

## Success Stories of Solar energy Based Dual Pump Water Supply Schemes

### **Name of the village Pavimuranda, Taluka- Chamorshi, District- Gadchiroli.**

The success story of Pavimuranda which is a tribal and naxal affected village, located in Chamorshi Tahsil of Gadchiroli District.

#### **About habitation-**

Village is located about 42 Kms away from the district headquarter Gadchiroli. It is surrounded by the forest, having 50 households and population is about 630 souls. All community of the habitation is tribal (S.T.).

There is one Primary school and one Anganwadi in village and one common hand pump for Primary School & Anganwadi. Sixty percent of households from the village are having toilets.

#### **Irrigation-**

There are 15 irrigation dug wells in the village for seasonal irrigation. Rainfed paddy is the main crop & protective irrigation is based on dug wells. About 40 hect. Area is under paddy crop.

#### **Existing Water resources-**

There are 3 dug wells and 4 hand pumps for drinking water supply in the village. Average static water level below ground level is 1 meter in rainy season, 4 meters in winter and 8 meter in summer. All 4 hand pumps in the village are of India Mark II type.

Dug wells within the vicinity of village have no water in summer, and source well is located at about 400 meters away from the locality. Fetching water from this distant source was the tremendous laborious and time consuming task for the villagers especially for women, in summer season. There was no piped water supply scheme in the village.

Under such circumstances solar based dual pump water supply scheme was executed in the year 2012 under National Rural Drinking Water Project (NRDWP).

#### **Scheme Details-**

Bore well is fitted with 1 HP (900 WATT) solar photovoltaic submersible pump along with existing India Mark II hand pump by using special water chamber developed by Ground Water Survey & Development Agency.(Govt of Maharashtra). Solar panels of 675 watt are provided with the system. These panels can be easily cleaned by local peoples.

Scheme consists of 5000 liters HDDE water storage tank mounted on 3 meter high fabricated steel structure.

Distribution system with four public stand posts is provided in the village. Household connections are also provided for 30 houses.

Water is made available round the clock, i.e. continuous during day time by solar pumps & from storage tank at night. Hand pump is available as secondary device.

The estimated cost of the scheme is Rs.5.10 lakhs. Popular contribution is 5 percent as per Govt. norms.

## **Maintenance-**

Villagers are cleaning Solar panel every week to maintain the efficiency of the panels. Villagers can clean it easily at no cost. There is no battery backup provided, hence maintenance cost is reduced.

Water tank cleaned every month. Water is chlorinated before supply. Very small amount of tariff is collected from the villagers, i.e. Rs. 75 per household per year. The maintenance, tariff collection, functioning of scheme etc. is coordinated & monitored by the village level scheme Implementing Committee.

This scheme is very cost effective, economic, environment friendly, free from requirement of any conventional energy for day to day operation and easily maintainable at village level.

The scheme is totally implemented by village water supply committee formed under Gram Panchyat. Technical support and the funds is made available by the Govt. of Maharashtra through Ground Water Survey and Development Agency.

The villagers are very happy with the scheme and also with reduced time and labour of working women.

## **Representative of the Village.**

1. Mr. Govindrao M. Kulmethe, Surpanch. (Mob.No. 9657426230)
2. Mr. Khune-Gramsevak of Grampanchyat Pavimuranda. Mob No. 9403615598)



## **Name of the village Puser (GP- Pavimuranda), Taluka- Chamorshi, District- Gadchiroli.**

The success story of Puser (GP- Pavimuranda) which is a tribal and naxal affected village, located in Chamorshi Tahsil of Gadchiroli District.

### **About habitation-**

Village is located about 46 Kms away from the district headquarter Gadchiroli. It is surrounded by the forest, having 22 households and population is about 125 souls. All community of the habitation is tribal (S.T.).

There is one Primary school and one Anganwadi in village and one common hand pump for Primary School & Anganwadi. Primary school have toilet. There are no toilets in the village.

### **Irrigation-**

There is 1 irrigation dug wells in the village for seasonal irrigation. Rainfed paddy is the main crop & protective irrigation is based on dug wells. About 40 hect. Area is under paddy crop.

### **Existing Water resources-**

There are 2 dug wells and 2 hand pumps for drinking water supply in the village. Average static water level below ground level is 1 meter in rainy season, 4.5 meters in winter and 10 meter in summer. All 2 hand pumps in the village are of India Mark II type.

Dug wells within the vicinity of village have no water in summer, and source well is located at about 400 meters away from the locality. Fetching water from this distant source was the tremendous laborious and time consuming task for the villagers especially for women, in summer season. There was no piped water supply scheme in the village.

Under such circumstances solar based dual pump water supply scheme was executed here in the year 2012 under National Rural Drinking Water Project (NRDWP).

### **Scheme Details-**

Bore well is fitted with 1 HP (900 WATT) solar photovoltaic submersible pump along with existing India Mark II hand pump and special water chamber developed by Ground Water Survey & Development Agency.(Govt of Maharashtra). Solar panels of 675 watt are provided with the system. These panels can be easily cleaned by local peoples.

Scheme consists of 5000 liters HDDE water storage tank mounted on 3 meter high fabricated steel structure.

Distribution system with three public stand posts is provided in the village. Household connections are also provided for 22 houses.

Water is made available round the clock, i.e. continuous during day time by solar pumps & from storage tank at night. Hand pump is available as secondary pumping device.

The estimated cost of the scheme is Rs.5.10 lakhs. Popular contribution is 5 percent as per Govt. norms.

### **Maintenance-**

Villagers are cleaning Solar panel every week to maintain the efficiency of the panels. Villagers can clean it easily at no cost. There is no battery backup provided in the system, hence maintenance cost is reduced.

Water tank cleaned every month. Water is chlorinated before supply.

Very small amount of tariff is collected from the villagers, i.e. Rs. 75 per household per year. The maintenance, tariff collection, functioning of scheme etc. is co-ordinated & monitored by the village level scheme Implementing Committee.

This scheme is very cost effective, economic, environment friendly, free from requirement of any conventional energy for day to day operation and easily maintainable at village level.

The scheme is totally implemented by village water supply committee formed under Gram Panchyat. Technical support provided and funds are made available by the Govt. of Maharashtra through Ground Water Survey and Development Agency.

The villagers are very happy with the scheme and also with reduced time & labour of working women. It is really a boon for rural women.

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2. Mr. Khume-Gramsevak of Grampanchyat Pavimuranda.( Mob No. 9403615598)
3. Mr Dhanraj Kulmethe, Villager. ( Mob. No. 9420845516)



## **Name of the village Mutnoor (GP- Pavimuranda), Taluka - Chamorshi, District- Gadchiroli.**

The success story of Mutnoor (GP- Pavimuranda) which is a tribal and naxal affected village, located in Chamorshi Tahsil of Gadchiroli District.

### **About habitation-**

Village is located about 45 Kms away from the district headquarter Gadchiroli. It is surrounded by the forest having 84 households and population is about 260 souls. Thirty Households are tribal (S.T.).

There is one Primary school and one Anganwadi in village and one common hand pump for Primary School & Anganwadi. Primary school have toilet. Fifty percent households have toilets.

### **Irrigation-**

There is no irrigation dug wells in the village.. Rainfed paddy is the main crop. About 40 hect. area is under paddy crop.

### **Existing Water resources-**

There are 3 dug wells and 2 hand pumps for drinking water supply in the village. Average static water level below ground level is 1 meter in rainy season, 5 meters in winter and 10 meter in summer. All 2 hand pumps in the village are of India Mark II type.

Dug wells within the vicinity of village have no water in summer, and source well is located at about 400 meters away from the locality. Fetching water from this distant source was the tremendous laborious and time consuming task for the villagers especially for women, in summer season. There was no piped water supply scheme in the village.

Under such circumstances solar based dual pump water supply scheme was executed in the year 2012 under National Rural Drinking Water Project (NRDWP).

### **Scheme Details-**

Bore well is fitted with 1 HP (900 WATT) solar photovoltaic submersible pump along with existing India Mark II hand pump and special water chamber developed by Ground Water Survey & Development Agency.(Govt of Maharashtra). Solar panels of 675 watt are provided with the system. These panels can be easily cleaned by local peoples.

Scheme consists of 5000 liters HDDE water storage tank mounted on 3 meter high fabricated steel structure.

Distribution system with three public stand posts is provided in the village. Household connections are also provided for 40 houses.

Water is made available round the clock, i.e. continuous during day time by solar pumps & from storage tank at night. Hand pump is available as secondary pumping device.

The estimated cost of the scheme is Rs.5.10 lakhs. Popular contribution is 5 percent as per Govt. norms..

### **Maintenance-**

Villagers are cleaning Solar panel every week to maintain the efficiency of the panels. Villagers can clean it easily at no cost. There is no battery backup provided in the system ,hence maintenance cost is reduced.

Water tank cleaned every month. Water is chlorinated before supply. Very small amount of tariff is collected from the villagers, i.e. Rs. 75 per household per year. The maintenance, tariff collection, functioning of scheme etc. is co-ordinated & monitored by the village level scheme Implementing Committee.

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