

## Challenges for Future Semesters-PV/Pump Design Sub-team (Fall 2014)

- Future teams should research more information on peer reviewed publications, especially about actual weather conditions for the PV pump design and different characteristic between one pump system and two pump system such as pump curves, to help with the future development in the Gufu Village design project.
- More should be looked into about how to make the solar arrays at their most efficient for the area (for example, making plans about using an adjustable array setup or choosing a bifacial solar array) and to evaluate how to implement these changes into the system.
- It would also be beneficial to look into making the aforementioned designs suitable to the environmental conditions of villages of new water source, corrosion problems, pipe leakage problems as well as further general research into how effective any of these changes would be by looking into practicality and reality and thinking outside of the theoretical perspective of these plans.
- More research about singlet fission can also be made in future work, as it can improve the solar panel efficiency to 30%.
- Every team member should accept the MathCad training at the beginning of the semester.
- The team size is suggested to have 3 people for studying PV/Pump design.