



Changing Social Behavior in Drinking Water Projects: A Revision of Water Supply Scheme in Western Nepal

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Abstract

This paper explored changing social behaviors of the service beneficiaries in drinking water supply schemes. The study included five most accepted types of water schemes like; overhead tank system, shallow tube well system, gravity system, rainwater harvesting and water lifting system. Intrinsic case study methodology was applied to evaluate eleven drinking water project of western region of the country. Field observation, focus group discussion, and key informant interview methods were deployed during collecting information. This study found that all the drinking water schemes are running presently with big social and cultural issues. Beneficiaries are changing their behaviour while getting drinking water services offering by government and non-government mechanism. As so far, for natural and effective use of drinking water schemes it is inevitable to change social stigma and cultural attitude of the local people. Finally, this study reveals the importance of social analysis during drinking water project formulation stage so that issues of changing social behaviour of the beneficiaries can be addressed.

Key words: Social behaviour, changing social behaviour and drinking water schemes.

Background of the Study

Globally, meaning of development has been changing owing to ever-changing time and context. Development paradigms after millennium development goals-2000 more focused on health, hygiene and basic infrastructure. Recently, one of the seventeen sustainable goals (Goal 6: Ensure access to water and sanitation for all) has aimed to provide safe drinking water facilities to all up to 2030 or during post-millennium development goals era (United Nations [UN], 2016). Statistical data shows that 663 million people have no access to drinking water; more than 1.8 billion people globally are using unsafe drinking water that has resulted nearly 1,000 children die due to diarrhoeal diseases every day (UN, 2016). Locally, there are 56, 69,984 households with 2, 64, 94,504 population in Nepal. In total 88 percent of households are accesses of safe drinking water. In sectorial division, 87 percent of urban households and 85 percent of rural households have access to a source of drinking water and 46 percent have access to improved sanitation facilities in Nepal (Central Bureau of Statistics [CBS], 2011). In this context, development stakeholders like; state mechanism, I/NGOs, private sectors and community organizations throughout the country have been working together for increasing accessibility of drinking water projects since planned development effort after 1950 as well.

There are an estimated 40,000 water supply schemes of various types: rural, semi-urban and urban; gravity flow, pumping and combination of both; and large, medium and small scale in Nepal (World Health Organization [WHO], 2014). Most of the drinking water supply schemes completed without conducting a deep social study for long run sustainability of a project. Conducted sociological study of some project also done to fulfill the intention of service giver

(constructing agent) rather than problem solving with regards of service taker (consumer). Innumerable drinking water schemes are useless for local society because of not addressing social changing behavior of entire consumers. Drinking water supply schemes are directly connected to society or community. Community is always changing its knowledge attitude and practice influencing by the internal factors (curiosity, learning by sighted ability of human, replication habit, survival of existence theory of animal behavior etc.) and external factors (outer community, communication media, transportation, modern technology, natural resources, knowledge and education etc.). Such as changing behavior of society playing vital role in successive completion and long run sustainability of various social services like drinking water scheme. Drinking water scheme are facing such problem throughout the country. By the impact of changing social behavior several drinking water scheme are been dead, others are dying gradually, and some are being sick instead of providing safe drinking water sustainably.

Our Nepalese society is multi-ethnic and multi-cultural in from throughout the nation. Deep rooted cultural behavior and practices are not been eliminated and cannot eliminate by national constitution and laws in a limited period. It needs a long run supports, motivation, harmony and patient from state to person. To cope with imbalance between extreme and loyalty stage of society, every social developmental activity should carry out considering the present need of respected society and their entire members. Most of the social infrastructures are built on the basis of majority support and such practices become crucial for minority group of society. At the end, such activity becomes the main reason to failure of developmental project at community level. As the impact of modernity, social behaviors are changing gradually due to communication technology and transportation development. By the vast expansion of communication technology people are changing their traditional behavior too. Now people are getting exposure to the world through communication media like radio, television, newspaper, internet and transportation means like bus, truck, zeeb, motorcycle etc. People are updating now from remote to city day by day rapidly by digital media. Most of people are having mobile phone as a means of communication. Most of mobile phone facilitates people to listen radio and browsing internet. Innumerable FM radio stations and websites are dispersing abundant knowledge, attitude and practices from one corner to another corner of the world. People are starting to change social behavior influencing by mass media.

Most of the water schemes built based on majority demand. Members of the drinking water consumer committee are from elder age group. Firstly, they do not represent the youth changing social behavior. Secondly, Most of water scheme built to spend the developmental budget for social services. There are hundreds of agents are making money out of such social infrastructures and services. If, any one organization supposed to build a scheme would make delay or strict on norms and regulation for a particular project, then other organization would grab the project and would make honey out of that. Majority of consumers in social infrastructure are from young age group. Young people are thinking differently and acting differently than elder people. In the hurry of making project, no one is going to study the changing behavior of society. Here is why this study gave bold focus on formulating effective drinking water project before implementation. In this response, I as a researcher developed research question; why service beneficiaries are changing their social behaviors while getting drinking water services particularly in western regions of the country?

Drinking Water Using Practices in Nepal

Existing practices: Traditionally water related to life of person and society, so there are some standard sets of cultural rules, regulations and practices over water use and its resource management in every society. In previous days the water resources are abundant than the requirement. Every ethnic society has own secure water source. They were using water as per their cultural customs. As the population increase gradually the water sources are deplete. To cope with water scarcity they build some changes in water using system and made some certain rules and regulations. At present because of high density of population and depletion of water source too many people from a community using one water source. Such practice needs a lot of patience and tolerance from every ethnic member. To use water source some community share the water source, some community divided the existing source and some are make turn and order to use water from source. Increasing the water consumers and depleting the water sources the conflict between ethnic groups occurring many part of nation throughout east to west.

At this modern stage, people are getting exposure of outer world because of rapid growing communication and transportation facility. People are travelling city center to foreign countries looking for jobs, study, health treatment and entertainment. During their travel, they learned different social behavior, healthy tips and modern life style. Most of time people are replicating the justified behavior and practices in their life wherever they go. Presently, young generation and adults are shying to bath and change dress openly in public water source, clean private clothes publicly.

As people travel different places easily looking for job, they could able to earn some money. Individuals earning raises the household income of a family. Such increased household income supports to spend on food, education and health treatment for a family. Higher income manipulates people to adapt healthy food habit and secure healthy daily behavior.

Because of health awareness programs, people are purifying water by different way for daily use.

They avoid using probable contaminated water public sources. During field study it found that, public taps are entangles of water pipes driven to individual house yard.

As foreign remittance increase purchasing capacity, most of household are having mobile telephone. Listening radio and connecting to social media youth are avoiding using public water source for security, healthiness and adaptation of modern behavior. Those people who used to washing and bathing in public water source without hesitation now they insist to use separate bathroom and wash room. Reasoning that they are collecting water by using pipe line from drinking water project (see in figure one).

The Methods

To the best address of my sole research question; I as a novice researcher followed quality research approach. I understood qualitative research is based on personal interpretation vertically and horizontally expanded description and understanding composite ground reality of



Figure 1. Public Water tap-stand

the researching themes (Stake, 2010). Qualitative approach helped me to appraise researching issues from subjective/anthropogenic perspectives. Under this approach, this study applied intrinsic case study methodology for appraising service function of multi-sited drinking water projects to understand changing behaviour of the beneficiaries/participant in different socio-cultural and economic contexts (Denzin & Lincoln, 2011). According to Stake (1995), case as “a bounded system” and inquire into it “as an object rather than a process”. It is a specific or a complex functioning thing like; boundary and working parts and purposive social interactions (Stake, 1995, p. 2). Theoretically selected eleven drinking water projects located in western Nepal were regarded as case or unit of the study. Primary information was generated from field visit. To the end field observation, focus group discussion, and key informant interview methods were applied for generating information. Similarly, field note, photographs, interview checklist and focus group discussion guidelines were used as research tools. More so, secondary information was also used to triangulate researching themes.

The Discussions: Demonstration Effects

As the impact of globalization, the societies are changing towards modernization. People are changing personal traditional behavior. Most of districts of country are changing towards open-defecation free zone. Public water source are refusing to use. Mainly the youth are preferred to bath, clean, and take water from privet water source. People want to save time from fetching water from public tap stand. People become more health conscious towards traditional water using practice. They want clean and safe drinking water rather that public water source. People are learning different hygienic behavior from digital audio video media and internet websites. Extension of rapid growing transportation facilities brings civilization to community. Rapid growing transportation and information services increase the opportunities of income generation that enhance safe water using practice in society/community.

Cultural Effects

Nepalese society is multi-ethnic and multi-cultural in form. Cultural behavior could not change once by enforcing law and constitution. Social infrastructure like drinking water scheme, built base on law and constitution are become flawed in community. In-depth social changed behavior need to study before implement water scheme in community. The untouchability is not eliminating yet from the heart of dogmatic people from our society. Dogmatic people wants separate/secure water source to practice cultural customs. Such people do not want to show internal intention but does not want to change personal behavior. Such dilemma between intention and behavior several public water scheme are been flawed in the different part of country. During field study in Doti it found that Dalit and untouchability class people were not get more than three earlier months' supply drinking water from public water source. Complaining to the water consumer committee, consumers were show technical problem on water scheme but that seems more social problem rather than technical problem. Same types of consequences are facing Dalit consumers in Rukum too. Avoiding to touching water from untouchable class, water pipes are driven up to house yard up to individual household.

Project Appraisal Effects

Many water schemes are running from long time. Those projects are need to make amendment on intake, transmission line, reservoir, distribution chamber, speed breaker, and filter,

tap-stands and water drainage. Several changes need to make in long run to fulfill the need of particular society. Quantity and quality of water would become big issue in long run to revise in fast changing social behavior of community. Increasing population, raising health awareness, changing climatic condition are others issues that foster the amendment of water scheme time to time according to changing behavior of community. Because of education, people of community are being aware about different types of disease and sanitary practices. Increased knowledge and learned practices are replicating by younger member of society. Most of people are insisting to have personal and secure water source to fulfill daily water need and satisfy cultural customs. Time is being precious for everyone in this world. Most of the water scheme is constructed water tap stand common for several households. Everyone wants to save time from household work (unproductive) to productive work. To save time from fetching water from public tap-stand consumers are driving water pip up to house yard. Because of time limitation and volume of water us some incidence of social conflicts are taken place in Rukum, Jumla, Dadaldhura, and Palpa. The drinking water scheme at Sauraha of Rupendehi has overhead water tanker system supported by fund Development Board. As per projected scheme, it sets to build 13 number of tap-stand to supply water in community. As project complete, no consumers were getting water from public tap-stand. By different perspectives socially, time saving, hygienically and economically consumers were willing to have water on house yard. Finally, scheme management committee forced to drive personal tap-stand to consumer's house yard with extra 12 lakh credit investment from local financial organization.

Naturalness Effects

Other case of changing behavior on water scheme is in Palpa, Yamgha. Rainwater harvesting water schemes are enforced in Yamgah. Every household constructed two water tanks with two thousand liter capacity. Present field study of this project show that no water tanks are using for drinking and cleaning (household use). People dose not accepted rainwater harvest to drink and clean. Households are using rainwater to feed cattle only. Increasing social awareness by different communication Medias are change the social behavior of consumer. Other part of this scheme is, those tank are not been full since four years. Consumers are using harvested rainwater collected from rooftop only one or two month in a year. To fulfill the need of water, consumers are obliged to get water from nearby water scheme. At present consumers are using one harvesting tank to reserve water from rooftop and other harvesting tank to collect water from nearby water scheme. In this scheme, primly the organization who implements the project does not make deep study of social changing behavior in community about water use, do not measure the actual water need of consumers and does not make detailed study for rainfall in project area. This water scheme seems enforced at Yamgha to achieve organizational goal of implementing organization and get benefit out of that. In regard of deep-tube-well water scheme in Laxmipur, Kanchanpur consumer committee formed to make over-head tank water scheme. By influencing of local organization deep-tube-well scheme projected at the community. In plain region of Nepal, normally ground water available from 15 to 25 feet below the ground surface. Most of household are having own tube-well for daily water use. To avoid the contaminated water with arsenic and iron-portion consumers are planned overhead water tank scheme. Without addressing the changing water use behavior of consumers, local organization and local leader enforce the tube-well water scheme and that was useless to consumers. A big amount of money on scheme is gone in vain

Natural Shocks

Last two big shocks on 25 April and 12 May 2015 caused several changes in behavior of people and drinking water supply schemes throughout the country. Some water sources are destroyed, some sources are originated newly, and some water schemes are depleted. According to the impact of earthquake, the consumers of various drinking water schemes changed their social behavior. A joint research conducted by Save the Children, Plan, Terre de hommes, UNICEF and World Vision on 5 earthquake affected districts on March 2016, shows that mostly children and young females are facing difficulties of water use. Similarly, CARE's Rapid gender analysis note that, many women also facing lack of privacy as usual bathing facilities are damaged and alternatives are insecure/in the open. Dodari water scheme of Doti and Rughadanda water scheme of Rukum are came to the impost of earthquake 2014. National calamities are also appearing one of a very important factor at present to change social behavior on water scheme

Conclusion

Drinking water projects in western Nepal are formulating and implementing with traditional concept. The effect of such trend has resulted burdensome issues while getting service delivery opportunities by the beneficiaries. Traditional behaviors of beneficiaries have been changed into modern behaviors due to internal and external themes (five themes reported in discussion part). Most often, formulating drinking water project in a point of year, and implement several years later in same module that miss the changing behavior of current consumer and could not provide effective and sustainable service to the future society. Most of the social infrastructure built once and leave that to die without any periodical amendment according to the need of society. Hence, before enforce any water scheme need to conduct in-depth sociological and anthropological study in community. Different consumers group have different behavior and attitude towards social infrastructure like drinking water supply. Changing behavior of consumers groups because of internal factors and external factors needed to assess by conducting periodical sociological, anthropological and technical study of all water scheme throughout country. According to the result of such study, need to pay through attention while formulating and implementing drinking water projects throughout the country.

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