

**Review Form 1.7**

Journal Name:	<b>International Journal of Environment and Climate Change</b>
Manuscript Number:	<b>Ms_IJECC_114468</b>
Title of the Manuscript:	<b>Climate Resilient Solar Pump for Irrigation and Household Applications in the coastal Region of Bangladesh</b>
Type of the Article	<b>Original Research Article</b>

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**PART 1: Review Comments**

	<b>Reviewer's comment</b>	<b>Author's comment</b> (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<p><b>Compulsory</b> REVISION comments</p> <ol style="list-style-type: none"> <li>1. <b>Is the manuscript important for scientific community?</b> (Please write few sentences on this manuscript)</li> <li>2. <b>Is the title of the article suitable?</b> (If not please suggest an alternative title)</li> <li>3. <b>Is the abstract of the article comprehensive?</b></li> <li>4. <b>Are subsections and structure of the manuscript appropriate?</b></li> <li>5. <b>Do you think the manuscript is scientifically correct?</b></li> <li>6. <b>Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</b></li> </ol> <p><b><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></b></p>	<p>This manuscript explores and reflects upon utilizing solar pump for small farmers in the specific coastal region of Bangladesh. It is a good initiative for the farmers for growing high value vegetable crops like Tomato and Brinjal during dry and summer season of the year. By comparing the currently prevalent practice of the farmers in the region who use diesel pumps for irrigating these high value vegetables, benefits from using solar pump are highlighted. In addition to economic benefits accrued in terms of low maintenance and operating costs, environmental friendly, sustainability, non-contribution to greenhouse gas emission are comparatively computed. Using the solar power to other house hold activities with simplicity of operations are listed as additional benefits to the farmers in the locations.</p> <p>However, some details regarding the prototype of the solar pump design as well as the initial cost of it could have been given. Prospects of upscaling and large scale production once the farmers accept the technology would be crucial for long term sustainability and mitigating ill effects of climate change. Also, names of specific cultivars of the vegetables along with some unique features would be more useful for the multiple stakeholders with such specific information.</p> <p>The authors have identified the problem and gaps in the current practices, highlighted the needs of and utility for the small farmers in the coastal region of Bangladesh, meticulously carried out the experiments quoting the references standard methodology, computations and calculations. Experiments were conducted during many years, multi-locations involving two high value vegetable crops. Different methods of irrigation were also compared and effectiveness of solar pump has been clearly highlighted supported data analysis. Relevant and updated references are quoted and aptly incorporated in the different aspects of the manuscript. By suggesting the prospective use of solar pump for other household activities of the farmers, the technology gets more appeal and sustainability, especially during the summers season of the crop growth. How to cope or manage during other months, even with reduced output of solar energy, limiting to minimum requirements need to be given due thought!</p> <p>Considering the importance, systematic efforts on all aspects of research and multiple benefits ensuring climate resilience, it is recommended for consideration pf publication after suggested minor changes as also indicated in the enclosed attachment.</p>	
<p><b>Minor</b> REVISION comments</p> <ol style="list-style-type: none"> <li>1. <b>Is language/English quality of the article suitable for scholarly communications?</b></li> </ol>		
<p><b>Optional/General</b> comments</p>		

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**PART 2:**

	<b>Reviewer's comment</b>	<b>Author's comment</b> <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
<b>Are there ethical issues in this manuscript?</b>	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

**Reviewer Details:**

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