

WWCH 2017 PROBLEM DESCRIPTION

Problem Title	
Villagers suffering from draught and arsenic water simultaneously	
Contact Information	
Name	Abian Marasini
Country	Nepal
1. Basic information	
<p><u>Scenario of village</u> Country: Nepal District: Rupandehi Village: Shankarpur Nepal can be divided into mountain, hilly and terai region. Hilly region and terai region is mainly separated by chure hills. Shankarpur is a village located below the chure hills. Shankarpur is located 19 km west and 3 km north of Butwal city with coordinates of 27° 42' 18" N and 83° 17' 49" E and altitude of 434 ft. Temperature even reaches to 34/35° in summer and 5/6° in winter season. River named "Inguriya nadi" flows through the border of this village and risk the life of the household nearer the river in the rainy season but it is almost empty in summer and winter season. There are almost 130 household each having 5/6 member. Chaudhary "Tharu" are the main cast of the village and they represent 60% population of this village. Remaining are Brahmin(25%), Magar(5%), Kami(5%) and others. Government of Nepal has already categorized Chaudhary, Kami as Least educated and poorer cast as compared to other cast of Nepal. It's been several decade Chaudhary people uses River Bank for the toilet purpose in the morning and night times. They also use same river for washing and cleaning purpose in the day time. Majority of villagers are not well educated. There is not even a single primary school neither any health post in the village. Girls get married as soon as she gets 12/13 age. Boy becomes father of 2 to 3 children when he reaches the age of 20. Due to uneducated , unemployment rate is high and the male (below 20) works in furniture, grill company, painting job .As soon as male crosses the age of 20 , they go abroad (India, Qatar, Saudi) to earn more and more money. Family gathers together almost in every festival and in remaining month's village is without male. Land is fertile and crops can be cultivated twice in the year. Rice, maize, potato, sunflower oil are the main crops cultivated in the village.</p> <p><u>Water related existing problem</u></p> <ul style="list-style-type: none"> • Villagers use arsenic water for drinking purpose. • Villagers need to depend rainfall to cultivate whereas decade ago agriculture was their family business. 	

2. Water Circumstances (Optional)

3. Problem description

Irrigation scenario and existing conditions

During 1997/98, Villagers had constructed a water canal mid –way through the field and water was diverted from the river to the canal. Water used to be equally distributed to all the fields of each villagers using sub-canal. Rainfall used to be regular and amount of water in the river never used to be lower than the required amount of water required for the cultivation.

But since 2007/08, Due to **sporadic rainfall**, river **over floods for 2/3 months** of the rainy season whereas **dries up completely in the summer season for 5/6 months**. Every year villagers have to build canal and diversion dam due to the damage done by the flood at rainy season .So, nowadays villagers **have exhausted building canals** so they cultivate only in the rainy season using sky rain directly on their field and remaining months land is unfertile and unused. As the maximum villagers are uneducated, cash crops could be their economic source but due to **unavailability of irrigation water**, they **are deprived** to take advantage on **agricultural sector**.

Drinking water scenario

During 1996, due to the severe condition of the villagers, government of Nepal has built two hand pumps in the village for drinking purpose. Later on since 2008/9 villagers begin to self-dig the hand pump for drinking purpose and recently there are around 20 hand pumps in the village. But later on some researcher found that hand pump water is **contaminated with arsenic**. Then some INGO got involved in this village and distributed **50/60 arsenic water filter**. Those filters were distributed to the active and aware villagers. But remaining villagers are using water without any filters. **At the present time**, each house has their own hand pump but **90% doesn't contain arsenic filter**. Those previously distributed arsenic water filters are also out of functions due to **lack of regular maintenance**.

Consequences

- **Decrease in the rainfall is due to the climate change but if this continues for coming three/four years then whole villagers need to shift to another place and the land will be unused and villagers will loss the benefit obtain form the agricultural sector.**
- **If villagers continue to use the arsenic water then serious problem would knock to each household simultaneously.**