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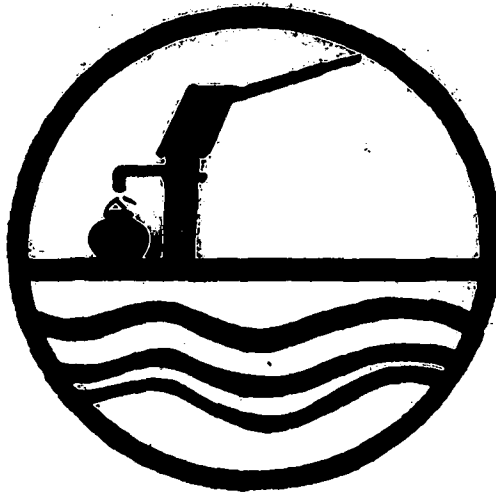
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DANIDA — DANISH INTERNATIONAL DEVELOPMENT AGENCY

DRINKING WATER PROJECTS

KARNATAKA

REPORT



MODEL

**Hand Pump Caretaker Training
in Molakalmuru Taluk**

1985

Prepared by : Knud Lyng Ottosen
Project Advisor

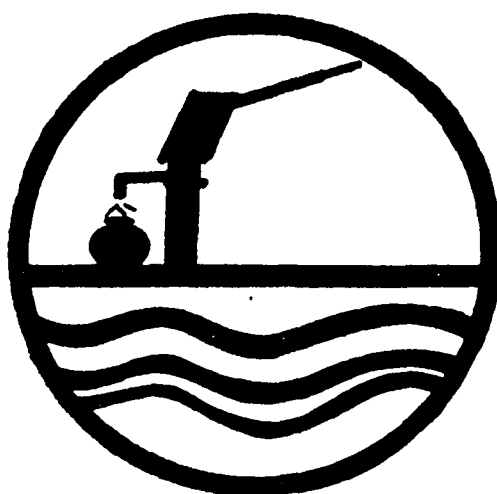
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INTRODUCTION:

In the agreement between Danida and Public Health Engineering Department, Karnataka, for rejuvenation of 6500 Hand Pumps in 4 Districts the element of Staff Training and assistance for establishing a 3-tier (2-tier) maintenance system including Hand Pump Caretakers is incorporated.

From commencing the Danida programme in January 1984, this element was negotiated with UNICEF, who already possessed expertise in the particular field, and it was with UNICEF, Hyderabad, decided that Danida by providing some of the financial inputs could 'hang onto' the turn-key Caretakers Instructors Courses, under preparation for PHED.

The reasons for providing Instructors Training were, that the State of Karnataka totally has 80,000 to 90,000 Hand Pumps and we would only have a chance of 'getting to the roots' by establishing a linked system with special trained local Instructors - may be on the teaching aid-material side supported by UNICEF and us. Further we were informed that P.H.E.D., was thinking of setting up a Staff Training Cell - They are still 'thinking' ...

However we were - for above reasons, against my will - in November '84 by Danida Mission ordered to establish direct caretaker training only for some of the Danida rejuvenated Hand Pumps. The order would mean that we, often in remote areas, should set up camps catering only for 30 to 50% of the installed pumps, which to me sounded so crazy and money wasting, that only by putting my job at stake secured permission to perform 100% training, no difference whether the pumps were provided by the State of Karnataka, Russia, Danida or the Pope.

Therefore having decided for 100% Total Caretaker Training, next step was, amongst our 41 'Danida Taluks' to find the most suitable for the Model Caretaker Training Courses.

Ruling out Kolar District as to 'urbanised' and Bijapur, Gulbarga as too far away for the first experimental courses, we were left with Chitradurga District, where Molkalmuru Taluk was chosen for the following reasons:

- 1) All Danida rejuvenated (150 - Pumps) was finalised by November '84.
- 2) The Taluk is the smallest in the District, comprising 90 villages with about 380 Hand Pumps.
- 3) No natural water resources are available, so people are almost 100 % depending on public water supply.
- 4) The District Administration had already, in vain, tried to establish some sort of a caretaker system.

1.(a) Molakalmuru Taluk - (Ref: Annexure I)

Molakalmuru is 250 Km's from Bangalore and 80 Km's from the district H.Q., Chitradurga. Nearest bigger town is Bellary (55 Km's) in the neighbouring district. (ref: Annexure I & II).

The State Highway No.19 linking National Highway No.4 with Bellary is crossing the Taluk in its entire length (North to South) for about 60 Km's and the greater part of trading and marketing is taking place in the centres along the high-way, for which reason there is also quite a few 'Roadside Pumps'. Area of the taluk is 738 sq.km's, of which about 75 % is granite hillocks and dying State Forests and the remaining 25 % partly dry land cultivated. 90 % of the population is depending on agriculture and - as we put it - 'Mainly surviving on Government grants and memories of the last good rains - years ago....'

Population is 80,000, provided water from 10 piped water supplies in the major villages and 340 hand pumps, spread throughout the taluk. Adult literacy is 27 % and the entire taluk is electified, with scheduled interrupted power supply of 50 % during day time.

Molakalmuru is to the East bordering Andhra Pradesh and most of the population is dual linguistic, speaking Telugu at home and Kannada in public and officially.

FACTS ABOUT MOLAKALMURU TALUK

| | | |
|---|---|--|
| Total Area | : | 182509 Acres (73856 Hectares) |
| Cultivated area | : | Rabi season : 4000 Hectares (aprox.) Karif Season: 10000 Hectares (aprox) |
| Irrigation projects | : | 1 No. (under construction) |
| Small Scale Irrigation tanks | : | 20 Nos. |
| Agricultural Co-Op Society | : | 48 Nos. |
| Fair Price Shops | : | 2 Nos. |
| Land Revenue - Annual | : | -Rs. 29 Lacs (Due) -Rs. 3 Lacs (recovered over last several years.) |
| Towns | : | 1 No. |
| Villages | : | 73 Nos. |
| Hamlets | : | 46 Nos. |
| Total population | : | 82,300 (as per '81 Census.) |
| Urban | : | 7,500 (as per '81 Census.) |
| Rural | : | 74,800 (as per '81 Census.) |
| Scheduled Casts | : | 11,980 |
| Scheduled Tribes | : | 28,000 |
| Population covered with protected water supply | : | 69,400 |
| Basic Health Centres | : | 1 No. |
| Primary Health Centres | : | 4 Nos. |
| Colleges | : | 1 No. |
| High Schools | : | 8 Nos. |
| Primary Schools | : | 105 Nos. |
| Electrification | : | 68 Villages (out of 73) |
| Post Offices | : | 28 Nos. |

1. (b) Public Health Engineering Establishment

Molkalmuru is under P.H.E. Sub-division, Chitradurga, under P.H.E. Chitradurga Division and Bangalore Circle. One Junior Engineer incharge is posted in the Taluk and lately a P.H.E. 'out station' office has been established in the Block Development Officers premises.

The Engineer does not have independent official transport means, hence when travelling in the Taluk or going to Chitradurga (80 Kms.) he depends on public means or the Service Vehicle. For new installation and maintenance of water schemes and Hand Pumps the Taluk is allocated one 1½ tonnes pick-up van, staffed by a permanently employed Pump Mechanic, one Driver and 5 unskilled helpers, all on casual terms. All members of the mechanical team are staying in Molkalmuru Town. There is no separate P.H.E. store (e.g. new pumps and pipes are stores out side the BDO's office) and accessible for anybody.

The team has a bare minimum (or less) of hand tools and I.M. II Special Tools, (not at all sufficient) hence the team of 7 members cannot split in two groups for minor repairs.

The Engineer and Mechanical Team has on additional charge maintenance of about 200 North - Most Hand Pumps in the neighbouring Challakere Taluk, which is the largest in Karnataka.

2. (a) Course Preparations

After in November 1984 having decided to perform our own courses, quotations were taken for Equipment as tools, printed matters and slide projectors, according to which I on 19.12.1984 requested Danida Mission for Rs.60,000/- (40,000/- for initial expenditure plus Rs.20,000/- for course expenditure towards training of 500 caretakers.) At this early stage I worked preliminary establishment as well as area identification in parallel, but when Danida insisted on knowing 'Dates, Places and Names' before releasing the funds, operations came to a standstill as I was in no position to negotiate the timing and venues with local authorities, unless having secured the equipment delivery and the real money for the same. On 13.2.1985 first meeting was held with Executive Engineer, P.H.E.D. and District Commissioner, Chitradurga, who in turn informed the local Staff, Block Development Officer, Tasildar and Medical Officers to meet us in Molakalmuru on 14/2. All officers were explained about the programme in general and shown the Flipchart Models as well as given the UNICEF publication 'Guide to selection and training of Village Hand Pump Caretakers'. All the authorities showed keen interest in the programme and when it was stressed from our side that the task of Caretaker would be 100% honorary and allowances or remunerations under no circumstances would be paid from PHE or us, the B.D.O. informed that he had funds available for providing each caretaker one coconut seedling, for wherever possible planting next to the Hand Pump. Hence, the yield from the coconut tree could be the caretakers 'pay'.

PHE provided us maps and information about 340 Hand Pumps (Annexure II & III) and B.D.O. promised at the earliest through the Tasildar and Village Revenue Officers, to prepare lists of suitable Carretaker Candidates.

Although no funds were secured from Danida, I at the meeting promised to have the courses finalised during May and June. Only on February '28th, I, by providing Danida some imaginary tentative course venues and timings, secured Rs.40,000/- for the initial course expenditures - The amount was received in Bangalore at April 1st., or 3½ months after requisition.

At April 4th., a second meeting was held with B.D.O., Molakalmuru, and by assistance from BDO the Taluk was divided into 8 Venue blocks each comprising 28 to 70 Hand Pumps. (Annexure II & III).

The Venues were fixed for the period May 8th., to ^{June} 15th., and BDO was given pads with Invitation Forms, printed by us (Annexure: IV) As 'Public Relation Media' the special manufactured India Mark II Demonstration Pump was placed outside BDO's Office (Annexure V) and for the Faculty and Guests 3 rooms were secured in Hangal Inspection Bunglow during the entire course period.

Simultaneously slide projecting equipment, spanners and tool bags were procured, the Tamil edition of 'Hand Pump Carretakers Manual' was traslated into Kannada and new updated illustration artwork prepared as well as printing blocks manufactured. Other printed matters, generally adopted from UNICEF, were reprinted and venue decoration materials arranged for.

On May 1st., and 2nd., a final visit, together with the temporary employed lecturer, was paid to the area. Performance of film shows at all venues was through special D.C. arranged with District Adult Education Officer, and group photos to all participants arranged with a Photo Studio in Chitradurga. On May 2nd. We participated in a Taluk Development Meeting in Hangal, in which A.O. all village Revenue Officers and members from local authorities were present. At the meeting we showed the UNICEF Caretaker training Slides (Annexure VI) and distributed our own reprint of ' Guide to Selection and Training of Caretakers ' (Annexure VII).

On May 5th a press Note was issued - Two State covering and one local Newspaper mentioned the subject. (As given below and on pages 9 & 10).

DECCAN HERALD
16TH MAY '85
PAGE 3

DECCAN HERALD

16th MAY 1985

Page 3

**Training in hand
pump maintainance**

BANGALORE, May 15. — The Public Health Engineering Department, in collaboration with the Danish International Development Agency (DANIDA), has launched a training programme in hand pump maintainance in Molakalmuru Taluk, Chitradurga District.

The programme will cover all the 340 hand pumps in the taluk. During the training period, till June 20, nine two-day training camps will be conducted at six centres in the taluk.

Messrs Shamsheer Hussein, Water Officer, and M. Manikyam, Engineer, PHE, will conduct the training. —
FAC.

PRESS NOTE:

Public Health Engineering Department (P.H.E.D) and the District Administration are in collaboration with DANIDA, Danish International Development Agency for the very first time in India launching a Total Hand Pump Caretaker Training Programme covering all 340 public Hand Pumps in Molakalmuru Taluk, Chitradurga District.

During the period May 8th. to June 20th. nine 2-day training camps will be conducted at 6 centres throughout Molakalmuru Taluk.

The voluntary elected honorary Caretakers for all the Hand Pumps will be trained in the subjects of pump operation, minor repairs, health and hygiene as well as official reporting systems. After completing the course they will be recognized by the authorities as the first link in the newly established 2-tier maintenance system, and as such referring direct to the P.H.E. Engineer in charge of the Taluk and the Block Development Office. Pilot Caretaker Training Camps conducted by U.N.I.C.E.F. in other states has revealed that after introducing the Hand Pump Caretaker System maintenance expenditure and pump brake downs has been reduced by more than 50 %.

The Molakalmuru Model Courses will be coordinated and lectured by Water Officer Mr. Shamsheer Hussein, E.F.I.C.O.R., Tumkur Branch and P.H.E. Taluk Engineer, Mr. M. Manikyam, Chitradurga. Public Health Engineering Department officers from other districts will observe the courses, investigating the possibility of establishing Hand Pump Caretaker System for all the 80,000 Hand Pumps in the State of Karnataka.

Since 1981 DANIDA has assisted water development in Karnataka by providing 5 special drilling rigs for difficult areas and establishment of boreholes in Janata Housing Colonies. Latest DANIDA has provided Public Health Engineering Department with pumps, equipment and vehicles for outphasing 6,500 old type Hand Pumps in the districts, Gulbarga, Bijapur, Chitradurga and Kolar, which all by now are totally covered by the new developed standardised India M.K. II Hand Pumps

Further information to the press.

The press note should be printed in the Kannada-, English- and Telegu Daily Newspapers, - with special emphasis to those covering Chitradurga District. Further the note will be distributed to interested weeklies as well as Radio & T.V. The programme for the Model Caretaker Courses is as follows:

| | | |
|--------------------|------|---------------|
| Molakalmuru Town | May | 8th. & 9th. |
| Hangal Town | May | 13th. & 14th. |
| B.G. Kere Town | May | 16th. & 17th. |
| Tumkurlahally Town | May | 21st. & 22nd. |
| Nagasumudra Town | May | 27th. & 28th. |
| "- | May | 30th. & 31st. |
| Rampura Town | June | 11th. & 12th. |
| "- | June | 14th. & 15th. |
| Hangal Town | June | * |

(* "non shows" from other courses)

All venues are from 10 a.m. to 4 p.m., and further on the course days Adult Education Department, in the specific towns, will conduct film shows related to water, health and rural development aspects. In between courses information can be obtained from Block Development Officer, Mr. Shariff, Molakalmuru or the temporary Course Office at Hangal Inspection Bungalow.

Members of the Press are most welcome to visit the courses for obtaining further information, photographing and conduct students interviews etc.,

Bangalore, May 5th. 1985

Knud Lynge Ottosen.
Sen. Project Advisor/DANIDA.

The Course Venues were according to schedule launched from May 8th to June 15th.

2. (b) Plan of Preparations

- | | | |
|---------|---|--|
| 1984 | - | Decision to establish Model Caretaker Training |
| Nov.27 | | Quotations for Capital investments |
| Dec.19 | - | Initial financial request to Danida Mission |
| 1985 | - | Study tour to Danida C.T. Courses in Madhya Pradesh |
| Jan.19 | | Evaluation of Model District & Taluk |
| | | Preparations for lecturing local language/ languages. |
| Feb.13 | - | First meeting with local authorities, Molakalmuru |
| Feb.27 | - | 2nd financial request to Danida Mission & allocation of funds. |
| | | New art work, translation and editing of Tamil 'Hand Pump Caretaker Manual'. |
| Apr.1 | - | Received funds from Danida Mission |
| Apr.4 | - | 2nd Meeting at Molakalmuru, Planning for course distribution and venue calender. |
| | | Procurement and printing of course materials |
| Apr.7 | - | Employed lecturer for temp. assignment May & June |
| May.1 | - | 3rd Meeting at Molakalmuru |
| May.8 | - | Venue, 8 Caretaker Training Courses |
| upto | | |
| June 15 | | (Courses I to VIII) |
| July 16 | - | Two courses for 'non shows' from earlier venues |
| upto | | |
| July 19 | | |

3. CARETAKER COURSE:

3. (a) Course Strategy:

Performing as MODEL Caretaker Training, our aim was;

- 1) 100 % Caretaker Training in one Taluk.
- 2) On the spot instruction and demonstration to P.H.D. Staff from all divisions under Danida Rejuvenation.
- 3) Obtain parametres of planning proceedure, local response as well as physical and financial inputs -needed.

Each and every operation and system implemented was carefully considered whether applicable for All State Training of 100,000 Caretakers, and for the same reasons no trainee fees or reimbursements whatsoever was paid. Some of the inputs can be regarded rather generous - Group Photo, Note Book and pencil Sharpner etc., - But preferable to cash payments those items will in the local society be regarded as gifts and des'n't need to be repeated in future courses.

For the same reasons staff and transport requirements etc., were kept very low, only involving the set-up already available in the particular Taluk.

Danida and UNICEF courses visited in the other states with their blasting music, fancy PA- systems, tea cakes crowd of local VIP's always gave me the impression of wedding parties rather than hard working training classes. For above reasons, and because we wanted to 'produce stream-lined industrialised courses', we did not use any smart gaudges, and when in a limited area performing 8 courses during 5 weeks, one may soon enough run short of local dignetories. Plain tea was served once or twice a day mainly to keep the students awake. The direct lecture to student and reverse communication proved much more efficient than the often seen one way traffic via a PA - blaster. Further when the politicians were forced to talk loud and clear they limited their speeches which I don't think the students at all opposed.

3.(b) Selection of caretakers

Unfortunately P.H.E. does not keep records of the location for the individual Borewells - They know the depth and time of establishment etc., of all wells, but in villages with more pumps they are from the records not able to pin-point which one is what ?

As the village revenue officers are supposed to be familiar with all residents and locations in their area (panchayat), the task of selection was left with them and co-ordinated by BDO, who at the planning stage was given the pre-printed Invitation Forms, and at the first course copy's of all distributed forms were returned to us. From the returned copy's we learned that B.D.O. had neither stated the venue nor the timing on the invitations. Further we found out that inspite of our well arranged pre-information the candidates selected and invited showed a very reluctant attitude towards participating in the courses - may be as a general mistrust in Governmental arrangements ?

Facing enormous selection problems at the first course, I angrily informed P.H.E. and B.D.O. that unless immediate improvements were effectuated, we would straight away close the courses. This in turn caused the Assistant Commissioner, who that particular day happened to be in the area, to talk in some ' very big Letters ' to the officials involved. To assist whatever little we could, our Danida lecturer on days between courses did some 'underground P.R. - work' in the new course areas.

Candidates for the remaining 7 courses were selected both by B.D.O., Adult Education Department and P.H.E. - and at the closing of each course there was always a big confusion, who should be appointed caretaker and who should not.

Due to the failed selection procedure we totally trained about 60 (or 15 % of the participants) so called 'Substitutes', who only took space in our already crowded venue halls. In one particular Village where adult education has a strong foothold 27 persons were trained for 13 Pumps, and another Village was, without my knowledge, represented with a full batch at two different camps.

As all the 'substitutes' were provided with full facilities, except log sheets and tools, the malpractice cost us to the tune of Rs.2,500/- in direct expenditure - but worst is that those 60 'substitutes' are walking around in their respective villages fancying a P.H.E. - ID card signed by the Executive Engineer.

Although the Guide to Selection indicates - "Ladies are preferred" - and we stressed to the B.D.O. staff that their Chitradurga 'Lady D.C.' most probably would be very pleased to see some female caretakers, not one female was selected.

We had told the Taluk Staff that it was very essential that Pump users (a.o. women) were appointed, but all course we faced the problem that administration staff had selected a few 'Village Big Shots' and mini VIP's who are in no daily contact with the pumps or the pump users - e.g. Caretakers for pumps in A.K.C.'s and J.H.C.'s were most often selected from outside the community.

We had also informed that in case of illiterate caretaker candidates - say old respected Ladies - a school child or youngster from the same family could also join the courses to do all the writing and the reading - But as the candidates were as above mentioned, we did not come across any 'caretakers with private secretaries'.

As for recommendations for the selection procedure, I refer to page 34 of this report.

3. (c) Course Programme

As standard tentative programme was adopted a 'Schedule for Hand Pump Caretakers Training Camp' originally drafted by UNICEF. However in order to 'industrialise' the training, following amendments were made to the UNICEF programme:

- 1) All cultural programmes were left out and offered as optional during breaks and after official programme.
- 2) The health aspect subjects were bulked in one lesson - for convenience of the Medical Officer - where UNICEF schedules 4 individual lessons.
- 3) The programme was spaced on two days with almost equal numbers of lessons - where UNICEF programmes one very long day and one ½ day.

The tentative basic programme which we tried to follow was:

| TIME | SUBJECT | RESPONSIBLE |
|-----------------|--|--------------------------------------|
| <u>1st Day:</u> | | |
| 10.00 - 10.15 | Inauguration | Local VIP/PHED |
| 10.15 - 10.45 | Description of rural water supply in the state/District | PHED |
| 10.45 - 11.15 | Description of Care-takers programme, & Importance of drinking water. | Coordinator |
| 11.45 - 13.00 | Field demonstration on installation of India Mark II Pump & Construction of soakpit. | Coordinator/ PHED Mechanical team |

1st day continued

| TIME | SUBJECT | RESPONSIBLE |
|----------------|---|-------------------------------------|
| 13.00 - 14.30 | LUNCH | |
| 14.30 - 15.15 | 'Anatomy' and Operation & preventive maintenance of India Mark II Pump. Disposal of excess water. | Coordinator. |
| 15.15 - 14.45 | Colour slide programme on water & Pumps (till 'Health aspect') | Coordinator |
| 15.45 - 16.00 | Individual questions from participants | Coordinator/PHED |
| 16.00 - 16.15 | Group Photo of Caretakers. | |
| <u>2nd Day</u> | | |
| 10.00 - 11.30 | Water borne diseases and aspects and nutrition. | Health Officer/ Medical Officer. |
| 11.30 - 12.00 | 2 - Tier system, identification of defects in Hand Pumps and reporting cards | Coordinator |
| 12.00 - 12.45 | Duties & responsibilities of caretakers. | Coordinator/PHED |
| 12.45 - 13.00 | Colour slide programme | Coordinator |
| 13.00 - 14.30 | LUNCH | |
| 14.30 - 15.00 | Review of training, comments and suggestions. | Coordinator/PHED and BDO. |
| 15.00 - 15.30 | Closing Ceremony, Distributions of Certificates and tools. | Chief Guests. |

(Each morning, lunch break or afternoon cultural programmes can be added as to be decided by Local Youth Club or Womens Community etc.)

As mentioned earlier, V.I.P's and Chief Guests in a remote area crash-programme soon falls in 'Short supply', so very often the PHE Engineer, Tasildar or Danida Adviser etc., acted as such. It must be mentioned that the few times the D.C's or parliament members visited the camps half the population turned up with all their private business, as loan, seeds, and scholarship applications etc., which caused a **great** deal of inconvenience to the course arrangement.

10 a.m. is the absolute earliest anything can start in the rural areas - UNICEF works with programmes from 8 and 9 a.m. ? - Most often we couldN't gather the students untill 11 a.m., but on the contrary we could continue the sessions till 6 - 7 p.m. without any complaints. At the very begining of each course at least one hour must be set aside for registering the students.

Basis for the lectures was the UNICEF prepared 'Flipchart for Hand Pump Caretaker Training' (Annexure VII) for which PHED has provided a Kannada Text. The flipchart was supported by 'The Trainers Guide to Flipchart', also by UNICEF.

'The Hand Pump Caretakers Manual' (Annexure VIII) contains all the essentials from the flipchart and was explained individually. The UNICEF series of 'Slides on Water Programmes' (Annexure:VI) extended with some of the Danida advisors private slides, was shown and explained once or twice at all the venues. A special prepared Notebook was given to all the participants. But as 'literacy' does not exactly mean the same as 'ability of writing', the note books were only used by a few.

At 7 out of 8 venues the Taluk Medical Officer conducted a most excellent lecture about water borne diseases and health hazards related to drinking water. The water subject normally took about 20 minutes, after which he 'shouted' for about one hour on Family Planning. A subject - as he put it, and I agree - even more important than Drinking water. It was quite an experience to see the generally dark complexed students turn 'red' in their faces.

An arrangement was made with the Adult Education department to show water - and rural development related films for about one hour during each course. As the film equipment simultaneously was to be used for other arrangements, quite some time was spent conveying it up and down. When planning the courses we tried to extend the film programmes for showing a local general audience after the venues and in the evenings. But as no venue hall could accommodate say 70 people and the course staff was completely exhausted after a full day's performance' the proposal was abolished. At all venues the 20 minutes/16 mm film 'Pathala Ganga' (Ground Water) was shown. The film was made by the PHE in 1982 and shows all aspects of Drinking Water, exploration and usage. A.O. the film has a part about the Danida provided rigs and equipment, and a few Danida Officers are acting 'Film Starts'.

Pahtala Ganga was normally extended with another 20 min. film related to the Rural Development Subject.

All our venues had scheduled power cuts either from 6 a.m. to 12 or from 12 to 6 p.m, so slides and films had to be adjusted accordingly.

Group Photo was taken outdoor on the first day, and the light intensity was only good enough after 5 p.m. Due to the extreme heat, field demonstrations could only be conducted either 'early' morning or late afternoon. In general, and when possible, non-academical subjects were preferred in the afternoons.

Also having to adjust programmes for the convenience of the Medical Officer, Film Operator, Photographer and local Dignitaries it can in general be said that: 'We fought our way from day to day..' - and that's to the best of our knowledge and experience, the only way the courses can be conducted.

3. (d) Course Venues

During the entire course period the staff stayed at Hangal Inspection Bungalow (P.W.D), which was also the administration centre and stores for materials etc., and the farthest of the 6 venues was 20 K.m. from Hangal.

All venues were either at village inspection Bungalows or at schools (most of the courses were during the summer holidays) and the general pattern was lectures at the front porch, which in most places could accommodate about 50 people - Although we often squeezed 80 in and film and slides were shown in an adjacent dining - or classroom. At all places was a nearby Hand Pump for practical demonstrations - But it really feels a bit silly to lift and 'repair' the same pump on two alternate days.

Due to the frequent power breaks we couldn't use a P.A. - System which we, as earlier mentioned, also preferred to be without. But as the electrical installations is mostly very scarce, it's advisable to carry a full electricians tool kit.

When planning the courses I insisted on provision of chairs or benches for all students. It serves two purposes, namely:

- 1) To uplift the student's self confidence (in tune with the sitting level).
- 2) But not least - If having say 50 unfamiliar faces sitting in a big heap on the floor nobody remarks if 5 to 10 disappears, whereas the observer (lecturer) will immediately notice any empty chairs. Although simple chairs are a scarce commodity in Molkalmuru, we solved our problem by the kind assistance from the Touring Talkies (movie Theaters), which more or less 'toured' the same route as we did - only disadvantage was that the chairs everyday had to be returned for the evening show.

As for meals we normally contracted with a local 'Hotel' but in some places there wasn't any hotels and we had to find a cook and provide the raw materials ourself. All lunches provided were 'Vegetarian Plate Meals' - The students know no limitations and serving 'Full Meals'.

would have ruined the course budget, we experienced that Bhramins didn't want to eat the common Meal, and I insisted it was 'None of our Business' - Only wondering if they want to tend to the common Hand Pumps ? One problem was availability of Tea Cups, as the maximum found in a village hotel is 10 to 15 Nos. So we actually have plans to include 60 tea cups in the course kit. When performing Total Training the venues will be rather close, and in 7 of 8 courses no participants lived more than 10 Km. away from the course centre (Annexure II & III) and only in one case - Course VIII Rampura - we re-embursed 16 participants, from 18 to 20 Kms. away, Rs.5 each for staying overnight at Rampura Town.

As we due to before said selection problems (page 13) " Highjacked " the candidates, most of them were conveyed by the P.H.E. vehicles. The best will be if those living in a distance of 3 - 5 Kms. from the venue centre (about ½ the participants) come by their own means and the rest is collected only from one pre arranged place in each Revenue Division (Panchayat) by the P.H.E. Van. (refer to annexure IV invitation).

VENUE DECORATION AND EXHIBITION

Prior to the courses cloth banners for announcing the venues were prepared in both English and Kannada language. On experimental basis, 60 metres of flag streamers of PVC painted with the Hand Pump logo was tested. As the PVC material was torn in the windy conditions it was abolished in favour of the proven cotton material.

Posters from Karnataka State Information Department and P.H.E., pasted onto heavy Cardboard, and colour print photos (25 x 18 cms.) showing different pump conditions and situations, as well as group photos from earlier courses, was exhibited at the venues.

One new I.M. II - and one old unserviceable Sholapur c pump was placed at all venues, and the difference between them explained. At one venue we, in order not to have everything stolen, needed to put a guard on our course materials, and at another venue next to a primary school, the children disturbed the training, pilfered with vehicles, and pinched for Rs.500/- worth flag streamers, so we needed to request for Police Protection.

At the venues, the following were done: 1. A display of posters and photos showing different pump conditions and situations, as well as group photos from earlier courses. 2. A display of a new I.M. II - and an old unserviceable Sholapur c pump. 3. A display of flag streamers. 4. A display of vehicles.

At the venues, the following were done: 1. A display of posters and photos showing different pump conditions and situations, as well as group photos from earlier courses. 2. A display of a new I.M. II - and an old unserviceable Sholapur c pump. 3. A display of flag streamers. 4. A display of vehicles. 5. A display of a guard on our course materials. 6. A display of a primary school. 7. A display of children disturbing the training. 8. A display of pilfered vehicles. 9. A display of Rs.500/- worth flag streamers. 10. A display of a request for Police Protection.

3 (e) Training Materials:

Teaching Aids :- The lecture was aided by:

- 1) The Master Flip Chart (Annexure VII) for which we had produced a very comprehensive collapsible aluminium stand.
- 2) The Special Manufactured India M.K. II Demonstration pump (Annexure: V) and one Cut-open I.M. II Cylinder.
- 3) One set of new I.M. II Pump and Unserviceable old type pump - for comparison.
- 4) Defect spares as: Rusty Chain, Worn-out Handle Broken Valves etc.,
- 5) Portable black board with aluminium stand - The Board was hardly used, and will in future be excluded from the Kit.
- 6) Demonstration set of tool bags with Spanners, Reporting Post Cards, and Hand Pump Log Sheet.
- 7) Slide projecting Equipment with voltage stabiliser.
- 8) 16 mm Film Projecting equipment (provided by outside parties)

Students Materials - When registering each student was issued with a Caretaker I.D.Card with transparent plastic cover (Annexure X) - As some of the students are not finalizing the course or being appointed Caretakers, plans are in future only to give a participants symbol (e.g plain card with a Hand Pump Logo) and then at "Graduation" hand out the proper I.D. Card, using the same plastic cover.

At begining of the course students were provided one plastic bag containing;

- 1) Hand Pump Caretakers Manual (Annexure VIII)
 - 2) Brochure WATER IS LIFE from P.H.E. (Annexure XI)
 - 3) Note Book with 40 pages (Annexure XII)
 - 4) Ball Pen, Pencil, Eraser, and Pencil Sharpner .
- and when finalising they were further given:

- 1) One Canvas Tool Bag with two pockets (Annexure IX)
- 2) 2 Nos. Chrome Vanadium fixed spanners "17 x 19 mm."
- 3) 3 Nos. pre stamped reporting post cards addressed to Assistant Executive Engineer, P.H.E. Sub Division.
- 4) 3 Nos. pre stamped reporting post cards addressed to Block Development Officer (Annexure XIII)
- 5) Log sheet for the Hand Pump to which they were appointed (Annexure XIV)
- 6) Certificate for participating in the course (Annexure XV)
- 7) Group Photo of all course attendants.

On a few occasions we managed, before finalising on 2nd. day, to get copies of the group photo, taken the first course day. But when not possible, the mechanic would for administration reasons, retain the I.D. cards and hand them out with the photos about one week later.

As grease is a horrible stuff to transport and handle in small portions, we, on the contrary to Danida courses in other states, did not give it to the students, but instead stressed that if P.H.E. Mechanics had not greased the pump chains, they could use any grease available in the villages. It's also my experience, that if the caretakers are issued grease, they will smear anything accessible to a degree of contaminating the water from the pump.

It was clearly indicated that the tools and the tool bag was only for Hand Pump purpose and given on a loan basis so when the Caretakers terminate their 'service', it will be given back to P.H.E.

3. (f) Course Faculty

While planning the courses we were by P.H.E.D. informed that they did not have One single officer to spare for the sole purpose of Caretaker Training, so that in mine we had to look else where for assistance.

At first Danida Mission had plans to attach a Hindi speaking lecturer to the courses - And my only question was - Why not a Zulu or French speaking, which would be just the same - ?

Turning to the nearest opportunity I tried to get the assistance from the cadre of retired P.H.E. Officers, but after a long dedicated service they are all occupied with private matters and definately not prepared to stay in the field for longer periods. Our last chance was the Non-Governmental Organisations, involved in water supply, and from E.F.I.C.O.R. (Evangelical Fellowship of India Commission on Relief) Tumkur Branch, we managed to borrow their Hydro Geologist for a limited period of two months. We were lucky that the EFICOR Geologist posses a natural talent for teaching and speaks both local languages (Kannada & Telegu).

The P.H.E./Danida driver was "Jack of all trades", packing course materials and transporting officials etc. The Taluk Medical Officer was present at 7 of 8 courses and gave a very interesting lecture on water born diseases and health hazards, using the illustrations from the Flip Chart. Normally he talked for 20 minutes about water, and continued with 40 minutes about (his hobby horse) family Planning.

A subject, we agreed with him, was much needed as cleaner and safer water provision will only ^{add} to the good Doctors already overwhelming problem - Population growth..

The Tasildar visited all the courses and during a brief spell gave the students both some "Thunder" and some moral support, and due to before said reason he was often the only "V.I.P." available.

3. (g) Training of P.H.E.D. Staff

At the first two camps we wanted to do our experiments and gain our experiences, and thus we did not invite any outsiders.

On 7.5.1985 Chief Engineer PHE's Office was requested to arrange that each of the 3 other Danida Divisions could depute 4 officers to observe the courses during a full two day period, and Executive Engineers, Chitradurga (The course area) was requested to send maximum 2 observers to any of the courses.

Due to accommodation shortage and because we did not want the courses overcrowded with 'onlookers', we had made a timing schedule so one of the 3 before said Divisions would be represented with two deputies at any of the venues.

During the courses finding that our request was ^{not} taken serious, we repeated it to the Chief Engineer, who immediately issued some telegrams, which at last resulted in improvements towards end of the period :

Numbers of P.H.E. Engineers observing Danida Model Caretaker Training (Ref. Annexure:16)

| | <u>Observers requested</u> | <u>Actually deputed</u> |
|----------------------|--------------------------------|-----------------------------|
| Kolar Division | 4 | 1 |
| Bijapur Division | 4 | 1 |
| Gulbarga Division | 4 | 3 |
| Chitradurga Division | Max. 12 | 1 |
| Out of totally | <u>24 requested</u> | <u>6 Came</u> |

May be P.H.E.D., likewise the caretakers - also has a general mistrust in Governmental arrangements.?

The 6 observers were all provided with a full set of training materials and all were pleased and impressed with the set-up.

The observers may if properly supported with teaching aids and background materials (e.g. this report) be able to conduct their own Caretakers Training Courses. It shall be mentioned that all visitors and official guests were presented a special prepared file "Guest file", made from an ordinary office file into which copies of all course material, as : Manual, Guide to Selection, Invitations, Note Books and I.D. Cards etc., was inserted.

Course IX Hangal as visited by 2 P.H.E. Mechanics from Raidurga, Andhra Pradesh, (UNICEF supported) which has already introduced a Caretaker system. I presented them with several copies of our special printed matters and one tool bag to carry it. When I saw them sneak away with 2 tool bags, several spanners and pockets filled with ball pens, I was so astonished that I could not say a word - for the sake of UNICEF, I dont hope that PHE mechanics in h.p. are thieves.

3. (h) Course administration

Participants

When registering, all candidates were listed (1 copy PHE plus 1 copy Danida) with : 1) Name 2) Father's Name 3) Village 4) Signature, and as PHE does not have any bore well identification system, it was during the course determined whether we for the number of Hand Pumps in the individual villages had surplus or shortfall of participants.

Log Sheets for the Bore Wells (Annexure XIV) was, where data was available, prepared in the Sub Division Office, but also due to the no identification system, about 80 sheets were duplicated and wasted. When writing out the Certificates (Annexure : XV, which were "blank signed" by Executive Engineer, the caretakers name was added on the filled - in Log Sheet, and the two forms kept together.

The original working paper comprised 330 Hand Pumps but at the time of training the number had increased to 389. Not only had new established pumps been added, but some of the old ones had also been abolished due to "silt up" and other reasons. Also taking into account, errors in the original list, it was a heavy task to keep a track of the training.

NUMBER OF PUMPS/CARETAKERS TRAINED:

| | Venue | Nos. of Hand Pumps according to list. | Nos. of Hand pump revised list. | Nos. of Care- takers | Nos. of Subs- titutes |
|--------------|---------------|--|--|----------------------------|-----------------------------|
| I | Molkalmuru | 33 | 38 | 27 | 0 |
| II | Hangal | 45 | 50 | 44 | 1 |
| III | B.G.Kere | 45 | 56 | 51 | 15 |
| IV | Tumkurlahally | 28 | 32 | 28 | 7 |
| V | Nagasamudra | 36 | 39 | 36 | 3 |
| VI | Nagasamudra | 32 | 49 | 45 | 7 |
| VII | Rampura | 41 | 54 | 52 | 6 |
| VIII | Rampura | 70 | 71 | 57 | 18 |
| IX | Hangal | - | - | 17 | 1 |
| X | Rampura | - | - | 17 | 0 |
| TOTAL | | 330 | 389 | 374 | 58 |

Average per course: 43 participants of which an average 37 caretakers.

As on 1.7.1985 number of Hand Pumps in Molakalmuru Taluk with no Caretaker : $389 - 374 = 15$ Hand Pumps or (3.9 %)

Financial

As Danida carried all the expenditure, we for day to day operations kept a so called "Pocket account System".

In Molakalmuru money is not a common commodity, so we always carried plenty of cash, much of it in small denominations. For safety precautions I arranged with the Bank to have new 100 Rupees notes, which were spent " serial numberwise".

For above reasons all suppliers as tea vendors and the Inspection Bungalow Watchmen etc., when a course comes to a village expects an "over night fortune". So a good deal of negotiations are needed.

Practical

During the course we kept a " Mobile Office " in the shape of a box with all needed stationery items as staplers, rulers, gum and "you name it" and it often proved very handy to have all the small items at the course venue itself.

A very labour intensive job was stamping of the Reporting Post cards - Indian Postal Service does not have a system with which to pre-pay or machine stamp the cards, and the denomination " 25 paise" can only be made with two stamps - so just imagine for 500 caretakers sticking 6,000 stamps into 3,000 post cards.

As all the meetings were very "open Sessions", it was necessary to keep all training materials in closed trunks in order to prevent pilferage of pencils and spanners etc. Too much time was everyday spent on clerical tasks as registering and double checking of participants etc. - But with the revised selection procedur (ref page 34) this will be very much minimised.

Economical

Our investments for the Model Caretakars Courses were as follows:

Initial Investments :

| Items | value (Rupees) |
|---|-------------------|
| Slide Projector | 4,700.00 |
| Projector Screen | 930.00 |
| voltage stabilizer | 300.00 |
| Wiring, connections etc., | 100.00 |
| India M.K. II demonstration Pump (Cross section) | 1,000.00 |
| Black Board and Tripods | <u>500.00</u> |
| | <u>8,030.00</u> |

GENERAL EXPENDITURE

| Items | value (Rupees) |
|-------------------------------------|-------------------|
| Photo's and Posters for decoration | 800.00 |
| Banners and Streamers | 1,000.00 |
| Maps (District & Taluk) | 100.00 |
| Pre Information, Guests & VIP-Files | 700.00 |
| Stationery general | <u>300.00</u> |
| | <u>2,900.00</u> |

Expected usage time = 500 Caretakars = Rs.6.00 per Caretakar.

Per Capita Expenditure:

| | |
|--|--------------|
| Stationery: C.T.Course invitations (3 copies) | Rs. 0.80 |
| Hand Pump Log Sheets | Rs. 2.60 |
| Caretaker Manual | Rs. 2.50 |
| Post Card Stamps (6 Nos.) | Rs. 3.60 |
| I.D. Card with cover | Rs. 2.00 |
| Note Books | Rs. 2.25 |
| Certificate | Rs. 3.00 |
| Plastic bag for stationery | Rs. 0.40 |
| Pencil, Pen, Sharpner & Eraser | Rs. 4.00 |
| Total Training material | <u>21.15</u> |
| Group Photo (12 x 18 cm. B/W) | Rs. 12.00 |
| Meals & Tea - 2 days each | Rs. 8.00 |
| Tools Bags (Canvas) | Rs. 11.00 |
| Spanners - 2 Nos. 17 x 19 each | Rs. 13.10 |
| | <u>44.10</u> |
| | ===== |
| Total Direct Expenditure per Caretaker | Rs. 65.25 |
| | ===== |

If starting Total Caretaker Training in Karnataka it is anticipated that each Division (or Circle) is provided equipment as stated under " Initial Expenditure" - plus optional one 16 mm., Film projector, Screen etc., (Full unit) costing approximately Rs. 20,000.00

The direct expenditure can, if needed, be cut down with a few items as photo and note book etc., Thus reducing the per capita expenditure to about Rs. 50.00 or 75 % of our expenditures.

4. Recommendations:

Main problem faced at the courses was the improper candidate selection by outside parties (B.D.C., & Adult Education) as well as training of so called substitutes and confusion over distribution of caretakers for more pumps in the same village.

For this matters future selection will be carried out by the P.H.E. staff only. Invitations forms and Log Sheets will be distributed together, and the idea is that the P.H.E. staff during the selection procedure will visit each and every Hand Pump site, and shall at the same time as noting the particulars about the individual Bore Well also select a caretaker candidate, whose name will be entered in the Log Sheet - in pencil, so it may be changed during the course.

From our side we will only commence courses when all Log Sheets are filled in and listed with serial numbers referring to : 1) Taluk, 2) Hoobli, 3) Panchayat, 4) Village, 5) Bore Well.

After the venue time and places have been decided, invitation forms will be issued to the candidates already entered in the Log Sheets.

The invitations originally copied from UNICEF, have been changed so that it can be "ticked off" whether the candidate shall come to the venue place by his own means (less than 4 Km. distance), or by the P.H.E. vehicle collected from only one centrally located place (e.g. Revenue Office) in each Panchayat.

At the first courses I.D. cards were issued when the participants registered at the beginning of the camps. Unfortunately all the "substitutes and drop-outs" are now fancying a Carotaker Autorisation from the Executive Engineer, which they do not deserve. In order to prevent this, we have printed some participant "Tokens", fitting into the I.D.Cards plastic cover, which will be given to the trainees, and the genuine I.D. Cards will only be given (Handed out) together with the Log Sheets and Tools. In order to set up and break camp in a hurry, some special collapsible photo mounting and exhibition stands have been manufactured, and for the same reasons all posters and signs will be mounted on a plywood backing.

In Molakalmuru we were lucky that the Medical Officer could attend most of the courses and deliver the health lectures, which is a must in the carotaker curriculum. From other Danida and UNICEF courses we have however experienced that the Medical Officer very often isn't available for which reason I earlier approached the Danida Health Units to get an "emergency lecture" about water borne diseases and the health matters, which in case simply could be read from the book, by the course coordinator - The same write-up would also act as a guide and support for the Medical Officer, when first time facing a carotaker audience.

Danida has rejected to support my proposal, so when we cant' fetch a Doctor, we are still lost.

It shall be mentioned that the question of establishing an identification system - like postal ZIP - code - has been discussed with Ministry of Rural Development, and I have proposed a digit system as :

| | | |
|----------------------|----------|----|
| 1st District | 2 digits | XX |
| 2nd Taluk | 2 digits | XX |
| 3rd Hoobli | 1 digit | X |
| 4th Revenue Division | 2 digits | XX |
| 5th Village | 2 digits | XX |

The first 9 digits will be common for all Governmental and public bodies, say census, agricultural loans, local roads, and "you name it", and etc., P.H.E. can for its own purpose add:

| | | |
|------------------|----------|----|
| 6th Borewell No. | 2 digits | XX |
|------------------|----------|----|

Thus the module constructed and always extendable number will be:

XX / XX / X / XX / ~~XX~~ - XX

(common for all the departments) \ (Special for individual department.)

The foremost digits are not needed for local daily use, and e.g. a Taluk I.C. will refer a certain borewell as:

X / XX / XX - XX

While a Panchayat Revenue Officer will refer the same as:

XX - XX

5. Evaluation

By establishing a Caretaker system the Rural Water Supply should be strengthened in mainly two aspects:

- 1) Direct economical savings of maintenance costs -
By Caretakers preventive maintenance and reporting faults.
- 2) Improved health standards - Or as we usually refer it "The dead baby aspect" - By improved pump hygiene and less interrupted water supply.

While the former is easily monitored and measured the later is more abstract, and I doubt we will ever be able to collect any figures concerning the health aspect. However it is my opinion that if the establishing expenditures of say Rs. 75 per Hand Pump and say additional Rs. 20 per year for maintaining the system, are not gained as direct economical savings in 3 years time, we have to look out for another better system.

As known - " No chain is stronger than the weakest link" - so it makes no sense to establish a caretaker system if the Taluk (Block) maintenance establishment is inefficient and not fully developed with staff, facilities, transport and tools etc.,

Right now in Karnataka, the subject of Borewells and Pumps is a "hot potato and vote magnet" so all "Do-gooders" including Social Welfare Department and vocational Training Institutions are coming forward with each their home spun caretaker system.

The caretaker establishment is one part of a linked Maintenance and Monitoring system and if Government of Karnataka wants the entire rural water supply to be with Public Health Engineering Department, the caretaker Training and Organisation must definitely also be solely with P.H.E.D. - No doubt, the N.G.O.'s can do a lot in general water hygiene education etc., but the selection, training and organisation of the Official Hand Pump caretaker must be uniformly and in the hands of one body P.H.E.D. It's e.g. no fun to face a class of honorary elected caretakers the day after a Central Government Minister, in a T.V. interview, made a wild statement and under the TRYCEM Scheme promised to pay the rural youth Rs.50/- per month for looking after a Hand Pump - I just wonder were Karnataka can find Rs.4.8 Crores for caretakers, or 3 times the present maintenance expenditure ?

In Molakalmuru Taluk we are from August 1985 collecting data for the operational and maintenance costs, which we intend to compare to figures from earlier years, and further the pump "down time" will be recorded and monitored as accurate as possible.

6. Post Script

After the Mokolmuru training we in July 1985 decided to commence total training for one Taluk in Kolar District, and Deputy Commissioner, Kolar requested us to choose Bagepally, which is recorded as the least developed taluk in the district.

Bagepally has about 650 Hand Pumps, which were planned for 14 venues, covering an area of which we have already decided and plotted on the Taluk Map.

However several inspection visits to Bagepally has revealed that the Hand Pump maintenance standard at present is so poor - about 75 % of the pumps are loose in the foundation or has wornout bearings and bucket leathers etc., - that it will take about 3 months to bring the mechanical maintenance standard upto a reasonable level, from which the pumps can be handed over to the caretakers.

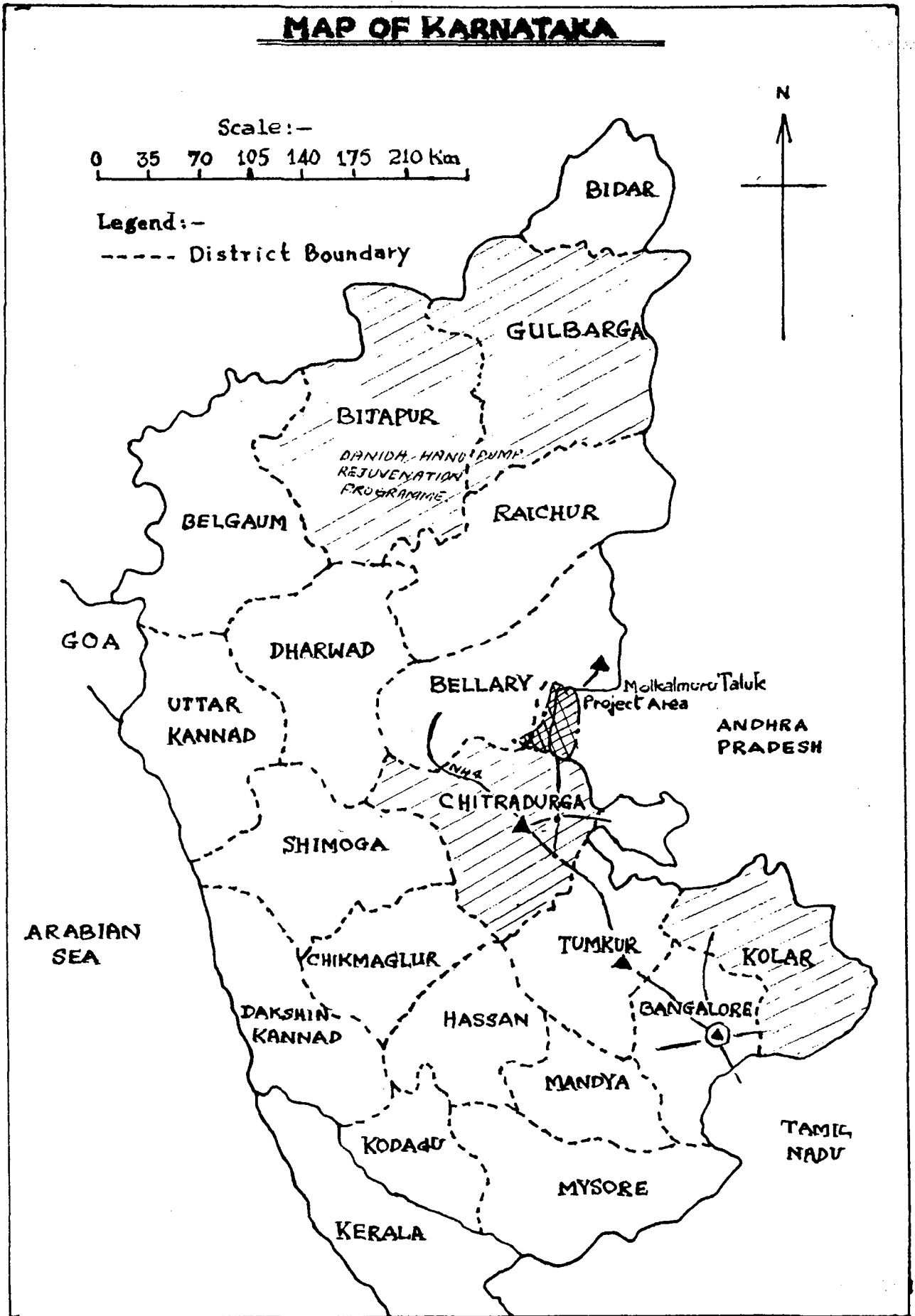
In the meanwhile another (and possible smaller) taluk in Kolar District will be chosen for caretakers training.

Bangalore, September 1985

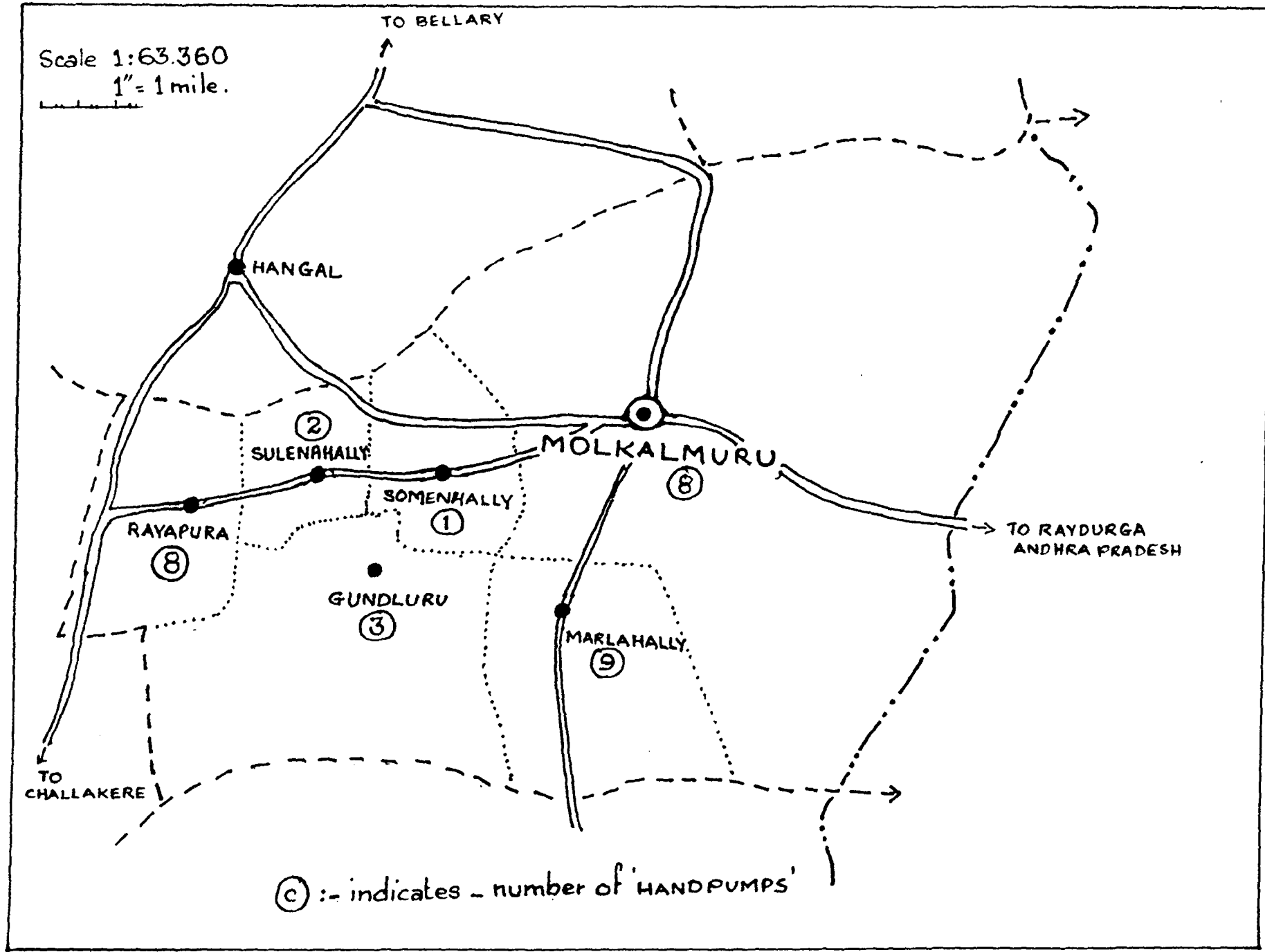
Knud Lynge Ottosen
Senior Project Advisor.

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Example of "REVENUE VILLAGES" in course area > I - MOLKALMURU





ಕರ್ನಾಟಕ ಸರ್ಕಾರ

ಆಹ್ವಾನ ಪತ್ರಿಕೆ

ಸಾರ್ವಜನಿಕ ಆರೋಗ್ಯ ತಾಂತ್ರಿಕ ಇಲಾಖೆ

ಕೈ ಪಂಪು ಸಂರಕ್ಷಣೆಗಾಗಿ ತರಬೇತಿ ಶಿಬಿರ

ತಾಲ್ಲೂಕು _____ ಗ್ರಾಮ _____

ಮೋಡ್ _____ ವಿಭಾಗ _____

ಆಯ್ಕೆ ಮಾಡಿದ ಸಂರಕ್ಷಣೆಗಾರನ/ಳ ಹೆಸರು _____

ಶುದ್ಧತೆ/ ಗಂಡನ ಹೆಸರು _____

ಸ್ವಾಮಿ,

ಕೈ ಪಂಪಿನ ಉಪಯೋಗ ಮತ್ತು ಸಂರಕ್ಷಣೆಗಾಗಿ ತಮ್ಮನ್ನು ಸಾರ್ವಜನಿಕ ಆರೋಗ್ಯ ತಾಂತ್ರಿಕ ಇಲಾಖೆ ವತಿಯಿಂದ "ಕೈ ಪಂಪು ಸಂರಕ್ಷಣೆ ತರಬೇತಿ" ಗಾಗಿ ಆಯ್ಕೆ ಮಾಡಲಾಗಿದೆ. ಈ ಕೆಳಕಂಡ ಸ್ಥಳದಲ್ಲಿ ಏರಡು ದಿನಗಳ ತರಬೇತಿ ಶಿಬಿರ ಏರ್ಪಡಿಸಲಾಗಿದೆ.

ಸ್ಥಳ : _____ ಗ್ರಾಮ _____

ದಿನಾಂಕ : _____ ವೇಳೆ : _____

- 1) ನಿಮ್ಮ ವಿಷಯದಲ್ಲಿ ಈ ಶಿಬಿರಕ್ಕೆ ಏರ್ಪಡಿಸಲಾಗಿದೆ.
- 2) ಶಿಬಿರವು ನಡೆಯುವ ಜಾಗದಿಂದ ದೂರವಿದ್ದರೆ ಸಮ್ಮ ವಾಹನದಲ್ಲಿ ನಿಮ್ಮನ್ನು ಈ ಕೆಳಕಂಡ ಸ್ಥಳದಿಂದ ಕೊಂಡೊಯ್ಯಲಾಗುವುದು.

ಸ್ಥಳ : _____ ವೇಳೆ : _____ ದಿನಾಂಕ : _____

ಈ ಆಹ್ವಾನ ಪತ್ರಿಕೆಯನ್ನು ಬರುವಾಗ ತಂದು ತಮ್ಮ ಹೆಸರುಗಳನ್ನು ನೋಂದಾಯಿಸುವುದು.

ಶಿಬಿರದಲ್ಲಿ ಟೀ ಮತ್ತು ಊಟ ಏರ್ಪಡಿಸಲಾಗಿದೆ.

ತರಬೇತಿ ಪೂಗಿದ ನಂತರ ನಿಮ್ಮನ್ನು "ಗೌರವ ಕೈ ಪಂಪು ಸಂರಕ್ಷಣೆಗಾರ" ರಾಗಿ ನಿಮ್ಮ ಮನೆ ಹತ್ತಿರ ಇರುವ ಕೈ ಪಂಪು ನೋಡಿಕೊಳ್ಳಲು ನೇಮಿಸಲಾಗುವುದು ಇದರ ಜೊತೆಗೆ ಸರ್ಟಿಫಿಕೇಟ್, ಗುರುತಿನ ಚೀಟಿ, ಸಲಕರಣೆ ಮತ್ತು ಲಾಗರಿಸ್ಟ್, ಅಂತಿಮ ಕಾರ್ಯ ಇತ್ಯಾದಿ ಸಾರ್ವಜನಿಕ ಆರೋಗ್ಯ ತಾಂತ್ರಿಕ ಇಲಾಖೆಯಿಂದ ಕೊಡಲಾಗುವುದು.

ತಾವು ತರಬೇತಿಗೆ ಹಾಜರಾಗಿ ಈ ಶಿಬಿರವನ್ನು ಯಶಸ್ವಿಯಾಗಿಗೊಳಿಸಿ ಮೂಡುವಿರಿ ಎಂದು ಅಭಿಪ್ರಾಯಪಟ್ಟು.

ಅಂತರ ಶಾಖೆ ಸಮನ್ವಯ ವ್ಯವಸ್ಥೆ.

- 1) ಸಹಾಯಕ ಅಭಿಯಂತರರು, ಸಾರ್ವಜನಿಕ ಆರೋಗ್ಯ ತಾಂತ್ರಿಕ ಇಲಾಖೆ.
- 2) ಕ್ಷೇತ್ರಾಭಿವೃದ್ಧಿ ಅಧಿಕಾರಿ.
- 3) ತಾಲ್ಲೂಕು ದೃಷ್ಟಾಧಿಕಾರಿ.

GOVERNMENT OF KARNATAKA

I N V I T A T I O N

Public Health Engineering Department

Hand Pump Caretaker Training

Taluk _____ Village _____

Hoobli _____ District _____

Candidate Mr/Mrs _____

Son/Wife/Daughter of _____

Sir/Madam/Miss.

You are hereby appointed candidate for the Hand Pump Caretakers Training organised by Public Health Engineering Department, for the proper use and maintenance of Hand Pumps. The 2 day training camp for your area will be conducted at _____ (place) in _____ (Village/town) and commence on _____ (date) at _____ (time)

- 1) you are kindly requested to come to the meeting place by your own means.
- 2) As you stay further away from the meeting place, you will on _____ (date) at _____ (time) be collected from _____ (place) by our vehicle.

Please bring this Invitation Form for registration.

Tea and lunch will be given at the meeting.

After completing the training you will be appointed honorary **HAND PUMP CARETAKER** for the public pump close to your home, and Certificate, I.D. Card, Instruction Manual, Tools and Reporting Postcards etc. will be issued to you by P.H.E. Department.

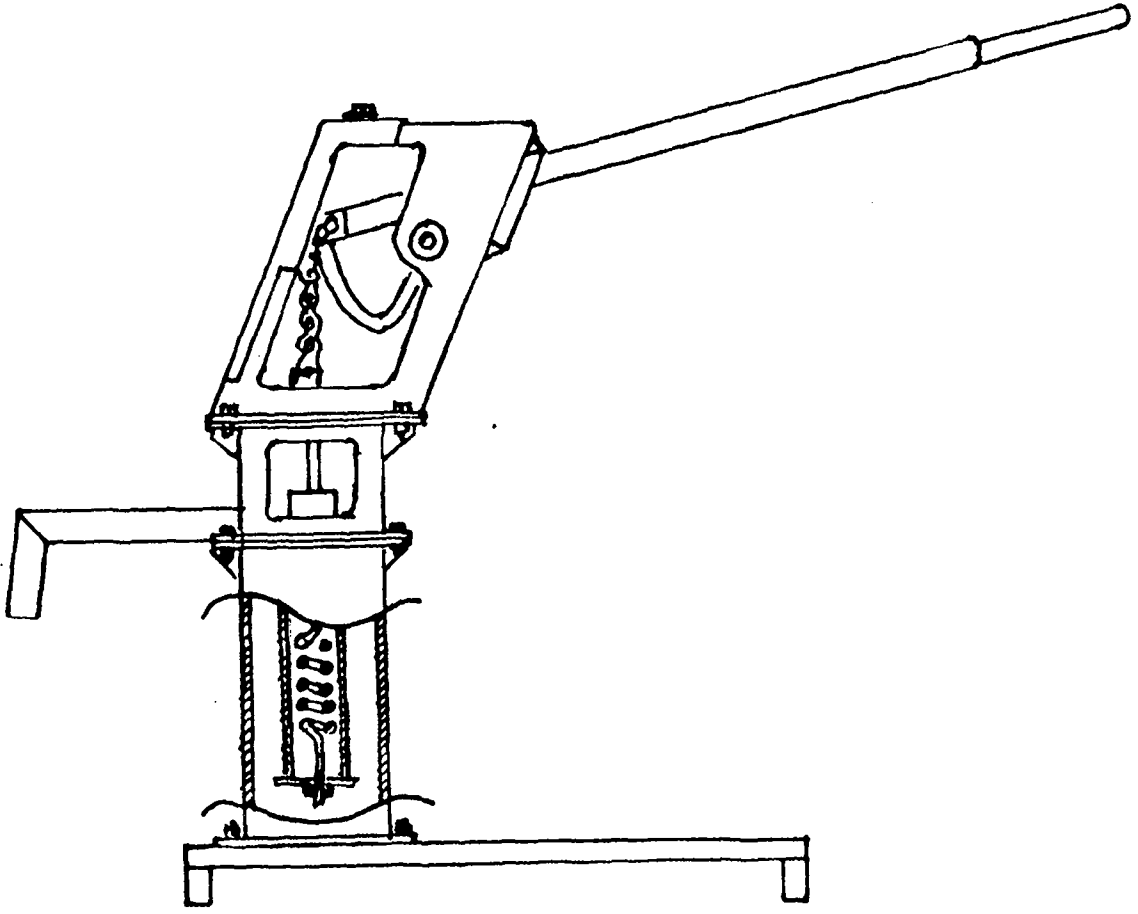
We expect you to attend and make this training a success.

Inter-departmental Team

1. Resident Engineer, PHE Dept.,
2. Block Development Officer
3. Medical Officer.

INDIA MARK II

DEMONSTRATION HANDPUMP.



Cut open so all vital parts visible from outside.

Bolted onto w-iron frame for handy transport.

Height adjusted to natural conditions.

Connecting Rod spring loaded to simulate pumping action.

ANNEXURE VICOMMENTARY FOR SLIDES ON WATER PROGRAMMEPREPARED BY UNICEF

-
- A1 Now we will present to you the colour slides prepared on Water Programme
- A2 Women collecting water from flowing sources
- A3 Going back home with water.
- ~~A4-A7~~ Now we are trying to show you how water is important to human beings, fields and cattle
- B1- B6 Some of the hardships to collect water
- B2- B4 This is a stepwell having 100 steps. A stepwell is the source of guinea worm disease. But women folk in the village of Mslasangam in Medak district in Andhra Pradesh have to walk two kilometers to the stepwell, get down 100 steps, collect water and climb again 100 steps and walk back two kilometers to the house. This is a daily routine. Because of this, the young men in the village do not get brides.
- B5 - B6 In the coastal districts the women dig a pit of 2 ft. diameter and 2 ft. deep and collect water percolating from the earth through ladles and pour in the pot. To fill one pot of water, it may take more than an hour.
- B7- B11 Sources of water
- B8 Open Wells
- B9 Streams
- B10 Stepwell
- B11 Borewell Handpump
-

- 2 -

-
- C1 - C6 You will see the parts of India Mark-II Pump
- C2 The pump is called India Mark-II
- C3 This is pedestal
- C4 Water tank
- C5 Head assembly, wherein you can see the handle, axle, head cover
- C6 Chain
- C7 A hydrogeologist carrying out geophysical investigation with the help of terrameter to locate a site for drilling borewell.
- C8 A UNICEF supplied rig drilling a borewell
- D1 - D27 Installation procedure of India Mark-II pump
- D2 The borewell site for installation of pump is prepared.
- D3 Mild Steel platform shuttering
- D4 This is assembled and kept over the prepared borewell site.
- D5 Now it is ready for pump installation.
- D6 The pump pedestal is kept in the pit, and platform footstand and drain being constructed with concrete 1:2:4
- D7 Drain being constructed.
-

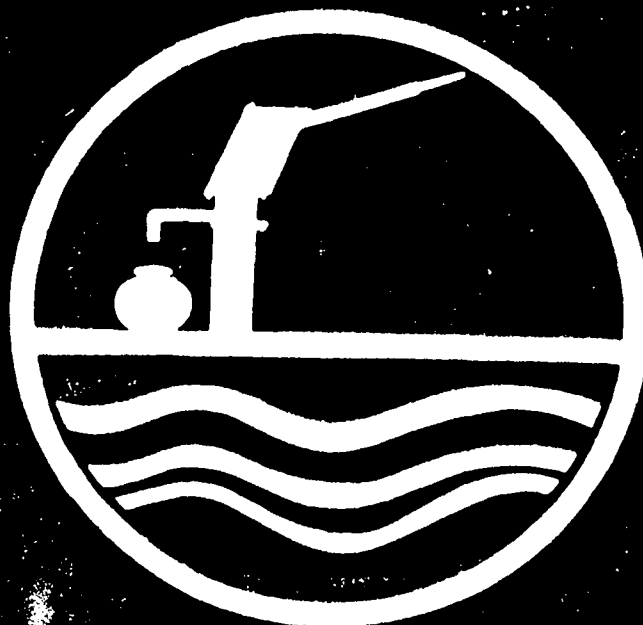
-
- D8 Now the platform is completed.
After seven days
the team comes to lower the pipes, rods,
cylinder, etc.
- D9 These are the Cylinder components.
- D10 & D11 The cylinder is being tested in a bucket of
water
- D12 The piston rod is connected with the connecting
rod.
- D13 The 32 mm G.I. pipe is connected to the cylinder
upper reducer cap.
- D14 Then the assembly is lowered inside the borewell.
- D15 Join connecting rods and tighten with each other
- D16 & D17 Then join the G.I. pipes to each. Repeat the
same procedure till you lower as many rods/pipes
as required.
- D18 Finally fix the water tank with Galvanised iron
pipe.
- D19 And with the help of pipe lifting spanners lower
water tank on to the pedestal and bolt them
- D20 &
D21 The stroke length of the cylinder piston is
fixed in such a way that when the piston is at
the bottom position of the cylinder the connec-
ting rod is marked to be level with top of
water tank and cut and threaded to 45 mm length.
- D22 The head is fixed and then check nut is fitted
with connecting rod.
- D23 And the head is connected with water tank.
The handle is inserted.
-

-
- D24 The axle pin is fixed.
- D25 &
D26 Then the chain is connected to the handle
- D27 Now the pump is ready for operation
- E1- E8 Abuse of handpump and surroundings
- E2 Washing clothes on the platform
- E3 Bathing on the platform
- E4 Open defecation near the pump site
- E5 Feeding cattle near the pump
- E6 Children treating the pump as post box,
 putting dirt inside the head
- E7 The entire surroundings of the pump are dirty
- E8 Children playing with the handpump - like
 a circus group.
- F1-F21 Duties of the caretaker
- F2 After two days training at block head quarters
 is over.
- The caretakers go back to the villages.
- F3 One of the caretakers in action.
-

-
- F4 The site is dirty
- F5 The carstaker cleans the platform.
- F6 & F7 and drain
- F8 and checks whether the pedestal is firm on
its base.
- F9 These are two spanners given to the carstakers.
- F10 He opens the head cover.
- F11 Cleans the trash,
- F12 tightens the chain bolt,
- F13 Greases the chain,
- F14 Tightens the axle nuts,
- F15 Tightens the flange bolts,
- F16 & F17 And educates the villagers on proper handling
of the handpump.
- o F18 & F19 He reports about breakdowns through the post
cards to higher authorities.
- F20 And explains to his community about the
importance of tubewell handpump water.
- F21 And that is "The End".
-

Text for Flipchart

for use in the india mark II hand-pump
caretaker training programme

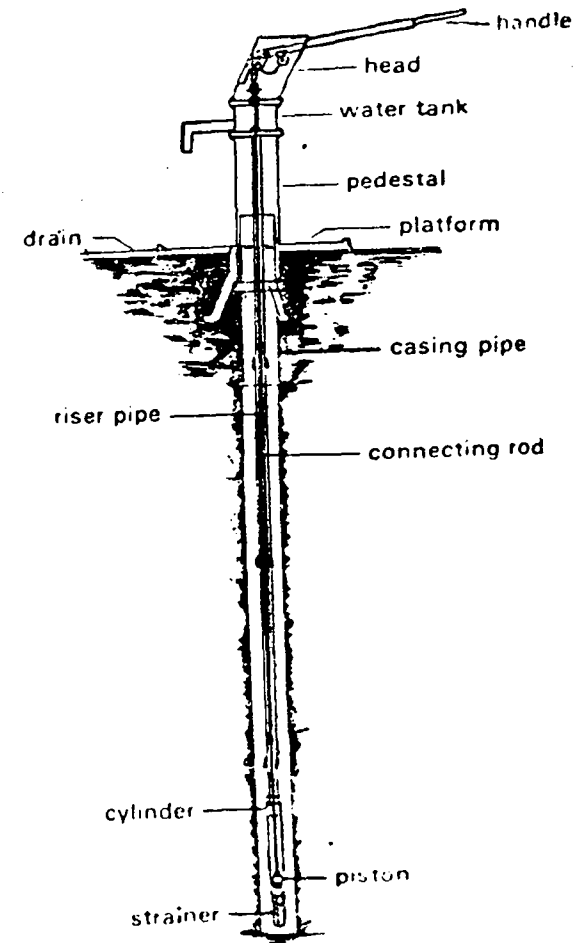


SECTION - 1

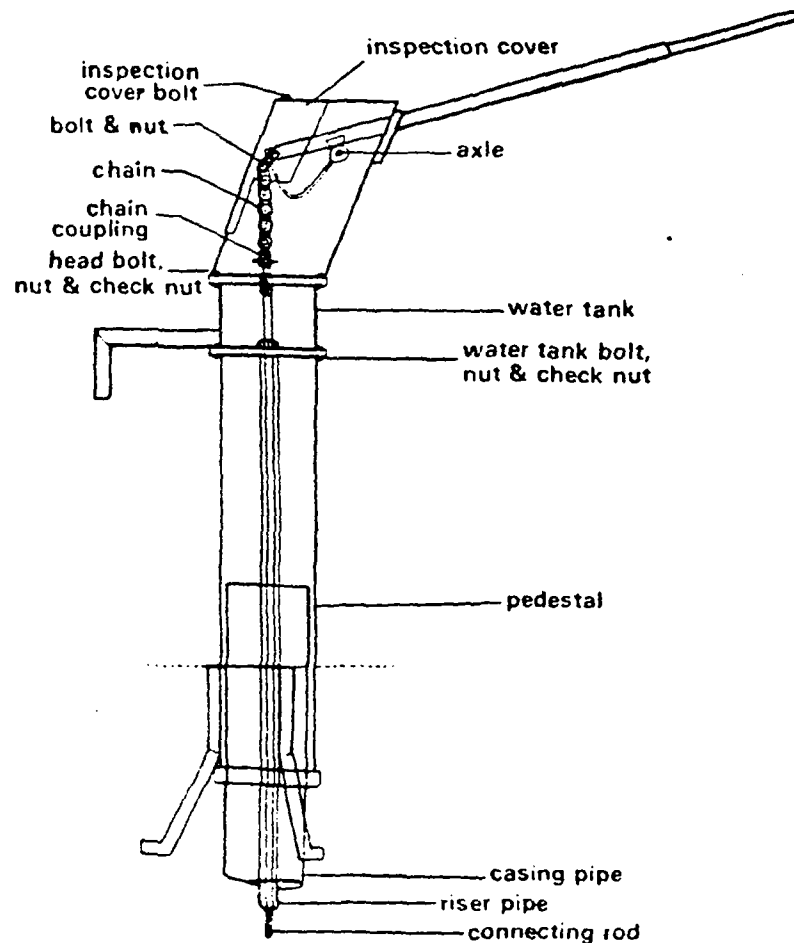
- The INDIA MARK II hand-pump
- 3-tier maintenance system
- duties of the caretaker.



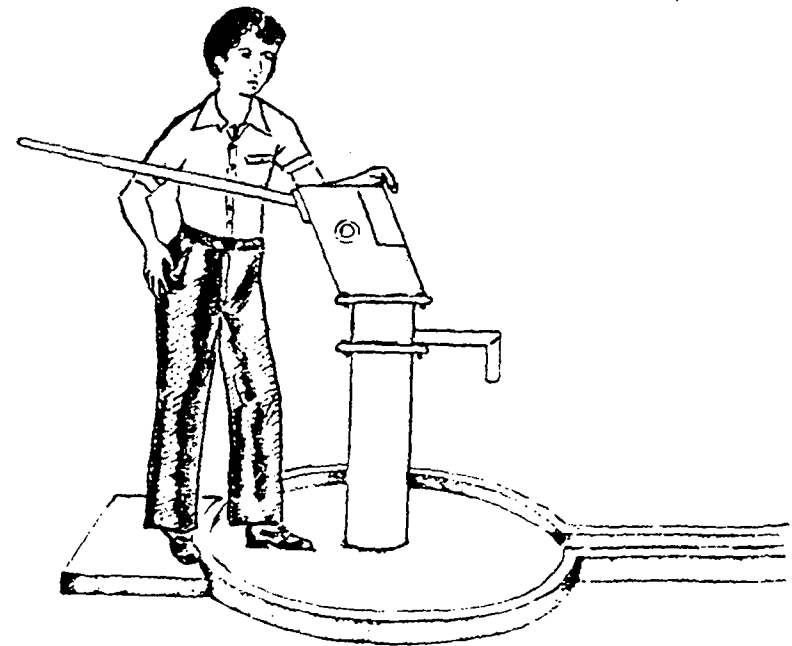
THE INDIA MARK II DEEP WELL HAND-PUMP



INDIA MARK II HAND-PUMP



THREE-TIER MAINTENANCE SYSTEM :

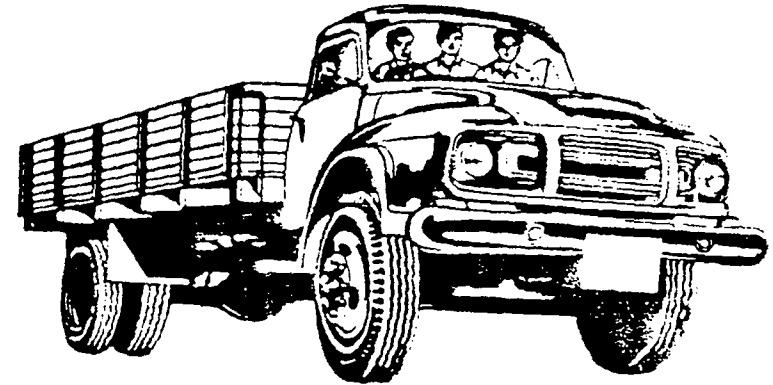


1. At village level the hand-pump caretaker reports if hand-pump needs repairs



2. At block level
an inspector-
mechanic checks pumps
regularly

3. At district level



a mobile
maintenance
team
does
major repairs.

**DUTIES OF THE
CARETAKER :**

- 1. See that the villagers operate the hand-pump properly so that it will have a long life ...**

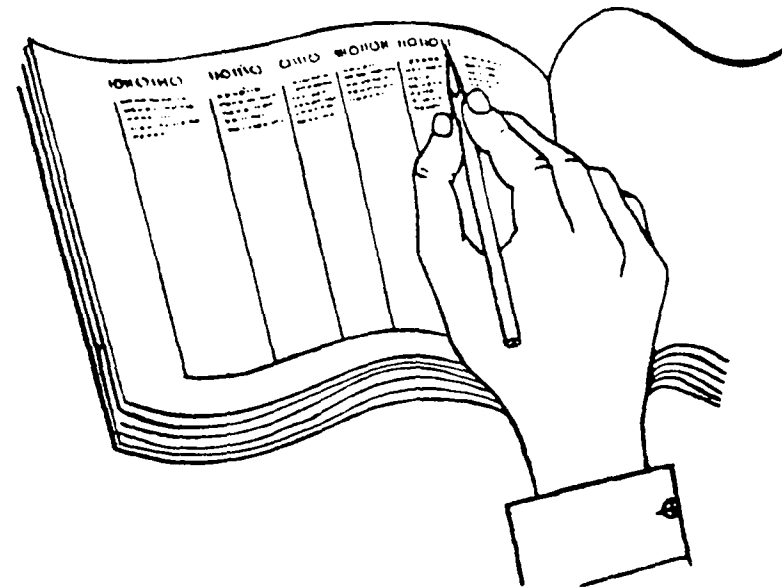


- 2. Service the hand-pump once a week.**
- 3. Make sure excess water is channelled into a garden or a soakage pit.**



**4. If the
hand-pump
breaks down,
report it to
the District
Engineer**

**5. Maintain
the
hand-pump
log-sheet.**



NOTES

1. The INDIA MARK-II is a strong hand-pump.
The caretaker has to provide it with
 - community care
 - clean surroundings
 - maintenance
2. Reproduce the hand-pump sign wherever possible in the village and explain its meaning.

SECTION-2

- Preventive maintenance
- Defects
- Reporting of defects

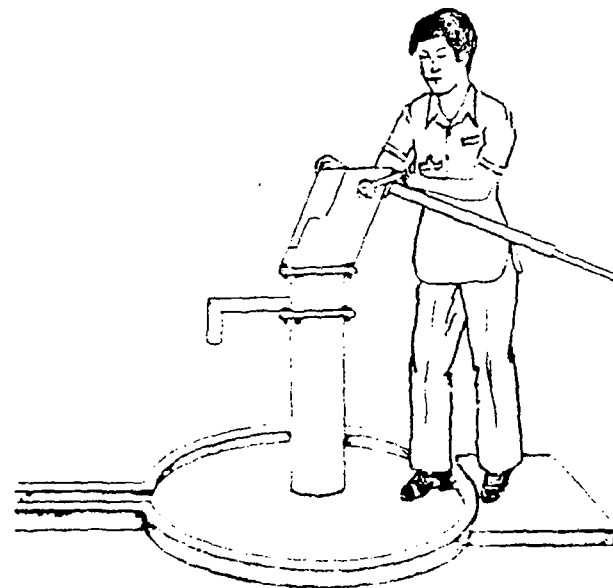


TO KEEP
THE HAND-PUMP
IN GOOD WORKING
ORDER —
PREVENTIVE
MAINTENANCE
IS ESSENTIAL !

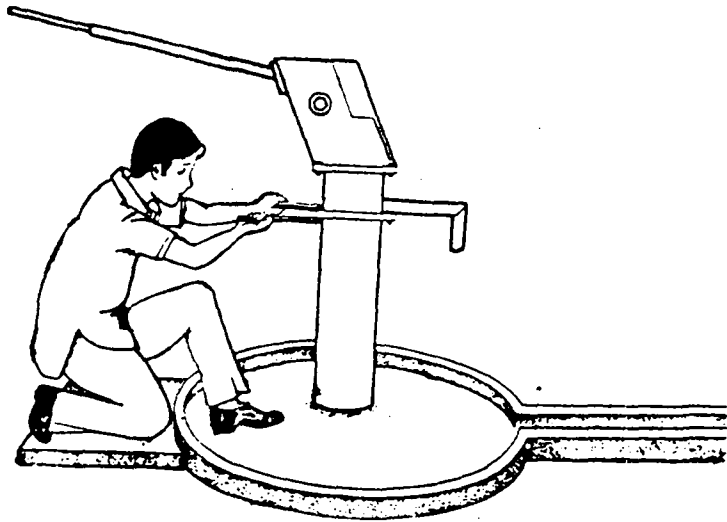
THEREFORE ...



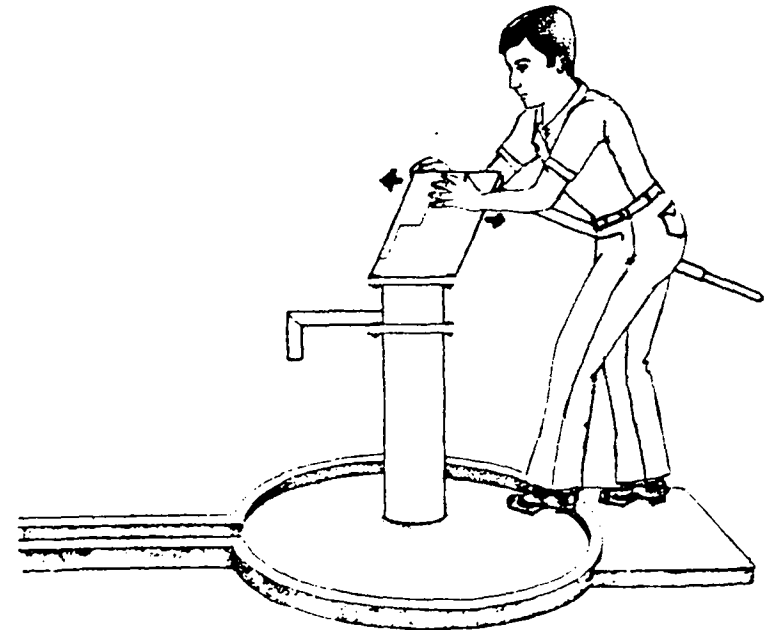
ONCE A WEEK
CHECK
THE
FOLLOWING ...



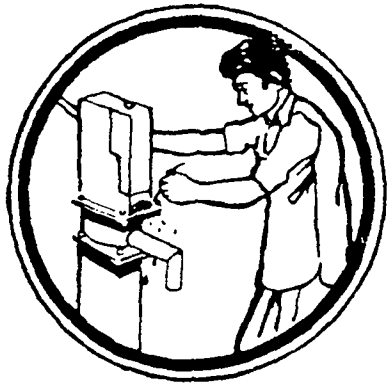
1. Are axle bolt
and
lock-nut tight ?



**2. Are
flange-
bolts tight ?**



**3. Is the hand-pump
firm in its base ?**

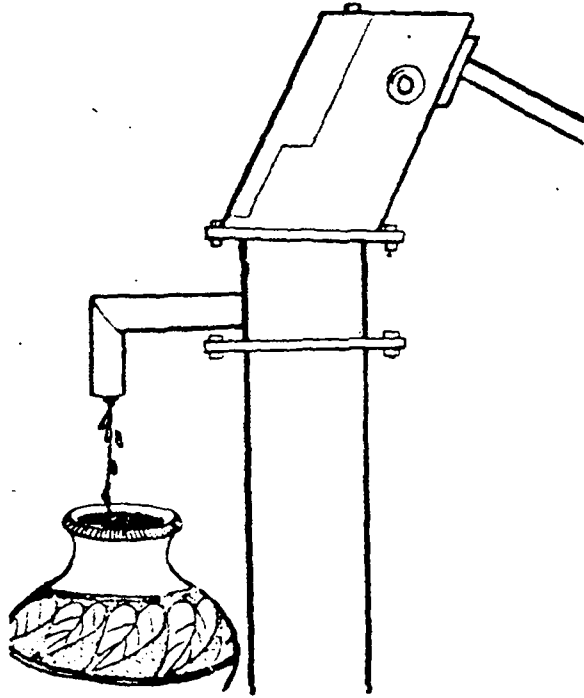


4. Open front cover. Clean out trash from drain-hole below this inspection cover.

**LOOK OUT
FOR THE
FOLLOWING
DEFECTS...**

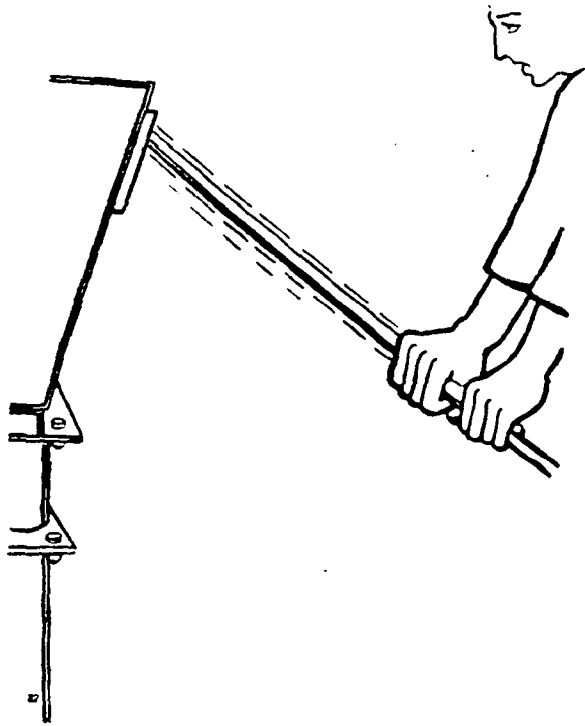


**1. WEAK FLOW
OR
NO FLOW**

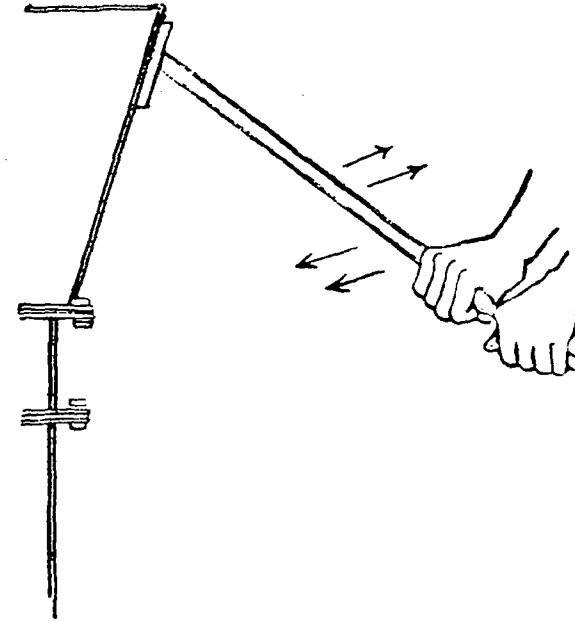


**2. DELAYED
FLOW**
(you have to
pump many
times before
water comes.)

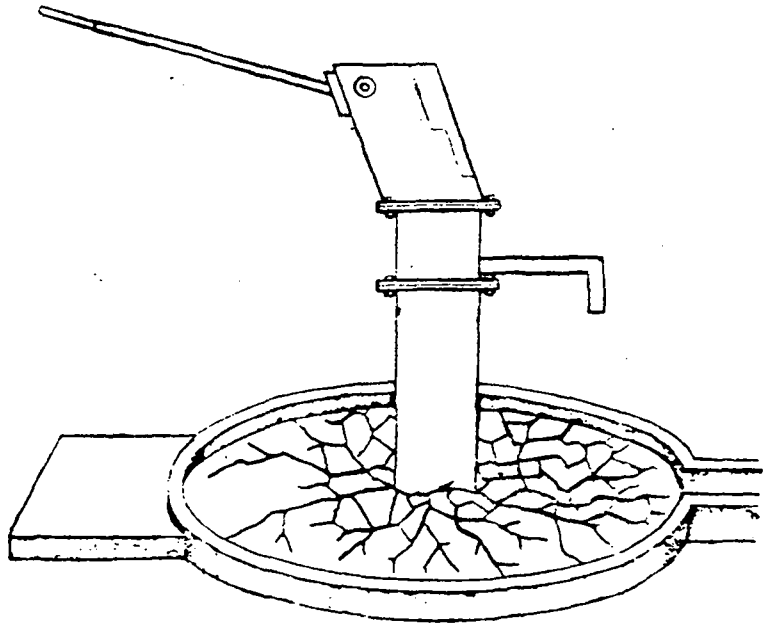




**3. PUMPING
DIFFICULT**

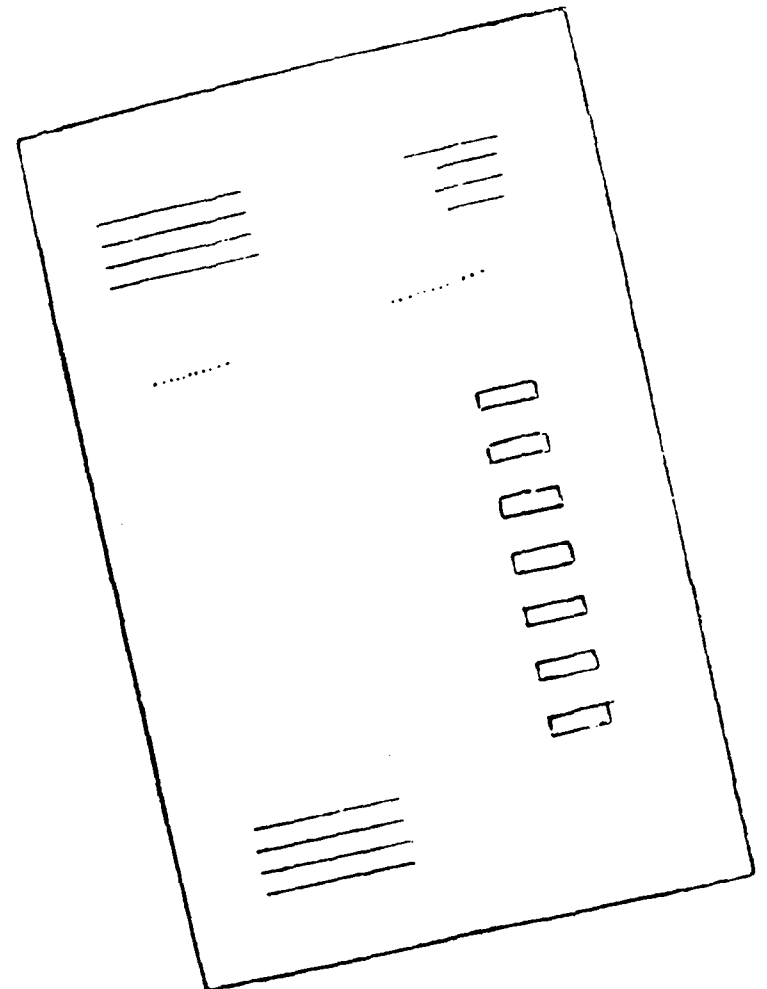


**4. HANDLE
SHAKY**



**5. HAND-PUMP
LOOSE IN ITS
FOUNDATION ...**

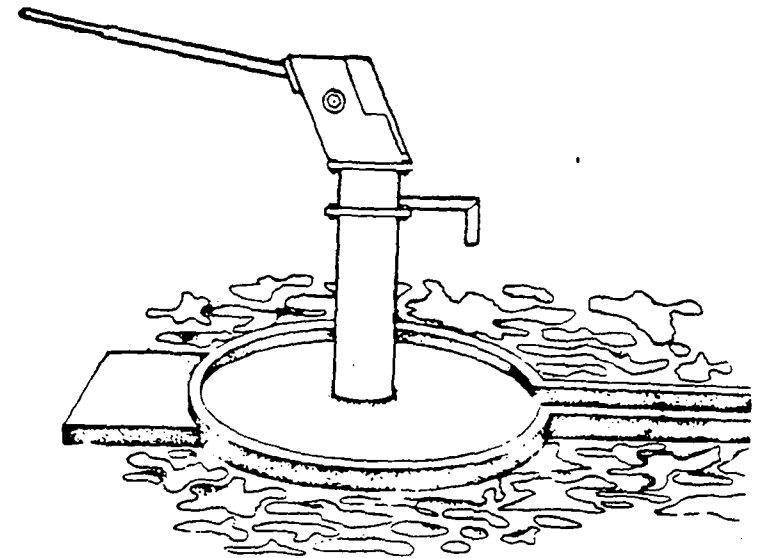
If there is a defect,
fill in the card and
mail it to
the District Engineer



SECTION - 3

**CLEAN AND
HYGIENIC
HAND-PUMP
SURROUNDINGS
ARE
VERY IMPORTANT.**

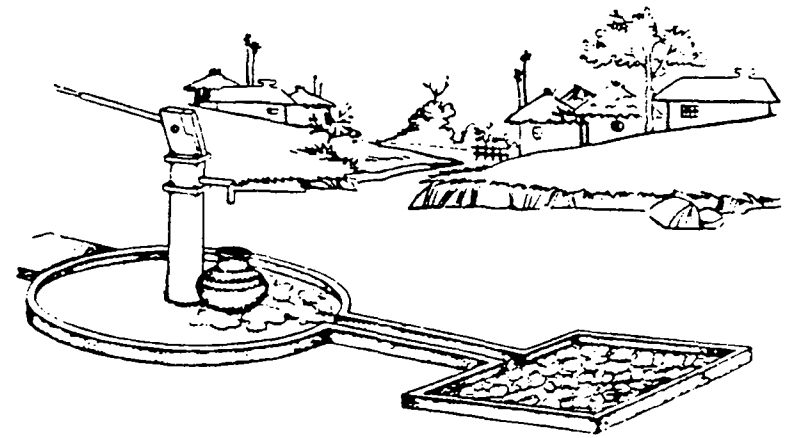
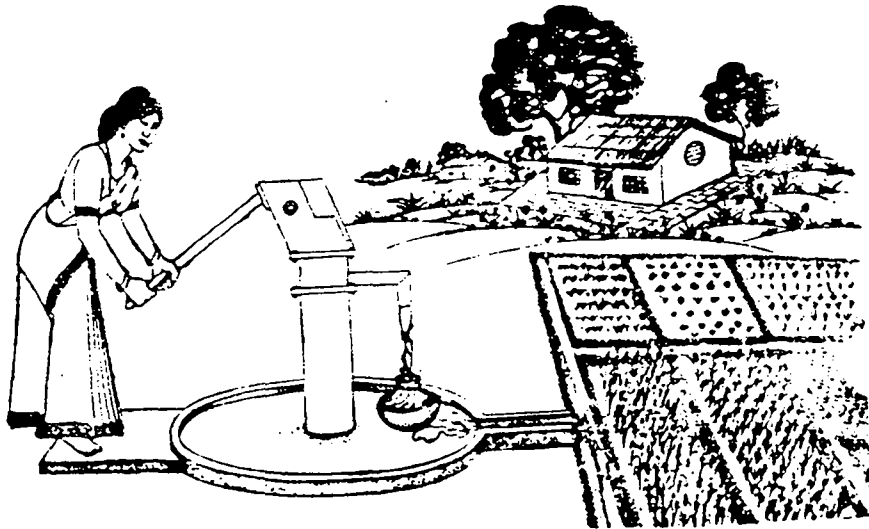
**The caretaker
must therefore
ensure that . . .**



- 1. Excess water
does not
collect around
the hand-pump....**

2.

but
runs into
a garden



3. or
a
soakage pit

NOTES

1. Report hand-pump failure promptly.
2. 50 feet around the hand-pump to be kept dry and clean.
3. How to make a soakage pit :

4. Keep
the area
around
the hand-pump
clean
and free
of
refuse



SECTION-4

**THE CARETAKER SHOULD
EXPLAIN TO THE VILLAGERS...**

- how to properly use
the hand-pump
- how water and health
are related.



EXPLAIN...



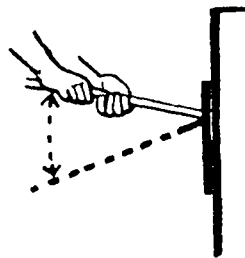
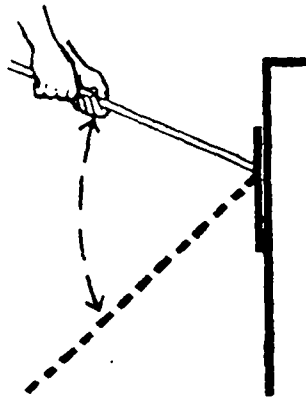
**how to stand
directly behind
the hand-pump**

and
to
use

LONG
strokes

not

short
ones



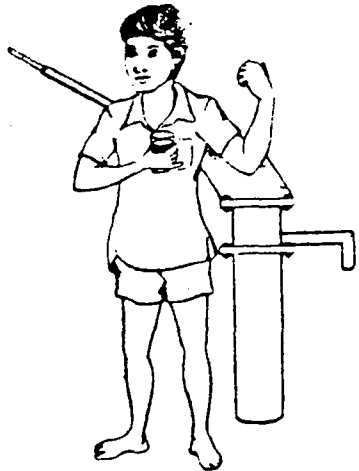
EXPLAIN
THAT
GOOD HEALTH
BEGINS
WITH
GOOD WATER...



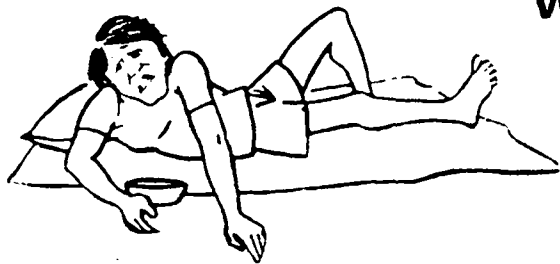
hand-pump water =



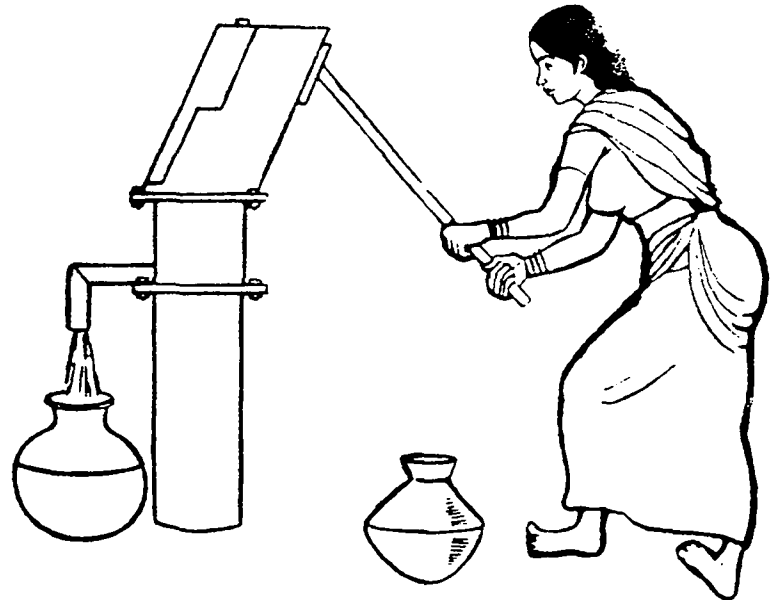
GOOD
health



unprotected
water =



sickness

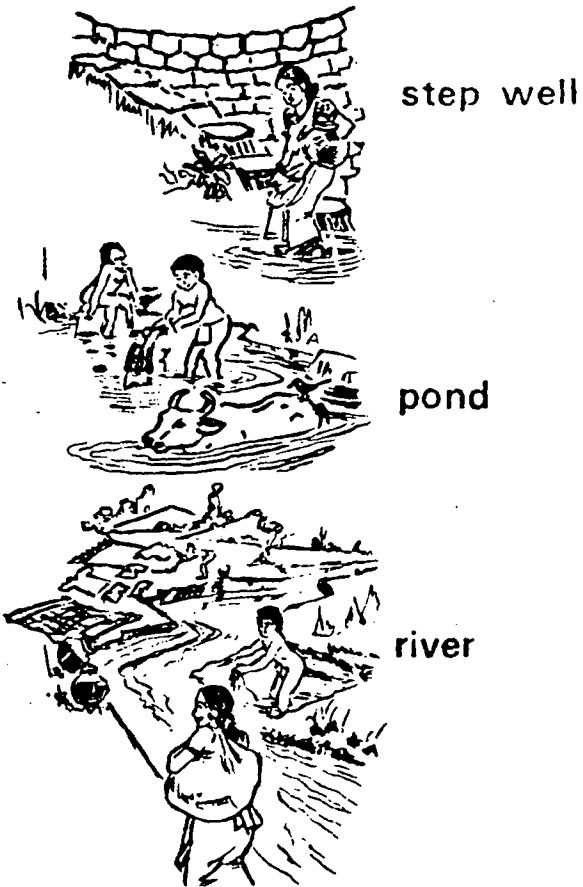


PROTECTED
SOURCE :

water from a
hand-pump is pure
and safe
to drink.

UNPROTECTED SOURCE :

water
from
an
unprotected
source
may
make
you
sick



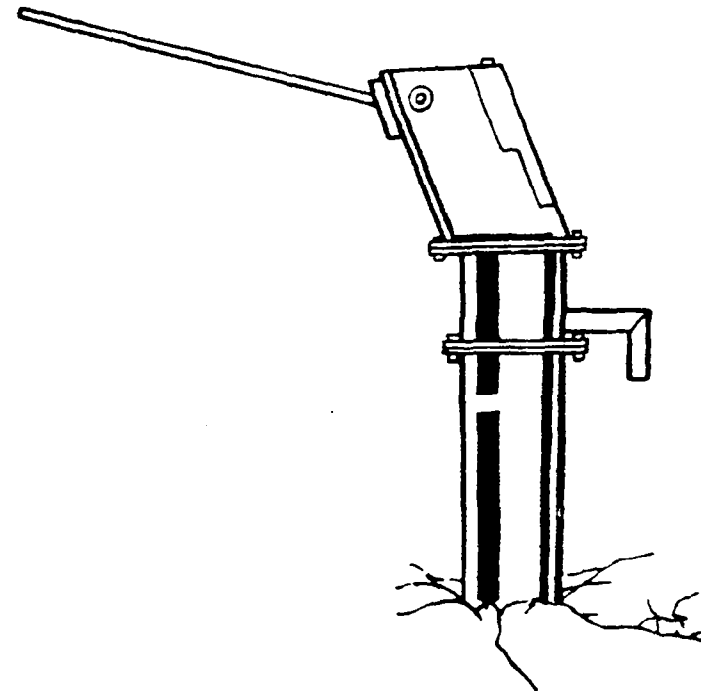
If people drink
contaminated water,
they risk getting
these diseases :

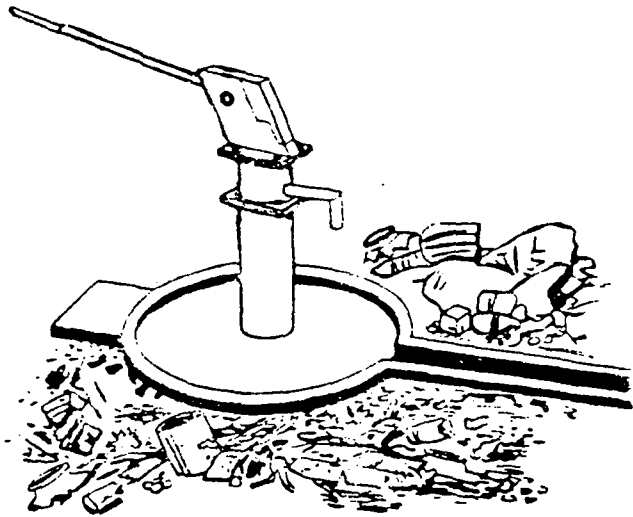
- diarrhoea
- dysentery
- hepatitis
- cholera
- typhoid
- worms



HOWEVER
note that the
hand-pump itself
can
also
be a source
of disease
if . . .

... the
base is
cracked
or loose
(dirty
water
may run
back into the well.)





If the area around a hand-pump is not clean, it can contaminate the water below

SECTION - 5

HOW WATER IS COLLECTED AND STORED IS ALSO IMPORTANT !



explain
to families



of vessels
before filling them
with clean water.

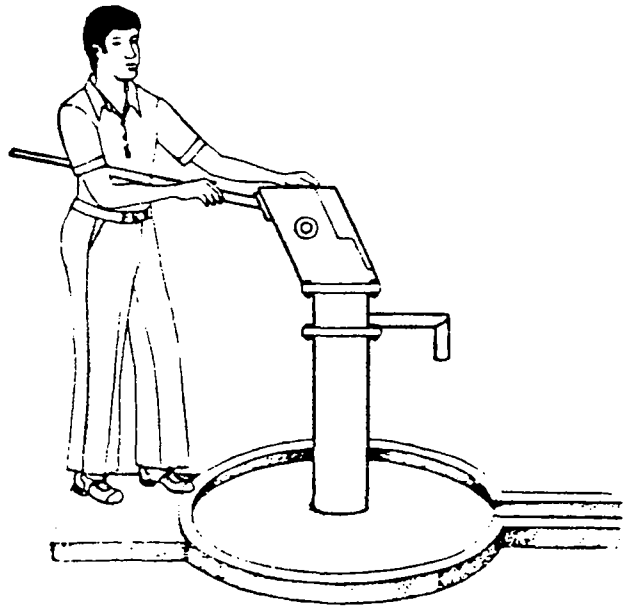
that
they
should
wash
the
insides



At home
they should keep
water containers
covered.

THE CARETAKER is a

V. I. P.



**By doing their duties,
the caretakers provide
their people with a
safe, clean, continuous
drinking water supply**

**SAMPLE OF HAND-PUMP
LOG SHEET**

VILLAGE PUMP No:
 PANCHAYAT DEPTH OF BORE:
 BLOCK WATER LEVEL:
 DISTRICT DATE OF INSTALLATION:
 YIELD:

| DETAILS OF REPAIRS | DATE OF REPAIR | DATE OF INTIMATION | NAME OF MECHANIC | REPAIR ATTENDED DATE | DETAILS OF REPAIRS ATTENDED | DETAILS OF SPARE USED | REMARKS |
|--------------------|----------------|--------------------|------------------|----------------------|-----------------------------|-----------------------|---------|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

NOTES

1. The hand-pump site should always be in good condition.
2. Drinking water should be stored in clean and covered vessels.



QUESTIONNAIRE

1. List 5 duties of the caretaker.
2. How can you help to prevent hand-pump failure ?
3. What should a hand-pump site look like ?
4. How will you use this notebook ?



TEXT FOR FLIPCHART FOR THE INDIA MARK II HAND-PUMP CARETAKER TRAINING PROGRAMME

This 'Text for Flipchart' contains the English text and drawings for the 'Master Flipchart' for the India Mark II hand-pump caretaker training programme.

Use this 'Text for Flipchart' as a model when you fill in the 'Master Flipchart'.

HOW TO USE THIS MODEL

First, translate the text contained on the following pages into the local language.

Then, using this 'Text for Flipchart' model as a guide, fill in your translated text page by page onto the 'Master Flipchart'.

Pages 12, 31 & 48 of this guide text consist of pages for 'Notes'. These notes comprise of important points for trainees to remember.

The Flipchart contains five Sections ;

Page 12 is for notes at the end of Section 1 ;

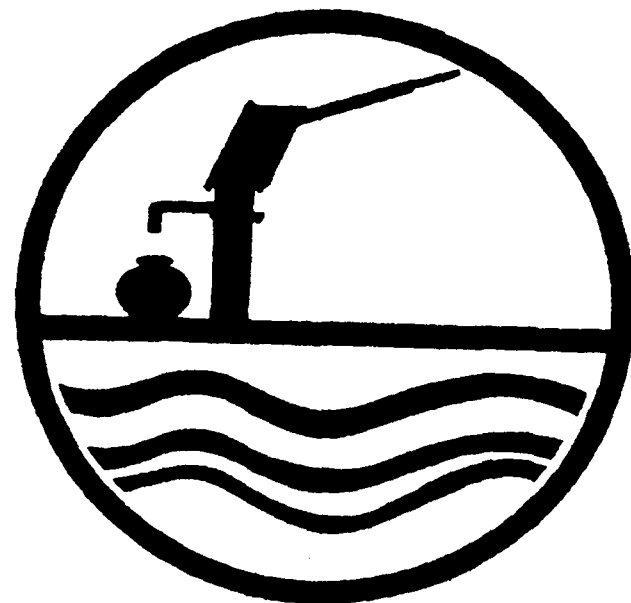
Page 31 is for notes at the end of Sections 2 & 3 ;

Page 48 is for notes at the end of Sections 4 & 5.

Translate and copy out the existing notes on these pages onto the 'Master Flipchart'. Also, use these pages to note any additional points you may wish to add to the various Sections.

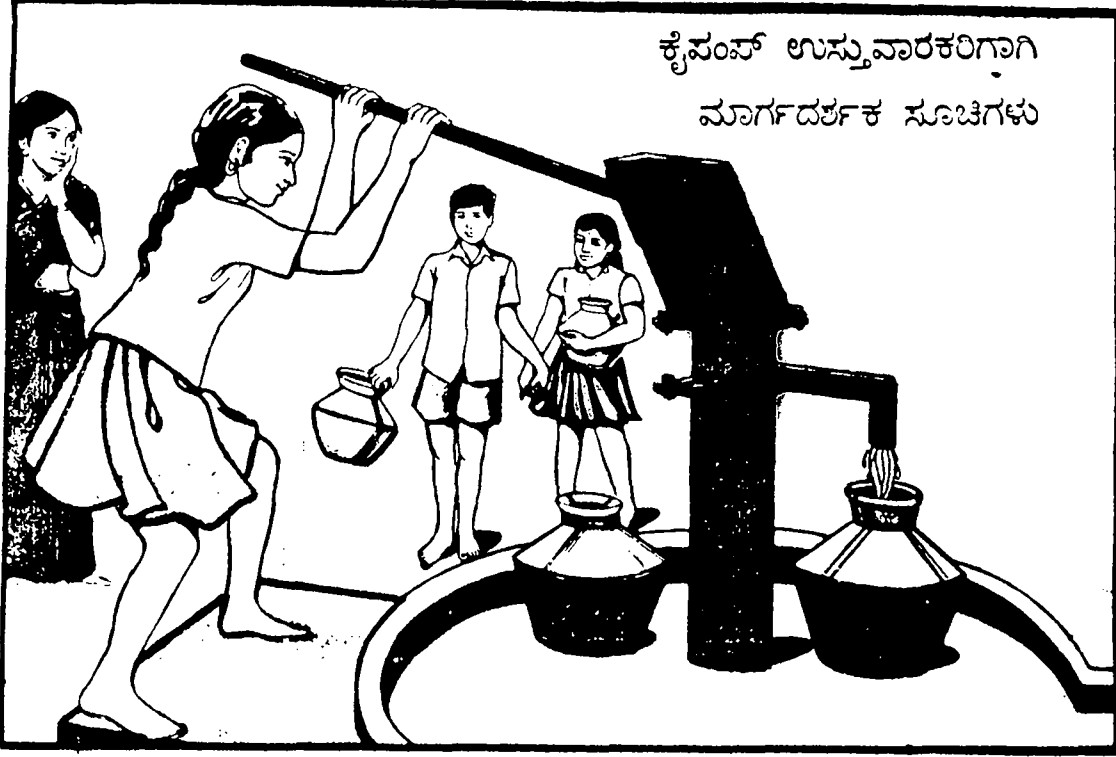
Page 49 contains a short questionnaire, to be answered by the trainees at the end of their training programme. These questions should also be translated by you, and filled in on page 49 of the 'Master Flipchart', from which the trainees will copy them down. They will use pages 49 and 50 of their Flipcharts for the questions and their answers.

TEXT FOR FLIPCHART FOR HAND-PUMP CARETAKER TRAINING



Annexure: VIII

HAND PUMP CARETAKERS MANUAL.



Front Cover.



GUIDELINES FOR HAND PUMP CARETAKERS.

The Governments in India have planned schemes to solve Drinking water problems (shortage) in Karnataka and other States. In Karnataka almost all Districts and Taluks have borewells fitted with Hand Pumps, and people are happy with the availability of Drinking Water. Each pump provides for an average 250 families and people everyday use Hand Pumps. Since water is pumped out by the Hand Pump from a depth of 200', also due to its constant use, however strong, it has to be maintained properly by taking care.

WAYS FOR TAKING CARE OF HAND PUMPS :

In our country many Hand Pumps are not in use due to improper maintenance. To solve this problem P.H.E. has come forward with a maintenance system involving voluntary appointed caretakers looking after the pump in their own village

Hand Pump caretakers have been appointed for maintenance and servicing whenever necessary. He will guard the Hand Pump. He will ensure proper functioning of the pump by regular servicing.

Attached to the Taluk Office is a Mobile Mechanical Team

IN VILLAGES:

For taking care of Hand Pumps, people will select a person whose duties are as follows:-

- 1) To ensure pumps work properly
- 2) Pumps are maintained so as to discharge sufficient water
- 3) Avoid wasting water
- 4) To make people aware of pure and potable water by necessary guidance
- 5) To notify the District Maintenance Authority if any Hand Pump needs repair.

IN TALUKS:

Every Taluk has a mobile maintenance (Team) group. The teams main duties is to repair and install pumps. This team has an Assistant Engineer, three Assistants and a vehicle with tools and spare parts.

ಕೈಪಂಪ್ ಉಸ್ತುವಾರಿಗಾಗಿ ಮಾರ್ಗದರ್ಶಕ ಸೂಚಿಗಳು

ಗ್ರಾಮಗಳಲ್ಲಿ ಕುಡಿಯುವ ನೀರಿನ ಸಮಸ್ಯೆಯನ್ನು ಪರಿಹರಿಸುವ ಸಲುವಾಗಿ ಸರ್ಕಾರವು ಭಾರತ ಕರ್ನಾಟಕ ಹಾಗೂ ಇತರ ರಾಜ್ಯಗಳಲ್ಲಿ ಕುಡಿಯುವ ನೀರಿನ ಪೂರೈಕೆಮಾಡಲು ಯೋಜನೆ ಹಾಕಿಕೊಂಡಿದೆ. ಕರ್ನಾಟಕದ (ಬಹುತೇಕ) ಎಲ್ಲ ಜಿಲ್ಲೆಗಳು ತಾಲ್ಲೂಕುಗಳಲ್ಲಿ ಬಾವಿಗಳನ್ನು ಕೊರೆಯಲಾಗಿದ್ದು, ಕೈ ಪಂಪುಗಳನ್ನು ಅಳವಡಿಸಲಾಗಿದೆ ಮತ್ತು ಗ್ರಾಮಗಳ ಜನತೆಯು ಕುಡಿಯಲು ಯೋಗ್ಯವಾದ ನೀರನ್ನು ಪಡೆದು ಹರ್ಷದಿಂದಿದ್ದಾರೆ. ಜನರು ದಿನವಿಡೀ ಕೈ ಪಂಪುಗಳನ್ನು ಬಳಸುತ್ತಿದ್ದಾರೆ ಮತ್ತು ಒಂದು ಕೈ ಪಂಪು ಸರಾಸರಿ ೨೫೦ ಕುಟುಂಬಗಳಿಗೆ ನೀರನ್ನು ಪೂರೈಸುತ್ತಿದೆ. ನೀರನ್ನು ೨೦೦ ಅಡಿ ಆಳದಿಂದ ಪಂಪು ಮಾಡಿ ತೆಗೆಯುತ್ತಿರುವುದರಿಂದಾಗಿ, ಕೈ ಪಂಪುಗಳು ಎಷ್ಟೇ ಭದ್ರವಾಗಿದ್ದರೂ, ಅವುಗಳನ್ನು ನಿರಂತರವಾಗಿ ಬಳಸುವ ಸಲುವಾಗಿ ಅವುಗಳ ಬಗ್ಗೆ ಜಾಗರೂಕತೆ ವಹಿಸುವ ಸಂರಕ್ಷಿಸುವ ಅಗತ್ಯವಿದೆ.

ಅವುಗಳ ಬಗ್ಗೆ ಜಾಗರೂಕತೆ ಸಂರಕ್ಷಣೆಯ (ನಿರ್ವಹಣೆ) ಮೂರು ಮಾರ್ಗಗಳು:

ನಮ್ಮ ದೇಶದಲ್ಲಿ ಸೂಕ್ತ ಜಾಗರೂಕತೆ ನಿರ್ವಹಣೆಯ ಕೊರತೆಯಿಂದಾಗಿ ಅನೇಕ ಪಂಪುಗಳು ಬಳಕೆಯಿಲ್ಲದೆ ಉಳಿದಿವೆ. ಈ ಸಮಸ್ಯೆಯನ್ನು ಪರಿಹರಿಸಲು ಜನಾರೋಗ್ಯ ಇಂಜಿನಿಯರಿಂಗ್ ಇಲಾಖೆಯು ನಿರ್ದಿಷ್ಟ ಯೋಜನೆಯೊಂದನ್ನು ಆರಂಭಿಸಿದೆ:

ಈ ಯೋಜನೆಗನುಸಾರವಾಗಿ, ಕೈಪಂಪುಗಳ ಉಸ್ತುವಾರಿಗಾಗಿ ವ್ಯಕ್ತಿಯೊಬ್ಬನನ್ನು ನೇಮಕ ಮಾಡಲಾಗಿದೆ ಅಗತ್ಯವಿ ವರೆಗೆ ಆ ವ್ಯಕ್ತಿಯು ಅವುಗಳ ದುರಸ್ತಿ, ಕಾರ್ಯವನ್ನು ಮತ್ತು ಸಮರ್ಪಕವಾಗಿ ಕಾರ್ಯನಿರ್ವಹಿಸಲು, ಸರ್ವಿಸಿಂಗ್ ಸಹಾಯ ಮಾಡಬೇಕು.

ಕೈ ಪಂಪುಗಳನ್ನು ನಿರ್ವಹಿಸುವ ಮೂರು ಮಾರ್ಗಗಳು ಇವು ಜಿಲ್ಲಾ ತಾಲ್ಲೂಕು ಮಟ್ಟಗಳಲ್ಲಿ ಕೈ ಪಂಪುಗಳ ಉಸ್ತುವಾರಿಯ ಸಲುವಾಗಿ ವ್ಯಕ್ತಿಗಳನ್ನು ನೇಮಕ ಮಾಡಲಾಗಿದೆ.

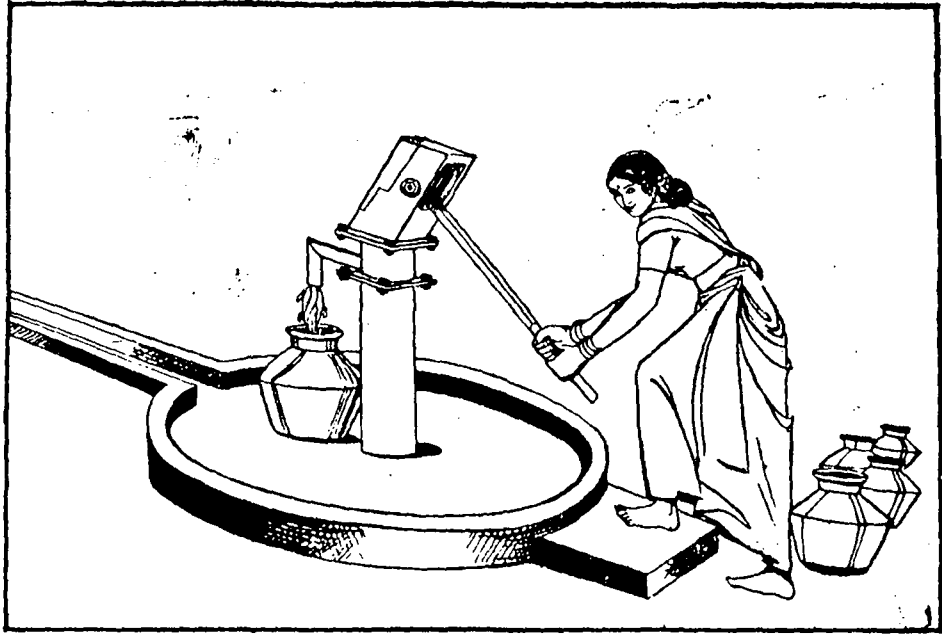
ಗ್ರಾಮಗಳಲ್ಲಿ :-

ಕೈ ಪಂಪುಗಳ ಉಸ್ತುವಾರಿಯ ಸಲುವಾಗಿ ವ್ಯಕ್ತಿ ಯೊಬ್ಬನನ್ನು ಜನರು ಆಯ್ಕೆ ಮಾಡುತ್ತಾರೆ ಆತನ ಕರ್ತವ್ಯಗಳು ಈ ಮುಂದಿನಂತಿವೆ:

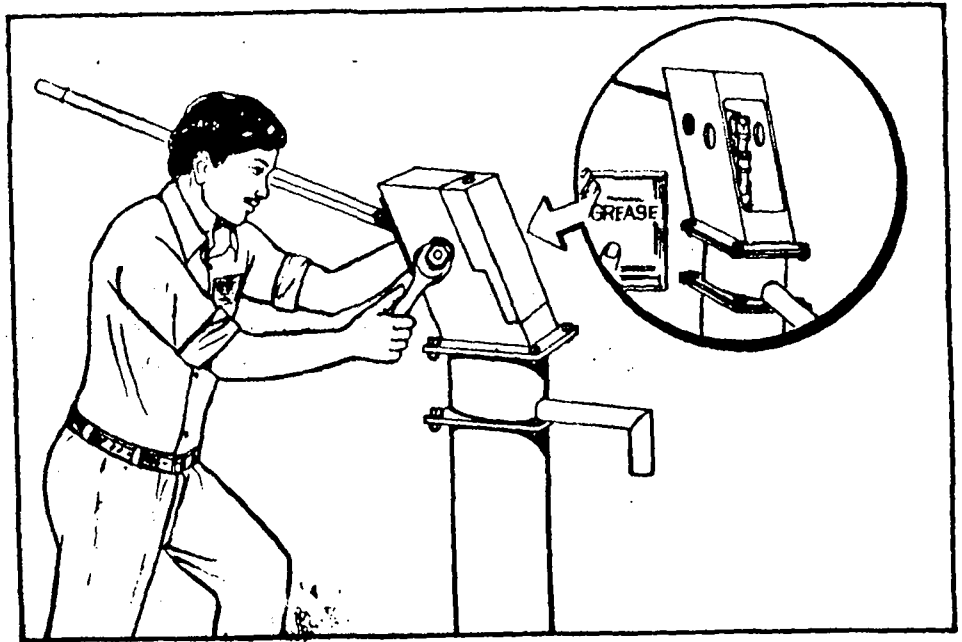
- ೧) ಪಂಪುಗಳು ಚೆನ್ನಾಗಿ ಕಾರ್ಯನಿರ್ವಹಿಸುವಂತೆ ನೋಡಿಕೊಳ್ಳುವುದು.
- ೨) ಸಾಕಷ್ಟು ನೀರನ್ನು ತೆಗೆಯಲು ಪಂಪುಗಳು ಚೆನ್ನಾಗಿ ಕಾರ್ಯನಿರ್ವಹಿಸುವಂತೆ ನೋಡಿಕೊಳ್ಳುವುದು.
- ೩) ನೀರನ್ನು ವ್ಯರ್ಥವಾಗಿ ಬಳಸದಂತೆ ತಡೆಯುವುದು.
- ೪) ಶುದ್ಧ ಹಾಗೂ ಕುಡಿಯಲು ಯೋಗ್ಯವಾದ ನೀರಿನ ಅಗತ್ಯತೆಯ ಬಗ್ಗೆ ಜನರಿಗೆ ತಿಳಿಸುವುದು.
- ೫) ಯಾವುದೇ ದುರಸ್ತಿ ಕಾರ್ಯಗಳು ಇದ್ದರೆ, ಅವುಗಳ ಬಗ್ಗೆ ಜಿಲ್ಲಾ ನಿರ್ವಹಣಾ ಮಂಡಳಿಗೆ ತಿಳಿಸುವುದು.

ತಾಲ್ಲೂಕುಗಳಲ್ಲಿ :-

ಪ್ರತಿಯೊಂದು ತಾಲ್ಲೂಕಿನಲ್ಲಿ, ಸಂಖ್ಯಾತಿ ನಿರ್ವಹಣಾ (ಸುರಕ್ಷಿಸುವ) ತಂಡವೊಂದಿದೆ. ಕೈ ಪಂಪುಗಳ ದುರಸ್ತಿ ಕಾರ್ಯ ಮಾಡುವುದೇ ಅದರ ಪ್ರಮುಖ ಕರ್ತವ್ಯ. ಈ ತಂಡದಲ್ಲಿ, ವಾಹನ ಸೌಕರ್ಯ ಸಹಿತ ಒಬ್ಬ ಸಹಾಯಕ ಇಂಜಿನಿಯರ್ ಹಾಗೂ ಮೂರು ಮಂದಿ ಸಹಾಯಕರುಗಳು ಇರುತ್ತಾರೆ.



3



4

This mobile team has ready facilities essentially for Hand Pump repairs. This team will take up all repairs and if necessary replace wornout parts.

DUTIES OF HAND PUMP CARETAKERS

- 1) Advise villagers the careful & proper use of of Hand Pumps which would enable use for a longer duration.
- 2) Hand Pumps should be serviced once a week
- 3) It is advisable to ensure that water overflowing is drained off either to a garden or nearby drainage.
- 4) To maintain cleanliness around the Hand Pump platforms.
- 5) If a Hand Pump needs repair, the P.H.E. Officer incharge should be informed and details entered in the register.
- 6) To impress people that Borewell water is always better than water from wells, tanks, ponds, lakes and rivers. If caretakers abide by duties mentioned above, all Hand Pumps would satisfactorily work for longer duration; and public would benefit of pure drinking water facility from borewells.



5

ಈ ಸಂವಾರಿ ತಂಡವು ದುರಸ್ತಿ ಸರ್ವಿಸಿಂಗ್‌ಗಾಗಿ ಅವಶ್ಯಕ ಉಪಕರಣಗಳನ್ನು ಸದಾ ಸಿದ್ಧವಾಗಿಟ್ಟುಕೊಂಡಿರುತ್ತದೆ. ಎಲ್ಲ ವಿಧದ ದುರಸ್ತಿ ಕಾರ್ಯಗಳನ್ನು ಕೈಗೊಳ್ಳುವುದು ಹಾಗೂ ಅಗತ್ಯವಿದ್ದಾಗ ಹಳೆಯ ಭಾಗಗಳನ್ನು ಬದಲಾಯಿಸುವುದು ಈ ತಂಡದ ಪ್ರಧಾನ ಕರ್ತವ್ಯ.

ಕೈಪಂಪು ಉಸ್ತುವಾರಿ ಕರ್ತವ್ಯಗಳು (ಉಸ್ತುವಾರಿ)

೧. ಕೈಪಂಪನ್ನು ದೀರ್ಘವಧಿಯವರೆಗೆ ಉಪಯೋಗಿಸಲು ಸಾಧ್ಯವಾಗುವಂತೆ ಅದನ್ನು ಜಾಗ್ರತಿಯಿಂದ ಹಾಗೂ ಯೋಗ್ಯ ರೀತಿಯಿಂದ ಉಪಯೋಗಿಸಲು ಗ್ರಾಮೀಣ ಜನತೆಗೆ ಸಲಹೆ ನೀಡುವುದು.
೨. ವಾರಕೊಮ್ಮೆ ಪಂಪನ್ನು ಸರ್ವಿಸಿಂಗ್ ಮಾಡುವುದು.
೩. ತುಂಬಿ ಹರಿದ ಬೆಲ್ಲದ ನೀರನ್ನು ಸಮೀಪದಲ್ಲಿರುವ ತೋಟಕ್ಕೆ ಉಪಯೋಗಿಸುವಂತೆ ಅಥವಾ ಒಳಚರಂಡಿಗೆ ಹಾಯಿಸುವಂತೆ ನೋಡಿಕೊಳ್ಳುವುದು.
೪. ಪಂಪಿನ ಸುತ್ತಮುತ್ತಲ ಸ್ಥಳಗಳನ್ನು ಸ್ವಚ್ಛವಾಗಿಡುವುದು.
೫. ಪಂಪನ್ನು ದುರಸ್ತಿ ಮಾಡಬೇಕಾದ ಸಂದರ್ಭದಲ್ಲಿ ಅದರ ಮೇಲ್ವಿಚಾರಣೆಯನ್ನು ಹೊಂದಿರುವ ಅಧಿಕಾರಿಯವರಿಗೆ ತಿಳಿಸುವುದು ಹಾಗೂ ರಿಪೆಸ್ಟರ್‌ನಲ್ಲಿ ಸಹ ಬರದಿರುವುದು.
೬. ಕೈಪಂಪಿನಿಂದ ಪಡೆದ ನೀರು ನದಿ, ಸರೋವರ ಹಾಗೂ ಬಾವಿಯಿಂದ ಪಡೆದ ನೀರಿಗಿಂತ ಶುದ್ಧವಾಗಿರುತ್ತದೆಂಬ ಬಗ್ಗೆ ಜನರಿಗೆ ಸಲಹೆ ಕೊಡುವುದು. ಕೈಪಂಪು ಉಸ್ತುವಾರಿಗಳಿಗೆ ಮೇಲೆ ವಿವರಿಸಿದಂಥ ಕರ್ತವ್ಯಗಳನ್ನು ಸಮರ್ಪಕವಾಗಿ ಅನುಸರಿಸಿಕೊಂಡು ಹೋದರೆ ಕೈಪಂಪು ಸಮರ್ಪಕವಾಗಿ ಕಾರ್ಯನಿರ್ವಹಿಸುತ್ತದೆ. ಹಾಗೂ ಕುಟುಂಬಗಳು ಶುದ್ಧವಾದ ಮತ್ತು ಕುಡಿಯಲು ಯೋಗ್ಯವಾದ ನೀರಿನ ಸೌಲಭ್ಯವನ್ನು ಪಡೆಯುತ್ತವೆ.

6

1) Upper portion of the Pump:- This is visible above ground level consisting of HANDLE, AXIE and CHAMBER.

2) CYLINDER:- This is below water level. Piston and valves are connected inside the cylinder. Enables water to be lifted when the pump is in use, the piston is moved up & down.

3) CONNECTING ROD:- Connects the handle and Piston it is activated. When the handle is pressed down.

4) PIPE :- Water from the cylinder flows into the pumps upper portion through this pipe.

PLEASE SEE PICTURE

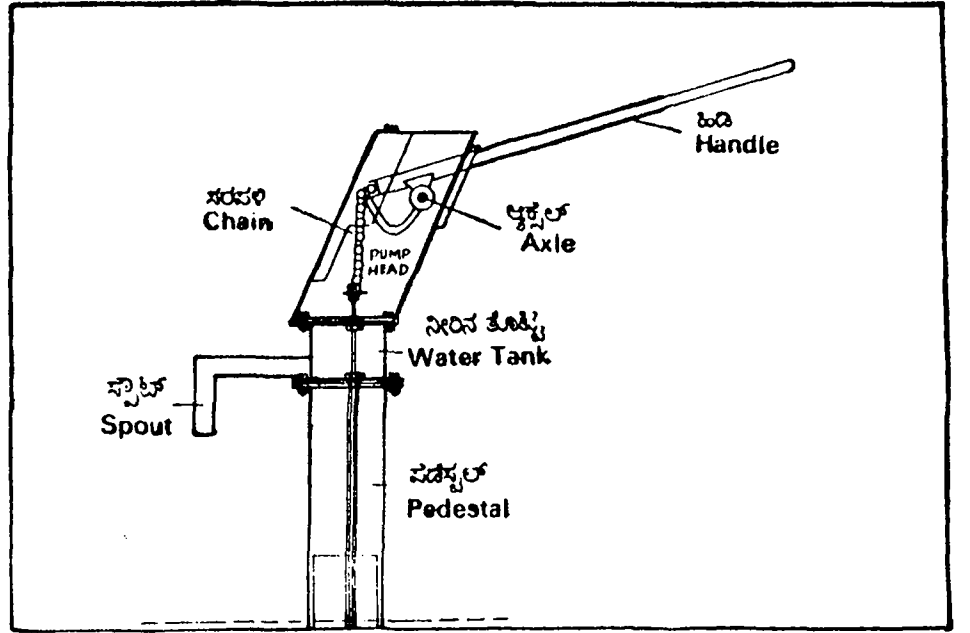
೧. ಪಂಪಿನ ಮೇಲ್ಭಾಗ :—ಇದು ನೆಲದಿಂದ ಮೇಲ್ಗಡೆ ಕಾಣುವಂತಿರಬೇಕು. ಓಡಿ, ಅಚ್ಚು (ಅಕ್ಸೆಲ್) ಹಾಗೂ ಪರಿಣಕಗಳನ್ನು ಇದು ಒಳಗೊಂಡಿರುತ್ತದೆ.

೨. ಸಿಲಿಂಡರು :—ಇದು ಬಾವಿಯ ನೀರಿನ ಕೆಳಗಡೆಯಲ್ಲಿರುತ್ತದೆ. ಸಿಲಿಂಡರಿನ ಒಳಗಡೆಗೆ ಒಪ್ಪನ್, ಪಾಲ್ಕಗಳ ಸಂಪರ್ಕಗಳಿರುತ್ತವೆ. ಅದನ್ನು ಉಪಯೋಗಿಸುತ್ತಿರುವಾಗ, ಒಪ್ಪನ್ನು ಮೇಲೆ ಕೆಳಗೆ ಚಲಿಸಿ ನೀರನ್ನು ಎತ್ತುತ್ತದೆ.

೩. ಜೋಡಣೆ ಕಂಬ :—ಇದು ಓಡಿ ಹಾಗೂ ಒಪ್ಪನ್‌ನನ್ನು ಜೋಡಿಸುತ್ತದೆ. ಓಡಿಕೆಯನ್ನು ಒತ್ತಿದಾಗ ಒಪ್ಪನ್ ಕಾರ್ಯಾರಂಭ ಮಾಡುತ್ತದೆ.

೪. ಪೈಪ್ :—ಈ ಪೈಪಿನ ಪೂರ್ಣಕ ಸಿಲಿಂಡರಿನೊಳಗಿಂದ ನೀರು ಹರಿಸಿನ ಮೇಲ್ಭಾಗಕ್ಕೆ ಬರುತ್ತದೆ.

ದಮುಮೆಟ್ಟು ಚಿತ್ರವನ್ನು ನೋಡಿ :



INDIA MARK - II : IIInd GROUP OF HAND PUMPS NOW USED
IN KARNATAKA :-

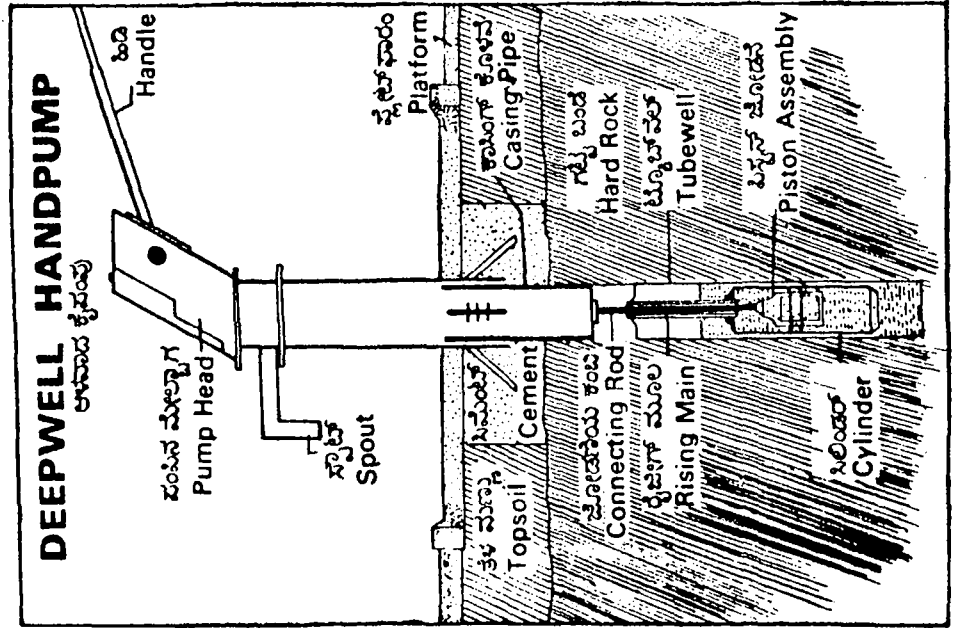
There are three portions,

- 1) Upper portion of the Pump :- consisting of Handle, Axle and Chain.
- 2) Water Tank :- Devised for continuous flow of water with out loss.
- 3) Pedestal :- This holds the upper portion of the Pump & Supports the water tank.

ಇಂಡಿಯಾ ಮಾರ್ಕ್-೨ : ಕರ್ನಾಟಕದಲ್ಲಿ ಈಗ ಬಳಕೆಯಲ್ಲಿರುವ IIನೇ ಗುಂಪಿನ ಕೈ ಪಂಪು :-

ಇದು ಮೂರು ಭಾಗಗಳನ್ನೊಳಗೊಂಡಿರುತ್ತದೆ.

೧. ಪಂಪಿನ ಮೇಲ್ಭಾಗ :- ಇದು ಓಡಿ, ಆಚ್ಚು ಮತ್ತು ಸರಬರಾಜನ್ನು ಒಳಗೊಂಡಿರುತ್ತದೆ.
೨. ನೀರಿನ ತೊಟ್ಟಿ :- ಪೋಲಿಲಾಗಪಂತ ನೀರನ್ನು ನಿರಂತರವಾಗಿ ಪರಿಯಿಸುವುದಕ್ಕಾಗಿ ಇದನ್ನು ಅಳವಡಿಸಲಾಗಿದೆ.
೩. ಆಧಾರ ಒರ (ಪಡೆಸ್ಪಲ್) :- ಇದು ಪಂಪಿನ ಮೇಲ್ಭಾಗ ಹಾಗೂ ನೀರಿನ ತೊಟ್ಟಿಯನ್ನು ಆದರಿಸುತ್ತದೆ.



PLEASE SEE PICTURE :

DIRECTIONS FOR USE AND MAINTENANCE OF HAND PUMPS :

Though a Hand Pump is strong enough, it should be maintained well for proper working also for longer duration. Hence Caretakers should safeguard the pump and its surroundings.

DIRECTIONS TO SAFEGUARD THE HAND PUMP :

Whiel conducting regular weekly servicing of Hand Pumps, the caretaker should ensure the following points:

- 1) Axle Bolt and nuts are tight.
- 2) All 8 flange bolts around water tank is properly tightened and provided with checknuts.
- 3) Clean top portion inside the check chain and chainbolt, clean excess water drain and platform, also check platform for damage to concrete.

We should not expect a Hand Pump Caretaker to attend to all Technical repairs. It is the responsibility of the District Board. It is enough if the Caretaker intimate the Board regarding defects and repairs.

PROPER METHODS TO USE HAND PUMPS :

The Caretaker In-charge of the Hand Pump should ensure its proper use by the people.

ಮನುಷ್ಯನು ಬೆಕ್ಕವನ್ನು ನೋಡಿ :

ಕೈಪಂಪನ್ನು ಉಪಯೋಗಿಸುವ ಹಾಗೂ ನಿರ್ವಹಿಸುವ ಮಾರ್ಗಗಳು :

ಕೈಪಂಪು ಎಷ್ಟೇ ಬಲವಾಗಿದ್ದರೂ ಸಹ, ದೀರ್ಘಾವಧಿ ಕಾರ್ಯಾಚರಣೆ/ಕೆಲಸದ ಸಲುವಾಗಿ ಅದನ್ನು ಜಿಗ್ಗಾಗಿ ಸಂರಕ್ಷಿಸಬೇಕು ಎಂದು. ಕೈಪಂಪನ್ನು ಉಸ್ತುವಾರಿಗನು ಆಧಾರಶೀಲ (ಪೆಡೆಸ್ಟಲ್)ನ್ನು ಸಂರಕ್ಷಿಸಬೇಕು.

ಸುರಕ್ಷಿತವಾಗಿ ಕೈಪಂಪನ್ನು ಕಾಪಾಡುವ ಮಾರ್ಗಗಳು :

ಪ್ರತಿವಾರವು ಕೈಪಂಪಿನ ಸರ್ವಿಸಿಂಗ್ ಮಾಡುವಾಗ ಕೆಳಕಂಡ ಅಂಶಗಳನ್ನು ಕೈಪಂಪು ಉಸ್ತುವಾರಿಗನು ಗಮನಿಸಬೇಕು.

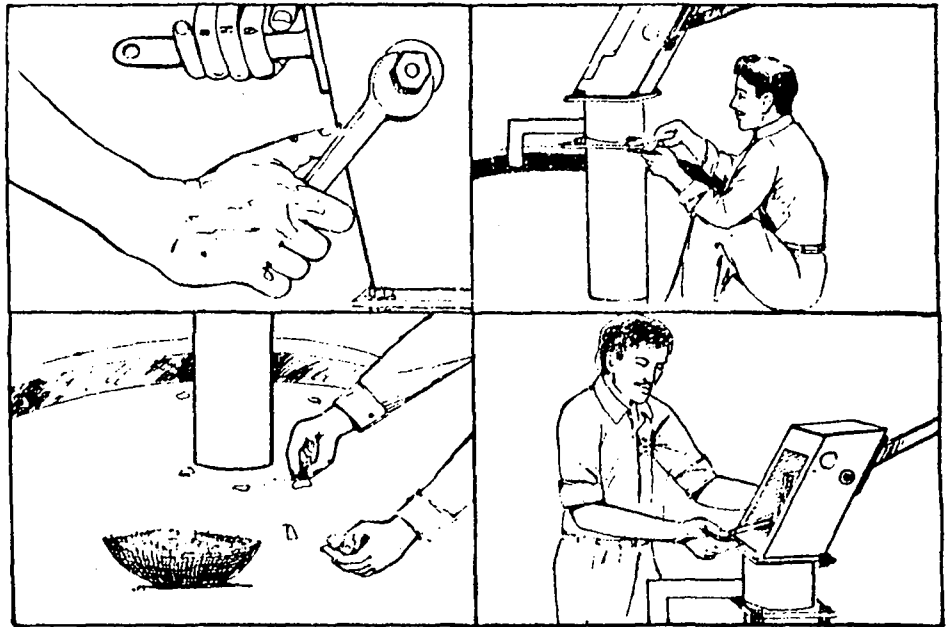
೧. ಅಚ್ಚಿನ ಬೋಲ್ಡ್ ಸಾಕಷ್ಟು ಬಿಗಿಯಾಗಿರುವಂತೆ ನೋಡುವುದು.

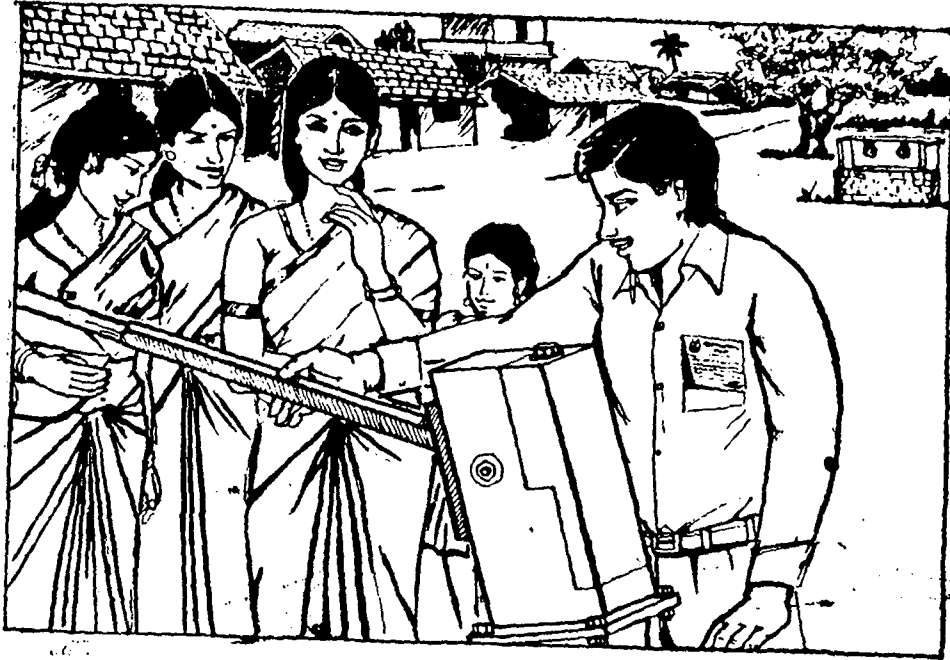
೨. ನೀರಿನ ಟ್ಯಾಂಕು ಮತ್ತು ಆಧಾರ ಶೀಲ (ಪೆಡೆಸ್ಟಲ್) ಮಧ್ಯೆ ಸಂಪರ್ಕ ಕಲ್ಪಿಸುವ ಕಂಬಿ ಸಾಕಷ್ಟು ಗಟ್ಟಿಯಾಗಿದೆಯೇ ಎಂಬುದನ್ನು ಪರಿಶೀಲಿಸುವುದು.

೩. ಆಧಾರ ಶೀಲವು ಸಾಕಷ್ಟು ಗಟ್ಟಿಯಾಗಿರುವುದರ ಜೊತೆಗೆ ಧೂಳಿ ತುಂಬಿದ ಕಾರಣದಿಂದ ಕೊಳವೆಯ ಬಾಯಿಯು ಕಟ್ಟಿಕೊಂಡಿಲ್ಲವೆಂಬುದನ್ನು ನೋಡುವುದು. ಕೈಪಂಪಿನ ತಾಂತ್ರಿಕ/ಯಾಂತ್ರಿಕ ದುರಸ್ತಿಗಳನ್ನು ಕೈಪಂಪು ಉಸ್ತುವಾರಿಗನೇ ಮಾಡಬೇಕೆಂದು ನಿರೀಕ್ಷಿಸುವುದು. ಅದು ಜಿಲ್ಲಾ ಮಂಡಳಿಯ ಹೊಣೆಗಾರಿಕೆ. ಕೈಪಂಪು ಉಸ್ತುವಾರಿಗನು ಅದರ ದೋಷ/ದುರಸ್ತಿಗಳ ಬಗೆಗೆ ಮಂಡಳಿಗೆ ಸೂಚಿಸಿದರೆ ಸಾಕು.

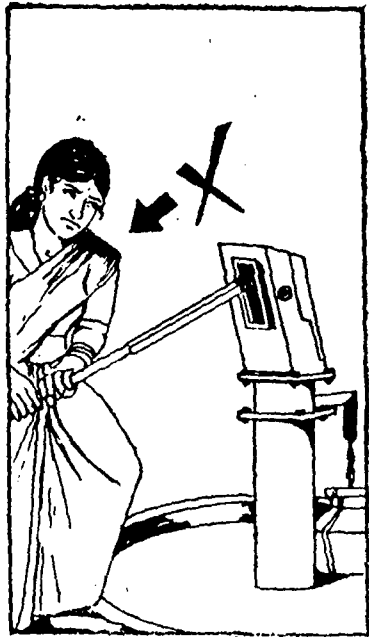
ಕೈ ಪಂಪನ್ನು ಬಳಸುವ ಸೂಕ್ತ ವಿಧಾನಗಳು :

ಜನರು ಕೈಪಂಪನ್ನು ಸೂಕ್ತ ರೀತಿಯಲ್ಲಿ ಬಳಸುತ್ತಿದ್ದಾರೆನೋ ಎಂಬುದನ್ನು ಕೈ ಪಂಪು ಉಸ್ತುವಾರಿಗರು ಪರಿಶೀಲಿಸಬೇಕು.

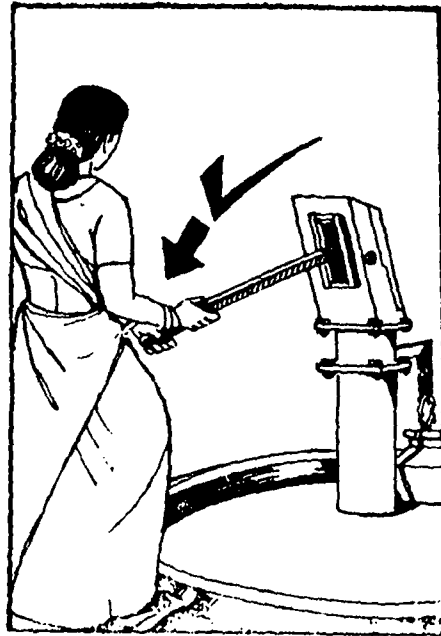




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- 1) The person using the Hand Pump should stand behind it to pump out the water as it is difficult to use from the side.
- 2) The Handle should be pressed down completely then allowed to lift else it may damage other parts.
- 3) The Handle is allowed to return to the original position slowly in order to avoid damage to other parts.

DRAINAGE :-

Water should not stagnate around the Hand Pump. If stagnation is allowed, Mosquitoes causing Malaria and other diseases would breed. Therefore to avoid this a canal of minimum 25' length should be constructed leading to a plot where Vegetables or Fruits could be grown or the water made to flow into a closed drainage. It is better to construct a small drainage pit.

CONSTRUCTION OF DRAINAGE PIT :-

A 6' x 6' length and 4' deep pit is to be constructed 25' away from the Hand Pump. It should be filled with broken Brick pieces which absorbs water easily and quickly. Whenever necessary another pit can be made and used.

೧. ಪಂಪೆ ಮಾಡುವಾಗ ಪಂಪೆ ಮಾಡುವವರು ಕೈ ಪಂಪಿನ ಹಿಂಭಾಗದ ಸಿಂಟರ್‌ಬೇಕು, ಅದರ ಹಿಡಿಕೆಯನ್ನು ಅಕ್ಕ ಪಕ್ಕಗಳಿಂದ ಒತ್ತುವುದು ಕಷ್ಟಕರ.

೨. ಪಂಪಿನ ಹಿಡಿಯನ್ನು ಪೂರ್ತಿಯಾಗಿ ಅದಮಬೇಕು ಮತ್ತು ಎತ್ತಬೇಕು. ಇಲ್ಲದಿದ್ದರೆ ಪಂಪಿನ ಭಾಗಗಳಿಗೆ ಹಾನಿಯಾಗಬಹುದು.

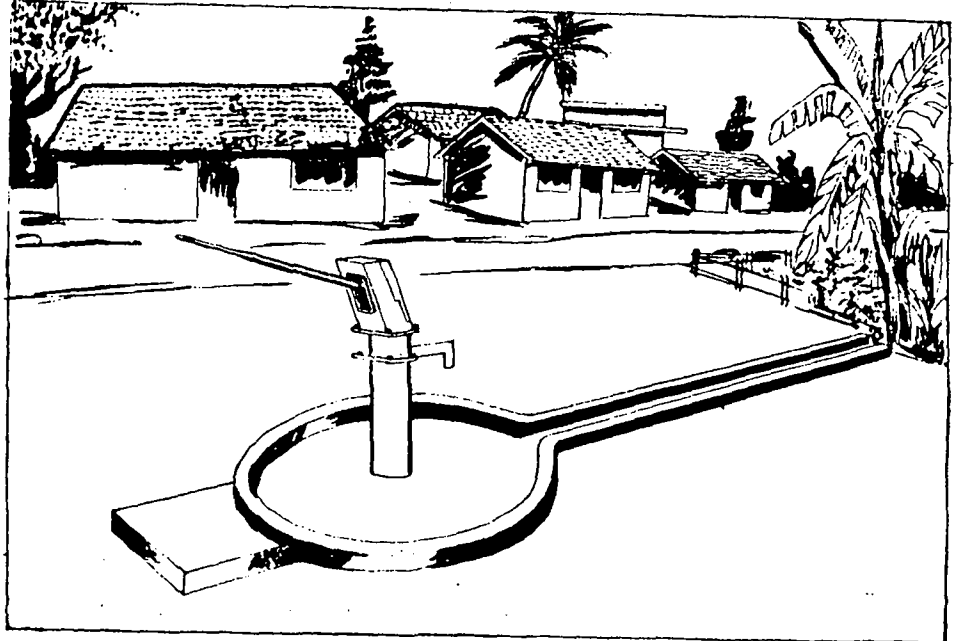
೩. ಪಂಪನ್ನು ಬಳಸಿದ ಮೇಲೆ ಅದರ ಭಾಗಗಳಿಗೆ ಯಾವುದೇ ಧಕ್ಕೆ ಆಗುವುದನ್ನು ತಪ್ಪಿಸಲು ಅದನ್ನು ಸಾಮಾನ್ಯ ಸ್ಥಿತಿಗೆ ತರುವಲ್ಲಿ ಪಂಪಿನ ಹಿಡಿಕೆಯನ್ನು ಸಾವಕಾಶವಾಗಿ ಬಿಡಬೇಕು.

ಚರಂಡಿ :-

ಕೈ ಪಂಪಿನ ಸುತ್ತಲೂ ನೀರು ನಿಲ್ಲಕೂಡದು. ಹಾಗೆ ನಂತರ ಕೊಳಚೆ ಉಂಟಾಗಿ ಆ ಮೂಲಕ ಮಲೇರಿಯಾ, ಅನೇಕಾಲು ರೋಗಗಳನ್ನು ತರುವ ಸೊಳ್ಳೆಗಳು ಹುಟ್ಟಿಕೊಳ್ಳಬಹುದು. ಅದುವರಿಂದ ಅಲ್ಲಿ ಕಾಯಿಪಲ್ಲಿ ಹಗ್ಗಿನ ತೋಟಕ್ಕೆ ನೀರಾವರಿ ಮಾಡಿಕೊಳ್ಳಲು ಸಾಧ್ಯವಿರುವಂತೆ ಕೆಂಪ್ಪವಕ್ರ ಅದರಿಂದ ೨೫ ಅಡಿ ಉದ್ದದ ಚರಂಡಿ/ನೀರು ಕಾಲುವೆಯನ್ನು ನಿರ್ಮಿಸಬೇಕು. ಅದನ್ನು ಮುಚ್ಚಿದ ಚರಂಡಿಗೆ ಸೇರಿಸುವ ವ್ಯವಸ್ಥೆ ಮಾಡಬೇಕು. ಸಣ್ಣ ಚರಂಡಿ ಹೊಂಡವನ್ನು ನಿರ್ಮಿಸುವುದು ಉತ್ತಮ.

ಚರಂಡಿ ಹೊಂಡದ ನಿರ್ಮಾಣ :-

ಕೈ ಪಂಪಿನ ೨೫ ಅಡಿ ಅಂತರದಲ್ಲಿ ಕನಪ್ಪ ೬'X೬' ಚಚ್ಚೊರದ ಮತ್ತು ೪ ಅಡಿ ಅಳದ ಹೊಂಡವನ್ನು ನಿರ್ಮಿಸಬೇಕು. ಟೀಫ್‌ವಾಗಿ ಮತ್ತು ಸುಲಭವಾಗಿ ನೀರು ಇಂಗುವಂತೆ ಅದನ್ನು ಇಟ್ಟಿಗೆ ಚೂರುಗಳಿಂದ ತುಂಬಬೇಕು. ಅಗತ್ಯವಿದ್ದರೆ, ಮತ್ತೊಂದು ಹೊಂಡವನ್ನು ಕೂಡ ಬಳಸಿಕೊಳ್ಳಬಹುದು.



HAND PUMP LOG SHEET AND REPORTING POSTCARDS :-

The Hand Pump Carataker must note two important Items:-

- 1) Hand Pump Log-Sheet
- 2) Reporting Postcards.

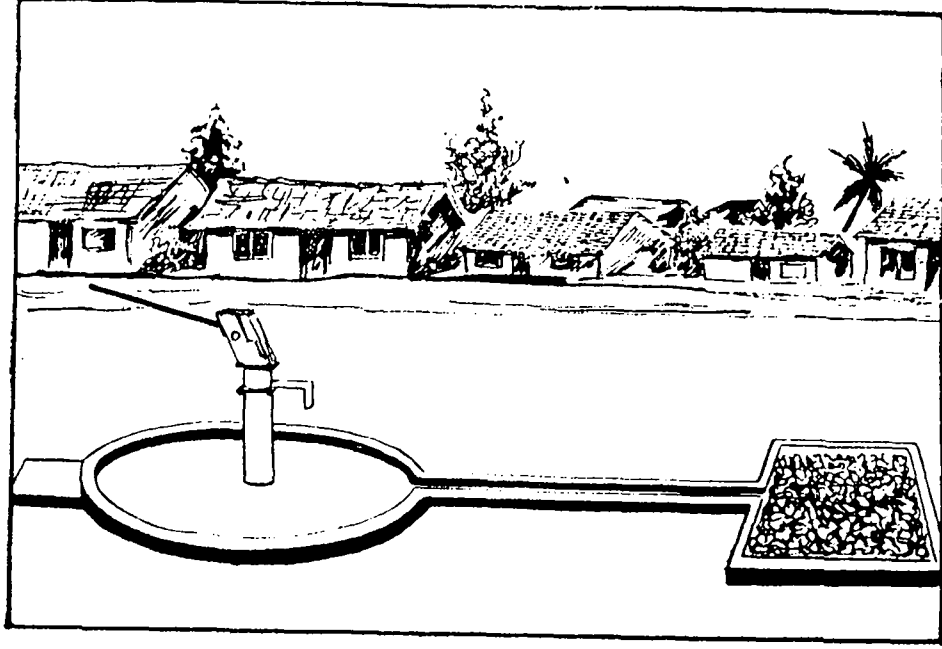
REMARKS REGISTER:

In this register all facts and break downs is entered. This register gives information about the Hand Pumps and Borewell details. The Hand Pumps caretaker will have to take the signatures of different departments inclusive of the PHE and Administration Officials in addition to attending the details notified. Similar registers are kept and maintained at all Taluk Centres also PHE departments.

INFORMATION LETTERS :-

The Hand Pump Supervisor has to report immediately to the taluk maintainance team regarding defects and damages of Hand Pumps. The team should provide repairs to all damages. Regarding repairs/damages he has to send information letters to District Development Office with a copy to the Assistant Executive Engineer, PHE Sub Division.

PLEASE SEE PICTURE:



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ಕವಾ ರಿಜಿಸ್ಟರ್ ಮತ್ತು ಮಾಹಿತಿ (ಜ್ಞಾಪನ) ಪತ್ರ :-

ಕೈಪಂಪು ಉಸ್ತುವಾರಿಗಳು ಎರಡು ಶ್ರದ್ಧಾನ್ ಕೆಲಸಗಳನ್ನು ಗುರುತಿಸಬೇಕು.

೧. ಕೈಪಂಪಿಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ಪರಾಗಳ ರಿಜಿಸ್ಟರ್.
೨. ಮಾಹಿತಿ (ಜ್ಞಾಪನ) ಪತ್ರ.

ಪರಾಗ ರಿಜಿಸ್ಟರ್ :

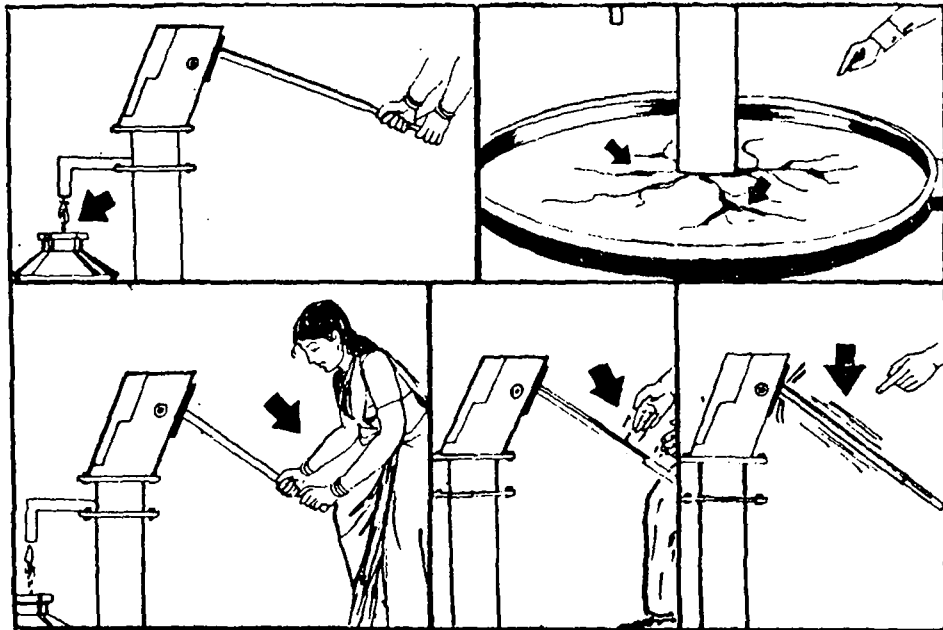
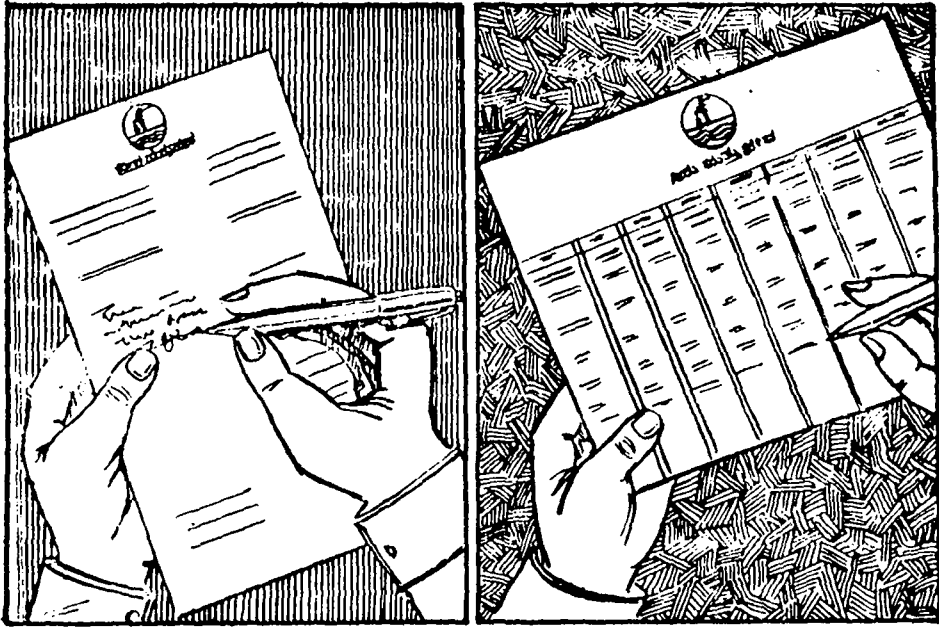
ಈ ರಿಜಿಸ್ಟರಿನಲ್ಲಿ ದಿನನಿತ್ಯದ ಕಾರ್ಯ ವ್ಯವಹಾರಗಳನ್ನು ಗುರುತಿಸಿ ವಾಕಲಾಗುತ್ತದೆ.

ಈ ರಿಜಿಸ್ಟರ್ ಕೈಪಂಪಿನ ಎಲ್ಲ ವಿವರಗಳನ್ನು ಒದಗಿಸುವುದಲ್ಲದೆ ಅದರ ಬಳಕೆಯ ಸಂಬಂಧದಲ್ಲಿ ಮಾರ್ಗದರ್ಶನವನ್ನು ನೀಡುತ್ತದೆ. ಎಲ್ಲ ವಿವರಗಳಿಗೂ ಗಮನ ನೀಡುವುದಲ್ಲದೆ, ಕೈಪಂಪು ಉಸ್ತುವಾರಿಗಳು ಆರೋಗ್ಯ ಮತ್ತು ನೀರು ಸರಬರಾಜು ಮಂಡಳಿ ಮೊದಲಾದ ವಿನಯ ಇಲಾಖೆಗಳಿಂದ ಭೇಟಿ ನೀಡಿದ ಅಧಿಕಾರಿಗಳ ಸಲಹೆ/ಪರಾಗಳನ್ನು ಪಡೆಯಬೇಕು. ಇದೇ ರೀತಿಯ ರಿಜಿಸ್ಟರ್‌ಗಳನ್ನು ತಾಲ್ಲೂಕು ಕೇಂದ್ರಗಳಲ್ಲಿ ಮತ್ತು ಜನಾರೋಗ್ಯ ಇಂಜಿನಿಯರಿಂಗ್ ಇಲಾಖೆಯಲ್ಲಿ ಇಡಲಾಗುತ್ತದೆ/ನಿರ್ವಹಿಸಲಾಗುತ್ತದೆ.

ಮಾಹಿತಿ (ಜ್ಞಾಪನ) ಪತ್ರ :

ಕೈಪಂಪಿನ ಯಶಸ್ಸು ಕಾರ್ಯನಿರ್ವಹಣೆಗಾಗಿ ಕೈಪಂಪು ಉಸ್ತುವಾರಿಗಳು ಅದರ ದೋಷ, ಹಾನಿ/ದುರಸ್ತಿಗಳನ್ನು ಕೂಡಲೇ ತಾಲ್ಲೂಕು ನಿರ್ವಹಣಾ ತಂಡಕ್ಕೆ ತಿಳಿಸಬೇಕು, ತಂಡವು ಎಲ್ಲ ರೀತಿಯ ದುರಸ್ತಿಗಳನ್ನು ಒದಗಿಸುವುದು. ದುರಸ್ತಿ/ಹಾನಿ ಸಂಬಂಧಿಸಿದಂತೆ ಮಾಹಿತಿ ಪತ್ರವನ್ನು ಜಿಲ್ಲಾ ಅಭಿವೃದ್ಧಿ ಕಚೇರಿಗೆ ಕಳುಹಿಸಬೇಕು ಹಾಗೂ ಅವರ ಪ್ರತಿಯನ್ನು ನೀರು ಸರಬರಾಜು ಮತ್ತು ಒಳಚರಂಡಿ ಮಂಡಳಿಗೆ ಕಳುಹಿಸಬೇಕು.

118 ದಯವಿಟ್ಟು ಚಿತ್ರವನ್ನು ನೋಡಿ :



POINTS TO BE NOTED ON THE HAND PUMP REPORTING POSTCARD

On the front short notes should be written about the Hand Pump which has gone out of order and He/She must inform the Concerned Staff if the following defects are found.

- 1) If sufficient water is not coming out of the pump:

Reasons-Cylinder defective/damaged. If the handle is to be operated 20 times to fill one pot of water.

- 2) If the Hand Pump is loose at the foundation or Cracks noticed in the Cement (concrete) base:

As a result of this pure water will get contaminated due to seepage of used dirty water.

- 3) Handle suddenly stalls:

This is due to dirt and other obstructions in the cylinder or to low water level in borewell

- 4) Handle not returning to normal position:

This is due to jammed connecting Rod or obstructions in the cylinder.

- 5) Loose Handle :

Please see picture:

ಕೃಷಿ ಮತ್ತು ಉತ್ಪಾದಕ/ವಿವೇಕವಹಕ ಮುದ್ರಿಸಾರಕರು ಗಮನಿಸಬೇಕಾದ ಅಂಶಗಳು :

ಹಾನಿಗೊಳಗಾದ ಪಂಚಿನ ಬಗ್ಗೆ ಸಂಕ್ಷಿಪ್ತ ಟಿಪ್ಪಣಿಯನ್ನು ಬರೆದಿಡಬೇಕು, ಅವನು/ಅವಳು ಕೃಷಿಪಂಚಿನ ಆಧಾರ ಪೀಠದಲ್ಲಿ ಕೆಳಕಂಡ ಲಕ್ಷಣಗಳನ್ನು ಗಮನಿಸಿದ್ದರೆ ಕೂಡಲೆ ಅದನ್ನು ಸಿಬ್ಬಂದಿಗಳಿಗೆ ತಿಳಿಸಬೇಕು.

೧. ಸಾಕಷ್ಟು ನೀರು ಪಂಪ್‌ನ ಮೂಲಕ ಬಂದಿರೆ :

ಸಿಲಿಂಡರ್‌ನಲ್ಲಿಯೇ ದೋಷ ಉಂಟಾಗಿದೆ/ಹಾನಿಯಾಗಿದೆ. ಸಾಮಾನ್ಯವಾಗಿ ಒಂದು ಬಿಂದಿಗೆ ನೀರು ತುಂಬಬೇಕಾದರೆ ಓಡಿಯನ್ನು ೨೦ ಬಾರಿ ಅನುಮಬೇಕು.

೨. ಕೃಷಿಪಂಪ್ (ಕೆಳಮುಖವಾಗಿ) ಸ್ವಲ್ಪ ಸಡಿಲವಾಗಿದ್ದರೆ ಅಥವಾ ಕೆಳಗಡೆ ಸಿಮೆಂಟು ಬಿಟ್ಟು ಹೋಗಿದ್ದರೆ :

ಈ ಕಾರಣದಿಂದಾಗಿ ಹೊಲಸು ನೀರು ಓಳಕ್ಕೆ ಇಳಿದು ಕೆಳಗಿರುವ ನೀರನ್ನೆಲ್ಲಾ ಹೊಲಸು ಮಾಡಬಹುದು.

೩. ಓಡಿಯು ಇದ್ದಕ್ಕಿದ್ದಂತೆ ಅಡುಪುಲಾಗದ ಹಾಗೆ ಗಟ್ಟಿಯಾಗುವುದು :

ಒಸ್ಟನ್ (ಒಸ್ಟೆನ್) ಒಳಗೆ ಧೂಳು ಮತ್ತು ಚರ್ಮದ ಚೂರುಗಳು ಸಿಕ್ಕಿಹಾಕಿಕೊಂಡು ತಡೆಯುಂಟಾಗುವುದರಿಂದ ಒಗ್ಗಾಗುತ್ತದೆ.

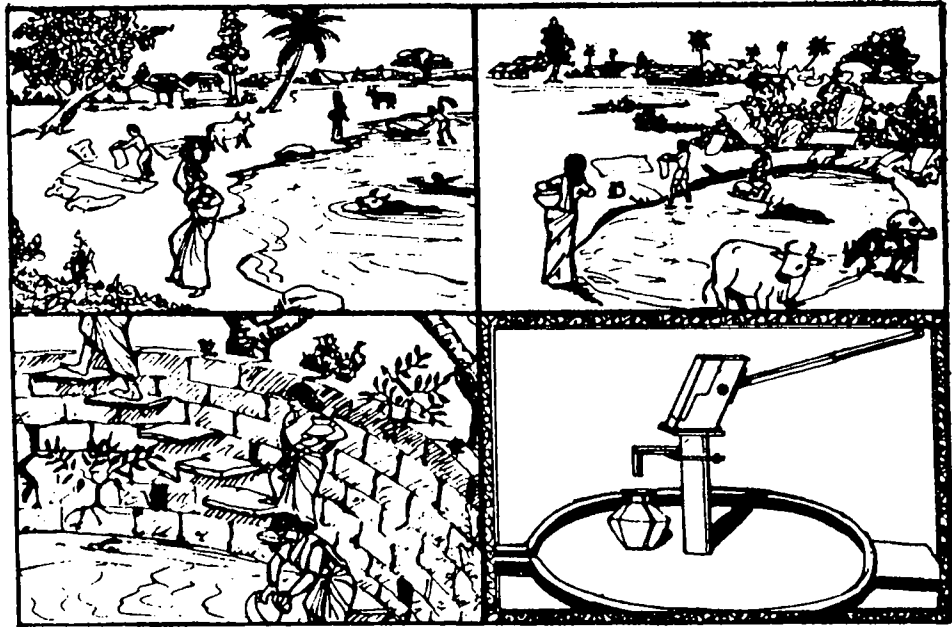
೪. ಓಡಿಯು ಸಾಮಾನ್ಯ ಸ್ಥಿತಿಗೆ ಬಾರದೇ ಇದ್ದಾಗ :

ಮೋಡರ್ನ್ ಕಂಪಿಯಲ್ಲಿ ಸೀಳು ಬಿಟ್ಟಿದ್ದರೆ ಮತ್ತು ಒಸ್ಟನ್‌ನಲ್ಲಿ ಅಡಚಣೆ ಇದ್ದಾಗ ಈ ರೀತಿಯಾಗಬಹುದು.

೫. ಓಡಿಯು ಬಹಳ ಸಡಿಲವಾಗಿದ್ದಾಗ :

ಮುಂದಿಟ್ಟು ಚಿತ್ರವನ್ನು ನೋಡಿ :

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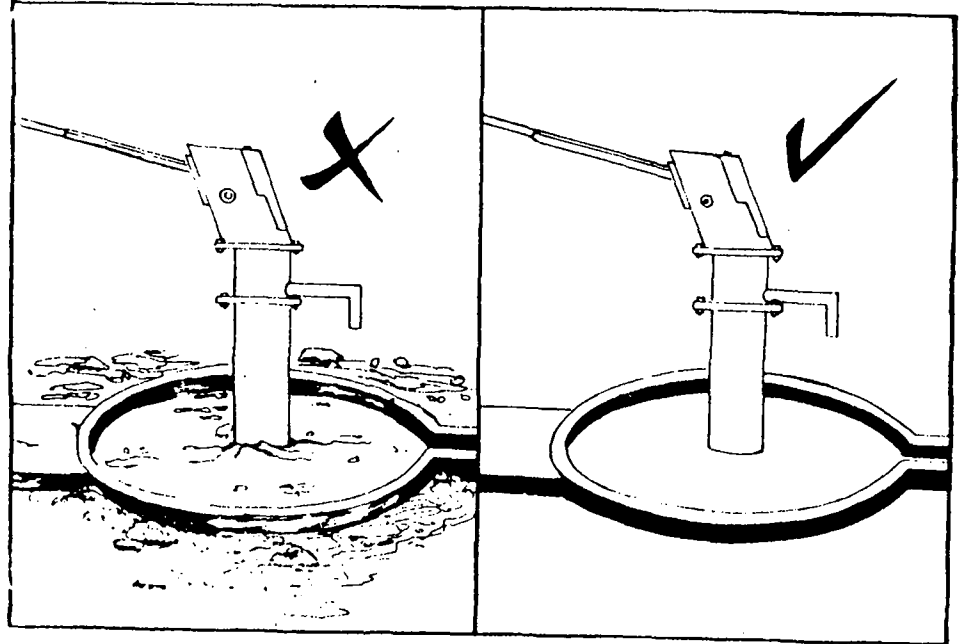


6) Health & Water :

Health mainly depends on pure and potable water. Disease like Cholera, Typhoid, TB, Diarrhoea, Dysentery and Liver Infections spread in villages due to impure water. Therefore to prevent the spread of such diseases pure and potable water must be used. Though water in wells, tanks, rivers and other sources is tasty and appearing to be clean the above disease causing bacteria are always present.

ಆರೋಗ್ಯ ಮತ್ತು ನೀರು :

ನಮ್ಮ ಆರೋಗ್ಯವು ಹೆಚ್ಚಾಗಿ ಶುದ್ಧವಾದ ಮತ್ತು ಕುಡಿಯಲು ಯೋಗ್ಯವಾದ ನೀರನ್ನೇ ಅವಲಂಬಿಸಿದೆ. ಗ್ರಾಮಗಳಲ್ಲಿ ಹರಡಿರುವ ಕಾಲರ, ಟೈಫಾಯಿಡ್, ಕ್ಷಯ, ಡಯೇರಿಯಾ, ಅಮಶಂಕೆ ಮತ್ತು ಯಕೃತ್ತಿನ ಕಾಯಿಲೆಗಳಿಗೆ ಆಶುದ್ಧ ನೀರೇ ಕಾರಣಿ ಇವುಗಳನ್ನು ನಿವಾರಿಸಲು ನಾವು ಶುದ್ಧವಾಗೂ ಕುಡಿಯಲು ಯೋಗ್ಯವಾದ ನೀರನ್ನೇ ಕುಡಿಯಬೇಕು. ಬಾವಿಗಳು ಸರೋವರಗಳು ಮತ್ತು ನದಿಗಳಿಂದ ಪಡೆದ ನೀರಿಗಿಂತ ಕೈಪಂಪಿನಿಂದ ಪಡೆದ ನೀರೇ ಹೆಚ್ಚು ಶುದ್ಧ ಮತ್ತು ಯೋಗ್ಯವಾಗಿರುತ್ತದೆ. ಬಾವಿ ಮುಂತಾದವುಗಳ ನೀರು ರುಚಿಯಾಗಿ, ನೋಡಲು ಶುದ್ಧವಾಗಿದ್ದರೂ ಸಹ, ಮೇಲೆ ಹೇಳಿದ ಕಾಯಿಲೆಗಳನ್ನು ತರುವಂಥ ರೋಗಾಣುಗಳು ಇರಬಹುದು.



PLEASE SEE PICTURE :

Water from an installed Hand Pump will be considered impure if its surroundings are not kept clean. If the Cement/Concrete between the Pump and the Pedestal is not done properly or cracked impure water seeps through, contaminating the water inside the Bore.

ವಯವಿಟ್ಟು ಚಿತ್ರವನ್ನು ನೋಡಿ :

ಕೈವಂಪು ಅಳವಡಿಸಿರುವ ಜಾಗದ ಸುತ್ತಮುತ್ತಲೂ ಸ್ಥಳವನ್ನು ಶುಚಿಯಾಗಿದದ್ದರಿಂದ ಕೈವಂಪಿನಿಂದ ತೆಗೆದುಕೊಂಡ ನೀರನ್ನು ಸಹ ಅಶುದ್ಧವೆಂದು ಪರಿಗಣಿಸಲಾಗುವುದು. ಏಕೆಂದರೆ, ನೆಲ ಮತ್ತು ಅಧಾರಪೀಠದ ನಮವ ಸಿಮೆಂಟನ್ನು ಹಾಕುವ ಕಾರ್ಯವನ್ನು ಸಮರ್ಪಕವಾಗಿ ಮಾಡದಿದ್ದಾಗ ಅಶುದ್ಧ ನೀರು ಒಳಕ್ಕೆ ಇಳಿದು ಒಳಗಿರುವ ನೀರನ್ನೆಲ್ಲಾ ಅಶುದ್ಧ ಮಾಡಬಹುದು.

25



26

PLEASE SEE PICTURE:

For good health, drinking water should be protected, water should be stored in clean vessels and closed with lids as protection from dust and bacteria. Vessels containing water should be kept in a safe place to avoid being spoiled/contaminated by children or domestic animals.

ದಯವಿಟ್ಟು ಚಿತ್ರವನ್ನು ನೋಡಿ :

ಒಳ್ಳೆಯ ಆರೋಗ್ಯಕ್ಕಾಗಿ ಕುಡಿಯುವ ನೀರನ್ನು ಸಂರಕ್ಷಿಸಬೇಕು. ತೊಲೆದು ಶುಚಿ ಮಾಡಿದ ಪ್ರಾತೆಗಳಲ್ಲಿ ನೀರನ್ನು ತುಂಬಿದಬೇಕು ಮತ್ತು ಧೂಳು ಹಾಗೂ ರೋಗಾಣುಗಳೇ ಮುಂತಾದವುಗಳಿಂದ ಸಂರಕ್ಷಿಸಲು ಮುಚ್ಚಿಗಳನ್ನು ಮುಚ್ಚಬೇಕು. ದುಕ್ಕಳು ಮತ್ತು ಸಾಕುವಾಣಿಗಳು ಅಶುದ್ಧ ಮಾಡದಂತೆ ನೀರಿನ ಪಾತ್ರೆಗಳನ್ನು ಸುರಕ್ಷಿತ ಸ್ಥಳದಲ್ಲಿ ಇಡಬೇಕು.

27



28

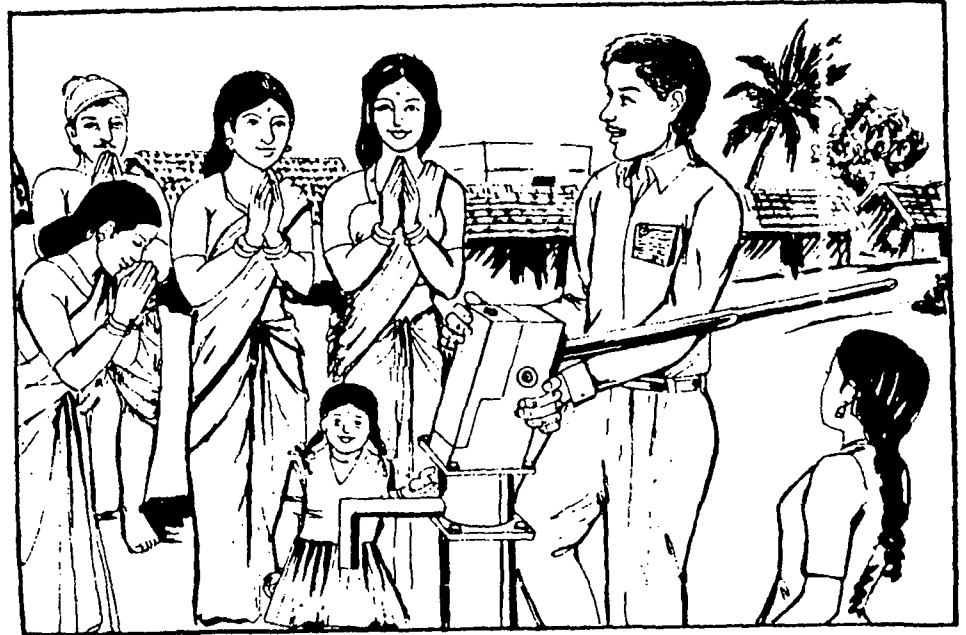
PLEASE SEE PICTURE :

Water must be boiled or Chlorinated before used if its cleanliness or purity is doubted. Water extracted from good Hand Pumps is good and fit for drinking.

ವಯಸ್ಸು ಚಿಕ್ಕವನು ಕೊಂಡು :

ನೀರು ಅಶುದ್ಧವಾಗಿದೆ, ಮೂಲಸಾಧನವು ಕೊರತೆಯಿಂದಾಗಿ ಅಶುದ್ಧ ಕುಡಿಯುವ ನೀರು ಕೊಡುವುದು ಕಷ್ಟವಾಗಿದೆ. ಈ ಸಂದರ್ಭದಲ್ಲಿ ಮಕ್ಕಳಿಗೆ ಕುಡಿಯುವ ನೀರು ಕೊಡುವುದು ಅತ್ಯಂತ ಮುಖ್ಯವಾಗಿದೆ. ಈ ಸಂದರ್ಭದಲ್ಲಿ ಮಕ್ಕಳಿಗೆ ಕುಡಿಯುವ ನೀರು ಕೊಡುವುದು ಅತ್ಯಂತ ಮುಖ್ಯವಾಗಿದೆ.

29



30

If you (Caretaker) diligently performs your duty, villagers will get good and fit water for drinking also they will honour and respect you. You will achieve self-contentement by your honest work.

ಮುಖ್ಯ ಅಧ್ಯಕ್ಷರೇ :

ನೀವು (ಉಪವಿಭಾಗದ) ಕೃಷಿಯನ್ನು ಬಗ್ಗಿಸಿ ನಿಮ್ಮ ಕರ್ತವ್ಯವನ್ನು ಸಮರ್ಪಕವಾಗಿ ನಿರ್ವಹಿಸಿದರೆ, ಗ್ರಾಮದ ಜನತೆಯು, ಒಳ್ಳೆಯ ಶುಭ ವಾತವ ಮತ್ತು ಕುಡಿಯಲು ಯೋಗ್ಯವಾದ ನೀರನ್ನು ಪಡೆಯುತ್ತಾರೆ ಮತ್ತು ನಿಮ್ಮನ್ನು ಗೌರವದಿಂದ ಹಾಗೂ ವಿಶ್ವಾಸದಿಂದ ಕಾಣುತ್ತಾರೆ. ಕರ್ತವ್ಯ ನಿಷ್ಠೆಯಿಂದಲೂ ಆತ್ಮ ತೃಪ್ತಿಯನ್ನು ನೀವು ಪಡೆಯುವಿರಿ.

DANIDA — DANISH INTERNATIONAL DEVELOPMENT AGENCY

DRINKING WATER PROJECTS

ಕುಡಿಯುವ ನೀರು ಯೋಜನೆಗಳು



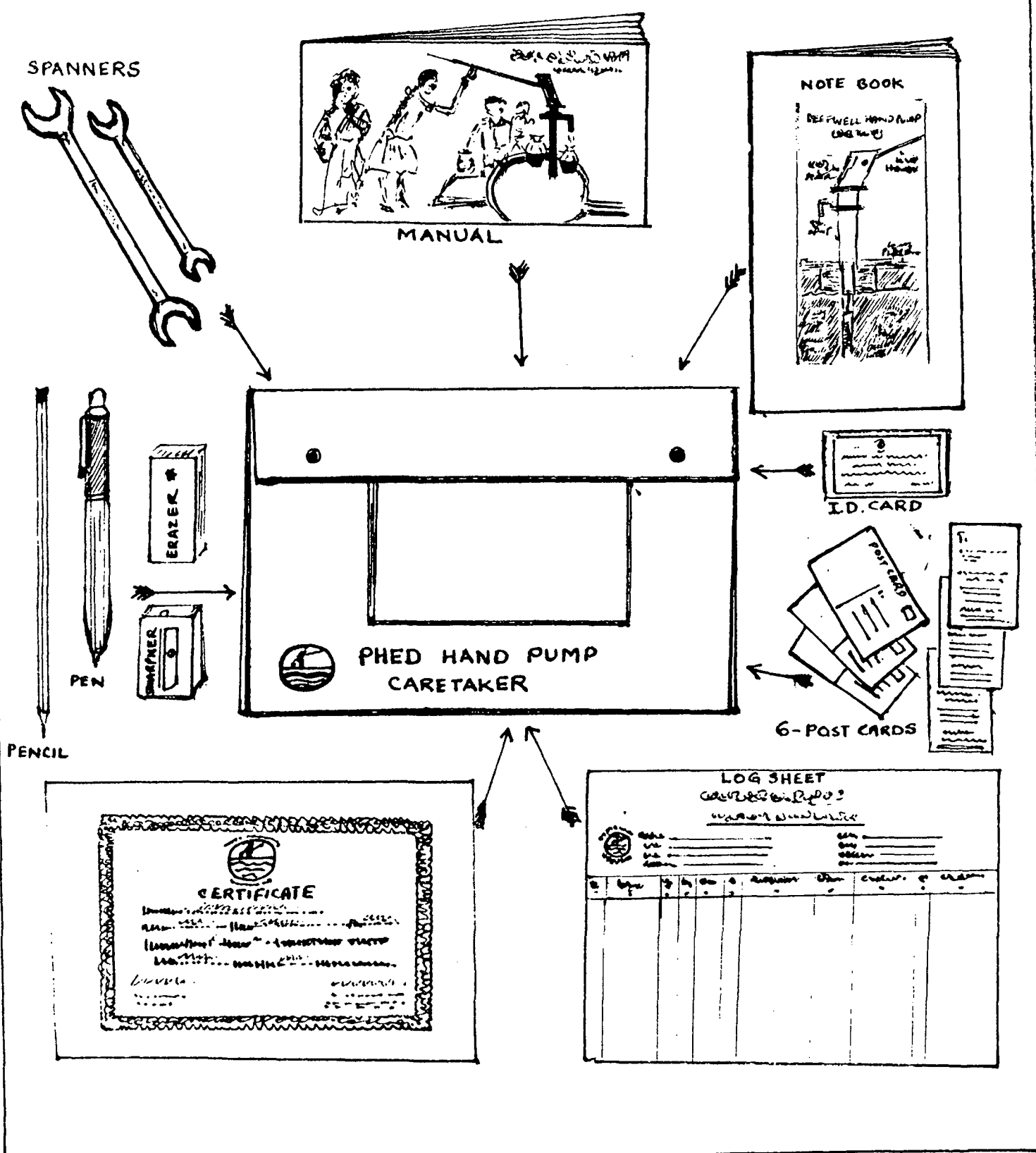
GOVERNMENT OF KARNATAKA
PUBLIC HEALTH ENGINEERING ZONE

ಕರ್ನಾಟಕ ಸರ್ಕಾರ

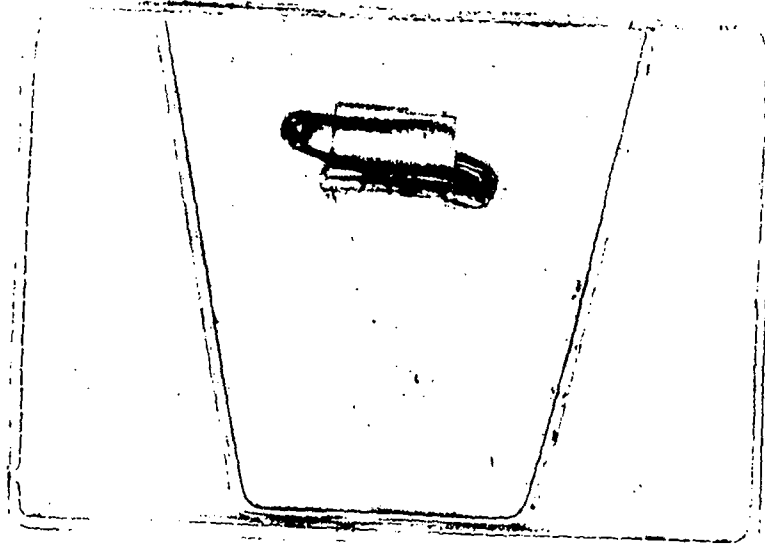
ಸಾರ್ವಜನಿಕ ಆರೋಗ್ಯ ಶಿಲ್ಪ ವಲಯ

Raja Imprints
Bangalore-560 018

CARETAKERS MATERIALS



Annexure: 3



**PUBLIC HEALTH ENGINEERING
KARNATAKA
IDENTITY CARD**

Kum/Smt/Sri
W/D/S of
Is the caretaker for the India Mark-II hand pump
installed in of Village in
..... Taluk of District
Issued on
Signature of Caretaker
Executive Engineer
Public Health Engineering Division





WATER IS LIFE!

Air, Water and Food are the three basic needs for the survival of human beings.

It is very important that the drinking water should be safe and potable. Water is available from different sources, but all is not safe and dependable.

The ground water from deeper depths is safe and dependable, which is located and tapped by drilling deep borewells to a depth of 30 to 50 metres.

In order to bring the safe water above the ground for use, a quality India Mark-II Handpump should be installed over the borewell properly with good concrete platform, adequate drain and footstand. This would prevent contamination of the safe borewell water, ensure strong foundation and trouble-free longer life of the pump.

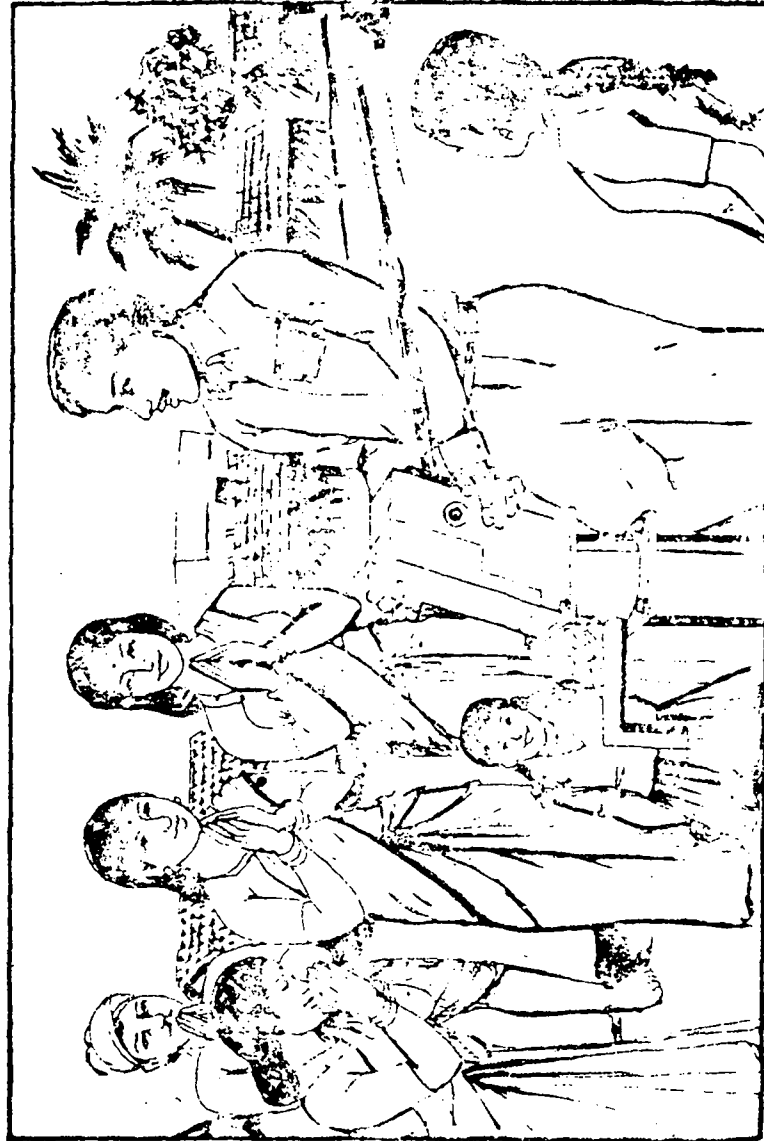
The quality pump installed well with concrete platform should also be maintained periodically and operated properly by the users.

Therefore, for longer life of the pump:

- ∅ The pump handle should be operated fully to the top and bottom for full flow of water.
- ∅ The handle chain should be lubricated with grease.
- ∅ The bolts and nuts with the pump should be kept always tight.
- ∅ The excess water from the pump should be disposed off to a garden or a soak pit.
- ∅ The pump surroundings should be kept clean.
- ∅ The community should safeguard the handpump as its own property.

Drink handpump water for better health !

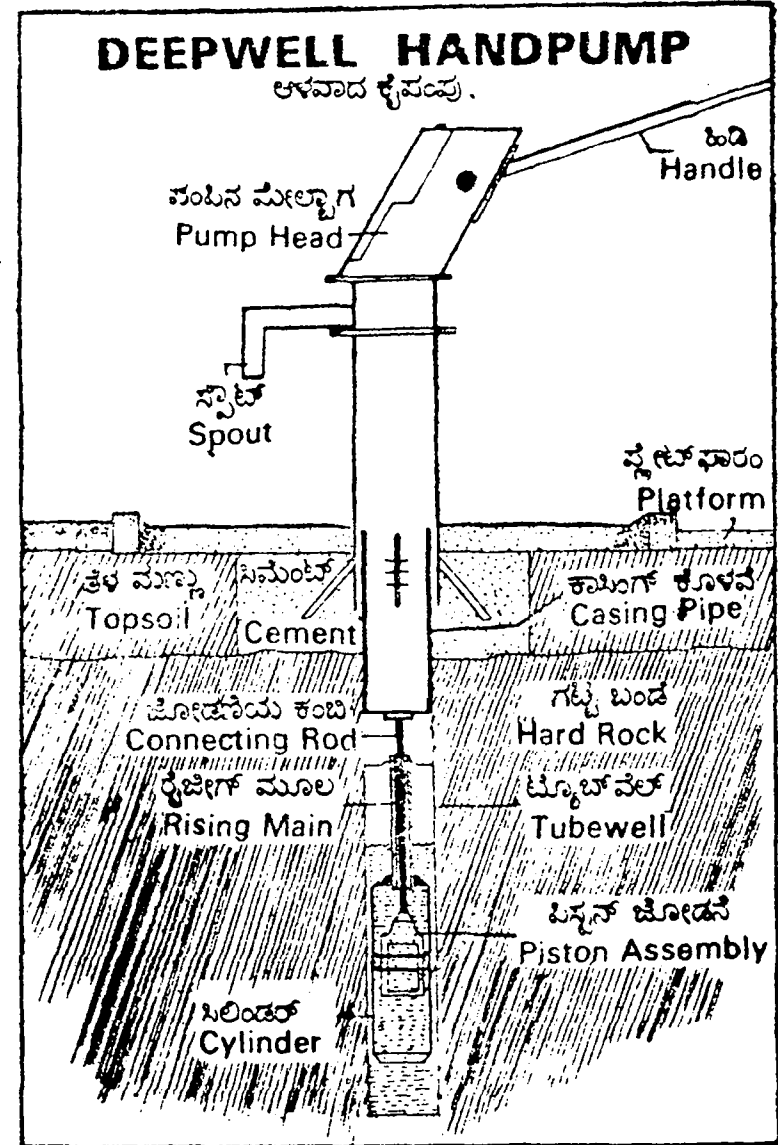
Health is Wealth !



HAND PUMP CARETAKER

ಕ್ರೆ ಪಂಪ್ ಉಸ್ತುವಾರಿ ಕರು

Name: _____



ANNEXURE : XII

Annexure: XIII A

HAND PUMP CARETAKERS
REPORTING
POST CARDS.

ಎ. ಸೂಚನೆ :


ಇವರಿಂದ

ಸ್ಥಳ

To
The Block Development Officer,
Taluk Development Board

.....

.....



ಸರ್ಕಾರದ ಆರೋಗ್ಯ ತಾಂತ್ರಿಕ ಇಲಾಖೆ

ವರದಿ ಕಳಿಸಿದವರ ಹೆಸರು : _____ ದಿನಾಂಕ : _____
ಪಂಚಾಯತಿ : _____ ತಾಲ್ಲೂಕು : _____

ಸ್ವಾಮಿ, _____ ಗ್ರಾಮದಲ್ಲಿನ _____ ಕ್ರಮಸಂಖ್ಯೆಯ
ಕೈ ಪಂಪು _____ ದಿನಾಂಕದಿಂದ ಕಟ್ಟಿರುವುದು.
ಈ ಕೆಳಕಂಡ ದೋಷಗಳು ಕಂಡುಬಂದಿವೆ.

1. ಚೋದನೆ ಸಲಾಕೆಯ ಅಗಲಿಕೆ
2. ವೈಷ್ಣು ಸಡಿಲವಾಗಿರುವುದು
3. ನೀರು ಕಡಿಮೆ ಬರುವುದು
4. ಕೈ ಹಿಡಿ ಅಡಿಸಲು ತ್ರಾಸಾಗುವಿಕೆ
5. ಸಲಿಂಡರು ಕಳಚಿ ಬಿದ್ದಿದೆ
6. ಪಂಪಿನ ಮೇಲ್ಭಾಗದಲ್ಲಿ ಕಟ್ಟಿರುವುದು

TRANSLATION OF HAND PUMP CARETAKERS
REPORTING POSTCARD.

NOTE:

25p.

To.
The Assistant Executive Engineer.
(or Block Development Officer)
P.H.E. Sub Division.
(or Block Development Board)

.....
.....

From:

signature.

(reverse)

PUBLIC HEALTH ENGINEERING DEPARTMENT.

From: _____

Date: _____

Panchayat: _____

Taluk: _____

Sir.

The Handpump Sl. no: of
village has been unserviceable since

The following repairs are to be attended.

| | |
|--------------------------------|--------------------------|
| 1. Connecting rod disconnected | <input type="checkbox"/> |
| 2. Pipe is loose/broken. | <input type="checkbox"/> |
| 3. Water discharge less. | <input type="checkbox"/> |
| 4. Handle hard to operate | <input type="checkbox"/> |
| 5. Cylinder fallen down | <input type="checkbox"/> |
| 6. Defect in Pump Head. | <input type="checkbox"/> |

Government of Karnataka.

PUBLIC HEALTH ENGINEERING DEPARTMENT.

Tubewell Handpump Caretaker.

Village: _____

Hand Pump no: _____

Block: _____

Depth of Borewell: _____

Taluk: _____

Static water level: _____

District: _____

Date of pump installation: _____

Name of Caretaker: _____

| S. No. | Details of repair. | Date of breakdown. | Date of reporting breakdown. | Name of mechanic. | Date of pump repaired. | Details of repairs. | Spare parts used. | REMARKS. |
|--------|--------------------|--------------------|------------------------------|-------------------|------------------------|---------------------|-------------------|----------|
| 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
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| | | | | | | | | |
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| | | | | | | | | |
| | | | | | | | | |

Translation of Caretakers Log Sheet.

Annexure XIV B



CERTIFICATE

Let it be known to all who read this that

..... W/D/S/o of

..... completed a training course on at

which authorises her/him to serve her/his village as Hand Pump Caretaker.

DANIDA
DANISH INTERNATIONAL DEVELOPMENT AGENCY

EXECUTIVE ENGINEER
PUBLIC HEALTH ENGINEERING DIVISION

Course Staff

K.L. Ottosen, Danida Adviser, Bangalore (I.C. Planning and Administration)

S. Hussein, Hydrogeologist, ERICOR, Tumkur (Temp. Danida)
(I.C. Lecturing & Coordination)

M. Manikyam Jun. Eng., P.H.E. Molakalmuru Taluk.
(I.C. Candidate Selection & Practical Demonstrations)

Basavaraju, Mechanic, P.H.E. Molakalmuru Taluk. + Mechanical Team.

Mohan Rao, Driver, P.H.E./Danida.

Mr. Hanumaiah, Taluk Medical Officer, Molakalmuru

Mr. Varadaraju, Adult Education Council, Ch'durga
(Film Operator)

P.H.E. Staff visiting the courses

Mr. Chandrasekar, Superintending Engineer, Bangalore Circle

Mr. Parsivamurthy, Executive Engineer, Chitradurga Division

Mr. Kabbalaiah, A.E.E., Chitradurga Sub Division

Mr. Parthasarathy, A.E., Hariyur Taluk, Chitradurga Division

Mr. Chigadahnaur, Jun. Eng., Mudhol Taluk, Bijapur Division

Mr. Ali Kahn, A.E., Malur Taluk, Kolar Division.

Mr. Maqdoom, A.E., Gulbarga Sub Division

Mr. Anwar Bhasha, A.E., Yagdir Sub Division, Gulbarga.

Mr. Ravindranath Boradas, Jun. Eng., Gulbarga Sub. Division.

Administration staff for assistance at Course Planning

Mr. Chowdaiah, Assistant Commissioner, Chitradurga

Mrs. Shamin Banu, Deputy Commissioner, Chitradurga

Mr. Tripate, Special D.C. Rural Development, Chitradurga

Mr. A. Shariff, Block Development Officer, Molakalmuru

Mr. Mahesh Kumar, Tasilder, Molakalmuru
Revenue Officer, Molakalmuru Taluk.

Mr. Basavalingappa, Distr. Adult Education Officer, Chitradurga.

Official Guests:

Mr. Purnamuttappa, M.L.A., Molakalmuru

Mr. Bassanna, Ex.M.L.A., Molakalmuru

Mr. Kumaraswamy, R.T.A. Member, Devasamudra

Mr. Thippeswamy, P.L.D. Bank President, Molakalmuru

Mr. Papa Naik, Ex.T.D.B. Member, Molakalmuru.

ANNEXURE : XVII

DANIDA - Danish International Development Agency
Drinking Water Projects, Karnataka

GUIDE TO SELECTION AND TRAINING OF VILLAGE
HANDPUMP CARETAKERS

Rural Water Supply programme in the state is intended to cater to the first and most basic need of the villages :- safe drinking water. Great strides have been made in this direction.

HAND PUMP MAINTENANCE :-

Although progress with regard to tube well drilling and handpump installation had been impressive the same is not true of maintenance, unfortunately. A large proportion of the handpumps installed breakdown, and remain unrepaired for long periods of time because of the lack of an adequate maintenance system. An improved system of handpump maintenance usually referred to as the "2 - tier maintenance system" has been introduced in the state. The new system is working well. In the areas where it has been introduced the number of hand-pumps not functioning has been dramatically reduced, in some cases almost to zero.

The 2 - Tier Maintenance System provides for staff at villages, taluka and district levels to look after all handpumps.

AT VILLAGE LEVEL

In the village there is a handpump caretaker nominated by the community and selected by a team of interdepartmental officers. He ensures that the hand-pump is working properly, that there is proper drainage of excess water, that there is some sort of control over use of the handpump to ensure that it is not abused, and that the villagers are aware of her/his importance. If a handpump breaks down, it is her/his duty to report it to the district maintenance team and the block level mechanic.

AT TALUKA LEVEL :-

Each Taluka has one or more Mobile Maintenance Teams at Taluka/sub division which can quickly reach and repair any handpump that breaks down. A team consists of five men under a Supervisor, equipped with a vehicle.

Mobile Maintenance Teams carry tools and spare parts needed to do any type of handpump repairs. They also rejuvenate old substandard handpumps with new India Mark II pump.

HAND PUMP CARETAKER :-

The first tier of the new maintenance system - the village caretaker - is crucial to the success of the system. Unless the RWS Division, Panchayati Raj/PHE staff is informed promptly when a handpump break down, repairs are delayed and the whole maintenance system fails.

PRELIMINARY STEPS

Selection and training of the Caretaker is very important. The primary responsibility for selection and training rests with the Secretary, Zilla Parishad. However, since this is a task which requires the participation of several individuals, the Secretary should draw on the services of the Block Development Officers and other members of his staff as needed.

PREPARATION OF HANDPUMP SITES

1. Rural Water Supply/Panchayati Raj/PHE should prepare the handpump sites to standard condition. All the old sub-standard handpumps in the selected area of the block should be converted into "India Mark-II" and good platform, adequate drain and footstand should be constructed with the pumps. All the pumps should be fixed with standard bolts/nuts to facilitate supply of standard tools to check the tightness of the bolts/nuts.

2. Rural Water Supply/Panchayath Raj/PHE should prepare a proforma showing the details about village, location, depth and yield of the tubewell, date of installation and condition of the pump.

3. The Secretary and the BDO should become personally acquainted with the most important element of the rural water supply programme - the handpumps. The best way to do this is for the two officers together to visit a few villages in which hand-pumps have been installed, obtain a first hand impression of how pumps are functioning and talk with the villagers. One day should be sufficient for this, and if the two officers have other matters to attend to in the village (which they undoubtedly will) this can be combined with the handpump inspection.

4. MAP PREPARATION :-

As soon as possible, a block map should be prepared showing the location of all handpumps, existing and proposed. The boundaries of each Village Development Officer's circle should also be shown on this map so that it is clear to the Village Development Officer, as well as to the other block staff, the number and location of handpumps within each circle. This map will also serve as useful reference to anyone who is concerned with the rural water supply programme.

5. MEETING OF BLOCK STAFF :-

When the map is ready the Secretary should convene a meeting of the following block staff in order to explain the improved handpump maintenance system and their responsibilities in the programme

Block Development Officer.
 Engineering Supervisor
 Extension Officer (Panchayati)
 Extension Officer (Social Welfare)
 Village Development Officers
 Pump Mechanic (Rural Water Supply)
 Medical Officer, PHC.

At this meeting attention should be given to the following topics :-

- (a) Introduction to the improved, "2-tier handpump maintenance system."
- (b) Associate the Village Development Officers fully with the maintenance of all the pumps in their jurisdiction.

CRITERIA FOR SELECTION OF HAND PUMP CARETAKERS:-

Care should be taken in selecting caretakers to ensure that the position will be held by an individual who will take his responsibilities seriously, who possesses the necessary qualifications, and who has the trust of his fellow villagers. The following criteria can serve as a guide in choosing candidates for the position.

- i) Preferred age : 18 - 30 years
- ii) Should be a user of the pump.
- iii) Should live closer to the pump and enjoy respect in society
- iv) Ladies are preferred.
- v) Should be literate. Preferably someone who has reached high school level.
- vi) Should be physically fit and active.
- vii) Must have own means of support.
- viii) Preferably someone with mechanical ability (e.g. the cycle shop owner, pump or motor mechanic).

FINAL SELECTION OF CARETAKERS BY INTER DEPARTMENTAL TEAM:

After the Village Development Officers have submitted their lists of caretaker candidates, final selection should be made. Deputy Executive Engineer (RWS), Medical Officer of the Primary Health Centre, and Youth coordinator, Nehru Yuvak Kendra accompany the BDO on these visits to select caretakers. This will facilitate prompt follow-up on repairing the hand pumps and impress the villagers and the caretakers themselves with the fact that the Government is sincere in its announced intention to help them.

BRIEFING PANCHAYAT OFFICIALS :-

It is important that not only Government departments but village institutions as well should be acquainted with the rural water supply programme and its objectives. The more the villagers themselves know about the programme, greater the cooperation one can expect from them. A good way to do this is for the Secretary or BDO to attend one of the regular monthly meetings of the Panchayat union Council and tell these village leaders about the programme, giving particular attention to the maintenance aspect.

CARETAKERS TRAINING COURSE

Once the Caretaker have been selected a suitable training programme should be organised for them at Block headquarters or some other suitable location. The purpose of such a training programme would be to familiarise them with the activities of the rural water supply programme and to make it clear to them about their role in the programme.

How such a training programme should be organised and carried out is described below:-

1. Supervision of the training course should be the responsibility of the Secretary assisted by the BDO & VDO. Other district staff who should be involved in the training are the Deputy Executive Engineer (Rural Water Supply) the District Health Officer and Youth Coordinator, Nehru Yuvak Kendra.
2. The training course should include, besides, Caretakers the various block and district officials whose positions are likely to involve them directly or indirectly with the rural water supply programme. This will encourage understanding and cooperation. The invitees should include Gram Sevaks and Gram Sevikas, Extension Officer (social Welfare,) Extension Officer (Panchayat), Extension Officer (Education), Union Engineer, Health Inspector, and the Block Mechanic. Whenever the number of Caretakers comes to far less than 40 from one block it would be better to combine two or more blocks for one training course limiting the number to 60.

3. Training materials for the course will be supplied by Panchayat Raj/PHE and UNICEF. These will include slides, flipchart, and a full size cut-away model of an actual hand-pump etc.
4. Two days should be allowed for the training programme. Travel expenses for the trainees to and from the training Centre will be met by Panchayat Raj/PHE as well as the cost of the food. It may be advisable to make arrangements for providing food and overnight accommodation for the trainees at the training centre itself.
5. A syllabus outlining the subjects to be covered and Schedule for the training course are given in Annexures 1&2 respectively. It is important that the training should be suited to the level of the trainees, and that it should be practical in its emphasis rather than academic and theoretical. Trainees should be encouraged to ask questions and to participate whenever there is a discussion period. The district and block officials who conduct the training should see this as an opportunity to learn more about village life and problems themselves, as well as teaching the trainees. On no account should they talk down to the trainees or imply that they are ignorant because they are villagers.
6. The reporting cards should be kept in chronological order at the BDO's office, and at the Deputy Executive Engineer's Office to see how effectively the handpumps are repaired. Maintenance register may be kept at the office.
7. Since the Carstakers are volunteers and receive no pay from the Government for their services, it is important to find other means to reward and encourage them. During the training period there are a number of ways in which one can, with very little effort and expense, provide such encouragement. For example: issuing a certificate when the training is complete, present each trainee with his set of tools, inviting All India Radio to come and interview some of the trainees, providing souvenir photographs of the training camp, etc.

8. Orientation of the Block Mechanics should be part of the caretaker training course. Most of the information that is conveyed to the caretakers during training is also applicable to the Block Mechanics. As for their specific duties, time can be found during the caretaker training sessions to explain these to the Mechanics. Also they may be asked to maintain a fortnightly chart.

FOLLOW-UP ACTIVITIES

The initial training of handpump caretakers described above is important. It introduces them to the rural water supply programme, acquaints them with its varied activities, specifies their particular role in the programme and gives them a chance to meet the Government officials at district and block level who are working in the programme. But this one training session is not enough by itself. Since these caretakers are volunteers, ways must be found to sustain their interest and give them regular encouragement and support after they take up their assignments in the village.

Following are some of the suggestions on how this can be done

1. A copy of the group photo taken during the training camp should be sent to all the caretakers as a souvenir.
2. The trained caretakers can be interviewed and broadcasted through AIR.
3. The programme can be covered in the local newspaper
4. Bring the caretakers into block headquarters regularly once every six months and organise a one day "Refresher course" for them. This will give them an opportunity to meet each other again, as well as the Block, district level staff. Such meetings will benefit not only the caretakers but the staff as well. Hearing the caretakers recount their experiences and problems

will give the staff new insights, and provide them with information which they might not have had access to otherwise.

5. Whenever Panchayat Raj/PHE or Block staff visit a village they should make it a point to call on the caretaker, have a chat with him, inspect and initial his handpump log sheet, and make sure that he has enough reporting cards. Occasional meetings such as this with important outsiders enhance the importance of the caretaker in the eyes of his fellow villagers and give his ego a boost.

6. Writing an occasional letter to convey some information or to praise him for the work done is also rewarding. Greetings can be sent during festival occasions like New Year, Shankaranti, Dasara, Deepawali etc. It can serve as a two way channel of communication, conveying news and information to the caretaker as well as providing a way for the Government to receive reports, questions and comments from the caretaker.

7. Periodical "Get together" can be organised at Gram Panchayat levels with trained caretakers village/block functionaries Mahila Mandal member etc., for about four hours to solve their problems regarding drinking water and health.

Creating Public awareness :-

It is important that the rural population as a whole, not only the caretakers, should have some knowledge of the rural water supply programme and an appreciation of the importance of the protected water supplied for their health and well-being.

There are several ways of accomplishing this. One is to seek out village women's organisation, such as Mahila Mandals and introduce handpumps and safe drinking water as a topic for discussion in their meetings. The monthly meetings of village teachers provide an opportunity for impressing this influential

group with the importance of having a safe, protected supply of drinking water in every village. And since village leaders customarily yield considerable influence in village affairs, occasional informal discussions with members of the village Panchayat on matters relating to rural water supply can produce beneficial results.

ANNEXURE - 1

TRAINING SYLLABUS

Everything that is taught during the Caretakers training course should be practical, down-to-earth, and directly related to the trainee's responsibilities as Hand pump Caretaker. The topics to be covered during the training period will include the following:-

1. Rural Water Supply Programme in the State.
2. Parts of a handpump
3. Duties of the Caretaker
4. Care and operation of the handpump
5. Disposal of excess water
6. Health aspects
7. 2- tier handpump maintenance system
8. Reporting and maintenance of log sheet.

RURAL WATER SUPPLY PROGRAMME

A description of Rural Water Supply programme in the State including policies, organisation, staff, activities like Geological survey, drilling tubewells, installation and maintenance of handpumps and caretakers programme.

PARTS OF A HANDPUMP

How the handpump is constructed and how it works, above and below ground level. Sufficient information about this should be given, it should be kept in mind that the Caretakers are not being trained as mechanics.

DUTIES OF THE CARETAKER

1. See that the villagers operate the handpump properly so that it will have a long life.
2. Service the handpump once a week.
3. See that excess water is channelled into a garden or soakage pit
4. Keep the area around the handpump clean & free of refuse
5. If the handpump breaks down, report it to the proper authorities.
6. Maintain the handpump log sheet
7. Explain to villagers that water from a handpump is better for their health than water from a pond, river, or step-well.

CARE AND OPERATION OF THE HAND PUMP

Proper care and operation of the handpump will ensure longer, trouble free life and reduce the chances of breakdown.

Preventive Maintenance :-

1. Check axle-bolt. Make sure lock-nut is tight.
2. Check flange bolts fastening water chamber to pedestal and head and make sure they are tight.
3. Make sure handpump is firm on its base.
4. Clean out trash from inside the pump head.

OPERATION OF THE HANDPUMP: While pumping)

1. Stand behind the handpump
2. Hold at the end of the handle.
3. Use long strokes, not short ones.
4. When finished, let handle return slowly to resting position.
5. Do not let excess water collect around the handpump. Ensure that it runs into a garden or soakage pit.
6. Keep the area around the handpump clean and free from refuse.

DISPOSAL OF EXCESS WATER

Excess water should not be allowed to collect around the handpump. Otherwise the area will soon become unhygienic. It may become a breeding place for mosquitoes, which transmit malaria and filariasis.

The ideal solution is to channel the water into a garden. If this is not possible, the next best solution is construct a soakage pit, minimum of 20 feet away from the pump.

HEALTH ASPECTS

1. Safe drinking water is necessary for good health: One of the major causes of common diseases like dysentery, Cholera and typhoid is contaminated drinking water. The best protection is to drink water only from a protected source, such as a handpump.
2. Appearances are sometimes deceiving. Water which looks, smells and tastes clean may actually be highly contaminated. The water in a step-well, tank or river is much more likely to be contaminated than water from a handpump.
3. Even the handpump itself may be a source of disease if it is not properly installed. It is the responsibility of the installation team to ensure that it is firmly fixed on its base and good platform with a minimum 10 feet long drain is constructed.
4. How you take care of the water after it leaves the pump will also be very important. Water which flows pure from the pump will become contaminated if you collect it in a container which is dirty, or if you store it carelessly. Ensure that the container you use for collecting water is clean, and that drinking water stored in the house is kept covered and protected.

GUIDELINES ON HOW TO BE A GOOD COMMUNICATOR

1. Assume your role as a lecturer/communicator.
2. Be prepared with what you wish to communicate
3. Use simple local language to the carstaker standard village level.
4. Remember that the trainees need to know the fundamentals of the subject.
5. Look at the audience while addressing them
6. Be specific to the subject.
7. Use relevant, popular sayings/proverbs/anecdotes.
8. Quote relevant small stores, i.e. Swayamvaram, to emphasise a point that "Prevention is better than cure"
9. Involve the participants fully in the classes.
 - a) Ask them simple questions.
 - b) Encourage them, even if they do not answer correctly.
10. Listen to their doubts and answer accordingly.
11. Summarise the message at the end of the session.
12. Use relevant visual aids whenever necessary.

PROBABLE SAYINGS/PROVERBS/STORES SUGGESTED.

1. Health is wealth
2. Hand pump water is safe water.
3. Service to society is service to God
4. Where there is will, there is way
5. Where there is handpump, there is health
6. Prevention is better than cure.
7. A stitch in time saves nine.
8. All that glitters is not gold

HEALTH IS WEALTH

TENTATIVE SCHEDULE FOR HANDPUMP CARETAKER
TRAINING CAMP

| Time | Subject | Responsible |
|----------------|--|--------------------------------|
| <u>1st Day</u> | | |
| 10 - 1015 | Inauguration | Local V. I. P./PHED |
| 1015 - 1045 | Description of Rural Water Supply in the State/Dist. | PHED |
| 1045 - 1115 | Description of caretakers programme, Importance of drinking water. | Coordinator. |
| 1145 - 1300 | Field demonstration on installation of India Mark II Pump & construction of soakpat. | Coordinator/ PHE Mech. Team |
| 1300 - 1430 | Lunch | |
| 1430 - 1515 | "Anatomy" and operation & preventive maintenance of India Mark II pump. Disposal of excess water | Coordinator |
| 1315 - 1545 | Color slide programme on water and pumps (till "Health aspect") | Coordinator |
| 1545 - 1600 | Individual questions from participants | Coordinator/ PHED |
| 1600 - 1615 | Group Photo of caretakers | |
| <u>2nd day</u> | | |
| 1000 - 1130 | Water borne diseases and aspects and nutrition | Health Officer/ M. O. |
| 1130 - 1200 | 2-tier system, identification of defects in hand pumps & reporting cards. | Coordinator |
| 1200 - 1245 | Duties and responsibilities of caretakers | Coordinator/PHED |
| 1245 - 1300 | Color slide programme | |
| 1300 - 1430 | Lunch | |
| 1430 - 1500 | Review of training, comments and suggestions. | Coordinator, PHED & BDO. |
| 1500 - 1530 | Closing ceremony, Distribution of certificates and tools. | Chief Guest. |

(Each morning, lunch break or afternoon cultural programmes can be added as to be decided by Local Youth Club or Womens Community etc.).