

Documentation of Best Practices under thematic area of

Role of PRIs in Management of Solid and Liquid Waste Management

in

VILLAGE CHAKAR

District Ludhiana - Punjab



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Liquid Waste Management**

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DISTRICT LUDHIANA - PUNJAB

(February, 2018)



Understanding Waste

Waste can be defined as:

- **Any** material/liquid that is left over after productive use or which is beyond any use in its current form and is generally discarded as unwanted; and
- **Material** linked to human activity in comparison to nature which has its own system of recycling waste such that it eventually becomes a resource: for example, organic matter such as leaves, branches, and so on, decompose to form manure.

“Handbook on Scaling up Solid and Liquid Waste Management in Rural Areas”

**Water and Sanitation Program
Government of India, (2012)**

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Abbreviations

PRI s	Panchayati Raj Institutions
TSC	Total Sanitation Campaign
NBA	Nirmal Bharat Abhiyan
SBM	Swachh Bharat Mission
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
GP	Gram Panchayat
CRRID	Centre for Research in Rural and Industrial Development
NIRD&PR	National Institute of Rural Development and Panchayati Raj

Executive Summary

Background

The Chakar gram panchayat has been selected for the documentation of best practices under the thematic area of "*Role of PRIs in Solid and Liquid Waste Management*" in the state of Punjab. Chakar village is situated in the Jagraon block/tehsil of the Ludhiana district in the state of Punjab. It is located 154 kilometres from state capital of Chandigarh. In recent years, the selected village of Chakar has witnessed an unprecedented success in management of liquid waste and overall progress in sanitation and other socio-ecological activities. During the past few years since it success as a model village, Chakar has seen an exceptional flow visitors from all walk of lives. The efforts done and their outcomes have been well recognised at district and state level and has inspired many other villages to adopt and replicate this model 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 meetings were held with various primary and secondary stakeholders. 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 Sports academy, ponds, parks, playgrounds, plantation work, Anganwari centre, community places and solid & liquid waste treatment plant in the village during their visit.

Challenges and Problems before the best practice

During the FGDs, conducted in the village, the residents of Chakar revealed that situation of sanitation and management of solid and especially liquid waste was in very bad condition. The village streets were *kutcha* and the drainage system of the village was barely functioning. Stagnated water at many places had worsened the situation of health and sanitation in the village, particularly during the monsoon season. The main cause for such condition of the drainage system was not properly maintained from a long time and being very old, failed to comply with the unplanned construction of new settlements, houses and streets & pavements.

Activities led to Best Practice

- The very first step was to made consensus among all the villagers to participate in this drive and panchayat made every possible efforts to include each and every household to join this movement.
- The panchayat members visited their respective ward/area to sensitize the residents and made awareness on the benefits of better sanitation and solid / liquid treatment facilities;
- Since the village has considerable NRI families, they were also consulted and encouraged to provide financial aid for this drive;
- A detailed technical master plan was prepared for the new sewer system to be laid. This drains / sewer was especially designed to cover all the households in the village;

Activities

A proper sewerage through planned and scientific manner to cover maximum number of households in the village was laid in the village in 2011. This project activity was completed with the partnership of gram panchayat members along with a NRIs community with the help of eco-baba *Saint Balbir Singh Seechewal*. The project was completed on time and the treated water is now being used for irrigational purposes. Once the sewerage system got fully operational, modification of three ponds into lakes was the only pending effort required in the transformation of an ordinary village into a tourist destination. The three ponds of Chakar which were spread in three different directions were subsequently turned into three beautiful lakes. Transformation of old village's ponds into lakes has been a magnificent and innovative example of transforming and enhancing the beauty of this village. These lakes have attracted tons of local tourist and school children from adjoining areas. Not only this, small paddled boats have been introduced into these lakes for the visiting tourists, which is an added attraction for travellers. By charging the nominal fee for boating in the lakes from tourists, the panchayats has generated an extra own resource fund which is further used for eco-friendly activities. Management of Solid waste, Cleanliness in village especially in the schools, anganwari and community places and heavy plantation were the foremost agenda of the gram panchayat.

Introduction

THE management of Solid and liquid waste is one of the key characteristics of sanitation. Its significance manifolds when we discuss it in the rural scenario as basic infrastructure and necessary financial outlays required to efficiently manage solid & liquid waste is minimal in rural areas or villages. Thus, such circumstances handicapped proper provisions of sanitation facilities in any village for a healthy environment of its residents.

However, things come to change from the last few decades as the centre government as well as the state governments initiated various schemes and plans to accelerate and promote the pace of activities exclusively designed for rural sanitation including management of solid and liquid waste such as Total Sanitation Campaign (TSC), Nirmal Bharat Abhiyan (NBA) and its successor Swacch Bharat Mission (SBM). Despite this, sufficient funds have been also channelized through State Finances Commissions to strengthen the existing infrastructure required for dealing sanitation facilities.

Not only this, several incentives and awards were announced for the better performing gram panchayats and other such units like Nirmal Gram Puruskar (NGP) etc all around the country in promoting sanitation. However, to change situations especially to change the perspectives and mindsets of people in the rural areas have been a challenge especially in a nation like India due to its large size, diversified nature of caste & creed and traditions.

In such scenario, the role of panchayat and its elected representatives became very significant as they are direct stakeholders not only in executing and implement the scheme designated for health and sanitation but also to sensitise and move the villagers and spread the awareness which is very vital for this exercise as some ridicule beliefs regarding sanitation practices are

ridden very deep in the Indian society and to overcome them is still a bottleneck.

The 11th Schedule of Indian Constitution added in 1992 in 73rd Constitution Amendment Act, dictates that Health and sanitation, along with other 29 subjects, is placed within the purview of the Panchayats. This aspect becomes very important as panchayat is the executive body at village level and it has better understanding of the ground realities, problems of village and their solutions.

The present documented case study of Chakar village in the district of Ludhiana, Punjab has been a similar example to confirm that PRIs along with the dedicated participation of the society can overcome any situations. Not only this, Chakar village has demonstrated an exceptional performance in all the indicators of sanitation along with other eco-friendly activities. In the next parts of the report, we would discuss and examine the role of Panchayati Raj Institutions (PRIs) in transforming the fate of village.

Selection of Village

The Chakar gram panchayat has been selected for the documentation of best practices under the thematic area of "Role of PRIs in Solid and Liquid Waste Management" 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.

In recent years, the selected village of Chakar has witnessed an unprecedented success in management of liquid waste and overall progress in sanitation and other socio-ecological activities. During the past few years since it success as a model village, Chakar has seen an exceptional flow visitors from all walk of lives. The efforts done and their outcomes have been

well recognised at district and state level and has inspired many other villages to adopt and replicate this model 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 meetings 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 Sports academy, ponds, parks, playgrounds, plantation work, Anganwari centre, community places and solid & liquid waste treatment plant in the village during their visit. During this, all the activities were well 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.

Gram Panchayat Details

The present Gram panchayat body was elected in 2013. There are 11 panches along with the Sarpanch Sh. Major Singh. Out of total 12 members, three are females. Following are the details of members of gram panchayat.

Sr.	Name	Designation	Age	Sex
1.	Major Singh	Sarpanch	45	Male
2.	Mohinder Singh	Panch	55	Male
3.	Ranjeet Kaur	Panch	50	Female
4.	Major Singh	Panch	60	Male
5.	Makhan Singh	Panch	60	Male
6.	Roop Singh	Panch	67	Male
7.	Mukhtiar Kaur	Panch	70	Female
8.	Roop Singh Baat	Panch	39	Male
9.	Joeinder Singh	Panch	55	Male
10.	Darshan Singh	Panch	72	Male
11.	Buta Singh	Panch	50	Male
12.	Sukhwinder Kaur	Panch	45	Female

Village Profile



Panchayat Ghar in Chakar



Chakar village is situated in the Jagraon block/tehsil of the Ludhiana district in the state of Punjab. It is located 61 kilometres towards west from district headquarter Ludhiana, 21 kilometres from block Jagraon which is also the nearest city and 154 kilometres from State capital of Chandigarh.

History and Background of village

Chakar appears distinct on the map of Malwa region in the Punjab state as it had the privilege of being visited by the grandfather and grandson duo of Sri Guru Hargobind Sahib ji and Sri Guru Gobind Singh ji, sixth and Tenth Guru of Sikh religion respectively. The village was famous for its brave souls who formed part of *Ahaluwalia* community during the times of Maharaja Ranjit Singh.

In 1631, Guru Hargobind Sahib Ji was staying in a nearby village named "Loppo". One day his hawk (baaj) flew towards the village Chakar. Following the hawk, he entered this village. Then, he motivated the people to follow the true path and blessed them with his words. Now there, gurudwara sahib is constructed in the memory of Guru Sahib. In 1705, while going from Anandpur Sahib to Talwandi Sabo, Guru Gobind Singh Ji stayed in village Chakar for one night. Village is predominated by Sikhs, the followers of Sikhism with few of household's belongings to Hindu and Muslim communities. The gurudwara, Guru Sri Patshahi Chhevin and Patshahi Dasvi, constructed in 1970s is located in north western corner of the village. It was constructed in memory of two Sikh gurus, Guru Hargobind Sahib and Guru Gobind Singh, who visited the place in 1631 and 1705 respectively. There is also Hindu temple and mosque in the village. These religious places continuously join the people to their religious roots and keep inspiring and motivating them to lead a truthful and peaceful life.

Demographic Portfolio

Chakar is a large village with total of 1228 households residing within its perimeters. It has a population of 6423 persons of which 3362 are males whereas 3061 were females as per Census, 2011.

The average Sex Ratio of Chakar village is 910 which are higher than Punjab state average of 895. Chakar village has lower literacy rate as compared to

Punjab. In 2011, literacy rate of Chakar village was 72.70 percent compared to 75.84 % of Punjab. Male literacy stands at 75.76 percent while female literacy rate was 69.38 percent.

Caste Composition and Workforce Profile

The Chakar village has a significant population of Schedule Caste which constitutes nearly one third (32.27%) of total population of the village. The village doesn't have any Schedule Tribe (ST) population.

In Chakar village, out of total population, 2125 were engaged in farm activities and 77.41 percent of workers describe this work as their main Employment (*for more than 6 Months*) while 22.59 % were involved in Marginal activity providing livelihood for less than 6 months. Of 2125 workers engaged in Main Work, 750 were cultivators (owner or co-owner) while 441 were Agricultural labourers.

Situation of Village before the best Practice

Challenges and Problems before the best practice

During the FGDs, conducted in the village, the residents of Chakar revealed that situation of sanitation and management of solid and especially liquid waste was in very bad condition. The village streets were *kutchra* and the drainage system of the village was barely functioning. Stagnated water at many places had worsened the situation of health and sanitation in the village, particularly during the monsoon season. Due to this, malaria and other water borne diseases were common in the village. The main cause for such condition of the drainage system was not properly maintained from a long time and being very old, failed to comply with the unplanned construction of new settlements, houses and streets & pavements. Sometime, such construction encroached the public land and areas marked for drainage resulting in blocking the proper outlet of drainage of waste water at many places in the village. Moreover, throwing solid wastes into the drains was common practice among the villagers which literally logged the drains. It is also to be remembered that Chakar is a large village with nearly 1250 households and their waste water discharge was quite large, as result of which existing drainage system was not able to bear that much influx as it was more than their capacity and thus it collapsed.

Though, like any other village of the region, ponds in the periphery of the village were constructed to deal the liquid waste but their condition was also very terrible. Unchecked growth of grass and other weeds were in abundance in them and they were literally in dying conditions. Not only this, majority of households kept domestic animals and there were heaps of cow dung everywhere in village as many of such animal along with stray animals wandered in the common streets due to which lot of filth was in and around

the village. Plantation in village was scarce and availability of fodder was very limited especially during summers. Sometime this situation leads to quarrel and disputes between the villagers who hurt the harmony among the rich and poor and ordinary and influential of the village.

Initiation of activities

Initially residents were indifferent to these pitiable conditions of the village. But since the village has a historic and religious importance in the region, such circumstances were soon became hue and cry for the gram panchayat's members and its residents. An another group of village's residents which belongs to the NRIs, who were very influential both in terms of financial and socially were also very upset with such conditions of the village. These NRI families were willing to offer financial support to the panchayat to resolve these issues at the earliest. Eventually, all these series of events and other related factors made way to the transformation of Chakar village. The main concerned or motive behind this drive was to restore the historic legacy of the village and bring back its glorious stage.

The elected representatives of gram panchayat Chakar, along with gram sabha members came to a consensus to change and revive the prevailing situation of existing dreadful condition of drainages and sanitation in the village. The key persons of gram panchayat with a vision to transform their village formulated and devised a detailed blue print / framework to transform Chakar village into a role model in sanitation with their main emphasis laid on liquid waste management. However, with the progression of time, many other activities were also included in this blue print related to education, sports, social forestry, beautification of community places & water bodies. Such innovative ideas became an integral part of this drive which was subsequently implemented by the panchayat in a mannered of time.

Information, Education, Communication (IEC) activities

The gram panchayat of village Chakar performed following IEC activity for motivating the villagers on solid & liquid waste management;

- Discussion in the gram sabha meetings.
- Organised awareness camps for youth and women of the village
- Interaction of the villages with Sant Balbir Singh Seechewal
- Meeting of NRIs with common Villagers

Roadmap and Strategies Executed for achieving best practice

As discussed, (a well through up strategy was devised by the panchayat to deal the ongoing problems through following steps;

- The very first step was to made consensus among all the villagers to participate in this drive and panchayat made every possible efforts to include each and every household to join this movement.
- The panchayat members visited their respective ward/area to sensitize the residents and made awareness on the benefits of better sanitation and solid / liquid treatment facilities;
- Since the village has considerable NRI families, they were also consulted and encouraged to provide financial aid for this drive;
- A detailed technical master plan was prepared for the new sewer system to be laid. This drains / sewer was especially designed to cover all the households in the village;
- The whole of village was divided into different sections and it was told to their respective ward members to prepare and classify a list of problems pertaining to this section on sanitation with the consultation of gram sabha members. The prepared list of reported problems were further prioritise accordingly as per the sensitivity of the issues and its immediate remedial.
- Renewal of Ponds and installation of water treatment plant;
- Beautification of every possible part of the village including streets with roadside plantation and construction of parks and playgrounds;

- Ponds to Lake: Gram panchayat came with an astounding idea to convert their water bodies into beautiful lakes.
- A committee was formed to overlook into the progression of work which was also entrusted to supervise the quality check.
- Village Level functionaries were also mobilised to involve in the ongoing courses of action as per their departmental cadres and speciality.
- District level officials were also approached to facilitate the gram panchayat in completion of the sewerage unit and other activities related.

Details of funds received

The details of funds received by gram panchayat Chakar has been given in table 1. The details show that sanitation and other related works were mainly met from MP-Lad and funds received from 13th and 14th Central Finance Commissions respectively. It is to be noted that No funding was received from SBM (G) by the village as per the details received by study team. No proper details has been provided by the village regarding the funds received by the village from the NRIs community.

Table 1: Flow of funds to Gram Panchayat Chakar (2014-2017)

Sr.No	Grant	Name of Scheme	Works executed
1.	243113	13 th Central Finance Commission	C/o Sewerage & Drains
2.	1500000	MP LAD Fund	C/o Sewerage & Drains
3.	187446	13 th Central Finance Commission	C/o Sewerage & Drains
4.	500000	MP LAD Fund	C/o Sewerage & Drains
5.	600000	Rural Development Fund	C/o Drains
6.	600000	13 th Central Finance Commission	C/o Panchayat Ghar
7.	1000000	13 th Central Finance Commission	C/o Sewerage & Drains
8.	250000	Viveki grant	C/o Toilets in SC families
9.	500000	MP LAD Fund	C/o Drains at Phirni
10.	612048	14 th Central Finance Commission	C/o Drains

11.	278234	14 th Central Finance Commission	C/o SC Dharmshala
12.	1200000	Punjab Infrastructure Development Board fund	C/o Lanes and Drains
13.	336246	14 th Finance Commission	C/o Sewer and Drains at SC Mohalla
14.	100000	MP LAD Fund	C/o Shamsan ghat
15.	400000	MP LAD Fund	C/o Drains
16.	1000000	RDF	C/o Sewerage & Drains

Detail of Activities

The People of Chakar village have been persistent in following the ideas of modern development through proper availability of ideal civic infrastructure at village level. This can be clearly seen with their choice of political leadership in the village; Sh. Lakha Singh, who served as the village head (Sarpanch) for 24 years in the past and is considered as the driving force in creating modern amenities the village needed. The efforts of the panchayats to create this village as a hub of modern infrastructure in all around sphere of development initiated in late 1960's, when state's Cabinet minister Sh.Lakshman Singh, visited the village in 1967 and was welcomed by the then *Sarpanch Lakha Singh* who put forward certain set of demands in front of the minister which included facilitation of electricity, creation of infrastructure for roads & transportation, agriculture and irrigation facilities. During the time of the proposals, the Sarpanch was fully supported by another prominent villager namely Captain Harnam Singh. Subsequently all the demands were approved and it became the first village in the vicinity to get electricity the year being 1967. This was followed by development works with regards to the carpeting of roads and extensive irrigation projects in the village. These initiatives led to the steady development of the village. The major turning point came in 2011, when gram panchayat along with the whole hearted support from NRI community of the village started a full fledged project to make Chakar, a Model Village which placed it in the top rungs of developed villages in the state of Punjab. The main emphasises of this project was mainly revolved around the safe sanitation facilities in the shape of planned sewerage plant in the village to scientifically deal liquid waste of the village. It can be clearly seen that it was the continuous efforts of the NRI community, the Gram Panchayats and the residents of the village which changed the face of the village. Following

are the elaboration of activities carried out in the village which has led it to perform best practice observed in the thematic area of documentation of this village;

Strategies for Management of Liquid Waste

a. Setting up of Sewerage Unit

Human waste (excreta) certainly poses a great health hazard; If not properly dispose off in a scientific manner. As discussed earlier, the better management of this waste through their proper disposal by means of systematic sewer and drains were long required in the rural areas. Similarly, residents of Chakar village along with PRIs members vowed to protect their health and to improve quality of life by laying a proper sewerage through planned and scientific manner to cover maximum number of households in the village. To achieve this, installation of the sewerage system was proposed in the development of Chakar. This project activities were started when gram panchayat members along with a NRI family (Sidhu's) contacted *Saint Balbir Singh Seechewal* in 2010 and told him about their wish of laying sewerage in the village. *Saint Balbir Singh Seechewal* encouraged and promised them to help in this task. He explained that there are two ways for installing sewerage system in the village; one was with the financial and technical help of government and other by villagers themselves. The village opted for the second method to stay as apolitical. Some other NRIs were also asked for their contribution and financial help in this project.

- A committee consisting of members from gram panchayat and gram sabha was made to keep account of all the activities and financial matters.
- Then, the project started on 8th February 2011 and Saint Seechewal inaugurated the sewerage project.
- The motivated villagers especially youth also actively participated in this drive.

- All the techniques, appeals and penal worked in favour which result the villagers also started contributing physically and financially for the project. Seeing the growing excitement in the people towards development of the village, the centre and state government also gave grants to complete this project.
- Along with this, some of the NRI families gave huge donations for completion of the project. Along with sewerage, the treatment plan project was also completed side by side within the village.



b. Other Arrangements for managing liquid waste

There were 3 ponds in the village. Work started with the cleaning of first pond and unclean water was drained out within weeks with the help of machinery. Ponds were divided into three parts, first well was square in shape on which an iron mesh was laid to trap plastic bags and other gross impurities which could be trapped easily. Width of the second round well was 15 feet. These

two wells were connected by 18 inch pipe. Ends of the pipe were joined in such a way that water entering this well rotated itself without any external stimuli due to which heavy soil content settles down. Second and third well were connected by pipes which were 6 inches above the level of water. Its width was 10 feet and functioning was totally opposite to the second one. The pipes were joined in such a way that the water entering the third well fell in a way that the heavy impurities stayed on the uppermost layer and could be later taken out easily. It was further connected to a 8 feet wide well. After going through these wells, water entered into 3 big ponds. As the ponds got filled, water passed from one to the other pond (first to second, second to third). Bacteria were introduced in the ponds which cleaned the smaller impurities by killing the harmful micro-organisms. When the third pond got filled, this water was channelled into the fields for agriculture purpose. This water proved quite beneficial for the fields as it was clean and organic too.

Ponds to lakes

Once the sewerage system got fully operational, modification of three ponds into lakes was the only pending effort required in the transformation of an ordinary village into a tourist destination. The three ponds of Chakar were spread in three different directions: the first and the biggest one on Guru Gobind Singh Marg also known as 'dhaab'. Second one on the way to 'rame wale' near the bus stand and the third one on the way to 'minian wala' also known as pipli wala. All the three ponds were divided into two parts each; the lake part was continuously fed with tube well water. Water harvesting project was also undertaken to utilize rainwater. 'Babe ki lake' has a beautiful entrance and an amazing park followed the entrance, which had a water treatment plant to its right and lake to its left. The area around the lake was covered with flowering plants and trees for a healthy environment and provision of natural habitat to birds. This lake is an attraction for all the nature lovers. Another lake *Pipli Wala* is constructed on similar lines, but the one that

attracts the most is the Morgan Lake. It was named after Kevin Morgan, an entrepreneur and a family friend of Sidhu family in Canada. He amazed by the popularity of Chakar village and offered a help of Rs.One crore for the beautification of village. The village accepted the help and returned the favour by naming a lake after him. Morgan Lake, being bigger in size had privileges that other lakes didn't. It was developed into a picnic spot, had a fun boating zone, a canteen, a parking space for vehicles and a lot of beautiful vegetation and natural scenery. Morgan Lake became an attraction for not only Indians but also environmentalists from abroad as well. On the boundaries of the lakes, proper path is made for walk. People regularly come there to walk every morning and evening.



One of the lakes in the Chakar village

Strategies for Management of Solid Waste

Special treatment was also done for solid waste. The cow-dung was regularly taken to the fields by the farmers and used as manure. Every community was given some area on the village boundaries/common land to throw their solid waste. When the solid waste got collected in large amount, it was taken far away from the village and disposed off at a proper disposal site in an efficient manner.

Street Cleanliness and Plantation

After cleaning the ponds, the villagers got involved in cleaning the streets, making the streets wider was an important task which required cooperation of people of the village. People cooperated to such an extent that they broke their over-extended walls of houses and ramps to make the streets wider. The streets of the village are worth seeing, as they are clean and wide. Plantation of palm trees and other beautiful plants make the street look more attractive and beautiful. Greenery has added to the beauty of the village. Along with this it helped in giving a fresh, new, clean face to the village.

Other Eco-friendly & Social Welfare activities

a. Establishment of Sports Academy

This was the one of main initiative from which the transformation of village started. Sher-e-Punjab sports academy was established in 2006 by an NRI family from Canada. Sidhu Brothers, Ajmer Singh and Baldev Singh's efforts brought laurels to the village. In the sports academy, boxing, football, and Kabbadi were most played sports. A positive environment was created in the village and youth started dreaming through sports. This positive change in attitude of people encouraged the gram panchayat to make more efforts in providing better facilities to its residents with the assistance of willing NRIs families of the village.



Sportsperson at Sports Academy , Chakar village

b. Positive environment for elderly (Sathh)

Followed by the sports academy, another efforts was spent in the construction of *Sathhs* i.e a common place where people sit and discuss matters."Sathhs" are an important part of ancient Punjabi culture which was beautifully revived in the village. The elderly people of the village come and sit here for hours, play cards, talk about life and various other matters related to religion, politics, Development etc. This has created a very healthy environment in the village.

c. Development in the field of education

People of village Chakar have always been aware about the importance of education. Earlier in 1960s, a school was established which was common for all castes and religion. In 1920, a Sadhu named Mehtab Das taught children in his "Dera". Later, in this area a primary school was built which further got permission up to middle school and slowly new doors to higher education opened.

Conclusion

Though, the credit of innovations and competitive environment of Chakar cannot be given to one person or department, as it is the result of the hard work of each and every person of the village. But still the efforts done by the Gram panchayat were really outstanding and it is responsible for major innovations. The biggest project i.e. the installation of sewerage system was a huge success because of the cooperation and wise actions of the villagers. They wanted to stay apolitical and made it clear by choosing a panchayat in unison. Setting up of sewerage not only created a healthy environment in the village but also played a significant role in environment protection by planting more trees, starting the water treatment plant project and organizing awareness camps. The conversion of ponds into lakes with the attractive plantation, lead a beautiful upkeep of vegetation and good ecological balance.

Many other initiatives were also taken by villagers by providing financial and other support to create major infrastructure in the village. One of such initiative taken was by Sidhu family (NRIs from Canada) whose efforts lead to the establishment of Sher-e- Punjab academy by contacting their various neighbours and NRI's friends who have given a hope of changing the outlook and direction of the village. Another well wisher *Saint Balbir Singh Seechewal*, who is a great environmentalist and social worker, played an important role in the development of Chakar. He is the one who installed sewerage system in the village Chakar. Like him, various others persons and families have actively participated in the upliftment of the village. Also the sons and daughters of Chakar, had setup a competitive environment by representing themselves at national and international levels in field of education, art, literature and sports. Some of them are Mahinder Singh Chakar (a novelist), Surjit Kaur Bamra (a sculpturist), a 16 year old boy Gurbinder Singh (participant in Voice of Punjab), Shavinder kaur (junior national boxing champion) and Shri Vajinder Singh (Arjuna and Olympian awarded)etc.

The selfless service done by the children, youth, elder and ladies of the village brought a positive change which turned the picture and outlook of village. The establishment of one Gurduwara and one temple continuously join people to their religious roots and kept inspiring and motivating them to lead a truthful and peaceful life. To make their village a better place, to live and give it a face like model town they worked in unison by forgetting all their mutual differences and disputes among them.

In 2006, establishment of Sher-e-Punjab academy had started a new tradition of games. This initiative became successful when the children of age group of 5-15 years started taking interest in sports. Motivated by academy, the youth took keen interest in sports and also refrained from drugs and other anti-social activities. Also students of the sports academy participated actively in national and international level sports and won various medals. Expansion of primary school up to 10th opened new doors to higher education especially for girls. The traditional environment has always developed a heap of difficulties for women to grow against the male dominated society. Defying all odds the girls of village Chakar had made their parents proud in all walks of life: sports, education and art.

Learning Outcomes

Lessons learned in the process of documenting accelerated implementation of evidence-based best practices has compelling results which needs to be replicated at various other similar avenues which are lagging behind in sanitation coverage. The village Chakar has mainly three following aspects which has led it to excel and achieve documented best practices which are recommended for replication;

1. NRIs Support in escalating activities under Sanitation

As discussed previously, NRIs families of the village have scripted a new story with actively participating in the development of village, especially in the acceleration of activities related to the sanitation and other eco-friendly. The boosting of civic amenities infrastructure has changed the scenario of the Chakar village. Since the development process does not solely confines to the corridors of the government machinery, but it also requires active participation of the local community for its success. Punjab with its highest numbers of NRIs in the country has become the experimental ground for NRIs boosting and participating in the development of rural areas with their financial and technical resources. The same successful experiment as seen in the success story of *Chakar* village can inspire and bring a positive change in all the villages of India.

This strategy to involve NRIs in developing and escalating sanitation and eco-friendly activities should be adopted and spread all over India especially among those states who are having considerable number of NRIs like Gujarat, Kerala, Tamil Nadu, Maharashtra and Andhra Pradesh. There may be many willing NRIs who wish to contribute in the development of their motherland. These NRI's can be approached to adopt and develop their ancestral villages and its adjoining areas in similar ways as seen in the case of Chakar village.

In this concern, panchayat can also be motivated to identify and approach their economically sound and willing NRIs to participate in the development of their respective village and they can send them their plans on how to develop their village and encourage them to participate in village's progress. The mechanism can be devised as we have observed in the scheme of *Sansad Adarsh Gram Yojana* (SAGY) and similarly on that pattern, panchayats with the help of NRIs Affairs department can also approach an individual or

consortium of NRIs, who can finance and support activities marked for sanitation purposes only.

2. Participation of Youths

India having more than 50 percent of its population below the age of 25 and more than 65 percent below the age of 35, has the potential to use this human resource in every sphere of the sustainable development. With the advent of new technologies and extension of education system all over the country, the youth of India has become responsive to the ongoing drive to change the nation and in achieving *Sustainable Development Universal* goals 2030. The energy and aspiration of the Indian youth especially in the rural areas can motivate them to participate in the sanitation drive. The economic reforms leading to the rural transformation have brought changes in the rural settings and subsequently inspired rural youths to transform their villages as par with urban facilities and technologies especially co-related to the sanitation and such similar facilities.

This similar situation witnessed in this village can be replicable in the other parts of the country as youths have actively participated and collaborated with the panchayat to brought and create sanitation and other related facilities as well as the activity concerned with environment protection.

However, it was also observed that panchayat has took several steps to attract youth to participate in this sanitation drive, like, construction of playgrounds, provision of sports academy, provisions of gymnasium and free internet facilities in the village. Similarly, other gram panchayats all around the country can initiate such activities to draw the attention of youths and make them more productive by collaborating them in development of village especially in the sanitation movement.

3. Beautification of village through Eco-friendly activities

Transformation of old village's ponds into lakes has been a magnificent and innovative example of transforming and enhancing the beauty of this village. These lakes have attracted tons of local tourist and school children from adjoining areas. Not only this, small paddled boats have been introduced into these lakes for the visiting tourists, which is an added attraction for travellers. By charging the nominal fee for boating in the lakes from tourists, the panchayats has generated an extra own resource fund which is further used for eco-friendly activities.

Tree Plantation and planting of grass all around these lakes had magnified the beauty of the village. In addition to this, these lakes also served as fish ponds which is also generating extra revenues for the panchayat as well as remained crucial for protecting local eco-system and addressing depleting ground water table.

Since, almost every Indian village have 2 to 3 ponds to address various need of the villagers, they can also be transformed into lakes with minor constructions and changes as per the local requirement. These changes can be met with the MGNREGA scheme which can further create employment in the village. Initially, only few villages can be selected as pilot project and later more villages can further be adding to this activity. These lakes would not only beautify the village surroundings but will also helps in maintaining ecological balance.

Way Forward

On concluding notes, brimming with the confidence, strength, will power and preservice, the residents of Chakar not only wanted their village to improve but also to turn it into a model village that inspires not only whole surrounding area of the but in entire region also. Even though these qualities are found in almost all villages, but what differentiates the people of Chakar from others is the leadership available to them in the form of Indians settled abroad. They wish that if every village treads the same path, then our country would be amongst the most beautiful countries of the world. To achieve this level of coordination in the working force, it is necessary that they forget all their mutual differences including religious, social and economic differences and work in harmony to bring about the benefits of doing a job. These make it easier for people to comprehend and work toward a common aim. A simple example like setting up of a sewerage system prevents a lot of diseases, thus providing a healthy lifestyle and avoiding unnecessary expenses. Working towards a common aim also helps in developing harmony. After facing all the challenges and successfully overcoming them, the pioneers of Chakar wait for their counterparts in other villages/towns/cities to follow the suit.

Acknowledgements

WE are very thankful to Dr.W.R.Reddy (Director General, NIRD&PR) for giving us this opportunity. The support, motivation and guidance rendered to us by Dr. Pratyusna Patnaik (Associate Professor, Centre for Panchayati Raj, NIRD&PR) have been very valuable. We also owe our special thanks to Shri Saroj Kumar Dash, (Officer on Special Duty, Centre for Panchayati Raj, NIRD&PR) for providing us the appropriate and timely information and guidance.

WE express our deep gratitude to ICSSR, New Delhi, for providing financial and academic inputs to CRRID and the staff engaged in the study.

WE are very grateful to members of Gram panchayat of Chakar village for their participation in the FGDs and spending their valuable time with the team. We shall be failing on our part if we do not acknowledge the whole hearted help extended by the gram sabha members and other stakeholders participated in the FGD meetings. We also express our deep sense of gratitude to all those known and unknown persons who assisted us directly or indirectly, to complete this assignment without involving any liability for errors.

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February, 2018



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ROLE OF PRIS IN MANAGEMENT OF SOLID AND LIQUID WASTE MANAGEMENT

CHAKAR VILLAGE

LUDHIANA - PUNJAB

