



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

K. William Easter

*For Restricted Circulation
to Seminar Participants only*

BACKGROUND PAPERS FOR DISCUSSION
AT
THE INTERNATIONAL SEMINAR
ON
**“COMPARATIVE EXPERIENCE OF AGRICULTURAL
DEVELOPMENT IN DEVELOPING COUNTRIES
SINCE WORLD WAR II”**

NEW DELHI

25th, 26th, 27th and 28th OCTOBER. 1971

THE INDIAN SOCIETY OF AGRICULTURAL ECONOMICS
46-48, Esplanade Mansions, Mahatma Gandhi Road, Fort,
BOMBAY-I.

INDIA'S AGRICULTURAL PERFORMANCE :
ACHIEVEMENTS, DISTORTIONS AND IDEOLOGIES

Michael Lipton*

I

To evaluate recent agricultural development in India, it is necessary to state the criteria of evaluation; to describe the method that follows from these criteria; to outline the areas of enquiry to which the method will be applied in this paper; and to present the argument. Our concern here is almost exclusively with foodgrain agriculture.

Agricultural development policies, or any other policies, can be evaluated only with reference to stated judgements of value. Preferably these should specify ways in which we can measure the degree to which the value has been achieved. If, as in this case, an economist is doing the evaluation, the measures should preferably lie within the economist's field of competence. I propose to examine the positive results and shortcomings of recent agricultural development in India by reference to the following judgements of value :-¹

- (i) That increased welfare and productivity are desirable, so that the success of policies for Indian agriculture must be measured in part by the growth rate of Indian farm output--total, per person, and per unit of input;

* Asian and African Studies, Edited by Martin Rudner, Vol. 6, 1970, pp. 127-148 (Israel Oriental Society).

1 An attempt is made to justify these values, and to suggest appropriate ways to measure their attainment, in the author's Assessing Economic Performance, Staples, 1968.

- (ii) That the more equal distribution of income is desirable, so that the success of Indian farm policy must be measured in part by its effects on the concentration coefficient² of income, both within the rural sector and for the economy as a whole;
- (iii) That we can judge the success of Indian farm policy in part by its contribution to 'improved composition of output', including (a) for a country like India with a balance-of-payments problem, a rising share of gross national product (GNP) in exports and import-substitutes, (b) for any poor country, a falling share of domestically-used resources (GNP plus import-surplus) in consumer goods, except in such categories of consumption (vocational education, perhaps food for hungry harvest labourers) helping to increase future production, (c) within domestic consumption, for a group with any given level of real income per head, a rising ratio of goods satisfying physical needs to goods satisfying externally stimulated desires;
- (iv) That increased individual choice, both among commodities and among ways of contributing to output (job, residence, school), is desirable;
- (v) That, because the above aims can conflict (e.g., (ii) with (iii)(b)) and put a premium on policies tending to alleviate such conflicts, and because other desiderata are easier to provide for when total resources are increasing, there is an a priori preference for growth when aims conflict.

2 A Lorenz concentration coefficient of zero indicates perfect equality; a coefficient of unity would imply that one person had all the income available; between 0 and 1, a rising coefficient is an indicative though imperfect measure of rising inequality. Ibid, ch. 2.

So we must judge recent Indian agricultural development by its contribution above all to growth, but also to equality, output composition, and individual choice. But agricultural development cannot be judged in isolation. Comparison is necessary, to see if India has performed better or worse (a) than other poor countries, (b) than India's own past history. Furthermore, we cannot confine ourselves to internal developments within agriculture, but must consider the effect on growth, equality, output composition, and individual choice in the non-agricultural sector also.

Therefore the following evaluation of Indian agriculture considers how successfully its development since 1948 has helped India to achieve the values outlined above (both inside and outside agriculture), by comparison with India's history and with other countries' recent achievements. This will be done at five levels: aggregate farm output and aggregate food output, output of particular main crops and effects on some big groups of people, changes in the village, economic planning and the ideology of agricultural development in India. In each case, we must take account of the new situation created, in the view of many experts, by the 'New Strategy' of farm development since 1965; the use of radically improved seeds, capable of doubling yield per acre (with adequate fertiliser inputs, reliable water, and pesticides), and highly profitable for the bigger farmers in areas of assured rainfall, where the New Strategy has been concentrated.³

II

Aggregate food output--total, per head, and per acre--performed very poorly in British India, 1891-1946. The performance deteriorated over time. Since 1947,

3 For a brief account of the pros and cons, see Ditchley Foundation, Ditchley Paper No. 17 (Population Growth), 1969.

independent India has done much better, but not well enough to keep ahead of the extra demand generated by rising real income and population; the strain of food needs on price stability and the foreign balance has continued to worsen. The new seeds are a major research breakthrough; unfortunately they are embodied in a 'New Strategy' which damages both efficiency and equity by concentrating improvements, not on the small farmers who need them most and use them best, but on the big farmers who supply the bulk of food to the towns. The composition of output, therefore, may be expected to continue to move in favour of foods with a high cost per calorie--milled rice, milk--and growth of output of the poor villagers' foods (millets, pulses) will continue to be relatively slow.

Nevertheless, the social (as opposed to societal) improvements enjoyed by the Indian villager since independence have been huge. One must hope that the new appreciation of the results of agronomic research will encourage the planners to allocate, for the first time, sufficient resources to rural development. (The 'Second Draft Fourth Plan' 1969-74 gives scant grounds for optimism; the share of planned public development outlay for agriculture was lower than that aimed at in any previous Plan or Draft Outline, except the abortive 'First Draft Fourth Plan' published in 1966). At present, the new seeds can be used by, at most, 1 in 12 Indian farmers; the other 11 need Institutions as well as Incentives and Inputs. Past experience, and the ideology of the expert advisers, suggest that the real technical changes may still be abused to perpetuate the biases of Indian rural planning in favour of urban dwellers, and in favour of the big farmers who sell them food. These biases do not stem from any lack of goodwill, much less from any conspiracy against the small farmer. The origins of planners and politicians,

their daily contact with urban influences, and the political pressures of organized town employers and workers, are to blame. But at least one might hope that these will soon cease to find support in the implicit ideology of the visiting expert.

III

First, what has happened to the major aggregates--output and availability of food and of total farm output? In both cases, there has been an enormous improvement on the historical experience. Average compound yearly growth of foodgrain output in the whole of British India, 1891-1946, was only 0.11 per cent yearly, as against population growth at 0.67 per cent yearly; after trade, total foodgrain availability per person between 1911 and 1941 fell by 26 per cent. Moreover, the background for independent India's food planning was even worse than these figures suggest, because matters deteriorated towards the end of British rule. Between 1921 and 1946, foodgrain output grew by 0.13 per cent per year in British India, while population grew at 1.12 per cent per year.⁴ The data for British India exclude Burma, but of the areas now partly in Pakistan, Bombay-Sind performed considerably better than average and Greater Bengal much worse. Hence the performance in 1891-46 for the area corresponding to today's Indian Union cannot have been much different from that of British India as a whole.

In respect of non-food crops, agriculture in British India performed somewhat better. Output grew

4 G. Blyn, Agricultural Trends in India, 1891-1947, Philadelphia, 1966, pp. 94-107. Blyn shows that no reasonable choice of price-weights, base-years, methods of trend measurement, or assumptions regarding statistical reliability or coverage can seriously affect his results.

by 1.31 per cent per year in 1891-46, though again there was some deterioration after 1921, and non-food output growth in this period, at 1.08 per cent per year, fell slightly behind population growth.⁵

Not only was this poor growth performance getting worse over time but what growth there was came almost entirely from acreage expansion. In Blyn's words, 'The (1891-1946 annual) average rate of change in aggregate yield per acre of all crops was nearly zero, 0.01 per cent per year, a remarkable summary of over fifty years of agriculture upto the middle of the Twentieth Century'. What is more, foodgrain yield actually fell over the period, by -0.18 per cent per year, and the trend was getting sharply worse, with the period 1921-46 showing yields declining by -0.44 per cent per year ; improvement came only from non-food crops, where yield grew by 0.86 per cent in 1891-1946, accelerating to 1.15 per cent in 1921-46.⁶

Already at Independence the opportunities for expansion of acreage in independent India were severely limited while the food situation could hardly have looked worse. Food output, per person and per acre, had been declining for 55 years before Independence at a sharply accelerating rate. In view of all this, the aggregate performance of independent India's agricultural policy has been remarkably good. It is nothing like as good as the official estimates, which suffer from a variety of distortions: a) linear instead of logarithmic growth trends; b) failure to allow for underestimation and for once-for-all statistical and law-and-order improvements in the early 1950s; c) upward bias due to good performance in the final

5 Ibid, p. 112.

6 Ibid, pp. 150-1.

It has been suggested that the limits of food-grain acreage expansion are not so severe after all.¹² The raw figures give some support to this view. Comparing three very good years, we find that the proportion of growth in foodgrain output, explicable by constant yields on an increasing land area, was 38 per cent from 1949-50 to 1961/62 and fell by barely one-fifth, to 30 per cent, in the period from 1961/62 to 1967/8.¹³ Certainly this suggests that new land is getting less promising as a source of extra output, but not drastically so. But the reality is more serious because (i) the cost of reclaiming land goes up since the cheapest is reclaimed first, (ii) recent rises in foodgrain acreage have been increasingly at the expense of non-foodgrain acreage, not of virgin soil, (iii) reclaimed land is of increasingly poor quality (so that maintenance of foodgrain acreage growth, into decreasingly suitable land, reduces the prospects of raising yields).

12 Notably by M. L. Dantwala, in Agriculture in a Developing Economy, 1964.

13 In other words, yield increases alone accounted for 62 per cent of output growth, 1949/50-1961/62, but for 70 per cent, 1961/62-1967/68. Statistical Abstract, India 1958-59, pp. 437, 433, for 1949/50; ibid., 1965, pp. 52, 58, for 1961/2; Reserve Bank of India Bull. (Dec. 1968), p. 1571, for 1967/8. To estimate the proportion of output growth due to acreage growth between 1949/50 and 1961/2, we calculated

$$- [\log(1961/2 \text{ area}) - \log(1949/50 \text{ area}) \\ + \log(1961/2 \text{ yield}) - \log(1949/50 \text{ yield})]$$

Similarly for 1961/2-1967/68. Since an increase in area would normally reduce ceteris paribus yields (because better land is cultivated first), both estimates overstate the contribution of acreage increase--the second perhaps somewhat more.

At once more alarming and more encouraging are the heavy demands made on foodgrain production by India's policy of growth. Improvement of the rate of growth of per-caput food-consumption standards, from minus 1 per cent yearly towards the end of British period, has not improved nearly as much as is necessary, given the required rates of output expansion to meet the new needs of independent India. The real income per head, instead of stagnating as in the earlier period¹⁴, has been rising by about 1.5 per cent yearly, which on normal elasticity estimates means that demand for food per head will grow by about 1.2 per cent yearly in a country as poor as India.¹⁵ India's foodgrain growth since Independence, therefore, has been insufficient to avoid increasing dependence on imports to balance demand and supply. U.S. food aid has not sufficed to meet the whole bill; has involved big freight and other costs; and, desirable as it is in itself, has damaged the Indian farmer by reducing both his price incentive to produce¹⁶ and the Government's sense of urgency about agricultural investment and development.

IV

It is too soon to be confident that the 'New Strategy' has secured a lasting solution to India's food problems. The improved seeds pay only if the water supply is assured in both quantity and timing; that cuts out at

14 K. Mukerji, Levels of Economic Activity and Public Expenditure in India, Gokhale-Asia, 1965, ch. IV.

15 Streeten and Lipton (eds.), The Crisis of Indian Planning, loc. cit., p. 96.

16 J.S. Mann, 'The impact of Public Law 480 imports on prices and domestic supply of cereals in India', Journal of Farm Economics (1967), pp. 131-46.

least four-fifths of India's farmland. For the lucky farmers on the remaining land (not one-fifth but up to one-third of India's farmers--on average irrigated holdings are smaller than others), the improved seeds pay only those who also use large inputs of fertilizers. If a man must finance these with moneylender credit at 35 per cent, or pay half his crop to the landlord, he will not use the new seeds. So only the 20-25 per cent of farmers big enough to do without moneylender credit benefit. For these--20-25 per cent of one-third, i.e. at most 1 in 12 farmers--the 'New Strategy' is potentially a real 'green revolution'. In wheat there are many such farmers, and so far the technical problems have been largely overcome. In other crops this is not so, and 1967-8 and 1968-9 have barely improved on 1964-5 levels (for rice, not even that).

One does not wish to sound too pessimistic. 'In five years, the improved seed varieties...have spread from nothing to 10 per cent of Asia's area under cereals...Three things are radically new about the new technology. It includes the new seeds in a scientifically balanced programme of inputs; it is backed by (allegedly) durable incentives; above all, it is tied to an ongoing programme of seed research, designed to meet snags as they arise.'¹⁷ The new seeds are aseasonal and quick-maturing, and they thus enable two or even three crops to be taken yearly in soils that previously supported only one. The plants have stiff stalks, and can thus take big doses of fertilizers without falling over because of the weight of the heads of grain; yields can thus be profitably doubled or even better. I doubt, however, whether a programme confined to 1 in 12 farmers can solve India's rural problem. The concentration of attention on well-off farmers ensures a growing surplus of food for the towns, but does nothing to alleviate mass rural misery; nor is it even efficient, for it is the small family

17 Ditchley Foundation, Paper No. 17, op.cit.

- 12 -

farm that has access to 'free' labour, and the big farmer cannot profitably buy nearly as much labour to support each unit of the new inputs. Yet, because small farmers seldom enjoy cheap credit, they are being pushed out by big farmers-- both by landlords who are resuming personal cultivation by expelling tenants, and in Andhra and the Punjab by retired colonels and barristers buying land and turning to 'farm business' for the first time. This process helps neither efficiency nor equity.

If (say) 50 per cent increases in marketed food-grain surplus are achieved by the top 10 per cent of farmers, and if (as is plausible) food prices consequently fall by about 5 per cent, then 70 per cent of farmers will suffer-- those with a small marketed foodgrain surplus, but too poor (or too uncertain of water-supply) to increase it by adopting the 'New Strategy'. The bottom 20 per cent of farmers (who are so small as to be net buyers of foodgrains, and who must eke out farm income by work for wages) will benefit, both by the break in food prices that must come if the marketed surplus rises and--in the short run--by the new jobs created by the 'New Strategy'. With this big reservation, the 'New Strategy', with its emphasis on big farmers, seems to be an inequitable as well as an inefficient way to use the enormous benefits of the new high-yielding seeds. Maximum urbanised food surplus, not high total food output or equitable allocation of rural incomes, has been the main criterion. Once more, the urban tail has wagged the rural dog. This is 'development from above' with a vengeance.

V

Some of the facts presented permit us to evaluate India's agricultural achievement in the field of total food output.

(a) Growth: Both in itself and on a per-acre and per-person basis, total food output has grown much faster since Independence than before Independence. Recent careful comparisons with both China and Pakistan also suggest that India's foodgrain growth has been far from poor.¹⁸ The increase, however, has not been fast enough to support India's much more ambitious targets and achievements in levels of real income. Food price inflation, shortages, and balance-of-payments strains have been alleviated only partly by U.S. food aid, which has had unfortunate side-effects on rural development. Most strikingly in 1966 and 1967, industrial growth has had to be artificially held back by deflation, in order to avoid excess demand for agricultural products. The New Strategy may alleviate this, but urban food surpluses will continue to be maximized at the cost of efficient resource use within agriculture.

(b) Equality. The pattern of resource allocation has plainly increased intra-rural inequality. The New

18 P. Bardhan, 'Agriculture in China and India: Output, Input and Prices', Economic and Political Weekly, Annual Number, 1969, pp. 54-59: 'The Chinese per capita amount of processed foodgrains production was about 32 per cent higher than the Indian amount around 1952... (but only) about 22 per cent higher than the Indian amount around 1966'. Excluding years of catastrophe-- 1960 and 1961 for China, 1965 and 1966 for India-- 1952-1967 trend growth of foodgrain output, officially estimated, in China and India is identical (2.5 per cent). Since both input availability and price incentives moved much more favourably for the Chinese farmer, the Indian performance is rather better. As for Pakistan, E. Mason, Economic Development in India and Pakistan, Cambridge, Mass., 1966, p. 48, shows that, for foodgrain growth over the most recent climatically comparable period, 1960/1-1964/5, 'India was not conspicuously worse than Pakistan.... (3 per cent (yearly) as against 3.2 per cent)', whereas India's foodgrain growth from independence to 1960, slow as it was, was very much faster than Pakistan's (or British India's).

Strategy will help the town dwellers, the big farmers and the agricultural labourers, but most small surplus farmers will find their rate of improvement retarded. Rural-urban inequality has grown faster than in China, and regional inequality much more slowly than in Pakistan.¹⁹

(c) Output composition. This will be covered in detail when we disaggregate (infra). But it is already clear that resource allocation to big surplus farmers, plus the disproportionate growth of urban incomes, must raise the share of agricultural output comprising such foods as milled rice, milk and fruit and vegetables: food with high cost per calorie to be eaten by the urban employee, who in an Indian context is relatively rich. Since it is he who would otherwise buy imports, this may improve output composition vis-a-vis the balance of payments, but plainly not vis-a-vis human need. Incidentally, it means also that the food value of Indian food output is rising much more slowly than its money value at constant prices, because the latter value is being pulled up by the rising share of foods with a high cost per calorie.

(d) Choice. The improvement of knowledge, communication (especially rural radio) and freight transport has greatly raised the choice of the villager since 1947: the choice of food eaten, of food grown (less and less necessarily the same), of place of residence. The

19 Bardhan, loc. cit., shows that both price trends and input assignments for the Chinese farmer were much more favourable than for the Indian farmer, and that--perhaps surprisingly--the Chinese farmer managed to retain a bigger, and growing, share of his output than the Indian farmer. Details of regional inequality are scarce, but the Pakistan problem is documented in Mahboob ul-Haq, The Strategy of Economic Planning, Oxford, 1966, pp. 92-116, and the Indian position in G. Myrdal, Asian Drama, New York, 1968, pp. 563-574.

deteriorating man/land ratio, and the failure of the proportion of workers in non-agricultural employment to expand at all between the 1951 and 1961 Censuses, have further limited the job choices open to the landless, who are a growing proportion of rural people. Above all, the improvement in the secular trend of food availability per head has raised the proportion of people whose choices are not constrained by the fact that one false move may mean starvation; but one would expect producers' willingness to take risks, especially in farming, to lag behind such a change.

VII*

A selective success story, a great improvement on British rule, but distorted by urban bias to favour big farmers and urbanized crops, with damaging effects on efficiency as well as on welfare: this is the story so far, and the new strategy looks like more along the same lines.²⁴ What have been the effects on the village? Here a consideration of food trends must give way to a wider discussion of rural policy. The average villager is much better off now than 25 years ago, in ways that do not show up in income-per-head statistics; in the ways that do show up, it is likely that the rich villager has got much richer and the poor villager very slightly richer.

 * Section VI, which gives an analysis of the performance of particular food crops, has been dropped.

24 The New Strategy may partly correct one serious distortion of India's farm development: the much greater emphasis on non-food outputs. Whatever the income-elasticities of demand, it is impossible to reconcile widespread calorie deficiency, a 'socialist pattern of society' a la Nehru, and an increase in officially-estimated foodgrain production by only 50 per cent from 1949-50 to 1964-5, while non-foodgrain production grew by 75 per cent. (Reserve Bank of India Bulletin (March 1968), p. 339).

In the field of social change, the Indian villager is now more likely than not to enjoy :

- (a) A usable road to a big town for 10 or 11 months of the year.
- (b) A primary school for his children.
- (c) Freedom from malaria.
- (d) Free or very cheap medical care for dysentery and worms (though often 8 or 10 miles distant)
- (e) A radio somewhere in the village.
- (f) Oil lamps in the village street.
- (g) A recently restructured and fairly hygienic well.
- (h) Near-complete security from actual starvation.
- (i) Sufficient local growth in the supply of co-operative credit to prevent further rises in moneylender interest rates.

None of these was accessible to the typical villager of 25 years ago.

If we may distinguish societal from social change, some indicators of the former can also be briefly presented.

(a) The institutions of 'democratic decentralization' have transferred much power (and real resources) from traditional ruling castes like Brahmans to castes with local majorities like Marathas,

(b) There is not much evidence of a real rise in resources, power or status for the ex-untouchables, despite (i) government commitment going far beyond tokenism (e.g. set proportions of places in universities and civil service for 'Scheduled Castes'), (ii) genuine caste mixing, up to intermarriage, among a small intellectual elite, (iii) scattered signs of revolt by ex-untouchables themselves (the 'conversion' to Buddhism of the Mahars is clearly socio-economic, not religious), and (iv) the need for big castes competing for power to compete also for the allegiance of the ex-untouchables.

- 17 -

(c) Many of the standard accompaniments of social and economic change in the villages have speeded societal change. Ex-untouchable doctors give medicine to Brahman patients, who are less and less reluctant to take it. A Brahman who wants to send his son to school must accept the possibility that he may well sit next to a Bhangi. More and more villages are served by buses, and here too the castes must mix. In the real citadels of pollution, the village wells, the segregation of untouchables is observed still.

(d) The position of village moneylenders and merchants has been somewhat eroded, by co-operative credit and by better transport to urban shops.

(e) The absolute shortage of land has prevented serious erosion of the position of the landlord, except when he voluntarily resumes personal cultivation in order to exploit technical change or to escape land redistribution.

(f) Extended family has been partly replaced by nuclear family only in villages near big towns. (This is a hunch only).

(g) Traditional systems of social security (extended family, sub-caste) have been seriously eroded by group enlargement, by the replacement of traditional by formal legislative and allocative bodies (part of what F.G. Bailey calls 'encapsulation'), and by new outlets for resources competing with group insurance. The State has not significantly replaced these traditional systems.

(h) Conversely the farmer has come to look to the State for a mass of new services--farm extension, artificial cattle insemination, fertilizer distribution, loans to build wells, litigation, etc.

(1) The proportion of landless village families has risen, to above 1 in 5.

While there would appear to have taken place a revolutionary change in the way villagers live, there has been much less than revolutionary change in the way their society is structured as regards power, resources and mobility. This is because the old ruling groups have used their old powers--to employ, to lend, to rent out land--to capture the new institutions--co-operative farming and credit, local authorities, etc.²⁵ At village level, this imposes two constraints upon the growth of farm output. First, the decline of traditional security systems has preceded the development of modern ones, reducing the small farmer's will and ability to take risks; the risks are of less catastrophic outcomes than, say, in 1919-20 (sale of land rather than starvation), but the lack of orderly societal change undoubtedly reduces the reserves that might otherwise encourage innovation. Second, the traditional structure of rural power and ownership introduces a variety of resource-misallocating devices: credit monopolies in the hands of moneylending castes, inter-caste litigation producing land waste, reluctance to consolidate holdings, and above all a slow rate of transfer of labour and land to the uses where they have the greatest comparative advantage. The abundant evidence of positive response to price, whether of acreage, output, marketed surplus, or labour, in no way refutes the view that responses are slower, and elasticities are smaller, than in developed environments where social mobility is greater. This adds up to the fact that, at village level, the current policy of Incentives and Inputs will certainly induce some progress, but that without Institutions the progress will be needlessly

25 The work of Thorner, Epstein and Potter is relevant here; cf. references in Streeten and Lipton, *op.cit.*, pp. 135-7. A further explanation is the steering of resources to big farmers with big marketed surpluses, supra.

slow and costly.

It is not easy to compare the Indian village experience with that of other less developed countries. Much good fieldwork exists, but no attempt has yet been made to collate and compare it, even within India. Certainly the Pakistan experience with 'basic democracies' and the Indian experience with panchayati raj share two features: the success in improving the civil servant's knowledge of local conditions, and the failure to represent small farmers, or indeed to refrain from entrenching traditional ruling groups. But of the micro-level performance we know almost nothing. Do big villages, mountain villages, one-caste villages, villages near towns do better? The answer is silence. One or two scattered studies link the speed of innovation diffusion with the absence of 'faction' at village level, but that is all.

Short of writing a book, one cannot say much about Indian agricultural planning as such. Five general points can be made. First, agriculture is the least planned or plannable sector, since it comprises over 60 million individual farm operators, many of them insulated to some extent from the market by selfconsumption. Second, the verbal priority accorded to agriculture throughout the Plans has been very high. Third, the actual resources devoted to agriculture, both by direct public action and through incentives in the private sector, have been and continue to be much lower than can be justified in terms of either economic returns on resources, or the requirements rightly set for agricultural output; it remains true that the worst-off and most undercapitalised 70 per cent of India's workers, those in agriculture, produce under half India's GNP because they have less than a quarter of India's capital and skills in each category. Fourth, this has long been obvious in the persistent under-fulfilment of foodgrain output targets (much more serious than

in manufacturing output), in the persistent failure of agricultural investment to achieve even its small planned shares of investment public and private, and--despite this--in the persistent ability of the agricultural sector to produce most extra output per unit of extra capital employed. Finally, it is a mistake to accept at face value claims that the New Strategy puts things right, and that the Fourth Plan gives a new "top priority to agriculture"; the New Strategy's emphasis on a marketed surplus of high-quality grains is the old Strategy plus the New Agronomy, a welcome improvement but not a transformation; and "agriculture's planned share of public development outlay is lower (in the Draft Fourth Plan of 1966) than the share proposed in any previous Indian plan or Draft Outline".²⁶

VIII

It is not only India where rural planning has been permeated by urban bias. This interpenetration is an almost inevitable part of the politics of early economic development (that is what renders the attempts to escape--Tanzania, Cuba, China, Taiwan, Israel--so fascinating). The planners themselves, often first-generation escaped villagers, are incessantly exposed to urban pressures. Resource allocation proceeds by a series of false equations: welfare = growth = industrialisation = urbanisation now = maximum surpluses extracted out of agriculture. No wonder that less developed countries have typically allocated only 16 to 25 per cent of planned development investment to agriculture²⁷ -- i.e. to the most undercapitalised and hence least productive 65-85 per cent of their

26 Fuller documentation of all these points appears in Streeten and Lipton, op.cit., pp. 83-148. The new Fourth Plan (May 1970) does nothing to change this.

27 E.M. Ojala, 'The programming of agricultural development', in H.M. Southworth and B.C. Johnston (eds.) Agricultural Development and Economic Growth, Ithaca, 1966, p. 561

workforce, who are usually those best able to use extra investment. (The "low absorptive capacity" argument ignores the responsiveness of farmers to incentives, the use of selective farm investment to raise absorptive capacity, and the evidence of rates of return). The disproportion is worse than it seems, since the big investments in power and in railways benefit few producers outside industry, and since educational spending in rural areas means mainly the funnelling of gifted children out of those areas.

The urban bias of Indian farm planning, the source of its huge achievements in centralised seed research and irrigation to help the big farmers grow more food for the towns, is increasingly also a source of inequity and inefficiency. It is an international phenomenon, and the complaints of persons as diverse as Frantz Fanon, Gandhi, Mao Tse Tung and Julius Nyerere testify to its ideological pervasiveness. The truth is that the old Marxian analysis, in terms of Bourgeoisie and Proletariat, is of little use for quasi-feudal agricultures being integrated by exploitation into the urban nexus. Especially where landless labourers are few and peasants many, the true class struggle is between Food Buyer and Food Grower. Urban workers and urban employers both want cheap food, the latter in order to pay low money wages yet keep a well-fed and contented workforce; and they both want public resources to go to power, railways, and other enterprises lowering industrial running costs. Farmers, big and small, want the opposite. In India and elsewhere, the situation is complicated by the townsmen's success in detaching the big farmer (with a big urban food surplus) from the village interest in general. The big farmer tolerates cheap food (made possible by food aid) in exchange for subsidised fertilisers and seeds, and for a truce on land reform. . Not, of course, that there is any conspiracy! The interests of the powerful

coincide. Nobody need conspire at all. And if the foreign adviser and the international organisation give the ensuing policies the seal of ideological respectability--tant mieux!

And they do. A beautifully clear statement is that of Southworth and Johnston: "As the largest sector of the economy, at least in the earlier stages of development, agriculture is the source of man-power for industrial expansion, it is the source of essential supplies for maintaining a growing industrial population and of exports to be traded for industrial goods, and it is the chief potential source of savings for non-agricultural investment".²⁸ Typical of more brutal throw-aways is Papanek: "Saving in Pakistan, as in most underdeveloped countries, meant squeezing the peasant. Because more than half the national income was generated in agriculture, the bulk of savings had to come from that sector."²⁹ That last sentence would apply equally to West Pakistan, to the "sector" living in places with populations over 1,000, and to the "sector" of people whose last names, after transliteration, began with the letters K to Z! That economists of the great distinction and subtlety of Southworth, Johnston and Papanek should advocate the extraction of a surplus of rural saving over rural investment, not because urban investment has a higher return (it doesn't) or generates bottleneck outputs to free other sectors in a non-reciprocal way (it doesn't) but because rural income is about 51 per cent of GNP rather than about 49 per cent, testifies to the frightening power of received dogma. A criterion of resource allocation that has no justification on economic grounds receives automatic endorsement by highly skilled professional economists. If anyone thinks I exaggerate, try rewriting the Southworth-Johnston statement

28 Loc. cit., p. 4.

29 G. Papanek, Pakistan's Development: Social Goals and Private Incentives, Cambridge, Mass., 1967, p. 207.

as follows : "As the largest sector of the economy, at least in the earlier stages of development, agriculture is the recipient of manpower released as industrial productivity grows, it is the recipient of essential supplies for maintaining its own growing population, and of most imports to be traded for industrial goods, and it is the chief potential recipient of saving for non-industrial investment". Equally logical--or illogical.

The economist is haunted by two ghosts: the conflict of efficiency and equity, and the cross-section relationship between industrialisation and income per head. The second seems to imply anti-rural growth policies, sharpening the conflict. Such an economist might recall reculer pour mieux sauter. The fastest and most successful way to industrialise is not to go baldheaded for maximum transfer of rural food, savings and workers to an industrial sector that will be strangled for lack of rural growth. The historical priority of agricultural development is well known; but the historical use of such development, to extract surpluses for industry, is a poor precedent for India. Western Europe began development with a true urban labour shortage; spare land; labour-saving farm innovations; and above all only 30-50 per cent of people in the rural sector, few so hungry as to suffer reduced work efficiency. India has mass urban joblessness; no spare land and hence little response of total food supply to higher urban incomes; labour-using innovations; and 70-80 per cent of people in the rural sector, many working badly for want of food.

The Doctrine of Surpluses is a miserable misuse of historical analogy, and a very inefficient way to set about the economic development of monsoon Asia. The new seeds are a wonderful chance for India to go beyond the great achievements of urban-biased rural development. This

has turned secular decline in food output per person, and stagnant yields, into stagnant output per person and rising yields. The new seeds--if they go to the family farmers who make labour-intensive use of them, and if they are supported by appropriate rural institutions of credit and crop insurance--can transform the situation; but in the context of the "new" Strategy, of urban surpluses from big farmers enjoying more and more inputs, the new seeds will merely confirm the past.