October 19, 1956

From:

Wilfred Malenbaum

Subject:

Attached Report

Attached is a brief account of the activities of our research project in India over the past year. The report was prepared, just prior to my leaving India, for the Research Programmes Committee of the Planning Commission.

The research papers were, of course, prepared and mimeographed, if at all, in India; therefore, the coverage available here at this time is not complete, although I am having a few papers rerun. I welcome any interest in the attached list and indeed any inquiries prompted by the report itself.

Economic Development India Project C/56-23 India, September 1, 1956

# PROGRESS OF WORK IN INDIA -

September 1, 1955 - August 31, 1956

Wilfred Malenbaum

Center for International Studies
Massachusetts Institute of Technology
Cambridge 39, Massachusetts
October 1956

September 1. 1956

From: Dr. Wilfred Malenbaum

Director, India Project

Center for International Studies Massachusetts Institute of Technology

Sapru House, Barakhamba Road

New Delhi, India

To: Dr. D. K. Malhotra Member-Secretary

Research Programmes Committee

Planning Commission New Delhi, India

Subject: Report on a year of research in India

### Dear Sir,

- Consistent with our past discussions with members of the Research Programmes Committee, I sent you on December 16, 1955, a preliminary report dealing with the work we had done in the first 10-12 weeks of our stay in India. Under date of March 19, 1956, you wrote me that the Sub-Committee on foreign sponsored research had authorised the continuation of our work on the basis of the informal relations which we were establishing with various research institutions and groups in India. The Committee expressed interest in the work we were undertaking and in the results of these researches.
- Accordingly, I enclose the attached Report for the information of your Committee. In brief form, it tells about our group, where it worked and what it did. It also expressed my firm belief that there is in India a research need to which a group like ours can continue to make a valuable contribution. In any case, I welcome reactions to what has been done and suggestions both for the further processing of this work and for new emphasis that may be more appropriate in our future research.
  - Our year in India has essentially ended. By mid-September, there will remain only Mr. Pilhofer of the group which came over from the States. and Dr. Vaidyanathan who was brought on to our staff here a few months ago. Their research programmes will be completed by the end of this calendar year.
- In a short time, therefore, there will no longer be a formal MIT team in India. We intend, however, to maintain close association with various groups and people here over the period ahead. Few if any of our work projects are completed: further exchanges will be necessary before the data assembled are fully processed and written up. In some cases, a final draft still needs to await work now being completed in India. We intend, of course, also to maintain by correspondence some of our close relationships with key university and government people, in addition to those on specific research projects. It is our hope too that over the next year visits by Center people to India and Indians to Cambridge will help maintain the relationships already established. As you know, we at the Center feel that no phase of our research activity on economic development is more important than that which focuses upon Indian developments. It is our intent, therefore, to give sympathetic consideration to all possible ways in which work by our staff in America, India or elsewhere can be helpful in appraising the problems and prospects of Indian growth.

Finally, I would like to take this opportunity again to express to you yourself and to the members of the Research Programmes Committee our appreciation of the great opportunity we have had to observe and study the developments in Indian society and economy first hand over the past year. The individual assistance and courtesies extended to us by key university and governmental officials and by other private citizens are too numerous even to begin to recount. Despite differences of views as to what is possible and perhaps even desirable to do -- differences which may be inevitable in the course of a programme such as this -- my colleagues and I believe that we could not have been given greater access to the materials and guidance which our researches needed. I would like also to tell your Committee how appreciative we are of the hospitality extended to us by the Indian Council of World Affairs and the Indian School of International Studies. They provided me with office space (gratis) and with the innumerable additional assistance that somehow is associated with having a more or less regular visitor in their midst.

Yours faithfully.

(Wilfred Malenbaum)

Encl:

## INDIA PROJECT: PROGRESS OF WORK IN INDIA

September 1, 1955 - August 31, 1956

#### A. Administrative

The key members of the staff in India during the year were George Rosen, Walter C. Neale and Hans Pilhofer, all research associates at the Center in Cambridge, Massachusetts. Ajit Biswas, a research assistant at the Center and a candidate for the Ph.D. at M.I.T., has been in India since April 1955. (He joined the Indian Statistical Institute in April 1956.) A. Vaidyanathan, not a member of the group in the United States, was added to the staff in India in May 1956. Present plans are for him to continue his work here through 1956, as is also true for H. Pilhofer, who first arrived in India in late December 1955. Finally, I who direct the Project at M.I.T. have been in India during the year with which this Report is concerned.

Dr. Rosen was headquartered in Bombay; Dr. Neale in Poona through December 1955 and in Ludhiana through July 1956; Mr. Biswas in Delhi until he joined ISI; Mr. Pilhofer in Delhi through February 1956 and in Calcutta since then; Dr. Vaidyanathan in Ahmedabad since June 1956; and I in Delhi. The members of the group have of course had occasion to travel quite broadly in India in connection with their work.

II. While there was extensive cooperation with specific research institutions in India, there was relatively little direct employment here of
Indian research personnel. Consistent with the spirit of our advance discussions with members of the Research Programmes Committee, direct hiring
was essentially confined to statistical assistance, occasional translation
and computational and clerical work. Perhaps the most extensive expenditures
for these purposes were in connection with the industry study in Bombay.
Apart from this, the local staff of the other members of our group did not
exceed the full time equivalent of two, generally non-professional, people.

- III. Research was done at or with the following Indian organizations:
  - 1) The Association for Indian Trade and Industry, Bombay:
  - (2) The Ahmedabad Textile Industry Research Association, Ahmedabad;
  - (3) The Indian Institute of Public Opinion, New Delhi;
  - (4) The Gokhale Institute of Politics and Economics, Poona;
  - (5) The Punjab Board of Economic Enquiry, Ludhiana;
  - (6) The Indian Central Jute Committee, Calcutta;
  - (7) The Agro-Economic Research Centre, Visva-Bharati University, Shantiniketan; and
  - (8) The Indian Statistical Institute, Calcutta.

In addition, mention should be made of work with individual staff members in the Government of India, especially the Planning Commission, the Ministry of Food and Agriculture, Ministry of Finance (in particular its National Income Unit) and the Ministry of Commerce and Industry.

It is difficult to generalize on the pattern of these relationships since each of them devolved from the special interest and circumstances of the M.I.T. group and the organization. Thus Dr. Neale was permitted to make use of the unpublished material available in the agricultural section at Gokhale Institute and to discuss his use of it and his conclusions freely with the members of the staff. There was no direct involvement by the Institute in Dr. Neale's work. At the other extreme perhaps, the Indian Statistical Institute processed, without cost to M.I.T., sample tabulations in response to a specific proposal and project outline submitted to the Institute by our Project. Mr. Biswas, pursuing work on an input-output matrix for India, was actually an employee for some months of the Indian Institute of Public Opinion. A. Vaidyanathan is provided office space and general assistance by ATIRA for work on a subject primarily of interest to ourselves. The Association for Indian Trade and Industry has allowed us to use its own raw material and has collected additional raw material (primarily at M.I.T. expense) for our use. We also arranged to have the Association process a good part of these data for us. With Visva-Bharati, we have a rather formal agreement which provides for consultation on methods of research and covers the final disposition of the research product. Relationships with governmental agencies could of course be only informal. In every case, high officials and their staffs have extended interest and sympathetic cooperation.

IV. From the Center's viewpoint, the year's research experience testifies to the wisdom of the decisions made in the Research Programmes Committee with respect to our work relationships. The lack of any formal connections with specific "opposite number" research groups permitted a degree of flexibility which I believe is essential for a group of foreign scholars who wish to make use of the data available in this country. At best, the usefulness of this material for the purposes intended can only be discovered after detailed work has been initiated. Thus, we were able to shift the locale (as in Poona) and indeed the specific work outlines for our programme (as in Bombay) as necessary and with a minimum of inconvenience. Nor did this flexibility interfere in any way with the rapid establishment of a prolonged work relationship (as in Calcutta) where the information available was more in line with expectations. I might also add that while these benefits might be what anyone would expect in "one's own" research as against in some "joint" scheme, our informal discussions with the RPC and our continued ability to discuss specific matters with its member-secretary have certainly facilitated our activities here. However independent, we always belonged.

Whatever the gains that may accrue to us from our research results, I know we gained from the very fact of cooperation with Indian research groups. I am also certain that our group, or one of approximately the same level of competence, of the same size and organization, could continue

effective work in India for a considerably longer time. As the end of the year approached, I felt I was curbing a programme which was tending to expand. Additional projects of great value and cooperating institutions could be readily found. For the years ahead, I feel that there is a mutually beneficial opportunity along these lines for a foreign group of scholars who are interested in studying growth problems in India.

## B. Work Activity

As indicated in our original research plans, we concentrated primarily upon two major subjects: changes in the capital coefficients in the organized sector of Indian industry and the process of economic change in rural India. On both these we believe we have assembled a large amount of relevant information and insight, which we expect will provide a basis for several book-length publications. In addition, individual members of the staff have had occasion to look into a number of subjects, generally for a brief period only. In all cases these studies reflect the general research interest of our Center at M.I.T. and/or the particular importance of the subject in current developments in India.

These activities are discussed, briefly, in the following pages. There is also appended a list of more or less circulatable papers prepared by staff members here. 1

# I. Capital Coefficients in Indian Industry

a. Detailed reports for four industries — cement, iron and steel, paper and textiles — have already been mimeographed and circulated in India for technical comment. A Working Draft dealing with the subcontracting activities of small and medium engineering industries in Bombay has also been completed. In addition, Dr. Rosen has written a general report on his work which I gather is to be published in a forthcoming issue of the Indian Journal of Economics. Apart from methodological contributions in these efforts to base calculations of coefficients both upon financial records and engineering data, the results themselves appear to be of signicant interest for practical and theoretical purposes. Noteworthy, of course, is the unmistakable evidence that capital coefficients in each industry have been increasing over time. Moreover, the absolute levels already attained do have direct implications upon the capital coefficient assumptions made in the industrial programmes of the Second Five-Year Plan. (In this connection, Dr. Rosen's article in the Economic Weekly, Second

<sup>1</sup> Text reference will be by name and number as given in this list.

<sup>&</sup>lt;sup>2</sup> George Rosen, Nos. 1-4.

<sup>3</sup> George Rosen, No. 8.

Five-Year Plan Number, June 23rd 1956, pp. 779-780 is relevant.) A beginning has also been made in analysing the nature of the labour market and of the capital market which helps explain these trends in a labour-rich capital-poor country.

- b. Intra-industry comparisons have also been attempted, particularly for iron and steel and for textiles. This is an area where much more research effort can fruitfully be applied. With respect to the textile industry, only the regional differences have been included in our manuscript, although these have a certain amount of functional relevance. In process still, with the informal cooperation of the Ahmedabad Textile Industry Research Association, is a further investigation of differences among groups of firms in Ahmedabad. We hope the analysis of data for this will be completed before Dr. Rosen leaves India in mid-September.
- c. While the focus of our industry work has been upon capital coefficients, it is natural and essential that this emphasis be broadened. An obvious direction is the historical analysis of the growth of the particular industry, with special reference to the basic questions of entrepreneurship and of industrial financing. This need for further work is pointed up in Dr. Rosen's forthcoming article. Mention should also be made of our present attempt to study the effects of the growth of one industry upon other economic activities upon competing enterprises, perhaps of a smaller scale; upon servicing enterprises; and upon the tertiary sectors particularly. We have embarked upon such a multiplier analysis in Ahmedabad again with the informal cooperation of ATIRA. Dr. Vaidyanathan has been there since late June and is gradually assembling the picture of these inter-related growths in the development of this major textile center.
- d. We emerge from this year with the feeling that we have only touched upon the broad areas where additional research on Indian industry can yield valuable insights into the prospects and possibilities for industrial growth. Apart from the need for clearer presentation of the relevant facts of Indian industry, there is need for re-examining important economic relationships. Thus, our work has already pointed up the contrast between the trend toward capital-intensiveness and the nation's factor endowments. (Many firms in India borrow capital from the "market" at lower rates than can comparable enterprises in the capital-rich United States, for example.)

<sup>1</sup> George Rosen, No. 7.

<sup>&</sup>lt;sup>2</sup> Our Center has prepared a handbook for such studies. See Everett E. Hagen, <u>Handbook for Industry Studies</u>, Cambridge, September 1955.

<sup>&</sup>lt;sup>3</sup> A. Vaidyanathan, No. 1.

<sup>4</sup> Wilfred Malenbaum. No. 14.

Our own work involved, of course, not only the assembly and study of vast amounts of data but also an extensive series of interviews with key industrialists throughout India. We have also attempted to establish some contact with the work of others in this industrial area. All these should provide a wide collection of work material for our staff even after its members return to the States. In the near future we intend to finalize our past work on the four industries (plus parallel study on the sugar industry and to some extent on engineering - both still in the data assembly stage), and to complete our multiplier study in Ahmedabad. We do expect that this rich collection of materials will, however, yield additional research products over the next year or two in the general area of industrial growth.

# II. Study of the Process of Rural Change

a. This study has moved ahead on a number of fronts simultaneously. The two most time-consuming of these efforts involved an examination in detail of existing records of farms over a period of consecutive years. Despite the long and extensive history of rural studies in India, few cases can be found of resurveys of the same village, to say nothing of consecutive surveys over a period of years. Indeed, our Project discovered only two research programmes where the data have approximated what we sought. Even in these two, the records of the Punjab Board of Economic Enquiry and of the Indian Central Jute Committee, the data posed major problems both because we had special interests and because of the general state of village and farm studies in India today.

Thus, we sought continuity of records. Some 30 Punjab farms are included in the Board of Economic Enquiry's records, but for only a very few were the records in fact continuous. Thus, we had to focus upon case studies for the few farms for which there was material over an 8-10 year period. At best, the records for the remainder of the 30 odd farms could be used only for specific enquiries supplementing the continuous cases.

In contrast to the few farms with which Dr. Neale could deal in the work at Ludhiana, there were some 200 farms, a sample of about 40 from each of five villages, for the jute-paddy enterprises in East India. These records, available since 1949-50, appear to lend themselves more readily to modern types of farm budget analysis. Our work in Calcutta is being carried on at the Indian Central Jute Committee and in cooperation with the Agro-Economic Section at Visva-Bharati. Present plans are for all the statistical compilations to be completed during the course of 1956.

Another aspect of the data in both areas which limited their usability somewhat was the extent to which concepts and treatments carried over from other countries seemed to give misleading results when applied in Indian conditions. Thus the whole "total costing" approach in which non-cash or non-market outlays for capital, labour, bullock use, etc. are charged at a

<sup>1</sup> Walter C. Neale, Nos. 1, 2 and 6.

market price seems to have little relevance in a situation where there is little if any organized capital, labour, or even commodity and other service market. Indeed, the very concept of "the price" raises problems in India for which I do not know parallels in the recorded accounts in other countries. Major reworking was therefore necessary for the existing farm schedules, and with concepts which could scarecely be called more than hypotheses. This last in itself may influence the possible significance of the results.

b. Our work in the Punjab has been completed, although the material has not yet been fully analysed or written up. Some major (albeit preliminary) observations may be indicated. (1) There is a high degree of nonmarket orientation on the part of these relatively high income producers. Not only is food production planned with respect not to the market but to the possible need for food on the farm itself, but such commercial crops as cotton seem also to be cultivated in response to an indigenous need. Thus the apparently profitable trend toward long staple cotton proceeds slowly due to the preference of the local population for short-staple cotton in making their own quilts. (2) There is a high level of investment by the farmer in his enterprise. The average is some Rs. 225 per year. A very large part of this high figure appears to take the form of farm housing. There is some evidence that this investment varies with the physical output in the preceding year. (3) The data are being analyzed from the point of view of the difference in economic behaviour with the degree of monetization of the transaction, but the preliminary conclusions need still to be examined in the light of other aspects of the over-all study (see below.)

There is also available a very first draft for the farms in one of the jute villages (Belakhoba, West Bengal). Two modal groups (of cash and share tenants) were studies over a six year period. (1) It appears that average net income for the (smaller) share tenant's operations was somewhat above that of the cash tenants through the period. Per acre and per person, the difference is even more marked. (2) Cash tenants earn 50%-65% of their income in kind; the percentage has been increasing over the period. For share tenants, the non-cash ratio is above 70%, with little evidence of much change over time. (3) There is evidence of a much greater market sensitivity in the income and expenditure variations of the cash tenant's operations.

c. The third phase of the rural study was an investigation based upon a sample collected by the NSS. After consultations between myself and ISI officials, pilot series of tabulations were made for a rural sub-sample (some 400 farms) collected in the ninth round (rabi crop 1955). For this all-India sample, computations were made on the degree of monetization of consumption. The rural enterprises were then sorted by occupational status

W. C. Neale, No. 5 and No. 6.

<sup>&</sup>lt;sup>2</sup> H. Pilhofer, No. 2.

of household, by per capita level of expenditure etc. and each in turn sub-divided by the degree of monetization. In this pilot phase, information was taken from the schedules on the following items only: food consumption, grain consumption, textile consumption and various forms of investment. The results have been made available in most preliminary form. 1 (1) Average investment by the rural family is about 10 per cent of total income. The figure is highest in the families where about one half of consumption takes place through non-monetary transactions. In general, it is also true that average per capita income is highest in groups where a significant component of consumption is non-monetized. (2) High monetization groups in rural India are more apt to be the families of farm labourers and of other workers, i.e., not the families of agriculturists. These last seem to be evenly distributed through the entire range of monetization (based on the consumption accounts). (3) The consumption ratios for specific commodities are influenced at least as much by degree of monetization as by level of income.

It seems clear that this material is at least suggestive with respect to the scope and influence of monetization in the rural economy. This sample investigation should constitute a valuable adjunct to the more detailed spot investigations mentioned above.

- d. Finally, on this study of rural change, there has been some examination (primarily by r. Pilhofer prior to his initiating work in Calcutta) on the over-all pattern of agricultural output in India and its regional distribution. From these investigations it became clear that there was a need to make a major research attack on the factors associated with the annual changes in per acre yields. A specific research proposal was presented to the Ministry of Food and Agriculture and we understand that such a study is being undertaken for the Ministry through a contract with the Statistical Section of the Delhi School of Economics.
- e. Even the work already done, however incomplete the analysis of it, makes clear that a major task of discovery of rural India still lies ahead. The impression we had a year or two ago of the gap between the kind of rural studies actually being made and what was needed (and frequently recognized by Indian scholars as needed) is still relevant today. There is little reason for expecting that Indian economic activity over the next decade will appreciably alter the degree of importance of non-monetized transactions in the rural economy. There is thus no reason for delaying

W. Malenbaum, No. 16.

<sup>&</sup>lt;sup>2</sup> H. Pilhofer, No.1. W. Malenbaum, No. 11.

W. Malenbaum, No. 8.

See "Work Tables and Notes for a Research Project in 1955/56 (on) Economic Change in Rural India", August 1, 1955, and also my Preliminary Report to RPC, December 16, 1955, September, pp. 11-12.

a major research effort on the economics of non-monetization and its bearing upon problems of national growth. This has an essential bearing upon specific programmes in the Second Plan. In any case, I hope that forthcoming drafts of the work already completed in the present study will make some contribution to this problem. It may be appropriate to mention here the state of knowledge of Indian rural economics as reflected in the present position on agricultural targets for the Second Plan. There would appear to be no reason to delay basic investigations into the factors bearing upon yield changes.

# III. Miscellaneous Additional Research Activities

- a. Appraisals of the Indian Five-Year Plans: Messrs. Rosen, Neale and myself have addressed ourselves to various phases of the Plan. See for example, in the list below, Dr. Rosen's paper on the capital required for industrial expansion, Dr. Neale's on problems of land reform and of industrialization, and mine on various statistical measurements in India over the past five years. (These last were undertaken specifically at the informal request of Planning Commission officials.)
- b. Capital Formation: In addition to what is included in the immediately preceding section, an attempt was made to obtain a clear picture of studies of the estimates of capital formation now available in India. In this I worked closely with staff members of the National Income Unit, my major foci being the size of non-monetized investment and the sectoral components of private investment.
- c. <u>Urban Unemployment</u>: At the request of officials of the Indian Statistical Institute, some examination has been made of the preliminary data available on the two urban unemployment surveys of the ISI made in 1953. The work done here stressed the contrast between the unemployment problem of the big city and the smaller city.<sup>4</sup>
- d. Broad Policy Papers: Prior to my departure from the United States I was asked to prepare a paper for the India Quarterly on United States Development Policy in South and Southeast Asia. While much of this work preceded by arrival in India, the original paper has been modified; one part of it has since appeared in the India Quarterly (April-June 1956) while another has been submitted for publication to an American journal.

<sup>1</sup> See W. Malenbaum, No. 14.

George Rosen, No. 5, 7; W. C. Neale, No. 4, 7; W. Malenbaum, No. 5, 14.

<sup>&</sup>lt;sup>3</sup> W. Malenbaum, No. 12.

W. Malenbaum, No. 7.

<sup>5</sup> W. Malenbaum, No. 10.

e. India-China Comparisons: Here again, work done on this subject preceded the group's arrival in India, but the great interest of Indian officials in this problem prompted the devotion of some time to the subject here, resulting both in the distribution of a revised paper on this subject and many discussion with senior governmental people directly interested in China's progress related to India's.

Mention might also be made of the fact that price series have been collected to permit a more adequate comparison of the value of the Indian rupee and the Chinese yuan. This work was done with the cooperation of officials in the Ministries of Food and Agriculture and of Commerce and Industry; parallel and similar work is being done elsewhere on the U.S.A. and China. The statistical work was done by Mr. E. R. Saini from the Statistical Section of the Delhi School of Economics, working part-time on our project.

#### RESEARCH PAPERS

#### By George Rosen

- No. 1 Capital Requirements and Capacity Growth in Modern Indian Industry
  Part I: The Cement Industry (40 pp. approx.) December 1955.
- No. 2 Idem Part II: The Paper Industry (30 pp. approx.) January 1956,
- No. 3 Idem Part III: The Iron and Steel Industry (30 pp. approx.) February 1956.
- No. 4 Idem Part IV: The Cotton Textile Industry (50 pp. approx.) May 1956.

The above four studies have been multilithed; all have been distributed except for a few copies of No. 4.

- No. 5 Capital: Output Ratios in Indian Industry, Economic Weekly, March 3, 1956, pp. 279-80.
- No. 6 Japanese Economic Development and Indian Economic Growth, Economic Trends IV, No. 4, October-December 1955.
- No. 7 Industry in the Plan, Economic Weekly, June 23, 1956, pp. 779-80.
- No. 8 Capital-Output Ratios in Indian Industry, July 1956, (22 typewritten pages to be published in <u>Indian Economic Journal</u>, Oct. 1956),
- No. 9 Subcontracting in the Small and Medium Size Engineering Industries of Bombay City (14 pp. mimeographed) July 1956.

### By Walter C. Neale

- No. 1 Preliminary Report on the Center's Research Work at the Gokhale
  Institute, December 1955 (18 pp. mimeographed; an appendix
  to our project's Report to the Research Programmes Committee
  on Preliminary Work, December 16, 1955).
- No. 2 Report on Research into Farm Management Data and Rural Change in India, April 1956 (11 pp. typewritten).
- No. 3 The Deficit, Inflation and the Foreign Exchange Gap, May 1956 (14 pp. typewritten),
- No. 4 Land Reform in Uttar Pradesh, Economic Weekly, July 28, 1956, pp. 888-92.
- No. 5 Case Studies of Punjab Ferms, July 1956 (Book-length typescript).

- No. 6 Miscellaneous Notes on Punjab Agriculture (typewritten):
  - (a) On Investment on Some Farms in the Punjab (9 pp.) April 1956
  - (b) On the Recomputation of Accounts 1945/46-1952/53 (8 pp.)
    May 1956
  - (c) Chain Indices of Prices: Case of Two Hill Farms, June 1956 (5 pp.)
  - (d) Chain Indices of Acreage and Prices: Case of Two Hill Farms
    June 1956 (5 pp.)
  - (e) On Agricultural Output and Income Series Used in India (5 pp.)
    June 1956
  - (f) On Investment in Agriculture in Ludhiana District (3 pp.)
    June 1956
  - (g) On Labour Hired on Eight Punjab Farms (10 pp.) June 1956
  - (h) On the Use of Bullock Labour on Eight Punjab Farms (3 pp.)
    June 1956
  - (i) On the Relationship between Prices and the Irrigated Acreage Under Crops (3 pp.) July 1956.
- No. 7 Social Effects of Industrialization, Economic Weekly, August 11, 1956, pp. 951-54.

## By Hans Pilhofer

- No. 1 The Importance of Regions and States in the Growth of Production of India's Principle Crops, 1949/50-1954/55, February 1956 (25 pp. mimeographed).
- No. 2 The Belakhoba Study, Draft (29 typewritten pp.) August 1956.

#### By Ajit K. Biswas

- No. 1 Linear Programming A New Tool of Economic Analysis, Eastern
  Economist, May 1955 (4 pp.).
- No. 2 Schemes of Sector Classification in Input-Output Analysis, Indian Economic Review, August 1955, pp. 13-22.

## By Wilfred Melenbaum

- No. 1 India and China: Development Contrasts, mimeographed, 39 pp. by
  Planning Commission, October 1955. Published in Journal
  of Political Economy, February 1956, pp. 1-24, and as
  Eastern Economist Pamphlet No. 35, February 1956.
- No. 2 U.S. Economic Policy in South and Southeast Asia (Draft, 25 pp., mimeograph, October 1955).

- No. 3 Report to RPC on Project's Preliminary Work (3 plus 23 pp. mimeographed; December 1.955).
- No. 4 Contributions to India's Progress toward Development, January 9, 1956.
- No. 5 Some Comments on the Second Five-Year Plan, <u>Draft Memorandum</u>, <u>December 27, 1955</u> (13 pp. mimeographed, January 12, 1956).
- No. 6 U.S. Economic Policy in South and South East Asia, India
  Quarterly, April-June 1956 (adapted from No. 2 above).
- No. 7 Unemployment in Urban India, February 1956 (8 pp. mimeographed).
- No. 8 Notes for a Study of Factors Affecting Yields, March 3, 1956 (3 pp. typewritten).
- No. 9 The Non-monetization Study (Pilot Phase), March 19, 1956 (2 pp. typewritten).
- No. 10 U.S. Foreign Development Assistance (12 pp. typewritten) (adapted from No. 2 arove).
- No. 11 Agricultural Output 1949/50-1954/55, April 1956, Economic Weekly, June 23, 1956, pp. 751-2.
- No. lla Agricultural Output in the First Plan A Revision, August 9, 1956 (3 pp. typewritten).
- No. 12 Observations on the Estimates of National Investment, April 1956 (4 pp. tyrewritten).
- No. 13 Trends in (Punjab) Farm Incomes, May 1956 (7 pp. typewritten).
- No. 14 Notes for a Forthcoming "Progress Report 1951/52-1955/56", July 1955, 1 plus 27 pp. mimeographed by Planning Commission.
- No. 15 Who Does the Flanning? July 1956 (18 typewritten pages)

  Prepared at the request of the Director of the Conference
  on Indian Leadership (Berkeley, California, August 1956).
- No. 16 The Non-monetized Sector or Rural India (17 pp. mimeographed)
  August 1956.
- No. 17 Progress of Work in India; Report to RPC, 2 plus 15 mimeographed pp. Sept. 1956.

#### By A. Vaidyanathan

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No. 1 Outline of M.I.T. s Research Plan at ATIRA, 2 pp., June 1956,