

GUIDELINES
FOR EXPLOITATION OF
GROUND WATER RESOURCES
THROUGH BORE WELLS
IN HARD ROCK AREAS OF THE STATE
UNDER
BIJU KRUSHAK VIKAS YOJANA-
DEEP BORE WELL SECHA KARYAKRAMA



Government of Orissa
Department of Water Resources
2010

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INTRODUCTION:

- Government of Odisha intends to launch a new scheme for exploitation of ground water resources through construction of deep bore wells in hard rock areas of the State with a view to augment irrigation potential mostly in blocks which have less than 35% irrigation. It is proposed to install around 4,000 nos. of bore well projects each with in ayacut of approximately 2 ha. at an estimated unit cost of approximately Rs.2.5 lakh to bring around 8,000 ha. under assured irrigation in both Khariff and Rabi, In order to achieve the objective, budget provision of Rs.100.00 Cr. has been made in the B.E. of 2010-11 under RKVY Scheme of Agriculture Department.

OBJECTIVE:

- > To provide irrigation facilities for at least 1 Hectare of agricultural land through installation of bore-wells in hard rock areas for farmers individually or jointly alongwith electrical sub-station and power line in hard rock areas, mostly in blocks which have less than 35% irrigation. The ayacut area may increase depending on actual yield of each well. Such Blocks shall be identified subject to feasibility based on Ground Water data available from CGWB, Directorate of Ground Water Survey & Investigation, and National Remote Sensing Agency,

SALIENT FEATURES OF THE SCHEME:

- The Average Unit cost of each bore well would be around Rs. 2.5 Lakhs including electrical substation, power line and pumping units.
- > Beneficiary contribution would be 10% of the project cost subject to a maximum of Rs 20,000. He shall pay Rs 1000/- (non refundable) after scrutiny of application and the remaining Rs 19,000 after successful completion of drilling and testing of bore well. Govt. shall provide with a bore well along-with power supply installation up to bore-well point and the pumping unit. The beneficiary shall bear all cost towards service connection charges, inspection fee, security deposit with DISTCO and enter into power supply agreement with DISTCo etc.

- The successful bore well after energisation will be handed over to the beneficiary for future operation and maintenance by him. The beneficiary will pay energy charges to the DISTCo after taking over the unit.
- > It is proposed to implement bore well scheme in 256 blocks of 26 districts [Non-KBK-18 & KBK-8 nos. of districts] in the state. DoWR will take up the scheme in 166 nos. of blocks of 17 districts [Non-KBK-9 & KBK-8 nos. of districts] as per list enclosed. A similar scheme will be launched by Department of Agriculture in balance 9 districts.
- Any cultivator owning minimum 1 acre of cultivable non-irrigated land within the ayacut of 5 Ac. will be eligible to apply under the scheme. However, the cultivator can share his water with nearby farmers after entering into an agreement. The cultivator making an application shall have to submit a copy of the ROR as a proof of his ownership at the time of application. He should also indicate the lands of other beneficiaries, if any, coming within the ayacut who will use the water from the Project.
- The Project Area shall be identified based on the data for Ground Water potential of Central Ground Water Board, Directorate of Ground Water Survey & Investigation and NRSA together with necessary field check. Besides, availability of 11KV power line in the area shall also be an important consideration before finalizing the Project Area, and cluster approach would be adopted in order to make the project cost effective and proper functioning of the points after energisation. Once a site gets pre-feasibility report the beneficiary will deposit Rs.1000/- as initial deposit.
- It is proposed under the scheme that the entire process of (a) sounding test, (b) construction of bore well, (c) yield test (d) provision of electrical line and sub-station and (e) pumping units such as supply of pump sets, panel and installation shall be done by engaging private agencies through open tender for different districts.
- Cost for sounding (VES) will be paid to the drilling agency by State Government. Similarly, the premium for Insurance coverage for all wells will be paid to the drilling Company by the State Govt.

- > The beneficiary shall enter into agreement with DISTCOs and make all necessary payments towards service connection, inspection fee, electricity charges etc.

IMPLEMENTATION ARRANGEMENTS:

- Orissa Lift Irrigation Corporation Ltd. under the Department of Water Resources shall be responsible for the implementation of the scheme in 166 blocks of 17 districts.
- Based on inputs from CGWB, GWS&I and NRSA data, the officials of the corporation shall identify the feasible areas for the project.
- Upon finalization of project area, advertisement will be issued in local dailies inviting applications from beneficiaries within a specific time frame.
- Applications shall be received at the office of the Junior Engineer, OLIC who shall maintain a register wherein the serial number (priority list) of the applications shall be maintained in the accordance with the time and date of application. The Junior Engineer receiving the application shall give an acknowledgement to the applicant indicating there-in the serial number of the application, the date and time of the application.
- Thereafter a pre-feasibility survey would be conducted by OLIC and the result shall be reported to the Executive Engineer, OLIC who will prepare Detail Project Report (DPR). The DPR will be approved at district level by Technical Appraisal Committee (TAC) which shall be chaired by the Collector of the District with Executive Engineer, DISTCO as Member and Executive Engineer, OLIC as Convener.
- Upon approval, the work order shall be issued to the Drilling agency for VES test and after successful VES test, construction of the bore well will be taken up. Upon successful completion of the bore well, the drilling agency shall get the yield test conducted in the presence of the beneficiary and the officials of OLIC after which the bore well shall be taken over by OLIC. Minimum yield of 1.75 Litres/Second shall qualify the bore well successful. OLIC shall get the electrical works completed by engaging private agencies and thereafter hand over the Project to the beneficiary after energisation of the project for operation and maintenance. The beneficiary will bear all expenses towards repair and

maintenance of the bore well in future. The transformer along with 11 KV and L.T. line will be maintained by the DISTCOs,

INSTITUTIONAL ARRANGEMENTS:

➤ At the District Level, a District Level Implementation & Monitoring Committee will be formed with the following members.

- | | | | |
|---|-------|-----|----------|
| 1) Collector and District Magistrate
Of the District | | ... | Chairman |
| 2) Deputy Director, Agriculture/District
Agriculture Officer | | ... | Member |
| 3) Deputy Director, Horticulture/
Horticulturist | | ... | Member |
| 4) Executive Engineer, DISTCO | | ... | Member |
| 5) Executive Engineer, OLIC | | ... | Convenor |

If the pilot project for 2010-11 succeeds and looking into demand from farmers, the State Government may extend the scheme in subsequent years. The State Government may modify/amend/alter any guidelines/norms in the scheme, if any difficulty/problem arises during implementation for achieving better result under the Scheme.

**BOREWELL PROGRAMME FOR THE YEAR 2010-11 IN HARD ROCK AREAS
OF 17 DISTRICTS IN THE STATE**

Sl. No.	Name of the District	Nos. of blocks as per GWS&I VES test evaluation (Provisional)	nos. of bore well programmed (Provisional)	Amount in lakhs (Provisional)	Area programmed in Ha. (Provisional)	Remarks (Details enclosed)
1	2	3	4	5	6	7
KBK DISTRICTS						
1	BOLANGIR	14	310	775.00	620	
2	KALAHANDI	13	382	955.00	764	
3	KORAPUT	14	225	562.50	450	
4	MALKANGIRI	7	170	425.00	340	
5	INAWAPARA	5	175	437.50	350	
6	INAWARANGAPUR	10	300	750.00	600	
7	RAYAGADA	11	215	537.50	430	
8	SUBARNAPUR	6	98	245.00	196	
TOTAL:		80	1875	4687.50	3750	
NON - KBK DISTRICTS						
1	BALESWAR	2	35	87.50	70	
2	BARAGARH	12	205	512.50	410	
3	DEOGARH	3	80	200.00	160	
4	JAJPUR	5	255	637.50	510	
5	KEONJHAR	13	435	1087.50	870	
6	KHURDHA	8	276	690.00	552	
7	MAYURBHANJA	26	399	997.50	798	
8	NAYAGARH	8	183	457.50	366	
9	SAMBALPUR	9	257	642.50	514	
TOTAL:		86	2125	5312.50	4250	
G TOTAL		166	4000	10000.00	8000	