

Sustainable Sanitation beyond Taps & Toilet

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Abstract:

Sustainability is a crucial aspect of sanitation to be addressed in rural and urban area; globally high focus was given to International Year of Sanitation 08 (IYS 08). Similarly, based on lessons learnt for more than 15 years in rural areas of Nepal, RVWRMP realized "*Sustainable sanitation means the facilities and system which demonstrate the positive impact on health and environment. People should enjoy its benefits in their livelihood so they take responsibility for continuity from present to next generation.*"

The basic concept of joint learning process adopted by RVWRMP in sustainable sanitation is *for Heath, Environment & Dignity*. It is not merely a physical facility of water supply, latrine, drainage or technological choices but livelihood at center to reduce poverty. The water supply and sanitation are major priority programs of first phase (2006-2010).

Beyond time consuming approach, working together with local bodies and beneficiaries through demonstration, is an effective process to motivate people and to enhance the capacity of community. Women's involvement has multiplier impacts since they are; the sufferer without facilities, stay at village, sincere in action, more active for joint action and interested to learn in group. If people observe the result through demonstration then they trust towards the success of program. If so, they match their cash/ local resources. Mass awareness with short and action oriented messages are easier to understand. Acceptance of technological options is based on cultural & social values and practices. Development of skill human resource at scheme level creates employment opportunities and has direct effect on operation, maintenance and continuity of facilities .

Introduction:

Sanitation has direct effect on health, environment and economy. It is also a public health issue because diarrhea is one of the major killers of children under five years of age in developing countries. Improved sanitation and hygienic behavior prevents water sources from contamination.

The opportunities and initiatives have been increased since many years. The campaigns for *No open defecation* have been launching with high priority through different working

approaches like Community Led Total Sanitation (CLTS), School Led Total Sanitation (SLTS), and EcoSan. In case of latrine, there are different technological choices based on affordability like dry direct pit, wet direct pit and urine diversion latrines nationally and internationally, there are many platforms where governments of different countries have been signing for their commitment to meet the United Nation's Millennium Development Goal (MDG) of sanitation. However, besides the efforts and investment, the overall achievement of sanitation is still low, slow in pace, big gap between coverage and practice. The sustainability remains a challenge. The situation is further critical in developing countries like Nepal.

The Tura study * carried out in India in 7100 households of 162 villages ,after 5 years of implementation states that of the total built latrines, 34 % households are not using latrines and went back to open defecation . These are the villages which had been received the Nirmalgram awards Rs 50000 (Euro 4901) for the excellent achievement in *No Open Defecation* campaign. In case of Nepal also, there are such many communities where similar situation is reported*

Nepal is geographically, culturally and socially diversified country. More than, 85 % population reside in rural areas. The national annual per capita income is US\$ 290. Remoteness and high poverty are the major challenges to scarce resources. More than 31 % population are under poverty (UNDP, 2007). The Infant mortality rate (IMR) is 48 per 1000 and under five death rates is 61 per 1000. Even if the population access to water supply and latrine is 78 % & 46 % respectively. However it does not ensure the quality and proper use of facilities (Nepal Country paper, SACOSAN III, 2008). Besides the initiatives and increasing trend towards progress, the raised concerned in relation to continuity and sustainability are coverage vs. practice, cost vs. quality, poor vs. rich, subsidy vs. technologies.

The main reasons behind lack of sustainability and low impact on people's health and livelihood are found as: Poor political will to implement the existing policy and commitments. The concerned authorities do not feel their liability to people's health and environment. Sanitation is not realized as human right and basic need for health. The lack of transparency and corruption reins the quality of built structures. Beyond good participatory modalities of mobilization of people and resources, the major focus has been paid on construction of latrine. Now a days more attention is for declaration of no open defecation. Latrines are built in hurry with poor quality and no continue monitoring system is developed. Lack of linkage of program with people's other needs and livelihood; which have direct effect on sustainability of sanitation like water , financial support to poorest of poor for quality latrine , drainage, capacity enhancement at local level, promotional activities for income generation and reuse of wastes.

Technological options are based on affordability which discriminate the quality between poor and rich. Mostly poor are choosing poor quality and temporary kind of latrine which

* (posted in e- bulletin, on Nov 24th, 2008, Sanitation Updates).*

is not motivating them to build again and again because such latrine has bad smells, unpleasant and not feasible in flood areas. Minimum standard of quality must be maintained for all. In case of poor partial financial is essential for total latrine coverage of particular village otherwise so that no open defecation in all households can be achieved (household must match local materials and labor).

In the context of these mid and far western regions the Dry toilet is not accepted since culturally and socially people are washer after defecation. Water is essential to wash and to keep latrine clean. In rural areas Most of the latrines are away from home since it is taken as dirty place. Where social discrimination is high it is Lack of full involvement of women, children, poor and disadvantaged the. They are out of access or unknown to resources and facilities. They are innocent, illiterate, and isolated. They are unaware of their human rights and their roles in development process.

The Delhi declaration of third South Asian Conference of Sanitation (SACOSAN III, 2008) has recognized water supply and sanitation as basic human right and national priority. It has recommended the integrated interventions beyond taps and toilets as; *Climate Change and Sanitation – Clean Development Mechanisms and Carbon Credits “Waste” to “Wealth” - Liquid and Solid Waste Management and EcoSan – Education and capacity building on EcoSan*

Based on above lessons learnt, recommendations of SACOSAN, national policy and mandate of IYS08, the Rural Village Water Resources Management Project (RVWRMP) has been initiating an Ecological sanitation program led by local bodies and community in 10 districts of Far & Mid Western regions of Nepal. These districts includes himlayan, high hills, mountaines and plain (Terai). All regions are highly deprived from high poverty and overall development process. Further, the project areas are in very remote areas. Whole VDC is out of attention of political and government machinery since there is no elected political local body.

The overall objective towards which the RVWRMP has been contributing is: Improved quality of life, environmental conditions and increased opportunities to improve rural livelihoods in the mid- and Far West regions through rational, equitable and sustainable use of water at the village level.

Method:

RVWRMP has adopted the participatory and decentralized approach which involves all stakeholders in planning and implementation process. This modality is well tested and success in Lumbini zone, Nepal by Rural Water Supply & Sanitation Support Program from 1990-2005. Replication is observed in many areas for example six VDCs of Palpa district. There is influence at national policy level through national sanitation action steering committee; the national sanitation master plan (draft 2009). However, at present Nepal is under peace resolving process after 12 years arm conflict, so is political instability in the country. Major role of RVWRMP is to facilitate the program through capacity enhancement of stakeholders and financial support.

The scheme of RVWRMP has a cycle of planning, preparatory, implementation and post construction phases. The cycle takes 1-2 years depending on the size of scheme. The step -by -step activities provides opportunities for all stakeholders to work & learn together. It creates the better understanding among stakeholders, facilitates to their responsibilities and develops supportive environment. Right holders (Beneficiary) are at *center*, as manager and owner of the program. At community level main institutions are community organization (CO), Users committees (UC) of specific scheme, Water Resource Management Committee (WRMC), schools, and Village Development committee (VDC) . These have essential role to prioritize the programs and raise fund at their level for scheme implementation, operation and maintenance. The community organizations (COs) have specific role to raise fund for micro credit.

The main activities and purposes of different phases are as;

Planning phase: Water Resource Management Committee prepares Water Use Master Plan the main objectives of this WUMP are inventory of all water sources of whole Village Development Committee (VDC) and plan for multiple use of water sources for livelihood. It is prepared by involving each clusters of whole VDC in participatory process. The master plan prioritizes the program based on their need. Further this plan is endorsed by VDC assembly. Based on this water use master plan the RVWRMP provides funding for implementation. The separate community organization of male and female is formed for the purpose of community mobilization process and micro credit activities.

Preparatory phase: This phase prepares the community, local organizations and users committee to implement scheme as prioritized by water use master plan (WUMP). Among beneficiaries a Users Committee (UC) is formed to lead and manage the scheme. The users committee (UC) is responsible to procure the materials, construct the infrastructures, raise the fund and mobilize community for their responsibilities. UC prepares the community action plan (CAP) to be carried out in implementation phase. Maximum training and mass awareness activities are organized during this phase.

Construction phase: Construction activities takes place in this phase. The users committee and beneficiaries become active to construct the physical facilities like water supply, latrine, and drainage and so on. Fund raising activities continue for operation and maintenance of systems.

Post construction phase: This phase further ensures the sustainability of scheme. More emphasis is given on promotional activities like continuation of latrine construction, income generation, home gardening, solid waste management, improved oven, fund raising for operation and maintenance, livelihood, source protection and conservation and water safety plan. A participatory monitoring system (PME) is established at community which is carried out by Users committee, community organizations (COs), teachers, Female Community Volunteers (FCHV) and VDC in a regular basis. This phase develops the cooperation and linkage of users committee with district level governmental line agencies and non governmental organizations for continue support in need, after phasing out of RVWRMP.

The matching fund for investment is mandatory for any kind of schemes from beneficiaries, VDC and District Development Committee (DDC) . Regarding monitoring each phases have participatory monitoring activities 4-5 times from planning to post construction phase.

In International Year of Sanitation, 2008 (IYS08), RVWRMP initiated special focus program of ecological sanitation in 6 villages of 6 districts of project areas to demonstrate the result.

The program was initiated in Rolla, in IYS08. Rolla village is situated in hill area and there are 104 households and 582 populations at present. Of the total households, there was no any latrine. Open defecation was on and around road side. Due to poor personal hygiene women used to hesitate to come in meetings. Common health problems are diarrhea, dysentery and worms. According to district health office, this village has high number of HIV infected cases. The existence of army barracks in the village indicates the impact of arm conflict on people's insecurity and lack of access to existing resources of district.

Result:

In general, the achievement is encouraging in most of the project areas and schemes. After confirming the water for cleaning and washing, demonstrating some latrines in the community, training, mass awareness and repeating interaction gradually, people's interests, have been increased to demand for latrine. Water supply is pre-condition for sanitation. All latrines are Sulav (double pits) and built by local materials like stone, slate, wood. Financial support is provided in kind up to plinth level based on wealth ranking by community. Village development committee also matches Rs. 300 per household in this subsidy. Total cost up to superstructure is average Rs. 12 000 where as household has been contribution in cash and labor from 50-90 %.

Beyond challenges of remoteness, poverty, absence of local government and given least priority on sanitation in WUMP by people, the achievement is already encouraging. According to May 14th, 2009 (MIS, RVWRMP) the total latrines newly built and in use are 5,237 (31,422 population,). The additional demand for Sulav & eco latrine (wet) has been reached to 1700 till May 2009. Despite high poverty people are investing and creative to make their latrine attractive, multipurpose e.g roof is used for drying of grain so made accordingly. Further replication effect has raised the concerned by the neighbor villages. Returning misused money after public auditing, is a **breakthrough** in the project areas.

The Rolla village is one of which has been encouraging to other villages in Dailekh. Replication is already in many wards of this VDC. According to mid term evaluation mission of RVWRMP which observed the four schemes including Rolla, has stated the result as *promising* (MTR report, Nov 2008) .The stated target of project document phase first (2006-2010) in sanitation is 60,000 population (about 10 000 latrines) to be covered.



61 years old Ganga Mahatara tells the facts beyond tapes and toilet she says "today the face of Rolla village is completely changed from dirty to clean. There is no feaces on the road I was not sure to success of program at this level. My whole village is clean, and all households have been using latrine, we are not allowed to go out side for defecation. The Sulav latrine (2 vaults) makes life comfortable as it can be reused. My house and children are clean. The waste water of kitchen and tap is adequate for my kitchen garden and plastic house.

The closer tap water saves my time for vegetable farming and relaxes. Before this program, I had to spend 2 hours and night (during summer) some time to collect water. I have made platform and dryer rack (Chang) for utensil. After receiving leader farmer training, I have built plastic (green) house for off season vegetable farming. Now I have started selling of vegetables. Within last 3 months, my income raised to Rs. 5000. My son has come back and dropped the idea to go India in search of job."



Further she ensures the sustainability of facilities as "we have enough funds in my female community group (community organization) same is in male group, female community health volunteers also have Rs 50000 revolving fund provided by district health office and users committee has raised fund for operation maintenance fund. We all have been raising fund to pay for village maintenance worker (VMW) which looks after water s proper operation and maintenance of water supply. We have 2 trained local latrine builders (LLB) in need. We have received different kind of trainings so we are aware to practice hygienic behavior. We have started eating green vegetables and washing hands with soap after defecation. Within 2009, we will have facilities of improved cooking stove and water mill as well. All these facilities are women's matter so we are now careful for proper operation and maintenance. I am privileged with such good facilities at my old age."

Conclusion:

The sustainability of sanitation is directly coupled with water so is first priority of people. Being agricultural community water is highly linked with the livelihood of people. Ecological sanitation is important to be adopted to prevent water sources & environment from contamination. Cultural practices and believes are to be seriously taken care before proposing any technological options. People like and contribute their cash and kind for better and quality structures. In case of latrine basic quality should not be compromised based on poverty and cost. Poor and disadvantaged need financial support, more time to understand the importance of facilities and their roles. Women are the key to be involved, mobilized and trained to take care of the facilities; it has multiplier impacts in the family and community. Participatory monitoring, public hearing and public auditing are key to

reduce misuse of money which has direct impact on quality and political will. Positive result of demonstration has high effect on motivation of people. Sustainability is directly linked with poverty, livelihood, social and cultural values, income generation and commitment of all stakeholders with high regard to people's right of basic need.

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