**An update on the functioning of Solar based Lift Irrigation Systems in Shahdol district of Madhya Pradesh**

**Background**

Action for Social Advancement (ASA) in partnership with HDFC Parivartan, has installed solar operated Lift Irrigation Systems (LIS) in Sohagpur block of Shahdol district in Madhya Pradesh. Through this scheme, ASA has increased the irrigation facilitates in 30 villages to improve the farm based livelihoods of the small and marginal farmers of vulnerable community. And planning to expand this technology to the other regions.

ASA is conducting an Impact assessment with the students of Indian Institute of Forest Management, in order to document the overall impact of Solar based Lift irrigation scheme on in term of farmers coverage and irrigation area coverage. Also the change in cropping pattern and enhancement of incomes.

**Objectives**

* To assess the magnitude of impact in terms of increase in irrigation area and crop cultivation
* To evaluate the increase in annual income and crop production of the farmers
* To measure the coverage of poorest farmers through this intervention
* To measure the overall performance of the LI systems and its efficiency
* To identify the factors responsible to harness the sustainability and durability of solar based Lift Irrigation Schemes
* To deliberate on the bottlenecks during implementation through interaction with the farmers

**Deliverables:**

1. To validate the coverage of the schemes, each scheme has to cover at least 5-6 farmers having land holding of 7-8 acres.
2. The overall performance of each scheme should be >90% in terms of number of hours supplying water, quantity of discharge, minimum water losses, etc.
3. The increase in annual incomes should be doubled – tripled and crop production of the farmers increase 20-30% including change in cropping pattern.
4. To validate the quality of the material used in LI installation.
5. Percentage reduction of cost of cultivation.