

The Gandhian Way

Manibhai Bhimbhai Desai

“Rural man is a wise man. He has acquired wisdom over centuries of experience of living a difficult life. It is this wisdom that has enabled him to survive all oppression, exploitation and difficulties. His experience, moreover, has made him look at anything new with suspicion because everything new to him has so far been used against him. He is also very possessive in regard to his land and livestock, and is not prepared to part with either even if neither is remuneration; he cannot forget that these have been the only instruments which have enabled him to survive against all odds.”

Manibhai Bhimbhai Desai speaks from forty years of experience working for and with the Indian villager. But he knows from this experience that with faith in those who are working to create change, the villager is willing to experiment if he is convinced his needs are being addressed.

Youngest of four sons of a well-to-do Brahmin family, Desai was born on April 27, 1920, in the village of Kosmada, Surat District, Gujarat, India. His father, Bhimbhai Fakhirbhai Desai, as owner of 27 hectares of ancestral lands, was the leader among the farmers of the area. From him, Desai inherited his excellent managerial talents; from his mother, Ramibahen, his strong common sense.

At the time of his father's death in 1927, young Desai was in first grade at the elementary school in his native village, where he ranked first in his class (1927-1931). He also excelled in sports and was a leader in the Boy Scouts.

India, during his childhood and youth, was being shaken by Mahatma Gandhi's hartals (abstention from work) and satyagrahas (“insistence on truth,” but in fact calls for civil disobedience). Desai vividly recalls an incident that occurred when he was ten and influenced his life. Patel, a young man of the village, joined Gandhi's famous march from Ahmedabad to Dandi, where the marchers raided the salt stocks as a protest against the government's tax on salt. Instructed to return to the village and ensure that a pinch of salt - which had become a symbol of the struggle for independence - was distributed to each household - Patel chose Desai to help him carry out his task. The latter was deeply moved when the villagers bowed low as they ate the salt, and at that tender age he felt the call of Gandhi in his own life- the call to service and self-reliance.

Desai's middle and high school years were spent away from home. He lived first with a relative who did not hesitate to assign him a wide variety of household and garden chores. Far from finding work degrading, Desai enjoyed most of the tasks, including tasks usually assigned to women such as fetching water from the village well and feeding, milking and taking the cow to the village pond. His mother, however, was shocked and the following year placed him in the hostel of the Anavil Ashram, the philosophic centre of the Gandhian movement. There, he came under the influence of the ashram's founder, Dayalji Desai, a close friend of Gandhi, and Brahmanand Swami, a philosopher who visited the ashram and instructed the boys in

mental and physical self discipline. The disciplines he imparted included, early rising and celibacy, both practices Desai was to adopt.

In 1938, the young high school graduate enrolled in Sarvajanik College, Surat, an affiliate of Bombay University. Although he studied engineering as his family desired, he was emotionally caught up in Gandhi's "Quit India" movement. On August 9, 1942 all the leaders of the movement were arrested. In defiance and without informing his family - Desai left college and joined the underground; he spent the next 19 months derailing freight trains and blowing up bridges in an effort to disrupt British communications. The clandestine and violent tactics engaged in by the underground, however, disturbed Gandhi, who sent the young men a brief message from prison;

"Why behave like cowards? Come out in the open and do whatever you want to do and if necessary die."

The group obeyed. Desai stopped blowing up bridges and instead openly addressed political rallies and demanded independence. He was promptly arrested. Confined in the main jail in Sabarmati with common criminals, rather than with political prisoners, he refused to have his spirit broken. He made friends with his fellow inmates, many of whom, he learned, had become bandits as a result of the injustices they had suffered at the hands of the wealthy. During the year in prison, Desai also read radical political literature, including the works of Karl Marx and Mao Tse-Tung. The views of Mao impressed him but his ideas were modified by discussions with a fellow inmate, Ravishankar Maharaj. Maharaj pointed out that Mao was not disturbed by the fact that the people for whom he was fighting were often not willing participants in the fight; Gandhi, in contrast, insisted that the willing participation of the people was essential. The goal of both men was maximum employment of people in a non-mechanized society; Gandhi believed this goal could and should be achieved without violence, through love and good organization.

By the time he left prison (April 1944), Desai had decided to devote himself to the cause of rural development. However, since Gandhi had directed that no political prisoner should make a major decision while in the abnormal atmosphere of jail, Desai returned to the university to complete his final year. At the same time, he began organizing students for social action.

Despite his extracurricular activities, Desai was a merit scholar and in April 1945 completed his B.Sc. with a First in Physics and Mathematics. His resolve to devote himself to rural development, however, had never weakened, and scant hours after finishing his last paper, he was on the night train for Bombay to meet with Gandhi. As part of his decision, he renounced any claim to ancestral lands, realizing, as he said, that people place greater confidence in you if you have nothing of your own - no distractions, no private interest - and that in India, if you have sacrificed, "you can penetrate the minds and hearts of the people very easily."

Gandhi accepted Desai as a disciple in principle, but insisted he must first return to his village and forget everything he had learned. "Bapuji," cried the new graduate, using the affectionate term for father, "are you against education?" Gandhi replied it was not Mathematics and Physics he had in mind, but the elitist attitude,

taught at the university, which assigned to the exploiter, the highest status in society, and to the man who toils, the lowest.

Desai obediently returned home to Kosmada where he began organizing the village for social change, but four months later he received a letter from Gandhi calling him to Sevagram Ashram (Wardha District, Maharashtra State), the headquarters for the Mahatma's activities.

Shortly after his arrival at Sevagram, a virulent outbreak of cholera hit the district. Gandhi ordered the ashram to control the epidemic, but its residents were understandably reluctant to venture into the infected area. Desai volunteered. Accompanied by two doctors and a group of 50 boys, he treated the ill with a saline solution to prevent dehydration, carried the dead to the funeral ground, and vaccinated those still well. The volunteers also taught the people to clean the village, boil their water, and cook their food thoroughly. These techniques stopped the epidemic.

Gandhi, recognizing he had in Desai one who could be entrusted with important tasks, nevertheless tested him further by assigning the young Brahmin university graduate the task of cleaning the ashram latrines and making compost from excrement and trash. After a month and a half, when Gandhi was sure of his disciple's willingness to carry out even these tasks of the untouchables, he invited Desai to join his personal staff.

On January 26, 1946, the day Jawaharlal Nehru declared the premature independence of India, Desai took a vow of celibacy so that he could devote himself entirely to the development of his country through service to the rural poor.

During the following year, he became very close to Gandhi - a man fifty years his senior - and Gandhi recognized that Desai was one of the very few persons willing to undertake the programme of rural development which he, Gandhi, considered essential to the success of an independent India. Gandhi therefore chose Desai to establish the nature cure ashram and development programme in Urulikanchan, Maharashtra, that he considered central to his plan. Although anxious to begin a rural development programme in his native Gujarat, Desai agreed, and undertook the development of Goshala Ashram on 10 ha of land acquired by the Gandhian movement through donations in cash and kind.

Gandhi gave Desai two general guidelines. First, the programme should be labour intensive; a capital intensive programme, he believed, would produce development but at the cost of increased disparities in income. Second, he must make use of all possible resources, even those that at first appear to be liabilities. Under or un-utilized manpower is a resource, Gandhi reminded his young disciple, and year-round gainful employment for the farmer and his family should be his goal.

Desai last saw Gandhi in April 1947 when they met to discuss progress at Goshala Ashram. Desai, who still hoped to work in his home state of Gujarat, informed Gandhi that he had said to "take an oath" to remain at Urulikanchan for 12 years. Unimpressed, Gandhi responded: "I want your life-committed perspiration." Therefore on April 13, a day regarded by many Indian in the independence movement as a day of sacrifice, Desai bowed his head and vowed to "lay my ashes [die] in

UrulikKanchan.” Although his programmes have spread far beyond the confines of that village, the Goshala Ashram has remained his headquarters.

Desai returned from his visit with Gandhi with Rs. 100,000 to continue his work with the nature cure hospital he had begun and the youth programmes that were underway. One of his priorities was to organize the young people not yet spoiled by indolence or anti-social activities. A youth culture centre which encouraged sports and dramatic performances was one effort; a secondary school was another. He began the latter in 1950, teaching 30 boys in his own cottage. Meanwhile, he had started a cooperative bank to wean the villagers away from the usual usurious moneylender.

Desai also undertook to discover what the villagers considered their most pressing need. By sitting hidden near the village well and eavesdropping on the conversations of women as they did their laundry, he learned that the villagers were united in a desire to rebuild their temple. Accordingly, he called a meeting and organized a committee to raise money for a new structure. When the committee was preparing to go to Bombay to solicit funds, Desai convinced them that by adding a school (his project) to the temple proposal they would be more likely to obtain donations. His advice proved sound.

By 1954, the new temple and a secondary school had been built. Rated nationally as one of the best schools in a rural area, Mahatma Gandhi Vidyalaya today has some 90 well-qualified teachers to instruct 3,000 students in its three categories of study-academic, agricultural and industrial. A hostel accommodates boys from distant villages. From the beginning, the school was recognized by the Central Government and therefore has always enjoyed financial support; in 1980 it received a grant from the state in recognition of its performance and efficiency.

Gandhi always expected Desai to be resourceful. He had suggested, for example, that Desai take up cattle development to ensure a good supply of milk for the patients at the hospital. When Desai protested that his forte was mathematics, not veterinary science, Gandhi responded : learn the latter by studying a book on the subject - and by dismembering dead cows! The Brahmin Desai did both. He dissected over 400 carcasses and in the process became an authority on cattle physiology.

Although India had the largest cattle population in the world, it had one of the lowest milk yields; from an economic point of view the average Indian cow was a liability to its owner. But cattle, Desai came to believe, were a better choice of livestock for local farmers than pigs, sheep or goats. Pigs eat what humans eat, and in a land of scarcity, compete with man for food. Goats and sheep, who like cattle can eat agricultural wastes which man finds inedible, graze closer to the ground than cattle, pulling up roots when hungry, and are therefore more damaging to pastureland. Good milk cows, he reasoned, could increase both the nutrition and the income of the local farmers. In 1948, he started a herd using the local Gir breed. The herd made such excellent progress that in 1953, the State of Gujarat donated eight top quality heifers, one bull calf and one adult bull, for the herd's further improvement. From 1957 through 1962, the Goshala Ashram's cows captured first and second prizes for highest milk yield in the country.

With the herd growing, Desai sought new pastureland, a scarce commodity in a region receiving only 8 to 10 inches of rain a year. He discovered Bhavarapur, an area three kilometers distant on the bank of the Mula Mutha river, where thin grass was growing under a sparse cover of acacia. The 25 families who owned the land charged him a mere Rs. 280 for its use during the two to three month grazing season.

As Desai became better acquainted with these families, he suggested the trees be cut down and the land made more productive by plowing. The villagers were adamant : since the trees had been planted by their ancestors, they must never be felled. The matter was not raised again for 10 years when, with subtle prodding, a young man from the area who worked the ashram's farm agreed to fell his trees. When the other farmers saw how much money he made from selling the wood for fuel, they too began removing acacias, thereby allowing the grasslands to increase.

By 1965, the entire plot of about 36 ha was cleared. Desai then suggested that the families form a Joint Farming Society; they refused unless Desai himself joined. Since he owned none of the land, he was not legally eligible, but the Chief Minister of Maharashtra pointed out that the law provided for 10 percent membership in such an association by landless labourers. Thus, as a landless labourer, this former landowner became a member of the Joint Farming Society and was elected its Chairman.

As Chairman, Desai arranged for the area to be ploughed by tractor and irrigated by water from the river using a jack well (holding tank). He could persuade the villagers to dig the well only by starting to dig it himself. Having lived in extreme poverty for generations, these farmers had lost their motivation to work, or even better, their lives; they had to be shown, personally, what could be done before they would do it.

When the land had been ploughed and irrigated, the soil was tested and found to be extremely alkaline, with a pH factor of 9.4. A visiting team of American experts advised Desai to forget this plot and find another, but as he pointed out, these farmers had no other. Instead he helped the society obtain a loan from the cooperative bank to buy wagonloads of gypsum, which was worked into the soil, approximately two tons per half-ha. For the initial planting, Desai chose brinjal (eggplant) which could grow in the still alkaline soil. After the salt content was brought down, other remunerative crops were introduced. Today, the land produces sugarcane, wheat, grapes and fruit worth more than Rs. 300,000 annually.

During this period, Desai continued his experiments on the ashram's own land-which had now increased to 33 ha. Since agriculture per se was generally uneconomical because of the scant rainfall, Desai experimented with horticulture as a means of making the ashram self-sufficient and for cash crops for farmers in the adjacent villages. Research indicated that the dry climate and light soil offered prospects for grape cultivation. In 1960, he began planting local varieties, in particular Selection 7 and Bangalore Purple, and an imported variety which seemed well suited for raisins, Thompson's Seedless known in India as Madras Kismis.

Desai obtained 10,000 cuttings of Madras Kismis from a small group of families in Tamil Nadu who had themselves been given cuttings by Christian missionaries. One ha in Uruli-Kanchan was planted to this variety. Desai spent 14 to

15 hours a day overseeing the proper manuring, cutting and training of the vines, trellising them to let sunlight through to the ground and thus prevent downy and powdery mildew from developing. Irrigated with the minimum amount of water for good fruiting, the plants yielded 38,765 kg. per ha, more than the record California yield for the same variety. Local farmers speculated that the vines had exhausted themselves with the first crop, but the following year the yield was even higher. Today, Madras Kismis is the most popular cash crop in the area, with average yields running about 22,500 kg per ha.

At the same time that he was experimenting with grapes, Desai was asked by local entrepreneurs if he would persuade some of the wealthy landowners in the region to invest in a sugar cooperative. He agreed on the condition that smallholders would also be allowed to join. With his help, some 500 smallholders applied for a loan of Rs. 5.3 million to invest in the Yeshwant Cooperative Sugar Factory, which proved a success from the beginning. It soon developed numerous branches and began engaging in other community socioeconomic projects, e.g. schools, hospitals and water resources.

It had become apparent to Desai by now that if the fruits of his 20-years of labour were to have a national impact, a sophisticated professional organization utilizing top-level managerial skills was required. Accordingly, he founded the Bharatiya Agro Industries Foundation (BAIF), which was registered as a Public Trust on August 22, 1967. Two days later it was formally inaugurated by the President of India in Pune, where central finance and administrative offices would be located and from which field programmes would be coordinated. However, for the next two years, BAIF existed only in concept.

In 1969, Tristram Beresford, Chairman of Britain's Agricultural Society, visited Urulikanchan and unknowingly became the catalyst to project BAIF onto the national and international scene. Although he had come for a brief look at the dairy herd, Beresford found time to visit the rehabilitated farmland at Bhavarapur and the rest of the ashram's projects. Deeply impressed with what he saw, he offered to help raise funds for the ashram. More importantly he produced, through the British Milk Marketing Board, a consignment of 7,000 doses of frozen semen from top quality Jersey and Holstein-Friesian bulls for the cattle project. With the acquisition of the frozen semen, BAIF ceased being merely a concept and became a functioning organization.

Six veterinarians were hired and assigned to local centres that were established and supported by the Sugar Cooperative. Local cows belonging to individual farmers were inseminated in order to produce high quality crossbred animals. From cows which gave less than 200 litres of milk in a lactation, were bred cows that produced 2,500 litres : poor cows which had been a liability to farmers were converted into economic assets. The new crossbreeds are known as *kamdhenu*, "cows that bring what is desired." Insemination and crossbreeding with superior heifers was founded over the next few years by the Church of Scotland and the Danish International Development Agency (DANIDA).

The veterinarians at the local centres also trained farmers in the case of these improved animals. The concept of bringing modern technology to the door of the

farmer, instead of having the farmer go to a regional centre, is an essential component of Desai's development philosophy. His concern is always to simplify and humanize the developmental process.

As he began soliciting money from major industrialists to finance BAIF's dairy cattle programme, Desai realized that contributions would be limited unless BAIF qualified as a tax-deductible research institute. When he approached the Indian Council for Agricultural Research (ICAR) for certification, he was informed that to qualify, BAIF must handle at least 6,000 head of cattle. Frustrated, he was returning home to Urulikanchan when he met with an accident and broke his legs. During his three-months in bed, Desai devised a way to meet the ICAR requirements : he would request permission of the thousands of farmers in the region to use their cows for research purposes, promising the owners any benefits that might accrue from the project. A few months after his recovery, and armed with a list of 11,000 promised cows, Desai obtained recognition of BAIF as a tax-exempt research institute.

Two subsidiary research centres were established under the BAIF umbrella in 1971. The Research Institute for Cattle and Agricultural Development was started in Maharashtra on 40 ha of land donated by the Government; it now has 120 ha. Supporting the development institute is the Research Institute for Animal Health. With a donation of equipment from DANIDA, the latter began producing vaccine for foot and mouth disease in 1947.

Three years later, the Indian Ministry of Agriculture approved a recommendation by the Planning Commission to entrust BAIF with the production of 100,000 crossbred cows in areas under the Government's Drought Prone Area Programme. National and State Governments shared the operating expenditure of the centres – each of which was responsible for registering at least 2,000 conceptions of local cows during a five - year cross-breeding programme. The infrastructure for chilling, collecting and marketing milk from the new breed of cows had already been established in most of the states. Although the annual cost of operating each centre was Rs. 60,000, the expense was covered by the guaranteed output in terms of pregnant cows. The income generated by the milk produced by the new cows was more than 10 times the expense incurred by farmer for the foundation's services.

Meanwhile, Desai had begun to experiment with dry-soil trees, planting 10,000 shade trees on a 58 ha plot given to him by the Government. Knowing that roots of a young plant draw only the water they need, he covered the area around each seeding with black plastic to prevent evaporation, and moistened the soil under it with one small glass of water every tenth day, later increasing the time span to every fourteen days. Six drums of water daily, taken from a nearby well, sufficed to irrigate all 10,000 plants. As the trees grew, the dribble-circumference was extended : only the root tips continued to be watered. Ten years later, the height of these tree averaged 10 m.

Following his strategy of optimizing resources, Desai next looked for a plant that could be used for fodder that would not only grow with scant water in extremely poor soil, but could, as a legume, enrich that soil by drawing nitrogen from the air. In 1974, he received an ounce of seeds of the Hawaiian Giant (K-8) variety of *Leucaena leucocephala* from the University of Hawaii. This tree had all the desired

characteristics – including rapid growth. (Desai had learned that a programme to eradicate poverty must show quick results or those targeted by the programme lose confidence in it.) *Subabul*, as it is known in India, has proven to be quick growing and easily renewable source of fuel, building materials and animal fodder.

For its valuable nitrogen-fixing action in the soil to take place, a certain rhizobia (bacteria) must be active in the nodules of the plant's roots. BAIF's Laboratories have produced very effective rhizobia cultures for use in both acidic and alkaline soils which are supplied to farmers with the *Leucaena* seeds. In addition, BAIF researchers have found that sulfa phosphate is a critical requirement of *subabul* and it too is supplied when seedlings are sold. The Foundation now has a 162-ha plantation of *Leucaena* at Urulikanchan and a 81-ha farm in Northern Gujarat. The latter is irrigated with extremely brackish water-having 5,000 parts of salt per million (tolerable brackishness is usually considered 1,200 ppm) – yet the *Leucaena* is growing well.

Through experimentation, BAIF has standardized *Leucaena* planting – cutting patterns according to intended plant usage. If fodder alone is desired, seeds are planted close together in a row, with a less than a half-meter between rows; branches are cut every 40 days. Animals are not allowed to graze the plants because the mimosine (toxic amino acid) content of the leaf tips is high and animals which eat the leaves sicken and/or abort. This is not a problem when the whole branch is chopped up and, preferably, mixed with other plants.

If the *Leucaena* is to be used for building materials, it is planted at least three m from its neighbours and allowed to grow for approximately three years before cutting. Where trees will be used for fuel, two m between rows is optimal, with a half-meter between plan; these trees are cut every three years. If these plots are prepared in rotation, one-third of the crop can be harvested annually. The wood can be used as sticks, made into an excellent charcoal, or converted into steam to run a turbine or boiler. An Indian farm family can thus satisfy its fuel needs with a small biomass plot.

In areas where *Leucaena* has been used for afforestation, and has been growing for a long period of time, the rocky, barren soil has been converted into humus. BAIF is promoting permanent agro-forestry arrangements of intercropping rows of *Leucaena* –planted about five m apart and pruned to a suitable height-with a grain crop. It has distributed tons of the Hawaiian Giant seed to more that 6,000 village under its centres, and over 25 tons to thousands of other villages through their State Governments.

In 1980, BAIF started experimenting with sericulture as a complement to the established dairy programme. Mulberry trees, to provide food for the silkworms, were interplanted with *Leucaena*. The two projects provide employment for the farmer's entire family. Cooperative units for processing the silkworm cocoons have been developed.

Also in 1980, Prime Minister Indira Gandhi combined all rural development programs into the Integrated Rural Development Programme (IRDP) on a nationwide basis. This meant that BAIF was no longer confined to Drought Prone Areas. Its

expansion was rapid. By 1988, it was operating in six states, with 500 centres and a massive extension network.

A recent BAIF programme is with the backward tribal peoples of South Gujarat, where families have been given a one-ha plot of wasteland on a usufruct basis. More than 1,00,000 forest trees and 35,000 fruit trees have been planted in this region and are well established. The innovative agro-forestry efforts have resulted in increased food, fodder, fuel and timber for the people of the tribal area, and equally importantly in year-round employment.

BAIF's decision to decentralize - establishing 10 separate organizations, each responsible for 50 centres-has required very strong coordination from the Foundation headquarters. This is possible because BAIF has been the pioneer among voluntary non-profit, non-government organizations in its emphasis on professional management and on financial control systems. The man chiefly responsible for this professionalism is Madhukar P. Marathe, chief finance manager and secretary of the BAIF trust who, having been associated with Desai since 1946, joined BAIF full time in the early 1970s when the scope of its operations widened.

Today, BAIF operates on a three-tier system. The operating agency is BAIF itself, which works at the grassroots level. At the second level is a sponsoring agency, usually one of India's main industrial houses such as the Mafatlal and Kirloskar groups. After a given project - e.g. *Leucaena* research- is approved by the Government, BAIF approaches an industrial firm to underwrite the project on a tax-deductible basis. In general, the money solicited is for a specific period of time and is designated for the establishment of infrastructure. At the end of the designated period, the project is expected to be self-sufficient with regard to normal operating expenses.

The third level consists of a monitoring agency, consisting of experts in the field of a particular project. These outside volunteer consultants are asked to evaluate the progress and effectiveness of a programme. Although most of the consultants are technical experts, BAIF has utilized the service of sociologists to define and measure socioeconomic growth in regions where it is working.

Despite the size and ever-increasing sophistication of BAIF, Desai never ceases to remind his highly educated staff that the focus of their work is not research, but the man who benefits from it.

“We in BAIF,” he wrote in the *BAIF Journal* several years ago, “have never looked down on the rural people as either pitiable or contemptible creatures, India's rural people represent perhaps the finest specimen of hardy manhood. They have withstood generations of exploitation and tyranny and yet retain love of the land, love of the animals and, above all, zest for life and the capacity to adapt to changing times. As such, we recognize the rural people as men, richly worthy and deserving of being

given an opportunity, as their right, to work for their own betterment.....

The realization that we have the opportunity to work as partners, nay brothers, with the rural people, can certainly be our richest and most satisfying reward.”

Aside from heading the various organizations he has founded, Desai has been Director of the Maharashtra State Irrigation Development Corporation and the Gujarat State Rural Development Corporation; a member of the board of the All-India People’s Action for Development; and on the governing board of Mahatma Phule Krishi Agricultural University, from which he received an honorary doctorate in 1977.

The President of India recognized his services in 1968 by honouring him with the Padma Shree Award. In 1982, he received the Ramon Magsaysay Public Service Award “for practical fulfillment of a vow made to Mahatma Gandhi 36 years ago to uplift, socially and economically, the poorest villagers.” In 1983, Desai was awarded the prestigious Jammalal Bajaj Award for pioneering research on the application of Science and Technology for rural development, and in 1986, the Bio-Energy Society of India gave him its first award for dedicated, dynamic and innovative work in the field of bio-energy. Also in 1986, BAIF, under Desai’s devoted leadership, received the Indira Priyadarshini Vrikshmitra Award for afforestation and wastelands development.

As one observer has noted, in his person, Desai represents the finest expression of Gandhian principles and scientific practicality.

- **Adapted from Biography of Ramon Magsaysay Foundation Awardee, Faith in Asia's Poor: Ten Paths to Rural Development, 1991.**