

TAKING WATER TO ENERGY STARVED LANDS

(STORY OF A HAPPY FARMER:SOURA JALANIDHI)

Irrigation is critical for agricultural growth and development, bringing a green revolution and self-sufficiency in food production. It has always been emphasized due to its yield-augmenting impact and treated as one of the priority areas of Odisha's agricultural development strategy.

Odisha annually receives a rainfall of 1451.2mm. Over dependence on rainfed agriculture has always been a challenge for the farm production of the state. The increasing gap between irrigation potential created and the actual usage is affecting the State's crop yields. Substantial agricultural area remain dependent on monsoon, which has grown erratic in recent years due to climate change, causing distress to farmers. However, the government has made efforts to expand the irrigation network.

Exploitation of ground water through installation of dug well is being taken up under MGNREGS scheme to increase irrigation potential. The non-availability of electric power in rural areas is delaying energisation of these dugwells. Many of such projects are located in the remote farming areas having no electricity supply connection. Wherever pumps are used, reliability of power supply and availability/affordability of diesel creates much hindrance for effective use of these pumps.

Objectives of the Scheme:

Looking into the availability of solar radiation of 5 kWh/m²/ day apart from 60-70 rainy days with 300 clear sunny days, a scheme named Soura Jalanidhi has been launched by the Department of Agriculture & Farmers' Empowerment, Odisha with an objective of improving energy access, irrigation potential and cropping intensity of the state. SPV pumping system is one of the best options for energisation of such DWs. Installation of SPV system will address the uninterrupted quality power supply in rural areas. This program is being implemented in the state by Odisha Renewable Energy Development Agency (OREDA) under Science & Technology Department. For large scale proliferation, Department of Agriculture & farmers empowerment has decided to support the programme with additional financial assistance so as to make it affordable to all categories of farmers. Under this initiative it was proposed to support 5,000 nos. 0.5hp Solar Pumps during

2017- 18 & 2018-19. This will bring additional 2500 Acres (@ 0.5 Ac/ 0.5 hp) of unirrigated land under irrigation.

Project intervention

Mihir kumar Pradhan is a progressive farmer of Pokatunga gram panchayat of Angul block. He is cultivating 7 acres of land and has dug well as source of irrigation. But Non availability of electricity for his land has become hindrance in utilisation of the irrigation potential by means of electric pump. From the department he came to know about the SouraJalanidhi scheme that govt. is providing maximum subsidy up to 90% for installation of solar pumps in dug wells and farm ponds for agricultural uses and priorities being given to the areas which are deprived of electricity facilities. The farmers with farmer ID and 0.5 acres of non-irrigated land with dug well or farm pond are eligible for the scheme. To avail the benefits of the scheme one has to apply online and a mobile app has also been developed for verification and capturing of GPS coordinates. The maintenance and operations will be trained by OREDA. After getting all the details of the scheme from the department, Sri Mihir kumar Pradhan has applied for it in odishasolarpump.nic.in. Then it was verified by the concerned VAW of that GP and AAE of the block through mobile app and then validated by ORSAC. After completion of validation by ORSAC it was approved by Collector cum District Magistrate, Angul. Then go ahead letter was issued indicating details such as OREDA uploaded price, total cost, Science & Technology + A & FE Department assistance and farmer's share. After deposit of farmer's share the solar pump was installed in his field.

Result and Impact

The launch of soura jalanidhi scheme removed the dependence of the farmer on conventional source of energy and linked pump sets to solar energy. The irrigation potential has been increased. Crops like vegetables, mung, biri and banana are now cultivated by the farmers with assured irrigation. Now he is able to grow up to three crops a year. There is an increase in yield of crops and income. The other farmers of that locality are also interested for availing the benefits of the scheme.



Conclusion

The Soura Jananidhi scheme has begun to full fill the irrigation needs of the farmers in the areas which are unserved or underserved by power grids. The scheme also leverages the use of technology to ensure transparency, accountability, proper utilisation of funds and service delivery. Again it is a solution to the environmental degradation by replacing the electrical/diesel/kerosene pumps with solar pumps there by reducing emission of greenhouse gases. As irrigation is a critical factor for crop production, providing subsidy for energisation of dug well and farmponds will no doubt augment the income of the farmers and Odisha hopefully achieve the target of bringing additional non irrigated areas under irrigation.