250

Economic Development
India Project
Appendix to ~~C/55-10~~
W. Malenbaum
May 19, 1955
(Revised to C/55-30
December 8, 1955)

APPENDIX

DRAFT DEVELOPMENT PLANS, 1956/57 - 1960/61

(Second Five-Year Plan Period)

by

Wilfred Malenbaum

Appendix: Draft Development Plans, 1956/57 - 1960/61
(Second Five-Year Plan Period)

I. Proposals Available

Three such drafts have come to our attention. (1) The first was in the form of a working paper of the Federation of Indian Chambers of Commerce (FICC), prepared in December, 1954. It was circulated to a special FICC committee, and never made publicly available. It has apparently now been published with revisions. Neither the final document, nor newspaper account of its major recommendations, is available here. In the present statement use has therefore been made of the preliminary document only. (2) The proposals of the Indian Institute of Public Opinion (IIPO) are continuous: they appear in its Quarterly Economic Report and more or less currently in the associated weekly, The Eastern Economist. Material used here is primarily from the October 1954 and January 1955 numbers of the Quarterly. (3) The Mahalanobis paper (ISI) was submitted to the government (and the press) in mid-April 1955. It was apparently prepared at the Indian Statistical Institute in response to a Planning Commission request. While Mahalanobis holds official positions with the government, and while his Institute's research is primarily financed by government, this is not an official draft document. (Only partial material is available here, from the Hindustan Times, April 14, 1955, and The Eastern Economist, April 22, 1955.)

An official draft plan is not yet available (and is not scheduled until about the end of 1955.) The Finance Minister outlined preliminary views on the Second Plan in a speech in the Lok Sabha on December 20, 1954. Official pronouncements over the next two or three months were reasonably consistent with these views. In the past month or so, statements by high government officials, especially Nehru and Deshmukh, have given evidence of new thinking on the scope of the Second Plan--more in line perhaps with some of the proposals mentioned above. Neither set of views is available here in explicit enough form to permit statistical comparisons with other formulations. Insofar as possible, however, "official" figures are nonetheless included in the tabular presentations.

With respect to all the proposals, the material here is more complete on "numbers" than on the reasons for them. Also there is little at hand on the policies, procedures, and relationships by which the numbers are to be achieved. In these circumstances, there can be only limited analysis of the appropriateness of the proposals for the tasks of accelerating Indian growth over the period to 1960/61. The Appendix tables, however, also show the estimates suggested in the text. These were formulated, it will be remembered, because of the belief that the various proposals did in fact appear inadequate for these tasks in certain important respects.

II. Growth of the Economy, 1955/56 - 1960/61

Appendix Tables I and II summarize the expectations of the different plans for the growth of the economy and for the sectoral composition of the expansion in output. (On the latter point there is available only occasional "official" information). The FICC and IIPO--two organizations more intimately attuned to India's "big business"--propose rates of increase of domestic product about 50 per cent higher than do the ISI and "official" sources. In this, the IIPO is perhaps the more consistent: this organization has long held that the Indian economy has been growing at a rapid rate. Fundamental in this IIPO view is the progress in "industrial production which is based on the fact that public expenditure at steadily increasing rates has imparted a strong and continuing incentive to the private sector..."[1] Thus, the IIPO places India's national income for 1955/56 at 10-15 per cent above other estimates. While possibilities for error are undoubtedly great, IIPO figures on recent income levels would seem to exaggerate actual achievement. The National Income Committee data for 1953/54 (and independent CENIS calculations) give strong support for figures in the Rs. 10,000 to Rs. 11,000 crore range for 1955/56. If so, a rate of growth of 7.3 per cent would not be simply a continuation of a process already initiated.

For reasons given in the text, the prospects for attaining the FICC's 7.6 per cent growth rate are small--however desirable such a goal would be. It would seem that even the ISI (and official) targets can be met only if the development programs envisage a major effort to take up some slack in the current underemployment of resources in India.

On the pattern of income change, the different draft programs are broadly consistent. The industrial sector accounts for about one third of the expansion in all three cases, with essentially an equal share for agriculture.

---

1. Quarterly Economic Report, Vol. I, No. 1, April, 1954, p. 17. Also in Vol. I, No. 2, July, 1954, "....the rate of economic progress in India between 1951 and 1953 was the highest in the world" (p. 19) and "the sudden dynamism which has descended on India's economic system is best seen in terms of the real product of the Indian Union and the trends in consumption expenditure in the years from 1948/49 to 1953/54." (p. 17).

Table I

Growth in Domestic Product,* Second Five Year Plan

	Pre-Plan Year (1955/56) Rs. crores	Final Plan Year (1960/61) Rs. crores	Annual Rate of growth %
FICC	10050	14470	7.6
IIPO	12000	17000	7.3
ISI[a]	10800	13700	5.0
Official[b]	n.a.	n.a.	(1) 2.3 (2) 5.0 (about)
Text[c]	10000 (1954/55)	13250	5.0

*FICC and IIPO figures are for "national income." Factor payments abroad, in each of the three years 1948/49-1950/51 were less than 0.2 per cent of domestic product.

[a]In 1952/53 prices, which (according to the General Index of Wholesale Prices) are 1 per cent above the 1948/49 level, the base for all other figures in the table.

[b]No output estimates available. The growth rate of 2.3 per cent is calculated from figures released in December 1954. The 5 per cent figure is from more recent statements (early May).

[c]The estimates cover a six-year period.

Table II

Sectoral Composition of Growth—Second Five Year Plan
(Rs. crores)

Increases In:	F.I.C.C.		I.I.P.O. (a)		ISI		Text (6 years)	
Agriculture, etc.	1290	(29%)	1500	(30%)	1060	(36%)	800	(25%)
Industry	1380	(31%)	1500	(30%)	1010	(35%)	1550	(48%)
Factory (and mining)	940				600		590	
Small Enterprises	440				410		960	
Trade	1230	(28%)	2000	(40%)	480	(17%)	430	(13%)
Railway and Communication	230				110		170	
Banking and Insurance	40							
Commerce and other transport.	960				370		260	
Services	520	(12%)			350	(12%)	470	(14%)
Professions, Liberal Arts	160						80	
Government	90						230	
Domestic Services	50						10	
House Property	220						150	
Total Increase	4420	(100%)	5000	(100%)	2900	(100%)	3250	(100%)
Average Annual Income	884		1000		580		542	

(a) Sectoral breakdowns are not available. Figures shown are based on general statements, such as: "if the value of agricultural output rises by 30 per cent and that of industry by 100 per cent with a corresponding increase in tertiary activity" —an overall increase of about Rs. 5000 crores may occur. (Quarterly, IIPO, Vol. I, No. 3, p. 19). The total increase is shown for a five-year period, although inputs are presented for six years. From IIPO data available the corresponding income expansion (1955/56–1960/61) can be estimated at Rs. 5800 crores.

In this respect, the programs anticipate a very different pattern of change from what has long prevailed in India. Agriculture usually was responsible for nearly half of any over-all growth in net output. The tertiary sectors remain appreciably more important in the FICC and IIPO formulations. On this point, however, all three plans move in the direction of reducing what would appear to be some imbalance in the existing pattern of Indian output. While the text proposal is generally in line with this--and particularly with the recommendation of the ISI--there is a marked difference in the relative shares which agriculture and industry play in the expanded product. In relative (and absolute) terms, this is brought about by the major emphasis given here to the small scale industrial sector and to construction.

The three estimates show uniformities with respect to specific output (and capacity) targets in the modern industrial sector.[1] Thus, whether for steel, cement, fertilizer, chemicals, railway rolling stock, and electrical goods, or for bicycles, sewing machines, paper, textiles, sugar and edible oils, the correspondence is reasonably close. Where the figures are not essentially the same, the ISI tends to fall about midway between higher FICC and lower IIPO targets. There are also some impressive parallels in the specific uses to which more steel, cement, coal, etc. are to be put. Thus, both the FICC and the ISI want to spend about as much for expanding capacity in steel processing industries (for output of producers and consumers goods) and then to use about as much steel for output from these industries. The general impression one gets (from this distant vantage point) is that there is reasonable agreement in these Indian circles on

1. There are no obvious parallels in the total investment required or the income increase in this sector. However, this may be due in part to the limited coverage and to the "bits and pieces" nature of such data as are available here.

how much physical output of at the least major industrial products India ought to have--differences in Table II and later tables notwithstanding.

Similar comparisons for specific output in major sectors are not possible with the material available. Neither the form of output (rice vs. cotton) nor the method of its production (relative inputs of irrigation, fertilizer, improved seeds, etc.) can be compared. But all three do want an expansion in agricultural income by between 20 and 25 per cent. With respect to cottage industry, there is essentially the same absolute income expansion in the ISI and FICC schemes. Figures are also given for what has always been an important component of this sector--handloom weaving--and here the targets are about the same, involving a doubling of output. (This increase in income in small enterprises contrasts with a figure in the plan outline presented in the text of more than twice its absolute size. Admittedly this last specifically includes important components of construction, as does the ISI figure. It is not known where income from construction appears in the FICC and IIPO formulations.)

Thereafter, there are few other changes which are known to be common to the three plans. Within the trade and transport sector wide differences appear in the additional income from railways and communication in the FICC (and presumably the IIPO) proposals and those of the ISI. Here one might well argue that the ISI understated the probable income. On the other hand, the expansion visualized by FICC (and IIPO) in the commerce sector seems neither realistic nor desirable.

III. Inputs of Capital and Labor

Appendix Tables III and IV summarize the information available here on these factors. The different totals in Table III may in part be due to conceptual differences. Thus, both the FICC and the IIPO feel that their labor inputs will about equal the growth in the population of working age. (If so, the figures indicate different estimates of the size of this natural increase, especially since the FICC figure applies to five years and the IIPO to six). In any case, both organizations suggest that their programs will not aggravate current unemployment problems--"in itself a substantial contribution." On the other hand, FICC's zero increment in agriculture, etc., might be interpreted to mean that none of the expanded labor force would find employment there, but that the existing labor would be more fully utilized, given the growth of agricultural output. With this interpretation, FICC's 10.1 million can scarcely be compared with the text's 21 million, which includes 9 million previously unemployed. (The increment of 5.6 million workers in agriculture, for example, is consistent with a reduction in the agricultural working force over the six-year period.) The official total of 12 million additional workers seems quite explicitly to include 3 million unemployed. Its zero increment in agriculture must therefore mean just that: there will be no direct contribution to employment from expanded agricultural output.

In the absence of fuller statements, the figures of Table III are interpreted to mean the total additional employment that will result from the plans. So interpreted, Table III reveals marked differences in the various programs, whatever parallels were suggested above with respect to output. The IIPO sees employment for 8 million to produce Rs. 5000 crores (Rs. 7250 per additional worker); the FICC uses 10.1 million to expand output by Rs. 4420 crores (Rs. 4375 per new worker); the ISI suggests

Table III

Incremental Employment--Second Five Year Plan
(thousands)

	F.I.C.C.		I.I.P.O.[1]	I.S.I.	"Official"[3]	Text[4]	
Agriculture	0		2500 (incl. 300 for plantations)	(2) not available	0	5600	
Comm. devel.							
Irrigation							
Multi-purpose irrigation and power							
Mining	300		200		1200	500	
Factory estab.	1400		1000			1400	
Small enterprises	1500		1400			8100	
Rys. and communication	1500	6900	2900			1000	5400
Banking, Insurance, commerce and other transport	4000					1500	
Profs., Liberal arts	500					700	
Gov't. services	500					2000	
Domestic services	400					200	
Total	10,100		8,000	12,000	12,000	21,000	

(See next page for notes)

Footnotes to Appendix Table III:

(1) These figures are actually pertinent to a six-year program.

(2) Small enterprises are to provide "the principle method of liquidating unemployment . . ." (Hindusthan Times, April 14.)

(3) Currently official pronouncements refer to employment for 10 to 12 million persons. The figures and breakdown shown are from December 1954 statements.

(4) Figures are for 6 years. As indicated in the text, the many categories are not comparable with those of other plans. In particular, employment in construction of all kinds has been included within this "small enterprise" sector. See text Table IX and pp. 33-34.

12 million workers for Rs. 2900 crores (Rs. 2420 per head).[1] These wide variations are accentuated if output-employment ratios are compared on the basis of non-agricultural product alone. (5.5 million workers in the IIPO scheme with non-agricultural output in excess of that from the FICC's 10.1 million new workers). In view of the observations of the text on the past growth of employment in the tertiary sector,[2] it is interesting to note that the FICC places more than two additional workers in this sector for every one in primary and secondary activities. In the IIPO scheme, tertiary activities add less than one person for each new worker in the other sectors, despite the higher levels of per capita incomes.[3]

The only areas in which labor requirements are reasonably firm are in mining and factory establishments. Here all the programs apparently make use of the same body of technological information, and, as we have seen, for reasonably comparable outputs. These firmer estimates contribute a relatively small percentage of the new jobs, however. Again on the basis of the material available here, one can only conclude that fulfillment of the output targets of these plans need scarcely assure their stipulated employment goals. Moreover, even these latter seem low, given the magnitude of current unemployment.

---

1. See Appendix, Table V, below, which also shows the variations in new investment per additional worker.

2. The text proposal also adds a large absolute number of workers to the tertiary sector. Here however, credit is taken for employing the currently unemployed. Also, a specific and large expansion is made in government services.

3. Actually, the IIPO uses a 1:1 ratio for all primary and secondary employment other than non-plantation agriculture.

Appendix Table IV shows the total investment program of the various draft plans—although, as the notes to the Table indicate, individual components have been rearranged in the hope of improving sectoral comparability. All the plans thus reveal a heavy concentration on the broad sector of industry (though none so heavy as that of the text proposal). In each case, well over half the investment is put into this sector which yields about one-third of the increase in product.[2] Similarly, about half the investment in "industry" is earmarked in all cases for the broad construction category.

There are thus important parallels in the relative allocation of new investment. Roughly, there is also general agreement that total investment in the Second Plan have an order of magnitude about twice that of the First. More specifically, however, there are significant differences on this last point. The IIPO has the lowest total investment program and the largest expansion in net output. The reverse is true for the text proposal. It is clear that there are important differences in the capital-output ratios underlying the various plans. As is seen in Appendix Table V, this ratio varies from 1.03 to 2.24 in the various Indian proposals. It is significantly higher (2.70) in the formulation presented in the text. And here, it will be remembered, a specific argument was presented in order to justify so low

---

1. Actually, the figures include some public expenditures of a recurrent nature. These probably average Rs. 150 to Rs. 180 crores per year. The totals are thus comparable to such figures as Rs. 3500 crores for the First Plan (and Rs. 2249 crores for its public sector).

2. See Appendix Table II. The FICC and ISI "industry" figures in Table IV are understated, since in both cases the data here did not permit separation of expenditures listed under "agriculture" but which are included under "industry" in that Table.

Table IV

Investment Programs--Second Five Year Plan
Rs., crores

	FICC	IIPO (6 years)	ISI (5)	"Official"	Text (6 years)
Agric., etc.	1075 (1)	705	1150 (6)		800
Industry	4250 (2)	3650	3350		6750
Mining					250
Factory	2250	2000	1500		1600
Small Ent.					1400
Construct.	2000	1650 (4)	1850 (7)		3500
Transp. and Comm.	1400	1000	1000		850
Other	675-875 (3)	565	1000 (8)		300
Total	7400-7600	5920	6500	6300 (9)	8700 (10)
% in Public Sector	56 %	59 %	66 %	68 %	50 %

(1) Of which Rs. 500 crores are public (for "agriculture and community development) and Rs. 575 crores are private (for agriculture and rural small scale industry).

(2) "Construction" given as Rs. 1250 crores, to which I have added the Rs. 750 crores for "irrigation" (300), "multipurpose irrigation and power" (250) and "power" (200).

(3) Of which Rs. 125-325 crores are for private transport (among other things).

(4) "Irrigation" (335), "multipurpose projects" (640) and "power" (620) were combined into construction.

(5) ISI gives an "investment" total of Rs. 5600 crores and a "development" total of Rs. 6500 crores, the difference of Rs. 900 crores being government "development" expenditure of a recurrent nature. The larger total is more comparable to the familiar First Plan estimates.

(6) Includes "irrigation" (which cannot be separated out in figures available here).

(7) Includes Rs. 500 crores listed as "electricity."

(8) Composed of "social services" (500) and "stocks" (500).

(9) Also includes Rs. 900 crores of recurrent development expenditure. No breakdowns available.

(10) Breakdowns not really comparable to others, although their data have been somewhat rearranged to minimize differences. (See Text above, pp. 39-42.) Total includes Rs. 2600 crores as an estimate of non-monetary investment. Among other plans only the IIPO figures seem to allow for such expenditure, and in the amount of about Rs. 1000 crores.

a level as 2.70. The case was argued in terms of the very pointed concentration in the text proposal upon sectors of the economy in which resources were underutilized and in which labor's contribution to output might be relatively high. Hence there is the very different pattern of final output, as was seen in Appendix Table II. Almost half the increase was in the broad category of industry (as against about one-third in other formulations); within industry, small enterprises and construction provide 60 per cent of the increased income, as against 30-40 per cent of smaller totals in the other schemes. If an over-all ratio of 2.70 is used (and somewhat hesitantly) with a concentration on such sectors, it is difficult to accept the much lower ratios of other drafts, especially when their focus upon capital-intensive activities is heavier. (Note, for example, the different figures shown in that Table V for new investment per additional worker). While it is true that a 1.5 ratio can be worked out for the first three plan years, its dependence on favorable weather conditions has frequently been noted. Actual experience would appear to provide small justification for assumptions underlying the various Indian proposals.

IV. <u>Financing the Program</u>

It is obviously true (but not of much help) that large expansions in income require less investment, the lower the capital-output ratio assumed. There is little evidence available here that an over-all financing scheme has been worked out for a development effort involving about Rs. 1200 crores or more each year. It is clear that little will be gained by mitigating the problem of resources for investment through the use of unrealistic figures on the level of such resources needed. Such information

Table V

Some Comparative Ratios

	Actual		Plans				
	Pre-Plan (1) 1949/50, 1950/51	First Plan (2) (Three years)	FICC	IIPO	ISI	"Official"	Text
Annual increment in labor (millions)	2.21	1.80	2.02	1.33	2.4(?)	2.0-2.4	3.5
$\frac{\Delta I}{\Delta \ell}$ (rs.)	2000	3050	7500	7500	5400	5700	4150
$\frac{\Delta Y}{\Delta \ell}$ (rs.)	453	2040	4375	7250	2420	2630	[illegible]0
$\frac{\Delta I}{\Delta Y}$	4.4	1.5	1.7	1.03 (3)	2.24 (4)	2.17 (4)	2.70

(1) Computed from Final Report of the National Income Committee, tables 5 (p.23), Al.1 (p. 143). I taken at 5 per cent of domestic product. Investment by sectors from Mukherji and Ghosh.

(2) from official NIC estimates; based on savings ratio of 5.75 per cent; assumed.

(3) IIPO presents a five year income increase (Appendix Table II) and six year investment figures (Appendix Table IV). Calculations here assume a six year income growth of Rs. 5800 crores.

(4) Without including recurrent expenditures, the ISI ratio becomes 1.95; the "official" ratio, 1.85; Current "official" estimates should be compared with the 4.4:1 ratio implied in an official statement of December 1954. See text above, pp. 11-12.

as is available on financing these specific plans is not concrete or comprehensive enough to warrant comparative analysis. In the text above, there have been presented some general lines for financing a program in which monetary investment is almost of the order of magnitude suggested in the Indian draft proposals. In that discussion reference is also made to such specific financing proposals as were found in the Indian material available here.