

Kachhi Mitti Ka Pakka Vaigyanik

Life-intro of Devendra Bhai

This was only two months before independence, in May 1947, a young man reached Wardha Junction near Nagpur. He was the grandson of a District Collector, who had received training in Oil and Paint Technology from Harcourt Butler Technical Institute, Kanpur and also had offer of a job in a big company, but Gandhi pulled him to Wardha. Although he never met Gandhi, he had only seen him in Calcutta and became his Eklavya. This person, who used to go to school in a carriage and with security guards, walked from the railway station carrying only a traditional box and appeared before his future Guru.

Devendra Kumar's thinking was like that of most other youngsters of that time. However, he was inquisitive how everyone thinks about their livelihood after getting good training, then what is Gandhi thinking, what is Kumarappa thinking? When he could not be at peace anywhere, he came to Wardha. There he found that not only a special social system was being conceived there, but training was being given to the youth arriving there from all over India after appropriate research. Research, Training, Production and procurement all went on together. Work was going on towards a social system, which was oriented towards an ecologically sound, socially just and economically viable society. While Gandhi himself was the architect of this system and the direction was also given by him, but the responsibility of running and taking it forward was undertaken by Dr. Kumarappa, who was also going to be the future Guru of young Devendra. It is said that if you want to know someone well, then know his Guru. Once we know Ramakrishna Paramahansa, we can understand Vivekananda, so let us know a little about Kumarappa.

Joseph Cornelius Kumarappa was born in Kerala, Kumarappa because some generations back his ancestors were high class Brahmins and Joseph because his ancestors had later converted to Christianity. He was so intelligent that he went to London and became a chartered accountant, worked in a big bank, earned both name and fame, but then Gandhi came in his way. Influenced by his writings, he went to America to do his PhD on public finance and India. He did this under the guidance of the same professor who had also taught Dr. Ambedkar. In this, Dr. Kumarappa exposed the British as to how they were ruining the economy of India by taking away its assets to England.

After coming to India, he went to Sabarmati Ashram to meet Gandhi with his research paper. When he could not meet Gandhi as his, he left his research paper there and returned to Mumbai. When Gandhi read the research paper, the expert jeweler recognized the value of the pearl and invited him to come to the Ashram and meet him. After receiving the letter, Kumarappa reached Sabarmati Ashram on the appointed date and time. Wearing a three-piece suit, a hat on his head, and a stick in his hand, he asked a half-naked old man spinning a charkha under the shade of a dense tree, 'Brother, where can I meet Mr. Gandhi?' The old man took out his watch from his armpit and saw that it was exactly five o'clock. He smiled and said, "You are meeting Gandhi. You are Kumarappa, right? Come and sit. We do not have chairs to sit on", saying this, he gestured him to sit on the ground. Kumarappa was

startled and sat on the floor in his suit and boots and once he sat on the ground, he never sat on a chair again - for the rest of his life. Thick Khadi dhoti-jama, kurta and cap became his clothes. All his life he lived in a mud hut, plastered with cow dung and mud, just like the hut of a poor farmer in the village and a lamp of non-edible oil was always lit in his house, not an electric bulb. Such a guru Kumarappa explained the meaning of the matter to his disciple Devendra so simply that Devendra understood it immediately.

He told that there are two types of economy because there are two types of energy. He gave the example of a bucket and a river flowing continuously. The more you take out from the bucket, the more it will get empty whereas if you fill the bucket from the river, the bucket can be filled again as soon as it gets empty. All the minerals are the symbol of this bucket economy, whereas the forest or agricultural produce of nature is the symbol of the river. Kerosene will definitely end one day but not the oil obtained from forests, fields and trees, such as mustard, coconut oil etc. Similarly, petrol or diesel for a motor vehicle may end once but a bull or a horse does not need any petrol or diesel. So, the foundation of such an economy should be laid which is based on eternal, replenish able and self-replenishing energy, whose reserves are renewable energy and not on non-renewable energy.

In 1935, the All India Village Industries Association was established. Gandhi left Sabarmati and came to Wardha and began the process of research, training, operation and improvement all kinds of village industries you can imagine. Humanitarians and national and international scientists like Gurudev Rabindranath Tagore, Sir C V Raman and Jagadish Chandra Bose joined its advisory committee. Gandhi himself became the president and kumarappa the director. Taking on the responsibility of taking forward the work of such a Guru, Devendra Kumar got involved with full readiness in the task of establishing a social replenishing economy of the river in place of the bucket. But his journey was not easy.

Devendra bhai did many researches while staying here like-improvement in the oil mill operated by oxen, making food items like roti from peanuts, improvement in the quality of oil coming out of the mill, manufacture of soap and oil paint as per the requirement of the villagers, lanterns burning using non-edible oil instead of kerosene, production of coal from peanut shells and hard coconut shells, development of smokeless stove, handmade paper etc.

Devendra Kumar was a very popular teacher. His classes were sometimes held under a tree, sometimes on its branches. Students and teachers would all sit on these and study. This is where a love affair sprouted which later blossomed into a life partner. This girl who came to learn rural science and technology was from the Godavari coast of Andhra Pradesh and her name was Atmaprabha, which later became Prabha Devendra.

Although he did not meet Gandhiji, he did write an article for his magazine, Harijan, in 1947, titled 'How to save grains'. After publishing this article in Harijan, Gandhiji published Devendra Bhai's article with his comments in his book 'Food Shortage and Farming'. This was a big achievement for a young man of 22 years of age. In addition to studying while living in Wardha, he also focused on writing. He translated the articles and speeches of his guru Dr. Kumarappa into Hindi. This included the English to Hindi translation of Dr.

Kumarappa's book 'Gaon Andolan Kyon'. This young writer's original articles started getting published regularly in Gandhiji's magazine, Harijan and Kumarappa ji's Gramodyog magazine. Along with Kumarappa ji, he toured and surveyed many states and studied the problems of agriculture and farmers in villages and prepared a report on village reforms. Dr. Kumarappa submitted this report to Pandit Nehru in 1947 and this was the last historical report that Pandit Nehru submitted to Gandhiji on behalf of the All India Congress Committee in 1947 itself.

During his stay in Wardha, Devendra Bhai got the opportunity to develop close relations and work with Gandhi's contemporaries Acharya Vinoba Bhave, Kaka Soheb Kalelkar, Kishorilal Mashruwala, Krishnadas Jaju, Annasaheb Sahasrabuddhe and G. Ramachandran. The original working style, revolutionary ideology, hard work and honesty of these great men left a deep impact on the thoughts and working style of Devendra Bhai. From here he used to go to many national seminars. He used to get invitations to teach from Delhi School of Social Works. He used to go there to give lectures. There was an American principal there. He wanted Devendra Kumar to go to America and make the people there aware of Indian villages and the problems there.

“But when I myself do not understand the village properly, how will I explain it when I go to America?” Devendra Bhai thought. In this dilemma, he went to meet Saint Vinoba, who lived in Pavnar Ashram, only a few kilometers away from Wardha. Vinoba Ji explained, 'Brother, go to any village and live there like the villagers. Mix with them like milk and sugar. Only then will the village be recognized.’

A Decade: Machla (Year 1652-1661)

Devendra Bhai understood it. After taking permission from his Guru, he headed towards a completely unknown village. Machla near Indore in Madhya Pradesh. Machla, where there is no road from the city to the village, no proper arrangements for water, electricity and housing, Devendra Kumar reached there and cleaned the place given by the villagers for dumping garbage and built a hut, selected seven-eight companions for his work. Some of them were from Karnataka, some from Maharashtra, some from Andhra Pradesh and also from Gujarat. In this colony of sixty houses in the village, most of the families were landless laborers; they were working like bonded laborers on the land of the landlords and were surviving on a meagre diet.

Himmat E Marda- Madad E Khuda

Devendra Bhai demanded government land for the landless from the government. After a few years of hard work, he acquired the land. Along with his friends and landless villagers, he started converting the barren land into farmland. Stone turned into soil. A cooperative society was formed in the village which arranged for seeds, fertilizers, bullock carts, irrigation etc.

for production. Cooperative farming, collective cowshed were started, everyone had equal share but according to hard work. The more one worked, the more his share.

There was only one well of the upper castes in Machla. On the garbage heap on which the villagers had allowed these people to build a hut, a dead dog was lying there. Devendra Bhai, with the help of other companions, had dug a pit and buried the dog in the ground and had just performed the last rites when the upper castes declared them Chamaar. Now they could not draw water from their well. Devendra Bhai found a solution. He got together with his companions and dug two wells instead of one, full of water. According to the times, Devendra Bhai thought of another way, got four pulleys installed on each well. When the villagers got the convenience, their greed increased. They asked whose well is this? They said everyone, use your pulley, fill water. In this way, even though different castes adopted one pulley each, the well became one. Similarly, with his wisdom he overcame many evil practices of that village and also worked to connect the hearts of people.

Open a Khadi school in Machla. Deal with the problems of village health, agriculture, irrigation and road construction. Also paid attention to rural economy and education started a kindergarten and primary school. All this did not happen in a hurry but in ten years. Many Gram Sevikas were also prepared for this great task at the All India Kasturba Gandhi Smriti Sansthan in Kasturba Gram near Indore.

We had left the story of Atmaprabha incomplete. But she was not willing to stay incomplete in Andhra. Devendra accompanied her to achieve completeness. With the money obtained by selling a bullock cart full of gram crop, they bought tickets and dressed like farmers, from Machala they reached Sitanagaram, near the banks of Godavari. This is where the "Gautami Satyagraha Ashram" was located and is the workplace of Atmaprabha. Once again an unknown language, unknown surroundings, unknown culture. Still both the families participated in the marriage. The north met the south and with utmost simplicity his bride came to Machala sitting on a bullock cart, for whom there was no separate arrangement for living, nor any household goods.

When some money came in from farming, slowly the utensils and utensils were arranged. Atmaprabha bought two milch cows from her savings and the Machla family bought two sturdy bulls- Santa and Bansata. The family settled down and in the same rural environment they had three children – a son and two daughters named Rajiv, Vibha and Smita. Rajiv has done remarkable work in the environmental sector. Vibha is her father's shadow in Wardha and Smita did her PhD in environmental science and built a successful environmental company and is living in America with an Indian, Ashok Siddhanti. He formed an organization with Indians working in his area which works for the overall development of the villages of India. His younger son Mudit was born in Indore and studied medicine from Sevagram Medical College where his classmate Swati became his life partner. They currently live in England.

Land Gift Movement

Vinoba himself had chosen Machala for Devendra. He kept a close watch on the activities there. When he saw that the work was back on track, he asked Devendra to cooperate in his Bhoodan movement. Vinoba Ji gave Devendra Bhai the responsibility of running Madhya Pradesh state for Bhoodan. Along with the work of Machla, he also conducted the state-wide Bhoodan movement under which thousands of acres of land and a large number of villages were donated. By connecting the villages of Madhya Pradesh and their landless people, forming their organizations and distributing land, Devendra Bhai also reached the states of Andhra Pradesh, Karnataka and Tamil Nadu. Acharya Vinoba Bhave's Bhudan Yagya got embedded in every worker. The inspiration of more penance, the affection towards the oppressed and the exploited, and the vision of compassion that resides in the heart of the rich and capable; these elements tested Devendra Bhai in this yagya and made him even more refined as a self-dedicated worker. Finally, he was also a very prominent worker of Vinoba's Chambal Valley dacoit surrender campaign.

The All India Khadi Commission was established in 1960. Vaikunth Bhai Mehta was the President. He requested Devendra Bhai to take the post of head in the commission but how can a person who believes that the condition and problems of the village can be solved only by living in the village and working with the villagers, trust in big offices and high positions? Therefore, Devendra Bhai politely declined this request but being a scientist, he always played an important role in the research work of various departments of Khadi Village Industry.

Meanwhile, he established Palm-Jaggery Industry and Amber Charkha Unit for the landless of Machla in the village itself. He also started work on improving the tools and working methods of carpentry and leather industry. He also worked with the artisans and women working at the lime kiln so that they could also incorporate new methods of house construction in their work, worked on good indigenous breeds in animal husbandry, also ran many campaigns on cleanliness of wells in villages and rural cleanliness. Under the guidance of Devendra Bhai, some colleagues also taught the blacksmiths the methods of improving agricultural tools. The work of natural fertilizer also started in full swing.

As the secretary of the Khadi Village Industries Board's Oil Ghani Department, he made many improvements in the oil mill, including making mills from small pieces of wood without cutting trees and connecting the modern system of motor and expeller to the rural bullock mill. He also invented simple methods of collecting and using the inedible and edible seeds that go waste in the forests. He discovered the seeds of many such trees that were never used for oil and also discovered simple methods of extracting oil from those multi-purpose seeds.

Devendra Bhai believed and still believes that true news must reach people through newspapers and magazines. So he kept writing about his work and thoughts through Sarvodaya magazines. Along with this, he also published a weekly magazine named 'Bhoodan Kranti'. By now he had understood the village. That is why even later, he always emphasized on research, development and implementation of the same works which he had experienced while living in Machla.

From village to city (1961 to 1965)

Then Vinoba fired another arrow in one of his padyatras. He said, "Do not think that your sadhana is over. It is good that you have understood the village, but only if the city also understands the village, gets connected with it, then the distance between the village and the city will end. The village does not only export goods to the city but also gives its thoughts and values, which the city is not aware of. You will have to bridge this gap. The city will have to share the thoughts and values of the village." Devendra Kumar left Machla village and came to Indore city. Thus, just as his previous decade was spent in understanding the village, similarly he spent his next decade in understanding the city, in making the city dwellers understand the village, in bringing the city dwellers closer to the village and in turning the city dwellers i.e. the government, businessmen, national and international social organizations, scientific thinkers and humanists towards this work. The work of Sarvodaya started in Indore city.

To free farmers, labourers, common citizens, women and institutions etc. from the clutches of lawsuits and lawyers and to provide them with proper solutions, Samadhan Samitis were formed and 'Lok Adalats' were also started in the city. The experiment of giving a concrete form to this physical idea was successful and a maximum number of people got relief. To spread Gandhi's literature to the masses, Sarvodaya Sahitya Bhandars were opened in railway stations and markets which are still working to spread healthy and ideological literature to the people. He also started the work of rehabilitation of leprosy patients and beggars expelled from the society. He established an organization for the continuity of work, whose minister was Devendra Bhai himself. For cleanliness, Safai Dals were formed in the main wards and a cleanliness campaign was started across the city.

On the other hand, Khadi Village Industry Centers were opened in the slums of the city so that the poor and the exploited could get involved in production work and earn money. He tried his best to ensure that no family sleeps hungry. To ensure fair prices, an unadulterated distribution system and exploitation-free operation in the milk trade, Devendra Kumar linked up between the village milk producer and the city seller and coordinated the needs of the consumer with both and made a successful plan and implemented it. On the other hand, Devendra Bhai's relationship with Machla did not break either; the villagers would come to Devendra Bhai with their problems and successes for exchange of views.

By banning violence, adultery, corruption, religious and political tensions in the city, Shanti Sena was established for peace, non-violence and public awakening. This Shanti Sena resolved the long and petty fight of the workers' union by making both the parties sit together and resolve the issue. The violent conflict going on between the university students and the police was stopped. By playing the role of mediator between two political parties, an environment of friendship and peace was created instead of destructive fear. To give concrete shape to the idea of harmony among all religions, mass religious festivals were organized in which people of every religion started participating enthusiastically. This role of Shanti Sena

spread an environment of non-violent revolution and brotherhood in the city. Along with this, a movement was also launched against obscene posters and literature. Street meetings were held. Obscene posters were blackened. In this regard, meetings were held with cinema hall owners and obscene posters were banned. The word spread so much in Indore that many cities of Madhya Pradesh supported this movement. A statewide ban was imposed on the display of obscenity directly or indirectly by the media.

As the President of All India Non-Edible Oil Industry, Devendra Bhai opened testing laboratories at 5 places in India and discussed with experts and various science and technology institutions how their support and cooperation could be obtained in rural industries. He continued to research this as well. This was the first introduction of the village and village industries to the scientists of the science schools. This was Devendra Bhai's first persistent effort to give the right direction to science.

Won the heart of the capital Delhi (from 1965 to 1975)

For Gandhiji's birth centenary, the National Gandhi Memorial Fund had to organize and run many programs on a national and international scale. For this, he was elected the All India Secretary of the Fund. He again took advice and blessings from Vinoba. Thus, via Machla and Indore, he came to Delhi in 1965. This became his next step in the effort to fulfill the dream of the village while living in the city. Here he took charge of the National Committee of Gandhi Centenary. In this connection, he kept meeting national and international politicians, intellectuals, thinkers and humanitarians in various events on various subjects. Devendra Bhai never missed to tell them his opinion. His circle kept increasing. From national he became international.

At the same time, one day he went to the court and legally removed 'Gupta' from his name and became only Devendra Kumar. Staying in Delhi, he started institutions like Himalaya Seva Sangh, Gandhi Memorial Naturopathy Institute and Ahimsa Vidyalaya of Rajghat which were indicative of a new direction for the new generation. He selflessly discovered thousands of institutions doing constructive work related to Gandhi and published a detailed introduction booklet about them, so that the unknown but capable and constructive institutions inspired by Gandhi's ideas got recognition across the country. He also helped in the formation of many institutions in the hilly areas of the north-eastern states, backward areas of Rajasthan and the states of Purvanchal.

Hundreds of hardworking workers were continuously working in the villages in extremely difficult conditions and in remote places for many years without any financial support. Introducing such selfless Gandhi's workers to the society and the country, understanding their difficulties and needs by meeting them and organizing a Sevak Nidhi from the funds of Gandhi Memorial Fund and giving full and continuous financial support to these Gram Sevaks or workers; besides this, the most important thing is to pat their backs, to keep a hand of protection on their shoulders. The confidence of the workers increased, the infusion of new inspiration in them is a minor but unforgettable contribution of Devendra Bhai.

Bandit surrenders for the second time

Devendra Bhai became the vice-president of Chambalghati Shanti Mission under the chairmanship of Shri Jayaprakash Narayan. After the surrender of the bandits in front of Vinoba ji, the feeling of surrender was awakened in the minds of the bandits again, but Vinoba ji had taken sanyaas. Therefore, this task was entrusted to his favorite disciple Devendra Kumar who was in Delhi. Bandit Madho Singh, who had a reward of 50 thousand on his head at that time, reached Delhi in disguise along with his two companions. For three-four days, by deceiving the police, he tested Devendra Kumar, the secretary of Gandhi Memorial Fund, and found that the man was straightforward, true, compassionate and honest. When there was no scope for doubt, he invited Devendra Kumar to the labyrinthine valleys of Chambal. There were various types of signs in the ravines of Chambal. Crossing these, he reached the rebels.

Talks began. The conditions were decided that you will come to the ravines alone, what will happen to us later? Will we be hanged? What will happen to our families? Will anyone in the government even listen to you? Then the name of Jayaprakash Narayan was suggested and the rebels were satisfied. When all the solutions were found, another condition was put forward that your other companions will also have to be kept. Well, after all this, that historic surrender happened, which brought Late. Jayaprakash Narayan and dreaded dacoits like; Madho Singh, Mohar Singh on the same platform.

In the open jail of Mungawali, when Dr. Devendra Kumar, standing in an open jeep with a simple smile on the success of his plan, was coming towards the campus with his right hand raised, making a 'V' (Victory) sign with two fingers. Then the scene changed. Late Shri Jaiprakash Narayan and Devendra Bhai were on the chairs and in front of them were all the rebels. Shri Jaiprakash ji was so distraught that he started crying. The rebels in front were also crying. It was as if the mountain of evil had been melted like wax and converted into tears... it was said that **“Na Koi Banda Raha Na Koi Banda Nawaz”**! This chain of bandit surrender in 1972 became unbroken. Devendra Bhai became a relative of about 600 rebels. He would visit them in jail, help them in planning their future life, assist the state and central government and act as a bridge between the rebels. History is a witness that the surrendered rebels of that time never revolted again.

Benefit of Gandhi Memorial Fund, New Delhi

As the minister of the National Gandhi Memorial Fund, Devendra Bhai was also responsible for the Gandhi Samadhi. All the foreign dignitaries who visit India definitely visit the Rajghat Gandhi Samadhi and offer floral tributes. At that time, the minister Devendra Bhai would accompany these special guests. Recognizing the importance of the occasion, during these meetings, they would exchange views on Gandhi-Sarvodaya ideology, India's role on topics related to world peace and sustainable economy. They would make proper use of the world's

reverential mentality towards Gandhi. Here he met the world's most distinguished personalities, Soviet Union President Brezhnev, Marshal Tito, America's ambassador Kissinger, France's Andre Malro, Iran's King, Aga Khan brothers, Japan's famous Buddhist monk, Nepal's King and Neil Armstrong, who was the first to step on the moon. No matter who it was, every person would return from Rajghat with a new introduction to India.

So that visitors from every country in India and the world can feel at home in Rajghat, Devendra Bhai added new structures to the Rajghat Samadhi. When you go towards the Samadhi from the foot of the green hill of Gandhi Samadhi, you pass through an open cave of light pink stones. These stones accompany you all the way to the outside of the cave. In this way, this Gandhi T hinkaat is engraved in five languages of the United Nations, Arabic, Persian, languages of South Africa, Nepali and 16 main languages of India. Now Gandhi does not seem like a stranger to any visitor. He talks to the visitor in his own language.

He inspired Prince Aga Khan to dedicate Pune's Aga Khan Palace to the nation. Gandhi Bhawans were built in major cities of the country to showcase Gandhi's thoughts and studies. During his tenure, he also added the subject of Gandhian thoughts in the syllabus of universities. He requested the famous classical music singer of that time, Kumar Gardhav, to compose Gandhi Raga.

It was difficult. It was not easy to combine the pathos and heroism. After a year of hard work, Kumar Gandharva created an original heart-touching Gandhi Raga. Similarly, Gandhi's personality and ideas were created in various forms by many poets, artists, sculptors and musicians.

Many books were also written and published by Gandhi's close associates. Due to which many historical facts came to light, which would have otherwise remained anonymous. Thousands of meters of films of Gandhi taken during the freedom struggle were rotting in discoloured boxes. Devendra Bhai, with the help of friends and the Film Division, compiled these films and made a four-hour documentary. This documentary named 'Mahatma' is a historical document for the future.

Devendra Bhai toured various states of India in 1960 with Gandhiji's close friend Badshah Khan (Abdul Ghaffar Khan). This was a wonderful and compassionate effort to bridge communal and religious gaps. Internationally, he visited Japan, Korea, England, West Germany, France, Nepal and Sri Lanka and opened new doors in this direction by visiting Gandhian institutions run by the people there. He also went to Belgium and participated in the World Religion and Peace Conference. While doing all these works, his aim was only one - to connect with whoever he met, be it a human being or a thing, and whoever was useful for rural development or was connected to it, and make them his own. In this way, another decade passed. During this time Devendra Bhai also wrote two books, 'Aaj ke Sawal aur Gandhi ke Jawaab' and 'Shashwat Gandhi'.

Indian Science Congress was organized every year and in the upcoming Indian Science Congress of 1974, Devendra Bhai suggested to the then Prime Minister Mrs. Indira Gandhi to add a discussion about our scientific village in its format. It is an important subject on which

no work is being done, so why not organize a parallel Science Congress on the subject of science and village. Indiraji not only accepted this suggestion but also put it before the scientists and in the Science Congress held in Visakhapatnam in 1976, Dr. M.S. Swaminathan gave a comprehensive presentation on this. By deciding science and technology for rural development as the main theme, a new trend was started in the Science Congresses. A large number of scientists of the Congress listened to Devendra Mai's ideas, understood them, appreciated them and readily agreed to play their role.

From 1969 to 75, a group of young scientists along with Devendra Kumar toured science research centres across the country. They asked these three questions to scientists everywhere: Do you have any technology or industry for village development? Which problem of the village can your research centre take upon itself to solve within the scope of its limited speciality? Whatever technology you find useful for the villages, which is still lying in the cupboard, are you prepared to make it consumer friendly and applicable and to spread it? As a result, many scientists left their research centres and came to work among the artisans of the villages with the resolve to work among them.

Whether it be working on 'Indian Science' and 'Human Technology' in the true sense by stopping the science that exploits villages, exploits the environment and creates social distance, or efforts to create an inclination towards a scientific outlook in the common man, connecting craftsmen and scientists, experiments and dissemination for natural farming, making scientific toys for children, environmental experiments related to forest, water and land with tribals, many such thought streams and possibilities emerged from this movement, which were named 'Science for Villages'. On the insistence of Devendra Bhai's team, the Centre for Scientific and Industrial Research (CSIR) issued an order that any scientist can join any NGO and work on finding scientific and technical solutions to rural problems for three to five years. During this period, his post and salary will remain the same. This policy also brought about a change in the mindset of scientific institutions. The scientists there left the laboratories and started converting the rooms in the villages into laboratories. Scientific organizations were formed to deal with rural problems.

Rural Science Center (from 1976 till date)

After understanding all the circumstances, Devendra Bhai, after a decade of tireless efforts, decided that a village science center should be opened which would function as a science laboratory. And try to eliminate the gap between mud huts and the desired scientists should also get a proper base to do their experiments for the benefit of the village. During this time Vinoba ji felt that now it was enough, he should return to the village. The objective was the same, so he was also getting impatient. In 1976, although he was being stopped in Delhi for the next three years, still he did not agree, resigned and came back to Wardha. In this decade, Devendra Bhai held the position of President or Minister in nearly 50 Gandhian institutions, but when he started working on rural science, he resigned from the top positions of all these institutions and devoted himself entirely to the work in Wardha.

This time his visit to Wardha was even more strange. With him were only his eldest daughter Vibha and a file. The file had all the addresses that were connected or could be connected to his potential work. This was his only capital, this was his wealth. Vibha became his assistant in his work as well as his secretary. Wardha is a very dry area. Here the heat is dry as well as cold. In the scorching sun, tying a Khadi cloth on the head, both of them would set out on a small Luna motorcycle. Vibha had learnt to ride it then. She had not even learnt it properly when her father sat behind her and said, 'Let's go'. After going a little distance, it became 'Ghadam' but there was no pain, no remorse. He knew how to get up after falling down. He went from village to village, listened to the problems of the villagers, also tolerated their opposition. To be honest, it was a time of testing.

Along with this, the work of sending letters to the addresses written in the file that was brought along was also done. You might say why? He had to organize an international conference on the topic of 'Technology and the poor of the third world'. This is where the past relations and references came in handy. Sixty representatives from abroad and one hundred from the country participated in it. These representatives came from national and international universities and technical institutes. This meeting was inaugurated by the world famous thinker 'Ivan Illich'. He did all this work in January 1977, just one year after coming to Wardha.

His Guru Professor Kumarappa's All India Village Industries Association was almost defunct, because Guruji had to leave Wardha due to his long illness. Gandhiji had opened a museum in Wardha during his lifetime. Museum and then Jeevita ji, he opened this museum to showcase various village industries and their methods of development. So that If any wise visitor wants to start a village industry, he can find his way there. This museum is also alive and Devendra Bhai became its president. At that time in 1976, his Guru's Akhil Bharat Gram Udyog Sangh was counting its last breaths in the form of various models in wooden shelves, behind glass in this museum. Devendra Bhai took it out of the shelves and vowed to breathe life into it because that was the basic mantra of village development. His daughter Vibha also joined him, understood the local rural problems and established a new institution 'Gramopyugi Vigyan Kendra, Wardha. Today its president is his daughter Vibha who has taken this work forward.

It was clear to him that experiments conducted in one corner of the country may provide a direction to solve the countrywide rural problems, but not a solution. This will be possible only if many such village-oriented laboratories are opened in different states. For which abundant resources, materials and experts will be needed. If all the big scientists together become aware about the villages, only then a meaningful solution can be found. Therefore, he started knocking the door of the Science Ministry of the Government of India. Devendra Bhai kept meeting the country's leading scientists, making them realize the directionless-ness and incompleteness of science in the Indian situation. The scientists understood the importance of rural development, but the path was not clear.

As a member of the Science and Technology team of the Planning Commission, Devendra Bhai gave various suggestions to the scientists. As a result, a new department was added to the Science and Technology Department of the Science Ministry, 'Science and Society'. In which a plan was also made to provide financial and technical assistance to artisans, institutions and scientists to find scientific and technical solutions to the problems of artisans, women and backward society. To realize the plans of taking successful experiments widely to the rural areas, the 'CART' institution was established under the chairmanship of Devendra Bhai, which later came to be known as 'CAPART'. Departments of rural science and technology were opened in every IIT of Delhi and many institutions. Special facilities for technical training were also arranged for rural students. Then a nationwide movement was started by involving experienced scientists from all over the country in village development work.

Mistri-Shashtri

In September 1978, in collaboration with CSIR, Mistri Shastri workshop was organized on the subject of village artisans and science. In accordance with the ideas of Gandhi and Kumarappa, it was decided that scientists should go to villages and work with rural artisans to solve the needs and problems of the village. This workshop laid the foundation for organizing a conference of village artisans and scientists in September 1979 in Wardha. Which was inaugurated by the then Prime Minister Morarji Desai. Devendra Bhai firmly believed that an engineer should be an artisan and an artisan should be an engineer, that is, both Mistri and Shastri should come together and make common. This could be possible only when the village artisans and scientists came together, communicated with each other, understood each other and moved forward in the same direction. Later, such conferences were organized in the name of Artisan Panchayat.

In this direction, a plan was made to publish an English magazine 'Science for Villages' to create an identity between science and village artisans. The purpose of publishing this magazine in English was that English-knowing scientists from India and abroad should see, read and understand it so that it reaches the villages. We should do whatever we can for the villages and at least get some information about the current condition of cows and their qualities and defects, knowledge and science, customs and common sense. This magazine, started from Delhi in 1976, continued to be published from Wardha under the editorship of Dr. Devendra Kumar. From 1980, the regional work of Gramopayogi Vigyan Kendra gained momentum and scientists from different states gathered in Wardha and started working in their respective fields. To discover alternative energy and make it available to every household, they got hold of many such energies like cow dung gas energy, solar energy, maximum energy obtained from less fuel, etc.

Imagine a village woman, wrapped in a veil, making rotis on a stove using cow dung cakes and farm sticks. When she has to blow on the fire to turn the smoke of wet wood and cow dung cakes into fire, two kinds of tears come to her eyes, tears of sorrow and tears of smoke.

In the course of time, her eyes also become blurred, she has to wear glasses and her lungs also get damaged. He not only developed the smokeless stove but also made proper improvements in the Janta and Deenbandhu biogas plots. With the help of the government, he took them to every village, introduced them to the villagers, the village's cow dung became cow dung gas. The main role in this work was played by zoologist Shrikant Karanjekar.

There are many forests in the tribal dominated area of Wardha. The gum, honey and bamboo from here are the livelihood of these tribals. The traders and middlemen of the city had control over all these then. The method of extracting gum and honey from the tree or the beehive was also very violent. For gum, a big wound was made with an axe in the trunk of the tree. It took a lot of time to heal. Fire was lit under the honey bee and smoke was made. How many bees would die, how many would become homeless. While extracting honey from their hive, thousands of their eggs would also be crushed.

Two scientists were involved in this work; one was Soham Pandya, a Ph.D. in Botany. He developed such an injection of hormone that when applied by making a small hole in the tree, the medicine that reaches the trunk of the tree shows its magic and many times more gum comes out in this method as compared to the normal method, that too in an absolutely non-violent way. Similarly, the work of extracting honey was handed over to another scientist, Amritrao Ghadge alias Guruji. He has been with Devendra Bhai since the time of Kumarappa Ji. He was also inspired by Gandhi Ji. He found a way that no matter how violent the bees are, they remain non-violent. Neither smoke nor fire is required. Honey is extracted by chasing them away with a spray of cold water in such a way that only the honey part of the hive is cut. Neither the bees nor their eggs and children are harmed. Later, this work was taken forward by Dr. Paliwal and his wife, who gave the test of non-violent extraction through a modern developed kit to more than 20,000 tribals from Maharashtra, Andhra Pradesh, Madhya Pradesh etc. across the country and today all these tribals are earning their livelihood from this business and also nurturing the bees.

Kachhi Mitti ka Pakka Vaigyanik

Then as the work progressed, people started joining in. As we said, Wardha area is very dry. The entire year's rain falls in just two and a half months and passes through the flat rocky path and carries away the soil and water with it. In summers, there is no water in the wells here. Here also, for proper water storage (water shed development), the level of underground water was increased by small dams, tree cover was done and irrigation was done. In his method, with the help of the village potter, he made a big parwal shaped clay pot from which water keeps leaking. It is hollow from one end to the other like a pipe which is connected with plastic tubes. Three-four circular pots are placed at the root of every tree or plant. Water filled in the drum from a height passes through them and leaks out of them. The plant sucks only as much water from these as it needs, like a mother's breast. Even a drop of water does not go waste. He made pesticides for crops by simply boiling several plants like oleander, sadabahar and besharam in water. And when suicides were happening in Andhra

Pradesh due to cotton crop, his cotton crop was growing by leaps and bounds. He also took this technique to Andhra Pradesh.

Devendra Bhai believed that while Ram was the patron of forest culture, Krishna was of animal and agricultural culture. Ram went to the forest and made friends with the tribals (monkeys) and conquered Lanka. Forest wealth and forest medicines got prominence in his time. Forest dwellers and villagers came close to each other, became helpful. Krishna and his brother Haldhar (symbol of plough) are the symbols of agricultural civilization. They graze animals, plough the fields. Devendra Bhai suggested a harmony between these two civilizations that there should be forest in front of the village and agriculture in the village too. If you look in front, you should see nature and if you look around, you should see your friends. He believes that if there is more forest or trees instead of agriculture, then there will be more benefit. Firstly, there will be no need to plough and sow the crops again and again and if there are trees in the forest, then along with fulfilling all our needs, environmental balance will also be maintained. This daily cycle of rain and drought will also be resolved.

He says that exploit nature in the same way as a child exploits his mother's lap. The mother does not feel any pain in feeding her child, nor does her milk reduce. The more the child drinks, the more milk is produced. Similarly, nature also has enough to fulfill everyone's needs, but exploit it only as much as is needed. Nature has the full capability to fulfill your needs but not to fulfill your greed. That is why such creepers have also been discovered here, the oil extracted from which can be used for cooking as well as lighting lamps.

Devendra Bhai also believes that the mental state is like the situation. When a poor person sees a thatched roof over his head and city dwellers living in concrete houses, it is natural to feel inferior. To change this, architect Veenu Kale worked with him for ten years. An enthusiastic young man with a diploma in civil engineering, Sameer Kurve, joined him. A potter from the village made the roof tiles from the soil of the village. To give strength and beauty to the clay blocks, the women of the village made 'face tiles' from the raw clay using a mould and the tiles were baked in the potter's furnace. The arched red roof made of baked tiles was cool in summers and warm in winters, spectacular to look at and so strong that even ten people could jump on it together. With baked face tiles on the outside of the clay blocks, the house started looking like a concrete house from the outside and also became strong. Inside, the same raw walls only the caress of the owner's hands in the form of plastering. The total cost was 15000 rupees; it must have been a little more now. Under the Indira Awas Yojana, many such houses were built in villages here and there. Then there was a rush. Villages after villages were built with such houses and in Crimea (Russia) too, the workers of the Gramopayogi Vigyan Kendra built such houses for the residents there and also taught them how to build them.

Gandhi had one problem, the scavengers carrying sewage on their heads and the other problem was the filth spread in every village, which was then spread all over India. The village women had to sit anywhere, in front of anyone, to relieve themselves. Devendra Bhai's attention also went to this and Wardha toilets were built by him in every nook and corner of Wardha district. The state government helped him in building them and in training

others to do so. It took only one and a half days to build a Wardha toilet and it cost only three and a half thousand rupees. Due to water shortage, those toilets are a boon for this place. With just one and a half cans of water, both the toilet and the toilet are clean. Less water more cleanliness.

Like other states, in many districts of Maharashtra, many children used to die every year due to malnutrition. To deal with this problem, Gramopayogi Vigyan Kendra, with the help of French scientist Ripley Fox, started the cultivation of 'Spirulina', a nutritious and water-borne plant. By consuming a small quantity of which the body gets abundant amount of protein, vitamins and minerals. Young botany scientist Sudhir Pargaonkar started the cultivation of 'Spirulina' By doing new experiments, he invented a method of producing it in the rainy environment and from it he made many new effective and cheap medicines which solved the problem of malnutrition in many families and brought health benefits.

Only a woman can understand the pain of women. So Devendra Bhai handed over this task to his daughter, who did her MA in Social Works and then did her PhD in the same subject from IIT New Delhi. She travelled from door to door to understand the pain and suffering of women in villages, thought of many technical suggestions for them and developed them. Later, under Devendra Bhai's guidance, a separate department for rural women was opened in the Science and Technology Department of the Government of India. Fibreless plants or trees like the stem of Banana Tree have been made into cardboard and cardboards. This work was started by another Guruji Shankarrao Khodke, who has been doing research work here since the time of Gandhiji and Kumarachya, and many products are being made from it.

Many tools, machines and equipment useful for farmers and artisans to reduce their labour were developed here. Research on this was done by a mechanical engineer Ramkumar. Ramkumar is currently the director of the Agricultural Tools Research Centre in Bardoli and like his guru Devendra Kumar, he too has been awarded the Jamnalal Bajaj Award.

The publication department of the Gramopayogi Vigyan Kendra started an illustrated newspaper titled Gramopayogi Vigyan in simple Hindi and Marathi for the villagers, which they could read and understand to keep themselves connected with the rest of the world. This newspaper was printed and pasted on the walls of far-flung villages, and lakhs of people benefited from it, but due to the discontinuation of government grants, this too had to be closed. On this you will say why did you not take foreign grants? Many foreign institutes and people keep helping such institutes. And they wanted to do so too but Devendra Bhai decided that Gramopyog Vigyan Kendra does not accept foreign grants. Thus, in the field of education, wall newspapers, magazines, books, library laboratories are present here and if required, the scientists here can take advantage of any laboratory in the country or abroad. Devendra Bhai does not hesitate in sending them anywhere.

Apart from this, many useful schemes were started for rural independence, village artisans and potters, bamboo cutters, weavers, blacksmiths etc. and artistic goods were manufactured and sold. By serving village science through the villages, the villagers have benefited and their confidence has also increased. To promote craftsmanship, artisan panchayats were

organized in which many friends like Basant Singh, Ram Kumar, Bhupesh Tiwari, Sunil Deshpande, Aditya Patnaik and Narendra Mahrotra joined along with Veenu Kale. Work is going on to change the situation as well as the mindset. Only when change, science and spirituality can come together at one place and only then can welfare is achieved.

Connected with the south

Devendra Bhai was so dedicated to village science that during this period, from 1986 to 1989, he took the post of Vice Chancellor in Gandhigram Rural University of South India for three years and turned the direction of the new generation towards the path of Gandhi. Even after going there, he opened such institutions in villages where students could go, understand their problems and solve them and also understand the village in the true sense. For this, he developed agriculture, science, health education innovation centers etc. and prepared a detailed curriculum.

One day an old man came to him to get his grandson admitted. When asked, the old man told his name as Ambarnath. Devendra Bhai knew that the name of the person who made 'Ambar Charkha' was also Ambarnath and he was from Tamil Nadu. He asked, 'Are you the same Ambarnath who made 'Ambar Charkha'? He was the same. Devendra Bhai was agitated, bowing down in reverence. Engineer, artisan, scribe-mason, whose achievement was so great, whose invention Amber Charkha still provides food for the poor in the village, no one even knows that same Ambernath, no one cares about him. Devendra Bhai organized a grand ceremony with respect and gave due respect to Shri Ambernath ji. One scientist recognized the other scientist from the heart. **“Dil Ne Dil Se Baat Ki Bin Cihhti Bin Taar”**. There was a request to retain him as Vice Chancellor for three more years, but in 1990 he returned back to his alma mater in Wardha.

Search personality

Science and discovery are two sides of the same coin. Why would someone who is not an explorer become a scientist? In fact, this inquisitive nature is what made Devendra Kumar Devendra Bhai. When he was 21 years old, he set out to find out what was happening in Wardha? His discoveries are so multifaceted that his multifaceted personality can also be understood from them. Everyone used to say that Gandhi was just an average student but he believed that there was something special in Gandhi which made him so brilliant. So he started getting the results of his classes from his schools and found out that Gandhi was not an average student at all. His name used to be counted among the first four-five students in his class.

It was written in a book about Gandhi that when he went to France, he stayed in Paris too. The investigative mind wondered where he stayed when he went to Paris. Dr. Devendra Kumar's continuous efforts after researching during his stay in Paris revealed the place where Gandhi stayed. It was Shanti Niwas, a luxurious bungalow of a rich businessman located in

the city of Garcae, ten kilometers away from Paris, which is still there. Today there are photographs of that historical place too.

Devendra Bhai met Nathuram Godse's jail superintendent and wanted to know what his mental state was in the last years of his life. The jail superintendent, who had become very close to Godse in the last days, told that Godse was sad about his actions. He believed that whatever he had done was wrong.

Many questions have been raised about Gandhiji's role in the partition of the country. During his visit to Europe, he had a cordial meeting with Lord Mountbatten. On a question from Devendra Bhai, he explained his position and said that for us, the biggest hurdle in the partition of India was Mahatma Gandhi. He was a staunch opponent of this partition and it was very difficult to make him deviate from his resolve. Only we know how we planned the partition behind the back of Gandhiji, who was unaware of our diplomacy. This is an absolute historical fact which was revealed by the investigative personality Dr. Devendra Kumar and this truth was presented by Lord Mountbatten.

He did research in Tamil Nadu and proved that the Om symbol is originally from the Tamil script, not Nagari. He had sufficient evidence to prove this, but due to lack of space, it is not possible to give details here. His love for Urdu and Persian languages has made him do other research in these languages as well. The root of his research is 'the influence of Persian language on Indian speech'. He was interested in learning languages since childhood. He learned Urdu from his grandfather and Sanskrit from his mother. Being a supporter of the Nagari script, he learned Marathi, Gujarati, Punjabi as well as Bengali and Assamese through this script. When he became the Vice Chancellor of Gandhigram University in Tamil Nadu, he started reading advertisement boards written in Tamil from the second year itself. Contrary to the fact that common languages have originated from Sanskrit, his research says that Sanskrit has never been the language of the common people. A new scientific language was created by selecting measured and cultured words from common languages and it was called Sanskrit. 'Avyakt' to 'Vyakt', whatever 'vyakt' does is 'vyakt' and whatever 'expresses' is its 'expression', thus from 'vyakt' to 'abhivyakt', this is such a fundamental discovery of his that future generations will benefit from it.

Person and idea

A person belongs to his family as well as to the society. It is said that when a person belongs to the society, his family also becomes a part of the society. Still he gets a lot of inspiration by knowing some hidden character traits of the person who is dear to him, He feels like becoming like him. It does. Devotion takes a tangible form. Here we will discuss only a few incidents which are not only incomparable but also worth emulating. Like a father, he never woke up his children even if it was an exam. He believed that if the child was sleeping, it must be because of some need. Disturbing his sleep would not be good, rather it would be violence. He never asked about the result of his child because he never believed in competition. The maximum that can be done is to walk together and move ahead, this is what

he believed. If he ever asked about school, it was only this much - how many friends did you make? Or do you like school or not?

If a child fell after getting hurt, then before he started crying, I told him that before crying, you should also think that, 'The thing on which you have fallen (be it the ground or some other thing) must have got hurt as much as you have. Love it.' In reply, the children would kiss and caress the ground even while crying. I would interfere in the children's work only as much as was necessary. I instilled in the children the feeling of unity, 'No one is inferior to us. Even if he is a dacoit or a rickshaw-puller; I taught the children to share, not to accumulate.

It would have been rare for there to be no guests at the dining table at home. Before eating, everyone had to wait until the Vedic prayer; Om Sahanavatu Sahnaobhunaktu Sahaviryam shanti shanti shanti was completed. The daily routine, tempered by strict discipline, is worth knowing. Waking up at the appointed time, washing his own clothes after bathing, insisting on washing his own utensils after eating, getting up early in the morning and collecting the leaves fallen in the courtyard and putting them at the root of a tree so that it gets manure and the courtyard of the house also looks clean, this was his daily routine. After that, he found pleasure in making rangoli in front of the main door. Perhaps one day he would wait with bated breath for a guest. After working for eighteen hours every day, he never forgot to write his diary at night.

You can easily imagine the person who tells the thief who comes to steal at home, 'You are just like my other children. You have got your share. Keep it safe lest someone sees it and you get caught.' This is about the home, let us now have a look at it in the context of society! If someone embezzles money, it is not despicable for them. They believe that every person has his own merits and demerits. If he cannot handle money, then don't give him this responsibility, but use his qualities in such a way that can be useful for you and the society. Perhaps this is the reason that if any mistake is made while writing, Devendra Bhai first writes the correct thing and then crosses out the wrong thing, not before that.

Those who had not met him before, may not know that Devendra Bhai had a very powerful voice and a very strong tone. He did not need a mike to speak. He sang so well that people would listen to him with rapt attention. Maybe one of us cast an evil eye on him and he had to undergo a throat operation. Look at the irony of fate that the surgeon cut a wrong tube and he lost his strong voice. If it had been someone else, who knows what he would have said or done to the surgeon, but Devendra Bhai could only say this much, "Leave it, what had to happen has happened." Even today his voice has not returned... I wish he returns so that we can hear his favourite song from him again- **Sayad gav ki ladki geet ga rahi hai;**

Halke Halke Dhundhlke se chakki ki sada bhi aa rahi hai

kyo na aaye mere ache babul,

ghar ki yaad aafat dha rahi hai.....

Now you must have understood that Devendra Bhai is very interested in good poetry and music. His love for his language is quite evident in his heart. He always appreciates anyone reciting poetry, poems, songs etc. in Hindi, Urdu and dialects of these languages. He would also angry and say, "One should get angry. It is an emotion; it also has its own need. One should get angry at the right things." But mostly it is seen that even if we get angry, we take it out on ourselves. We cause pain to ourselves only. Even if we get angry at someone else, then after a while we ask for forgiveness without hesitation by saying or writing. Simply put, Devendra Bhai's life is an open diary. Perhaps that is why his personal diary is always open, anyone can see and read it.

Through Gandhi, beyond Gandhi

It is strange that someone writes that why does Devendra Bhai want to go beyond Gandhi? No one should get confused by this sentence. When Gandhi was taken away from us untimely, who knows how many imaginations, how many thoughts, how many unfinished works were in his mind. Devendra Bhai is an inquisitive personality, science is also the same. According to Upanishad, Charenveti Charenveti (keep moving, keep moving) It is also said in English, Change is life, Stagnation is death, so how can we stop where Gandhi stopped. If the personality is inquisitive, then the constant search will be that what did Gandhi want to do next? What would he have done in a particular situation? What was his path? That has to be found and then one has to walk on it at a fast pace. There are many other dimensions of this inquisitive personality. Let us keep discussing them as well.

When Devendra Bhai was asked about the success of Gramopayogi Vigyan Kendra, he said, 'No, it is not like that. I can only say that this is a direction. Gramopayogi Vigyan Kendra is not a very big institution that will do all the work of the country, but this institution tells us in which direction science can be used, which avenues can be opened.' He believed that the atmosphere of discouragement should be changed to an atmosphere of enthusiasm. The psychology of defeat should be dressed up in the garb of victory, so that a smile can be brought on the face of the poorest of the poor. He should feel that he can also do something. That also has importance. He was of the opinion that the climb should be such that many people can walk with you. If you build the Taj Mahal, then every poor person will not be able to get a roof over his head.

The direction and philosophy given by Gandhiji was not thought of by people in his time. The flow of science and technology was so fast that people felt that all the problems would be solved by this and no one had thought what effect this flow would have on nature. Environmental problems, problems of exploitation were not so prominent then. Now that they have been exposed, world consciousness has awakened. They do not have only the villages of India in mind, saving the entire earth, saving all human beings, this should be the objective.

The only way for this is coordination of nature and man, mutual partnership and understanding. "There is a system... a pre-determined direction, a method towards which this world moves. It should move. It will be better if we also join it. When science and spirituality

join, when the state of mind and circumstances change together, then life automatically takes the right path. That is why his request was that the scientists of the whole of India should join him, rather of the whole world and we with them, only then this important task will be completed smoothly. Devendra Bhai was right. In support of him, the last verse of the tenth stanza of the Rigveda also says the same thing - 'Sam gacchadham, sam vaddhava, samvo manansi jantaam' O Lord, let us all walk together, speak alike, have alike thoughts (not only of India but of the whole world).

(Based on Krishna Raghav's book 'Kacchi Mitti Ka Pakka Vaigyanik', published in 1998 by Dr. Devendra Kumar Nagarik Satkar Samiti, Wardha, with some modifications)