Studies in Humanities and Social Sciences, Vol. VI, No. 1, 1999, pp. 159-175

Agricultural Modernisation and Education: Contours of a Point of Departure

KRISHNA KUMAR
Delhi University
Delhi

The year 1966 was an unusually important year in the history of independent India. As time goes by, it appears that 1966 might qualify to be seen as a turning point in post-independence history, or at least as a year when certain existing tendencies consolidated to bring about a virtual end of the earlier era and its contradictions. The broader contours of this year are familiar enough, but it may be useful to recall them briefly for the sake of easy reference later. The year started with the death of Prime Minister Lal Bahadur Shastri less than two years after he had succeeded Jawaharlal Nehru. His death came as a sudden end to the dramatic event of a war with Pakistan—a war which influenced not only India's economic and social priorities for a long time to come, but also her placement in the political geography of its neighbourhood. Only three years earlier India had fought a war with China. Though the outcome of the 1965 war was rather different from the one fought in 1962, both wars contributed to the self-perception of India as a country surrounded by hostile neighbours. The war with Pakistan was fought at a time marked by the shortage of staple food, mainly on account of the failure of the monsoon which was to be repeated in 1966. The perception of food scarcity being just as crucial a battle to be won as the war with Pakistan was reflected in the slogan that Shastri gave to the nation in his brief tenure as Prime Minister: '*jai jawan, jai kisan.*'

This slogan served to give Shastri a sort of halo in the popular mind which he otherwise would not have had, given the brevity of his tenure and his unassuming personality. In both these aspects he presented a contrast to Jawaharlal Nehru. Shastri's image, or rather its contrast to Nehru's image, seems to have played a major role in shaping the internal politics of the ruling Congress party and even the general political landscape of India in the post-Nehru interregnum which concluded with the choice of Indira Gandhi as Prime Minister after Shastri's sudden death in early 1966. It has been said that Shastri's period represents a weakening of decision-making mechanisms in the

Congress party.[1] If it is true, at least a part of the explanation lies in the 'de-centring' that Nehru's demise implied, given his charismatic personality and his record as a fighter for independence, particularly in association with Gandhi. But 'weakening' is a word one sees repeated in Shastri's period and then, after him, in the context of the social fabric and the economy. One sphere in which the social fabric was frequently reported to be showing signs of weakness throughout 1966 was that of youth-adult relationships. An upsurge of student agitations seems to have taken the adult society by surprise.[2] Crisis of values, decline of character, weakening of social control, and influence of politics were the conceptual tools with the help of which commentators of the period tried to explain why youth had become so restive and indisciplined. And if politics was among the factors affecting the young, it did not seem to be doing too well in its own world of organising state policy. The biggest challenges in political life had to do with ongoing resistance to land reforms and economic pressures of the World Bank and the United States on an already indebted economy.[3]

Large landowners constituted a major component of the social forces which had been working for some time to undermine the weak but significant moves made in the fifties towards making the distribution of land less inequitable. These moves had had two main objectives: social transformation and improvement of agricultural productivity. While more than seventy per cent of the population was landless and nearly half the people who owned land had less than an acre. Abolition of the *zamindari* system and the imposition of land ceiling were the major steps which had been taken under Nehru to ameliorate this situation. The real value of these steps was greatly reduced by the time taken to put them into effect and the legal loopholes left in them which enabled the target groups to circumvent them.[4] These groups had also succeeded in cornering the major share of the benefits provided by the state under the Community Development programme and the schemes launched to mobilise cooperative action and public credit for the poor. Yet, despite their successes in manipulating the state's attempts to equalise material opportunities, the rich landowners, their political representatives, and many articulates groups in the urban intelligentsia persisted in their perception of the government's approach as one carrying signs of a 'communist' approach which needed to be resisted.

In order to appreciate the authenticity of such an apprehension it is necessary to step a little deeper into the atmosphere of ideas prevailing in India in the mid-sixties. The Cold War had spread far enough to form social territories of intellectual influenced wielded by

the two super-powers, the US and the USSR. The former had a distinct edge as far as the Indian intellectual territory was concerned. Free enterprise and freedom of expression ('cultural freedom') were used as signposts of protection against the onslaught of communism. The contrary construction was struggle against American imperialism. With its small but influential English-educated elite, India was attractively placed to receive American influence in different spheres of its civic life, particularly in the spheres of higher education, administration, and the media. Direct political influence was, of course, a matter of constant effort, and for this economic pressure, especially in the context of food scarcity and indebtedness, was a readily available instrument. In the background of India's external policy choices, the application of economic pressure, directly by America or through the World Bank, took increasingly crude forms even as America's feeling of its loneliness in its aggression against Vietnam grew. But cultural and intellectual means of building a domestic hegemony in favour of America's long-term interests was just as crucial as the relentless application of pressure on the food front and on India's agricultural policy. The general presence of American names, topics and textbooks—subsidised to attract the Indian student and teacher—in the syllabi of Indian universities was supplemented by the provision of scholarships for research and professional work in America. The dominance enjoyed by American media, especially its new agencies, and the popularity of magazines like *Time*, *Life* and *Reader's Digest*, provided yet another layer of support to the construction of an ethos favouring American involvement in India's civic life. No Soviet media agency could perform this function, given the nature of the Soviet press and the conditions of its operation in the home country. Subsidised popular magazines and children's books did slightly better, but the Soviet presence remained marginal to the public space occupied by the English-educated Indian intelligentsia. The same could be said of Soviet textbooks and student exchange programmes.

Besides the creation of an intellectual ethos, specific efforts were made to facilitate the penetration of India's fledgling industrial economy especially the upcoming sector of industries involved in agriculture. Devaluation of the Indian currency and concessions for foreign fertilizer companies were the two major targets of American pressure. These were manifest pressures; far less visible were sustained research and promotion efforts to find the means of supplying technical solutions to food scarcity involving the use of American agro-business products. These attempts had began in the fifties, but up until the early sixties, ideas of technical improvement in agriculture had to

compete with socio-political solutions, involving redistribution of land and erosion of traditional structures of dominance. Wars with China and Pakistan, two consecutive failures of monsoon, and Nehru's death were among the factors which could be said to have accelerated the pressures favouring technical solutions, but external conditions and forces undoubtedly played an important role too. The sequential structure of this drama in India was not very different from what had happened in Mexico earlier.[5] What precipitated the pressure on India—on her government, and especially its food minister—in the mid-sixties to fully embrace technical remedies was a dramatic development in the United States. The publication of Rachel Carson's *Silent Spring* in 1962 had given rise to an unprecedented public debate on the degradation of the environment due to the use of chemicals in agriculture. The adverse publicity and legislative action generated by the debate made American fertilizer and pesticide companies intensify their search for foreign markets. The US Department of Agriculture—a 'wholly owned subsidiary of the pesticide industry,' according to Enrlich (1978)—and the World Bank were directly leading this search.

India offered a highly suitable environment for the combined growth of American agro-business, including its interests in fertilizers, pesticides, and hybrid seeds. Here was a country with a growing population, prone to malaria, apprehensive of famines, and socially led by a westward looking class of post-colonial elites. And it had a huge body of professionally trained manpower in the sciences and the social sciences, which had been socialised to view desirable change and improvement in India in terms taught by western, especially American, experts. Above all else, India had a vast farming sector waiting to be penetrated by the countless meanings of the word 'modernisation'. Agricultural universities, set up after the model of American land-grant colleges, had initiated the process of shaping Indian expertise under American guidance. Although these universities were not in a position to provide the kind of opportunities of close interaction between industrialists, engineers and farmers as the land-grant colleges in America had been opened to provide (Noble, 1977), they had nevertheless begun to perform the simpler role of propagating the virtue and means of profit-seeking among the bigger farmers. The inevitable image of the capitalist farmer as a model lay embedded in the new knowledge and attitudes that agricultural universities and research organizations in India were to provide with American help, both in terms of training of experts and financial help.

Education Commission

The mid-sixties, and particularly the year 1966, are also important in the history of post-independence education in India. The Education Commission (EC), popularly known as the Kothari Commission after the name of its scientist chairman, D.S. Kothari, was appointed in July 1964 and it submitted its report two years later in June 1966. No other report has received as much attention in the context of education as the Education Commission report (ECR) has over these thirty years since its submission. Its voluminous size—it runs into some one thousand printed pages—justified by its all-encompassing frame of reference and its association with J.P. Naik who served as its member-secretary, give it a unique place on the shelves of institutional and office libraries concerned with the planning and study of education. It constitutes a 'whole' perspective on education, in the sense that just about every stage and aspect of education is discussed by it (unlike the two major commission reports preceding it and the two others written afterwards). But what gives the ECR its distinctive place in social history is its articulation of the agenda of modernisation. If one were to summarise its thousand pages in one word, that word would surely be 'modernisation'. The title of the report, in fact, reveals this single most important theme by linking 'education and national development.' Modernisation *meant* nation-building through development, and education was the prime instrument for this project in the discourse of the sixties which the ECR signifies. Myrdal, an admirer of the ECR, summarised it by saying that it envisaged a change in the attitude and values of 'the whole people' under a socio-cultural revolution oriented towards modernisation (1970).

The opening chapter of the ECR provides us with a hierarchy of national problems for which 'national development' must provide a remedy. Agricultural modernisation is the remedy for the first of these four key problems: self-sufficiency in food; economic growth and full employment; social and national integration and political development. That this ordering is no coincidence or an editorial choice alone is clarified in the first sentence of the discussion: 'The first and the most important of these (problems) is food.' This is followed by a quotation from Gandhi: 'If God were to appear to India. He will have to take the form of a loaf of bread.' The paragraph then goes on to establish the importance of self-sufficiency by referring to the rate of increase in population. Using a twenty-year perspective, the ECR says that even if the birth-rate is reduced to half, about 46 per cent of the 1966 population will be added by 1986. 'On the basis of present trends,'

the report says, 'in another 10-15 years no country is likely to have a surplus of food to export.' Precisely what the rhetorical value of this statement is indicated in the next sentence which says: 'even if such surpluses existed, we would have no resources to import the huge quantities of food required, or even to import the fertilizers needed. The basis of giving top priority to food self-sufficiency thus stood verified: it is not 'merely a desirable but a condition for survival'. (p.24).

The theme of self-sufficiency in food finds recurring mention throughout the first chapter. It is emphasized time and again that self-sufficiency in food can only be achieved by applying the principles of science to agriculture. The concept of science is seen as being synonymous with that of modernization. Science-based technology is said to define the difference between traditional and modern societies. 'In a traditional society production is based largely on empirical processes, experience, and trial and error, rather than on science; in a modern society, it is basically rooted in science' (p. 12). 'Science' is treated here as an institution rather than as an approach to knowledge, or else it would be difficult to see why the empiricism of the so-called traditional societies, based on trial and error behaviour and experience, does not qualify to be called science. In the structure of meaning that the ECR builds for its argument, science is apparently a symbol, or rather a synecdoche in which a symbol stands for something much bigger of which it is a part. It is meant to remind us of a complex set of values which together stand for 'modernisation.' These values include a secular outlook, freedom from traditional ways of thinking, and faith in change. The last item is recorded with reference to the irreversibility of the steps taken towards the goal of modernisation. The text says: 'if one tinkers with the problems involved or tries to march with faltering steps, if one's commitments and convictions are half-hearted and *faith is lacking*, the new situation (i.e. the situation representing the outcome of our efforts to modernise) may turn out to worse than the old one' (p. 32) (emphasis added). One can hardly miss the threat embedded in these words and its use to counter all doubts and debates that might be raised in the context of modernisation. Today, thirty years later on, we can notice how the discourse of scientific temper and modernisation was so dependent on the tenacity of faith in them. It is also clear that the discourse was unable to accommodate the critics of modernisation despite according a place of honour to Mahatma Gandhi's words in the outset of the discussion on national development.

The details of the EC's strategy for applying education towards

achieving the goal of agricultural modernisation appear in Chapter XXIV which is titled 'Education for Agriculture'. Two major recommendations made in this chapter stand out. One concerns the promotion of specialised higher education in agriculture as a science by the establishment of an agriculture university in each state and a related ancillary institutional structure. The other major recommendation is to reject the Basic Education (BE) approach in favour of a general, academic elementary education programme. It is easy to grasp the rationale for the first for it is consistent with the EC's overall perspective on modernisation of agriculture. The ECR takes pains to elaborate on the requirements of modernisation in agriculture to the extent of projecting manpower requirements for trained 'agriculturists', i.e. graduate farmers, in the coming years. In this context, the ECR comes closer than in any other chapter to mentioning the ground reality or the socio-economic conditions in which educational development was to take place. As Malcolm Adiseshiah pointed out in his forward to Naik's *Education Commission and After* (1982), the EC avoided the danger of falling between normative and positive positions by deliberately choosing the normative path. It is interesting to note that while projecting the manpower needs for agricultural modernisation the EC saw fit to take the positive route by noticing the prevalence of a highly inequitable distribution of land in Indian society. It is another, and of course a highly significant matter that the distribution does not disturb the EC. It recognises that 'at present there are nearly 6 million farms of 15 acres or more (out of 50 million forms)' (p. 669.) This mild and brief acknowledgement is made in order to explain the projected figure of farmers who might become graduates in the next two decades; if we assume that ownership will change at 3 per cent a year, this means nearly 200,000 new farmers inheriting such farms every year. It seems reasonable to think that by 1986, 1 in 50 of these may be an agriculture graduate' (p. 669). This statement should suffice to reveal what role the EC envisaged for education in the context of the severely inequal access to land in rural society. The role was to enable the bigger landowners to enhance their material opportunities.

This was the vision embedded in the new strategy of agricultural modernisation which was named a little later as the Green Revolution. That the ECR should be so happily reconciled to the Green Revolution strategy of rich landowners being given priority attention in order to enable them to act as pace-setters is hardly surprising. Members of the EC's agriculture education sub-committee included the representatives

of just about every section of the establishment of agricultural research. The agricultural universities at Pant Nagar and Bangalore, Indian Agricultural Research Institute, the Indian Council of Agricultural Research and the Fertilizer Association of India were among the organisations represented in the sub-committee. The Rockefeller Foundation, which had been active in supporting agricultural modernisation research in Latin America and Asia, was also represented in the EC's sub-committee. Although the Indian agriculture research apparatus as a whole had developed under American guidance, the Rockefeller Foundation's own presence in India at the time needs to be appreciated for its own sake. In collaboration with the Indian Council for Agricultural Research, the Rockefeller Foundation had been promoting research for the production of high-yielding varieties of staple crops in India, particularly wheat. By the time the EC was established, the Foundation had reported exciting breakthroughs in similar programmes in Mexico and the Philippines. The central theme of these success-stories was the new wheat plant's ability to guzzle chemical fertilizer along with water without falling over.[6] Only very resolutely neutral students of post-war economic history can doubt that the edifice of the new knowledge and research in agriculture was constructed at least partly to boost the interests of the American fertilizer industry, and not just to protest the earth's poor from hunger. The final thing worth noticing in the composition of the EC's sub-committee on agriculture education was the complete absence of anyone representing Gandhian rural institutions. A liberal approach to framing the group on agriculture and education would surely have taken the existence of these institutions into account, especially when the group was going to deliberate on the fate of BE as a model for elementary-level schooling. We can legitimately suspect that Gandhians were kept out of the sub-committee in order to avoid any dilution that might have occurred due to their presence in the course charted for rural education in general and agriculture education in particular.

Basic Education

The EC's stand against BE is recorded in the sub-section entitled 'Agricultural Education in Schools (Classes I to X).' This sub-section starts by taking note of the prevailing position of agriculture-related instruction in primary schools as a craft in Uttar Pradesh, Gujarat and Maharashtra. These three states are singled out as instances on the ground that in the remaining states the number of schools offering agriculture education as a 'craft'—an essential part of diction of BE—

is less than the proportion in Maharashtra. By choosing Maharashtra as the lower cut-off point for portraying the limited achievement of BE, measured in terms of the introduction of agriculture as a craft, the EC is able to ignore all other states. Apparently, the EC chose this editorial device in order to make BE look a minor development. Also, in the vocabulary associated with BE, *all* rural crafts were perceived as being related to agriculture and rural life. The primary craft around which a great deal of the basic school curriculum was structured was weaving, which included spinning. By denying the relationship between weaving with agriculture, the EC achieved two semantic purposes: one, minimising the spread of BE in the context of agriculture-related education; two, promoting the new, modern concept of agriculture as a craft unrelated to the diverse traditional crafts associated with village life.

Having demonstrated that the input made by BE into direct training of children in agriculture as a craft was so limited, the sub-section under discussion goes on to make its negative recommendation. The words used for this purpose are so remarkably indirect and carefully chosen that they deserve to be quoted in full. The quotation is also valuable for it records the thought-process involved in the withdrawal of official support for what was the only major attempt made in our country to move education away from its colonial legacy:

> As has been made clear at several places in the chapter, massive application of scientific knowledge and skills is basic to the modernisation of our agriculture. We recommend, therefore, that the period which can be spent in schools should be utilised in imparting a sound general education, with particular emphasis on mathematics and the science. This, we feel, would be the best preparation for coping with the rapid changes that are bound to characterise our agriculture in future. It is because of these and other considerations that we have been unable to endorse the organization of formal courses in the schools for educating the primary producer (p.659).

Why did the EC choose such heavily cloaked words? Indeed, 'being unable to endorse' is indirect enough, but 'the organization of formal courses in the schools for educating the primary producer' takes the cake for opacity in the history of official educational jargon. This long phrase has been used in lieu of 'Basic Education.' As a scheme of instruction, BE did indeed represent an organization of formal courses aimed at training the child in a productive craft, but the point could

have been made more simply.

The reason for the EC's choice of an indirect, opaque reference to BE too is easy to surmise. It is simply the need to be politically acceptable. The association of Mahatma Gandhi's name with BE had given it a halo and an extra-official status. It is not that progress in introducing the Basic approach had achieved extraordinary speed anywhere, but the effort had had consistent official support and access to Plan funds. All of the first three Plan documents had discussed Basic primary education with enthusiasm and a certain degree of imagination. The Second Five Year Plan document (1956-61), for instance, had mentioned the need to link Basic schools with development activities taking place in the village. The Third Plan document (1961-66) repeats this and records the intention of converting teacher training institutions into the Basic approach. In contrast to this enthusiasm, the draft outline of the Fourth Plan, published in the August of 1966—that is, two months after the submission of ECR—has just a one-line mention of BE: 'Basic education will be strengthened by developing carefully selected schools and introducing in other schools work-oriented curricula and citizenship training' (p. 314). This mention is consistent with the line taken by the ECR in another section which we will presently discuss, namely that of replacing BE with 'work experience', suggesting that the two are the same. But even this brief mention of BE disappeared in the final Fourth Plan document.

The dispensability of Gandhi and his approach to education had a wider context. By the mid-sixties the legitimacy of Gandhi's perspective on development was reduced to the minimum. It is a well-grounded popular belief that Nehru' perspective on India's development was antagonistic to that of Gandhi. In a recent review of Nehru's policies Parekh (1995) has argued that in the later part of his Prime Ministership Nehru grew somewhat receptive towards the priorities and institutions associated with Gandhi. If this reading has validity,[7] Nehru's death marked the end of whatever token presence Gandhi's recalcitrant legacy had in the highest decision-making structures. In any case, the war with China had given a strong impetus to these structures for moving towards untrammeled modernisation of defence and defence-related scientific-industrial infrastructure. Needless to say, the urban intelligentsia, including the bureaucracy, agreed on this matter with the leaders of industry and trade.

Many other changes took place in the early sixties, symbolising the impending end of Gandhi's utility as a reference point for

determination of policy. In education, the setting up of the National Council for Educational Research and Training (NCERT) in 1962 marked the closure of a period in which Gandhi's ideas in education were held as being important. The opening of Central Schools to cater to the needs of union government functionaries transferable throughout the country, and the establishment of the Central Board of Secondary Education (CBSE) were in harmony with the emerging ethos. These steps had a functional rationale, but they also had symbolic significance. They marked the consolidation of a national elite and the grant of freedom to it to transcend the constraints of local or provincial, socio-economic realities. Their existence made the problems of decentralised planning in education—which had axiomatic importance in Gandhi's approach—look irrelevant to progress. The use of 'national' and 'central' in the naming of these organizations permitted a disproportionate amount of funds to be spend on a privileged section of society. The naming also allowed them to tighten their hold over the symbolic inheritance of colonial rule. This process of the final transfer of colonial symbolic assets to a national elite was most visible in the context of language. Contrary to the recommendation of every panel ever set by the government over the question of medium of instruction, the NCERT, the Central Schools and the CBSE were able to patronise English whose continuation as an associate official language of the Union was ratified in 1967. The use of English by these institutions had a functional justification, but the symbolic underpinnings of this justification were far more significant if seen against the background of the political and economic forces vying to shape the Indian nation in the sixties.

Writing of the ECR was a part of this process of the creation of a national discourse on development. Its common-sense value lay in the fact that India needed a national system of education just as it had national systems of railways, postal services, and so on. What made the task in education somewhat inconvenient was the climate created by Gandhi's idea of BE, although the Zakir Hussain Committee had tried to give a 'national' label to it at the time of its inception. Both as an ideology and as a scheme of instruction, BE was not compatible with the demands that a nationally organized system might make. Ideologically, it was supposed to be sustained by local communities, local markets and the local environment. As a scheme of instruction, it was rooted in the idea that learning arises out of children's interaction with the real world in their immediate vicinity. This interaction was supposed to be guided and enriched by the use of the local language,

locally available material, and the teaching of locally practised productive skills. The teacher's active membership of the community was assumed, and where it was not possible (as in the case of someone brought in from elsewhere), a teacher was expected to achieve it by personal effort and participation. It was mainly due to this concern that housing for the teacher was considered an essential part of the school design.[8] Clearly, the concept of BE could not be an attractive proposition for investment of scarce resources from the perspective of the planners of 'national' development.

The phasing out of BE is explained with a little less brevity elsewhere in the ECR. In Chapter VIII, which is about school curriculum, the reason why BE needs to be substituted by the incorporation of work-experience in a general academic curriculum is mentioned:

> The programme of BE did involve work-experience for all children in the primary schools, though the activities proposed were concerned with the indigenous crafts and the village employment patterns. If in practice basic education has become largely frozen around certain crafts, there is no denying the fact that it always stressed the vital principle of relating education to productivity. What is now needed is a reorientation of the basic education programme to the needs of a society that has to be transformed with the help of science and technology. In other words, work-experience must be forward-looking in keeping with the character of the new social order. (p. 351)

This commentary suggests that BE was deficient in two respects: one, in getting confined to certain crafts; and two, in being incompatible with the promotion of science and technology. The list of work experiences given by the EC is indeed long, consisting of some sixteen activities for lower and upper primary stages alone. The last item of this is 'work in the farm' (p. 364). The chapter on agriculture and education, which we have discussed earlier, also mentions the need to orient the school curriculum towards agriculture, even in urban schools. This was supposed to be done not by introducing agriculture as a subject, but rather by orienting the existing courses in general science, biology, social studies and mathematics towards the rural environment and the problems facing 'the Indian community' (p. 660). These discussions do look a little incoherent, but the point conveyed is clear: that a curriculum structured around the ideological preferences of BE will be replaced by a general academic curriculum

in which the experience of productive work will be given a place of sorts. The image of learners implied in this new alternative is that of 'forward looking and progressive farmers' whose prototype, as we noted earlier, were to be found amongst 'the third of the cultivators who now own more than half of the agriculture land' (p. 661). They were to serve as the initial demonstrators of the many financial benefits of the package known as 'improved farming practices' which included chemical fertilizers, pesticides, hybrid seeds, and the new farming machinery.

Our analysis implies that in the new climate of rural development priorities which the EC anticipated, the idea of equal opportunity was to be confined to education; in the material context the decision to give greater opportunity to the richer farmers had been taken. Its justification lay in the rhetoric which projected self-sufficiency in food as an isolated objective, and the application of science and technology—both in the form currently recognised by American agro-business research apparatus—as the sole means of achieving it. Thus, a sharp mismatch was enforced: planned depeening of inequalities in the material opportunity structure, and the projection of meritocratic equal opportunity in education. It is hardly surprising that the former plan made the latter thoroughly invalid. The Green Revolution strategy did indeed achieve self-sufficiency in one area of food supply, namely cereal, but it exacerbated the stratification of rural society, most glaringly in the parts of the country where it was applied most intensively. It pauperized the middle-range peasant, and forced the smaller peasant to become a land-less labourer, a likely migrant to an urban slum. The trend was clear within the first few years of the implementation of the agricultural modernisation strategy. By the time the 1971 census was taken, the proportion of agricultural labourers in the rural population had increased by as much as 11 per cent over the last census: from 18.8 per cent to 29.9 per cent. As a commentary by Mehta (1973) noted, India was witnessing a concentration of land rather than its redistribution.

Destitution of the landless and small peasants, and prosperity of the big landowners became the norm, leading to, and being reinforced by the increasing dominance of the large landowners in politics. The changes introduced in agricultural policies in the mid-sixties made a critical difference to the means by which the richer farmers could exercise their hegemony over the rest of the village population. The changes that benefited them most included the provision of support prices by the government for agricultural products, available of credit

for purchase of hybrid seeds, chemical fertilizers, and farm machinery, and subsidies on the sale of fertilizers. The precise manner in which the bigger landowners (in many parts of the country they were the ex-*zamindars* and members of princely families) dominated the village political scene so as to corner the lion's share of state benefits and new commercial opportunities differed from state to state. The picture in the Vindhya-Gangetic belt of the north was close to the one Srilal Shukla portrayed in *Raag Darbari* (1908). The portrayal focuses on the absolute hold of a single family on the village cooperative society, the *gram sabha*, and the governing body of the local college. Drawing on a case study of a village in the North Arcot district of Tamilnadu, Kurien (1992) has depicted the emergence of new dependencies even as old ones were getting eroded owing to the changes in agricultural productivity. The new agriculture requires stable sources of water. Commercial selling of water by well-owners according to this study, has sharply enhanced their power and status.

Another aspect of the ECR's support for agricultural modernisation that was being intensified in the mid-sixties is relevant to this discussion. In its opening chapter discussed earlier, the ECR had talked about the goal of providing every citizen with a balanced diet without specifying what a balanced diet might mean. It appears that the concept of diet was changing in the sixties, mainly on account of changes that were occurring in the culture of farming. Escobar (1995) has cited nutrition and balanced diet as important items of the post-war discourse of international development agencies, the World Bank, and USAID. Lack of scientific knowledge about nutritional requirements of the human body was projected as a major cultural deficiency responsible for poor socio-economic development in Third World societies. A vast battery of adult education primers, school textbooks, extension services and media programme was pressed into service in order to tell people what they must do to make their diet balanced. Inevitably, the exhortation revolved around the need to include eggs, meat and milk so that the diet would have enough protein. Conspicuous by its absence was the mention of pulses, and we can guess why. Even as the new, scientific 'knowledge' of balanced diet was spreading, the most important source of balance in the Indian diet was diminishing under the auspices of the Green Revolution. Bardhan (1984) has pointed out that in the post-Green Revolution period the 'production of pulses, a major source of protein for the poor, has largely been stagnant' (p. 11). Between the early sixties and the early seventies the area under pulse cultivation declined by two a

half million acres, resulting in a drop in the per capita availability of pulses.[9] To fully grasp the meaning of this phenomenon, we need to recognise that pulses facilitate the absorption of cereal protein by providing amino acids which compliment the ones found in cereals such as wheat and rice. It is this combination that makes the protein available in a cereal-pulse diet balanced. Palle and Collins (1978) have called it 'usable' protein and have treated it as an indice of the quality of protein. They say:

> Thus, if Green Revolution displaces legumes in the traditional diet, not only does the overall protein intake fall, since legumes have two or four times the protein content of grain, but just as critical, the *balanced combination* of grains and legumes that improves the biological usability of protein is also undercut. (p. 153)

From this perspective, we have not even begun to perceive the nutritional impact of the agricultural modernisation strategy associated with the Green Revolution. The reason why this strategy proved so detrimental to pulse production was at least initially the simple fact of farmers being coerced to devote their best lands to high-yielding varieties of wheat and cash crops. With the increase of canal irrigation seepage made a great number of pulse producing areas unfit for this purpose.

Conclusion

The EC had talked about a 'larger way of life and a wider variety of choices' (p. 33) as a major promise of modernisation. The changes brought about in people's dietary options—we have examined just one out of many—by the Green Revolution strategy of agricultural modernisation can be seen in that manner too, and the nutritional implications of these changes can be ignored or treated in a simplistic manner. That would be in keeping with the style of analysis customarily applied to India's agricultural modernisation in the context of the use of chemical fertilizers, pesticides, and hybrid seeds which depend on them and on heavy irrigation. Barring exceptions,[10] agricultural economists have treated an increase in fertilizer use per acre, for example, as an indicator of progress, completely ignoring the impact of fertilizer-driven productivity on the natural fertility of the soil. Nadkarni (1991) has noted the recent trend of decline in the rate at which productivity of land had increased in the early phase of the

intensive use of chemical fertilizers. It is a disturbing fact that economists have generally failed to show interest in such obvious aspects of agricultural and economic growth as depletion of the physical environment, the misery caused by displacement of massive numbers of people due to large-scale irrigation schemes involving big dams and canal works, and migration to metropolitan slums as a result of pauperization.

Given the narrow limits within which the process of India's agricultural modernisation has been examined, it is hardly surprising that its impact on children's lives has not been a subject of discussion or debate.[11] This paper has made an attempt to show how the EC's wholesale espousal of the modernisation package involved the jettisoning of BE in favour of a return to general academic elementary education. It can be argued that the EC was advocating a new type of general elementary education for rural children, not a return to the old colonial mode which BE had started to erode. It can also be argued that EC's modernist version of an activity-centred academic education for rural children did not materialise because of inadequate funds and the lack of political will. A commitment to educational development by the state and central governments was one of the assumptions made by the EC; a stable political environment was another major assumption.[12] If these assumptions proved false, we can hardly blame history for that; rather, we must ask if the purely normative discourse of educational planning, which the EC exemplified in such perfection, is a valid preparation for change. In the absence of a realistic estimate of what could be expected in the emerging socio-economic and political scenario in the mid-sixties, the general and academic elementary education programme recommended by the EC in place of BE certainly proved detrimental to the spread of education in rural India. The persistence of a high drop-out rate, with almost no change in over three decades which have passed since the submission of the EC, is a proof of this conclusion although its detailed verification must wait for further research.

NOTES

1. See Frankel (1978) for a detailed discussion.
2. For reports on student agitation, see *EPW*, August 27, October 8 and October 15, 1966. For an editorial comment, see the issue of October 1, 1966.
3. According to K.N. Sharma's 'Self-reliance and Aid', (*EPW*, 2:50, 1967; pp. 2209-11), the total PL 480 assistance to India up to March 1966 amounted to more than one-third of the money supply with the public as a whole in India.

4. For a discussion providing a historical overview on post-independence Indian economy, see Kurien (1992).
5. The reference is to the agrarian reforms attempted under Lazaro Cardenas which were followed by a counter-revolution of sorts in the 1940s with the arrival of American agro-research enterprise backing American agro-business.
6. An elaborate account is available in Frankel (1978).
7. G.K. Arora provides a counter-view in his review in *The Book Review*, August 1995.
8. The only official committee to express anxiety about primary teachers' housing in post-independence educational history was set up some time in the 1950s. Its deliberations are documented in *Report on Primary Junior Basic Schools* (National Building Organization, Ministry of Works and Housing, New Delhi; undated).
9. See Lappe and Collins (1978).
10. Three exceptions are Narindar Singh, *Economics and the Crisis of Survival* (New Delhi: Oxford University Press, 1976) and *The Keynesian Fallout* (New Delhi: Sage, 1966), M.V. Nadkarni (1991), and H.M. Desarda (see his 'Towards an Alternative Vision', paper presented at Indian Institute of Management Ahmedabad, in a seminar on agricultural developmental perspectives. June 13-15, 1986.
11. For an early attempt, see my *Raj, Samaj aur Shiksha* (1978; rev. ed. New Delhi: Rajkamal, 1991).
12. Adiseshiah enumerates these and other assumptions in his foreword to Naik (1982).

REFERENCES

Bardhan, Pranab, *The Political Economy of Development in India* (New Delhi: Oxford University Press, 1984).

Ehrlich, Paul R., 'Preface' in Robert van den Bosch, *The Pesticide Conspiracy*, (Dorset: Doubleday, 1978).

Escobar, Arturo, *Encountering Development* (Princeton: Princeton University Press, 1995).

Frankel, Francine R., *India's Political Economy, 1947-77* (Princeton: Princeton University Press, 1978).

Kurien, C.T., *The Economy* (New Delhi: Sage, 1982).

Lappe, Frances Moore and Collins, Joseph, *Food First* (New York: Ballantine, 1978).

Mehta, Balraj, *Crisis of Indian Economy* (New Delhi: Sterling, 1973).

Myrdal, Gunnar, *The Challenge of World Poverty* (New York: 1970).

Nadkarni, M.V. 'Economics and Ecological Concern', in Kurien C.T. Prabhakar, E.R. and Gopal, S. (eds.), *Economy, Society and Development* (New Delhi: Sage: 1991) pp. 140-155.

Naik, J.P., *Education Commission and After* (New Delhi: Allied, 1982).

Noble, David F., *America by Design* (Oxford: Oxford University Press, 1977).

Baxi, U. and Parekh, B., *Crisis and Change in Contemporary India* (New Delhi: Sage, 1995).

Shukla, Srilal, *Raag Darbari* (New Delhi: Rajkamal, 1968).

FOR OUR CONTRIBUTORS

1. Use double space throughout, without any exception.
2. Spelling including hyphenation, should be consistent and in conformity with the recommendation of the Concise Oxford Dictionary, except in quotations, which must retain the spelling of the original.
3. Use single quotation marks to enclose quoted material and double quotation marks for quoted material/titles, within quotations: 'A Feminist Deconstruction of T.S. Eliot's "The Love Song of J. Alfred Prufrock"'.
4. If a prose quotation runs no more than four typed lines and requires no special emphasis, please put it in single quotation marks and incorporate it in the text. A longer quotation should be indented.
5. Number the notes serially and type them separately in double space; include references to literature within the notes.
6. Place the title of an unpublished dissertation in quotation marks.