

## Sustainable Water Management in the Kantli River

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### Abstract

For centuries, rivers played important role in human life. Kantli River is a life line of Shekhawati region but due to negligence it's about to die. It seems like there is nothing left except sand and sand left around but still there is hope to make an effort for her survival. No one has even tried to save this river till now. It is very sad to know that this river is slowly dying before our eyes but local authorities and government have done nothing but ignored this situation totally. Still there is a hope to save this river. There are lots of solutions to save this by using some efforts to save this river seriously. If some local and national leaders come together to sort out their differences and come together for combining Kantli River in their project and planning, definitely it can be saved.

**Keywords:** Sustainable, Water Management, Drainage

### Introduction

Water is an important and natural resource that is essential for the sustenance of human civilization of which ground water plays an important role in meeting a substantial part of domestic, agricultural and industrial needs. The evaluation of water resource potential and utilization, especially the ground resource, needs an elaborate study of various factors governing the monsoon pattern, surface runoff, infiltration, various hydraulic characteristics of the aquifer system etc.

### Study Area

The study area is drained mainly river Kantli. Expected Kantli and its sister streams, the overall drainage, are towards south westerly flow. The Kantli water shed occupies the northern parts of the study and exhibits somewhat anomalous characteristics. The river Kantli originates in the hilly near Gidala village of Udaipurwati in Sikar district, flows northwesterly/northerly cutting across the Aravalli mountain range, enters the alluvial plains and gets lost in the dunal sands near Rajgarh in Churu district. The river flows in three district as Sikar, Jhunjhunu and Churu. It's flow from south to north. Other smaller rivers falling within this basin area the Dohan, Dongar, Chandrawati, Udaipur, Lohargal Ki Nadi, BudhiNala, SukhNadi/ Singhana Nadi, Mendtha and Sabi.

### Drainage Pattern

The Kantli is a northerly flowing ephemeral river originating from the hills near Gidhalya village in Sikar district, few small tributaries join the Kantli mainly in the upper reaches. The river finally gets dried up and disappears in the dunal tracts near Rajgarh in Churu district. Draining a total

length of about 135 km. Kantli flows through the hilly terrain in upper reaches, cutting across the Aravalli ranges for about 52 km. upto Mainpura in Jhunjhunu district and then flows through the vast acolian dune field in the north. The total catchment area of the Kantli is about 746 km<sup>2</sup>. Minor shifts in the flow of the Kantli channel are observed along her course. The outline of the longitudinal profile of the Kantli River shows the marked breaks in its gradient.

- (i) Between the source at Gidhalya and Guhala the gradient is about 1:250 the Aravalli uplift may have played a major role in this steep gradient.
- (ii) Between Guhala and Pachlagi, the gradient decreases to about 1:500.
- (iii) Between Pachlagi and Salana the gradient further decreases to about 1:980.
- (iv) Between Salana and Khudana, the gradient shows marked increase to 1:433.
- (v) Between Khudana and Navarangpura, the gradient once again decreases considerably to 966.

The overall drainage pattern in the study area is dendritic to sub trellis type. The central parts of the study area characterised by internal drainage pattern.

### **History of the River**

We do not have any proof or document why Kantli river is called Kantli but there are some stories which tell us, if any person stands in the Kantli river, the flow of water cut clay from his bottom. So that is why she is named as Kantli. Ganeshwar civilization also found near to Kantli River in the Neem Ke Thana region district of Sikar (Rajasthan). It said that fishes are also caught in this river. In rainy season it is flooded also. Flow of this river was also called Torawati.

### **Present Position of the River**

For centuries, rivers have played important roles in the development of human life. Prosperous cities are all situated on the banks of rivers. Ancient civilizations were also found and discovered near to some river valleys. But our own selfishness nature has become the enemy to this life supporting system. Kantli river is a life line of Shekhawati region but due to negligence it is dying. Water and happiness both disappear from this region in past Kantli. It provides job opportunity and water for agriculture to farmers but because of her poor condition it is about to banish from this earth. Nowadays people left their house and region in search of their basic needs to cities and people were never tried to save this river. It seems like there is nothing is but sand but still there is hope just need an effort for her survival. To stop the flow of river every one involve in it. They built a several banks and dams over river and water collected in it. These are some of the following evidences-

- Illegal activity of mining for gravel in Bhagoli, Guhala, Papada and Pachlagi, Kankariya and Jodhpur there are 30 km. deep hole created because of mining. So these holes stop the flow of rain water.
- Unlimited construction stops drainage system which flow towards river.
- In Gudhagar area villages like Hansalsar, Natas and other places started bricks kilns.
- All the farmers which have farm on the edge of the river captured farming over it. So the place for river to flow become less.
- River flow towards downward slopes because of deep holes its end the slope in river rout. There are many obstacles also found in the primary, secondary and tertiary water stream

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which comes from the mountain range. Today because of reduce of water in river all coastal vegetation is wiped out from its nearby areas.

Aquatic animals and all other insects which are dependent on the vegetation of the river, are in danger. Dry and thorny vegetation has born and replaced coastal and aquatic vegetation in this area. The biggest disadvantage is that water levels in river and its nearby area is constant decreases instead of increasing. The river does not flow continuous so ground water level is falling with a minimum 1 mm. average is recorded. As the water level is dropping its quality is becoming worse. Present condition of Kantli River is so poor. Slowly it's dying. We are responsible for this condition. We are creating a problem to our lifeline.

## Solution

This river is a lifeline for Shekhawati region but today it does not exist properly. We can see only sand everywhere instead of water. No one is even trying to save this river. It is very sad to know that this river slowly dying before our eye. But local authorities and government has totally ignored this situation. Still there is a hope to save this river. There are lots of solutions to save this by using it seriously to help to save the river. These are some basic solutions which can be helpful for the sustenance of the river-

- Like gravel of this river is not only in Shekhawati but also in Haryana state is expensive. So people start mining for gravel with faster speed. If we try to stop overloading of mining it will help a lot.
- From 2005 Indian government stop using of ground water resources in Chidawa, Bhuhana, Surajgarhblock because of decline of level of water in groundwater resources. Like this from 2011 in Jhunjhunu, Navalgarh and Udaipurwati local authority stop using ground water resources. If we try like in other area and region then definitely we can get a positive result.
- Stop cutting of tree from the edge or nearby area of this river.
- Pour hole of it as soon as possible.
- BJP government is planning to combine all rivers into one and this is first time in history government run by the same party from district level to national level.

If local and national leaders sort out their differences and come together for combining Kantli River in their project and planning then definitely it can be saved the river. First survey should be done and then try to construct in their actual size. And should try to stop illegal mining and make a perfect law for it.

All constructions nearby river should be stopped and removed. River banks which are not useful for river should be removed immediately. With the help of the government we have to decide a border line and its possible to decide a border line because of mountain range.

If all these solutions are used then definitely its help to save the river. And we can see again flow of Kantli river and its helps Shekhawati region to grow.

## Conclusion

Water problem is a very serious issue in those areas where there is only limited rivers and resources. Water problem can increase more. So we have to save Kantli and other their subsidiary river. Still there is a time to save this lifeline river of Shekhawati region. Just need a little bit of effort.

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