

Emerging practices from Agricultural Water Management in Africa and the Near East

Thematic Workshop

Discussion Theme 7 Solar Energy



30 August 2017



Discussion theme 7

Solar Energy



Group discussion guiding questions

1. SWP system efficiency highly depends on pre-defined quality standards, their auditing and monitoring: how can the audit ensuring SWP system standards be emphasized at planning stage? And how can rigorous auditing be embedded into the project implementation phase?
2. Developing countries – such as those present in the workshop, are keen to strengthen infrastructures and upgrade technology to provide clean energy for the agricultural sector, yet the use of solar energy in irrigation is largely unregulated. What standards, regulation and policies are needed to mainstream SWP and make it a sustainable and viable option? What barriers prevent doing so?
3. Investment in SWP at smallholder farm level can be daunting for farmers: what options exist or should be explored to ensure affordable financing of such systems for rural consumers? Would shared responsibility be effective option to mitigate risk?

Emerging practices from Agricultural Water Management in Africa and the Near East

Thematic Workshop

Discussion Theme 7 Solar Energy



OUTCOME OF THE DISCUSSION

30 August 2017



Conclusions

- Data acquisition, accessibility and availability remains an issue regardless whether we talk about small/big investment, small/large scale project.
- Constant need of water for irrigation versus non-constant supply of solar energy put a challenge in place in terms of design and operation of a given irrigation scheme. Proper design is crucial to avoid oversizing of irrigation system that could be technically inefficient and cost-wise non-viable.
- Recovering the cost of investment of solar energy is not only technical but institutional. Example of the Drainage Improvement against Irrigation Improvement in Egypt was given.



Conclusions

- Lands occupied by solar panels remain a concern. Sacrificing lands against free energy with the associated cost and the best mix of options needs further investigation guided by decision support tools that benefitted from applied cases within the context of the current projects.
- Unlike the case with groundwater, the viability of solar energy for surface water is yet not well-known, but some pilot projects are showing the way forward.
- Solar pumping provides a low operation cost solution /almost free energy/ which might cause a threat on the natural resources and its sustainability such as groundwater unless control and awareness are put in place.



Conclusions

- Solar pumping systems are context/ country specific, which calls for a proper mapping and alignment with national strategies/regulation including subsidies and economic viability of these systems.
- There is a need for establishing clear guidelines on specifications of solar systems, their operation and maintenance & maintenance and make these guidance available at country levels.