

Village - Khadoor Sahib

District TarnTaran - Punjab



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Documentation of Best Practices on the thematic Area of Rural Sanitation
in
Village Khadoor Sahib
TarnTaran - Punjab

Sponsored By

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Abbreviations

PRIs	Panchayati Raj Institutions
TSC	Total Sanitation Campaign
CAA	Constitutional Amendment Act
NBA	Nirmal Bharat Abhiyan
SBM	Swacch Bharat Mission
MGNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme
GP	Gram Panchayat
CRRID	Centre for Research in Rural and Industrial Development
NIRD&PR	National Institute of Rural Development and Panchayati Raj
ER	Elected Representatives
SLWM	Solid and Liquid Waste Management
IHHL	Individual Household latrine

Executive Summary

The Khadoor Sahib gram panchayat has been selected for the documentation of best practices under the thematic area of "Rural Sanitation" in the state of Punjab. The village was identified and selected for the study with the consultation of Department of Drinking Water and Sanitation, Government of Punjab. During the past few years, Khadoor sahib has been acknowledged as a model village in the state of Punjab.

Methodology

A two member's field team led by the study coordinator visited the village and interacted with the elected members of the panchayat, members of gram sabha and village level functionaries in order to assess and document the process through which this best practices have been achieved by the village. Focus Group Discussions and meeting were held with various primary and secondary stakeholders to gain first hand impressions of the motivation and key activities which has not only led the gram panchayat but also entire community to actively participate in the drive but also to sustain this model from the past few years.

Best Practice of village

The Khadoor sahib village has been an example of safe and systematic disposal of Liquid waste and planned underground sewerage unit which was built through the World bank funding in 2011, which was implemented by Department of Drinking Water and Sanitation, Government of Punjab. Not only this, village has also shown growth in the other indicators of sanitation such as solid waste management, IHHL, streets and drains, plantations and safe hygiene practices in school and anganwari centres.

Situations which triggered the Best Practice

- Habitations were very compact in the village owing to geographical and historical reasons and being a famous Sikh Pilgrimage, stocks of pilgrims from all around the world visited the village, which further

pose a problem of safe disposal of sanitational issues in the village with the then existed sanitation facilities;

- Agriculture being the mainstay for livelihood in the area, land scarcity for habitations has made the settlements highly congested, requiring off-site disposal system.
- Western culture exposure owing to higher rate of emigration and rapid urbanization in the area have catalyzed desire for more comfort, dignity and better lifestyle including modern and safe sewerage facilities.
- Villagers' desire was to have a planned sewerage system in which the solid waste (human excreta etc.) generated in the household can directly be discharged.
- The people's aspiration of having functional sewerage system by adopting a technology that uses optimum land, water and power resources and is environment-friendly.

Activities carried out

Absence of any sewerage system in the village led to the embarrassment of local villagers and gram panchayat body. This situation leads to proposal, planning and implementation of the Sewer system in the village in the year 2011. Storm water / Waste water drainage was simultaneously addressed while the construction of the sewerage system to protect it from over-flowing. In-fact, surface drainage and sullage was also dealt with unison and holistically approach in this project. A tractor- trolley is being used for collecting the waste and garbage from the community places as well as from the villagers' respective houses for further treatment at solid waste treatment plant. This collected waste further segregated into organic and inorganic form, as per the type of waste. A total of 120 units (toilets) have been constructed in the village for which Rs.18.00 lacs have been incurred and funded under the SBM (R). Since then, the Khadoor Sahib village is an open defecation free village. Plantation on a large scale has been done in the village and this drive was

also extended to nearby villages. Attractive and beautiful plants are planted throughout in the village to enhance the beauty of the area.

Learning outcomes

The present documented village of Khadoor Sahib has been an awe-inspiring example of role of religious leaders in escalating sanitation facilities in the village. Thus, it is suggested that panchayats with the assistance of government machinery and civil organisations, can approach religious and spiritual figures to led and participate in their local sanitation movement. Further, it is also recommended that exposure visit of teams consisting of PRI members and functionaries, members of civil society organisations and other stakeholders such as prominent gram sabha members and youth should visit the village in order to observe and learn the best practice for replication with minor changes or additions as per their local needs and suitability.

Introduction

Various reforms have been initiated by the government since independence to create rural infrastructure due to vast magnitude of gap in rural and urban sector. The basic infrastructure in the rural areas is crucial for sustainable development in all the social economic factors.

Both the central and state governments have allocated sufficient funds for the health, education and providing livelihood services including sanitation for the well being of the rural people since independence. The basic architecture and outlay designed for these programmes were planned and implemented through various agencies, corporations and wings of administrations like DRDA etc. However, involvement of Panchayati Raj Institutions along with community participation is necessary for boosting effective planning and implementation of development plans and schemes designated for the betterment of the common people.

The 73rd Constitutional Amendment Act has given constitutional recognition to Rural Local Self Government Institution enabling decentralization in governance through PRIs. The realization that people's participation alone can bring sustainable development through good governance at the base level. The key objective of the panchayats is to balance the values of citizen participation and service delivery which is very well argued in 73rd Amendment Act. Numerous studies and survey reports reveal that welfare benefits have not been reaching to the eligible beneficiaries. The service delivery system under various schemes including much publicized flagship schemes of MGNAREGS remained instrumental at grassroots level to create assets necessary for boosting local development

However, the success of these schemes depends upon the government's commitment to address fundamental issues. In order to achieve a collective goal to scale up the existing Institutional Infrastructure viz: DRDA, DIC, BDO, Gram Sabha, Gram Panchayat, Block Panchayat, Zila Panchayat, SLBC, DCC,

BLBC, Lead Bank, NABARD, and other such institutions needs effective coordination.

In order to create awareness to sensitize the rural masses particularly to reach to the last man enabling him to get opportunities for availing the benefits of welfare schemes, the role of Panchayati Raj system cannot be undermined, due to its proximity to the community. Thus, effective Panchayati Raj system along with mobilised community can be helpful in reducing the gap between the direct impact and actual impact of several programmes of the government implemented from time to time involving crores of Rupees.

The present documented case study of Khadoor Sahib village in the district of TarnTaran , Punjab has been a similar example to confirm that PRIs along with the dedicated participation of the community can brought the development at grassroots level. Being a highly religious place, influx of large number of religious tourists to Khadoor Sahib has escalated an unprecedented growth of village in the recent years. This growth had also brought new challenges before the panchayat and one such key issues was safe and systematic disposal of solid and liquid waste and other sanitation related problems.

However, with passage of time, Khadoor Sahib village has demonstrated an exceptional performance in dealing all the indicators of sanitation along with other eco-friendly activities. In the next parts of the report, we would discuss and examine the process and activities related to the best practice implemented through community participation along with Panchayati Raj Institutions (PRIs) in transforming this village.

Selection of Village

The Khadoor Sahib gram panchayat has been selected for the documentation of best practices under the thematic area of "Rural Sanitation" in the state of Punjab. The village was identified and selected for the study with the consultation of Department of Drinking Water and Sanitation, Government of Punjab. During the past few years, Khadoor sahib has been acknowledged as a model village in the state of Punjab. The efforts done by the panchayat with

its community have been well recognised at district and state level and has inspired many other villages to retransform their areas as per their suitability.

Methodology

A two member's field team led by the study coordinator visited the village and interacted with the elected members of the panchayat, members of gram sabha and village level functionaries in order to assess and document the process through which this best practices have been achieved by the village. Focus Group Discussions and meeting were held with various primary and secondary stakeholders to gain first hand impressions of the motivation and key activities which has not only led the gram panchayat but also entire community to actively participate in the drive but also to sustain this model from the past few years.

The research team also visited the schools in the village and interacted with the students. Team also verified the usage of IHHL in many households in the village particularly of Scheduled caste and backward classes. The team also visited educational institutes, ponds, parks, playgrounds, plantation work, anganwari centres, community places and solid & liquid waste treatment plant in the village during their visit. During this, all the activities were well also documented through videography and photography. The efforts to make village unique and a role model on sanitation purpose, the contribution of each and every stakeholders has been recorded and discussed in this report.

Location of Village

Khadoor Sahib is a village in the district of TarnTaran in the state of Punjab, India. The village of Khadoor Sahib is located beside the famous Beas river. It is situated at a distance of about 20 kilometres from district headquarter TarnTaran and 38 kilometres from the holy city of Amritsar and nearest town of Goindwal is nine kilometres.

History of Village

The history of Khadoor Sahib is very glorified as It has been sanctified by visits from eight of the Sikh Gurus. In this village, Guru Angad Dev Ji, the second Sikh Guru lived for 13 years, spreading the teaching of Sikhism. In this very village, he introduced *Gurmukhi lipi* and wrote the first Gurmukhi Primer, established the first Sikh school and prepared the first Gutka of Guru Nanak Sahib's Bani.

Demographic Portfolio

Khadoor Sahib is a large size village and falls in the Khadoor Sahib Tehsil of Tarn Taran district. There are a total of 2027 households in the village. It has a population of 11054 and out of which 5795 are males while 5259 are females as per the data of Census 2011. The average Sex Ratio of Khadoor Sahib village is 908 which is higher than the state average of 895. The village has a literacy rate of 73.45 percent which is slightly lesser than state average of 75.84 percent. The male literacy rate is 77.46 percent, while female literacy rate stands at 69.08 percent.

The population of Khadoor sahib constitutes a total of 30.17 percent of schedule caste. In the village, 58.17 % of workers were engaged in *Agriculture* as their main Work (Employment or Earning more than 6 Months) while 41.83 % of them were involved in other marginal and RNFE activities. The native language of Khadoor Sahib is Punjabi and most of the people speak Punjabi.

Present Context / Best Practice of village

The Khadoor sahib village has been an example of safe and systematic disposal of Liquid waste and planned underground sewerage unit which was built through the World bank funding in 2011, which was implemented by Department of Drinking Water and Sanitation, Government of Punjab. Not only this, village has also shown growth in the other indicators of sanitation such as solid waste management, IHHL, streets and drains, plantations and safe hygiene practices in school and anganwari centres.

Situations which triggered the Best Practice

- Habitations were very compact in the village owing to geographical and historical reasons and being a famous Sikh Pilgrimage, stocks of pilgrims from all around the world visited the village, which further pose a problem of safe disposal of sanitational issues in the village with the then existed sanitation facilities;
- Agriculture being the mainstay for livelihood in the area, land scarcity for habitations has made the settlements highly congested, requiring off-site disposal system.
- Western culture exposure owing to higher rate of emigration and rapid urbanization in the area have catalyzed desire for more comfort, dignity and better lifestyle including modern and safe sewerage facilities.
- Villagers' desire was to have a planned sewerage system in which the solid waste (human excreta etc.) generated in the household can directly be discharged.
- The people's aspirations of having functional sewerage system by adopting a technology that uses optimum land, water and power resources and is environment-friendly.

Challenges before the Gram panchayat;

- Waste Stabilization Ponds were required with an area of 2-3 acres of land and the Land was scarce and gram panchayats were under pressure not to give their limited holdings free of cost for waste stabilization ponds.
- Prevalence of Open defecation.
- Solid and Liquid waste Management was poor.
- Villagers were very indifferent about the individual costs including cost of modification of their houses to route all the wastewater through septic tank / I.C and Lack of Effective & thorough IEC were common among the villagers.

Key Person responsible for the Best practice;

Baba Sewa Singh, recipient of the *Padma Shri* in 2010, the fourth highest civilian award, has not only played a pivotal role in the upkeep and

maintenance of historic *Gurudwaras* at Khadoor Sahib, but has also taken upon himself the task of contributed a lot in creating adequate and modern sanitational infrastructure in the village. Various activities and projects were started related to environment protection, education, sanitation and sports in the village under the able guidance of him. As his stature has been very pivotal in the area and region, he motivated the community and *Sangat* to join him in this endeavour. He had planted neem and Peepal trees in an area of 100 kilometres with the mass participation of people. Not only this, he has 100,000 saplings in his nursery and they supply these aplings to schools, cremation grounds and panchayat lands.

Activities carried out for Best Practices

The following activities were carried out in the village which has been remained the key factors which contributed for the documented best practice for the village;

Provision of Sewerage and Liquid Waste Treatment Plant in the village;

As discussed earlier, a fully planned Sewer system was laid in the village with the funding of World bank. As ,there was a desire of every villager to have a fully functional sewerage system in which the human excreta etc. can directly be discharged from the household itself as practiced at urban cities.

Earlier, the condition of the village was very pathetic as the village's streets were always flooded with stagnant water because of lack of facilities and proper drains to effectively manage this liquid waste in a proper manner. Such circumstances leads high prevalence of various water borne diseases in the village. Moreover, village has high incidence of inflow of religious tourists coming from world over to visit historic Gurudwaras (*Sikh temple*) situated in the village. In addition, village has number of NRIs who regularly visit their ancestral home located within the boundary of the village. Absence of any sewerage system in the village led to the embarrassment of local villagers and gram panchayat body.

This situation leads to proposal, planning and implementation of the Sewer system in the village in the year 2011. Storm water / Waste water drainage was simultaneously addressed while the construction of the sewerage system to protect it from over-flowing. In-fact, surface drainage and sullage was also dealt with unison and holistically approach in this project.

It is of utmost importance that the drainage system in the village be strengthened and restored in the village to deal liquid waste management efficiently. The department of Drinking water and sanitation on the basis of pilot project has made arrangement for sewerage system in the village. An expenditure of **Rs.448.66 lacs** was incurred to cover the whole village within this sewer system. Not only this, provision for underground drains were

planned in a way that village's streets were kept clean and sullage free. This protects the village from dirt and smell and enhances the beauty of village. Further, the waste produced was further synthesis and utilized as manure.

Salient Features of Sewerage Plant at Khadoor Sahib

STP Based on Activated Sludge Process	1400 kilolitres/day
Design Population	10000
No. of households	1650
Design Inlet BOD	100-120 mg/ I effluent BOD < 30mg/l
Capital Cost	Rs. 448.66 lacs
Est. Annual O&M cost	Rs.65000/- pm
Est. O&M cost per HH	Rs. 60/- assuming 70% connections
Est. O&M cost per HH	Rs. 40/- assuming 100% connections
Waste stabilization process is natural and minimum electric power is required for treatment	
Scheme O&M to be done by Construction Contractor for 7 years under supervision of DWSS/GPWSC Solids free Sewerage Scheme	



Underaround Sewer in the villaae

A Pond in the village for dealing liquid waste

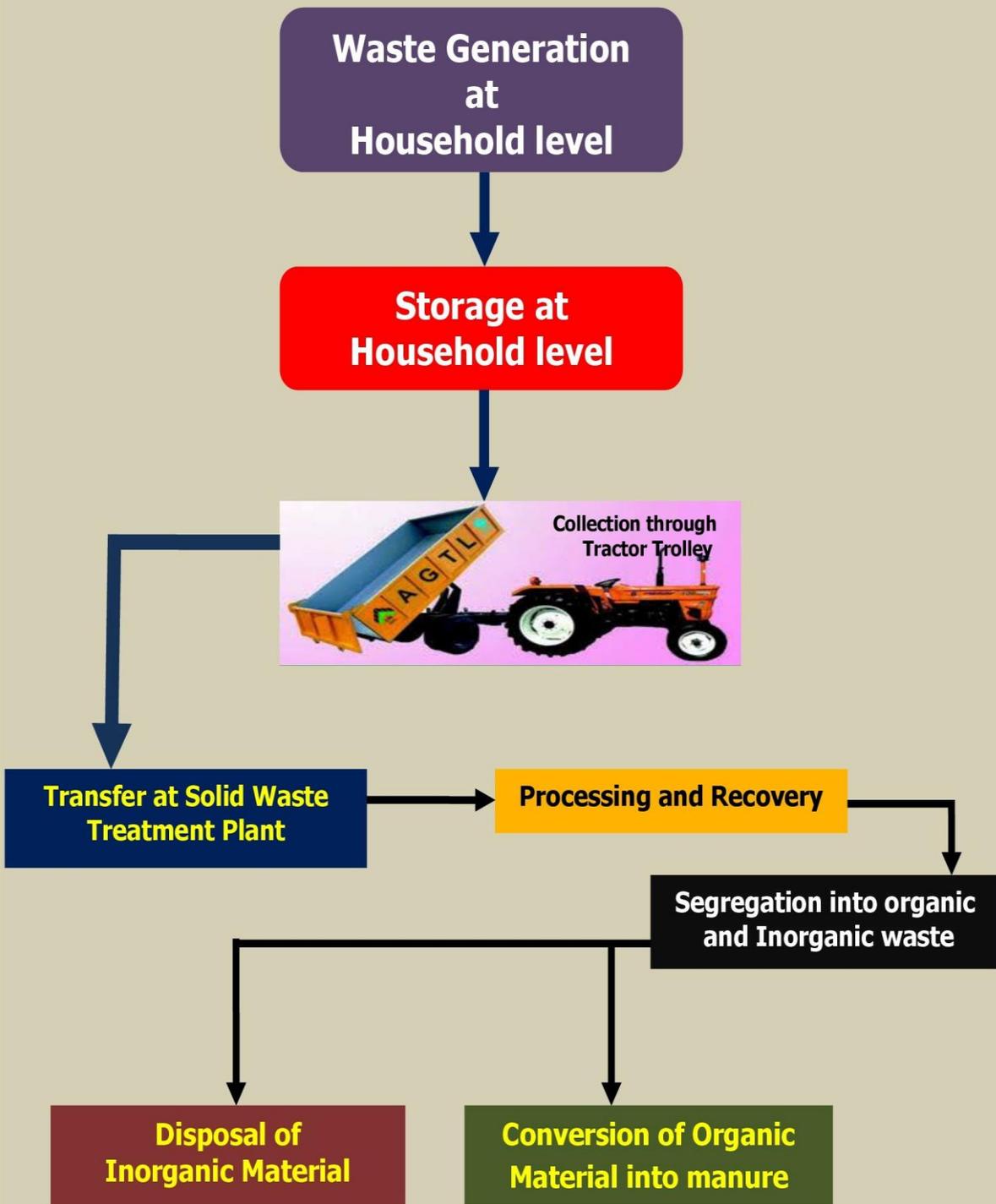


Solid Waste Management;

As discussed previously, village being a religious hub for Sikh pilgrims, has a deep religious sentiments among the hearts of the common citizen of the region. Due to which, large numbers of devotees from the region and even from international arenas, visit Khadoor Sahib on daily basis. Due to lack of proper management of solid Waste, heaps of solid waste lay in the streets and all around in the village. Baba Sewa Singh took an initiative and the solid Waste treatment plant was constructed and started in the village.

- A tractor- trolley is being used for collecting the waste and garbage from the community places as well as from the villagers' respective houses for further treatment at solid waste treatment plant.
- This collected waste further segregated into organic and inorganic form, as per the type of waste.
- Waste is being further segregated and disposed off accordingly at a particular place especially marked for this purpose.
- The organic waste which later processed into manure has been used by local farmers as fertilizers in their respective farms.

Steps for Dealing Solid Waste in Khadoor Sahib village





Household Sanitation

Earlier, IHHL in the village were very few and open defecation was very common. This led to an unclean environment and surroundings. The Drinking water and sanitation department along with panchayat started motivating the people about the ill effects of open defecation. The motivators went door to door and motivated the people daily and made them aware about environment cleanliness and health. Slowly, people got aware and started constructing toilets in their houses. Some toilets were constructed under NBA and later under the *Swachh Bharat Abhayan* (SBM-R). Since then, the Khadoor Sahib village is an open defecation free village. A total of 120 units (toilets) have been constructed in the village for which Rs.18.00 lacs have been incurred and funded under the SBM (R).

Provision for Safe Drinking Water Facility

In this village, two water storage tanks were installed with a capacity of one and half ton litres of each and every household gets connected with them to provide safe drinking water to each and every household. Due to which people

are able to access safe drinking water and protecting themselves from various water borne diseases.

Environment Protection Scheme

Plantation on a large scale has been done in the village and this drive was also extended to nearby villages. Attractive and beautiful plants are planted throughout in the village to enhance the beauty of the area. The village is garlanded with green trees and plants. In 1999, on auspicious day of Gurupurab, (Holy Day for Sikhs), the Kaar Sewa trust (a religious organization) of Khadoor Sahib planted innumerable trees. Again in 2006, by joining hand with Nishan-e- Sikhi Trust, many trees were planted in educational institutions, hospitals and along the roadside in the village and nearby area. Villagers reported that this is just a mere step taken to tackle the environment pollution which is one of the biggest problem people are facing these days, whose severe consequence is global warming which is increasing day by day. For planting more trees and their maintenance, 50 volunteers and 12 water tanks were engaged. Also various trees like bohad, pipali, amla, mango, dates, gulmohar, tulsi etc. were planted by motivated farmers. Every household of Khadoor Sahib has taken initiative of planting trees and under this drive, they had planted trees around all the village roads, panchayat house, hospitals, gardens and at other public places in the village.



Constructions of New roads and streets

As with the construction of the sewer system in the village, all the roads and streets were also remodelled and reconstructed as per the new design and plan of the village. the drains and sewer were laid underground through the newly built roads which led to the safe mechanism of disposal of waste water and had minimised the risk of the malaria and other water vector diseases.



Other Activities

Despite the activities related to the sanitation activities, many other welfare and developmental activities related to education, social forestry and religious teaching have been also carried out in the village. following are the brief glimpses of such activities being carried out in the village in addition to the sanitation activities;

Multimedia Talking Museum

Dr. Raghbir Singh Bains author of the Encyclopaedia of Sikhism from Canada is setting up a Multimedia Talking Museum which will be first of its kind in the world on latest technology. Robot and other devices like LCD Touch Screens are being imported from America. Sikh literature is being produced on multimedia technology so that youth are prepared to learn the latest technique and practice Sikhi in its true perspective. The museum will deal with Sikh religion, history, culture, heritage and over all social life.

Running of educational Institutions

Kaar Sewa Organisation (Voluntary Service Organisation) is already running Schools in different provinces and a Degree College at Khadoor Sahib. Every year, about 2500 students are provided education with modern facilities and latest technology at Khadoor Sahib. Sri Guru Angad Dev College at Khadoor Sahib, has now become a multi-faculty institution offering various coursed in humanities, science, computer science and many vocational ones to rural students of this area. The aim of this public school was to provide modern education to children of the area. The children of the area now dont have to go far off places and about 200 students are now studying in this school.

Children are also regularly provided religious education to make them aware of their religious heritage.

Conclusion

People should take inspiration from such success stories and from the high spirits of such selfless workers who work for the benefit of others and make efforts to make it a better place to live. It also showed us that a dedicated set of mindsets are required to bring any change in the situation. The campaign's success is additionally due to the whole hearted support from the district administration and the department of drinking water and sanitation and above all the residents of the Khadoor Singh village coming forward to embrace this positive change in their lifestyle.

Learning Outcomes

Lessons learned from the evidence-based best practice from this village have derived innovative methods which can be replicated at other similar avenues where proper sanitation coverage is desired. As also observed in the village Seechewal, the present documented village of Khadoor Sahib has been an awe-inspiring example of role of religious leaders in escalating sanitation facilities in the village. In the wake of documented evidences and activities carried out in the village, following two outcomes can be adopted as replicable model for other villages as well as for urban parts of the country;

1. Engagement of Religious Leaders for escalating Sanitation Activities

Sant Sewa Singh ji, A renowned celebrated religious figure among the masses of Punjab state has an positive impact on the mindset of the community through his continuous efforts for the development and welfare of the society. He has been a role model for many and has gained recognition in the region for his efforts in transforming this village and introducing effective liquid and solid waste management in the village. His sincere efforts and approach towards welfare of the society has benefitted this village and local villagers at large. One of his main key efforts was to motivate the local community and brought them in collective numbers to participate with him in his movement without any indiscrimination on the basis of caste, gender and creed. Being a religious leader, his call was accepted by the society on mass scale and has garnered positive results .

Thus, in the wake of this approach, it is suggested that panchayats with the assistance of government machinery and civil organisations, can approach religious and spiritual figures to led and participate in building their local sanitation facilities and call their followers to participate in this movement. This in turn, would have long lasting effects on the mindset of the local community and it would certainly motivate them to join this drive with the motivation of their spiritual leaders. This success story can be spread to larger parts of the country as India being very religious society; the impact and call from religious

and spiritual heads of different faiths can trigger the long desired mass community participation in the sanitation movement at ground level.

2. Exposure Visits

The Khadoor Sahib village has shown remarkable accomplishment in overall sanitation process including ODF, solid and liquid waste management, school and community sanitation and other similar eco-friendly activities with the efforts of *Sant Sewa Singh* with the help of local community motivated by him. Since, the infrastructures and related activities concerning sanitation and eco-friendly activities can be a lesson for others to replicate similar activities in their respective areas. Thus,, It is also recommended that exposure visits of teams consisting of PRI members and functionaries, members of civil society organisations and other stakeholders such as prominent gram sabha members and youth, may be organised to visit Khadoor Sahib village in order to observe and learn the best practice for replication with minor changes or additions as per their local needs and suitability.

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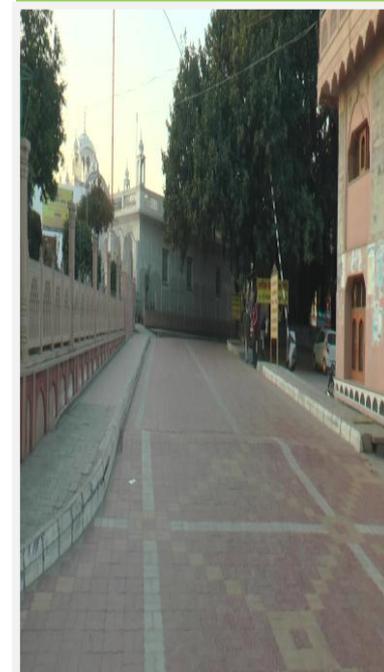
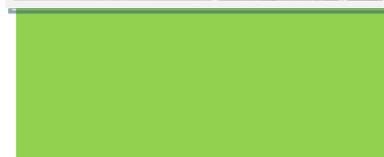
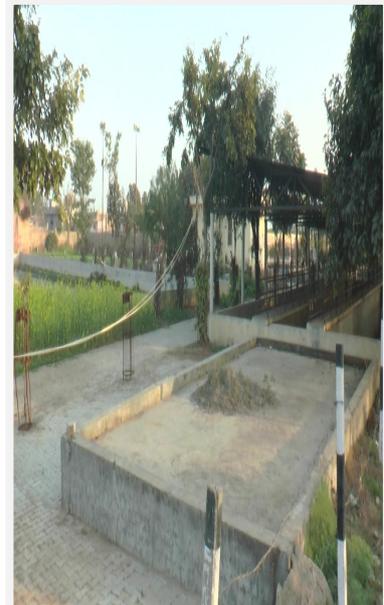
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