

Review of: "Promoting Pro-Environmental Behavior for Sustainable Water Resource Management: A Social Exchange Perspective"

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Potential competing interests: No potential competing interests to declare.

No.	Reviewer Query/Comment
1	Abstract; Please flesh out the 'documentary research method'
2	<p>Abstract;</p> <p>After reading the article, it is not clear to me that there are <u>universal</u> underlying factors that influence individuals and communities, policymakers and stakeholders globally that lead to unsustainable water management practices.</p>
3	<p>P1 – introduction</p> <p>Need to clarify this statement in the body of your article; "Although humans have a long history of environmental degradation, the effects are now being felt on a global scale due to population growth and technological advancements."</p> <p>What role has population growth played in the Anthropocene?</p> <p>You wrote; '<i>The world's population has tripled in the twentieth century, but water use has increased sixfold. By 2050, population growth in flood-prone areas, climate change, deforestation, loss of wetlands, and rising sea levels could increase the number of people vulnerable to floods to 2 billion. Currently, 1.8 billion people worldwide use contaminated drinking water, and more than 80% of wastewater is discharged into the environment without adequate treatment.</i>'</p> <p>Is population growth the only challenge? What about neoliberalism/colonization and related issues?</p> <p>Statements like the one below need to be elaborated upon;</p> <p>You wrote;</p> <p><i>'Iran faces significant water stress due to various factors, such as a large population, urbanization, industrialization, and excessive groundwater exploitation, leading to increased pressure on water resources.'</i></p>
4	<p>P1 – introduction</p> <p>Clarify the following statement in view of Elenor Ostrom's assertion that local people actually manage their commons better historically.</p>

	<i>'Common resources, whether natural or artificial, are shared among different stakeholders, and the competition for their use often leads to their depletion or even destruction.'</i>
	P1 – introduction
5	<p>This profound statement does not say anything about the socio-economic factors that have led to these changes;</p> <p><i>'Today, climate change, increasing demand for freshwater resources, declining water tables and river flows, and outdated infrastructure pose challenges to water management worldwide. The rising demand and intensifying conflicts over limited water resources have amplified the water management challenges in the 21st century more than ever before.'</i></p>
	P3 – sentence starting with; . <i>'Fundamental drivers contributing to the emergence and intensification of the water crisis in Iran encompass several interrelated factors.....'</i>
6	Should be a new paragraph.
	P3 –
7	<p>The reference to the United States is quite abrupt. Are you dealing with Iran or the United States?</p> <p><i>'The United States Environmental Protection Agency has identified two categories of actions to increase water efficiency: engineering measures designed to reduce water consumption regardless of consumer behavior, and behavioral actions that aim to change consumer habits, such as using dishwashers at maximum capacity, taking shorter showers, and turning off the tap while brushing teeth or shaving.'</i></p>
	P3 –
8	<p>What is traditional?</p> <p>How do you define it?</p> <p><i>'While traditional studies on water conservation have predominantly focused on top-down structural and institutional factors, such as physical infrastructure (water-saving technologies and facilities) and policy and legislation (measures and laws), as well as measurement and pricing mechanisms that determine water costs based on consumption volume, providing economic incentives for reducing consumption fewer efforts have been made towards bottom-up and soft measures.'</i></p>
	P3 – Should this be a new paragraph since you talking about a new issue?
9	<p><i>'Behavioral change approaches address aspects of water demand that cannot be effectively addressed through engineering, technological, or legal interventions.'</i></p>
	P4 – section 2 – Research Method

10	I short history of this method would help put things in perspective. Also, please tell the reader why you are using this particular method or methods and what its pros and cons are (I revisit when I get to the end of the paper).
11	Is the 'Documentary research' method the same as 'Social Dilemma'?
12	P4 – The reader would be interested in the direct source where Aristotle articulated the quote below. <i>'According to Aristotle, anything that is shared among many individuals receives the least attention. Aristotle observed that the common ownership of something affects the care and stewardship provided to it, which can either enhance resource sustainability or expose it to degradation and depletion.'</i>
13	P5 – 'Tragedy of the Commons' by Harding was heavily critiqued by Elinor Ostrom in her seminar work; 'Governing the Commons'. In her Nobel prize-winning work, she was Your assertion that; <i>'This tragic situation occurs when natural resources are freely accessible to all and shared among them..has been debunked by Elinor Ostrom in her 1990 work, in which she showed that this is not the case (using examples from all over the world).'</i>
14	P5 – Please acknowledge your sources. <i>'Iranians tend to prioritize their own desires and seek self-preservation rather than considering collective, group, and public interests. This exact phenomenon has created numerous issues and challenges in the context of common resource dilemmas and environmental confrontations within the country. Tourists who indiscriminately light fires in forests for momentary pleasure without considering the long-term consequences of wildfires and environmental exploitation, urban residents who use private cars to commute to work without paying attention to the pollution of cities and the threat to public health, and farmers who utilize groundwater resources for increased crop yields without considering the risks of water scarcity for the current and future generations are examples of such dilemmas. This unregulated behavior arises because individuals benefiting from common resources tend to act in a self-centered manner and give less importance to the consequences of their actions on the collective wellbeing.'</i>
15	P5 – This should start a new paragraph; <i>'A social dilemma refers to a situation in which individual interests conflict with collective interests....'</i>
16	P6 – 2.2 I wonder if water resources have dwindled everywhere on Earth; You wrote; <i>'As water resources dwindle while the need for water rises, individuals face conflicting pressures and find themselves at a crossroads between personal interests (excessive water consumption) and societal interests (collaboration for water conservation) and between immediate gratification and long-term consequences'</i>
17	P6 – it appears the following statement is contradictory; <i>'Conversely, unlike many resources, there is a constant demand for water For instance, according to the World Health Organization, humans require a minimum of 20 liters of water per day for drinking, cooking, and sanitation to ensure adequate health (WHO, 2016). <u>This demand also exists in other sectors, such as agriculture, industry, and urban areas.</u></i>

P7 – The sentences below need to be recast in order to respond to what structural strategies are.

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'Addressing this question necessitates considering two types of social dilemma strategies: individual (behavioral) strategies and structural strategies. Individual strategies involve modifying individuals' cognition and motivation to promote cooperative behavior and responsible resource management. These strategies address factors that precede problematic behavior, such as behavioral commitment and education [34] . At least four socio-psychological factors may be associated with promoting water conservation in the context of resource dilemmas: (1) awareness of water scarcity, (2) a sense of responsibility towards collective well-being, (3) belief in the effectiveness of individual cooperation, and (4) belief that other members of society will also exhibit cooperative behavior [35] . Structural strategies aim to alter the motivational structure of social dilemmas by aligning individuals' motives with collective outcomes, thereby reducing the discord between individual incentives and collective consequences.'

P11 – Revisit this quote with documented sources:

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'Individualism is characterized by self-reliance (versus dependence on others), emphasizing personal autonomy, individual uniqueness, and prioritizing personal goals over group goals. In contrast, collectivists value group norms and collective coordination, considering personal goals as subordinate to group goals'