2015 UN-Water Annual International Zaragoza Conference
15–17 January 2015
Water and Sustainable Development
From vision to action
UN WATER
WATER FOR LIFE 2005-2015

Case study: Democratic Policy of Civil Society in Risk Management for Universal Access of Safe Drinking Water, Sanitation and Hygiene in Pakistan

Speaker: Muhammad Wasif Bashir Babar

Short Summary

Equal access to safe drinking water and adequate sanitation is a basic human right**.** This study was carried out in 2014 in Lahore, Pakistan where the community faced critical drinking water, sanitation & hygiene conditions and were at high risk from a hazardous environmental and health situation. Exacerbating issues were high levels of poverty, lack of political will/interest, environment pollution, worse socioeconomic status, lack of education, poor hygiene, high rates of diseases associated with poor water, sanitation & hygiene (WASH), high risk to ground/surface water sources contamination and that ultimately contributing in the destruction of the natural environment and ecosystems. A Faisalabad based civil society joined with Government of Punjab and initiated development of WASH services and effective water risk management in the community on participatory basis. Youth was engaged in all phases of social mobilisation as well as community participation for the WASH Development and Risk management process/activities. Now local youth leaders play vital role in community development and risk management for improving and attaining universal access to Drinking water, safe sanitation & hygiene. This study was carried out to assess and analyse the effective role of civil society and youth in WASH Development and risk management, along with the process of community partnership and flexible strategies for community development. This project involves six hamlets but three hamlets were selected as the target population and structured interviews were scheduled, along with focus group discussions, and personal observations were used for data collection from the community using a probability sampling technique. This bottom-up and participatory development approach is a novel and democratic method of community development. It engaged youth, women, educational institutions, religious leaders and children in

the social mobilisation process for community participation in WASH development & effective water resource/source risk management. Local youth and women water groups played a very important role in all the developmental activities. It is concluded that engaging communities and youth in development activities can play an essential role in developing local community ownership and ensure project sustainability. This study suggests that youth, media, women, educational institutions and civil society should join forces to develop viable partnerships within communities and governmental institutions for sustainable Water/WASH development within an ecological framework.

Key words:

Universal and equitable access to drinking water ; Safe drinking water ; Affordable drinking water ; Adequate and equitable access to sanitation for all ; End open defecation ; Consider needs of women and girls in access to sanitation ; Consider vulnerable groups in access to sanitation ; Combat water borne diseases ; Reducing pollution ; Eliminating dumping of hazardouse waste ; Minimising release of hazardous chemicals and materials - achieve sound management of chemicals through their life cycle ; Reducing untreated wastewater ; Increasing recycling and safe reuse ; Protect, restore and sustainable use of inland freshwater related ecosystems ; Increase water use efficiency accross sectors ; Ensure sustainable withdrawals ; Ensure supply of freshwater to address water scarcity ; Implement IWRM ; Water cooperation ; Reduce number of deaths and number of affected people ; Reduce economic losses ; Protection of the poor and vulnerable

Issues Addressed:

WASH (inequalities, schools, health centres, refugee camps, women and girls)

Target community suffered appalling conditions relating to drinking water and WASH which was of high risk to sustainable water and environment management. Majority of community was uneducated and unemployed. About 79% below poverty line as defined for developing nations. Poor communication systems, poor access to information, groundwater contamination, flush and forget/discharge sanitation system meant disease and environmental pollution and high risk to sustainable water management.

Water resources management (water-use efficiency, integrated water resources management, transboundary cooperation, sustainable extraction and supply of freshwater)

Groundwater was totally contaminated by septic tanks and high water table, poor sanitation and environmental conditions. Poor sanitation and low education severely impacted water and water sources. Measures put in place save time, money, health and have improved local economy. All community members engaged in the risk management and water development project with integrated sanitation, hygiene and education. Groundwater is now a source of drinking water for community, underground drinking water piping networks installed in the community, water supply

connection installed for each household on doorstep, freshwater extracted from ground aquifer at the depth of 213 metres, electricity provided and tube well installed for extracting groundwater, overhead water reservoir with 190,000 litre capacity constructed for water storage. Supply by gravity flow, water storage tank at each household, sustainable water use and conservation, monthly water billing for revenue collection, operation and maintenance with sustainable development approaches.

Water quality (pollution, dumping of toxic materials, wastewater management, recycling, reuse, restore ecosystems and aquifers)

Community had been drinking water which was highly contaminated. Underground sanitation/wastewater piping networks installed. Installation of disposal pump/ station for waste water treatment, effective sludge management, reuse of waste water after primary and secondary treatment, recycling of water and ground water recharge, recycling of nutrients. Restoration and preservation of local aquifers and protection and development of natural systems with the concept of 'Sustainable Ecological Development'.

Solid and liquid waste management cluster committees formulated by local people for pollution control and managing the solid waste and organic waste and reuse. A disposal plant was installed for waste water treatment, staff hired for sludge management and this sludge used as fertilizer after proper treatment. Waste water used for irrigation after proper treatment. These activities established and developed by the community for the community. All these activities help in controlling the pollution, protecting the ground/surface water source, aquifer/ ground water recharge, effective solid/ liquid waste management, environmental sustainability, recycling and redeveloping of nutrients loops, which eventually support and lead to sustainable development of ecosystem.

Risks (mortality, economic losses caused by natural and human-induced disasters)

Disease was prevalent and most newborn babies and pregnant women were at high risk of WASH related disease. A huge amount of community used to spend on treatment for diseases directly associated with water which play key role in economic loss and increasing poverty. Community engaged in the development activities. People assembled to discuss the water challenges, action plans and progress. People began to educate others about personal and environmental hygiene.

Tools for implementation:

Financing instruments: This project was developed by public private partnership model in two components named External & Internal Component. External Component was financed by the Provincial Punjab Government while Internal Component was financed by local community by self-help development approaches. All the households pay a standard amount, about USD 62, for equal access to WASH Services. Community collects 38% of total project cost. An endowment fund was also developed for the extreme poor to pay their share.

Governance: Institutional framework: Water & Sanitation Authority (WASA) is a legal institution primarily responsible for provision of WASH services, but here a Community Based 'Water & Sanitation Community Organization' (WASCO) was established as a new institution based on local people being responsible for effective governance of water sources, supply, quality control, revenue collection, risk management, and running the project in a sustainable way.

Technology: A centralised drinking water and sanitation piping network was installed to protect drinking water from contamination, surface water pollution and environmental hazards. A main waste water trunk line underground carries all waste water to a disposal plant where the water is used in agriculture (irrigation), and groundwater recharge after treatment. An engineering team permanently observes and controls the piping level to minimise health risks.

Capacity development: Local school teachers were trained by civil society in sustainable water management, sanitation and hygiene promotion in all its forms. Local community Water/WASH Development Group also formulated and trained water resource management, protecting and preventing pollution, risk management about surface and ground water contamination, hygiene. Institutional framework established along with local community WASH Development Committee and their capacity building for management and risk reduction.

Lessons Learned:

Triggers

- Poor drinking water quality
- Inequality and discrimination in access to water sources
- High risk to water resources
- Poor hygiene and sanitation of local community
- Poverty
- Lack of political interest
- Slum/ urban sprawl
- Deprivation
- Social exclusion and anonymity
- High rate of disease associated with poor drinking water, WASH

Drivers

- Civil society
- Local youth (Including girls and boys)
- Women
- Religious leaders in WASH Development
- Government friendly approaches
- Child-to-child approach including CLTS & PATS
- Local community
- Water scarcity and efficient platform
- Social negotiation
- Educational institution/schools/religious institution/Madras/Mosques

- Water risk management committees
- Water based awareness and hygiene promotion leaders
- Health & hygiene educators

Barriers

- Lack of political will and instability
- Lack of education
- Lack of social integration before the intervention
- Environmental degradation
- High rate of precipitation runoff
- Poor solid and liquid waste management
- Leaching material and high risk to water resource pollution and contamination
- Poverty/ unemployment
- Low socioeconomic status of local community
- Intercommunity clashes and interest
- Diverse socio-cultural and linguistic background of resident
- Financial constraints
- Human resource mismanagement
- Insufficient resource allocation for water/WASH
- Corruption
- People with disability and personal priority
- Power and economic interest of local community leaders
- Poor social gathering and economic stability
- High rate of street crime, water stealing/ and water mismanagement

What has worked well?

- Active role of civil society organisation Anjuman Samaji Bahbood (ASB)
- Local religious leaders
- Involvement of women, girls, youth (boys and girls), old people and children
- Local educational institutions / schools/ mosques/shrine
- Sociologists/social mobilisation/health educators
- Local activists/ street/mohalah/cluster WASH Development Committees
- WASCO
- Gender based social activities within the community

What can be improved?

Local people training and capacity building is permanently needed for protecting the water sources from contamination and effective risk management. A senior citizen regulatory committee is needed for the monitoring and regulating the local WASH Development committees and WASCOs. Local community should assist for enterprise/ entrepreneurship about water, sanitation and hygiene. If the local people trained for effective faecal sludge management, onsite black water management and use it for alternate energy producing purposes like Methane (CH_4) then it can improve the

socioeconomic status of households and by this environmental, nutrient and water recycling, ecological stability and restoration, water management, water resource protection and conservation can be improved at optimum level.

The way forward

Local communities must be engaged in all the phases of planning, implementation, installation and developing the drinking water, WASH development schemes/projects. Local youth , women, children, educational institutions and religious leaders should be engaging in the Water/WASH development sector/ activities because this strategy will help in the developing the sense of community ownership which ultimately lead towards the great care, and look after of the project infrastructure and eventually it will increase the project sustainability. Sustainable WASH Development is majorly related to great care, operation and maintenance and efficient working of the project system/infrastructure which can be achieve with active community participation and engagement in the project activities as it create the local community's sense of ownership. Sense of ownership increase the rate of project sustainability at high level.

So local community, youth, media, children, teachers, religious leaders, women, should be take into account for the developing the visionary and sustainable WASH related projects in the Pakistan, developing world and can be implemented around the world.

A synergy of action should be taken for inclusion of sociologist , anthropologist, environmentalist, microbiologist, engineers, government, civil society, youth, women, gender based approaches, educational institutions, policy makers, political leaders, water resource management expert, ecologist and development visionary people should involved in this synergetic group which play significant role in creating Sustainable Water/WASH Development in the world.

Links

- Ahmad, N.(2012). Worth of public-private partnership in water, sanitation projects. Reported published: Urban Unit PandD Punjab, volume 2, pp, 21-25.
- Brooker, S., Mohammed, N., Adil, K., Agha, S. & Reithinger, R. (2004). Leishmaniasis in refugee and local Pakistani populations. Emerg Infect Dis 10(9):1681-4.
- EU Commission. (2009). mobilizing private and public investment for recovery and long term structural change: Developing public private partnerships. COM (2009) 615 final, Brussels.p.3
- Government of Pakistan. (2012). Institutional Arrangement for water and sanitation: Refined Edition. Pages, 23-31.
- Government of Punjab. (2010): "Desired intervention of water and sanitation and outcomes". Volume, 2.pages, 12-18.
- Koola, J. and Zwane, A. P. (2014). Water Supply and Sanitation. In A. J. Culyer (Ed.), Encyclopedia of Health Economics (pp. 477-482).
- PCO. (2014). Population census of Pakistan: Latest edition. Pages, 02-03.
- PHED. (2011). Sanitation coverage and analysis: updated report, Govt of Punjab. Pages, 4-9.

- Thomsen, P. (2007). Assessing the Impact of Public-Private Partnership in global south Asian countries .United Nations Research Institute for Social Development (UNRISD). Page 9-16.
- UN-Water. (2012). Analysis and assessment on water supply and sanitation: Updated Report. Pages, 22-28.
- Water Aid. (2011). Sanitation and Sustainability Framework. Page 36-40
- WHO / UNICEF. (2013). Joint Monitoring Program update Report: Water Supply and Sanitation. Department of Public Health and Environment. Page 1-2.
- WHO. (2012). "Hygiene in schools and children health": UN-Water Updated Report. Pages, 20-25.
- WHO. (2012). Global cost and benefits of drinking-water supply, sanitation interventions. Indicator and Measurement Registry version 1.7.0 page 4.
- World Bank. (2009). Improving transparency, integrity and accountability in water supply and sanitation. Institute and transparency international. page 2-17