

## **Name of Country: Nepal**

### **1. Nature of Water Crisis / Status of Water delivery**

Nepal is rich in water resources. There are many big rivers flowing from the Snow Mountain pass to India. Also, there are enormous other types of water resources for instance ponds, streams, lakes, and so on. However, people are suffering from clean and hygienic drinking water. For the capital of Nepal, Kathmandu, there is very poor distribution of water. People have to wait one week for the tap water and also there is not equal and fair distribution of water for all the places. It means, in some of the area of city people expect water some days of the weeks and some people even do not wait for the water and they search for alternative i.e. ground water, tanker etc. by the people of urban are (especially Kathmandu Nepal). On the other hand, there is rampant leakage of the water because of that water is contaminated and many people suffer from the water related diseases. Without finding out the solution for leakage and looking for other cheaper options government has chosen to bring a project which is known as Melamchi to supply water to Kathmandu. The Asian Development Bank is the main investor of this project and following the conditionality of the ADB, Nepal government has privatized water utility, Nepal Drinking Supply Corporation, in 2006. The water tariff is going to be increased when the Melamchi comes in the present format. Except Kathmandu, other cities also are going to be privatized gradually following the ADB's Conditionality.

In addition to the Kathmandu's drinking water problem, the people of hilly regions do not have sufficient and accessible drinking water. Still, in many part of the country the people have to walk for hours with their pots to bring the water and the basically women have been suffering historically as they have to maintain household. In the Terai region, because of lack of access of the tap water, people use underground water. In many places, people have been victim of Arsenic and other kind of water related diseases.

For the purpose of other types of use of water, government has not been able to provide infrastructure to the people so that they can have irrigation and electricity. Rather the governments of Nepal have signed some unfair agreements with India which has ended water rights of the people over their water resources. Therefore, from the country perspective, Nepal faces the water crisis. Every year flood has been common and many part of the country have been inundating because of the embankments made by India with out permission of the government of Nepal and these embankments are made against the Helsinki Rules on water use.

Similarly to talk about the particular drinking water, the recent government has started to do historical jobs privatizing the drinking water which was managed by the public utility- Nepal Drinking Water Supply Corporation.

After the era of liberalization, Nepal also has been victim of the privatization of water resources. It is common to all that there is strong lobbying of the IFIs to privatize the water. Recently some

unfair agreement is against done with some of Indian and so of Australian company whose benefit is for India, not for Nepal.

90 % of urban household and 80 % of rural household have reach over drinking water. Official data shows that about 77% People have access to basic drinking water service as of 2007. A three Year plan aims increasing this number up to 85%. Most of the completed urban water supply systems are not delivering water satisfactorily.

37% of household at urban and 20 % at rural area use improved toilet. The number of people having access to toilet stands to be around 46 %.

Of the total cultivated land of 2.64 million hectares, only 66 % of cultivated land i.e. 1.76 million hectares is irrigable. About 60% of the irrigable land has some kind of irrigation facility, and only less than one-third has round-the-year-irrigation.

Water quality issues have not received sufficient attention, as the focus has been in water development and supply, particularly the supply of drinking water to ever growing population and supply of irrigation water. On one of the study done on Kathmandu valley 648 samples (47 percent) among the 1,385 tested in between June 9 and Aug. 25 contained no Free Residual Chlorine (FRC) while 99 samples contained higher FRC than recommended.

Water Pollution problems are serious in the urban centres like Kathmandu valley where the rivers like Baghmati, Bishnumati, Dhobi and Tukucha have been turned into open sewers. Similarly, expanding urban and industrial areas of the Terai towns like Biratnagar, Birgunj, Janakpur, Hetauda, Butwal, Nepalgunj and Dhangadi has created serious problems.

At present daily water output in Kathmandu valley is 180 million litres against demand for 270 million. During dry season, the output comes down to 95 million litres.

The small urban drinking water and sanitation projects and the community based community drinking water and sanitation projects are running through the GON and the ADB aid. Other foreign aid donors are the UNICEF, WHO, UN-HABITAT and the Swiss Government. Similarly rural drinking water and sanitary project are being conducted through District Development committee (DDC) with support from FINIDA, Japan/DRF and IDA/PRSC.

The support of some bilateral donors has helped in strengthening effective water management, but at the same time funding from IFIs mainly ADB and World Bank has created favorable situation for water privatization mainly due to their conditionality.

## **2. Form of Public Management**

Department of Water Supply and Sewerage (DWSS), Nepal Water Supply Corporation (NWSC) and community are generally responsible for managing of water supply. DWSS is the lead agency for the drinking water supply and sanitation sector of Nepal. Majority of the coverage are due to the efforts of DWSS in the past, currently many other agencies (such as other government bodies, INGOs, and NGOs) are working in the sector. DWSS is currently in the process of devolving all its district level operations to the local district authorities focusing more on central level projects and coordinating activities.

Similarly NWSC operates within 28 large urban centers (or municipalities). Some private companies also supply water on small area either through piping or through water tankers. Besides these bottled water is widely used in urban areas supplied by private companies.

The most successful one of these are the community (Users committee) managed system. Drinking water project of Dhulikhel, Tanahaun, Damak, Leknath and Khairanitar has been successfully established and is being operated by the community. Government, donor agencies, local government body and users invest on infrastructure development and the project is handed over to the users committee for its management after completion of the project.

For ensuring the sustainability of the project concept of community management of rural and semi-urban project have been forwarded by the government of Nepal. To ensure and promote the concept of community management, a provision of 20 percent contribution of the cost of execution of the project by the community has been made. But if the community is of marginalized group, than community have to contribute only 10 percent. In some places government support 50 percent and 50 percent is borne by the community itself.

Recently Kathmandu Upatyaka Khanepani Limited (KUKL), a company responsible for management and distribution of water at Kathmandu Valley (Kathmandu, Lalitpur and Bhaktapur district) has been established and is in operation from 13th Feb 2008. KUKL has been established under the Companies Act of the Government of Nepal as the Private Public Partnership (PPP) approach with member consisting representative from Ministry of Physical Planning, Kathmandu Metropolis, Lalitpur sub-metropolis, Bhaktapur and Thimi Municipapilities, NCC, FNCCI, civil society and employees. KUKL is owned by the government (30 percent), municipalities (50%), NCC and FNCCI (15 percent) and employees (5 percent). The transfer of responsibility from NWSC to the company was a pre-condition set by Asian Development Bank for approval of loan for the construction of Melamchi Drinking Water Project.

The report of Pokhrel Commission of 1989, the JBIC report and even ADB reports suggest that there are enough untapped drinking water resources in and around the valley that if used properly are sufficient to fulfil the water demand of valley residents for several decades to come. Interestingly in 2000, the World Bank which supported the project for over a decade pulled out of the Melamchi project. The then World Bank director to Nepal Ken Obashi had said, "This project cost over 400 US \$ per resident of the valley".

Though government claims that it is a matter of Public Private Partnership as it contains the social development aspects and the government has also some social obligation to fulfil. But till now no effort has been made on how and in which model they are providing affordable drinking water to all the people. It is very to believe that a company without looking its profit, provides drinking water to the people free of cost or in a cheaper prices who don't have enough money to

pay for drinking water. WAFED had taken a lead to file public interest litigation to the Supreme Court of Nepal, however, unfortunately, the court said that it is just lease agreement and is not a privatization.

### **3. Policies relating to Financial and Tariffing issues.**

Drinking water tariff fixation commission is the responsible agency for monitoring water tariff and services provided by the service provider which was established in 2007. Service provider has to get approval of water tariff rate from the commission before imposing new tariff and revising existing tariff rate. The commission is also mandated to act as a mediator between service provider and consumer in case of any dispute.

Depreciation, appropriate benefit, cost of the service provider, royalty, changes in consumer pricelist, government policy on drinking water and sanitation service, exchange rate of convertible currency are the basis of tariff determination.

According to the cost of the project sometimes the rate tend to be more expensive. In one of the project at Matatirtha VDC of Kathmandu district, each household were entitled to pay Rs 25,000 as connection fee.

As per the condition set by Asian Development Bank for funding Melamchi Water Project, water distribution and management of Kathmandu valley now goes to Kathmandu Valley Drinking Water Ltd (KUKL) a company based on PPP. To fulfil the condition of ADB water tariff of the valley has to be increased by 3 fold. For this, water tariff fixation commission has been formed to review and suggest new water tariff at incremental basis. In 2004, the government decided to increase prices annually by 15 percent. For the last three years the tariff has remained the same, which means the next increase will be a whopping 45 percent. Currently, normal household users have to pay minimum Rs 50 up to 10,000 litres and beyond that Rs 15 for every 1000 litre at all the region of the country.

### **4. Law relating to water as part of the Commons.**

Though Nepalese constitution does not recognized water as fundamental rights, but constitution has guaranteed the right to health and clean environment. By this provision, it is clear that no proper health and environment can be provided without water. Article 16 of the constitution is indirectly related to water and sanitation which states that every person has right to live in clean environment. Similarly under state responsibilities provision of policy of establishing the rights of all citizens to education, health, housing, employment and food sovereignty and using existing natural resources including water resources of the country for the interest of the nation.

### **5. History of water conflicts**

Major issues of water conflict in Nepal are mainly water benefit sharing of Trans-boundary River between Nepal and India and Commodification of drinking water.

Nepal is one of the richest countries of the world in water resources. Kathmandu valley too has abundant drinking water, being fed by numerous springs, ponds and rivers. Kathmandu is also sufficiently rain-fed for almost 5 months in the year. Yet the people of the valley often face shortages of drinking water. As a result private companies are trying to make huge profits by selling drinking water which is acquired from various sources scattered around the valley. That being the case the question that raises itself is why the government has failed to deliver better water supply to its people? Why the government is indifference to provide required drinking water to the people. Possibly this is because the financial gains that political leaders and top bureaucrats get from privatizing water management at the behest of international financial institutions.

From ancient time drinking water system was based on community. From the period of Lichhivi to Malla dynasty community used to manage drinking water system. Modern history of Nepal's urban water supply or crisis is linked with murder of Ranodip Singh in the 1880s by his own cousins. Prime Minister Bir Sumshere Rana summoned a British engineer to build a drinking water system in Kathmandu to expiate his sins. Bir Dhara Works, which was completed in 1891, also served Phora Durbar, then a Rana palace. Modern technology had made inroads into a medieval kingdom as an item of luxury. Bir's successors, Chandra and Bhim, added more water to the system. Many foreign aid agencies supported expansion of the system after the 1950s. Due to the movement and migration of people from rural area to urban areas and rapid urbanization brought scarcity in the drinking water of the urban areas. In the early 1970s, the World Bank became the main actor in managing Kathmandu's water supply who invested Rs 756 million in two decades. The Melamchi Project was selected as an option for Kathmandu's increasing needs in the mid-1980s.

In 1987, Pokharel commission was formed to study the water supply and sewerage situation in the main cities. The commission report showed poor quality of services, fiscal incontinence, and institutional haemorrhage. It had recommended for decentralisation, leakages controlled, municipalities brought in, and a Public Utility Commission formed to hedge tariffs. Both the World Bank and the government ignored these recommendations.

In spite of its institutional dysfunction, donors and the government continued to pump millions of rupees into the NWSC. It was supposed to be autonomous but was a de-facto government outfit. NWSC Act 1989 made corporation 'comply with (government) directives'. In the mid-1990s, it was twinned with a British private water company to help build its management capacity. The program's review in 1995 showed that very little had improved since 1987.

End of 1980s and beginning of 1990s saw the emergence of corporate globalisation. Western governments and IFIs provided a solution for emerging democracies, including Nepal, to build competitive markets that would be regulated by socially-rooted institutions. The bureaucracy, skilled at co-opting development lingo, remained faithful to them and free market economy was imposed without any exercise. The government in 1998 constituted the High Level Private Sector Participation Committee to pave the way for a private operator to manage Kathmandu's water supply, without exploring other models.

As per the condition set by ADB for funding Melamchi Water Supply Project, government of Nepal has initiated a way for privatization of drinking water service. According to the condition of ADB management lease contract of valley drinking system had to be provided to foreign private company. Accordingly, Seven Trent has applied for the contract. But due to the strong campaign of water activist within Nepal and outside helped to chase Seven Trent from away, in spite of ADB pressure to award management lease contract to Seven Trent. Now, three foreign so called expert and heading KUKL as chief executive Officer, finance officer and technical officer.

### **Water and Traditional Practices**

Being an agrarian society Nepalese culture is primarily water based. With full of rivers, ponds and stone spouts, they are influencing and inspiring our folk song, folk music and folk literature since time immemorial. This is clearly explained by the folk songs of different communities and races living in different districts of the Nepal. Whether it is hilly region or Terai different ethnic groups of people pay homage to water in different form.

In Nepali society, whether for Hindus or Buddhists no homage or yagya is initiated without setting up water filled Kalash and there need to set up kalash to commence a new work. Most of the places in Nepal are known by the name of river brooks, stone spouts, wells and hot springs existed in those areas.

In most part of Nepal, there are customs of singing songs during rice plantation and playing in water and mud slime. People of Kathmandu, while celebrating different festivals and fair like Indra Jatra, Gai Jatra, Teej, Matatirtha fair, Baisdharma Mela, Krishna Asthami sing folk songs, folk music and folk hymns related to water.

Whenever there is a drought, people of Terai have a custom of singing a song praying Lord Indra for rain. Similarly, hilly area people also have a custom of singing praying for rain. They pray Mahadev asking more rain for them. Tamangs of this region are intimately associated with the river and it is reflected through their folk songs, a part and parcel of their lives. They expressed their anger citing the folk songs associated with the rivers. The songs are full of hard labor, places and life associated with rivers.

There is a big glory and importance of Koshi River. Koshi is described in sangini (dual) songs song in the eastern region. People in the fair of Varaha region feel pride in folk songs and folk dances which contains different aspects of Arun, Varun and Saptakoshi River.

Water is mentioned and described many times in our folk literatures and stories. The tradition, belief, rituals of the society is interestingly presented through folk stories. There is a story of farmer and Indra related to water and rain. According to the story, a farmer was digging his field to sow maize in summer season. Being a hilly region, the field was an undulating terrace and there was no rainfall for months. Rain god Indra was looking from sky to that farmer who was working so hard. Indra was curious to know what was happening to him and he descended on earth in a man's disguise. Indra asked the farmer why he was digging as there was not a drop of

rain. Confident and certain, the farmer told Indra that it would rain that night. Uncertain Indra asked him how it could rain without a single cloud in the sky. Farmer replied that he had heard a frog croaking and seen a firefly yesterday so it would rain that night. Indra asked how he knew about this. The farmer replied when frog croaks, the firefly comes out of hiding and when firefly come out, rain god have to shower rain. Indra told the farmer that he was wasting his time, as it would not rain that night. To prove his argument, Indra went to the frog and told it not to croak and he also went to the firefly asking not to come out. After doing this, Indra went to the sky and waited for the sunset. The farmer was firm in his belief so he dug all the fields and sowed maize seeds. After having his evening meal, the farmer again went to the field with his spade and a lantern (light). He wanted to cut terrace to channel water to the lower terraces. While the farmer was moving up and down with his lantern, Indra looking from the sky thought that firefly was flying so he showered rain. Good rainfall gave good harvest and the farmer became happy.

There is also another story of famous Gway Baje of Patan relating the power of water. His real name was Gajapati. He was called Gway Baje or Gaya Baje because there were only him and his mother in his family. He was a Brahmin so he used to go to bath daily in Mrityunjay bank of Shankhamul. One morning while going for the bath, it started heavy rainfall when he reached near Kumbheshwor. He found a house of Poda (a lower caste considered untouchable) for shelter but he didn't go in. Inside the house, the son of Poda was troubling his mother. The mother angrily struck the son with a knife, which killed him instantly. Seeing that, the mother began to cry. When the Poda came home, he saw what had happened and told his wife not to cry. Then he took his dead son to another room and brought him to life again. Gaya Baje -who was looking at this -was astonished as to how the Poda made the dead alive and wanted to learn that mystery. That Poda was a famous enchanter and many people consulted him for advice. From that day, Gaya Baje also started to go there but he didn't enter inside. He did this for many days. One day, Poda came outside and asked him why he was being spied. Gaya Baje requested him to teach him the mystery to bring the dead to life. Poda told him how a poor Poda could give anything to a higher caste Brahmin. But Gaya Baje was firm in his request. After four days, Poda told him to bring a bundle of Bel leaf (Aegle marmelos) and he took him to Mrityunjay bank and asked him to bath and to stay in water for a while. He then sat on the crematorium, wrote Mantras on the leaves and dropped them in the river. He told Gaya Baje to pick them up one by one and swallow. Gaya Baje did as he told and accomplished the mystery. Even after this, Gaya Baje was dissatisfied. He knew the mystery but couldn't attain salvation. Poda told him to go to Bundi Ganesh and worshiped there every morning to get salvation. Gaya Baje did as Poda said and one day Bundi Ganesh asked what he wanted. After hearing him, Bundi Ganesh, suggested him to go to Balkumari at the night of pisach chaturdashi and take enchanting black tika made by the witches. When the witches were bowing to offer their respect to Balkumari, Gaya Baje took the plate having tika and ran. The witches followed him to catch but Gaya Baje entered his house and his mother closed the door bolting it with iron chain. The witches couldn't enter the house and waited outside. The next morning, the witches requested for little tika with Gaya Baje, which he gave and the witches returned. Gaya Baje put on the tika to get salvation and became a big enchanter.

Pun Magars have majority in Parbat and Myagdi districts of western Nepal. Water, waterfall, lake, padhera (well) etc. are mentioned a lot in their folk stories like “Temple of Padhera in Banwari village”, “Story of Sasar spout”, “Story of damsel with golden hair”, “ Story of family god” etc. At the north of Lespar village in Parbat district, there is a hillock from where a river emerges. Many spouts are formed from that water source, so it is called Sasar spout. With the water from this spout, people of Lespar and surrounding villages worship Baraha and Siddha every year in Janai Purnima. The story goes like this.

Many years ago, milk used to flow from the source of Sasar spout. One day, a hermit came there. At that time, there was a rainfall for seven days and seven nights. Due to fog and rain, the hermit stayed in a cave near the source of Sasar spout. On the seventh day, the hermit brought the milk from Sasar spout in his gourd and cooked rice in it. As soon as the hermit ate that rice, water started to flow instead of milk and the hermit also vanished. The hermit after pouring the milk had hung the gourd on the top of a pole. After some time, seeing the gourd the villagers believed that there were gods. One day, a shaman told the villagers that there was Baraha and Siddha and there would be good crops and fulfillment of wish if they were worshipped. From that day, the elders of that village decided to worship in Janai Purnima. Later a custom started to worship on Tuesday, in Panchami and Purnima. But the main worship takes place in Janai Purnima.

It is believed that leprosy is cured if bathed in Sapantirtha of Tokha. According to a story, once there was a king. One day, he asked his three daughters as to whom they would like to get married. Two elder daughters wanted to marry with the rich princes of nearby country but the youngest one remained silent. The king jokingly said that she would marry with a poor leper living outside the village. Hearing this, the youngest princess remained firm on marrying with that leper. After that day, she daily went outside the village and took food for him and sometimes even bathed the leper. Though not happy with this, the king married the princess with him. Enduring difficulties, the princess then started to live with him asking for alms. One night, the princess had a dream that if her husband had bath in the nearby river in New Year’s Day, the leprosy would be cured. So the princess bathed her husband in New Year’s Day in that river. The leprosy was cured and her husband became young and handsome while she herself became more beautiful. Then they lived happily. According to Skandapurana, there is a belief that one will have children and will get what she desires if bathed in Mangaltirtha, and worshipped Mangalbhairabh, Mangaleshwor Mahadev and Shree Surya Vmayak. There is a small pond called Garud Daha, east of Ga Chhen tole in Bhaktapur. It is believed that diseases will not affect if bathed in the water of that pond.

There are many proverbs and gaon khane kathas (folk tales) related to water in Nepalese literature.

- Water doesn’t have any color, man doesn’t have any caste.
- Bubbles of water, betrayal for long.
- Drink water after filtering, appoint teacher after thoroughly knowing.
- Drink water of spring, get married with daughter of good family.
- Offer water, don’t show the source.

- Water doesn't thicken by heating, evil cannot be yours through preaching.
- You get hiccups if water isn't drunk, you get bored if drunk.
- One cannot swim without entering into water.
- Hostility with crocodile remaining in water.
- Neither crooked nor naked for water.
- Rain in September its implication in crop yield.
- Arrangement for monsoon should commence from winter.

Water and water related things are used in *gaon khane kathas* like:

- White furoila (an edible food) dropping from sky i.e. Hail
- Queen of sky dropped in earth, laid on ground as sun emerged, i.e. Dew
- Mother gives, daughter eats i.e. Putting water
- Glittering of seven colors i.e. Rainbow
- It can ran but can not walk i.e. River
- It can go but not comeback, i.e. River
- Laughing and crying together, i.e. Presence of sun and shower
- It can neither be hit nor pulled, i.e. Water.