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Effect of Sanitation Project of the Integrated Regional Support Program on the Community in Mardan District

Shahzad Malik[1] Rahmatullah[2] Nida Amjad[3] Mansoor Raheed[4] Salman Mulk[5] Fahdullah Khan[6]
1.Department of Agriculture Extension Education and Communication, The University of Agriculture Peshawar, Pakistan
2.Department of Agricultural Extension Education, Balochistan Agriculture College Quetta, Pakistan
3.Department of Zoology Sardar Bhadur Khan Women's University Quetta, Pakistan
4.Department of Agricultural Economics, Balochistan Agriculture College Quetta, Pakistan
5.Department of Sociology, University of Peshawar, Pakistan
6.Department of Agronomy, The University of Agriculture Peshawar, Pakistan

Abstract
The study was conducted in District Mardan KP Pakistan, with the objectives to find out the sanitation situation and CLTS interventions in the universe of the study and to analyze the afore-mentioned innovative approach expected to provide new dimensions for further improvements. The community response was very clear and positive pertaining the activities of IRSP interventions to overcome sanitation situation in the project area. The NGO staff was in contact with community members even after its completion of project tenure. They learnt various in-practice sanitation activities which were very common in daily life but awareness and ignorance was obstacle, like other rural areas in third world countries i.e. using of towel, hand washing with soap, tooth paste, open defecation and construction of latrines. The majority house holds comprising 89 sample size were quite satisfied from their performance. Projects on this novel idea is needed in rural and remote areas of KP to improve their livelihood and better health. The information generated hence may be utilized for repetition of such sort of projects.
Keywords: Sanitation, Project, Support Program, Pakistan, Mardan.

Introduction

Community Led Total Sanitation (CLTS) is an innovative recognized participatory approach worldwide, focusing on community mobilization to change the open defecation practice (Kar,2005). CLTS is a very effective and innovative social communication process, which creates the right social pressure to ban open defecation totally and to adopt hygienic behavior (Halder, 2005). CLTS approach has widely been used in South Asia and African countries, but there are limitations in this approach that varies from country to country. In CLTS approach, people make pit latrines which are not lined with proper sealing material and people use those latrines where they use water for anal cleaning. Although, behavior change is the ultimate goal of CLTS, but the impact of health and hygiene needs to be find out in CLTS villages (Pant, 2004; Mehta, 2009; WSP, 2008)

Worldwide statistics describes that 2.5 billion people are in scarcity towards sanitation, 1.8 billion people use contaminated water sources and one billion masses still uses practice of open defecation. Like other developing countries Pakistan is also facing serious problems in the field regarding sanitation.Sanitation is one of the important indices for socio-cultural development of any country. Better sanitation results in improvement of health, reduced child mortality, improved water quality, environment, and economic growth of a country. Despite the continuous efforts by the international agencies, different Government bodies and NGOs, sanitation coverage in most of the developing countries is far below the levels of satisfaction. An estimated 60 to 80 per cent of all diseases and over one third of deaths in the developing countries are caused by environment related factors and on an average as much as one-tenth of each person's productive time is sacrificed to water and sanitation related diseases. Some of the most populous countries among these are from the list of developing countries. In south Asia demographic and environmental health scenario continues to be a cause of serious concern in most of the developing countries. The traditional problems of water and air-borne infections combine with malnutrition and poor environmental sanitation to form a vicious cycle which is increasing the burden of diseases beyond the capacity of the existing health infrastructure and jeopardizing the productivity of the society (UNICEF, 2014).

Bacterial pathogens cause some of the most feared infectious diseases, such as cholera, typhoid and dysentery, which are quite common in Pakistan. Inadequate sanitation is estimated to cost Pakistan 3.94% of GDP. In Pakistan, only 9 out of 10 have access to water and more than 3 out of 10 do not have access to sanitation (Howard et al., 2001). However, the latest studies showed that hand washing with soap can play an important role in eradication of pneumonia to a greater extent (Curtis and Cairncross, 2003). In Indonesia, the CLTS has created the opportunity for communities to take better control over their sanitation and health outcome (Mukherjee and Shatifan, 2008). CLTS helps in eradication of the health incidences. In Pakistan, over 15 million people have no choice but to collect dirty water from unsafe sources and over 93 million people do not have

access to adequate sanitation in Pakistan, over half of the population (Water Aid, 2015). Inadequate water supply, sanitation and hygiene have led to higher rate of water borne diseases which in turn increase the mortality and morbidity rates in Pakistan. Diseases related to water, sanitation and hygiene (WASH) account for 110 deaths of children under-5 every day in the country. Lack of sanitation facilities in schools is deterring children, particularly girls, from enrolling and staying in school. Girls' menstrual hygiene needs are rarely accommodated in schools, serving as a further deterrent (UNICEF, 2014).

Better sanitation results in improvement of health; reduce child mortality, improved water quality, environment and economic growth of a country. The common features of all these studies so far reviewed suggest that sanitation is very crucial for promoting sustainable rural development and to improve socio-cultural status of the rural poor.

Study objectives

- The study objectives were to find out the sanitation situation and CLTS interventions in the universe of the study.
- Research regarding the afore-mentioned innovative approach in third world countries and Pakistan is expected to provide new dimensions for further improvements.

Research Methodology

The study area was carried out in district Mardan in the Khyber Pukhtunkhwa, Pakistan. The district lies from 34° 05' to 34° 32' north latitudes and 71" 48' to 72° 25' east longitudes. The total area of the district is 1632 km2. Generally, stream flows from north to the south. Most of the streams drain into Kabul River. Kalpani, an important stream of the district rises in the Baizai and flowing southward and finally joins Kabul River. The summer season is extremely hot. A steep rise of temperature observed from May to June. Even July, August and September record quite high temperatures. The temperature reaches to its maximum in the month of June, that is, 43.5°C (110.3°F). Most of the rainfall occurs in the month of July, August, December, and January (Wikipedia). Three villages named Umar killi, InzarKilli and BadyanoKilli were selected purposively. Total 89households were selected for the study from above villages 31, 28 and 30 respectively.In these villages a number of activities with respect to sanitation were completed by NGO named Integrated Regional Support Program (IRSP).To seek the quantitative data an interview schedule was designed and pre tested to make changes accordingly in order to get an accurate data. Collected data were transferred to excel sheet in computer. The data was analyzed by calculating simple percentages and drawing relevant graphs or charts.

Results and Discussion

1. Age of the Sample Respondents

It is clearly evident from Table 1 the majority (46.06%) of the sample respondents were of the age group was found between 35-45 years. The respondents falling in the said age group were found mature, educated and interested to give information regarding IRSP performance and it's Sanitation Project Effect in the area as compared to other age groups.Minimum participants i.e., 7.86 % were recorded from the age group above 55 years because they were old, less energetic and illiterate people. The data in general reveals that none of the respondents were found in the age group below 15 years. The reason could lie that the people below 15 years of age were either studying at school or college and they had no participation in village level organizations.

Table 1 Age Group of Sample Respondents

Village Name	Age Group (Year)					
	15-25	26-35	36-45	46-55	Above 55	Total
Umar Khan Killi	2 (2.24)	4 (4.49)	15(16.85)	8 (8.98)	2 (2.24)	31(34.83)
InzarKilli	3 (3.37)	5 (5.61)	12 (13.50)	6 (6.74)	2 (2.24)	28(31.46)
BadyanoKilli	4 (4.49)	3 (3.37)	14(15.73)	6 (6.74)	3 (3.37)	30(33.70)
Total	**9 (10.11)**	**12(13.47)**	**41 (46.06)**	**20 (22.47)**	**7 (7.86)**	**89 (100)**

2. Educational Status of the Sample Respondents

Education means the desirable change in the behavior of a person. It is not only important for the development of a country but also gives political consciousness to the citizens of the country, so educated person can easily adopt himself to a social change than an illiterate person.The total sample respondents were divided into two groups i.e., literate and illiterate. Table 2 states that majority (87.66%) of the sample respondents were literate while the remaining (13.34%) of the respondents were recorded as illiterate. at village level, the literacy level of BadyanoKilliwas high i.e., (31.46 %) than the other villages. High literacy level in the said village/Killi was due to the presence of schools and other needed facilities.

Table 2 Educational Status of Sample Respondents

Village Name	Education Status					
	Illiterate	Primary	Middle	Metric	Inter and Above	Total
Umar Khan Killi	5 (5.61)	2 (2.24)	3 (3.37)	13 (14.60)	8 (8.98)	**31 (34.83)**
InzarKilli	4 (4.49)	3(3.37)	5 (5.61)	10 (11.23)	6 (6.74)	**28 (31.46)**
BadyanoKilli	2 (2.24)	5(5.61)	2 (2.24)	12 (13.48)	9 (10.11)	**30 (33.70)**
Total	**11 (12.34)**	**10 (11.22)**	**10 (11.22)**	**35 (39.32)**	**23 (25.83)**	**89 (100)**

3. Marital Status of the Sample Respondents

Table 3 shows the marital status of the sample respondents where it is clearly evident from the table that majority (83.14%) of the respondents were found married while minimum (16.85%) were found unmarried. This reason could be that majority of the sample respondents were fully mature and were of middle class families.

Table 3 Marital Status of Sample Respondents

Village Name	Marital Status		
	Married	Unmarried	Total
Umar Khan Killi	27 (30.33)	4 (4.49)	**31 (34.83)**
InzarKilli	22 (24.71)	6 (6.74)	**28 (31.46)**
BadyanoKilli	25 (28.08)	5 (5.61)	**30 (33.70)**
Total	**74 (83.14)**	**15 (16.85)**	**89 (100)**

4. Name of Organizations working on Sanitation

Table 4 illustrates about different organizations working in sanitation, is reported by the sample respondents such as SALIK, IRSP and local government etc.Majority (78.65%) of the sample respondents reported that most of the sanitation works have been carried by IRSP. The reason could be that the respondents got more and more benefits and information from IRSP.The data further indicates that only 2.25% of the respondents in the area have been benefited by other organization. The reason could be that IRSP is one of the pioneer organizations working on sanitation in the area of Dist Mardan

Table 4 Name of Organizations working on Sanitation

Village Name	Organizations working on Sanitation				
	SALIK	Local Govt	IRSP	Others	Total
Umar Khan Killi	2 (2.25)	3 (3.37)	24(26.97)	2(2.25)	31(34.83)
InzarKilli	3(3.37)	4 (4.49)	21(23.60)	0(0.00)	28(31.46)
BadyanoKilli	2(2.25)	3 (3.37)	25(28.09)	0(0.00)	30(33.71)
Total	**7 (7.87)**	**10 (11.24)**	**70 (78.65)**	**2 (2.25)**	**89 (100)**

5. Respondents familiarity with IRSP

As the project area is the most remote one and rural poor living there who has no access to governmentdepartments in order to take sanitation related works in the area. Table 5shows that whether the sample respondents were familiar with IRSPor not. The data shows that maximum (89.89%) of the respondents have familiarity with IRSP whereas 10.11% of the respondents showed no familiarity with IRSP. The reason could be that they were in no need for sanitation works and they were from high class and already benefited from government department.

Table 5 Respondent's Familiarity with IRSP

Village Name	Familiarity With IRSP		
	Yes	No	Total
Umar Khan Killi	27(30.34)	4(4.49)	31(34.83)
InzarKilli	25(28.09)	3(3.37)	28(31.46)
BadyanoKilli	28 (31.46)	2(2.25)	30 (33.71)
Total	**80 (89.89)**	**9 (10.11)**	**89 (100)**

6. IRSP interventions in the area

IRSP is a national organization working for the uplifting of rural population. The organization works in all sectors of development in the area.Table 6 shows the interventions carried out by IRSP in the area of sample respondents whereas it is evident from the data that maximum (73.03%) of the respondents reported that awareness, community development, education and vocational trainings activities conducted by IRSP in the area. On the other hand minimum 2.25% of the sample respondents stated that IRSP only worked on awareness. This could be on account of unawareness of developmental activities and lack of interest in the development of an area.

Table 6 IRSP Interventions in the area

Village Name	IRSP Interventions					
	Awareness	Common Develop	Education	Vocational Training	All	Total
Umar Khan Killi	0(0.00)	2(2.25)	3(3.37)	3(3.37)	23(25.84)	31(34.83)
InzarKilli	1(1.12)	4 (4.49)	1 (1.12)	4 (4.49)	18 (20.22)	28 (31.46)
BadyanoKilli	1 (1.12)	0(0.00)	2 (2.25)	1(1.12)	24 (26.97)	30 (33.71)
Total	**2 (2.25)**	**6 (6.74)**	**6 (6.74)**	**8 (8.99)**	**65 (73.03)**	**89 (100)**

7. Respondents change in feelings after IRSP sanitation project

Table 7 states regarding change in feelings that either IRSP sanitation project showed some change in the field of sanitation or not. It is clearly evident from the data that IRSP sanitation Project has done a remarkable job in Sanitation related activities.Table shows that majority (88.76%) of the sample respondents reported that they felt change after IRSP sanitation Project.Whereas 11.24% of the respondents showed no change in their feelings. The reason could be that they were not interested in sanitation project carried out by IRSP or either they were not in need of sanitation works.

Table 7Respondent's Feelings Change after IRSP Sanitation Project

Village Name	Feelings of Respondents		
	Yes	No	Total
Umar Khan Killi	28(31.46)	3(3.37)	31(34.83)
InzarKilli	24(26.97)	4(4.49)	28(31.46)
BadyanoKilli	27(30.34)	3(3.37)	30(33.71)
Total	**79 (88.76)**	**10 (11.24)**	**89 (100.00)**

8. Village Condition regarding defecation

Table 8 tells us about village condition of an area that either villageis free of defecation or not. As IRSP worked out sanitation project in these villages and people have the knowledge how to get free of defecation. It is evident from the table that maximum (89.89%) of the sample respondents stated that their villages are free of defecation. The reason could be the respondents were educated, young and interested in getting knowledge about sanitation. On the other hand 10.11% of the respondents didn't respond regarding free defecation. This could be that they were uneducated and unmarried of disadvantage of open defecation in the villages.

Table 8 Village Condition Regarding Defecation

Village Name	Village is Free of Defecation		
	Yes	No	Total
Umar Khan Killi	28 (31.46)	3 (3.37)	31 (34.83)
InzarKilli	27 (30.34)	1 (1.12)	28 (31.46)
BadyanoKilli	25 (28.09)	5 (5.62)	30 (33.71)
Total	**80 (89.89)**	**9 (10.11)**	**89 (100)**

9. Respondent's satisfaction from IRSP Sanitation Work

It is evident from Table 9 that (92.13%) of the sample respondents were found satisfied from IRSP Sanitation work. This is both due to the relevant work and community response who participated in the village organizations.The data further states that only 7.87%nof the respondents were found dissatisfied from IRSP sanitation work. However they suggested that there could be continuous sanitation programs in the area in order to get rid of diseases.

Table 9 Satisfaction Regarding IRSP Sanitation Work

Village Name	Respondent's Satisfaction		
	Yes	No	Total
Umar Khan Killi	29 (32.58)	2 (2.25)	31 (34.83)
InzarKilli	25 (28.09)	3 (3.37)	28 (31.46)
BadyanoKilli	28 (31.46)	2 (2.25)	30 (33.71)
Total	**82 (92.13)**	**7 (7.87)**	**89 (100)**

10. Presence/Touch of IRSP with Community

Table 10 indicates that whether or not IRSP in touch with community of said village. It is clearly evident that (88.76%) of the sample respondents stated that still IRSP working in their village. They further replied that IRSP working on community development, education and health related activities in their villages on the other hand 11.24% of the respondents said that IRSP has no interventions with local community of their villages. The reason could be the unawareness and their lack of interest in the development of their villages.

Table 4.13 Presence/Touch of IRSP with Community

Village Name	Presence of IRSP with Community		
	Yes	No	Total
Umar Khan Killi	26 (29.21)	5 (5.62)	31 (34.83)
InzarKilli	26 (29.21)	2 (2.25)	28 (31.46)
BadyanoKilli	27 (30.34)	3 (3.37)	30 (33.71)
Total	**79 (88.76)**	**10 (11.24)**	**89 (100)**

Conclusion

The above mentioned references conclude that sanitation play an important role in socio-cultural development of any community. Better sanitation results in improvement of health; reduce child mortality, improved water quality, environment and economic growth of a country. The common features of all these studies so far reviewed suggest that sanitation is very crucial for promoting sustainable rural development and to improve socio-cultural status of the rural poor. The present study is an attempt to fill the gap.

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