

# 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.

The general comment is that the concluding sentences/paragraphs in many parts shall be supported by citing relevant/more references, otherwise, further explanation and elaboration if the content is being proposed by the author. Also, it is recommendable reinforcing the sentences with their relevant references where the values are indicated.

Herewith, there are presented some examples, however, additional consideration is required.

*"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."*

For providing rigorous contents, it is recommendable reinforcing the sentences as above which uses the values relating to the findings of the relevant resources with relevant references.

*"It was demonstrated in <sup>[17]</sup> that the government could utilize planning mechanisms, pricing, and river ownership rights to establish a river restoration system. It was shown in <sup>[18]</sup> that not only the tragedy of the commons but also a misunderstanding of groundwater inventory, remaining water, and groundwater extraction and recharge rates could lead to excessive use and depletion of water resources."*

Further explanation can smoothly help the transition of the focus of discussion from the surface water initiatives to the ground water attributes.

*"This article aims to provide a comprehensive analysis of the social dilemma surrounding water conservation, using psychological and anthropological theories."*

Besides, mentioning the particular theory(s) can add to the clarity of study aim.

For *"This conflict of interest is commonly referred to as a social dilemma"*, Inserting a reference is suitable

*"When resources regenerate at a much slower rate than human extraction, the risk of resource depletion arises. Although in ancient times various forms of mutual assistance were prevalent in Iranian society, especially in traditional rural and tribal communities, the author believes that such mutual assistance has declined in the past two decades."*

Further explanation can smoothly help the transition of the focus of discussion from the description of an attribute to an issue in a certain region.

*"This decline can be attributed to economic pressures, decreasing trust between the nation-state and individuals, increasing class disparities, the prominence of material economic criteria in people's lives, and so on."*

Mentioning the low level of awareness or believe regarding the side effects of resource depletion is also recommendable.

*"Future research and policies on water insecurity require an optimal combination of individual and collective strategies to tackle this societal crossroad [29]"*

To better support this sentences citing further references are advantageous

*"Water scarcity and the necessity for collective behavior to protect and incentivize individuals to minimize personal interests create the necessary conditions for addressing water consumption as a social dilemma [29]."*

To better support this sentences citing further references are advantageous

*"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]."*

The abovementioned factors are context-sensitive. The sentence shall be elaborated more. Here it is recognizable that some of the constructs of the main socio-psychological models such as Norm Activation Model (a moral approach) are benchmarked, however, more evidences and references are needed to justify the conclusion on proposal of these 4 factors. Therefore, To better support this sentence citing further references and explaining more appropriate evidences are necessary.

*"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."*

There shall be cited reference(s) to support this sentence.

*"The findings of these studies generally confirm that the cooperative behavior of participants is negatively associated with the cost of cooperation and positively related to the benefits of cooperation."*

There shall be cited reference(s) to support this sentence.

*"The most significant psychological and environmental factors that facilitate cooperation include:"*

If this conclusion has raised from other authors' studies, their references should be cited, otherwise, more explanation and elaboration by the author is required to support this concluding sentence.

*“According to this model, increased information leads to better behavior”*

There shall be cited reference(s) to support this sentence.

*“One alternative way to encourage cooperation in water conservation is through the reinforcement of memes.”*

There shall be cited reference(s) to support this sentence.

*“Memes are cultural units, analogous to genes, that exist as small units within living organisms. They are patterned reservoirs that are copied, translated, normalized, and self-replicated. Each culture contains informational codes that are registered and stored in memes, flowing through social interaction and interplay within the collective mindset.”*

There shall be cited references to support this sentences.

*“The copying of information occurs through various forms, such as new learning, experience, tacit knowledge, and so on.”*

There shall be cited reference(s) to support this sentence.

*“Trust is the fundamental motivator in social relationships and lies at the heart of collective efforts for environmental conservation”*

There shall be cited reference(s) to support this sentence.

*“Natural resource management is not merely an economic or environmental construct; it is a socio-environmental and economic framework”*

There shall be cited reference(s) to support this sentence, otherwise, more elaboration is necessary since for instance this issue tackles the political aspect as well.

*“On the other hand, solving water-related problems may require public participation and stakeholder engagement, and governments or institutions alone cannot bear this important responsibility”*

since the author's aim is to conclude and propose public participation and stakeholder engagement, this sentence should be an emphasizing one.