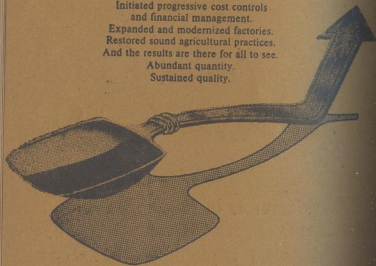


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Churn on diligently

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Dear Readers :

Namaste

In this issue we carry the first of Shri Dharampal's illuminating 3-part study of India's dual response to loss of freedom. Then there is Prof. Kashikar's Paper on what is wrong with the Indian Constitution—and how it may be righted. And there is Sailen Ghosh's scientific study of how chemical fertilizers ruin the soil—and even an admixture of manure and fertilizers hurts the soil, particularly in tropical lands.

Next month we will carry Dharampal's study, Part-II. Sailen Ghosh writes on the off-shore-exploration deals. And there will be a review of Nirad Chaudhuri's 'Thy Hand, Great Anarch I!', showing how the Bose-Gandhi conflict of 1938-39 was rooted in the deeper cultural differences of Vaishnavism and Sakism.

DRI this year celebrated Independence Day by organising a discussion on 'Building Bridges with the People of Pakistan'. Participants included Shri Kuldeep Nayar, Maulana Waheeduddin Khan, Dr. J.D. Sethi and Shri Shafiqat Kakakhel, Charged' Affaires, Pakistan Embassy. The proceedings have been taped and right now they are being rendered into English. We hope to carry this very interesting and instructive text in our August issue.

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## India's Dual Response to the Loss of Freedom

By : Shri Dharampal

*In October 1987, Shri Dharam Pal, Gandhian scholar and historical researcher, delivered a series of three lectures on the vital subject of 'The self-awakening of India : the context of the Past, the Present and the Future', on the invitation of Rashrothan Parishad, Bangalore.*

*The talks are so important and basic that we are publishing the text in this and the two following issues of MANTHAN.*

—Ed.

ONE OF THE ATTITUDES which has become a sort of sacred belief with most of us, is our total mental and spiritual dependence on the world outside India, especially on the capitalist, social-democratic and marxist world of the West. The dependence is not only restricted to gifted or technically competent men and financial resources but even more so on external theoretical and intellectual formulations in every sphere pertaining to our state, our society and our individual activity. And if I may say so the way we have willingly, even enthusiastically, bound ourselves to the words and catch-phrases of the West, is a sad commentary on our civilization. Though I am no scholar in such matters I do not think that there was any time in our long history when we, as a people, had bound ourselves so completely even to the words of the Vedas, or of the Bhagavad Gita, or of the Upanishads, or to the Manusamhita, or even to the words of the great Gautama Buddha, or Adi Sankara, or Basaveshwara.

It is not only our politicians, scientists, engineers, philosophers, political-scientists, economists, sociologists, leaders of social movements, or even dissident movements, for whom the words of the capitalist, or social democratic or marxist West are like words from the ancient scriptures; even to the followers of Mahatma Gandhi the West has become a great beacon. It is not only that we believe that we have begun to comprehend Gandhiji through Richard Attenborough's film "Gandhi." We also seem to require a Eric Schumacher to appreciate the concept of appropriate technology, and a Masanobu Fukuoka to appreciate agriculture as a way of life and to be carried on without chemical fertilisers and with minimum disturbance of the soil. One of the consequences is that the present day Khadi and Village Industries network is walking the streets of the West in search of markets, and the production of sugar from the palm tree, is being accelerated so that it can be spread to the discerning in Europe and the U.S.A. while it is mill-sugar, mill-flour, milled-rice, cloth made of synthetic fibre, chemical

fertilizers in agricultural fields, and even the occasional ploughing by tractors, which has become the routine even in the Gandhian Ashrams. The prevalence of such a situation in other Indian institutions and the Indian home, even the homes of the elite, need no elaboration.

In retrospect the period from about 1919 (or perhaps from 1916 itself when Gandhiji's speech at the inaugural of the Benaras Hindu University made the great Maharajas, the ruling elite, and Mrs. Annie Besant walk out of the meeting-place as a protest against what he had said) to about 1945, or perhaps even till 1947, may possibly be treated in today's environment as a period of the great illusion, a period of Indian innocence, when large sections of the Indian people began to believe that they could at least build a world of their own, a world constructed according to their own concepts and ideas, and that perhaps they may then even be able to help the rest of the world to return to sanity. Even sceptics like Jawaharlal Nehru at certain moments seem to have fallen under such an illusion, and it is possible that many in the West, especially of the more reflective and imaginative type, also at times felt that India may have a relevant message and may perhaps serve as a world model.

A similar belief about the possibility of an altogether new beginning, in continuity with the 1919 to 1945 period, seemed to have opened up, though only during a brief few days, at the end of march 1977, after the defeat of Shrimati Indira Gandhi, and the victory of the Janata combine under the inspiration of Shri Jayaprakash Narayan. But the habits and the assumptions of the past, built over several generations during 1800 to 1919, and again during 1947 to 1977, asserted themselves and India reverted to its unthinking imitative role, a role which benefits not even half per cent of the Indian people, in European idiom, the officer class of India, and maintains their privileges, but is certainly ruinous to the social as well as private lives of at least 80% of India's people. The initiative which seems to have reverted to the majority of India's people, during 1919 to 1945 when as early as 1928, 1929, 1930 the people of India are said to have become virtually free, was again largely snatched away from them after 1947, and what remained was allowed to erode in the flow of time.

It is possible that an indigenous initiative even in borrowing, appropriating, internalising, and thus transforming the borrowed to fit the Indian frame, has not been sustained in India in recent history. It is true that much damage was done to India by aggression of people professing Islam especially during the period A.D. 1100 to A.D. 1700. It certainly split Indian State and society apart in most of Northern India and the shock waves of it were felt in distant areas. Still by the beginning of the

18th century it is not the aggressors professing Islam who exercised effective political power in India but such power was exercised by the Marathas over large areas of India and by the various Hindu Rajas in large parts of Karnataka, the Tamil and Malayalam areas, in coastal Andhra, in Orissa, in large tracts of Madhya Pradesh and in parts of Bengal. But the Marathas as well as the Rajas failed to consolidate their power, were unable to reforge adequate links between state and society and thus speedily lost to the western onslaught. But it is not only in the 18th century that such a failure occurred. Even Vijayanagara, inspired and advised by Acharya Vidyaranya, and Shivaji, blessed and advised by Samarth Ramadas, do not seem to have done too well. Even going further back to the days of the Kauravas and Pandavas, to the great battle waged between them, the sum total result of the goading of the Pandavas to battle by the great Sri Krishna ultimately led to the total collapse of Indian civilization, perhaps for millennia. Pillay Lokacharya, a 14th century Tamil author, has stated that after the public disgrace suffered by Draupadi, Sri Krishna had decided to destroy the Pandavas but desisted from doing so when he noticed Draupadi's mangal-sutra. Yet the way Sri Krishna went about things, did result not only in the destruction of the Kauravas but in the destruction of the Pandavas too.

### *Indigenous initiatives in India have never been sustained...*

Incidentally, even more than Sri Krishna, it is Draupadi who seems to be the central character of the Mahabharata, a Draupadi who is believed to have passed through fire every time she stopped living with one Pandava brother to live with one of the others. Her Pativrattyas state—as is well-known she is one of the five great Hindu Pativrattas—enabled her to pass through fire unscathed and come out without any blemish, or spot, pure as a virgin. Many of the so-called acts of post-1700 individual 'sati' (the word seems to have been used in the sense of a widow cremating herself with the body of her dead husband by the British, in the late 18th and the early 19th century) perhaps are sort of reversion to the passing through fire of Draupadi and an enactment of what she is supposed to have done but in a wholly different context. While the acclaim of such 'sati' incidents by the unenlightened of the country-side and small towns and their condemnation by the moderners has relevance of their own, it will be appropriate that scholarly India tries to locate the possible roots of this practice, tries to comprehend the supposed passing through fire of Sita, Draupadi and others, and interpret their meaning and psychological consequences in the context of today. It may be recalled that practically every locality in India has a 'Devi' shrine, or temple, and every such



'Devi' is treated as a 'sati' in the original sense of the word by all those who are devoted to these shrines.

By 1800, though many areas were still directly unaffected by British power, the mind and intellect of India seems to have bowed down to British power and accepted its superiority. That the British were devilishly crafty and clever had been noted in India from much earlier. Ali Vardi Khan of Bengal expressed such a view in the 1750's, and Ranjit Singh, after being shown a political map of India, is said to have observed that the whole of the map will become red. Red was the colour of the areas under British rule. Warren Hastings had seen this decline of Indian confidence and intellect by 1780, if not earlier, and by 1790 William Jones, the British judge at Calcutta, and known as the founder of Indology, had begun to claim that he knew the Sastras better than even the great Pandits of Varanasi. On the decision of the Varanasi Pandits that the utmost punishment for a Brahmin was a black mark on the forehead and exile from his home region, William Jones stated that the Sastras prescribed that the mark on the forehead was to be made by hot iron. Incidentally, marking by hot iron was a British judicial practice till the mid-18th century. And if branding by hot iron was right and legitimate in Britain, it had to be right and legitimate in India too. Following such logic, as the British tenant cultivator had no right over the land he cultivated and could be ejected at the will of the British land-lord, it followed that the Indian peasant, who from time immemorial had inalienable hereditary possession of the land under his cultivation, could also similarly be ejected from his land at the will of the British-created land-lord, or at the whim of the British Indian state. The Indian peasant, according to British rationale, could enjoy no higher rights than his counterpart in Britain.

The erosion of self-confidence and the defeat of the intellect, and the splitting of the elite from its own people, who alone could have given it any sort of spiritual or intellectual sustenance, naturally led to the imitation and adoption of British ideas and preferences. If William Wilberforce, the greatest Englishman of the 19th century, and known as "Father of the Victorians", thought that the Indians could only be leading ignorant and wretched lives "without the blessings of Christian light and moral improvements", it had to be treated as true. Thus a completely new imagery developed about India, and this imagery was given powerful literary garb by men like James Mill, one of the chief executives in the British governance of India and the author of the voluminous "History of British India." The black Englishman of Macaulay was already on the scene, and speedily being duplicated, much before Macaulay had anything to do with India. Some years before Macaulay's arrival in India, the British Governor General Bentinck expressed satisfaction that pros-

perous and leading Indians were giving up the feeding of Brahmins and beggars and instead had taken "to the ostentatious entertainment of Europeans." Not that all resistance to the British had ceased, but the resistance of the elite was no longer against British ways and preferences but rather against the British habit of not allowing the Indians to have any share in the exercise of power. The Indian elite of the 19th and the 20th century, by and large, merely desired that the British would function as the Mughals had done earlier on, when men like Raja Man Singh or Raja Todarmal were treated like Mughal nobles and governors and were given important roles in the maintenance of imperial Mughal rule over the people of northern and western India. This attitude of the Indian elite, even of many of those who called themselves "Sipahis" of Mahatma Gandhi, continued more or less uninterrupted till the time when Britain decided, or was persuaded, to transfer power to Indian hands.

It is in such a context that, as time passed, the Indian elite began to look at India through British eyes. Indians began to be seen as wretched and ignorant the way they had appeared to William Wilberforce, or to James Mill, or to Macaulay, or to Karl Marx. To Karl Marx the commencement of Indian misery lay "in an epoch even more remote than the Christian creation of the world", and he stated that in spite of "whatever may have been the crimes of England" in India, England "was the unconscious tool of History" in bringing about what Marx so anxiously looked forward to, India's Westernisation. Even Indian scriptures, the *Smritis*, the text on law, the scholarly works had to pass through the in-

### *The objection was not so much to British rule, as to the lack of Indian share in it*

tellectual and spiritual sieves of Europe, and what received approbation or approval had to be accompanied with suitably selected commentaries and newer interpretations. It was not only the ostentatious entertainment of Europeans which henceforth became the aspiration of the Indian elite but the reading of the approved and acclaimed Indian texts, and even more so an uncritical attachment to the philosophies, theories and literature of Great Britain became the new opium of the Indian elite. That this is no exaggeration is evident from continued Indian fascination not only with Plato and Aristotle, or the Roman historians, but even with Francis Bacon, Thomas Hobbes, Bishop Berkeley, John Stewart Mill, or men like Bertrand Russell.

Naturally, all this had to result in movements like the Brahmo Samaj, and its various other versions in different parts of India, the long lasting fascination of the Indian elite with theosophy, a new variant of

the ancient Masonic orders of Western Europe, and with the various ideologies which have come out of Europe in the past century and a half. Even when we wished to be patriotic, or wished to hark back to the past, the medium and the guide had to be the discipline of Indology or Orientalism, or some foreign traveller from the West or the East, who had happened to live in or pass through India since the time of the Greek adventurer Alexander.

In such a situation, the Indian elite's response to the loss of freedom began to be couched in a Western idiom. Hence the Westernised pronouncements of patriots like Ram Mohan Roy (Montstuart Elphinstone regretted that Ram Mohan Roy was presenting himself as too much of a Firangi) or Keshub Chandra Sen, of the illustrious Bankim Chandra Chattopadhyaya, of Iswara Chandra Vidyasagar, or of the Indologist Rajendralal Mitra. To each one of them the European and British intervention in India seemed a divine boon. It is possible that in comparison to what they had learnt about the oppressions of the Muslim rulers, mostly either through hear-say, or through European compiled accounts, the British rule looked like the rule of angels, where tranquillity and order prevailed and the men of property felt secure from one generation to another. Such men perhaps had also begun to believe in the theory of the common origin of the Indo-European peoples, and in their own way, even before Frederick William Max Muller had begun to look forward to the day when these long parted cousins could join hands in some shared common enterprise. Explaining his works, Max Muller had mentioned to Gladstone, many times prime minister of Great Britain, that what he was trying to do was to bring together some 1800 years after Jesus of Nazareth, those who had got separated around 1800 years before Jesus's birth.

It was not only those given to social reform or to the spread of education, or dedicated to what is called an Indian renaissance (based, ironically, on Western and British guidelines) who became the promoters of European knowledge (sacred or profane) in India and dependent on Western goodwill. Those attracted by Western science and technology (not of the time of nuclear power, or of flights to the moon etc., but of a time when steam power ruled and children of 10 or less worked long hours in British industry; and electricity and the internal combustion engine had yet to make an appearance) also began to think of promoting and extending Western science and technology in India. The British however seem to have looked at this promotion differently. The Governor of Bengal, Richard Temple, felt that the diversion to science from law, public administration, prose literature etc., required to be welcomed as, in the field of practical science, the Indians "must feel their utter inferiority to us."

July, 1988

It is in such an age that Vivekanand and his guru-bhais received their nurture and their education. They were all students of Calcutta colleges—a far greater accomplishment and privilege in those days than now. Their close contact with Sri Ramakrishna Paramahansa was a turning point in the life of each of them and perhaps even more so in the life of Vivekanand than of the others.

Though a product of the same 19th century Bengal Bhadrakol environment, Vivekanand was in many respects very different from the older and more well known men of the Bengal renaissance. We see intense patriotism in every facet of Vivekanand's life and works. He also had a deep grounding in the Sastras. He also seems to have been much superior in intellectual vigour, in sensitivity to India's problems, and with a natural empathy, with the poor, the down-trodden and the oppressed in India.

Shri Ramakrishna Paramahansa passed away on 15 August 1886. Four years later, on 26th May 1890, Vivekanand wrote a long letter to Shri Pramadas Mitra, an elder, wealthy and respected devotee of Shri Ramakrishna who had been living in Varanasi. In it he said :

### *Vivekananda's dismay over inability to raise a memorial to Ramakrishna*

"For various reasons, the body of Bhagavan Ramakrishna had to be consigned to fire. There is no doubt that this act was very blameable. The remains of his ashes are now preserved, and if they be now properly enshrined somewhere on the banks of the Ganga, I presume we shall be able in some measure to expiate the sin lying on our heads. These sacred remains, his seat, and his picture are every day worshipped in our Math in proper form; and it is known to you that a brother disciple of mine, of Brahmin parentage, is occupied day and night with the task. The expenses of the worship used also to be borne by the two great souls mentioned above...

"What greater regret can there be than this that no memorial could yet be raised in this land of Bengal in the very neighbourhood of the place where he lived his life of *Sadhana* (spiritual struggle)—he by whose birth the race of Bengalis has been sanctified, the land of Bengal has become hallowed, he who came on earth to save the Indians from the spell of the worldly glamour of Western culture and who, therefore, chose most of his all-renouncing disciples from university men?..."

"The two gentlemen mentioned above had a strong desire to have some land purchased on the banks of the Ganga and see those sacred remains enshrined on it, with the disciples living there together; and Suresh Babu had offered a sum of Rs. 1,000 for the purpose, promising to give more, but for some inscrutable purpose of God he left this world last night. And the news of Balamam Babu's death is already known to you...

"It is impossible with a sum of Rs. 1,000 to secure land and raise a temple near Calcutta. Some such land would at least cost about five to seven thousands...."

"You remain now the only friend and patron of Shri Ramakrishna's disciples. In the North-Western Province, [i.e., Uttar Pradesh], great indeed is your fame, your position and your circle of acquaintance. I request you to consider, if you feel like it, the propriety of your getting the affair through by raising subscriptions from well-to-do pious men known to you in your province. If you deem it proper to have some shelter erected on the banks of the Ganga in Bengal for Bhagavan Ramakrishna's sacred remains and for his disciples, I shall, with your leave, report myself to you, and I have not the slightest qualm to beg from door to door for this noble cause, for the sake of my Lord and his children. Please give this proposal your best thought with prayers to Vishvanatha. To my mind, if all these sincere, educated, youthful Sanyasins of good birth fail to live up to the ideals of Shri Ramakrishna owing to want of an abode and help, then alas for our country...."

"If you ask, 'you are a Sanyasin, so why do you trouble over these desires?' I would then reply, 'I am Ramakrishna's servant, and I am willing even to steal and rob, if by doing so I can perpetuate his name in the land of his birth and Sadhana and help even a little his disciples to practise his great ideals. I know you to be my closest in kinship, and I lay my mind bare to you. I have returned to Calcutta for this reason...."

"If you argue that it is better to have the plan carried out in some place like Kashi, my point is, as I have told you, it would be the greatest pity if the memorial shrine could not be raised in the land of his birth and Sadhana; The condition of Bengal is pitiable. The people here cannot even dream what renunciation truly means—luxury and sensuality have been so much eating into the vitals of the race."

It seems that Sri Pramadas Mitra did not send an encouraging reply. This seems to have caused profound unhappiness to Vivekanand. The issue was indeed painful. No doubt that by then Bengal had been rendered impoverished and destitute for a considerable time. But the fact that no resources could be raised for erecting a memorial for a person, whom many influential persons such as Kesab Chandra Sen, Girish Chandra Ghosh, Isan Chandra Mukhopadhyaya, Balam Bose, Shambhunath Mallick, Man Mohan Mallick and many others, used to frequent, is clearly an instance not of material impoverishment but of mental and spiritual impoverishment of society. It may perhaps be claimed that in reality Shri Ramakrishna Paramahansa in his own life time was not all that famous a person in Bengal, and his following, except for a dozen or a score of young men, was hardly worth counting. But it is more reasonable to grant that the extent of our mental and spiritual impoverishment was such that no substantial resources could then really be raised even for Sri Ramakrishna Paramahansa's memorial.

This response obviously shook Vivekanand. To know the cause of such a state and to know his country better he set about travelling through India. From then on he was on the move continuously. Wherever he went, he received love and respect. But he did not receive, perhaps he did not even seek, any substantial financial help. Then he reached Kanyakumari and meditated on the now celebrated Vivekanand Rock. After some weeks he dreamed that Sri Ramakrishna was beckoning him from amidst the ocean. This became the signal for his foreign travel. Actually the World Congress of Religions at Chicago was not the reason why Swami Vivekanand set forth abroad. The reason was very different, much larger and serious. He wanted to acquaint himself with the functioning of other societies. He saw the prosperity of Europe and America, their power and organisation. He saw their vigour and was very much impressed. His numerous letters give detailed and poetic description of his impressions. These letters reveal his intense love for India, his understanding of India and of the world, and his sorrow at India's material and spiritual impoverishment. He wrote to Alasinga Perumal on 6th March 1895, "Do not for a moment think the 'Yankees' are practical in religion. In that the Hindu alone is practical, the Yankee in money-making, so that as soon as I depart, the whole thing will disappear. Therefore I want to have a solid ground under my feet before I depart. Every work should be made thorough" and added, "Work on, my brave boys. We shall see the light some day."

### *Vivekanand went out not to preach religion but to study other societies*

In the above we can see the profound anguish and sensitivity of Vivekanand as also his love for India. From his own personal experiences he arrived at the conclusion that India's regeneration is possible only when we can muster outside help both in money and men (and women) for the cause. It is thus that the initial growth of the Ramakrishna Mission took place with foreign financial resources.

While Vivekanand had deeply immersed himself in Shri Ramakrishna Paramahansa, he was also able to see the practicality of things—what was to be discussed and in which forum and how. So in the West he propagated Shri Ramakrishna's teachings via rational formulations. As he clearly stated in a letter to a fellow disciple:

"There is no gain in hastening my return from this country. In the first place, a little sound made here will resound there a great deal. Then, the people of this country are immensely rich and are bold enough to pay. While the people of our country have neither money nor the least bit of boldness."

Earlier, on 29th September 1894, he wrote to Alasinga Perumal :

"Our field is India, and the value of foreign appreciation is in rousing India up. That is all...We must have a strong base from which to spread. Do not for a moment quail. Everything will come all right. It is will that moves the world.

"You need not be sorry my son, on account of the young men becoming Christians. What else can they be under the existing social bondages, especially in Madras? Liberty is the first condition of growth. Your ancestors gave every liberty to the soul, and religion grew. They put the body under every bondage and society did not grow. The opposite is the case in the West—every liberty to society, none to religion. Now are falling off the shackles from the feet of Eastern society, as from those of Western religion.

"Each again will have its type; the religious or introspective in India, the scientific or out-seeing in the West. The West wants every bit of spirituality through social improvement. The East wants every bit of social power through spirituality. Thus it was that the modern reformers saw no way to reform but by first crushing out the religion of India. They tried and they failed. Why? Because few of them ever studied their own religion, and not one ever underwent the training necessary to understand the Mother of all religions. I claim that no destruction of religion is necessary to improve the Hindu society, and that this state of society exists not on account of religion, but because religion has not been applied to society as it should have been. This I am ready to prove from our old books, every word of it. This is what I teach, and this is what we must struggle all our lives to carry out. But it will take time, a long time, to study. Have patience and work. Save yourself by yours:lf."

In his letter of 6th April 1897 to the scholarly editor of "Bharati", Shrimati Sarala Ghosal, he wrote, "It has been for the good of India that religious preaching in the West has been, and will be, done. It has ever been my conviction that we shall not be able to rise unless Western people come to our help. In this country, no appreciation of merit can yet be found, no financial strength, and what is most lamentable of all, there is not a bit of practicality...I have experienced even in my insignificant life that good motives, sincerity, and infinite love can conquer the world. One single soul possessed of these virtues can destroy the dark designs of millions of hypocrites and brutes. I only want to show that our well-being is impossible without men and money coming from the West."

In this way Swami Vivekanand brought money and inspired men and women to come from abroad. Miss Margaret Noble, or Bhagini Nivedita, was one of those. We find that Bhagini Nivedita later helped the eminent scientist Jagdish Chandra Bose in editing his works; she also helped and translated some of the works of Brajendranath Seal. The conclusion from all this is that our *bhadralok* had totally lost the capacity to identify the capacities and talents of this society and take them forward. No healthy society in the world would dream of achieving functionality and regenerating its creativity with foreign help.

Vivekanand had a great deal of confidence in the Indian men and women. However, even he could not escape from being seriously affected by whatever image and model, that the newly educated class had already built, of our society, of the age-long deprivation, wretchedness and ignorance of our ordinary people.

This image of India was not its own traditional self-image; nor had it any relation with historical facts. However, such an image was deliberately built up during the 19th century by the efforts and encouragement of the British and of theoreticians of the West, and through the policies and institutions initiated by the British Indian state. The newly emergent elite in Bengal, as also many others, were instrumental in taking this image forward. For instance Rammohan Roy was opposed tooth and nail to the idea that modern learning and science be learnt through the medium of Sanskrit and other Indian languages. He somehow had been convinced that these Indian languages can be the vehicle only of ancient codes and speculations on the world beyond; and that western knowledge could only be learnt through languages of the West. This was indeed a peculiar position. The Westerners themselves obtained knowledge

### *"Our well-being is impossible without men and money coming from the West"*

of India and the East in their own languages; but India was to learn the knowledge of the West only through the language of the West. Surely, behind such a view, was a feeling of deep contempt for the Indian languages, the Indian intellect and the Indian people. Of course this is not to imply that a man like Rammohan Roy had any hatred for the Indian people, or lacked patriotism. Quite possibly they had been lured by the power of the West and felt that India's salvation lay in becoming like the West. Only their understanding of the West lacked any depth.

Around 1880, Keshav Chandra Sen declared in England that "If you look at India today you will no doubt find wide-spread idolatry, a system of caste such as cannot be witnessed elsewhere, social and domestic institutions of an injurious character, and prejudices, error, superstition and ignorance prevailing to a most appalling extent."

Around 1900, Rabindranath Tagore wrote that "Our country having lost its links with the inmost truths of its being, struggled under a crushing load of unreason, in abject slavery to circumstances. In social usage, in politics, in the realm of religion and art, we had entered the zone of uncreative habit, a decadent tradition, and ceased to exercise our humanity."



The promotion and extension of an intellectual climate with a peculiar combination of self-pity, self-condemnation and at the same time decrying the self-image of India in the fulfilment of European goals, thus became, perhaps inadvertently, the job of men like Rabindranath Tagore. Such promotion ultimately led to the growth and duplication of Western personalities like that of Pandit Jawaharlal Nehru.

Due to their faith in the theory of progressive evolution of consciousness, persons like Jawaharlal Nehru, saw the highest stage of thought in the Western thinkers and the highest stage of society in Western society. Hence, it was that the education organised by the British was, for Jawaharlal Nehru, the only possible route to knowledge and virtue. He, therefore, could argue that there can be neither virtue nor knowledge amongst our villagers amongst whom the new education system had not spread. So, he conceived that a major function of the state, with him at the helm, and run by Western educated Indians (though their Westernisation may have belonged to Europe's 19th century), was to liberate the crores of Indians from a state of ignorance and moral degeneration, and convert them into the sort of people cherished by William Wilberforce or Karl Marx.

While our newly emergent elite responded to loss of freedom by seeking much deeper enslavement as the sole means of liberation, the larger Indian society reacted in an opposite way. The larger Indian society tried to keep its cultural symbols and ideals as its beacon and tried to organise itself repeatedly. The 1857 resistance to British rule was one effort of this sort. Between 1880 and 1894, there was a major cow-protection movement in India, especially in the northern and central regions. A wide-spread net-work of cow-protection sabhas were established in which Hindus, Muslims as well as Christians, the wealthy as well as the poor, men as well as women, young and old, all were actively involved. The movement was described by the British Viceroy as as dangerous as the events of 1857-1858. The British Queen was of the opinion that the movement was aimed against the British and not against the Muslims. The larger Indian society had been relentlessly striving to express itself, using forms and symbols which were linked to its own civilizational spirit and consciousness. In these efforts of the larger Indian society, one does not see any trace of a feeling of contempt for, or dejection with, Indian institutions, the Indian way of life, or Indian ideas.

As we are well aware, in Mahatma Gandhi, there was no trace of any contempt or dejection for things Indian, and so the whole of India arose as one man under his leadership. The views of Mahatma Gandhi on India were fundamentally different from those of the modern educated Indians. Gandhiji's view was that the larger Indian society had great merit and

inspite of there being several evil tendencies and distortions, it had great internal strength and capacity. If ordinary people could be provided with necessary and adequate resources for organising themselves and giving expression to their own priorities, they can then once again build a great civilization, as they had been doing for thousands of years. He agreed that there may still be some quarrels and disturbances periodically, some ups and downs, some internal conflicts and animosities, and some amount of injustice—but all this would be considered improper (*adharma*) and as violating accepted norms, and will, by the people themselves, be severely condemned and restrained. It therefore seemed to him necessary that the larger Indian society should again be put in possession of adequate resources, resources which at least partially it had retained even during Islamic rule where such rule prevailed, but of which it was totally deprived during British rule. The point to note is that Gandhiji had full confidence in the capacity of the Indian people and the Indian resources, and based on this perspective as well as his own unparalleled organisational skill, he was able to mobilise a nation-wide movement.

### *Nehru knew only the British way to knowledge and virtue*

We thus see that during the time of British rule there had been two different responses to the loss of freedom and enslavement of our society. One was the response of the larger Indian society of which Gandhiji was the exemplary leader. The other response was from the powerful and elite classes who inspite of the call, exhortations, and charisma of Swami Vivekanand, were getting more and more estranged from the wider Indian Society and who became the carriers of a prolonged habit of total surrender and subservience to most conquerors. It is clear that the clash of the larger Indian Society which sought freedom (*Swaraj*) was not with this elite; it was with the conquering Western civilisation. By attempting to comprehend that civilisation we will also get an idea of the quests and motivations of this subservient elite class of India.

From ancient times, civilisation to Europe has meant expansion of wealth. Apart from the rulers and the noblemen everybody else, irrespective of geographical location of race, must be made sub-servient to this wealth. This is how civilisation grows. The form of subservience keeps changing with time and necessities.

It was under such beliefs and assumptions that numerous corporations, including the various European East India Companies, were established in the 16th century. The ambitious and adventurous of Europe who additionally were desirous of making money were dispatched to explore the rest of the world and to add to European dominion.

It is true, as Macaulay also said, that the British East India Company in the 1830s was no different to the company when it was formed in 1600. From the very beginning it was endowed by the British State with the powers of sovereignty, conquest and rule, in the same manner as the countless other companies established by England and other states of Western Europe were endowed with such powers, through royal charters, etc., from as early a date as the 1480s. By a royal charter of around 1480, king Henry VII of England granted to one John Cabot and his sons, the licence to occupy and set up the King's banners, etc., "in any town, city, castle, island or mainland whatsoever, newly found by them" anywhere in the "eastern, western and northern sea" belonging to "heathens and infidels in whatsoever part of the world placed, which before this time were unknown to all Christians." The king empowered them to "conquer, occupy and possess" all such places, the main condition being that they will give in return to the king "the fifth part of the whole capital gained" by their enterprise.

To understand the manner of European expansion it must be realised that, by and large, these companies were instruments of the various European states. Even when the state and a particular company had their inner quarrel, they were under the military and political protection of the state, and when any company, especially the British Company, actually began to conquer and rule any area it was the state which took effectual charge of the conquered territory. The formal rule, in some instances, may have continued through the particular company (as it did in India in certain matters till 1858), but the decision-making, and the political and military control was effectively exercised by the British state, and the detailed instructions in all instances had invariably been examined, amended and approved by the state. In the case of India, it was statutorily so from 1784 onwards, but even from about 1750, no major steps were taken by the British East India Company in India without instructions or approval of the British state. For instance, the British attack on the Maratha admiral Angre in the 1750s was based on British state policy and instructions, and had little to do with any initiative by the British East India Company.

It has been generally assumed, and western liberal thought perhaps had a hand in spreading such an assumption, that the Western states, especially the British, while subjugating the rest of the world, were rather democratic and compassionate at home. Nothing seems to be farther from the truth than this assumption.

Most of what Britain did in India was not basically very different from what the British state had done in Britain since about the Norman Conquest of England in the 11th century, and which it more or less

continued till after 1800. Later on, the same was attempted by England in Ireland from about the 16th century, or experimented upon in North America in the 16th, 17th, 18th centuries, and the same was continued by the successors of British power in the fast expanding territories of the USA, i.e. by European Americans, in the late 18th and the 19th centuries. In a certain sense because of the unsuitability of Indian climate to large-scale European colonisation, what the British did in India in the way of destruction, oppression, disruption, etc., though long sustained, may have been of a slightly milder degree. For instance, inflicting of the death penalty was legal and statutory in Britain for more than 200 offences (including the stealing of anything above 5 shillings in value) till 1818. Further, till about 1830 or so, the infliction of 400-500 lashes (with specially prepared whips) on a British soldier, for what may have been considered a serious offence, was quite common. In India, British executions, hangings, lashings, etc., were perhaps much larger in number but their intensity may have been relatively less. Perhaps even 20-50 lashes, or even the idea that one was to be lashed, was enough to kill most Indians who were naturally unaccustomed to the manners, habits, and the rigour of ordinary British usage. At any rate it was not possible for the British, or other Europeans, who happened to become rulers

### *Europe was neither democratic nor compassionate when it came to India*

of India, to always personally engage themselves in the correction and punishment of those whom they ruled. Not that domestic servants were not caned by their masters and mistresses, leading at times to death, or that heads of villages and other Indian officers of state did not personally receive lashings from certain British collectors, again leading to the death of many so punished.

Quite, naturally, the British officer, in his private and official capacity, initially tried to play the role of the English Justice of the Peace, who had long been authorised in England to inflict summary punishment on any one who seemed to him to deserve it. But in an area as large as India this was hardly functional, and therefore more sophisticated political, legal and economic devices were used which could serve similar purposes of control and punishment much more effectively and on a far larger scale. The wiping out of half or one-third of the population of an area as a result of fiscal devices, though initially these may not have been devised for such vast destruction, was found much more effective, and in one or the other part of India this began to occur from about 1750 onwards and lasted for some 150 years. In many areas such catastrophes perhaps occurred every decade.

The myth of the ruling systems of Europe being democratic and compassionate at home is surpassed only by the myth of Europe having long ago become far superior to the rest of the world in science and technology or the myth that Europe has always been a home of widespread learning or it had originated a system of popular education centuries ago.

While Europe no doubt has been increasing its stock of theoretical and practical knowledge from about the 13th century AD, from borrowings from other lands as well as through its own scholarship and speculation, it has to be remembered that most of the products of western science and technology are not even a century old. The first lighting by electric current happened around 1880, the internal combustion engine dates back to around 1900, the motor car began to be manufactured around 1910, the manufacture of the refrigerator, the radio, the telephone, the television, the washing machine, etc. are of still later period. The first aeroplane dates back to around 1916-17, and nuclear power, the flight to the moon etc., are products of the 1939-45 war and only became publicly manifest after 1950. The often repeated statement of a gap of three centuries in scientific and technological development between the West and India is, therefore, both a political and scientific myth.

Till about 1800, British agricultural and industrial infrastructure was still far behind India in the field of textiles, in the manufacture of high-grade steel, in various aspects of medicine and surgery, and in a whole variety of arts contributing to human care and comfort. British productivity in agriculture was low (partly because of the climate and the hardness of the soil) and Britain knew little about irrigation. In fact, most of Western Europe depending as it still does on the thawing of the winter snows for moisture for its fields, has little knowledge of irrigation technologies and practices. Most of its tools are heavy and cumbersome, again as a result of its relatively unwholesome physical environment, and its response to nature and other living beings has been of constant hostility and enmity.

In the field of education there was a relative decline in England between 1550 and 1750, largely because of England taking to protestant Christianity, and sequestering the monasteries, which amongst other things, had served as centers of scholarship and learning. The following account regarding pre-1800 British education may perhaps be of interest to you.

According to A.E. Dobbs, before the protestant revolution, "the university of Oxford might be described as the 'chief charity school of the poor and the chief Grammar school in England, as well as the great place

of education for students of theology, of law, and medicine" and "where instruction was not gratuitous throughout the school, some arrangement was made, by means of a graduated scale, to bring the benefits of the institution within the reach of the poorest." Further, a very early statute of England, while specifying that "No one shall put their child apprentice within any city or borough, unless they have land or rent of 20 shillings per annum; but they shall be put to such labour as their fathers or mothers use, or as their estates require"; nonetheless stated that "any person may send their children to school to learn literature."

However, from about the mid-16th century a contrary trend set in. It even led to the enactment of law "that the English Bible should not be read in churches. The right of private reading was granted to nobles, gentry and merchants that were householders, but was expressly denied to artificers' apprentices, to journeymen and serving men of the degree of yeomen or under, to husbandmen and labourers" so as "to allay certain symptoms of disorder occasioned by a free use of the Scriptures."

### *When the common man in England was not allowed to read the Bible*

This statute dating to A.D. 1542-43, consisting of just one Article after a preamble, read, "...The Bible shall not be read in English in any church. No women or artificers, prentices, journeymen, servingmen of the degree of yeomen or under, husbandmen, nor labourers, shall read the New Testament in English. Nothing shall be taught or maintained contrary to the king's instructions. And if any spiritual person preach, teach, or maintain any thing contrary to the King's instructions or determinations, made or to be made, and shall be thereof convict, he shall for his first offence recant, for his second abjure and bear a fagot, and for his third shall be adjudged an heretick, and be burned and lose all his goods and chattels." The statute was entitled "An Act for the Advancement of True knowledge." This restriction however may have completely been lifted by the time the "authorised version" of the Bible (King James' translation) was published in England in 1611.

According to this new trend it was "meet for the plough man's son to go to the plough and the artificer's son to apply the trade of his parent's vocation; and the gentlemen's children are meet to have the knowledge of government and rule in the commonwealth. For we have as much need of ploughmen as any other state; and all sorts of men may not go to school."

After about a century and a half, that is from about the end of the 17th century, there is a slow reversal of the above trend leading to the setting up of some Charity Schools for the common people mainly with a view to provide "some leverage in the way of general education to raise the labouring class to the level of religious instruction," and more so in Wales "with the object of preparing the poor by reading and Bible study for the Sunday Worship and catechetical instruction."

After a short start, however, the Charity school movement became rather dormant; but about 1780 it was succeeded by the Sunday school movement. However, "popular education" even at this period "was still approached as a missionary enterprise" and the maxim was that "every child should learn to read the Bible." "The hope of securing a decent observance of Sunday led to concentrated effort on the promotion of Sunday schools, and after some years this focused attention on the necessity of day schools. From then on, school education grew apace; nevertheless it is to be noted that as late as 1834, "the curriculum in the better class of national schools was limited in the main to religious instruction, reading, writing, and arithmetic; in some country schools writing was excluded for fear of evil consequences."

The major impetus to the Day School movement came from what was termed the "Peel's Act" which required the employer of young children "to provide, during the first four years of the seven years of apprenticeship, competent instruction in reading, writing and arithmetic, and to secure the presence of his apprentice at religious teaching for one hour every Sunday and attendance at a place of worship on that day." "But the Act was unpopular", and its "practical effect...was not great." At about the same time, however, the monitorial method of teaching used by Joseph Lancaster (and also by Andrew Bell, and said to be borrowed from India) came into practice and greatly helped advance the cause of popular education. The number of those attending school was estimated at around 40,000 in 1792, at 6,74,883 in 1818, at 21, 44, 377 in 1851. The total number of schools, public as well as private, in 1801, was stated to be 3,363 and by stages reached a total of 46,114 in 1851.

However, in the beginning "the teachers were seldom competent", and "Lancaster insinuates that the men were not only ignorant but drunken." As regards the number of years of schooling, Dobbs writes that "allowing for irregularity of attendance, the average length of school life rises on a favourable estimate from about one year in 1835 to about two years in 1851."

Regarding the English Public Schools, their fortunes are said to have fallen strikingly during the eighteenth century. In January 1797 the fam-

ous school at Shrewsbury, for instance, did not have "above three or four boys", but after some major reorganisation it had about 20 pupils a year later. The teaching in public schools like Eton consisted of writing and arithmetic (a number of English and Latin books were studied), while those in the fifth form also learnt ancient Geography, or Algebra. "Those who stayed at Eton long enough" also "went through part of Euclid." However it was "not till 1851 that Mathematics became a part of the regular school work and even at that date those who taught the subject were not regarded as persons of full standing on the staff of masters."

While school education, specially, elementary education at the people's level, was rather on uncommon commodity till around 1800, nonetheless the universities of Oxford, Cambridge and Edinburgh were perhaps as important for Britain as Takila and Nalanda were in ancient India as well as places like Navadweep were as late as the latter part of the 18th century. Since many of those who began to come to India from Britain as travellers, scholars, or judges, especially after 1773, had their education in one of these three universities, it may be relevant, before

### *Greek concept of slavery and Christian concept of uplift—become the White Man's Burden*

discussing the Indian position, to give a brief account of the courses studied and the number of students, in one of them around 1800.

Regarding data relating to the beginning of the nineteenth century, "there were nineteen colleges and five halls in Oxford, at this period. There were then about 500 fellows in the colleges, a few of whom in each college were engaged in teaching. In addition there were nineteen professors in 1800, a total which had increased to 25 by 1854.

"The main subjects which were studied at the beginning of the nineteenth century were theology and classics. Examinations were set in classics known as Literae Humaniores, which included Greek and Latin language and literature, moral philosophy, rhetoric and logic, and in the elements of the mathematical sciences and physics. Lectures were also available on other topics, e.g., Law, Medicine and Geology.

"There was an increase in the number of students entering the University from about 1805 onwards. The number of students on the rolls during one year rose from about 760 in the early nineteenth century to about 1300 in 1820-24.



"The main sources of financial support of the colleges in Oxford were their endowments, mainly in land income from students. The proportion of income from each source varied from college to college. Taking a wider view of all the expenses of a University course including clothing and travelling, a parent who clothed his son and supported him at university and during the vacation, could expect to pay from £600-800 for and four year course around 1850."

Lastly, perhaps, I should add that from the time of the ancient Greeks, European society has had a distinct world view. It would be worthwhile to briefly consider some basic facts here.

From the time of Plato, the essence of the European world-view seems to have been that a principal thinker or reformer and his true disciples and the school of thought and institutions associated with them would be the carriers of truth and culture. The rest of society, largely the slaves and the strangers, but also many of the citizens, would neither be capable of grasping the highest form of truth and culture nor would have the capacity to understand 'the good' and 'the beauty'. Evil and sin will spread and the society would lapse into barbarism if the mind and the spirit of the general populace was not controlled. Hence it was considered very essential by Plato as well as Aristotle to centralize all power. This was the only way to protect civilisation.

He alone is civilised who is powerful, who belongs to the ruling class. The rest of society is barbaric and should be enslaved. There is no other way to maintain proper order in the society or enable it to evolve. Apart from one's own society, other societies are completely barbaric and immersed in darkness. It is necessary to conquer them and control them. In time, there were certain variations on this 'central' theme. Christianity, while subscribing to the idea of control, added the idea and possibility of the upliftment and enlightenment of the controlled, to its world wide creed. Thus a happy marriage of Greek control and Christian upliftment happened in time with the proviso that the leadership of all was always destined to be in the hands of the European man.

Aristotle believed that "Any piece of property can be regarded as a tool enabling a man to live, and his property is an assemblage of such tools; a slave is a sort of living piece of property; and like any other servant, is a tool in charge of other tools."

The above may seem rather too harsh on Western Civilisation and perhaps even far-fetched. Two British statements, the first relating to 1600 Ireland on how best it could be entirely subdued and brought under English obedience, and the second pertaining to 1800 southern India, again

dealing with the problem of entirely subduing it, etc., to an extent confirm what I have said above. The first by Sir John Davies, English attorney general of Ireland, suggested the following as a more effective policy for Ireland.

"The defects which hindered the *perfection* of the conquest of Ireland, were of two kinds, and consisted : first, in the *faint prosecution of the Warre*, and next, in the *looseness of the civil Government*. For, the husbandman must first breake the land, before it be made capable of good seede and when it is thoroughly broken and manured, if he do not forthwith cast good seede into it, it will grow wild again, and bear nothing but weeds. So a barbarous country must be first broken by a Warre, before it will be capable of good Government, and when it is fully subdued and conquered, if it be not well planted and governed after the conquest, it will oft soonest return to the former Barbarisme."

The second about India by Mr. Henry Dundas, President of the Board of Commissioners for the Affairs of India, was sent in a despatch to the Government of the Madras Presidency on 11 February 1801. Advising against a permanent settlement (of revenue, legal arrangements, etc.) it stated :

### *When Mr. Dundas of E.I. Co. recommended 'danda' for Karnataka*

"There is a material difference betwixt the state of the several of the provinces in the Carnatic and those of Bengal, where the measure of the permanent settlement was first taken into consideration. The Bengal provinces were infinitely farther advanced in the habits of order and subordination to Government than most places in the Carnatic... They [i.e. the Carnatic] are not so ripe for the reception of those benefits and blessings intended for them... Any attempt to introduce a popular system of order... would be idle and nugatory. till once their minds to a certain extent were prepared to feel the importance of the benefits they were about to receive... This can never effectually be done, till you have suppressed that spirit of rebellion and insubordination, which is so conspicuous in many parts of the Northern circars... The countries to which this observation applies must be brought to such a state of subjection as to acknowledge and submit to this principle. As they must be indebted to our beneficence and wisdom for every advantage they are to receive, so in like manner they must feel solely indebted to our protection for the continuation and enjoyment of them. We hold these truths to be so incontrovertible."

(To be continued)

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## India Needs A New Constitution A New Polity & A New Economy

—Prof. S.G. Kashikar

THERE IS NO GAIN SAYING the fact that the framers of our constitution were inspired by the best of intentions when they deliberated over the future political set-up of our country. And yet the way they paved has failed to lead to the desired destination. The system has failed to take healthy root in our soil and it has decayed almost beyond recognition during the last 40 years.

No constitution is, in fact, good or bad in itself. A country must adopt the constitution that best suits its culture, its ethos. This basic point was almost totally missed by our constitution-makers, who gave us an exotic system called the parliamentary form of Government.

The framers of our constitution opted for this form under the mistaken belief that the people of India had acquired enough training in the working of the parliamentary system during British Rule and that, therefore, they were fully equipped to operate it. In fact this was far from true.

It was in 1861 that Indians were inducted into the legislature for the first time. Yet, until 1909, their number was insignificant, and they were all appointed by the British rulers. The elective principle was introduced for the first time in 1909, but it was vitiated right from the outset by the invidious system of communal electorates. The number of people qualified to vote was also too small; only 3 per cent under the Act of 1919, and just 14 per cent under that of 1935, all of them property-owners. The experiment of dyarchy lasted only for 7 years—from 1923 to 1930—and was boycotted by the Congress. Provincial autonomy, introduced by the Act of 1935, lasted just for two years from 1937 to 1939, in seven of the eleven provinces. Thus during the almost two centuries of British rule in India, parliamentary system was given trial—if trial it could be called—for just 9 years, vitiated, as it was, by communal electorates, denial of franchise a large majority of the people, Reserved Subjects and special powers of the Governor-General. It was, if anything, perversion of the parliamentary system from the very beginning. While a few educated people might have familiarised themselves with its form, not many even from amongst them, had imbibed its spirit or were conscious of the crucial role of the multitude of its sophisticated conventions and other nuances.

No wonder the thrusting of this alien system after independence created perversions all round. The structure, so assiduously and comprehensively built, began to show cracks right from the start, and the

first amendment became necessary within fifteen months of its inauguration. Within barely thirty-eight years of its existence, as many as fifty-nine amendments—many of them of a basic nature and some others changing the same articles over and over again—have been effected without giving the system any assurance of endurance, if not finality. This is a sure indication of its being out of tune with the Indian ethos.

More and more people are realizing the incompatibility of the parliamentary system with the Indian ethos; and those who insist on changing the ethos itself, to make it compatible with the alien system, are finding their efforts more and more frustrating. In sheer exasperation, some of them, including those who are actually operating the system, advocate a switch-over to another western system—Presidential—little realizing that that system, with its own distinctive spirit, conventions and nuances, would be even more alien than the present one and that, if imposed on the people, it would lead to even more catastrophic consequences.

In stead, they should even now do what the framers of the constitution failed to do earlier : identify the various elements of the Indian ethos, sort out which ones—and in what way—can meet the requirements of today and tomorrow, build a basic structure incorporating those elements and finally, graft on to them, wherever appropriate, worthwhile features of other systems, as Japan has so successfully done.

India is a land of long history, distinctive culture and deep-rooted traditions. It is therefore all the more necessary to seek an Indian solution to the Indian problem. It would be a synthetic outcome of creative interpretation of India's history and culture, objective analysis of the traditional practices, concepts and influences that live on to this day, futuristic assessment of India's needs, and application of social science engineering methods to achieve the desired objective through indigenous and adapted institutions.

What follows is an attempt to present a framework of indigenous political system for India based on the foregoing considerations and calculated to serve it best for the present and in the *foreseeable* future.

A unique feature of the traditional Indian political system which was admirably practised in ancient times, and which sways the minds of the Indian people to this day, is the concept of '*Dharma-Rajya*'. The word '*Dharma*' does not mean 'religion'; actually it has no equivalent term in English. It is not 'a system or collection of systems of worship', as is commonly understood by the term 'religion', and according to which we denote "Hinduism", Islam, Christianity etc. as religions. '*Dharma*' denotes

the supreme code of human conduct that upholds and sustains society. It constitutes the basic tenets of thought and action that flow from ethical-judicial considerations, and aim at the all-round development and highest bliss of the human race. The state guided by these principles is a '*Dharma-Rajya*'. It is not a "Hindu state", or a state of any other particular denomination. Nor is it opposed to any religion. Equal regard for all religions is undoubtedly one of its merits, but that is not its most distinguishing feature, which is maintenance of conditions for supreme and total well-being of entire humanity. While it does not profess any particular religion, all religions are likely to feel affinity for it as close to their own socio-ethical tenets.

The core contents of Dharma take shape through the age-long experience of society and the profound deliberations and revelations of its thinkers. The ruler and his advisers are required to be fully conversant with such a Dharma and to be guided by it in their activities. Dharma is sovereign in the state. It denotes supreme moral authority over state power. This is another characteristic feature of Dharma-Rajya. Dharma takes an integrated view of human needs. It recognises the inter-dependence of man and man, and man and his environment. Its approach at every level—

### *Dharma is sovereign in the state; it stands above state authority*

individual, group, national or universal—is holistic, systematic and integrated. This is yet another important feature of Dharma-Rajya. It is an approach that the modern world badly needs to save itself from the ill-effects of fragmented approaches that have already brought the world to the brink of disaster.

The holistic approach makes it clear that all segments of existence and all aspects of life are complementary to one another. Mutual adjustment and cooperation, and not conflict, is the basic law of existence. Class-cooperation is the rule, class-conflict, an exception. This is the fourth characteristic feature of Dharma-Rajya.

The nature of Dharma, however, is not static. Its core, based on eternal spiritual and ethical principles, is called 'Sanatan Dharma'—the Eternal Moral Law. But its manifestation changes according to times. This is called 'Yuga-Dharma', the Law of the Age. In exceptional circumstances, exceptions to the normal law are permitted. These are called 'Apat-Dharma', the law of Necessity or Calamity. In order to determine the precise nature of Dharma at a given time and circumstances, people

are given complete freedom of thought and expression, which is the fifth important feature of Dharma-Rajya.

The term "Dharma" also means 'duty'. That everyone should follow his 'Dharma', i.e. duty, is the sixth major characteristic of Dharma-Rajya. If everyone does his duties, the rights of all get automatically protected, generating in their wake the essential feeling of social cohesion rather than conflict.

These are the principal tenets of Dharma-Rajya as practised in ancient India and as it still appeals to the Indian mind.

The concept of Dharma-Rajya, though old in India, is thus new to the world and a valuable contribution to the theory of the state. In strife-torn world, its adoption will do immense good to humanity.

In the prevailing situation in India, in particular, it can provide a much-needed solution to its problems. In place of the western concept of secularism which, in fact, is not fully practised even in the western states, and which is basically at variance with the integrative outlook of all religions, the country should declare itself a 'Dharma-Rajya'. It should be mentioned in the preamble, which should also include ethical-judicial principles common to all religions. Even those principles which are enunciated by one religion but not by others, may be included in the preamble, if they are found essential in modern times. In addition, the western principles of liberty, equality, democracy etc. should also be retained in it. In keeping with the tenets of all religions, the Preamble will enjoin upon the state to make integrated approach to the well-being of the people. Declaring the state a Dharma-Rajya, will usher in, at the optimal level, the process of spiritualising politics, equating service of man to service of God, and, at the minimal level, that of re-establishing the supremacy of ethics over politics. This will raise politics from the depths of degeneration into which is at present fallen. The concept of Dharma-Rajya will represent a grand national consensus of all religions in India and thus herald an era of real religious harmony and national unity.

On the face of it, this may appear to be too tall a proposition. But a close look at the communal scenario will convince anybody that truly religious people and the masses of all religious communities in India would welcome whole-heartedly the concept of Dharma-Rajya as enunciated above. It is only the fundamentalists and the urban educated communal leadership, which wants to exploit religion for its political ends, that would stand in the way of its realisation. To build up a strong mass-movement that would make them irrelevant, is, however, necessary. It is diffi-

cult but not impossible. It must be successfully attempted, for the way communal tensions are growing at present can only lead to serious trouble. There is no alternative to Dharma-Rajya for India—and, if I may say so, in the long run, for the world.

So much about the sheet-anchor of a truly Indian political system. The actual form of Indian Government should also be based on Indian perceptions about its nature and role so that the pressure of public understanding would keep the authorities on the right track.

The traditional form of Government prevalent in India had been kingship—but it was a kingship with a difference. The king was looked upon not as master but as guardian of the people, upholder of Dharma. He was expected to possess great qualities of head and heart and work selflessly for the welfare of the people. All Indian treatises on political science exhort the king to consider the happiness of the people as his own happiness and not the other way round. Such a king was invested with divine origin and quality—but here again with a difference. While in the west the divine origin theory led to the theory of divine "rights" and made the king absolute, here in India it led to what may be called the theory of divine duties and made the king subject to the rule of Dharma. According to it, God is the protector of the world, father to the people, kind and just, and so must the king be. He who does not rule righteously, loses his divinity and can be dethroned, and even beheaded.

## *Dharma Rajya will be the Grand National Consensus of all religions*

Righteous rulers, like saints and heroes, develop a halo or charisma around them. So much so that respect for charismatic leadership has become an abiding feature of the Indian psyche. That respect is sometimes blind, but only up to a certain point. People do not hesitate to overthrow an erstwhile charismatic leader, if the latter throws overboard all considerations of righteousness and acts in abject self-interest. While revival of kingship is out of the question, and some form of real democracy is a must, the Indian tendency to rely on charismatic leadership cannot, it seems, be done away with within the foreseeable period. It is not necessary to do so either, as it can be constructively channelized to usher in real democracy.

What is necessary is to find out a device that will enable selection of people who are really great and not the ones on whom greatness is thrust.



Western culture, rightly or wrongly, is deeply associated in the Indian mind, with extreme materialism and individualism. The parliamentary system, therefore, is considered to be a means of achieving material self-interest of the individual or the party. The masses, therefore, are at a loss to understand the proper criteria for selection of their leaders. Naturally, therefore, they select them on the basis of their casteist, religious, regional or individual interest. This trend can be reversed by introducing the concept of Dharma-Rajya whose ground-rules the masses are quite familiar with. In the wholesome climate of Dharma-Rajya, the people will by and large, definitely look for great qualities of head and heart and selfless service, while selecting their representatives.

In view of the foregoing considerations, India should opt for a governmental form in which heads at all levels, from national to local, are designated as guardians such as national guardian (*Rashtra-Palak*), provincial guardian (*Prant-Palak*), village guardian (*Gram-Palak*), etc. They all should be elected directly by the people of their areas on the basis of universal adult franchise. In order to get elected, they should secure absolute majority of the votes cast. For that purpose, a second ballot may be held, if necessary. This will enable good people, who are at present pushed aside by unscrupulous ones, to get elected as guardians at all levels and transform the whole system into a healthy one. They would select their advisers or ministers. Since individual guardians would be responsible for the entire administration of the areas of their jurisdiction, they would mostly be obliged to select competent people as their advisers or ministers. This system may be called the presidential system of Indian variety. In fact, it would be better, to avoid confusion, to call it by a new name: The Guardian System (*Palak-Paddhati*).

To prevent misuse of power, by placing moral power above political power is a cardinal principle of Dharma-Rajya. This can be done in two ways, first, by providing directive principles of Raj-dharma or code of conduct for political authorities in the constitution itself and, secondly, by creating small cells of knowledgeable, experienced, selfless and respected persons such as Acharya-Kul or Group of Elders at every level of territorial organisation with statutory powers to conduct investigation in cases of breach of directive principles.

The system of political parties taking adversary positions on issues of the day, and professing different political philosophies, is contrary to the Indian genius which, true to the Dharma approach, takes a holistic view of things. The traditional Indian approach has been to seek the truth, the whole truth, and nothing but the truth. Political parties, on the other hand, tend to take Lop-sided view of truth and present it as the

whole truth. What is worse, in the tussle for power, political parties are almost always guided by their own self-interest, even at the cost of national interest.

No wonder, therefore, that the party system as understood in the west, had not developed here. The Congress was never a party, it was a movement. Today it is just an agglomeration of groups, and not a party. The so-called opposition parties are no better.

The current political philosophies of democracy, communism and socialism are on the way out in the modern world though the basic principles or values underlying them viz., liberty, equality and justice, are eternally relevant and are synthesized into the philosophy of welfarism. Dharma is a broader concept than welfarism, and it includes, besides liberty, equality and justice, the principles of universal brotherhood, truth and spiritual well being. It is, therefore, the only comprehensive philosophy for the whole world in general and for India in particular.

It is, therefore, not necessary to have different political parties professing different political philosophies in India. Let all of them be

### *We should have Partyless democracy, with only occupational movements*

guided by the common philosophy of Dharma, whose objective is all-sided welfare of all people (*serve-pi sukhinah santu* or *Sarvodaya*). There may be difference of opinion regarding what aspects of Dharma should be given priority in a particular period and how they should be achieved. These issues would be crystallized through national debate and movements like the Jan Morcha and the Shetkari Sanghatana of today, and would weigh with the people at the time of elections. These movements would educate, activate and organise the masses, and throw up appropriate leadership. The masses would settle issues and select leaders through elections. Political parties would not at all be necessary for this purpose. In fact they tend to put up artificial issues, advocate populist measures and vitiate political atmosphere. Political parties in India are divisive rather than a unifying force.

India should, therefore, opt for a partyless democracy. It facilitates election of truly good leaders of society. Democracy is not alien to the Indian soil. The rulers were always required to respect public opinion. In addition, freedom of thought and expression, the concept of government for the people, tolerance, decision by consensus, changes by non-violent methods, and decentralisation and autonomy in political and

economic spheres, constituted the very core of Indian democracy. We have only to build up suitable institutions around this core.

The constitution should lay greater emphasis on duties than on rights. In particular, it should lay down the duties of, or guidelines for, citizens as to what considerations should weigh with them while electing candidates or choosing policies.

Complete freedom of thought and expression is the hall-mark of Dharma-Rajya. It should, along with other democratic freedoms, be guaranteed by the constitution. What kind of a democracy is it, in which even elected representatives of the people cannot give full expression to their genuine thoughts on the floor of the legislature, in the name of "party discipline"? In fact such a freedom is all the more necessary in the area of law-making and policy formulation. However, some directive principles for legislators, such as keeping uppermost in their mind the interest or happiness of all people while discussing laws, should be laid down in the constitution.

The traditional Indian process of decision-making is by consensus and not by majority vote. In consensus, the majority modifies its view to accommodate that of the minority and the minority also does the same, to respect the majority. It is, in effect, a synthesis of worthwhile views of all concerned. The decision arrived at by this process is of optimum utility and greatest satisfaction. It is also much more democratic than the majority imposing its will on the minority. In India, even today, in social, economic and also political spheres, when honest and sincere decisions are taken, they are taken by consensus and not by majority. The same rule should be introduced at all levels of decision-making, including legislation, in government. A guiding or directive principle for all decision-makers should, however, be laid down that they should consider the interest of all and not of themselves alone while discussing issues. This will obviate occasions when the majority tries to run roughshod over the minority or the minority tries to put hurdles in the way of the majority. The rule of consensus will give no cause for any minority to entertain any misgivings about their enslavement by the majority and it will thus effectively counter the present growing divisive tendencies and foster the much-needed communal harmony and national integration.

For law-making, there should be, at all territorial levels, uni-cameral deliberative bodies based on professional representation. This will ensure representation of all genuine interest groups and it will have the added advantage of gradually transforming the caste-based social structure into a profession-based social order.

There should be two houses only at the national level. They may be given the old Indian names of Sabha and Samiti. While one of them should be based on professional representation, the other should have territorial representation.

Political and economic decentralisation has been the backbone of the Indian political system. It takes democracy and socialism to the door-steps of the people. There should be no cause for worry that decentralisation would lead to national disintegration or weakening of the central authority. The Indian genius seeks unity in diversity. In this context, it is reassuring evidence that the regional political parties that have recently formed governments in some states, have shown not a whit less concern for national unity than any national political party. In fact there is no harm in carving out smaller states according to political and economic needs. Governments of small states would definitely be more responsive and more responsible. The states should, however, be designated as 'pradesh' or provinces and not as 'states.' What is important is that they should be given adequate political and economic powers to deal

## *Regional Parties are as patriotic as any 'national' Party*

with the subjects within their jurisdiction autonomously. This by itself will not weaken the central government. Local and provincial governments will not be able to undertake large developmental works without cooperation with the larger units and the pooling together of resources, expertise etc. This will ensure national coordination and unity.

In France, local government has to perform certain minimum mandatory functions and it is vested with adequate financial and other powers for the purpose. In addition to these it can, if it wants, take up any other functions provided, firstly, it undertakes to raise adequate funds for them and, secondly, obtains approval of the higher authorities for their schemes. It will be in keeping with the Indian conditions to adopt similar provisions for our local and provincial Governments. Financial dependence of the lower unit on the higher one must go. That alone will ensure proper planning from below and coordination from above.

If the British gave us any systematic training, it was in their judicial system. This they did by establishing high courts and providing civil and criminal codes at the very start of their rule. Therefore, of all the systems introduced by the British in India, it is only the judicial system that works fairly satisfactorily to this day. Even then it has developed defects like delay, expense and emphasis on the letter of the law at the

cost of its spirit. The corrupting influence of politics and money is also casting its shadow on justice. But the inherent defect of this system is the totally antagonistic positions that the advocates of the two parties to a dispute take in the court of law—sparing no efforts to prove the right wrong, and the wrong, right—instead of helping the judge to ascertain the truth. So, while the British judicial system should basically be retained, efforts should be made to remove its defects. Inclusion of directive principles for judicial functionaries in the constitution and establishment of truly Indian people's courts at the lowest level, will help bring about the necessary reforms. In Japan, maximum number of cases are disposed of in their traditional people's courts at the lowest level, which reduces the load on the higher courts. Consequently, there is no back-log of cases, no delay in judgements and no fall in standards. This should be possible in India also.

The question of official language has unnecessarily become complicated because of the short-sighted insistence on retention of English, which, not being the language of the common man, only hampers the development of responsible democratic administration in India. It only serves to safeguard the vested interests of the bureaucracy and the English-educated urbanites. Let those who think knowledge of English is essential for higher learning, learn it and adequate facilities may be provided for them. But it can hardly be the language of administration in India. The sooner it is replaced by the language which is understood by the largest number of people, the better. Only Hindi can serve as a link-language in India, and it should replace English as the language of the Central Government. In the provinces, administration should be conducted in their respective regional languages. At the centre and in all provinces, there should be translation cells for all recognised Indian languages, which should provide translation of centre-province and inter-provincial correspondence whenever necessary. Adoption of common administrative terminology for all Indian languages is all that is necessary to facilitate such correspondence without any difficulty. And all protagonists of regional languages should agree to such a common vocabulary in the larger national interest. The centre and the provinces may address letters to one another in their own official language(s) though, occasionally they should be encouraged to write to the others in the latter's language(s). If the vexed language problem is solved with understanding in this manner, it will not only make administration at all levels truly democratic and responsible, but will also foster sisterly relationship among all Indian languages and further strengthen national unity.

According to the modern western democratic philosophy, the individual is the basic unit and the end—and not the means—of all social

organisation; while according to the philosophy of socialism it is the other way round. Both these views are lop-sided and represent, at best, only partial truth. What is worse, they tend to create conflict between the individual and the society. The traditional Indian outlook, on the other hand, rejects both these extreme views and looks upon individual-in-group as the basic unit of the social structure. This view is more realistic and beneficial than the western view, for individuality and sociality are the two inseparable attributes of a human being. According to it, every individual is, by nature, a member of one or more groups as per his interests and role in life. Working through them, he fulfils himself and, at the same time, helps others fulfil themselves. It means, the basic relationship among various segments of society is of cooperation, of complementarity, and not of conflict. This concept had informed the entire social fabric of India in the past and it occupies paramount place in the Indian psyche even today.

While the reformatory impact of certain aspects of the western civilisation and philosophies on India can hardly be denied, the greatest

## *English is the enemy of all Indian languages*

damage they did to the Indian way of life has been through the introduction of the principle of conflict in place of cooperation. Both the philosophies of extreme individualism and extreme socialism have jointly contributed to this obnoxious development. As a result man sees himself in conflict with everything around him, including Nature. It is I-win-you-lose relationship everywhere. Consequently, we see conflict between husband and wife, father and son, brother and brother, teacher and taught, employer and employee, class and class, community and community and even religion and religion. In fact the west itself is suffering from the consequences of its own philosophies but they are yet to find a way out. In India Dharma can show the way and the constitution of Dharma-Rajya should be informed by the spirit of Dharma, of Dharana, of upholding and sustaining all, through mutual cooperation and fulfilment.

The institution of family can play a crucial role in this respect. It is the root of all social growth and basic principles of social behaviour are first learnt there. It has always been so throughout the world. But in the west, under the impact of the mistaken notion of extreme individualism, it is fast cracking up, with bitter consequences. In India it would be suicidal to allow this to happen. While we should unhesitatingly introduce some reforms in our family system, in the light of what is worthwhile in the

western thought regarding it, particularly recognition of equality and independence of women and grown-up children, we should not blindly follow the western way. We need not go back to multi-generational joint families, but at least the natural nuclear family structure should regain its health and pristine spirit.

While the family has been the basic social unit almost throughout the world, in India it performs a unique function—that of providing a model of relationship for all other associations, including the state. An ideal club is a family of its members; so is any other healthy institution. Even the state is a family, with the ruler as its head. And finally the entire mankind—the whole world—is a family: *Vasudhaiva Kutumbakam*. It is the family spirit, the family feeling of affinity, of belonging, of love, of cooperation that is the brick and mortar that hold all associations together and convert them into co-prosperity areas. The basic principle of management and even administration implied in it is that of a human relations approach. In traditional Indian households and occupations, even servants are addressed as uncle or aunt, and special care is taken of them in times of need. That is the Indian style of management. That is also the Japanese style of management, which is now applauded as the best in the world. That should be the style of management in our industries and administration and we may relearn some of our own lessons from Japan.

Particularly in industries, the air of conflict must give way to the spirit of mutual understanding and cooperation. It is a new modern area of economic activity but we must evolve indigenous pattern of its organisation. For that it is suggested that the worker should be recognised as a share-holder in industry. For this purpose his labour potential may be deemed to be his contribution to the share, capital and his wages or salary may be treated as his dividend i.e. his share in profit. The initial value of his labour potential i.e. share can, be worked out by backward calculation on the basis of his dividend i.e. salary or wages. For example, if an industry has paid dividend to its share holders at the average rate of 10 per cent, and the annual salary of its worker is Rs. 10000/-, then  $10000 \times \frac{100}{10} = \text{Rs. } 100000/-$  would be the value of that worker's labour potential i.e. the value of his share. The dividend may be paid to him in advance in monthly instalments, and final calculation done at the end of the year, when the balance-sheet is drawn. Initially, say for a period of five years, the worker may be assured of dividend equivalent to his wages or salary, including increments that he would have otherwise earned during the period. But after that he should be prepared to swim or sink with the industry. The arrangement, it is presumed, will be acceptable both to the worker and the management: to the worker because he would become a part of the proprietorship and will no longer have cause to har-

bour the feeling of being exploited; and to the management because it would be assured of optimum productivity of the worker and hence of growing profitability. This would usher in a climate of industrial peace and harmony and an era of true participatory industrial democracy. This should be done both in the private and the public sectors. If necessary, it may be introduced first in the industries that are going to be newly established, tested there for some time and then, with modifications, if necessary, extended to other industries. Opposition to it might come from those labour leaders and unscrupulous proprietors who see their vested interest in the continuance of conflict. A strong wave of support for this arrangement will have to be created to drown such opposition. For, it is absolutely necessary to have some such organisation of industries in a developing country like India, whose resources are limited and needs, unlimited.

However, such an organisation of industries does not mean divesting the worker of his right to protest. It would even be his duty to protest when he feels aggrieved. But such right or duty will have to be subject to two conditions; one, the protest should be non-violent and strictly on the lines of satyagraha as conceived by Gandhiji, and second, if the protest fails to achieve its purpose, a commission consisting of representatives of all interested parties, including the consumers, should be appointed to go into the matter, who should discuss it in the spirit of reaching consensus, and whose decision should be final.

## *It is not individual vs. society; it should be individual-in-society*

The British are said to have given us a steel-frame of civil service. However, it needs certain reforms to meet present-day requirements. First of all, its wooden approach should give place to truly Indian human relations approach while dealing with its own members and the public. This will prompt them to do the right thing, at the right time and, of course, rightly. It will also focus attention on human resource development. Secondly, the generalist pattern of its highest echelon, viz., the All-India services, needs to be radically changed. It was all right during the British rule, when the civil service heads were largely the policy-makers and when their functions were few and comparatively simple. Today, by contrast, functions have grown in number and complexity. A generalist, however brilliant he may be, would hardly be able to acquire that mastery and insight in a subject which a specialist acquires only after a long period of study and experience. Moreover, it is the elected representatives of the People—ministers in the present system and guardians in the proposed one



—who have replaced civil service heads as policy-makers. They are the generalists of today who choose from amongst the different policy scenarios presented to them. This presentation can be done exquisitely only by experts in the field. The generalist civil service heads are totally out-moded in the present context. The All India Services, therefore, should be classified function-wise and candidates should be recruited for each function separately on the basis of specialized knowledge and experience. They, however, should be given generalist orientation as they are about to reach senior levels. In other words, the present recruitment system should be completely reversed i.e. instead of selecting generalists and then giving them specialist orientation, we should first select specialists and then, at the threshold of senior levels, give them generalist orientation so that they are able to take a broad, perspective view of their functions, by relating them to the environment and the entire gamut of state functions and present realistic policy choices, to the elected executive.

To eliminate delays, red-tape etc., and to ensure efficiency, is a big problem that the British-bequeathed civil services face today. The main hurdle in the path of administrative improvement lies in the linking of the emoluments of the civil servant to the budget, and not to his productivity. However, considerable improvement can be brought about by doing work-distribution in such a manner that each officer is entrusted with an entire job or an identifiable chunk of the job along with adequate powers and resources and is made entirely responsible for its execution. This will make him result-oriented, as against rule-orientation and put a stop to the ludicrous game of passing the buck. Human relations, specialization and the pin-pointing of responsibility should thus be the guiding principles of organisation of civil services.

The problem of development of backward classes is very intimately connected with the working of the Indian political system. The need for quicker development of backward classes, to enable them to be equal partners in the national life, prompted the framers of the present constitution to provide for reservation of seats for them in legislature, employment and educational institutions. However, the manner in which the reservation policy is being implemented is defeating its purpose and creating tensions and exasperation in the society. Unfortunately, reservations are developing into vested interests and efforts are being made more for their continuance and expansion than for real development through them. It is forgotten that reservation itself is a label of backwardness and as long as it continues, the stigma of backwardness and the feeling of inferiority complex will not go. It should therefore be used, like crutches, to enable one to stand on one's feet as soon as possible, and then thrown off. Dr. Ambedkar had correctly envisaged reservation as a temporary measure. It is therefore necessary to restate

and implement the reservation principle in its original spirit. It should emphasize the following three aspects : (1) Reservations are means to an end and not an end in themselves. Development is the word, not reservation. Reservation policy should be implemented strictly in this spirit. Special responsibility in this regard rests on the shoulders of the leaders of the backward classes. (2) Reservations provided on class or caste basis should normally be available for, say, two generations, and not thereafter. (3) Reservations should gradually be brought within the purview of concessions and facilities for economically weaker persons, and their caste or communal base should not be a consideration.

A broad picture of an indigenous political system suitable for India has been presented above. It is indicative and not exhaustive. Differences of opinion may be possible about certain provisions or details. It should, however, suffice to convince anybody that an indigenous constitution to suit the Indian genius and way of life, and capable of meeting today's and tomorrow's requirements, is both, possible and desirable. On the attainment of independence, it would have been immensely easy for the then leadership to formulate and implement such a constitution. In fact, Gandhiji tried to make a move in this direction. But his words fell on deaf ears. In stead, the leadership chose to adopt a constitution based on wrong premises, unfamiliar in essentials and therefore bound to get perverted. The consequences are there for all to see.

## *Workers should be co-sharers in all economic enterprises*

If the country is to be saved from further march towards deterioration, it is necessary to retrace our steps and take to the right path. It may be more difficult today than on the dawn of independence. But it is by no means impossible. It is absolutely indispensable also as Indian problems can have only Indian solutions. Some people, in sheer exasperation, advocate switch-over to some other western political system—a switch-over from the little known to the less known, which remedy is bound to turn out to be worse than the disease.

In this connection, attention may be drawn to the two waves that are sweeping the country at present. One is the wave of renaissance of traditional Indian culture and values. That even scientists and leaders of almost all political parties emphasise the need to preserve and promote Indian culture and values while marching towards modernity, is indicative of the impact of this wave. This wave first started in some of the countries of Asia as a reaction to the growing tendency to blindly

copy the western culture and to blindly reject the indigenous culture. These countries failed to synthesise the good aspects of the two cultures and eliminate the bad ones. Hence the wave degenerated into fundamentalism. India also faces the same danger. It is no use condemning the wave as obscurantist which, basically, it is not. It is also no use opposing it, for it cannot be stopped. It can only be channelized constructively by synthesising what is good in both the cultures. If India, with its genius for synthesis, fails to do this, it is very likely to be driven helplessly towards fundamentalism.

Farmers' organisations are coming up in different parts of the country today. This is the second wave. Rural India, which still retains pristine Indian culture and values, is up against westernised and exploitative urban India. The rural Indian masses are illiterate, superstitious and poor, but not unwise. They abhor the present-day politics and politicians. They have no faith in the present political system and would whole-heartedly welcome selfless leadership and a value-based indigenous political system. They are rising and the battle-lines are being drawn: Bharat Vs. India. They have the strength of numbers with them and hold the keys to supply of food, raw materials and labour to the whole of India. They are, therefore, bound to win—a prospect of silver lining in the surrounding darkness. At present the farmers' struggle is against their economic exploitation by the urban people. But they are also being exploited socially, culturally, communally and even politically. The struggle for economic emancipation should, therefore, logically lead to, and have its fulfilment in, a struggle for total emancipation, which means establishment of a system which is free from all forms of exploitation and seeks happiness of all through the cooperative efforts of all. If, on the other hand, the rural people are led to seek only economic goals, in the way the urban people do it—that would only mean extension of exploitative India to 'Bharat'. In that case the victory of Bharat would be its virtual defeat and spread strife throughout the country. A great responsibility, therefore, rests on the shoulders of the leaders of Bharat to lead it with proper vision and perspective.

The foregoing analysis will make it clear that the aims of these two waves, if properly perceived, are mutually complementary and the two together can, if properly channelised, create a third and all-embracing wave for the establishment of Dharma-Rajya in this country.

A word for the Western-educated intelligentsia will not be out of place here, which I crave their indulgence with the utmost humility. By the accident of history, they have acquired intellectual leadership of the country. Those of them who equate westernisation with modernisation and see a panacea for the country in the adoption of western values, sys-

tems and institutions, find the outcome of efforts made in that direction utterly frustrating. Others, by and large, feel totally confused and withdrawn. It is, therefore, time for them all to become a little more introspective and re-examine the conditions prevalent in our country in their entirety and without prejudice. The inherent unsuitability of the present system is leading to fast degeneration in all walks of life and popular discontent is on the rise. The greatest tragedy is that the system does not permit good men to compete successfully with unscrupulous men. The writing is on the wall that sooner or later—and sooner rather than later—the system will have to be changed. In these circumstances, instead of running from one unfamiliar western system to another, it is better to take stock of the total situation and work for an indigenous system that will click with the Indian people and at the same time promise to meet their requirements of today and tomorrow. A national debate on these lines will throw up a worthwhile framework of such a system and a proper leadership and movement to instal it. It is with this hope that this paper is presented. If that happens, the present writer would consider his study and cogitation of over forty years more than amply rewarded.

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## Why Organic Manure Must Totally Replace Chemical Fertilisers

By : Sailendra Nath Ghosh

Does the recent years' poor off-take, despite the Government's and the industry's high-pitch exhortations, show the farmers' disillusion with chemical fertilisers? Even if does not, the disenchantment is in the offing. Deleterious consequences in tropical conditions make this inevitable.

As early as in 1975, a group of farmers in Howrah district told the Fertiliser Corporation of India's regional marketing manager that they would cut down the use of urea. "It leads to profuse leafy growth and invites pests. We have, therefore, to buy the poison to kill these pests. The inevitable loss in production and the additional cost of pesticides leave us no great gain". They complained also about the loss of soil quality. Besides, they instinctively knew that the insipidity of the chemically grown food meant not merely a loss to the palate but also a loss in nutritive properties.

The same year, a group of farmers from Punjab, during the Indian Agricultural Research Institute's *krishi mela* asked a scientist: "How is it that by using these fertilisers we were earlier getting about 75 quintals per hectare but now the pests are steadily going up and the yields going down?" These early signals from farmers were not heeded. The country went on building fertiliser plants. The number of nitrogenous and complex fertiliser manufacturing large plants is now thirty one. Four more\* are "under implementation". Since chemical fertiliser production is sought to be equated with food production, more will possibly be licensed.

After the sharp increase in oil price in 1973, our official agro-science leadership started talking about the importance of organic manure because the petroleum feedstock was likely to be increasingly costlier and even unavailable (on account of depletion of world reserves). The importance of organic manure was treated merely as an economic question and not as a science question. Whether the protracted use of chemical fertilisers was beneficial to our soils; whether these could, in tropical and sub-tropical conditions, set in train consequences adverse to plant and animal (including human) life; whether higher yields were attainable by organic farming with certain improvements in cultural

\* These four refer to only the large plants. If the large, medium and small plants under implementation are all counted, the number would be eleven.

practices; whether newer sources of food were obtainable from unexplored species in the wild; whether certain changes in our eating habits and food preparation techniques could meet food needs of the entire population and make for healthier living—questions like these were never considered. To our high priests of agricultural science, “know thy environmental resource” is far from being the first principle.

Our Ministers, too, are equally unconcerned about the nature of our basic resources. Now-a-days all have come to concede the importance of biofertilisers. But the way our political executives seek to explain their significance makes one feel that biofertilisers are important only because chemical fertilisers are costly and the petroleum feedstocks are veering towards exhaustion. It is as if the chemical fertilisers are otherwise harmless.

The erstwhile leadership of the Indian Council of Agricultural Research, which took credit for the chemical-dependent “green revolution”, avoided giving the other side of the picture. For a proper appraisal of its gains and losses, it was necessary to compare the decade-wise data of the organic matter status of the Punjab and Haryana soils from the ‘fifties onwards; the extent of these soils’ microbial activity, porosity (aeration), tilth, moisture-holding capacity over the years; and the level of nitrates, phosphates and the broken-down products of pesticides in the ground-water and neighbouring surface water during this period. But the ICAR has not cared to maintain these data. Only these could show how we have bought reprieve by drawing down the life-support system and degrading the very basis of sustainable production. The farmers of Punjab and Haryana have a wholesome habit of using farmyard manure extensively. Even then, the deterioration has been progressive in all the above respects, according to people’s perceptions.

Among the fundamental differences between the temperate and the tropical conditions is the high rate of decomposition of the soil organic matter in the tropics. Warm and humid conditions which accelerate microbial growth are responsible for this. If nitrogenous fertiliser is applied to the soil under these conditions, it leads to quicker decomposition of the soil organic matter and quick release of this nitrogen to the atmosphere in the form of nitrous oxides which are detrimental to the earth’s protective ozone layer. Thus, it creates the twin evils of impoverishing the soil and polluting the atmosphere. Contrarily, the soils in the temperate regions, because of their higher carbon content, have a higher capacity to absorb this nitrogen.

Nature has, however, given the wet tropics a compensating advantage in the form of lush vegetative growth which can be converted into manure

to replenish the soil organic matter. The cycles of growth and decay of soil humus are quicker here.

The monsoonal tropics have yet another peculiarity. Due to the torrential rainfall for about four monsoonal months, the chemical compounds intended for soil fertilisation find their way quickly to the water courses. There they cause oxygen depletion to the detriment of aquatic life and hazards to cattle health. These disruptions could be avoided if we had taken into account the great advantages that Nature had given this region in a variety of forms. One was the blue green algae which was universal in tropical paddy soils in the humid regions as a potent nitrogen fixer. The other was a floating fern, *azolla pinnata* which, too, harbour nitrogen fixing algae and was regarded by some as the key to the high fertility of East Asia’s paddy lands over thousands of years.

The alternation of wet and dry weather in the humid and sub-humid tropics provide better tilth and oxygenation, thus enhancing their fertility.

### *Chemical fertilisers are far more harmful in the tropics.*

It is foolhardy to liquidate these perennial advantages of the wet or the medium-rainfall tropics for the transient advantages of chemical fertilisers. It is not possible to reap the advantages of both the natural endowments and the nature-disruptionist chemical fertilisers.

Those who seek to conjugate organic farming with chemical farming are wasting their efforts in two ways—by engaging in a wholly unnecessary exercise and by trying to unite two entirely incompatible processes, which is impossible.

This is unnecessary because organic manure is not deficient in any nutrient: It is capable of supplying every nutrient to the extent that can be assimilated by the plants healthfully. Organic manure, being a complex mixture of hundreds of different organic compounds in various combinations of elements is a storehouse. It releases nutrients gradually so that all nutrients are supplied over a long time in right proportions. Its compounds are subject to minimal loss by leaching. The colloidal products of decomposing organic manure have a high “base exchange” capacity, which means the exchanged ions are not flushed out or wasted. Contact



between plant root hairs and the organic manure particles ensures conservation. Thus, there is a built-in economy of supply and demand.

Besides, the organic manure affords a striking advantage. Although all its components start decomposing together, its constituents, on account of their differing hardness and quanta, require differing time-scales to decompose, and give rise to variable compositions of micro-organismic populations in succession. All the products of decomposition are available till the end and there is no shortage of any nutrient at any time. Thus, there is a sequence and yet a continuity in this harmonic process of organic manure decomposition. And there can be no question of imparting greater sufficiency than the fullness that a well-prepared organic manure gives.

The attempt to bring under a common harness the organic manure and the chemical fertiliser is like employing some disruptive elements along with a cooperatively functioning team, in wishful disregard of their antagonistic relations, with the result that the cooperative elements are prevented from doing their jobs. Here, too, Gresham's Law operates. Just as the bad coin drives out the good coin and the rogues in a team drive out the good people, the chemical elements force the naturally forming element to recede more and more into nothingness. We shall see a little later how the process works. It is not possible to integrate a disruptive approach and a building-up approach in one programme.

Nitrogenous chemical fertiliser works to force an unbalanced growth on the plants; it dilates the plant-cells, affects flowering and thins the cell-walls, thus making the plant vulnerable to pests. It adversely affects the biodynamic quality of amino acids. (The proteins of chemically fed plants are of a poor quality because they lack the balance in essential amino acids.) It tends to acidify the soil and requires the use of lime (calcium) to cure the acidity. It reduces the plants' power of transporting the photosynthesised carbohydrates from the leaves to the plant roots. Presence of considerable quantities of nitrogen in the soil makes the nitrogen fixing bacteria inert.

Talking of chemical fertilisers as a whole, their adverse effects are immense and in too many directions. These reduce soil organic matter; reduce soil porosity to impede oxygen flow; reduce the water-holding capacity of the soil; obstruct natural nitrogen fixation by soil bacteria as also the natural biological control mechanism; affect the soil flora and fauna; reduce the soil's resistance to extreme weather conditions<sup>1</sup>; deplete

1. Humus keeps the soil cool in summer and warm in winter.

the trace elements essential for the healthy growth of plants, animals and microbes<sup>2</sup>; and poison the ground-water and surface water in the neighbourhood, to which the unabsorbed fertilisers drain<sup>3</sup>. Residues of pesticides, the invariable companion of chemical fertilisers, persist in the soil, from three to fifteen years, depending on the type. Chlorinated hydrocarbons seriously impair fertility by affecting nitrogen-fixing and nitrifying bacteria. The residual effects of some herbicides inhibit nodulation of legume crops. In any case, the toxins of pesticides and herbicides are absorbed by plants and passed into the food chain.

Recently, the present writer had been to Chakdaha area, in district Nadia of West Bengal, where the farmers had been using both organic manure and chemical fertilisers and also allowing the share of the latter to rise steadily. The farmers reported that the earthworms and the burrowing insect which they call "ghur-ghura" have become rare. They attribute this effect to the chemical fertilisers. Their experience would be

## Combining Chemical and Organic Fertiliser is Marrying Two Incompatibles

an object lesson for all those who expect additive effect from chemical fertilisers. The need is to ponder over the basic question: can such destruction of Nature's own fertilising agents be at all compensated? To get an idea of the enormity of loss from such destruction by chemical agents, we need to know first the immensity of benefits which accrue from the earthworms and the burrowing insects. Sir Albert Howard of "Indore compost" fame, used to quote the findings to the Connecticut Experimental Station: "The cast of earthworms is five times richer in combined nitrogen, seven times richer in available phosphates, and eleven times richer in potash in the upper six inches of the soil". The loss of such potent contributors can never be compensated. When it is remembered that Nature's gift of earthworms is much more in the wet tropics than in the temperate regions, the loss to us as a result of imitation of the short-sighted Western practice of nature-conquering technology, would appear even more tragic. Experiences of farmers in the Chakdaha area—and in many other areas in this country—have shown that these natural fertilising agents cannot be saved by combining organic manure with chemical fertilisers.

2. Nitrogen-fixing bacteria need the trace elements very much for their functioning.
3. Already due to the poisoning of water, the fish population in the canals and rivers has been decimated. The ill effect of nitrate poisoning on child health and cattle health has been reported from many places. In the years to come, the incidence will keep on increasing.

The farmers of Chakdaha reported many other kinds of losses as having resulted from the accompanying use of chemical fertilisers and pesticides, such as the dwindling number of snakes and in consequence, the rising number of rats as a menace to foodgrains; and the near-extinction of numerous species of fish in river Ganga which flows close by. Let us, however, restrict the present discussion to the loss of crop nutrition and the loss of the very base of production which result from the belief that the addition of chemical fertiliser to organic manure would lead to additive beneficial results.

For a proper understanding of exactly how the beneficial effects of organic fertilisers get reduced by the mixed application of organic manures and chemicals, it is necessary to know the interacting relations between the myriad forces involved—the behaviour of soil particles with their constituent elements, soil microflora and fauna, soil solution etc.—and the rhythm, sequence, symphony of natural systems. Instead of burdening the present article with these intricacies, let us briefly state here that the addition of chemical fertilisers detracts from the beneficial effects of organic manure, and causes harm, in the following ways:

- a) Application of chemical fertilisers over and above organic manure is likely to produce an excess of nitrogen and even of phosphate. An excess of any element causes damage. In the case of nitrogen, we have earlier stated that its excess leads to dilation of cells, diminution of flowering, and weakened resistance against diseases. Excess of phosphate, besides polluting water, does other kinds of damages. Thus, the addition of chemical fertiliser is both a waste of resource and an invitation to injury. The injury is reflected in (i) lesser yield in the total food package from the overall husbanding of the given land<sup>4</sup>; and (ii) loss in nutritive quality.
  - b) Whereas organic manure consists of 30-40 elements of very minute strength, the chemical fertiliser contains only five or six selected elements in high concentrations, in the form of compounds. This results in an increase in the density of salt in the soil solution, which means difficulty in water absorption by plants. This becomes more evident in Rabi (winter) crops. In Kharif (i.e. rainy season) crops, the problem gets largely
4. The chemical-dependent high-yielding varieties, while yielding larger quantities of certain selected crops, damage the potential for pulses, decimate fish population in the paddy fields, canals and rivers, and also sicken the cattle by the residues of pesticides in the grass. Hence, in terms of the total food basket—i.e. the sum of foodgrains, pulses, fish, milk etc.—the yield becomes less.

resolved by wash-out of salts. So, there has to be either wash-out i.e. wastage or the plants' difficulty in water absorption.

But there is an even more serious problem. Non-tailored plants are not able to withstand frequent shocks through osmotic pressure variations<sup>5</sup> resulting from repeated fluctuations<sup>6</sup> in salt density in the solution: only the weeds are. Hence any use of chemical fertiliser prepares the ground for take-over by weeds. Of course, tailored plants like the "high-yielding varieties" are designed to take these shocks. But there, too, Nature takes revenge by making these varieties pest-prone and obsolete every three to five years.

- c) It disturbs the entire microflora and microfauna of the soil. It de-activates and even kills the nitrogen fixing bacteria and

### *Chemical fertilisers, while increasing certain crops, reduce the total food basket*

decimates all those bacteria which fix sulphur, iron, carbon, hydrogen etc. in their own bodies initially and contribute these elements to the soil organic matter while dying. When these bacteria are thrown into a disarray, the disease producing bacteria thrive on account of the disproportion of salts.

- d) The use of chemical fertilisers, even in the presence of organic manure, upsets the sequence of decomposition, and hence both the successional order and the balance of micro-organismic populations. Different types of organisms are endowed with different functions and follow a line of succession relevant to the changing character of the substrate. In a natural system, there are many species of micro-organisms at any time. They assimilate carbon gradually. In their death they contribute to the organic matter to nourish the succeeding generations. But when the concentration of certain elements is selectively and
5. Osmosis is the selective passage (through semi-impermeable membrane) of solvent, separate from the passage of the solute. This process is of utmost importance to the life of both plants and animals. Since a substance tends to pass from a solution in which the concentration is greater to the one in which the concentration is less, a pressure has to build up on opposite sides of the membrane to keep the flows separate.
6. The phenomenon of repeated fluctuations occurs because chemical fertiliser has to be applied several times to a crop in split doses.

artificially increased, it encourages excessive multiplication and overactivity of certain types of bacteria which are relevant to these salts. At the same time, it de-activates and kills the more useful types of bacteria. Thus, two distinct developments take place. The latter (i.e. the more useful) types of bacteria die without doing their job and without getting a chance to multiply. The former types decompose and deplete the organic matter too fast, preventing its longer-term function.

- (e) The use of chemical fertiliser, even with organic manure, affects both the physical and chemical structure of the soil. Apart from causing a loss of natural nutrients, it results in a loss of tilth and water holding capacity, which opens up a vast panorama of serious consequences. All the benefits of aeration and moisture retention and hence all the biological processes which are based on soil water and soil air, tend to get reduced and ultimately evaporate. Along with these, the plants' strength to draw the nutrients diminishes. By shutting out the natural nitrogen, these processes keep on raising the need for chemicals and at the same time keep on decreasing the soil's capacity for their absorption. It is important to remember that organic manure can at best moderate the evil consequences for some time. It can neither prevent the consequences nor restrain these for long, just as good men forced into a company of evil and aggressive persons cannot act together for long.
- (f) The higher-than-normal concentration in the soil of the selected salts affects the balance in micro-elements which is extremely important for plant health. These compounds set off a chain of recombinations with other forms of salts. As a result, certain ions get themselves attached to soil particles by knocking off certain others. The knocked-off elements get leached out of the soil. This may mean toxicity caused by the excess of certain elements and shortages of certain other elements. Also, as a result of new combinations, certain elements become insoluble and unavailable to plants.
- (g) Whereas an organic manure generally maintains balance of trace elements, the addition of chemicals affects this balance. This is because many of these micro-elements are sensitive to large changes in the concentration of cations<sup>7</sup>. For example, when ammonium ions are too high in relation to potassium, the plant tissues are likely to get killed. Excess of phosphate on calcareous soils may lead to zinc deficiency. Ammonium sulphate may leach out calcium. When calcium gets depleted, the species of legumes which are calcium-demanding will not grow. Use of

7. Cations are positively charged particles.

ammonium sulphate increases magnesium availability and hence the possibility of magnesium toxicity on acidic soil. High sulphate availability may cause copper deficiency. Calcium can pick up phosphate from sodium and potassium and immobilise it. If potassium sulphate and calcium nitrate happen to be added at about the same time, this will create calcium sulphate which is insoluble. Chemical compounds generally tend to make iron, manganese, boron insoluble.

- (h) There is the phenomenon of antagonism between salts. If we put phosphate and also iron or calcium, it will antagonise the absorption of phosphate with calcium/iron. The phenomenon of ionic competition for diffusion into plant body further complicates the situation. If sodium and calcium happen to be equivalent to potassium in concentration, the sodium/calcium will prevent the entry of potassium into the plant body.

### *Chemicals reduce humus, aeration etc. and force out natural nutrients*

The importance of balance in trace elements is often overlooked though homage is paid to it in theory. These are "life chemicals" needed in small quantities. They are present in the soil in such small quantities that these are mentioned as parts per million and in some cases, even per billion. Yet, the deficiency or excess of any of these elements affects the growth and certainly the vitality of the plant. Discoloration and death of the growing plants are among the manifestations of micro-element deficiency. When there is a deficiency of several elements, even the quantity of yield may turn out to be quite low. This happens under a law of Nature which is called the Law of the Limiting Factor. Even though the original formulator of this law, Liebig, had adumbrated it with reference to only the macro-elements and this had led to an over-emphasis on the importance of nitrogen, phosphate and potassium (NPK), the law is valid with reference to micro-elements, too. According to this law, it is the nutrient which is most deficient that decides the level of nutrition. This phenomenon in farming can be explained by an analogy from transportation. The odd vehicle which adopts three tyres from a Rolls Royce and one tyre from Fiat is limited in its speed by the capacity of the Fiat tyre.

A peculiarity of the trace elements is that these are normally all very poisonous, if present in the soil in more than very minute quantities

and in a form readily available to plants. Hence it is dangerous to administer these minerals/elements artificially. To the contrary, the organic manure, being a bulk of organic substances, nearly always maintains a balance of these elements. It is well-nigh impossible to maintain a balance of micro-elements if chemical fertilisers are used.

In Nagarjun Sagar area in Andhra Pradesh, an excess of molybdenum was reported to be poisoning the plants. Widespread zinc deficiency is reported from Punjab and Haryana. The farmers in the latter states are now applying zinc in small dressings. But what will happen when several more elements will start showing pronounced imbalance? Can this matter be left to the guessing game of humans?

There is a kind of harmonious relationship between the soil, plant and the microbial population. Application of chemical fertiliser, even with organic manuring, means disturbance to the harmony. It is analogous to an effort at orchestration with provision for some overactive drums and some superfast *tablas*.

The effect of applying chemical fertiliser, even with organic manure, can be gauged by linking up two palpable facts. Nowhere in the world does a farmer like to expose his field to chemical fertiliser alone. He uses some organic manure. This has not prevented the ill effects. Between 1882 and 1952, the area of world desert rose from 1100 million hectares to 2600 million hectares. This expansion of desert was indeed attributable to deforestation and the pulverization of soil arising from the use of chemical fertilisers.

#### POSTSCRIPT

After the completion of the above article, one major development occurred in the Government policy and two esteemed commentators raised some queries. Far from pruning chemical fertiliser use, the Government has decided to raise the import of fertilisers during the current fiscal year, 1988-89. The justification which is being trotted out for this higher import is that the offtake was poor in recent years merely on account of the last three years of droughts in succession and that abundant rain this year would lead to a huge spurt in demand. What need to be pointed out are (i) that the trend of decline had set in even before the onset of the drought and (ii) that the threats of floods/overflows of field boundaries, too, can be no less potent inhibitors of fertiliser use than the droughts. Besides, the Government itself ought to have felt concerned about the harm to the soil and the higher incidence of pests caused by the chemical fertilisers, the cumulative effects of chemical fertilisers and pesticides on plant and animal nutrition, their adverse socio-economic and ecological effects in terms of high-cost agriculture, widening social disparity, release of nitrous

oxides piercing the ozone layer, and decimation of the gene pool consequent on the drastic reduction in species diversity which chemical-dependent farming seeks to promote. Unfortunately, our Scientific Advisers to the Government are tending to behave more like technicians lacking holistic understanding or perspective.

Now to the queries. A prominent leader of voluntary work movement, famed for social experiments with inexpensive techniques accessible to common farmers, who found from experience that organic farming can yield bumper crops and is opposed to chemical use, asked: "Would you not support the supply of zinc or boron where the soil has remained deficient in some trace elements despite the use of organic manures? If there are deficiencies of other micro-elements—manganese, cobalt or copper—should we still desist from supplying these minerals? Would that not be another kind of dogmatic rigidity?"

### *Deep-rooting Plants and Weeds provide remedies to the micro-element deficiencies*

Another commentator, a noted political economist, said: "The harmful effects of chemical fertilisers are generally acknowledged. But many people claim that if organic manures and chemical fertilisers are both used—or if organo-mineral compounds are manufactured in the factory itself and then applied to the soil as composite products—there could be bumper crops and yet no adverse effects on the soil. This claim is contrary to your statements. Why are there no controlled experiments to test your thesis and their claims? Moreover, if some soils have become deficient in zinc and/or other micro-nutrients, why should we not apply the relevant mineral compounds to the soils in requisite quantities after testing the status of the soil in respect of each of these micro-nutrients?"

There are natural, organic methods of remedying the micro-nutrient deficiencies. Before we come to the remedies, let us first try to see why and how these deficiencies occur. Prof. E.W. Russell in his classic work "Soil Conditions and Plant Growth" writes: "It is worthwhile stressing in this context the importance of a well-developed root system for maintaining an adequate supply of these elements to the crop. A crop whose root system is stunted, or shallow, or restricted in any way, is more likely to show a deficiency than the one with a well-developed root system."

We need to remember that the use of chemical fertilisers is often responsible for damaging the soil structure and for the formation of pans



at shallow depths of the subsoil, which prevent the plants from striking deep roots.

About zinc deficiency, Russell says: "It is sometimes due to an unfavourable soil structure which restricts root development". "Compacting of soil can also induce zinc deficiency probably through its effect on restricting the root system." "Zinc deficiency may also sometimes be induced by high phosphate manuring of calcareous soils low in available zinc". Russell himself suggests the natural remedy for this deficiency. "It can be ameliorated by growing deep-rooting crops, such as lucerne, or allowing the indigenous weeds to grow and then discing them into the soil".

About boron deficiency, too, he says that it is cured when the plants develop a deeper and more extensive root system.

About the upsets in iron nutrition of plants, he says that this is a "phenomenon aggravated by poor aeration, by a high concentration of bicarbonate and a high level or available phosphates in the soil"; and the foremost solution he suggests is "grassing the orchard down, and gang-mowing the grass between the trees and leaving the mowings on the surface." "It can often be controlled by adding large quantities of organic manure, such as farmyard manure, to the soil, though care must be taken not to raise the bicarbonate ion concentration to too high a level as can happen if a heavy easily-decomposable green manure is ploughed in."

About copper, he says, "organic matter in the soil holds the copper very strongly and is a safeguard against copper deficiency".

All these point to the potency and primacy of an organic approach and the harm caused by the inorganics.

Now, it would be interesting to know why the emphasis is on growing deep-rooting plants or allowing weeds as a cure for mineral deficiencies.

Sir Albert Howard in his book "The Soil and Health: A Study of Organic Agriculture" explains it as follows. The topsoil is not the only source from which the plant draws its nourishment. The subsoil, i.e. the part of the soil derived from the decay of rocks in the geological process, is a depository of raw material. It always includes mineral elements—potash, phosphate and many elements including the rarer ones. There is a power in the root of all plants, even the tiniest, of absorbing them from the soil solution. "But how the soil solution gets impregnated with these

substitutes? Mainly through the dissolving power of the soil water, which contains carbon dioxide in solution and so acts as a weak solvent. It would appear that the roots of trees, which thrust down into the subsoil, draw on the dissolved mineral wealth stored there and absorb this wealth into their structure. In tapping the lower levels of water present in the subsoil—for trees are like great pumps drawing at a deep well—they also tap the minerals dissolved therein." The "weak solvent" in the subsoil is the wonder of Nature's creation. It helps suction by plants and is also a measure for conservation. A "strong solvent" would have been a force for dissipation of the subsoil mineral wealth.

It needs also to be noted that the plants' hair roots are highly judicious absorbers of the minerals. In a natural state, they tend to draw only the requisite quantities of elements. Their power of discrimination, selectivity and accuracy as absorbers of the plants' requirements can never be taken over by humans. When man seeks to overwhelm this natural function of plant hair roots by causing forced penetration of certain elements into plant bodies, the system gets disrupted.

## *Plant hair roots are highly judicious absorbers of minerals from the subsoils*

As for the commentator's suggestion for controlled experiments for testing the conflicting viewpoints, it is very welcome. The problem is that our ICAR is so convinced about the indispensability of chemicalisation that it does not regard such controlled experimentations as necessary, even though it is the body whose responsibility it is to conduct such experiments and which has the resources for it.

As for the other suggestion for testing the soil's status in respect of each individual trace element and thereafter spraying the requisite quantities on the plant bodies or as dressings on the soils, let us refer to Russell again. He says: "The problem of assessing the trace element status of a soil from chemical analysis of the soil is very difficult. First of all, the uptake of a particular plant from a soil depends not only on the level of the active form of that element in the soil but also on the availability of many other elements, both major and trace, and both essential and non-essential for growth. Second, the level of that element needed for the effective functioning of the plant cells depends to some extent on the level of many other elements....."

"The assessment of trace element deficiencies from field trials (too) can be very difficult, particularly in soils in which several elements are deficient; for supplying only some of the deficient elements may give either little or no improvement in crop growth, and not until all the elements have been given, will vigorous healthy growth take place...

"The division of trace elements into essential and non-essential is not absolute. Sometimes an element can be beneficial if another is in short supply...

"Many elements will be toxic to plants if it is present in too high a level ...."

The question is : what is too high a level ? The amount of requirement diverges very widely from element to element. The uptake can vary from 0.001 kg. per hectare in case of one element to 0.5 kg. per hectare in case of another.

The best course, therefore, is to understand the ways of Nature, to co-operate with Nature, do organic farming and grow varieties of crops, by rotation and intercropping on the same soil. Some of these crops will have to be deep-rooting. These are the best ways of restoring the fertility of the soil. This does not mean that trace elements can never be applied. But when there are far more effective and less risky ways of tackling the problem, why should we prefer the un-natural method ? The case of the "push-button" system is vicious like the enchanting smile of the witch. □

### Hitlerism Against Nature

WE ARE FOND OF extolling the achievement of man and are apt to talk with pride of his 'conquest of nature'. This is at present of the same order as the Nazi conquest of Europe. As Europe is in revolt against the tyrant, so is nature in revolt against the exploitation of man. When man preys upon man it is a form of cannibalism. When men sets out to 'conquer' nature by exploitation, it is no less a form of cannibalism, for man is a part of nature. If he is to survive, he must learn to co-operate with the forces which govern nature as well as with his fellow man. If he refuses to learn this lesson, nature will hit back and exterminate him no less surely than the oppressed masses of tortured Europe are already hitting back, and will shortly exterminate the tyranny that has been ruling them since 1940.

—From the book "The Living Soil" by E.B. Balfour published in 1944.

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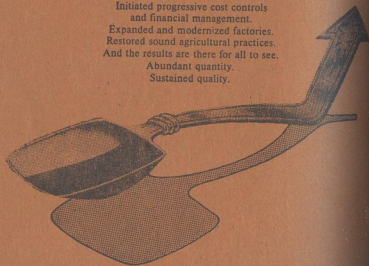
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