

## **Changing the face of Indian village**

**Gayatri Rajwade  
Tribune News Service**

Kharoudi, March 15

In his address at the Nirmal Gram Puraskar Awards on February 24 last in New Delhi, President APJ Abdul Kalam referred to this village in Hoshiarpur district as a "model" that understood the necessity of clean drinking water, sanitation and hygiene as a method to foster public health of the village community.

Kharoudi has changed the face of the archetypal Indian village largely due to an efficient system of sanitation and wastewater management.

A tiny hamlet of 700 people living in 150 homes, Kharoudi is the endeavour of Dr Gurdev S. Gill, an NRI living in Canada. The septuagenarian is a self-effacing man with tremendous zeal and passion for what he is doing.

On one of his yearly trips back to his ancestral home, Dr Gill was appalled at the squalor and filth around the village. "The villages in Punjab practically float in sewage. During the monsoons, it was impossible to cross the street. Stagnant water, overflowing drains and waste piling up ankle deep, made the village a health hazard."

What started out as an attempt to clean up the road on which Dr Gill has his home, led him to change the ethos of life for the villagers.

Dr Gill and his friend, Dr Raghbir S. Basi, decided to approach the then Punjab Chief Minister Parkash Singh Badal who promised a grant that matched the amount they raised. The cost of the project was estimated at Rs 1 crore.

The NRI families, all originally from the village, donated Rs 1 lakh each, raising a total of Rs 50 lakh. The government pitched in with the remaining Rs 50 lakh as promised. The project covered every villager irrespective of his caste, creed and ability to pay.

Today Kharoudi boasts of underground sewerage pipes, water pipes and telephone wires, a waste-water management system which is ecologically viable and provides water to the community, concrete paved streets, a primary school with computer education up to Class V, solar-panelled streetlights and a new panchayat/community centre.

Every aspect of community living was looked into. The ponds and marshy areas, breeding grounds for mosquitoes and flies, were filled up and converted into four parks.

A 30-foot-deep pond that overflowed every monsoon has now been converted into an open space. The area is clean and surrounded by a grille which keeps stray cattle out and keeps encroachment in check.

Rooms were added to the primary school, which caters primarily to the poorer people in and around Kharoudi. Computer education has been added to the curriculum and

five computers installed along with a dedicated teacher. It includes a special programme to learn English that was sourced from overseas.

Eleven-year-old Jasmeen's face lights up when in front of the computer. She wants to be a doctor when she grows up.

Dr Gill says this aspect of the project has been the most fulfilling. The children have picked up a fair degree of English and computers and "when you ask the children in which language they want their eyes tested — English or Punjabi — they all choose English."

There were, of course, some problems. The grills around one of the four ancient wells of the village were broken, the grass in the playgrounds needed tending and peanut shells lay strewn on one of the street.

Despite these hiccups, the place looks clean and washed and the women consider the changes a "Godsend."

The economic implications in terms of job creations and the development of a community where children are safe from disease and sickness are impetus enough for the villagers to keep their little haven spruced up.

**To be concluded**

## **Village shows cleanliness is affordable**

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The people of this village in Hoshiarpur district are proud of a huge water tank they have constructed. It is difficult to believe that it contains sewage water because it is odourless.

Before the water flows into the tank it passes through an effluent filtering unit connected to the septic tank. The water smells ghastly when it reaches the unit but after the treatment, it is as good as clean water.

Of all the projects initiated for the development of Kharoudi, this water treatment facility is the most impressive. For the villagers, access to clean water and meticulous disposal of waste has altered their lives.

For Dr. Raghbir Basi and Dr. Gurdev Singh Gill, NRI doctors from Canada who initiated the project, sanitation, public health and education go hand in hand. "Public health was taught to us in the medical school in Canada. In a way, it is part of the basic education there. If sanitation and hygiene are not in place, no amount of treatment will work."

Eighty per cent of diseases in the villages are directly related to poor sanitation and hygiene. Kharoudi was no exception to this statistic. Shailender, a 65 year-old villager, remembers a time when, "the waste from the septic tanks sometimes spilled out onto the street, up to ankle level, causing a stink and breeding diseases."

The village now has new underground water pipes connected to all homes. Although the government was supplying water to the village, the water pipes were in a state of disrepair. The government estimated Rs 8 lakh for changing the water pipes but Rs. 2 lakh is what it cost the pioneers of the project to change them all.

Underground sewage lines lead out to septic tanks near the filtering unit. Part of the wastewater is treated through a process called 'absorption field' or 'leach field.' After the septic tank has settled out solids, clarified water is dispersed through perforated pipes into the soil. The anaerobic organisms in the septic tanks prey on potentially pathogenic bacteria, viruses and parasites thereby eliminating most of the solid waste. The soil acts as a biological recycler for the wastewater passing through it.

This works well where the soil is sandy, loamy and the water goes back to the earth. Dr Gill wishes more land was available as "this form of wastewater treatment is one of the oldest methods in the US. It is cost effective and stays for at least 50 years with minimal maintenance and care."

The remainder of the wastewater treatment is through a system referred to as 'intermittent sand/gravel filters.' Gurnail Gill is an engineer, an NRI living in Abu Dhabi. He is responsible for the work on these systems.

The treated wastewater is collected at the bottom of a two-foot gravel filter in an under drain and is discharged into a facultative pond. A flushing pump in the pond

keeps the water clean by recycling it. The water collected in the tank is used for washing and irrigation facilities.

Ram Das is the husband of the ex-sarpanch of the village in whose time the project began. "I am so grateful to all the people who have contributed to this project. Our lives have become so much simpler and the cleanliness is a boon to all of us. This water project gives us an additional supply for our fields and for our homes."

Sohan Singh Deo, an NRI from Canada currently on a visit to his village, reaffirms his support to the project. "The change is unbelievable. The village stands transformed."

According to the 2001 Census, there are 12673 villages in Punjab. These can be sanitised in 10 years if, as Dr. Gill says, "the government has a streamlined approach to projects like these". — **Concluded**