, M. (2017). More-than-Active Food Citizens: A Longitudinal and Comparative Study of Alternative and Conventional Eaters. *Rural Sociology* 82, 197–225. doi: 10.1111/ruso.12120
- Chen, J., Gao, Z., Chen, X., and Zhang, L. (2019). Factors Affecting the Dynamics of Community Supported Agriculture (CSA) Membership. *Sustainability* 11, 4170. doi: 10.3390/su11154170
- Christensen, L. O., Galt, R. E., and Kendall, A. (2018). Life-cycle greenhouse gas assessment of Community Supported Agriculture in California's Central Valley. *Renew. Agric. Food Syst.* 33, 393–405. doi: 10.1017/S1742170517000254
- Cone, C. A., and Myhre, A. (2000). Community-Supported Agriculture: A Sustainable Alternative to Industrial Agriculture? 59, 187–197.
- Cristiano, S. (2021). Organic vegetables from community-supported agriculture in Italy: Emergy assessment and potential for sustainable, just, and resilient urban-rural local food production. *Journal of Cleaner Production* 292, 126015. doi: 10.1016/j.jclepro.2021.126015
- Diekmann, M. (2020). Community Supported Agriculture Innovative Nischenstrategie für landwirtschaftliche Betriebe? *Berichte über Landwirtschaft*, 1–21.
- Espelt, R. (2020). Agroecology prosumption: The role of CSA networks. *Journal of Rural Studies* 79, 269–275. doi: 10.1016/j.jrurstud.2020.08.032
- Farmer, J. R., Chancellor, C., Robinson, J. M., West, S., and Weddell, M. (2014). Agrileisure. *Journal of Leisure Research* 46, 313–328. doi: 10.1080/00222216.2014.11950328

- Fremstad, A., and Paul, M. (2020). Opening the Farm Gate to Women? The Gender Gap in U.S. Agriculture. *Journal of Economic Issues* 54, 124–141. doi: 10.1080/00213624.2020.1720569
- Galt, R. E., O'Sullivan, L., Beckett, J., and Hiner, C. C. (2012). Community Supported Agriculture is thriving in the Central Valley. *Cal Ag* 66, 8–14. doi: 10.3733/ca.v066n01p8
- Galt, R. E., van Soelen Kim, J., Munden-Dixon, K., Christensen, L. O., and Bradley, K. (2019). Retaining Members of Community Supported Agriculture (CSA) in California for Economic Sustainability: What Characteristics Affect Retention Rates? *Sustainability* 11, 2489. doi: 10.3390/su11092489
- Gugerell, C., Sato, T., Hvitsand, C., Toriyama, D., Suzuki, N., and Penker, M. (2021). Know the Farmer That Feeds You: A Cross-Country Analysis of Spatial-Relational Proximities and the Attractiveness of Community Supported Agriculture. *Agriculture* 11, 1006. doi: 10.3390/agriculture11101006
- Guthman, J., Morris, A. W., and Allen, P. (2006). Squaring Farm Security and Food Security in Two Types of Alternative Food Institutions*. *Rural Sociology* 71, 662–684. doi: 10.1526/003601106781262034
- Hardesty, S. D., and Leff, P. (2010). Determining marketing costs and returns in alternative marketing channels. *Renew. Agric. Food Syst.* 25, 24–34. doi: 10.1017/S1742170509990196
- Hunter, E., Norrman, A., and Berg, E. (2022). Quantifying differences in alternative food network supply chain activities and their relationship with socio-economic outcomes. *International Food and Agribusiness Management Review* 25, 83–101. doi: 10.22434/IFAMR2020.0193
- Izumi, B. T., Higgins, C. E., Baron, A., Ness, S. J., Allan, B., Barth, E. T., et al. (2018). Feasibility of Using a Community-Supported Agriculture Program to Increase Access to and Intake of Vegetables among Federally Qualified Health Center Patients. *J Nutr Educ Behav* 50, 289-296. doi: 10.1016/j.jneb.2017.09.016
- Jablonski, B. B. R., Sullins, M., and Thilmany McFadden, D. (2019). Community-Supported Agriculture Marketing Performance: Results from Pilot Market Channel Assessments in Colorado. *Sustainability* 11, 2950. doi: 10.3390/su11102950
- Jilcott Pitts, S. B., Volpe, L. C., Sitaker, M., Belarmino, E. H., Sealey, A., Wang, W., et al. (2022). Offsetting the cost of community-supported agriculture (CSA) for low-income families: perceptions and experiences of CSA farmers and members. *Renew. Agric. Food Syst.* 37, 206–216. doi: 10.1017/S1742170521000466
- Lang, K. B. (2005). Expanding Our Understanding of Community Supported Agriculture (CSA): An Examination of Member Satisfaction. *Journal of Sustainable Agriculture* 26, 61–79. doi: 10.1300/J064v26n02_06
- MacMillan Uribe, A. L., Winham, D. M., and Wharton, C. M. (2012). Community supported agriculture membership in Arizona. An exploratory study of food and sustainability behaviours. *Appetite* 59, 431–436. doi: 10.1016/j.appet.2012.06.002
- Matzembacher, D. E., and Meira, F. B. (2019). Sustainability as business strategy in community supported agriculture. *BFJ* 121, 616–632. doi: 10.1108/BFJ-03-2018-0207

- Medici, M., Canavari, M., and Castellini, A. (2021). Exploring the economic, social, and environmental dimensions of community-supported agriculture in Italy. *Journal of Cleaner Production* 316, 128233.
- Mert-Cakal, T., and Miele, M. (2020). 'Workable utopias' for social change through inclusion and empowerment? Community supported agriculture (CSA) in Wales as social innovation. *Agric Hum Values* 37, 1241–1260. doi: 10.1007/s10460-020-10141-6
- Mills, S., Furness, E., Clear, A. K., Finnigan, S. M., Meador, E., Milne, A. E., et al. (2021). The role of community-supported agriculture in building health and sustainability into UK diets: a mixed methods study. *The Lancet* 398, S68. doi: 10.1016/S0140-6736(21)02611-8
- Moellers, J., and Bîrhală, B. (2014). Community Supported Agriculture: A promising pathway for small family farms in Eastern Europe? A case study from Romania. *Appl Agric Forestry Res*, 139–150.
- Morgan, E., Severs, M., Hanson, K., McGuirt, J., Becot, F., Wang, W., et al. (2018). Gaining and Maintaining a Competitive Edge: Evidence from CSA Members and Farmers on Local Food Marketing Strategies. *Sustainability* 10, 2177. doi: 10.3390/su10072177
- Obach, B. K., and Tobin, K. (2014). Civic agriculture and community engagement. *Agric Hum Values* 31, 307–322. doi: 10.1007/s10460-013-9477-z
- Paul, M. (2019). Community-supported agriculture in the United States: Social, ecological, and economic benefits to farming. *Journal of Agrarian Change* 19, 162–180. doi: 10.1111/joac.12280
- Pérez-Neira, D., and Grollmus-Venegas, A. (2018). Life-cycle energy assessment and carbon footprint of peri-urban horticulture. A comparative case study of local food systems in Spain. *Landscape and Urban Planning* 172, 60–68. doi: 10.1016/j.landurbplan.2018.01.001
- Rossi, J., Woods, T., and Allen, J. (2017). Impacts of a Community Supported Agriculture (CSA) Voucher Program on Food Lifestyle Behaviors: Evidence from an Employer-Sponsored Pilot Program. *Sustainability* 9, 1543. doi: 10.3390/su9091543
- Russell, W. S., and Zepeda, L. (2008). The adaptive consumer: shifting attitudes, behavior change and CSA membership renewal. *Renew. Agric. Food Syst.* 23, 136–148. doi: 10.1017/S1742170507001962
- Samoggia, A., Perazzolo, C., Kocsis, P., and Del Prete, M. (2019). Community Supported Agriculture Farmers' Perceptions of Management Benefits and Drawbacks. *Sustainability* 11, 3262. doi: 10.3390/su11123262
- Sitaker, M., McGuirt, J., Wang, W., Kolodinsky, J., and Seguin, R. (2019). Spatial Considerations for Implementing Two Direct-to-Consumer Food Models in Two States. *Sustainability* 11, 2081. doi: 10.3390/su11072081
- Vassalos, M., Gao, Z., and Zhang, L. (2017). Factors Affecting Current and Future CSA Participation. *Sustainability* 9, 478. doi: 10.3390/su9030478
- White, M. J., Jilcott Pitts, S. B., McGuirt, J. T., Hanson, K. L., Morgan, E. H., Kolodinsky, J., et al. (2018). The perceived influence of cost-offset community-supported agriculture on food access among low-income families. *Public Health Nutr* 21, 2866–2874. doi: 10.1017/S1368980018001751

- Wilkins, J. L., Farrell, T. J., and Rangarajan, A. (2015). Linking vegetable preferences, health and local food systems through community-supported agriculture. *Public Health Nutr* 18, 2392–2401. doi: 10.1017/S1368980015000713
- Zhen, H., Gao, W., Jia, L., Qiao, Y., and Ju, X. (2020). Environmental and economic life cycle assessment of alternative greenhouse vegetable production farms in peri-urban Beijing, China. *Journal of Cleaner Production* 269, 122380. doi: 10.1016/j.jclepro.2020.122380