

Item number	Title/reference <i>(academic style) name initials (year) title, publisher, volume, pages</i>	Name of reviewer
12	Kythreotis, A.P., Mantyka-Pringle, C., Mercer, T.G., Whitmarsh, L.E., Corner, A., Paavola, J., Chambers, C., Miller, B.A. and Castree, N., 2019. Citizen social science for more integrative and effective climate action: A science-policy perspective. <i>Frontiers in Environmental Science</i> , 7, p.10.	Symplexis
<p>Review of findings / main outcome</p> <p>This paper explores the concept of Citizen Social Science (CSS), and its usefulness in fighting climate change.</p> <p>Citizen Social Science is defined as being “beyond Citizen Science”, with full level of participation of citizens, them being key agents of research, action and policy change at all levels of engagement and scales of the decision-making process. This means allowing citizens to have more influence on shaping climate policy and provoking the changes needed, both on adaptation and mitigation. These processes are based on lay citizens’ specific knowledges and values, so they are often especially valuable when applied on the local level.</p> <p>The paper then details barriers to CSS, and potential solutions to them.</p> <ul style="list-style-type: none"> - Conflicts of interest: there are group of citizens with conflicts of interest in the field of climate change science, who could get involved in CSS to impose their views or undermine science. One solution proposed by the authors is to ensure that the citizens involved are a representative sample of the population, and that their backgrounds are vetted beforehand. - No “One Size Fits All” Knowledge Framework: CSS works only if the knowledge of citizens is germane to their everyday life – that is, citizens should be involved in projects whose fields relate to their knowledge of their surroundings. The authors argue that scientists and experts can play a decisive role in helping the citizens identify what types of knowledge they hold and can use in the framework of CSS. - Uneven Power Relationships: there are already uneven power relationships between citizens, politicians, and scientists, that constrain what each group can provide in a CSS context. The authors argue that more resources and institutional support are needed to help citizens engage in CSS on an even footing. They propose that universities could play a key role in this. - Difference Across and Within Countries: the authors argue that CSS may be easier to use in democratic systems, where citizen participation is encouraged. Additionally, there could be differences within countries, depending on the various jurisdictions and their willingness to embrace CSS. The authors propose that giving local citizens greater participatory influence in local governance and policy-making is a possible solution to this. <p>The paper concludes that the barriers to CSS are not insurmountable, and that it can play a catalyst role for change, through a better alignment between citizens and policy-makers, and a better collaboration between lay citizens and experts.</p>		
<p>Quotes / very useful statements</p>		

1) *Co-production or co-learning through CSS moves beyond conventional public engagement and makes the citizens initiate action and policy responses based on their specific forms of social knowing and values.*

2) *Greater citizen involvement in climate decisions within the more science-policy process could help ameliorate climate misinformation dominating political discourses on climate change.*

3) *CSS can only work if the knowledge domain of citizens is germane to their everyday life.*

Key references *(academic style) name initials (year) title, publisher, volume, pages*

1) Mantyka-Pringle, C. S., Jardine, T. D., Bradford, L., Bharadwaj, L., Kythreotis, A., Fresque-Baxter, J., et al. (2017). Bridging science and traditional knowledge to assess cumulative impacts of stressors on ecosystem health. *Environ. Int.* 102, 125–137. doi: 10.1016/j.envint.2017.02.008

2) Whitmarsh, L., O'Neill, S., and Lorenzoni, I. (2010). *Engaging the Public With Climate Change: Behaviour Change and Communication*. London: Earthscan.