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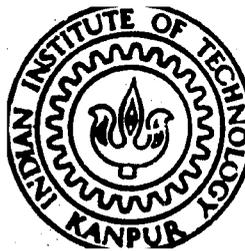
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**URBAN & INDUSTRIAL GROWTH  
OF  
KANPUR REGION**

**REPORT OF THE INTERNATIONAL SEMINAR**

HELD FROM

**JANUARY 29 TO FEBRUARY 4, 1967**



**INDIAN INSTITUTE OF TECHNOLOGY KANPUR  
(INDIA)**



# URBAN & INDUSTRIAL GROWTH OF KANPUR REGION

REPORT OF THE INTERNATIONAL SEMINAR

*Sponsored by*

1. U. S. Agency.  
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New Delhi.
2. Directorate of Industries.  
Uttar Pradesh, Kanpur.
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## P R E F A C E

We learn to live with our environment even when we feel it needs change. Now and again ideas emerge which seem to give a clue to a possible plan of action. But very often these ideas remain below the surface. Occasionally, however, circumstances so combine that something begins to happen as a result of an idea informally exchanged. In the latter half of 1965 a meeting was held consisting of representatives of the Directorate of Industries, Government of Uttar Pradesh, industrialists in Kanpur, a few representatives of the U. S. Agency for International Development and some of the members from I. I. T. Kanpur. This meeting was addressed by Mr. John P. Lewis, Minister-Director, USAID, New Delhi. This was the first time that mention was made of the idea to hold an International Seminar on Urban and Industrial Growth of Kanpur Region.

Kanpur is a unique place in many ways. It has a history of industrial growth, its present status is indicative of a host of unsolved urgent problems, it is the largest city in U. P. and seems to represent in a striking way how under certain circumstances attitude associated with agricultural economy and tradition create difficulties in attempting to accelerate industrial and urban development. It provides an ideal illustration of how it is impossible to search for unique solutions for individual problems because all problems are interconnected and to get any results at all that are worthwhile one has to analyse the whole complex system. The end we wish to achieve are simple and fairly obvious but the means of analysis and achievement have to have a sizeable sophisticated component.

As an institution of higher learning I. I. T. Kanpur is obviously committed to the creation and dissemination of knowledge. But one of the basic objectives of I. I. T. Kanpur is to become useful to the society of which it forms a part. Application of knowledge is, therefore, one of the vital components of its activities. This perhaps explains to some extent why I. I. T. Kanpur is associated with this Seminar.

Although exchange of ideas and discussions on the organization took place towards the end of 1965, the actual process of planning the Seminar started from February 1966. Between March and May, 1966 several meetings of the Steering Committee composed of the

representatives of U. P. Government, USAID and IIT Kanpur were held to define the objectives of the Seminar, to outline the preparatory work, to set a time schedule, to formulate a budget and to identify the participants. A unanimity of views emerged out of these discussions, which is reflected in the Memorandum of Understanding, a brief summary of which is given in The Genesis.

To carry out the tasks assigned by the Memorandum of Understanding a secretariat was set up with the help of the personnel of the Directorate of Industries, U. P. in the month of March 1966. However, major organisational actions were taken between June and September, 1966 when a team of research fellows and investigators was selected and the experts from India and several other countries were approached. These efforts brought to the fore several interesting and significant academic and organisational issues, which were subsequently resolved.

The Research Unit consisting of part-time and full-time workers carried out its task in the initial stages without having any communication with the participants. It was, therefore, decided to invite the participants of the Seminar to discuss their requirements and to assess the data available with the Research Unit. The participants visited Kanpur between October and December, 1966. The Research Unit operated under many kinds of constraints. As it was not possible to secure full-time services of active research workers in regional analysis for a period of only seven months, we had to depend on part-time services of teachers of local colleges. Naturally, therefore, they could not spare as much time as was warranted by the tasks of the Research Unit.

There was a mixed reaction of the participants. Some were extremely enthusiastic, some cautious and some sceptical, although they all appreciated the idea of such a seminar. Depending on the reactions of the participants they were divided into three categories: those who could stay here for a period of about 30 days and write a paper, those who could stay only between January 29 and February 4, 1967 and contribute a paper and those who were willing to guide and participate in the deliberations of the Seminar. They were designated as Workshop Participants, Contributing Participants and Observers respectively.

To expose the participants of the Seminar to the expectations of the people of the region and to the official thinking regarding

the problems of development of the region industrialists, labour leaders, professionals, the officials of the Directorate of industries, U.P., the Town and Village Planning Department, U. P., the Planning Research and Action Institute, Lucknow, the Municipal Corporation, Kanpur, the office of the Census Superintendent, U.P., Economics, Intelligence and Statistics Directorate, U.P. and the Departments of Agriculture, Irrigation and Power were also invited. The Local Advisory Committee consisting of leaders of all walks of life performed a commendable feat in preparing their report within a short span of less than two months. The dynamism and initiative of the Secretary of the Local Advisory Committee and the Convenors and Chairmen of the sub-committees inspired the members in finalising their reports within the allotted time. Besides this, several notes were prepared by the Directorate of Industries, and the Town and Village Planning Department, U.P., for the consideration of the participants. In the month of January a number of meetings of the participants with the officials were organised.

The Workshop, held between January 2 and 23, 1967, was divided in three periods. The first period, as the report explains, was devoted to the clarification of issues, the titles of papers and the Seminar Panels. In the second period the members of the Workshop divided themselves panel-wise and prepared the outlines of their papers and in the third period they finalised their papers which were presented in the Seminar. The Seminar itself was divided into four panels which met simultaneously for two days. Then all participants met in a general panel session to discuss the methods and techniques of regional analysis as applied to the Kanpur Region. Finally Plenary Sessions were held to discuss the reports of the five panels to evolve a consensus on the recommendations of the Seminar. In these sessions the differences in the approaches of the participants oriented to their disciplines and variegated experiences, enriched the discussion.

What has been said above gives a brief account of the way the Seminar was conducted. The present report is the first of a series of publications which has been planned. Its substantive part has been prepared by Chief Rapporteur, Mr. P.B. Desai, Senior fellow, Institute of Economic Growth, Delhi. Dr. K. N. Sharma, Associate Professor of Sociology, IIT Kanpur and Convenor of the Seminar has helped in the general editing of the report. He was assisted by Mr. J. N. Sharma of the Government College, Ajmer, Rajasthan.

( IV )

The Seminar would have never been possible without the unstinted support and help we received from all quarters. We are grateful to all the participants of the Seminar. Our thanks are specially due to Mr. John P. Lewis of USA ID Mission and to Sir Padampat Singhania, Chairman of the Board of Governors of IIT Kanpur. Mr. A.B. Malik, former Director of Industries, Dr. T.G.K. Charlu, the present Director of Industries as also Mr. N. Sethuraman, Additional Director of Industries have contributed greatly to the success of the Seminar. We are thankful to Mr. Prem Manohar, Chief Town Planner for his interest in the Seminar. Contribution of Prof. R. L. Halfman, Program Leader, KIAP and Dr. M. S. Muthana, Deputy Director, IIT Kanpur has been invaluable in many ways. Our thanks are also due to Dr. Robert T. Norman, Associate Director, Research Unit, Mr. L. N. Pandey, Officer-in-charge of the Secretariat and Dr. K. N. Sharma, Convenor of the Seminar and Director of Research Unit. We are indebted to Dr. Radha Kamal Mukerjee, Dr. Baljit Singh and Dr. Brian J.L. Berry for the able and scholarly way in which they helped during the course of proceedings of the Seminar.

Before closing one is tempted to ask the question what of the future? If what has happened so far is any indication, we can look forward to a meaningful and continued contribution towards the planning and realisation of a great economic and industrial future for Kanpur and the surrounding region.

August 18, 1967.

P. K. KELKAR  
Director

IIT Kanpur  
Chairman, Steering Committee of the Seminar

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## **THE OPEN SESSION**

On Saturday, February 4, 1967, the International Seminar on Urban and Industrial Growth of the Kanpur Region met in an open session at the Indian Institute of Technology, Kanpur for presenting the recommendations to the State Government.

The following were present :

Dr. Radha Kamal Mukerjee, President, Open Session;  
Sir Padampat Singhanian, Chairman, Reception Committee;  
Mr. Shiva Prasad Gupta, Deputy Minister for Home and Industries, Uttar Pradesh, (representing the Governor, and the Chief Minister, Uttar Pradesh);  
Dr. P. K. Kelkar, Director, I.I.T., Kanpur;  
Mr. John P. Lewis Minister-Director, USAID;  
Dr. T. G. K. Charlu, Director of Industries, U. P.;  
Dr. Baljit Singh, Chairman, Seminar;  
Dr. Brian J. L. Berry, Co-Chairman, Seminar;  
Dr. K. N. Sharma, Convener, Seminar, and Director, Research Unit;  
Mr. Robert T. Norman, Associate Director, Research Unit;  
Mr. N. Sethuraman, Additional Director of Industries, U. P.;  
Seminar Participants;  
Members of the local Advisory Committee;  
Members of the Research Unit;  
Officials of the Directorate of Industries, other Government Departments and the Kanpur Nagar Mahapalika; and leading industrialists, labour leaders and prominent invitees from the general public.

In his welcome address, Sir Padampat Singhanian briefly traced the growth of industries in Kanpur and directed attention to the locational advantages of the city for industrial growth and the continuing handicaps which the industries in Kanpur were suffering from, particularly the absence of a well-organised stock exchange and bank credit facilities. He was concerned about the out-flow of capital from Kanpur, the continuing failure to improve industrial relations and the need for dealing with labour problems. He also emphasised the need to make statutory measures more elastic, particularly in the field of housing provided by industrialists to labourers. He further expressed the need for undertaking a proper marketing survey for planned development of markets for industrial products. Considering the problems faced by the city and by the industries in particular, he hoped that the deliberations of the Seminar would be realistic and help the government and other parties concerned in pursuing the goals of development more effectively.

The Deputy Minister for Home and Industries, U.P. inaugurated the Open Session in place of the Governor, Mr. Biswanath Das, who could not be present on account of

indisposition. The Governor had sent a message in which he pointed out that the state "holds the ninth place in the point of population in the world, thus it is bigger than many states of Africa, as also of Europe, excluding the U.S.S.R." He further stressed the importance of Kanpur as the nerve centre of industries in the state. He considered the Seminar to be a unique process of planning and hoped that it would help in the formulation of clear lines of guidance for regional development to be useful to the Government—both of the State as of the Union—for years to come.

#### **Presidential Address :**

In his scholarly, inspiring and profound presidential address, Dr. Radha Kamal Mukerjee provided a clear analysis of the many problems faced by the city and advanced a convincing plea for the need of replacing it by a synthetic city—the city of the twentieth century. He noted that 76 per cent of the families in the city lived below destitution line, 67 per cent had only single-room tenements and some 30,000 persons lived on the streets. The annual per capita income was only Rs. 368. Over-crowding, slums, squalor, insanitation, misery, high infant and tubercular mortality, etc. were plaguing the city. "Kanpur", he said, "was a sick and debilitated magalopolis, breathing for life and standing room." It was "one of the worst victims of the forces of unplanned and chaotic over-urbanisation showing human and social diminishing returns on an unparalleled scale."

His concept of the synthetic twentieth century city was impressive. It would seek new organic roots in the region where it is situated, become a focus of agriculture, industry, trade and affairs, and counter-act the personal and social disorganisations of all kinds now rampant in urban-industrial conurbations.

For the solution of the city's problems, he advocated suburban development in Greater Kanpur, resting largely on the shift of emphasis from the textile and leather production to variegated intermediate and final consumer goods industries. Integration and diversification of industries related to new industrial components, to be developed on the vast agricultural base of the region, was a sure means of future industrial growth and progress of Kanpur. He pleaded that the industrialists should not prefer investment outside the region and that the government should facilitate satellite development by freezing land prices, checking speculation and providing careful and detailed planning of land use.

As an instrument of the regional development, he advocated a policy of planned 'rurbanisation' which was the key to the whole process of evolving "an organic hierarchy of communities centering conveniently on the future regional and synthetic city of Kanpur." He suggested for this purpose a compact radial area surrounded by little towns and mandis of Unnao, Kannauj, Oraiya, Kalpi, Pokhrayan and Bindki. Rurban industrial complexes may be created at these and such other places in the region by a concerted programme of transport, communication, power and industrial development. He suggested that such a place should, in addition, have a regulated market, a bank,

a cooperative union and a Polytechnic. He envisaged that such a policy of rurbanisation will stimulate commercial farming, modernise agricultural methods and practices and adjust caste and occupations - primary, manufacturing and tertiary, to the new milieu. He pleaded, through such a policy, for a "fresh synthesis of the values of modern science and technology with those of a predominantly rural civilisation."

He viewed that the zeal for quick industrialisation in the country was disregarding the social menace of explosive urbanisation, which was creating colossal problems of personal and social dis-organisation. It was time to revise the overall aim of quick unplanned industrialisation. For tackling the problems of haphazard urbanisation, it was necessary to set up an Urban Development Commission under a new Ministry of Housing and Urban - Regional Planning and Development at the national level and Regional Development Authorities at the state level.

"The Regional Development Authority should develop the little agro-towns or rurban centres so as to achieve ecological balance, industrial equilibrium and cultural harmony." He expected that a Regional Development Authority in Kanpur, designed on the pattern of the Calcutta Metropolitan Planning Organisation, invested with legal powers and cooperating with appropriate municipal and town-area agencies and village Panchayats, will yield relevant data and experiences that may show the general pattern of the regional development programme for the whole of India at the city, small town and village dimensions.

He envisaged for I.I.T., Kanpur, and such other institutions, a positive role to play in this process, particularly in integrating scientific, economic and sociological research for development of the region. He proposed that a new Department of Regional Science may be set up and organised by I.I.T./K. In addition, he recommended that a few Vigyan Mandirs under the supervision of the Institute may be set up in selected villages of the region. He envisaged that a well-planned extension programme and technical services of I.I.T. in a few urban centres and rural areas may substantially contribute towards urban integration and rural reconstruction. "Thus may modern technology", he suggested, "give birth to a movement towards vital co-ordination of man and machine and their social milieu and adaptive synthesis of science, technical arts and human values for a new plan of social living and culture in the future."

#### **The Recommendations of the Seminar :**

The presidential address was followed by the presentation of the recommendations by the Chairman of the Seminar, Dr. Baljit Singh. Dr. Singh felt confident that the findings and recommendations would 'add another milestone to the development of this region' and may lead to a renewed emphasis on regional planning and development throughout the state and in other parts of the country. He indicated that the procedure adopted by the Seminar had led in its final phase to an integrated and comprehensive view of an 'inter-disciplinary approach' while active participation

of local administrators, businessmen, industrialists, labour leaders etc. had brought pragmatism to its deliberations. The Seminar had given consideration to the mass of basic data and information supplied by the Research Unit, the Local Advisory Committee the different departments of the Government and to the papers prepared by the 'Workshop' and other participants. The deliberations were conducted first in the panel sessions, largely at a single disciplinary level and then at the plenary session, attended by all participants, including scholars from all disciplines, administrators and members of the Local Advisory Committee. The individual panels deliberated on (i) economic prospects, (ii) spatial pattern of growth points, (iii) formulation and implementation of development policies and, (iv) problems of urbanisation and industrial diversification.

The Chairman emphasised that the findings related to the 'notional' region of Kanpur as delineated by the Research Unit and that 'the development or operational Region of Kanpur' may or may not coincide with it. These findings are given below :

- (1) Between 1961 and 1981, the population of Kanpur City is likely to increase by 0.8 million, of the district, by 1.2 million and of the region, by 4 to 6 million. Labour force is likely to increase over the period from 3 to 4.8 million in the region and from 0.3 to 0.6 million in the city.
- (2) There has been a weakening of the occupational base of the Kanpur Metropolis, as compared to other metropolitan areas.
- (3) During 1951-61, the region experienced a higher rate of growth than the state but lower than the nation as a whole. The level of economic activity in Kanpur District is higher than in any other district in the region, but lower than in other metropolitan districts in the country. The region's share in national income in 1960-61 was 2.3 per cent; and even with an investment of Rs. 1.250 crores over the next two plans, its share is likely to fall to 2.01 per cent by 1975-76.
- (4) While the traditional factory industry of the Kanpur Metropolitan Area has been experiencing stagnation and has lagged behind in technical progress there has been little establishment of new large scale industry.
- (5) The region has a high growth potential in agriculture and agro-based industries. It has also considerable resource potential for industries producing agricultural inputs and for several types of chemicals and many types of engineering industries. Its demand potential is also high.
- (6) Modernisation and rationalisation schemes have not yet been implemented on any substantial scale, while labour relations in industry remain complicated by multiplicity of trade unions.
- (7) Infra-structure is rather weak, particularly in towns in the hinterland. The shift from railways to roadways has reduced the original locational advantage of the region.

- (8) There is a concentration of diverse functions in the centre of the Metropolis, while 70 per cent of the land within the corporation limits, most of it in the area recently incorporated, is under cultivation.
- (9) There are large gaps in data and analysis at the regional level.

On the basis of the findings, the Seminar arrived at a consensus on the following recommendations :

- (1) Regional development and integration of the rural-urban economy requires adoption of a system of comprehensive regional planning by the state, particularly for the Kanpur Region. The goal of regional planning is in no way regional self-sufficiency or a closed economy. On the contrary, a region ought to maximise its exports on the basis of comparative cost and try to meet all such local needs from within the region as it can at a comparatively lower cost. This would minimise the transport cost and enable the region to exploit in full its locational advantages. Integration of the rural-urban economy is necessary to bring about a reasonable balance and equity in the development of towns and settlements of various sizes. The goals of regional planning should be integrated primarily with the goals of national and state planning, particularly maximisation of rate of growth, employment and rapid industrialisation.
- (2) Balanced regional development and integration of rural-urban economy can be achieved both by 'building up from below' as well as through 'spreading out growth' from the centre to the periphery. In the long run the two approaches must be harmonised but in the immediate period priority should be given to the Metropolitan Area and such centres as have a high locational advantage. The locational policy should accord priority to Kanpur city in the development of regional functions, and at the same time, encourage location of agro-industries, smaller-scale market-oriented industries and service units in smaller urban places.
- (3) From the view point of the future spatial pattern of growth points, such regional development would lead to a convergence of the administrative hierarchy of urban places with an economic hierarchy.
- (4) Infra-structure has to be considerably strengthened in all locational points, particularly outside the Kanpur Metropolitan Area.
- (5) To introduce comprehensive regional planning, a Regional Planning Division should be established at the state level and the entire state should be demarcated into development regions. This Division should collect the necessary data for each region and formulate regional plans to be integrated into state plans.

- (6) Demarcation of development regions should be based on scientific criteria, including the one of administrative viability.
- (7) Top priority should be given to agriculture and agriculture-based industries and then to modernisation and closing of the technological gap of the traditional manufacturing industries of the city, expansion and diversification of the industrial base of the Metropolitan Area, building up of the infra-structure at lower level growth points, particularly road transport, population control, rural works programmes and provision of adequate credit to the modern sector of industry.
- (8) A systematic survey of the development potential of the state should be taken region by region with a sense of urgency. Simultaneously, institutional barriers to development should be studied and regional planning should put particular emphasis on institutional planning.
- (9) Comprehensive land use development policy be formulated and implemented, particularly for the Kanpur Metropolitan Area. For this, an autonomous Metropolitan Development Authority should be established and supporting legislation should be enacted.
- (10) A Regional Authority or a Co-ordination Body be established for regional planning and development at the regional level.
- (11) Regional analysis should form the basis of any regional planning and development. For this purpose, full advantage should be taken of the facilities available at various research centres, particularly at I.I.T., which should undertake the establishment of a Regional Study Centre to train regional planners as well as to undertake regional analysis.
- (12) Steps should be taken to improve the financial condition of the Kanpur Corporation. A capital budget may be introduced—this budget should provide for larger allocations to housing. Maximum effort is required for resource mobilisation for the building up of the infra-structure and rehabilitation, expansion and diversification of industries.

The Chairman indicated that these recommendations were based on the consensus of individual participants at the Seminar. There were differences among the participants—these differences related not to the recommendations given above, but to the emphases and priorities to be given to them and to their sequence in any phased programme. They were all agreed, however, that immediate steps be taken (i) to adopt a system of regional planning, (ii) to organise the collection of necessary data and their analysis, (iii) to assess the growth potential of the region and, (iv) to establish a Metropolitan Area Authority for land use development and planning.

Commending the above findings and recommendations, Dr. Brian J. L. Berry, Vice-Chairman of the Seminar, emphasised the consensus reached among the participants drawn from diverse disciplines and from different walks of public life. He further indicated that they constituted a positive set of recommendations and also provided for instrumentalities for effectuating development planning on a regional basis and expressed the hope that follow-up action would be taken up speedily and promptly by the concerned parties.

Mr. Shiva Prasad Gupta then read out a message from the Chief Minister of U. P., Mrs. Sucheta Kripalani. The message stressed the importance of regional planning in view of the problems of urban and industrial growth in the face of over-population, pre-dominance of agriculture and low per capita income, low productivity and meagre resources. It is imperative to make use of our minimal resources to achieve maximum output. The message gave the assurance that the findings of the Seminar would receive the earnest consideration of the Government.

Briefly reviewing the problems faced by the state, the Chief Minister noted that, "during the last 20 years we have not done anything substantial to expand our programmes of industrialisation on the basis of agricultural development and utilise and exploit our agro-animal and forest-based raw materials to the maximum extent." It was now realised "that industrial development and prosperity of the area is not possible without meaningful inter-action between agriculture and industry. The area will have to be linked in such a manner that the industry at the nerve centres continually feed and inter-act with the farmers and the rural economy and that a chain process of agro-industrial development is initiated. The development of the city has to be taken up with the overall development of the hinterland and meaningfully inter-connected. Any regional planning has to be based on a realistic appraisal of the growth of agriculture and the supporting industries."

The message further referred to the problems of rehabilitation and modernisation of the traditional industries. These industries had been experiencing stagnation and lagged behind the programmes in this region. The Government were very anxious to do something positive for these industries. They had already approved a plan of Rs. 4 crores as revolving fund for the Sugar Industry. The Textile Enquiry Committee Report was before them and they were hopeful that the Planning Commission would allocate funds for financing these industries. The difficulties of the Oil Industry are also engaging their attention, especially that of credit facilities. Studies had to be undertaken and modernisation programmes carefully drawn. The needs of the units had to be met and it was hoped that with the help of industrialists, labour, financing institutions, banks, Chambers of Commerce, a solution to the problem would be found.

Commenting on the possibility of reduction in the region's share in national income, the Chief Minister expressed her concern about it. The main difficulty in

tackling the problem was acute paucity of investment resources. The state programme was impressive in absolute but not in percentage terms. The whole question of investment resources remains to be tackled by planners and experts in the field. She mentioned, however, that in the field of power development and also major industries, like Light Engineering, Chemicals, Pharmaceuticals, Agricultural Implements, etc., significant expansion was taking place. In this connection, she mentioned that the idea of growth points and investments at selected points, with industrial complex around, had been taken up seriously and hoped that as a result of the efforts of the Seminar, some scientific approach to this problem would be made.

The message further noted that with regard to the improvement of the Kanpur Metropolitan Area the problem again was one of finance and lack of resources which could be invested on a long-term basis. In this connection, it was suggested that the proposed establishment of a Kanpur Metropolitan Development Authority with statutory powers required careful consideration in the light of the experience of such outside agencies as the Calcutta Metropolitan Council, the Delhi Development Authority and the Durgapur Development Authority and in the light of the new functions that had to be undertaken. She, however, agreed that the problem of the development of the Kanpur Metropolitan Region had to be taken up and policies initiated, formulated and implemented expeditiously and assured that the suggestions in this regard would receive the Government's consideration.

Finally, the message lent "support in principle to the idea of a Research Centre and full utilisation of the facilities available at various Research Centres in the state, particularly the Indian Institute of Technology Kanpur." Regional studies were necessary and essential and an attempt should be made to have some positive exercises in this regard. The State Government should also look into problems of regional planning, after taking into account the tasks to be performed. She agreed that the problems of regional planning and development should be tackled properly at all possible levels with the help of the necessary personnel and expertise.

Then followed the remarks addressed by Mr. John P. Lewis, Minister-Director, USAID, to the Open Session. His theme was, "Is the Kanpur Seminar an Episode or a Beginning?" He was impressed and encouraged by the performance of the Seminar, which had proved to be an unusually complex undertaking. He began with an identification of "the major but neglected problem to which the Seminar has been primarily addressed." This related to "the role of a particular economic region in the national development." More specifically, is there anything, in the developing, industrialising, urbanising situation, that social policy-making can and should do about the pattern of central places (of towns) into which people and activities organise themselves? Referring to the failure of industrialised countries to introduce locational planning, he suggested that in view of the fact that most of her industrialisation and urbanisation

was still ahead, "India—and the Kanpur Region, have the opportunity..... and the time to succeed in improving on the locational patterns of the more industrialised countries."

He viewed the Seminar to have broken new ground in a largely unexplored field and to have provided some stimulus to similar explorations elsewhere in India. Commending the strong set of recommendations of the Seminar, he noted that it had reached a consensus on certain major propositions—namely, the validity of the regional approach, the acceptance of the doctrine of growth points, the need to centre industrial and urban activity around a hierarchy of central places as far in the direction of smaller centres as vigorous development permitted, and contended that regional planning and development served to reinforce, not compete with, other priority objectives.

He also referred to the proposals of the Seminar about follow-up institutions and programmes and ventured a few general observations on the matter. He would like the implementing institution to be, from the beginning, sufficiently strong, adequately funded and staffed with a critical mass of expertise. He desired the State Government to play an active role. The issues posed by the Seminar were not easy; this called for incisive analysis, hard thinking and political courage—the courage to discriminate deliberately and purposefully. He further hoped that industrialists and businessmen of the Kanpur Region would become active partners in the beginning and promotion of regional development. "The members of the private sector of Kanpur city should," he maintained, "specifically recognise and promote their natural alliance with the farmers of the region, seeking out opportunities to supply the inputs, to process the outputs and to provide consumer goods the cultivators want and need."

#### **Discussion :**

Thereafter, the Seminar findings and recommendations were thrown open for discussion by members of the audience. They evoked spontaneous response from the representatives from diverse fields of public life. Prominent industrialists, businessmen, labour leaders and government officials participated in the discussion. Notable contributions were made among them by Sir Padampat Singhanian, and Messrs Shiva Prasad Gupta, S. M. Bashir, Arjun Arora, A. H. West, Anand Sarup, and N. Sethuraman. A striking feature of their contribution was a general acceptance of the findings of the Seminar and endorsement of its recommendations. Reservations were, however, voiced on the question—'what next'?, on implementation of the recommendations, on the requisite follow-up action, particularly by the Government agencies.

Sir Padampat thought it was a good thing to have had a seminar of this type but reminded the audience that the process of such consideration of the issues of development was not new. Many such efforts had resulted in a long series of reports dealing with industrial development and the present was yet another. He referred specifically in this connection to the long drawn-out plight of the Textile Industry. He contended that nothing was impossible of achievement. U.P. was a big state, had a

big population, had the cream of bureaucracy in the government and her budget expenditure had expanded greatly over the years but the resulting increase in per capita income was disappointing. The Seminar recommendations were good but the crucial question related to their implementation. U. P., potentially, was capable of feeding the whole nation but the requisite approach to planning was wanting. Apart from paucity of resources, he considered that the handling of development tasks by the state administration lacked constructive approach. He cited his personal experience with the official agencies of the state and noted how different it was from the way similar issues were tackled by Rajasthan, the state which had secured more development in the past decade as compared to the performance over a hundred years before that. He laid stress on the two pre-requisites of development, namely, personnel and motivation. The desire to move faster was, in general, lacking. He did not think lack of resources was the principal barrier to industrial growth. He suggested that there was scope for all kinds of industries in the region, not merely for agro-based industries. He contended that 'only four men', adequately motivated and with requisite competence, were sufficient for the job. If planning goes on as hitherto, he feared, the whole world would not be able to feed us. Finally, he pleaded with the bureaucracy to acquire the requisite determination to produce results.

Mr. Shiva Prasad Gupta recognised that paucity of resources for investment was real and acute. This made it imperative that all should contribute their utmost to the development. People should come together for the constructive task of implementation of development policies and programmes in the same way as participants from different disciplines and walks of life had come together in the Seminar to think about the problems of the region. To him, the follow-up programme was a must and he hinted that the Government would give earnest consideration to the Seminar recommendations at an expert level. The Government too were exercised by the administrative barriers to development and were constantly considering ways and means to improve the situation.

Mr. Bashir recalled his own participation in the deliberations of the Seminar and said that there were no two opinions about the recommendations. He directed attention to the specific recommendations about implementation and emphasised the need to carefully consider 'How' before speculating about "Where it may actually lead to." He urged upon the sponsors to work jointly for implementation of the recommendations. He, however, underlined the fact that state planning had dampened the initiative of the entrepreneurs by raising tedious barriers and also cautioned against excessive reliance on statistical data, which could be deceptive.

Mr. Arjun Arora did not like the description of Kanpur as a sick city. There were indeed problems but progress too was being made, especially in the field of housing. He cautioned against undue pessimism. He recalled that Selig Harrison's pessimism about the 'dangerous decade' of the sixties had apparently been proved wrong and commended

the constructive approach of the "Quiet Crisis" of John P. Lewis, which showed that while the plans were good and attractive, their implementation was barren of results. He was not enamoured of 'the big city.' U. P., he said, was fortunate in having only medium-sized cities, apart from Kanpur. He deprecated the idea of deliberate planning for the cities to grow bigger. He advocated dispersal of industries and thought it possible for each district of the state, through such a policy, to have a city of 1,00,000. Commenting on the general problem of comprehensive development, he held one thing that the Americans had done was to remind us of our agriculture. He thought emphasis on agriculture would itself generate industrial development. Proximity of industrial centres to agricultural prosperity was inevitable. He noted that power will soon be available and industrial centres were bound to come up. Referring to Sir Padampat's remarks about the Textile Industry, Mr. Arora contended that the industry rested on solid foundations, had survived through difficult years and the scope for its improvement was promising. He did not view in this connection that labour in Kanpur was particularly bad. The problems of the industry required concerted approach of all the parties involved. He commended the Seminar's recommendations and hoped that follow-up action would not end with appointment of a committee of experts to advise on their implementation.

Mr. West's contention was that industrial growth prior to 1939 was due to 'the virtue of absence of planning.' His plea accordingly was for laying less emphasis on planning. "Have, by all means, a basic plan," he pleaded. Emphasis on data and statistics led, according to him, to over-planning. Like Sir Padampat, he wanted the emphasis to be placed on pre-requisites of industrialisation; power and communications had to be developed first so that desire and motivation may lead to a natural growth of industries. He wanted the present organisations to play a more positive role.

Mr. Anand Sarup advanced a strong plea for action-oriented planning. He lent support to the Chief Minister's stress on the need to avoid haphazard industrialisation such as was experienced by the western countries in the past, the imperative need for undertaking planned decentralisation of industrial growth and the need further to promote technical innovation in all the different aspects of the development process. He directed attention to the programme of industrial estates in the state and suggested that the whole experience needed a thorough re-examination. In view of the unsatisfactory measure of inter-departmental coordination as well as the cultural lag between the bureaucracy and the public they had to deal with, the administration needed to be suitably re-oriented in outlook, procedures and methods of work. Gap between planning and implementing agencies had to be bridged and new techniques had to be developed. Commending the suggestions regarding development corporations, he suggested that such autonomous bodies may effectively involve private enterprise in the development process, including policy making.

The discussion concluded with brief closing remarks by the Chairman of the Seminar, Dr. Baljit Singh and a summing-up by the President, Dr. Radha Kamal

**Mukerjee.** Dr. Singh expressed satisfaction at the general response evoked by the Seminar's recommendations. They were well-received. The main anxiety expressed by the different participants related to the follow-up action. He too hinted at the possibility of the Government setting up a small expert committee to deal with this specific question of implementation only. He appealed to the three sponsors of the Seminar to address themselves to the formulation of a concrete programme for giving effect to the recommendations of the Seminar.

In his summing-up, Dr. Mukerjee referred specifically to the consensus of opinion that "there should be introduced a new Department of Regional Science not merely at I.I.T, but also at other suitable university and research centres. Meanwhile, there should be co-ordination of the study and teaching of such social sciences as Economics, Political Science and Sociology at the Post-graduate stage with the region as the focus of integration."

With regard to the follow-up action, he directed attention to the basic recommendation of the Seminar for the constitution of a Regional Development Authority in the Kanpur Region, whose task it would be to relate the growth of industries in little towns to the development of agriculture.

Referring further to the experience of Industrial Estates, he directed attention to the success of the Estates in Howrah and Madras and to their failure in Uttar Pradesh. The chief reason for the latter's failure was the lack of co-ordination of the various departmental activities of the Government. He believed that the coming of the Estates under the control of the Regional Development Authority, would avoid these drawbacks and foster the development of agro-towns in the hinterland of Kanpur.

In conclusion, he held that the success of urban and regional planning demanded an alert democratic public opinion with reference to the grave social evils of over-urbanisation. Community conscience had to be aroused in respect of metropolitan and rural planning. It is only then that "there would emerge the appropriate social legislation and administrative measures providing industrial incentives and sanctions that may cajole leading entrepreneurs to start industrial enterprises in the little towns. A new locational policy ultimately rested on educated public opinion and sensitive civic conscience."

## II. GENESIS

The process which culminated in the Open Session on the 4th of February 1967, was initiated as far back as in the Spring of 1965, when the Seminar was conceived as a phase in the continuing process of economic development. It was conceived to be an effort to ensure against duplication of mistakes of the past. The idea was mooted by the State Directorate of Industries which had come to realise that the State's rate of economic growth was lagging behind that of the rest of the country. The techno-economic survey of the State had concluded that "progress in U. P. was far from satisfactory, especially on the level of technology employed by its industry." A series of feasibility studies as well as site studies had been undertaken by the Directorate. A series of Seminars too were held in the Universities of Varanasi, Allahabad, and Lucknow with the chief support of the Directorate of Industries; these seminars pointed to the need for development of infra-structure and entrepreneurial skills and for better coordination of urban and industrial planning. In continuation of this effort the Directorate then "approached I.I.T. Kanpur, for follow up work to complement these earlier seminars." I.I.T.'s deep interest in the industrial development of the area in which it is located prompted them to welcome the idea. Meanwhile, U.S.A.I.D. and the Government of India too became interested in "furthering the industrial and urban development of the State through a Seminar to study and diagnose the problems of the Kanpur Region."

The common interest thus brought the Directorate of Industries, the I.I.T. and the U.S.A.I.D. together to act as joint sponsors of the Seminar for discussing the problems relating to urban and industrial development of the Kanpur Region. A number of meetings of Government officials, U.S.A.I.D. officials and I.I.T. faculty were held between April 21, and September 1, 1965 to prepare the ground, but the work had to be deferred on account of the Indo-Pakistan conflict that had flared up soon after.

The work was, however, resumed in March 1966 when a Steering Committee was constituted with representatives of the three sponsors. The ensuing dialogue between the three sponsors of the Seminar between March and May resulted in broad agreement about the scope, objectives and procedures of the Seminar. In May 1966, a Memorandum of Understanding was prepared to serve as a basic document to guide the work of the Seminar. Accordingly, a research unit was established in the I.I.T. for collection of basic data and information for the use of the Seminar, a Workshop functioned from January 2 to 22, for the preparation of a series of background papers and the Seminar was held in the week from January 29 to February 4, 1967.

The Memorandum is an impressive document; in brief but precise and clear terms the statement defines the scope of the Seminar, inunciates the problem and specifies its different aspects, clarifies the objectives, lays down the programme of the Seminar in two phases and its time frame and deals with its budget. In discussing the scope, the

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Memorandum directs attention to the opportunity that this country has for avoiding large agglomerations. This opportunity constitutes also an exciting challenge. "Because the flooding of people into the cities is still at such an early stage because there is so much industrialisation yet to take place ... India is at a stage where national policies can, within limits, shape the size and pattern of towns and cities." It is by meeting this challenge squarely that one could hope to deal with the two tremendous forces at work in India, namely, a relatively rapid rate of population growth and an increasingly rapid rate of urbanisation. The Memorandum takes note particularly of the staggering implications of the latter process—social and political problems of industrialised urban areas, which could prove to be particularly grave, the prospect of maximisation of the country's drift towards the condition of a polarised dual society and the inherent incompatibility of the deepening internal contrasts and tensions between the modern and traditional sectors with the attempt to achieve radical economic change via processes that enlist popular consent.

The Memorandum goes on to say, "The Kanpur Region in Uttar Pradesh offers an excellent opportunity for India to plan for a healthy and productive dispersion of people and industry. The 90 million people living in Uttar Pradesh are fairly evenly distributed throughout the State. Kanpur, with a population of a little over one million, is the only major industrial city in the State. The city is a natural centre and the likeliest growth point for future industrial development, but unless the people and the Government inject a more orderly spatial design into the industrial-cum-urban growth process of the region, the social costs of Kanpur may very soon overtake the economic benefits of its industrialisation...One additional plus factor in the Kanpur Region is the presence of an outstanding Institute of Technology at Kanpur. In the process of developing a locational development plan for the region, the Institute should become more closely related to the region's industrialisation, helping to introduce new technologies into the industrial fabric of the area."

The two objectives specified by the Memorandum for the Seminar were :  
(i) to ensure, through regional development, the optimum spatial distribution of the population and the productive activities among the various villages, towns and cities within the region, and a desirable inter-action among these different sized centres : and  
(ii) to examine the opportunities for implementing a desirable spatial policy, and consider specifically the extent that the government can create incentives and disincentives to influence the distribution of activities among different sized centres, through planning for new transport and power facilities and less directly, through taxes and subsidies.

The Memorandum envisaged the Seminar programme to have two main phases. The first phase, the preparation for the Seminar, required two levels of study : (i) the compilation, mapping, and projection of regional data, and (ii) where appropriate, an analysis of the data compiled. It was suggested that the relevant data might usefully

be projected in a twenty year time frame. Suggested specific preliminary studies include:

- (1) **Dynamics of Migratory Patterns:** including, among other things, historical maps of the regional densities, consideration of the relationship of economic opportunity and population concentration, description of the location size and nature of the labour market, citing particularly the size and location of the projected residual from the agricultural sector.
- (2) **Identification of the Kanpur Region:** The most general guideline on this difficult question of definition seemed to be "not to go either too small or too large." It was suggested that the region could be defined as the geographic area whose units, insofar as they have economic (and migratory) interactions at all with centres roughly of Kanpur's size, have those interactions predominantly with Kanpur rather than with other comparable centres. Indicators of the inter-action might include: migratory patterns, threshold areas, where people begin to fall off to other large industrial centres, flows of goods and services (including for example, newspapers as well as textiles).
- (3) **Potential growth Centres within the Region:** It was suggested that studies may concentrate on (a) the city centre, or Kanpur, whose study, after outlining the social, economic and political structure of the city, could proceed to examine the interaction among these various groups, emphasising those aspects of the city that are most relevant to the objectives. (b) The intermediate sized towns with a population ranging from 50,000 to 3,00,000 considered as potential satellite or counter-magnet" towns, capable of attracting many types of industries away from Kanpur city. (c) The market or Mandi town, a supra-village ranging in size from 5,000 to 20,000 people, a logical place to establish a regulated market and capable of being developed into a centre for some 20 or so villages. On the basis of these studies it was suggested, one could examine the opportunities for growth, and, if possible, the effects that growth might have on their respective immediate environments. Further, it may be possible also to identify, map and classify other existing potential growth points within the region, outlining for each area the development indicators, such as dynamic local leadership, both in the public and private sectors, physical resources (water availability for industrial use, transport systems, mineral resources, etc.), and institutional resources (schools, hospitals, etc.).
- (4) **Forecast for Change:** Perhaps, the most vital and basic task was to determine the potential demand for goods and services from the region and the current capacity to meet that demand, and the type of industrial structure needed to meet such a demand. This was useful for determining the number and types of locational decisions to be made and for indicating how specific the government could be in its locational planning.

- (5) **Institutional Structures of the Region :** This study was envisaged to discuss urban and local government and administration, and their influence in affecting locational decisions, examine the role of the State and Central Government and Local Administration in the region, their decision-making tools, and effective ways to use these tools in locational decision-making, and give a description of the labour union structure in the region, particularly in Kanpur city.
- (6) **Transportation and Communications System :** A comprehensive set of maps on transportation and communication in the region, as well as descriptive information on the region's capacity, together with analysis of costs of transporting commodities within the region.
- (7) **Educational and Technical Institutions of the Region :** Covering technical institutes in Kanpur city, the government polytechnics and other specialised training facilities that could play an important role in regional development. Also, an appraisal of the centripetal and centrifugal relations IIT Kanpur could have with its industrial clientele . . . in such dimensions as supply of skilled manpower, conduct and focus of research, consulting, etc.
- (8) **General Studies :** Including data collection and, where appropriate, mapping, of general information for the region not covered in the above studies, such as physical geography . . . a description of natural conditions, e. g., topography, climate, hydrography and vegetation, power availability.

In the second phase of the programme it was envisaged that a group of 8 to 12 foreign and Indian participants would be invited to prepare papers for presentation at the Seminar. In this connection, the subject of the Seminar itself seemed to fall naturally into two general areas for discussion : (i) a discussion of the general question of industrial allocation and spatial location; and (ii) a discussion of implementation, ways the governments can influence industrial allocation. It was expected that the participants would represent a range of interests relevant to the subject so as to insure a broad treatment of the subject. Specific topics mentioned by the Memorandum included : "The criteria for choosing growth points; the criteria for industrial allocation within the region; the relationships among the size of city, industrial composition, and social and urban costs; a model for the allocation of industries among growth centres in accordance with the criteria; physical investment necessary for influencing locational patterns; fiscal and financial policies necessary for influencing locational patterns; tools and techniques for influencing locational patterns."

### **III RESEARCH UNIT**

The task of data collection, mapping and research that the Memorandum of Understanding had envisaged was by no means easy. But the challenge was taken up by the Convener, who acted also as the Director of Research and his Associate Director, whose services were made available to the Seminar by the USAID in August, 1966. There were obvious difficulties. One of them related to initial finance, since the grant as provided for under the terms of the said Memorandum was received only in October 1966, less than two months before the scheduled date of the Workshop. A beginning in getting together a team of the requisite research workers was made immediately on the adoption of the Memorandum and a skeleton staff started collecting data early in June, 1966. This job of finding qualified and competent personnel too was difficult and the team of some twenty five persons, that could be assembled with considerable difficulty, included many part-time workers, most of whom were drawn from the local colleges, where they had continued to shoulder their normal responsibilities, particularly, of teaching.

The zeal and enthusiasm with which the team had put up hard labour to fulfil the challenging task set by the Memorandum was impressive as can be seen from the five bulletins that the Research Unit had produced. In doing so, they had consistently attempted to keep to the letter of the Memorandum. It is not claimed that they entirely succeeded in doing so. There was also considerable delay in making the material available to the participants. It is also possible that they could not satisfy the precise data needs of the participants, many of whom were accustomed to handling qualitatively more refined types of processed data. But all this was not for want of effort on the part of the team. They operated in a situation marked by acute paucity of information relating to this intermediate regional level. By those familiar with the quantitative paucity and qualitative deficiencies of the research data situation in India, at whatever level one may choose to operate, the performance of the Research Unit would certainly be found impressive even though it must prove inadequate to meet the exacting demands of keen and meticulous scholarship.

Without undertaking an evaluation of the organisation, methods and performance of the Research Unit, it may be noted that in the course of their work they had the opportunity to discuss the substantive issues, whose analysis could prove pertinent to the problems to be considered by the Seminar, with a number of specialists who paid individual visits to the unit during the three months between October and December, 1966. Among these visiting specialists were Dr. Radha Kamal Mukerjee and Dr. Baljit Singh from Lucknow, Mr. H. Banerji of the C.M.P.O., from Calcutta, Dr. Manzoor Alam from Hyderabad, Professor M.A. Rege from Kharagpur, Dr. S. C. Dube from Sagar, Mr. I. M. Grossack and Miss E. Mueller of the USAID, from New Delhi, Dr. L. S. Bhat, Dr. Ashish Bose, Dr. J. N. Sinha, and Mr. P. B. Desai from

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**Delhi.** A very wide range of topics were covered in these discussions, from the basic question of criteria for delimitation of the region to methods of projecting the different aspects of the regional economy and population. From the records of these discussions, it is evident that the specialists invariably stressed the agricultural character of the region, the paucity of resources for basic industrial development, a potentially large regional market, the need to rehabilitate the existing industries and the imperative of evolving relationships internally within the region between communities of different sizes and types on the basis of a sound development of infra-structure facilities and services. Accordingly, the following major heads under which data could be collected for the use of the Seminar participants were commonly suggested: Economic overheads—transport, power and water supply; agricultural situation, including land utilisation, land tenures, crop pattern, yields, taxation, prices, and marketing; industries, especially in Kanpur City—financial structure, composition of output and labour force; population—size, structure and composition in 1961 and their projections upto 1981; and social overheads, including public health, education and other social services.

The end-product of the labours of the Research Unit conducted over a period of seven months preceding the Seminar constituted a series of 13 data-oriented papers supplied to the participants in the five bulletins. The first two bulletins in the series were made available prior to the convening of the first Workshop meeting on January 2, 1967 and the remaining three in the course of the following month. Three of the eleven papers were based on primary data collected through fresh field surveys conducted by the Unit and the rest on data collected from a great variety of official and non-official secondary sources. From the papers it is evident that the effort concentrated on supplying as much data to the participants as possible, without undertaking any time-consuming processing and analysis.

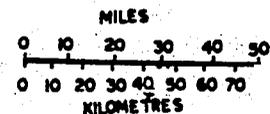
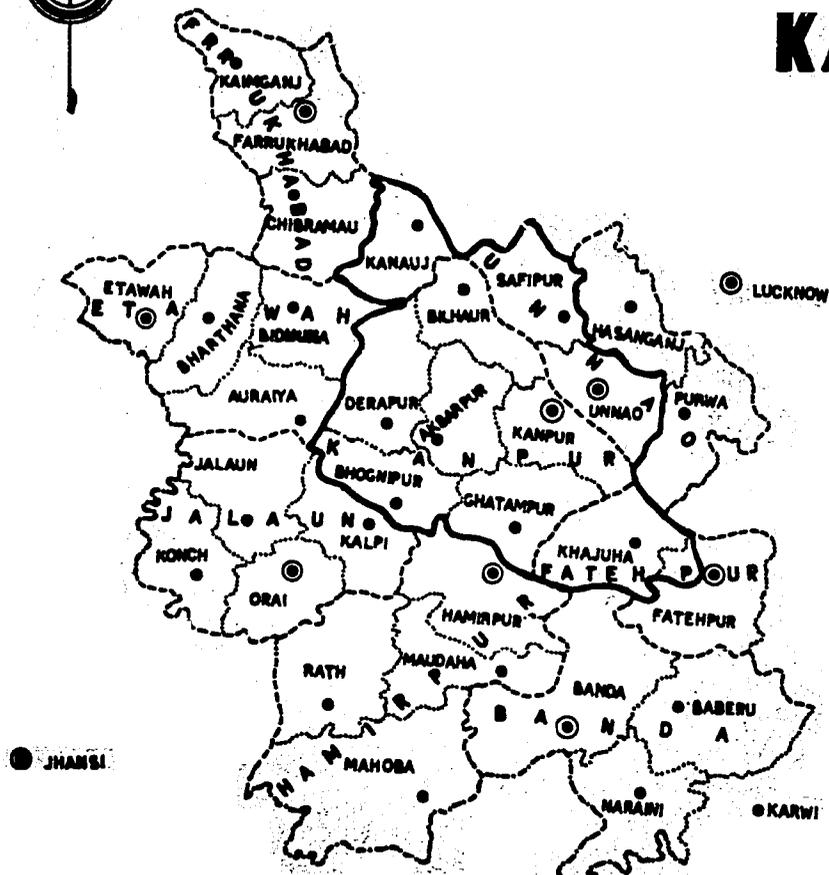
For an idea of the nature and scope of the above process of data-gathering, a brief reference to the substantive content of each of these papers is given below :

- (1) **The Nature and Extent of the Kanpur Region :** Dr. V. B. Tripathi, Bulletin No. I. Describes physical geography of the region comprising eight contiguous districts, namely, Kanpur, Farukhabad, Etawah, Jalaun, Hamirpur, Fatehpur, excluding Khaga tehsil, Banda, excluding Mau and Karwi tehsils, and the part of Hardoi lying to the south of Unnao-Hardoi road. It touches also upon the region's demographic characteristics, occupational pattern and land utilisation.
- (2) **Delimitation of the Kanpur Region :** Dr. V. B. Tripathi, Bulletin No. II. Discusses how the different criteria were applied for delineation of the region described in the preceding paper. Includes some 14 maps of Kanpur Metropolis, commuting area, vegetable supply zone, milk supply zone, grain supply zone, isochronic cartogram, bus traffic flow, incoming



# KANPUR-REGION

ADMINISTRATIVE UNITS



-  STATE BOUNDARY
-  DISTRICT BOUNDARY
-  TAHSIL BOUNDARY
-  DISTRICT HEADQUARTER
-  TAHSIL HEADQUARTER
-  REGIONAL BOUNDARY PRIMARY

JHANSI

ALLAHABAD



and outgoing road traffic flows, railway passenger traffic flows, medical service zone, the region, and of administrative units in the region and growth of the city.

- (3) **Kanpur City, its Past and Present** : Dr. S. R. Bajpai, Bulletin No. I. Traces the history of the city since the early initiation of its growth, thanks to the establishment of an army camp by the East India Company in 1778, and gives a brief running account of the major factors that were responsible for the growth of the city. The history is divided into five phases, namely, pre-industrial period upto 1864, early industrial growth—1864 to 1919, industrial consolidation—1920 to 1939, Second World War and after—1939 to 1950, and planning phase from 1951 onwards.
- (4) **History of the Industrial growth of Kanpur** : Dr. D. D. Shukla, Bulletin No. II. A detailed industry-wise review of industrial growth separately over the three phases of the period. The first phase concludes with 1921, in which the British interests were primarily responsible for expansion of industrial activity; the second phase covers a period of over 25 years between 1922 and 1947, in which industries grew up, thanks to the initiative of Indian entrepreneurs and also to the protection granted by the Government; the third phase, commencing with 1947, is characterised by relative stagnation of industrial activity. Notable among the industries included in this survey are Cotton, Woollen and Jute, Textiles, Sugar, Leather, Oil and Chemicals, Light Engineering, Ice factories and Flour mills etc. The paper also narrates present problems of the industry in Kanpur, in respect particularly of industrial labour, welfare and industrial organisation.
- (5) **Towns of the Kanpur Region** : Mr. N. K. Saxena, Bulletin No. V. Presents data collected through a special field survey, in respect of all the 25 towns in the eight districts of the region (excepting Kanpur City). The topics on which the data are presented include : distance from and transport links with Kanpur City; transport links of each with other towns; principal crops produced in the surrounding regions; industrial activity; products marketed; and availability of electricity, water, communications, warehousing, banking and educational facilities. Additionally, intensive survey data are presented for five of these towns; the information collected in the intensive survey relates to people's participation in the development programmes, the area of influence of the town and the means of communication and transport in actual use.
- (6) **Trends of Urbanisation in the Kanpur Region** : Mr. R. S. Bajpai, Bulletin No. III. Attempts an analysis of the nature and extent of

urbanisation in the region over a period of six decades between 1901 and 1961 on the basis of census data. Refers particularly to the rate of population growth, inter-district and inter-town differentials in growth rate, district-wise distribution of towns by size, average area and population served, and occupational distribution of labour force.

- (7) **Basic demographic data of the Kanpur Region :** Mr. R. S. Bajpai, Bulletin No. III. Presents a set of fifty tables giving data of the 1961 Census for the region, and for individual districts and towns of the region. The data relate to area and population; rural urban residence; population in different size classes of towns; density and sex ratio; literacy; industrial classification of workers; vital rates; age structure; household composition; marital status; birth place; length of residence, education and sex of migrants; size of land holdings for rural household; and decennial variations in population of the five major towns of the state and the seven largest cities of India.
- (8) **Industrial structure of Kanpur City :** Dr. S. R. Bajpai, Bulletin No. II. This study attempts to describe and appraise the industrial structure of the city on the basis of data from secondary sources :— (i) Reports of the Chief Inspector of Factories for establishments under the purview of the Factory Act, from which data of the number of industrial units and their workers are taken for 1951, 1956 and 1960 for Kanpur City and U. P. as a whole. (ii) Census of manufacturing industries, covering 29 major industries. The data, compiled from this source for the state as well as Kanpur City for 1953, 1959 and 1962, relate to fixed and working capital, size of employment, wages, fuel consumption, value of raw materials, depreciation, output and value added by manufacturing. (iii) Surveys conducted by the U. P. State Directorate of Industries giving data on the number of establishments, capital, employment, installed capacity, production and export.
- (9) **Migration, Job Commitment and Urbanisation of Industrial Labour:** Dr. C. P. Goyal and Dr. R. K. Srivastava, Bulletin No. IV. A survey based on one per cent sample of the workers employed in five major industries in Kanpur—Textiles, Basic Metals and Engineering, Food Stuffs, Leather and Leather Products, and Transport Equipment. A proportionate sample was drawn from these industries keeping in view the industry-wise distribution and skill levels of workers. The study covers : (a) **Individual Characteristics**—sex, age, skill, religion, caste, marital status, literacy and education, locality of residence, number of dependents, wages and ownership of land in native village. (b) **Immigration of workers**—sources of labour supply, causes of migration, pull of Kanpur City, possible

intermediate places of stay, contacts with native village, visits to the village, amount and purpose of remittances to native place, ownership of village home. (c) **Employment experience**—including time taken in securing the first job, the present job, role of employment exchange etc. **Job turnover**—number and nature of jobs held previously, causes of leaving the previous jobs. **Unemployment**—duration and causes of unemployment, means of support during unemployment, wage rates, job preferences, etc. **Aspirations**—highest attainable position and chances of promotion. **Skill**—new skills learnt after coming to the city, the present effort, agencies and assistance for learning skills, trade union association and plans of retirement. (d) **Changes in attitude and behaviour patterns**—relating to caste, marriage, inter-dining, communication, recreation, material possessions, feelings about urban and rural life, and choice of place for post-retirement settlement.

- (10) **A Study of Entrepreneurs in Kanpur City** : Mr. V. N. Seth, Bulletin No. IV. This rather ambitious study is based on a small sample of 81 entrepreneurs, managing 13 large, 19 medium and 49 small-scale industrial establishments, chosen from a list of establishments which were first stratified according to the nature of industry into nine broad categories. The data were collected through personal interviews with the help of a structured schedule of questions. The entrepreneur is defined in the study as "a person responsible for the establishment of an industrial unit, either alone or in collaboration with others." The two broad objectives of the survey were (i) to find out the factors inhibiting the industrial progress of Kanpur and (ii) to explore the possibilities of dispersal or establishment of industrial units in the Mandi or other towns within the Kanpur Region. On the basis of the data collected in 81 schedules, the study provides detailed identification of the entrepreneurs, covering such personal characteristics as age, caste, religion, regional background, education, occupational history, family occupational background etc.; gives an analysis of the nature of organisation, of the sources of finance and of the problems faced by industrial units; attempts an evaluation of 'values of entrepreneurs'—their roles and performance—by comparing the responses with hypothetical values of an "ideal type" of entrepreneur in respect of risk-bearing, commitment to the establishment, temporal perspective and "entrepreneurial mobility", and discusses the attitudes of the respondents on the question of dispersal, relocation and new development of industries at places outside Kanpur but within the Kanpur Region.
- (11) **Infra-structure and Social Overheads in Kanpur City** : Dr. J. N. Nigam, Bulletin No. III. Covers: (a) **Housing** : Census houses by use-1961; proportion of residential houses, workshops, factories, schools and hospitals

and educational institutions and places of public entertainment. Size of household, living rooms per household, density of persons per room, rent, projection of housing shortage for 1991. (b) **Sewage disposal and conservancy** : Expenditure on conservancy and drainage—1963-64 to 1965-66, length and capacity of sewers, extension cost of drainage works and future plans. (c) **Water supply** : Year of construction, size and capacity of reservoirs and pumping sets; consumption of water by use (domestic, industrial etc.) for 1955 to 1964; number of connections, number of fire hydrants, municipal corporation expenditure on water works and expansion programmes. (d) **Power supply** : Number of consumers—1947 to 1965. Per capita consumption; major heads of consumption and power rates, 1960-61; industrial consumption; generating capacity; connected load; cost per unit generated; seasonal variation in peak load supply; villages connected with electricity and their power consumption and rate structure. (e) **Medical facilities** : Number of hospitals, beds and patients; labour department activities; medical facilities provided by the Kanpur Corporation; T. B. clinics; town planning proposals. (f) **Recreational facilities** : Open places, water fronts, picnic spots, cultural organisations, library and reading rooms, clubs etc., cinemas, recreational facilities provided by the corporation, and town planning proposals.

- (12) **Social Costs of Urbanisation** : Dr. C. P. Goyal, Bulletin No. V. Attempts a qualitative assessment of selected problems of the city, including density of population, insanitation, smoke and fumes, health and disease, accidents, occupational diseases, industrial accidents, housing scarcity, slums, pavement dwelling, vagrancy, juvenile delinquency, crime, prostitution and alcoholism, on the basis of the data collected from official and non-official agencies, including Municipal Corporation, District Superintendent of Police, District Civil Surgeon, District Prohibition Officer, Juvenile Judge, Information Officer, District Harijan and Social Welfare Officer, Rescue Officer and Welfare Institutions etc.
- (13) **Fiscal Planning and Regional Growth** : Dr. A. P. Gaur, Bulletin No. V. Discusses in part A, the role of local bodies and in part B, industrial finance and financial intermediaries. Part A gives (i) the state-wise break-up of the local bodies in India; (ii) finances of the U. P. Government for the year 1964-65 to 1966-67 (iii) duties and taxing powers of the Corporations in U. P. (iv) finances of Kanpur Nagar Mahapalika (Municipal Corporation) for the last five years; (v) comparative statistics of 'KAVAL'\* Corporations in respect of revenue and expenditure,

\* Kanpur, Agra, Varanasi, Allahabad and Lucknow.

(vi) some information with regard to income and expenditure pattern of Municipalities in the Kanpur Region; and (vii) historical growth of local bodies, their financial powers, obligatory and discretionary functions. Part B, includes (a) a brief review of the working of the Reserve Bank of India, its financial assistance to commercial banks, financial institutions and co-operative banks; (b) role of the State Bank of India; (c) Statistics with regard to the number of banks in the Kanpur Region; the loans granted by the State Directorate of Industries, the State Finance Corporation, Industrial Finance Corporation etc. and deposits and advances of banks in U. P. Also refers to the need for a Money Market and Capital Market at Kanpur.

Additionally, pertinent data were, on request, made available to the Seminar participants from the series of transportation systems studies, which were then in progress in I.I.T.'s department of Civil Engineering, under Professor J. E. Snell, who was also associated with the Research Unit. The basic strategy of these studies was to (i) identify relevant transportation systems, (ii) relate existing facilities to spatial patterns of population and activity centres, (iii) estimate future patterns of activity centres in the region and transportation requirements, and (iv) formulate and evaluate programmes of transport system change for achieving the desired patterns of development in the region. The three systems identified by these studies were the external system comprising the network of rail and motor highway facilities, with Agra, Lucknow, Allahabad and Jhansi as terminal points; the regional system, as defined by the network of facilities centred on Kanpur and extending out roughly 20-30 miles from the city; and the Kanpur Metropolitan System. For the external system, 42 important nodes, including 17 of State's 50 traffic focal points, were selected and valuable origin-destination data were collected through roadside interviews conducted during the first week of June, 1966. The data comprised roughly 80,000 records for both motor-driven and slow-moving vehicles. These data had, at the time of the Seminar, already been processed into computer tape and a series of tables had also been prepared.



## **IV THE LOCAL ADVISORY COMMITTEE**

The Committee was constituted to facilitate preliminary consideration of the problems to be discussed by the Seminar, at the practical or operational level by those who were directly involved, to inform and advise the Seminar participants on matters which could best be discussed at an informal level and generally to infuse pragmatism and realism into the deliberations of the Seminar.

Besides its Chairman, Dr. T. G. K. Charlu, the Director of Industries, and its Secretary, Mr. L. N. Pandey, the Assistant Director of Industries, the Committee comprised of nearly 85 members drawn from all walks of public life in Kanpur. Among them, there were officials of the Directorate, the office of the Labour Commissioner, the Kanpur Nagar Mahapalika, the Directorate of Technical Education, Irrigation Department, Small-scale Industries Corporation, Electricity Board, Directorate of Agriculture, State Financial Corporation, Town Planning Department, U.P. Government Roadways, Northern Railway, National Sugar Institute etc.; several members of the staff of I. I. T., other technical training centres and local colleges; leading labour leaders, industrialists, and representatives of business and manufacturers' associations and Chambers of Commerce; and prominent leaders of public opinion. This impressive composition indicates that the entire elite of Kanpur City was enlisted to assist the deliberations of the Seminar.

Several members of the Committee attended the meetings of the Workshop and other sessions of the Seminar and held informal discussions with participants outside the sessions. Arrangements were freely made for the participants to call on the Committee members, as also on different departments of the Government, industrial establishments, business houses, municipal officials etc.

For consideration of the problems before the Seminar and conveying their views to the participants on these problems, the Committee broke up into as many as nine sub-committees, whose reports were presented to the Workshop in a special session held on January 24, 1967, under the Chairmanship of Dr. Charlu. These reports supply brief, but often very adequate consideration of the problems by the sub-committees and contain some very specific recommendations for the solution of those problems. For an appreciation of the detailed and comprehensive manner in which the sub-committees addressed themselves to the task, brief summaries of their recommendations are given below :

**Development of Agriculture and Agro-Industrialisation in Kanpur Region :** Chairman, Mr. S. M. Bashir; Convener, Mr. Baboo Singh. The sub-committee considered the prospects of growth to be very bright. A 50 per cent increase in foodgrains production could be secured by the end of the Fourth Plan on the assumption that average yield is raised by 50 per cent for wheat and maize, by 25 per

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cent for paddy, jowar and bajra and by 20 per cent for potato, through a suggested programme of increase in area under irrigation, area under multiple cropping, improved supply and consumption of fertilisers, introduction of high yielding varieties of crops and improvement in the administrative efficiency of official agricultural programmes. They pleaded that I.I.T., Kanpur may take up experimental work in connection with the training of the river Ganges, repetitive changes in whose course were adversely affecting agriculture. Additionally, they recommended geological prospecting for ground water availability; establishment of an institute for giving training in agricultural technology to farmers and field workers; a scheme for raising hybrid seeds to be developed at the Government Agricultural College; a comprehensive plan for land reclamation, inclusive of drainage, to be developed by a team of experts from I.I.T. and the State Irrigation Department, with the assistance of local leaders; and the introduction of some 'input insurance scheme'. In respect of agro-industries they made a distinction between supporting and processing industries. For the former set, they preferred the Japanese model of rural industrialisation and recommended production of small tractors; development of rural workshops for maintenance and repair of tractors, other implements and equipment and also for production and repair of electric motors and spares etc.; establishment of an agro-industrial corporation to look after the interests of farmers and industrialists, of mobile service vans for agricultural implements and machineries, and of a government dairy; and provision of electricity, petrol and diesel oils at subsidised rates. With regard to processing industries, they advocated promotion and encouragement of such industries as Canning and Preservation, Hydrogenated vegetable oils, Cold storage, those utilising paddy straw and maize stalks, Poultry and dehydration of eggs, Starch mills and cornflakes, Paddy shelling, etc. For effective implementation of related official policies, they desired the government to play a decisive role with regard to import of fertilisers, tin plates etc. and development of truck transport; to take up industrial planning as a whole in collaboration with I.I.T. and industrialists of the region; to simplify related administrative procedures and formalities; to increase the ratio of technical personnel in the concerned agencies and departments; and to constitute a 'Regional Farm Advisory Service' comprising local leaders and specialists in different branches of agricultural development.

**Contribution of Entrepreneurs to the Industrialisation of Kanpur Region:** Chairman, Mr. A. H. West; Convener, Mr. A. N. Saxena. After a rather detailed review of the growth and current problems of different industries in Kanpur City, the sub-committee concluded that the contribution made by entrepreneurs had been restricted in the past to a few industries; it was essential to extend this contribution to many and steps should be taken to achieve this object. The present outlook for opportunities for entrepreneurs was described as fair to middling but necessary services were a pre-requisite to any entrepreneurial development, such as the provision of adequate communications, power, water, sewage and, wherever possible, workers' housing. To promote and facilitate the participation of entrepreneurs in the development process, the sub-committee found it essential that the existing barriers to development

be removed in order to open for entrepreneurship its own clear road to development. Principal inhibitions and barriers cited revolved around labour relations, inadequate worker training, paucity of research work, traditionalism, faulty material allocation and methodology. With regard to the necessary dispersal of industries throughout the region, the sub-committee thought it preferable to encourage the development of large-scale industries outside Kanpur, whereby such projects would automatically include provision for what might be described as 'satellite township'. They held that the development of a large-scale project would, by process of natural evolution, encourage the development of small-scale projects as ancillary and feeder industries. They thought it was vital to provide such services as quick transport to and from the metropolis and quick tele-communication so that men and materials could be quickly exchanged between the metropolis and the nodal points before industrial development could be expected to take off. It was also considered vital to develop markets on correct and sound lines. The sub-committee specifically recommended that (i) a suitable panel be set up to assist the contribution to be made by entrepreneurs, (ii) greater use be made of technological research and specialised institutions and organisations, (iii) an improvement in labour relations be endeavoured for as a vital pre-requisite, (iv) steps be taken to encourage the development of small entrepreneurs soon after leaving technical colleges so that technically-minded young men could receive adequate encouragement to apply their new-found skills to their own advantage, and (v) related government administration be technically-oriented to understand and suit the needs of development. It also recommended the setting up of an Apex Coordination Committee with representatives of educational institutions, employers' associations and government officials to take up (a) materials research, (b) productivity surveys, (c) market research, and (d) research in industrial relations.

**Dispersal of Industrial Development Outside Kanpur City:** Chairman, S. S. Taluja; Convener, Mr. Swarajya Prakash. Reviewing the recent trend and present position of industrial development in Kanpur and the surrounding region, the sub-committee concluded that the anticipated development of the industrial sector would not be of such dimensions and magnitude as to warrant spread of the development effort over the entire region, as defined for the Seminar. Keeping the long range planning in view, they thought that the area can be considered for development in a phase manner. They, therefore, suggested that the region be divided into the following three parts, wherein the emphasis on developmental activities could be phased out over a period of 30 to 40 years: (i) Dispersal of the industries from the over-congested areas of the city over outlying areas within the Corporation. In this connection, the first step in dispersing the industrial slums was taken through establishment of industrial estates but the whole system and pattern of the estates needed to be re-assessed in the light of the experience gained so far. (ii) Market or administrative centres within a radius of 20 to 30 miles from Kanpur, to be treated, in the second phase, as focal points of growth and establishment of "industries". The sub-committee expected that "this would have its radiation effect over the other surrounding area and thereby, with

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mutual gravitation, the growth would be extended further beyond this radius and touch boundaries of the region". (iii) In the final phase, 'the towns and focal points lying beyond 20 to 30 miles' radius from the second phase focal onwards' may be taken up for planning. The sub-committee's list of growth centres, however, included a wide scatter of towns in the region - Unnao, Orai, Banda, Pukharayan, Kanauj, Fatehpur, Bindki, Mahoba and Etawah. They further suggested a wide range of industries for dispersal and new establishment and gave a list of incentives and facilities to be provided by the government for the development of the region and encouragement of the entrepreneurs to shift to these areas. To effectuate dispersal of industrial growth, the sub-committee emphasised a three-pronged approach providing for (a) the setting up of big industrial enterprise costing Rs. 10 to 12 crores, capable of creating social amenities, like education, housing, public health, transport, sanitation, shopping centre etc., (b) simultaneous provision of essential amenities by the State at places where medium and small scale consumer goods, ancillary and feeder industries are to be located, and (iii) establishment of small, especially cottage, industries to utilise the limited financial resources and the particular skills of the people of the area, like the potteries of Khurja, the leather industry of Agra, the bangle industry of Ferozabad, the lock industry of Aligarh and the furniture industry of Bareilly.

**Development of Infra-structure in the Kanpur Region:** Chairman, Mr. Govind Hari Singhania; Convener, Mr. M. Anandkrishnan. The sub-committee dealt with transportation, communications, power supply, health, water supply and drainage facilities. Their recommendations were: **Transportation** - segregation of slow-moving traffic by providing under-passes and overbridges at suitable places; restriction of entry of heavy-laden vehicles on congested roads at peak hours; relocation of wholesale markets; replacement of cycle rickshaws by auto-vehicles; provision of metered taxis and taxi stands; removal of cattle, shifting of the slaughter-house and elimination of dogs from within the city; removal of encroachments on all roads; expansion of city bus service; and construction of over-bridges on Murray, G. T. Road, K.E.S.A. House, Gumti No. 5 and Jarib Ki Chawki railway crossing. **Communications** - separate telephone district for Kanpur City; expansion of telephone service, including increase in public call stations; connection of telex service with more cities; increase in the number of channels for direct dialling; establishment of telephone equipment manufacturing unit; extension of telegraph service and avoidance of inordinate waiting time for booking of trunk calls and telegrams; establishment of broadcasting and television stations and a radio manufacturing unit. **Power Supply** - special consideration to be given to high power consuming industries when surplus power is available for attracting industries to given locations and analysis of cost of infra-structure at different locations for different industries. **Medical health** - prophylactic measures at all hospitals; enforcement of cleanliness in and around hospitals, especially government hospitals; provision of boarding and lodging facilities for visiting families near the hospitals; provision of 50 hospital beds for every 10,000 persons in the Kanpur District and for every 50,000 persons in other districts of the region, together with X-ray, Pathology,

**Maternity and Surgical facilities; and introduction of panel system in respect of employers covered by State insurance. Water supply - provision for anticipated future needs, especially of industry, and removal of the serious health hazard caused by flow of untreated sewage into the Ganges.**

**Labour and Labour Relations :** Chairman, Mr. J. N. Tiwari; Convener, Mr. S. P. Singh. The sub-committee was of the opinion that the industrial growth of Kanpur has not been satisfactory during the last ten years. The unhappy labour relations at Kanpur cannot, however, be considered to have retarded industrial development insofar as the coming up of new enterprises is concerned. The lack of prosperity of the existing major industries could be attributed to some extent to the existing unhappy labour relations. Here, the labour, employers and the state - all the three together should face the situation boldly and play their respective parts to mitigate the evil. Labour should build up strong unions and run them on healthy lines under the guidance of capable and bold leadership and enable them to utilise the services of experts in different fields. Compulsory membership and check-off are necessary to enable unions to achieve this goal. They should be united as far as possible and should be ready to understand the problems of the industry and cooperate with the employers in the common cause of the industry. The employers should recognise the personality of the labour and should evolve their personnel policy and practices on the basis of cooperation and understanding with the labour. They should develop joint-consultation and collective bargaining and should encourage mutual discussion and negotiations rather than litigation. They should develop a human approach to labour problems, be prompt in redressing individual grievances and faithfully implement labour laws, S. O. S. awards and settlements etc. Government should suitably amend the laws of trade unions and industrial disputes to check multiplicity of trade unions and should also ensure strict enforcement of labour laws and promote disposal of cases.

**Financial Structure and Problems :** Chairman and Convener, Mr. Bharat Bhushan. The sub-committee examined the current position with regard to short, medium, and long-term industrial finance and also reviewed the working of the existing official agencies in the field, like the State Financial Corporation, Small Industries Corporation, Industrial Corporation and of Commercial Banks, and made the following recommendations : (1) The entrepreneurs should also bring the capital from their own resources to be eligible for financial assistance from the institutions of the State. The debt equity ratio of 2 : 1 was quite reasonable. (2) The growth of industries was hampered not due to the non-availability of finance from the institutions of the Government but due to the unwillingness and inability of the entrepreneurs to invest the minimum capital from their own resources. (3) The financing institutions should avoid delays in sanctioning credit facilities. The formalities for getting the finance may be minimised and the procedure simplified. (4) The rate of interest charged by the financial institutions was quite reasonable taking into consideration the money market position. (5) Steps may be taken to establish a Cell in the state to co-ordinate the

activities of the financing institutions and the other developmental institutions set-up to provide essential services for the establishment of industries. (6) The State Bank of India and other commercial banks may be approached to take a more liberal attitude to the grant of working capital to the entrepreneurs.

**State Policies and Functioning of Government Machinery vis-à-vis Industrialisation of the Kanpur Region:** Chairman and Convener, Mr. N. Sethuraman. The sub-committee discussed the problems of State policies and power structure insofar as they relate to industrialisation of the region and broadly concluded as follows: The Centre-State relationship should be spelt out properly. Administrative control of the Centre should be minimal, excepting in the matter of foreign exchange allocation. Licencing procedures should be relaxed and simplified. The State should undertake development of infra-structure, including housing and public utilities. There should be a single, unified agency to deal with and assist private industries. Likewise, exercise of controls and regulations should be in the charge of one agency at each power level; service and assistance should be rendered at the locale of the industries to be supported. Functions of local bodies like zoning, water supply, building controls etc. should be so streamlined that the entrepreneurs know the norms and requirements, and grant of permission becomes only a formality. Local laws should be reduced to precise standards, leaving no ambiguity of interpretation. Government should allocate powers to proper personnel, capable of taking decisions almost across the counter, subject to broad policy directions. Long-term financing should be provided for infra-structure development including power, transport, communications and area development. Related taxation policies should be definite, clear and of a continuing character and may provide for discrimination between old and new industries and between virgin areas and growth points. Interpretation of taxation rules should be so bold and imaginative as to serve the purposes of development. Financial institutions must have adequate resources and they should be oriented towards project financing. A stock exchange should be established. The banking system should be so evolved as to have firm roots in the region. The sub-committee offered a number of other suggestions, including maintenance of continuity in state policies, provision of fiscal incentives for dispersal of industries, improvement of administration, encouragement to industry-wise unification of strong trade unions, promotion of good labour-management relationships, spread of workers' participation in management etc.

**Technological Development and Relationship Between Industry and Technical Institutions:** Chairman, Mr. Gundu Rao; Convener Mr. Anandkrishnan. The data on the present training programme of the technical manpower, programme for their employment and projections for their future need etc. were not readily available to the sub-committee. However, it was felt that there was reasonable indication of surplus in certain categories of technical manpower, and that a systematic programme of evaluation of this aspect would be very valuable for future programmes. For achieving free flow between industry and technological institutions, the sub-committee recommended

that (a) industry should depute highly trained technical personnel to assist the teachers in technical institutions, especially in polytechnics; (b) the teachers of technical institutions should be encouraged to acquire training in industries during vacations or on deputation terms; (c) refresher courses and seminars should be organised by capable faculty members of technical institutions for the benefit of technical personnel in the industry. They further suggested introduction of subjects oriented towards management studies, labour relations and other important social sciences; encouragement of consulting practice by academic institutions, without affecting the teaching programme; promotion of interinstitutional collaboration, and encouragement to project and team-oriented research for the benefit of industries of the region.

**Master Plan and Role of Municipal Corporation and Local Bodies in Urban and Industrial Development of Kanpur Region :** Chairman, Mr. Babulal Misra; Convener, Mr. V. S. Desikan. After considering various points for inclusion in the Master Plan for Kanpur City and for improving the functioning of the Corporation and other local bodies, the sub-committee offered the following long list of recommendations : (1) The old mills in the city, causing congestion and smoke nuisance, may be encouraged to shift from the heart of the city, through long-term loans on easy terms and at low rates of interest. This will enable them to dispose of their land at a good price. The Government should facilitate this by suitable enactments and relief in capital gains tax. (2) In order to relieve congestion in the city, the importance of the present locations of wholesale markets should gradually be toned down so that they would be tempted to shift to more suitable areas with better communication facilities. (3) Additional goods sheds should be provided near Kalyanpur, Panki and Chakeri stations. (4) Commercial movements of trucks and their parking may be prohibited in the congested areas of the city. The trucks terminal and warehouses should be located in the proximity of the above goods sheds. (5) Sub-ways and over-bridges should be provided at all railway crossings to facilitate easy movement of traffic. The necessary finance may be raised by the Government by levying some special tax. (6) District and Corporation authorities should take effective steps to prevent encroachment on roads and footpaths by rickshawalas, thelawalas etc. (7) Parking places should be provided by the Corporation for cars and automobiles on a commercial basis. (8) Temporary structures or wooden stalls should not be allowed along the main roads. (9) A new site should be selected, away from the main road for relocating the Super Market. (10) Setting up of administrative offices in residential areas should be prohibited, and Kanpur Courts, Jails etc. should be shifted to more suitable localities on the out-skirts of the city. (11) A ring railway may be provided to connect the eastern and western parts of the city through the southern part of Kanpur. (12) Existing parks should be improved and new recreational facilities like museum, zoo, picnic spots and water fronts may be developed. (13) Site for a decent hotel for better class..... tourists should be made available. (14) Dormitory towns should be established near railway stations around Kanpur for a population of about 50,000 each. Kanpur Corporation and Housing Board should initiate and encourage the creation of such dormitory townships. (15) The slums should be cleared

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and the de-housees should be provided alternative accommodation elsewhere and given higher subsidies in respect of rent. (16) Construction of residential houses should be encouraged by grant of house tax exemption for a few years. (17) Octroi should be abolished, and the Government should compensate the local bodies for the resulting loss of income. (18) Heavy industries and large-scale industries should be located farther away from the city, and remain separated from the city by a Green Belt. (19) All cattle should be shifted to the Green Belt area. (20) Congestion on the roads should be relieved by staggering the working hours of the factories. (21) Mechanical means may be provided for removing rubbish. (22) To ensure water supply in the future, in the face of the shifting course of the Ganges, a barrage may be constructed. This may provide a new road link between Lucknow and Kanpur. (23) More areas may be taken up for development on Unnao side after the construction of the barrage and the proposed new bridge. (24) Existing building bye-laws of the city should be revised to suit the Master Plan and the Town Planning Act should be enacted and enforced. (25) The Government should find ways and means to improve the resources of the Corporation by allocating a certain proportion of the electricity surcharge and entertainment tax etc. to the Corporation.

## V THE WORKSHOP

The organisation of the Workshop was conceived by the memorandum of Understanding as the second phase of preparatory work for the International Seminar. The Workshop was formally inaugurated in the morning of the second, and, after functioning for 23 days at the Kalyanpur Campus of I.I.T., concluded its work by the evening of January 24, 1967.

Besides its Chairman, Dr. Baljit Singh, its active membership included eight participants from different parts of India, six participants from the United States and, to impart it a bit of multilateral character, a participant from the United Kingdom. Its business sessions had, however, benefited from the presence and active participation of several contributing participants and members of the Local Advisory Committee, the Steering Committee and the Research Unit.

From the composition of this sixteen-member workshop team, its multi-disciplinary character is evident; among them we had four economists, three geographers, two administrators with long town development experience, a demographer, a statistician, a political scientist, a transport and communication specialist, a sociologist, a regional planning architect and a business management specialist. The institutions and organisations they belonged to, included the London Town and Country Planning Association, London; the Brookings Institute and the Agency for International Development, Washington, D. C.; the Chicago, Rutgers-State, Minneapolis and John Hopkins Universities, U.S.A.; the Institute of Economic Growth, Delhi; Indian Statistical Institute, New Delhi; Indian Institutes of Technology, Kharagpur and New Delhi; the Universities of Allahabad, Lucknow and Hyderabad; and the Ministry of Health and Family Planning, New Delhi.

The specific task of the Workshop was to prepare a series of background or working papers for discussion at the Seminar, on the basis of the mass of data and information collected by the Research Unit and in the light of analytical papers contributed by a number of eminent specialists in the fields of interest to the Seminar and of the reports of the Local Advisory Committee. Additionally, it was expected to suggest formation of panels for discussion at the Seminar, together with a broad indication of the substantive scope of each such panel.

The Workshop held meetings for a total of 38 hours in 13 sessions on seven days, January 2 to 6, 14 and 24 and spent a day on visits to industrial establishments and different parts of the city in order to gather personal impressions of the actual state of affairs in the city. Some of the participants also took advantage of I.I.T.'s small plane and had an over-view of the city and its environs. The Workshop meetings heard the inaugural addresses, discussed and finalised the titles and scope of background papers, considered the formation and scope of Seminar panels, heard the members of the

Research Unit on the nature and extent of data collected by them for the bulletins and received reports of the Local Advisory Committee.

At the inaugural session, Dr. M. S. Muthana, Deputy Director of I.I.T., welcoming the Workshop participants, introduced them to I.I.T., tracing briefly the history of its evolution. Further, he drew attention to the accepted policy of planned economic development at the national level and to the problems created by rapid population growth and more rapid rate of urbanisation, leading to the emergence of urban agglomerations and creating, thereby, the threat of social violence and political upheaval. He, therefore, emphasised the need for proper location decisions for guiding the growth of industries. Prof. Halfman, Leader of the Kanpur Indo-American Programme, in his brief and stimulating inaugural address, gave a flying start to the Workshop deliberations. He was happy that the conference looked as though it was on a very sound base, both technically and operationally.

During his 'Guidelines for the Workshop', the Chairman noted that the Workshop was expected to prepare working papers of a seminar character. The phasing and structuring of the programme was aimed at maintaining inter-disciplinary approach throughout, but the fusion of various disciplines was to be achieved at a successively higher level of specialisation within each field. He commended that the "the scope of the Seminar should be so defined as to direct the deliberations to outline a **framework** for preparing an 'action programme' or 'plan' for urban industrial growth of Kanpur Region, rather than to formulate the 'action programme' or 'plan' itself." The Seminar was expected thus to lay down directions for a policy and programme-oriented study of the region and possibly, to prepare its concrete design.

Proposing that particular attention be given to (i) identification, nature and character of the region, (ii) the scope, process and machinery for regional planning, and (iii) techniques and methodology of regional analysis and programming, he did not expect that all participants would agree on all the issues underlying a framework. He did, however, think it possible to evolve a workable framework if they could reach "a certain amount of consensus in regard to the minimum operational concepts, general approach and objectives or aims .... ."

In respect of the identification of the region, the guidelines suggested that the definition attempted by the Research Unit was tentative and not binding. Alternatively, it was possible to identify it with the Kanpur Metropolitan Area under the Corporation's jurisdiction, the Kanpur district, or the resource development division, comprising a large number of districts, as outlined by the Planning Commission on the basis of physical factors, agricultural land use and cropping pattern as well as administrative considerations. The identification of the region, he urged, was not simply a semantic issue. It formed the very base of regional programming and so, the focus of all discussion in the Seminar. The Seminar, therefore, may not draw the actual boundaries

of the region but may arrive at criteria and indices that may be used for its identification.

The guidelines further pointed out the difficulties in assessing the nature and scope of the region. There were no regional break-ups of social accounts and the criteria and measures for ascertaining the status of a region, its needs and resources, were highly debatable. In this situation it was not possible to know whether the region was slipping back or going ahead, or to identify the underlying forces and assess their impact on the future. Hence, the issues of techniques of regional analysis acquired great importance.

The guidelines considered the scope of regional planning in greater detail and directed attention to the approach of the Third Plan and to the Draft Outline of the Fourth Plan. It reviewed the existing provisions for development activities that were relevant to this question of regional planning and pointed out that the major limitation of physical planning under the master and regional plans was lack of adequate financial provision for capital and maintenance outlay for urban services and public utilities. It was, in the situation, obvious that urban and regional planning under the national plans of India..... suffered from a serious limitation. "It does not incorporate any programme of raising the level of economic activity of a region or even that of its urban services. Financial allocation for urban land development and improvement..... is almost nominal and hardly any region can depend on it for putting a proper programme through." Alternative to regional planning as envisaged under the national plans was comprehensive planning at a specified regional level, which would require determination of "the exact scope and objective of such planning, mobilisation and allocation of resources for it and the organisations and agencies necessary for its formulation and implementation." The Seminar may, thus, deliberate on "(i) the administrative, economic and financial feasibility of overall planning of the region; (ii) the criteria for the determination of its priorities; (iii) the pattern of resource mobilisation; (iv) the most suitable agency for its formulation and implementation; and (v) the prospects of synthesising such axial planning with monothetic programming of the type conceived by the Planning Commission under its scheme of town or regional planning." There were, besides this, more concrete issues such as those relating to the constitution of the requisite authority, availability of financial and physical resources from within and outside the region, mobilisation of research resource material within I.I.T. and elsewhere, for formulating the programme for regional development, and organisation and finance of requisite research activities.

On the methodological issues, the guidelines offered an examination of the latest tools of regional analysis and planning and briefly reviewed the vast strides that regional science had taken during the last fifteen years and suggested that it would be prudent for the Seminar "to examine the concepts and tools as well as the underlying assumptions in regard to the relationship of different economic variable in the

various approaches and seek a synthesis most suited for the analysis of the problems of this region and for programming its development." Further, the guidelines suggested that it would be rewarding "to make an excursion to find out the most appropriate strategy and approach for development of the region." Emphasising finally the need for scientific analysis and advice in the formulation of the plan or the action programme, the guidelines urged that the Seminar should address itself "to this first step in project formulation for development programming of the region."

The procedure of the subsequent business sessions of the Workshop was designed to ascertain the viewpoints of the participants, drawn from diverse disciplines and with differing background of experience, on the general theme of the Seminar; to facilitate maximum contribution of each individual participant to the deliberations of the Seminar; and to determine broadly the substantive scope of the analytical papers to be written by them, ensuring that overlapping is avoided and the end product in terms of working papers is maximised. The discussions began with exploratory statements of the participants, indicating their individual approaches to the specific problem of development of the Kanpur Region and their views on what the Seminar may attempt to do. These statements provided a general endorsement of the scope of the Seminar as defined by the guidelines and indicated the interest of the participants in a great array of problems, most of them relating specifically to the situation of the region. It was agreed that the solution of Kanpur's problems lay in dovetailing the city plan to the regional plan, which in turn had to be a part of the national plan. The urgency to attend to physical aspects of planning at all these levels was realised. The imperative of securing the right relationship between the regional and national plans caused some concern about the goals of planning at the national level. Some of the participants sought clarity on the ultimate goals of planning. After frank and free discussion of the issue, the Workshop came to the conclusion that it would not be worthwhile to embark upon an appraisal of the general goals of planning; the discussion of their effectuation at the regional level was relevant and it was hoped that this could be dealt with in individual working papers insofar as it was found pertinent to the substantive scope of each paper.

The consensus of the Workshop was that regional planning should be adopted for the solution of Kanpur's problems; it should be consistent with the goals, policies and programmes of the National and the State Plans; its actual programming should be done in the light of physical, financial and administrative capabilities available and its implementation should be so undertaken as to secure maximum participation of the local interests and general public. The two questions, that were specifically dealt with, related to the delineation of the region and the specific task that the Seminar may address itself to. With regard to the former question of definition, the Director of the Research Unit explained the considerations which had guided them to delimit the primary and secondary regions as indicated in Dr. Tripathi's paper on the subject. Several participants expressed reservations on the sufficiency of criteria that were used in that paper but it was agreed that the region so delineated by the Research Unit should serve as a working model and the question was left open for appraisal by the participants in their own papers.

On the second question as to what the Seminar should attempt in substantive terms, attention was directed to the two alternatives offered by the guidelines, namely, (i) formulation of guidelines for a regional plan and (ii) formulation of design for comprehensive study of the problems of development of the Kanpur Region. Opinion was, in this connection, voiced that the question should have been settled by the sponsors prior to the convening of the Workshop. It was, however, generally considered more appropriate that the participants were left the choice to decide about the Workshop's approach to the questions in more specific terms. The Workshop in this connection took note of the high expectations, with regard to the end-product of the Seminar, held by the sponsors and by general public of Kanpur and of the fact that the Seminar was scheduled to conclude with an open session at which the recommendations were to be formally presented to the Chief Minister of the State. It took note also of the confidence of some participants that it should be possible to recommend in concrete terms the action that could be taken in several specific fields of regional planning and the diffidence of others, who found the availability of data and information insufficient for such purpose and preferred therefore to limit the Workshop's role to the formulation of the design for a comprehensive study. Thorough discussion of the issue led to a consensus that limiting the scope to the preparation of a research design would not do and that attempt should be made, in individual papers, on the basis of the actual data supplied by the Research Unit on this region, to formulate considerations for policies and programmes of industrial and urban development and or to indicate areas in which study and research were further needed for the formulation of a framework of a comprehensive regional plan.

With regard to the procedure for actual preparation of the working papers, it was felt that they should be prepared in such a way as to maximise inter-action between the participants, belonging to different disciplines, that had come together in the Workshop. The participants were left free to take upon themselves the writing of papers individually, or in groups, but it was expected that each writer, or group of writers, would draw upon the other participants both for methodology and substantive content of the papers.

For fixing titles of individual papers, the participants were individually invited to indicate broad areas of their interest and tentative topics they were willing to deal with in their papers. The tentative list of titles that emerged out of this discussion included : Demographic implications of economic and urban growth; Regional approach to industrialisation and urbanisation; A model of urban settlement distribution and its implications; Machinery for regional development; Some non-economic constraints on economic development; Process of urbanisation and the role of social institutions; Policy implications of an optimum locational model for the region; Growth trends in the metropolitan and non-metropolitan region—a comparative study of Kanpur and Hyderabad; Interdependence between 'industrial and urban growth' and 'non-industrial and rural-growth' in the region; and a policy and process model for regional development of Kanpur—implications of U.K. experience for the region. The list, as

supplemented by the papers from the contributory participants, is quite comprehensive but a significant gap remained in respect of the crucial question of ascertaining the potentialities for developing industries. At the invitation of the Chairman, Dr. Kamta Prasad of I.I.T.'s Department of Humanities and Social Sciences undertook to write a paper on "Industrial Prospects of the Kanpur Region." It may be added that the titles of the papers actually written differed in several cases from those in the above tentative list. These working papers and those from the contributing participants, which formed the basis of the Seminar's deliberations are listed in Appendix A, together with due annotations.

The discussion relating to the subjects for the panel meetings of the Seminar concluded that there should be four panels under the tentative titles, as follows: (i) Economic prospects of the Kanpur Region in both its urban-industrial and rural-agricultural backgrounds and patterns; (ii) Optimum spatial patterns of growth points in the Kanpur Region; (iii) Formulation and implementation of development policies for the Kanpur Region; and (iv) Problems of urbanisation and industrial diversification of Kanpur City. It was further agreed that apart from these, there should be a general panel on 'Regional Analysis and Research.'

## **VI THE SEMINAR**

Thus prepared, the Seminar commenced its deliberations on January 29, 1967 on the basis of 14 working papers, 16 contributed papers, 9 Local Advisory sub-committee reports and 5 supplementary papers dealing with the preparation of the Master-Plan for Kanpur city, including the one prepared by the students of the Department of Architecture and Regional Planning, Indian Institute of Technology, Kharagpur. The first brief morning inaugural session of the Seminar was followed by a series of panel meetings held simultaneously on the first two days and by a series of plenary sessions during the next two days. On the fifth day, there was an informal meeting at which the Chairman of the Seminar consulted with the Co-Chairman, Panel Chairmen and rapporteurs on the draft of findings and recommendations he had prepared for presentation to the Chief Minister at the Open Session on the following day. Another informal meeting of all participants was also held in the evening of January 30, at which Mr. Pitambar Pant of the Planning Commission's Perspective Planning Division spoke on "Some Aspects of Regional Development."

Welcoming the participants at the inaugural meeting, Dr. P. K. Kelkar, Director, I. I. T., Kanpur, noted that he had the opportunity, as the Chairman of its Steering Committee, to watch the progress of the Seminar from the very beginning and hoped that it would "be really useful to the community and the region and the country as a whole." Kanpur, he said, had peculiar problems, but, all the same, it represented the same kind of gap between people's expectations and achievements, as was in evidence in almost all parts of the country. The basic difficulty was represented, according to him, by the fact that the manner in which expectations were rising was such that whatever was achieved fell short of what the people expected. The question the planners faced was, how to bring about such change in the attitude of the people as would serve to release the psychological energies which are within them. It was necessary to bring about an integration between the planner's foresight, common sense and pragmatism, and the vision and idealism cherished by the people. He hoped that the kind of intellectual experience gained in the Seminar by scholars from different fields but commonly interested in regional development, social change and urbanisation, would yield a plan of action for a long time to come.

The Chairman, Dr. Baljit Singh, then explained the procedure for the functioning of the Seminar. The four panels were to simultaneously hold four sessions in the course of the two days assigned for the purpose. On the third day, all participants were to meet in a general panel, or group session, to deliberate on regional analysis. He suggested that the first session of each panel be devoted to the presentation of papers and reports, to be followed by listing and then, discussion of the basic issues raised by those papers and reports, and the final session be devoted to the draft of "the Panel Chairman's report," on the basis of the consensus of the group. These and the panel rapporteurs' reports were then to be presented and discussed at the plenary sessions of the entire

## VI-2

Seminar, which would follow the same procedure for preparing the draft of findings and recommendations. The group sessions on regional analysis were to discuss the views of each panel on (i) the operational concept of the region and criteria for its delimitation, (ii) the data available for the findings, (iii) regional models of and approaches to development that were utilised and (iv) the needs of further regional analysis. In the light of these views of the different panels, the group session was to consider the need and character of organisation for regional studies and its relationship with concerned official and non-official agencies and with the existing research institutions.

The Co-chairman, Dr. Berry, in his remarks at the inaugural session, cautioned that the problems of regional development were complex; they permitted no simple solution, and they could best be handled at such an inter-disciplinary level. He hoped that the deliberations would, at the end of the week, result in recommendations "that address the problems of this region from a more broad base of scholarship (and) are truly inter-disciplinary in character."

Before taking up the panel proceedings as reported at the plenary sessions, it would be in order to refer briefly, to the exposition of some aspects of regional planning by a 'perspective planner' operating at the national level, in view especially of the fact that the problem of relationship between the regional and national plans had constantly exercised the minds of most of the participants. Mr. Pant agreed that while the regional aspect of development was duly recognized as a major deficiency in national planning, it had not been possible so far to give concentrated thought to it. He indicated that quantification of the future perspective for the national economy had proved to be relatively easy, in spite of the known constraints arising from foreign trade, paucity of savings etc., for the reason that the economy was continental in size, having limited relations with outside world, and the internal situation was one of acute poverty. At the national level it had thus been possible to look at the commodity pattern of final goods and relate it to the inputs that go into the building up of the structure of industry, agriculture and services.

Regional planning was important, he held, particularly in effectuating the national plan as conceived in quantitative and necessarily abstract terms. The question here was, how to "bring this particular aspect of space into the national framework of planning," or more meaningfully, how to "realize the maximum potentials of different regions within the framework of the national plan." The two necessarily interacted; constraints on a region's development arose, however, out of the totality of the economy and its problems and its own constraints and bottlenecks. At the same time, the regional plan could be based more realistically on the particular insights of the local people on the potentialities and actual possibilities of local development. An important advantage of regional planning lies in the fact that the region forms a part of a much bigger state or national economy and has not, therefore, "to bother too much about the constraints of demands, which are quite important in the case of a national economy." The demand

constraints at the regional level, he suggested, can be set aside for the purpose of an accelerated development of the region by taking the national economy into account as a first approximation. So, it may be more fruitful to look at the supply side—at the particular advantages and potentialities enjoyed by a given area. A region taking the lead in this matter, he felt, will probably be able to sustain its own advantages for a considerable period ahead. This would, however, require a good deal of knowledge which is not on the surface.

Once the potential development on the supply side is envisaged in quantitative terms for the region, the next question would be, to divide this activity in terms of its locational features. In this connection, in order to ensure a dispersed spread of prosperity within the region, it would be necessary “to find out to what extent one can adjust the ordinary market forces in such a way that the tendency to concentrate in certain advantageous positions is not unduly stressed and that you could make modifications in what might otherwise have happened spontaneously by taking such action by which the things can be dispersed and made widespread.” He suggested further that an optimal distribution here could be attempted on the basis of the dispersal of energy resources and improvement in transportation. Finally, he stressed the importance to regional development of putting in “realistic quantitative magnitudes to provide the framework within which we must pose our problems,” and suggested that the framework should be based on “an assumed high rate of growth” and should enable us to anticipate the nature of bottlenecks and difficulties that may arise from a variety of sources.

#### **Plenary Session :**

Returning to the deliberations, of the Seminar proper, it will be in order, to pass on to the plenary session, and refer to the panel discussions as they were reported in these sessions. Reference will be made in this connection to the Chairman's review of the proceedings of the panel meetings, the reports on panel discussions, findings and recommendations, including suggestions of the general panel for regional analysis and finally, to the main issues discussed at the meetings of the preliminary sessions. The findings and recommendations of the Seminar as they emerged from these discussions have already been given in the proceedings of the Open Session with which this report begins.

The Chairman, in his opening remarks, desired to share his anxiety with the participants that the Seminar was “assuming for the Kanpur Region the same form as the recent devaluation of the rupee did for the country.” While the sponsors placed high hopes on the Seminar, its benefit would depend largely on the follow-up action, which might take place after a certain lag of time. In the immediate period, it had made its own contribution to the rising gap of expectations, a characteristic feature of all developing regions and countries. It had not attempted formulation of a concrete plan

for the urban and industrial growth of the region. Further, it had prepared neither a frame of reference for the plan nor a concrete design for basic regional studies and analysis.

What it did do was, "to explore the nature of problems involved in industrialisation and urbanisation of this region and to examine policy issues in their context on the assumption of an assumed area for the Region" and to arrive at more positive recommendations for land use development in the Kanpur Metropolitan Area and for the organisation of regional studies.

Failure to do better than this was attributed to major gaps in basic information and data relating to (i) exact identification of the region, (ii) distinctive character, purpose and technique of regional planning, (iii) requisite institutional, legislative and administrative changes etc. Discussing the implications of these gaps, the Chairman suggested that criteria for demarcation of the region should be laid down after careful consideration, that in dealing with the Metropolis it would be desirable to enable the authority to vary the boundaries according to perspective and changes in circumstances, that planning land use of the Metropolitan Area and rehabilitating its industry in isolation from the regional forces and trends would be self-defeating and that the institutions and social forces inhibiting initiative, enterprise and development should be carefully studied. He pointed out that its openness and the need to give due consideration to the additional dimension of 'space' made planning for a regional economy a more complex process, calling for a higher level of sophistication in techniques than required for national planning.

Applying 'the problem area approach' to the urban and industrial growth of Kanpur Region, the Chairman commended the following list of priorities: (i) rehabilitation of traditional industries, (ii) planning and development of land use in the Metropolitan Area, together with supporting legislation, (iii) strengthening the state planning machinery for effective co-ordination and improved formulation of plans, (iv) systematic, region-wise surveys of development potentials, (v) creation of a regional planning division in the State planning department, (vi) establishment of a regional study centre at I.I.T., (vii) establishment of a centre for industrial research by private industry, and (viii) constitution of a co-ordination machinery at the regional level, to be followed by regional programming at an appropriate stage.

**Panel I: Economic Prospects of the Kanpur Region in both its Urban-industrial and Rural-agricultural Background and Patterns**

The first panel discussed the papers on the region's problems, prospects and policies of industrial and urban growth, pattern and perspective dimensions of economic activity, demographic projections, future transport and communications, industrial prospects, occupational structure, industrial relations and some aspects of development, and the Local Advisory sub-committee reports on the role of entrepreneurs, agriculture and agro-industrialisation, and technological development. On the basis of this

material, five issues were taken up for consideration, including delimitation of the the region, investment and employment magnitudes, availability of resources and priorities to and pre-conditions of industrialisation and future industrial complex.

On the question of delimitation, the panel emphasised the need for reconsidering the Research Unit's criteria and suggested that some of them were not quite pertinent in the existing situation, and other more meaningful criteria, like the range of power grid, economics of power transmission, transport system, market location, wholesale business etc. might be used. According to it the whole issue needed a more thorough examination.

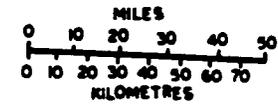
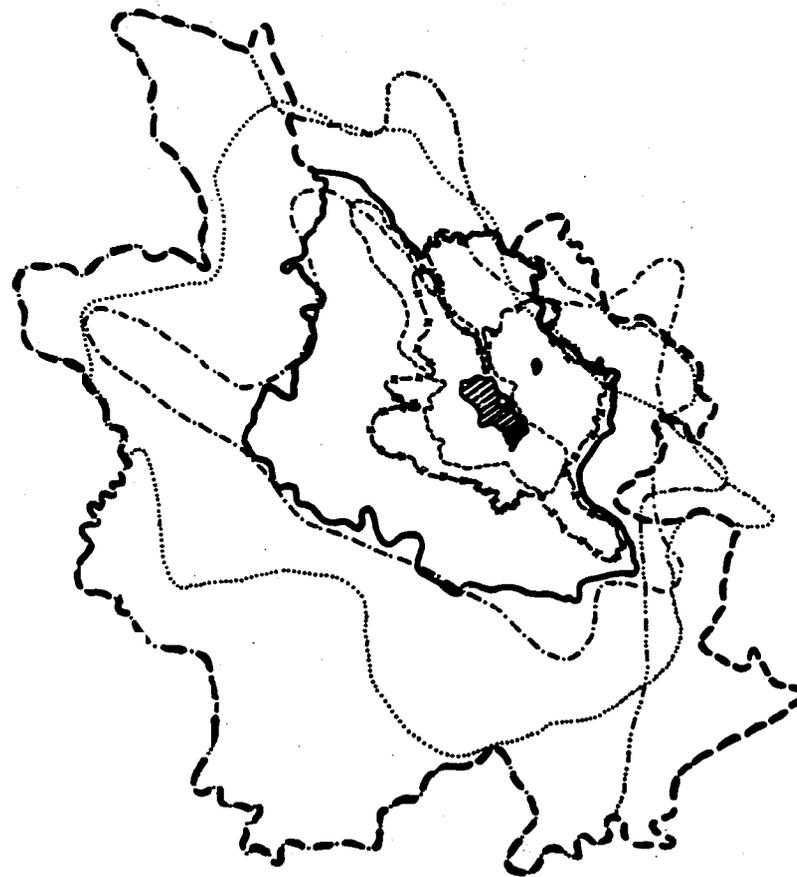
Regarding employment and investment magnitudes, the panel pointed out that to secure annually 4.7 per cent rise of income in the Fourth Plan and 5.5 per cent in the Fifth, a total investment of 12.5 billion rupees would be necessary on the assumption that 3.5 units of capital were needed to produce one unit of income. The investment targets given in the paper on economic activity were also found consistent with the goal of full employment, if it was assumed that investment of 8000 rupees would generate one additional job. Some participants were of the view that projected growth of income in the region would lower its position relative to the nation and the two should be brought at par. But the consensus was that in view of the backwardness of the region, it would be too ambitious a target.

Since agriculture accounted for 66 per cent of income in the region, the panel suggested that priority be given to programmes of agricultural development. The scope for increase in agricultural production lies mainly in raising the yield rate, not extension of area under farming. The panel's order of priorities in respect of the measures for intensive farming was: (i) water, (ii) fertiliser, (iii) better seeds and crop rotation, and (iv) small (5 H.P.) tractors. Further suggestions related to geological prospecting of sub-soil water and thorough examination of the whole question of organisation and management of water resources, including the present under-utilisation of tube-wells. Regarding tractor power, the usefulness of small tractors in the region was questioned on the ground that their use might conflict with employment policies, but it was pointed out that this could be largely resolved through rural works programme, including agro-linked industries.

There was consensus that the region has sufficient agricultural resources and, given proper effort, might generate agricultural surpluses. Priority may, therefore, be given to Food-processing, Oil, and Oil-based industries. Apart from this, it was necessary to rehabilitate the two premier industries—viz., Cotton Textile and Leather. Fertiliser and other chemical industries might be developed and new industries like ceramics and cement might be explored. Attention may also be given to Light Engineering industries, particularly those producing mechanical equipment for agriculture.



# KANPUR-REGION



-  CORPORATION AREA
-  VEGETABLE SUPPLY ZONE
-  MILK SUPPLY ZONE
-  BUS SERVICE ZONE
-  MEDICAL SERVICE ZONE
-  GRAIN SUPPLY ZONE
-  REGIONAL BOUNDARY PRIMARY
-  REGIONAL BOUNDARY SECONDARY

Attention was specifically directed to the present stagnation in the premier industries of the region—cotton, oil and leather. Cotton Industry was handicapped by changes in the pattern of consumer demand, the decline of cotton cultivation in the region and difficulties in importing fine cotton for lack of foreign exchange, the absence of a capital market, inadequate processing facilities, the delay in implementation of modernisation and rationalisation schemes, high labour costs, and the multiplicity of trade unions. The panel was of the view that Cotton Textile industry can survive, if not grow, and that it would not be non-economic to keep the existing plants working as long as possible, in view of the acute shortage of capital in the country. The Oil industry was found to be working at only 60 per cent of its capacity; export of oilseeds from the region in the face of under-utilised capacity of oil industry presented an anomalous situation. It was held that the local industry could not compete with industries outside the State for want of adequate credit facilities. Leather industry was found to have suffered on account of the Anti-cow Slaughter Act, but there was still a thriving business in footwear production. Steel re-rolling units had suffered for want of adequate supplies of billets and raw materials, caused by the defective licencing policy of the State.

In his forthright exposition of the economic prospects of the Kanpur Region, Panel Chairman, Professor Dandekar, noted the consensus of the panel that "the material base for the development of this region was its agriculture or more generally, its resources in the land and water; that the region was not endowed with any other major natural resources and that, therefore, the development of the region will have to base itself on its agriculture and agriculture-based industries—and that the delineation of the region and its sub-division into sub-regions should be governed by consideration of the solution to the problems of development, conservation and utilisation of the soil and water resources of the region." Pointing out the inapplicability of the notion of self-sufficiency in the case of a region, he emphasised that the land use pattern in the region must fit into the national plan and, if there be no such national plan, it must be governed by economic consideration of costs-and-returns.

He directed the attention of the participants to the other regional resource, namely, a very large and rapidly growing human population, which, for want of proper utilisation, was proving a net burden on the other resources of the region. "One of the aims of regional development" he suggested, "should be to develop and utilise fully the manpower resource as well." He was particularly concerned with the view that "it may be advisable to give less weight to this goal of maximising employment whenever a conflict between it and output goal arises" and suggested that political repercussions of the situation could be very serious. On the pertinent question of unemployment, he advocated adherence to the thoroughly argued and well-established prescription of the economic theory to utilise the surplus manpower for creating capital in land improvement so that the productivity of land, and hence of man, may progressively improve. One reason why this has not been attempted, he felt, was insufficient realisation of the requirement of immense organisation for the utilisation of manpower to this end; the organisation

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was needed for discovering and preparing productive works, mobilising the manpower and moving it from work to work and improving its skills through job training; and suggested that a plan for regional development provided ideal opportunity to try and gather experience in such an endeavour.

The reported under-utilisation, especially, of tubewells and wasteful use of gravity flow irrigation water in the region was attributed to insufficient appreciation and understanding of certain technical conditions, both engineering and agronomic, of efficient water management. These often required, he pointed out, a restructuring of the production apparatus on the ground—the layout of the fields, plots, irrigation channels and drainage systems, path and cart tracks etc.; and this in turn required a reorganisation of the institutions governing the relation between man and land. These aspects were suggested to be especially important in an over-populated agricultural region like the Kanpur Region.

Regarding the urban-industrial prospects, the main resources of the region were again agricultural, with a promise of an industrial complex based on agriculture. Agricultural base was, for example, adequate for prosperous Textile, Sugar and Oil-seeds Pressing industries. These were already well-established but were in bad shape, either stagnant or actually declining. The problems of these industries required careful examination before remedial measures could be prescribed. It was, however, emphasised that the existing plants and equipment were real resources of the region and means had to be found to use them to their full capacity.

He went on to trace the ills of the agricultural processing industries to the fact that the agricultural producer—the cultivator—had no responsibility in the matter. "For its successful operation," he argued, "the processing industry must be an integral element of agriculture and the simplest and the most natural way to integrate the industry with agriculture is to turn the management of the industry to co-operatives of producers." Discussing the main issues involved in such producers' cooperation, he emphasised that the cooperatives were as much a private enterprise as any other, the public element in them being limited to audit. They sought to train a new class of entrepreneurs, recruited from the cultivating class, in the affairs of marketing, processing and finance. Their advantage was in the creation of a natural circuit linking agricultural production, marketing, processing and finance. The real reason for the objection to them was that they eliminate a class of vested interests which today intervenes between the producer and the consumer at all points, the class which was essentially urban and was mainly responsible for preventing the integration of the urban society with the village community. He, therefore, advocated that "all such agriculture-based industries, conceived as complexes, must be established and promoted under cooperative management of the agricultural producers concerned" and must be duly protected until they grow and establish themselves.

Making a specific reference to the well-established Leather industry's plight for want of raw material, thanks to the cattle development policy of the state, he advanced three alternatives to deal with the 'delicate issue' of the legal ban on cow-slaughter. The first was to do away with the hides of cow as the raw material altogether. The second was to make necessary arrangements to collect and speedily transport the carcasses of dead animals to central rendering plants, by establishing 'Gosadans' close to these plants. The third was to reconsider the entire cattle development policy rationally with a view to reducing fertility of the cattle population and permit selective slaughter. He was not, however, hopeful of the acceptance of the rational alternative.

Summing up the consensus of the panel, he reiterated that "the greatest resource of all, which this region has, is its rich human resource. Over generations, it has been eroded into by a process of uninhibited exploitation. Twenty years of political Independence have not checked this process. The people continue to be exploited by a combination and collusion of feudal, financial, political, bureaucratic and religious elements. These elements are responsible for the present state of affairs in this region. They must be reformed or even removed."

#### **Panel II: Optimum Spatial Pattern of Growth Points in the Kanpur Region**

The second panel considered the series of papers on policy implications of an urban location model, regional growth approach, distribution of urban population, integration of industrial and agrarian development, integration of hinterland with metropolis, problems of agriculture, population and employment structure of towns, and industrial dispersal and growth centres; and the sub-committee reports on dispersal of industrial development and development of agriculture and agro-industrialisation. The joint panel report by the chairman, co-chairman and rapporteur was presented and discussed in the plenary session.

The panel was able to develop recommendations concerning regional development policy and further study needed to refine and sharpen that policy. These recommendations emerged from the discussion of research unit and advisory committee reports and papers of the Seminar participants, in the light of the assumptions and an understanding of general development goals of the Nation and for the Kanpur Region. The panel believed that Kanpur city will continue to have a dual role in the regional and national economy, as a regional Metropolis, and as a manufacturing centre, providing specialised industrial output for the nation as a whole.

The panel suggested that the order of the three growth rate priorities for the region should be as follows: output, employment, social amenities; the maximisation of the national growth rate being subject to reasonable balance or equity in development of the nation's regions. In this context, goals for the development of the region should be (i) to maximise the comparative advantage of locations within the region, (ii) to maximise the rate of growth of regional agricultural output and both the marketable and

marketed surplus from agriculture, (iii) to provide proper locations for industries oriented to market and also those promoting agricultural change and (iv) to promote integration of city and countryside by spreading urbanisation and securing adoption of non-traditional modes of thought by villagers.

A locational strategy for growth-point development applied more to new enterprise in both the public and private sectors, involving a complete decision-making process on the public side, and provision of a "package of opportunities" for influencing decisions of private entrepreneurs. The suggested locational policy maintained the priority of Kanpur city in the provision of regional functions, but encouraged location of agro-industries, smaller-scale, market-oriented industries, and service units, in smaller urban places within the region, and involved matching the scale requirements of industry and the scale of market available at different towns. It solved the centralisation-decentralisation controversy, for every activity is, viewed from the villages, centralised upward to the smallest central places providing adequate size of market, and viewed from Kanpur city, decentralised-downward in the same way. The two specific recommendations of the panel were: (1) The economic, administrative, urban hierarchy should ultimately have four levels; viz. (a) Kanpur city, a first-order growth point translating national and state goals into spatial development, (b) approximately seven centres, functioning as district headquarters, agro-industrial development complexes for their sub-regions and service centres, (c) approximately forty two centres of the level of today's tehsil headquarters, providing local services, regulated market facilities and a nuclei for the small-scale industry, (d) a set of sub-yards of regulated markets with a minimal "package of opportunities" for meeting market needs of the farmers and providing the most local services and replacing today's weekly markets (hats) as centres of rural life. (2) Provision of requisite infra-structure at each level of centre in order (i) to enable the different levels of central places to become viable economic growth points and so (ii) to ensure that development spreads throughout the Kanpur Region, exercises maximum impact upon the rural way of life and provides alternative centres of employment for the growing population of the region.

The panel accorded the first priority to developments in agriculture leading to greater aggregate demand in the countryside and simultaneously supporting town development. The first investment in towns outside Kanpur should involve district headquarters and the ring of tehsil centres closest to Kanpur, since growth will inevitably ripple outwards from that city. Development needs to be concentrated where the prospects are greatest, and could be extended to outlying tehsil centres and sub-yards at the most local level, when increases in aggregate demand in the countryside merit it. Time phasing was thus viewed as an organic process involving both outward radiation of development from the Metropolis, and successive movement of growth down the steps of the hierarchy.

A comprehensive list of 'further study needs' suggested by the panel included the following topics; definition of the Kanpur Region in relation to Kanpur's role as a

first-order growth point; quantitative estimates of local and regional production potentialities; the constraints imposed upon these potentialities by national objectives, and the constraints imposed by likely dimensions of regional demand; identification of centres to be allocated to each level of the development hierarchy on the basis of their potentials for growth; the optimum scale of economic activities, the size of market that can be reached from the centre of each level of the hierarchy, and the potential location of economic activities in the centres of each level; cost-benefit analysis of infra-structure requirements of centres of each level; analysis of social costs and benefits of alternative locations for industries and service facilities; land use, land classification and resource management studies, facilitating the valuation of potentials; study of institutional resources and the traditional bases of rural behaviour, with a view to making effective use of existing norms and channels of communication in effectuating rural change; and establishment of a continuing inter-disciplinary centre for urban and regional research for regional policy-oriented inquiries.

Considering that planning needs and opportunities today were the greatest at the intermediate regional level, the panel proposed establishment, for a set of regions that completely sub-divides Uttar Pradesh, and particularly for the Kanpur region, of regional planning agencies in command of locational policy, and integrated with upper and lower levels of planning. It further recommended that integrated planning should be fostered by the provision of successive consistent inter-regional, inter-sectoral perspective planning guidelines for each level, embracing both higher-level needs for efficiency, and lower-level units, demands for balanced growth. The panel also noted certain legislative needs which must be met in order to accelerate growth in smaller centres e. g., enactment of special tax abatement and incentive systems, following the concessions provided for industry by the Punjab Government.

### **Panel III: Formulation and Implementation of Development Policies for the Kanpur Region**

The third panel considered the papers on the policy and machinery for planning regional growth, machinery for regional planning and development, industrial development of U.P., action for area development and constitutional legal implications of urban and industrial growth; and the sub-committee reports on labour and labour relations, financial structure, and state policy and machinery for regional planning and development vis-a-vis industrialisation.

The panel strongly felt that for a state like U. P., a regional approach to planned development should be adopted. There should be an institutionalised approach to regional planning and development, based on expert studies and surveys. There should be an office department of the state Government responsible for determining boundaries of regions after considering natural, ecological, socio-economic and for preparing comprehensive development plans for these regions, including physical plans for land utilisation,

overheads and basic facilities in areas having development potential. The activities of the agencies and authorities at the various levels should be in accord with regional development plans.

They recommended, for this purpose, the creation at the state level, under the Minister for Planning and Development, of a Regional Planning Division consisting of an inter-disciplinary team of technical experts to formulate an outline regional development plan for a region or regions. A region could be identified as an area consisting of adjacent administrative units having internal problems of such a character and scale that they need to be considered a unit for planning and development. Each region should be planned and developed as a whole as far as major socio-economic and Physical problems are concerned. This permanent regional planning team would evolve methods of consultation with expertise, talent and interest outside the government and maintain a close relationship with other State departments in formulating realistic proposals for the delineation, planning and development of the regions. The broad issues raised for discussion in the panel were : Development policy formulation agency for the region and its relationship with National and State agencies ; Regional agency for implementation of Development Plan ; Adequacy of the operational area of the region from the view point of developmental administration ; Extent of local decentralisation ; Constitution of Development Authority for the regions ; Constitutional changes and legislative measures ; Lags in implementation and methods for plugging these gaps ; and some special issues of Kanpur Region.

In delineating a region, the Regional Planning Division should take into account, among other factors, the adequacy and viability of area from the point of view of development administration. While the panel ruled out the possibilities of splitting a district, it recognised the need of readjustment of Commissioners' Administration Divisions to coincide with the boundaries of the new planning regions. The broad circles or geographic divisions of the functional departments of the State should also, as far as possible, conform to the new regional boundaries.

The outline regional development plans should be prepared expeditiously and submitted to the Minister for Planning and Development for the approval of the State Government. Once approved, the plan would become binding on all the departments of the State and Union Government, and local agencies responsible for development and execution of other public works within each region.

The State government should then constitute a Regional Planning and Development Authority, with comprehensive powers for detailed local planning, land acquisition, development of industrial and housing estates, provision of essential public services and controlling private development and land use. These detailed plans should provide for the specific needs of the area in physical as well as financial terms. The local authorities should be made responsible for the execution of the regional plan under the guidance of the regional authority and in cooperation with the agencies existing and

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operating in the area. The Regional Authority will carry out the development in specified areas and have default powers to undertake any works which other agencies are unable to carry out.

The said Regional Authority should be so constituted and equipped as to take and implement decisions quickly and so, to maintain the necessary development momentum and be at the same time able to take into account both the public thinking and the viewpoints of the various departments and agencies functioning in the field. Two alternatives were proposed by the panel (i) A high-level executive may be designated as the Prescribed Authority, answerable to the Minister for Planning and Development, with full responsibility for implementing the development programmes assessed by a Consultative Committee constituted, under the Chairmanship of the Commissioner, of representatives of the concerned government departments, the local authorities and other principal interests involved; and (ii) The Regional Authority may be a small body, with the Commissioner as Chairman, a Chief Executive-cum-Chairman, comprising not more than seven members nominated by the Government. In either case the Authority should have a strong technical and administrative staff to ensure efficient performance of its duties.

A new regional planning statute should be enacted to provide for the constitution of these authorities. The plans should be given legal sanction with necessary powers in respect of land use, acquisition, development and disposal. Pending such legislation, the existing laws such as the Regulation of Building Operations Act, the Town Improvement Act, and the general administrative powers of the Government should be utilised. A Regional planning division should accordingly be set up immediately and an outline development plan for the Kanpur Region be given high priority, utilising the studies and researches conducted for the present Seminar.

The problems of Kanpur City must be viewed in the regional context. The growth of the city needs to be limited. The strategy for the regional development calls for a dispersed urban pattern capable of absorbing additional population. At the same time the city of Kanpur cannot standstill and it might continue to expand in order to relieve congestion in the centre and to absorb the momentum of urbanization. The panel accordingly suggested the following steps in respect of the city: to encourage some of the existing old industrial and commercial units congesting the city, to move to the outer and rural areas, by granting exemption from capital gains tax to the firms so moving to other parts of the region; to improve communication by construction of bridges or underpasses to eliminate traffic bottlenecks at level crossings, and improving G. T. Road on both sides of Kanpur; to set up a high-powered committee for conducting a diagnostic study of the abnormally difficult condition of industry in Kanpur, with a view to finding ways and means for putting the industries on a sound footing; to make adequate power available at reasonable competitive rates, particularly in the satellite centres around Kanpur; to gradually build up in Kanpur a financial market for the

State; to build up resources for providing technical, managerial and engineering consultancy services; to accord due importance to technologically advanced and corner-stone industries so that they can provide materials and base for industrialisation of other areas; and to carefully investigate the possibility of building single-storeyed row-houses instead of three-storey apartments separated by wide roads but maintaining the same density as at present.

With regard to the region outside the Metropolitan boundaries, the panel emphasised the need for (a) ensuring a strong agricultural base for regional growth by preserving and extending drought-free areas of proven high agricultural quality to meet the rising food needs of the region and of the country; and (b) developing water resources to meet the long-term and much larger domestic, agricultural and industrial requirements of the region. As regards the policy of dispersal, two alternatives were offered : (i) to select between 5 and 10 established and growing towns at 20 or more miles from Kanpur city and promote their expansion up to a population of 50,000 to 2,50,000 over 20 years or so and to operate a rolling programme of such expansion further out in the region as the first ones get under way; and (ii) to develop a series of small service towns on growth points through application of appropriate intermediate-level technologies that do not place undue strain on capital formation, foreign exchange and skills available, and employ to the maximum, local and indigenous resources. Some doubts were expressed about the possibility of undertaking the programme on a large-scale with limited resources, but it was also considered necessary to develop substantially bigger town centres to act as counter-magnets to the city of Kanpur, both for migrant population and the location of medium and large-scale industries.

For the financing of the region's development, the panel recommended the provision of development loans by State or Central Government on a long-term basis, so that the developing agencies could carry out a programme of continuing expansion, generating their own momentum. These should be supplemented by funds for development available under the various schemes in the national plan for water supply and sewerage, housing, land acquisition and development and health and educational facilities, and these resources should be so canalized as to make effective contribution to the implementation of the regional development programme. The panel further felt that the increases in the development value of land remaining in private ownership should be recovered, to the maximum extent possible, by means of a levy imposed and collected by the Regional Development Authority and that the proposed legislation should include the necessary provision.

One of the bottlenecks in the implementation of development projects related to the complicated process of acquiring land, involving long delays. It was felt that the interpretation of the provisions of the Land Acquisition Act, 1894, imposed an unfairly heavy burden of compensation on acquiring authorities, and the Act should be replaced by new legislation more appropriate to modern needs.

The panel felt that a major contributing cause of lags in implementation of development plans was the shortage of appropriate management information, resulting from the failure to develop fully, information on the resources needed to accomplish stated objectives, cost/benefit studies to assure selection of the best among alternatives, optimum scheduling of inter-related events, etc; and from inadequate progress reporting, especially of a type which relates accomplishments to planned targets and anticipates where difficulties are developing, in time for preventive action to be taken. To deal with this situation, management information cells should be established to service the concerned officials, authorities and agencies. In addition, special analysis can be made on a contract or consultancy basis by academic or research organisations, such as I. I. T.

Planning and development processes require team-work and inter-disciplinary approach to the specialised tasks of regional planning and development. Institutions like I. I. T. have a special role to play both in training, and supplying and processing information to be utilised by field agencies. They can, (i) organise special courses in urban and regional planning for technical officers deputed by the State Government, (ii) organise short-term orientation courses for officers of the Government and local authorities for acquainting them with the special problems of regional development, (iii) undertake studies in methods and techniques for regional survey and planning, relate such studies to field experience, and (iv) identify sources of existing data, its compilation, analysis and presentation, to be handy for use by development agencies.

#### **Panel IV: on problems of urbanisation and Industrial Diversification of Kanpur Region**

The fourth panel, discussed the papers on retrospect and prospect of urbanisation in the region, its nature and characteristics, metropolitan growth trends, migration and job commitment of industrial workers, social dimensions of regional development, land utilisation in Kanpur, physical planning proposals for the Metropolis and status of entrepreneurs, and also the sub-committee reports on Master Plan and infra-structure. The issues discussed on the basis of these papers and reports related to functional diversification of the city, growth of basic and city-forming industries, promotion of medium and small-scale industries, incentives for development of new centres within the corporation area, urban renewal, problems of built-in surplus population, circulation patterns, taxation structure and policy, creation of a single, local controlling authority for the Metropolitan Area, and constitution of a regional development authority.

This panel too was of the unanimous view that the development of Metropolitan Kanpur cannot be isolated from its region and, therefore, it was imperative that planning of Metropolitan Area of Kanpur must be so oriented as to generate the economic development of its region. Additionally, the development of Kanpur Region had to be related to the regional development of four other cities—Lucknow, Allahabad, Agra and Jhansi. The issue on which the attention of the panel was concentrated

was the strengthening of the economic base of the city, through a comprehensive land development plan; mobilisation and development of resources and creation of planning authority for the Metropolitan Area.

The panel felt that the stagnation of major industries was due to several factors which included the shyness of capital, tendency of capital to fly away from the city and the region, increasing dependence of resource-based industries on imported raw materials, lack of adoption of technological innovations, under-utilisation of installed capacity, administrative in-efficiency, unhelpful tax structure, and labour unrest and trouble. This context suggested the importance of securing functional diversification and attracting investments both from within and outside the region, for the growth of basic or city-forming industries. In view of the suitability of agriculture-oriented industries for the region, the panel suggested that sizeable complexes of such industries be set up especially in the small towns of the region, and that for this purpose a detailed study of suitable locations for different types of industries in the city and its region should be undertaken. A comprehensive development plan of the region should also be formulated. An urgent analysis of certain basic economic problems may, in the meanwhile, be undertaken in collaboration with leading businessmen and industrialists.

On the basis of the available data, the panel directed attention to (a) concentration of diversified functions in the core of the Metropolis, (b) existence of about 70 per cent of cultivated land within the incorporated area and (c) the extreme inadequacy of the existing infra-structure even in the built-up area. These factors militated against rational land use development in Metropolitan Kanpur. Hence, a sound urban land use development policy had to be evolved. In the meantime, the panel suggested that shifting of the non-conforming uses from the core to other appropriate areas through zoning regulations and effective incentives, be taken up on a priority basis. Accepting the projection of population in the region by 1981 at about 2.5 million, the panel felt that the city had adequate land resources to take in the increased population and suggested that no expansion of municipal limits should be effected during the next 15 years. There was no case for the dispersal of already established major industries from the central core. New Large-scale industries may be located in the periphery of the Metropolitan Area.

The tax structure of the Municipal Corporation should be rationalised and tax administration streamlined to promote trade, attract industries and enhance its financial resources for investment in development. The panel specifically suggested that the tax proceeds from the city which form a part of the state revenue be equitably shared with the city; expenditure on metropolitan development planning be integrated with the state plan outlays; and the funds required for different city development activities be allocated under one head and be channelised through an agency responsible for the development of the Metropolis.

The panel felt that an autonomous Metropolitan Development Authority with jurisdiction over the entire Metropolitan Area, fully related to planning authorities at the regional and the state levels, be created with powers to plan, implement and enforce regulations and programmes for metropolitan development with the following specific functions : (a) to prepare plans for the Metropolitan Area; (b) to prepare capital budget for controlling all capital expenditure; (c) to exercise reviewing powers in order to facilitate functional co-ordination of all the executive agencies concerned with metropolitan development; and (d) to exercise powers of creating an executive authority to undertake such functions as and when needed.

Reviewing the requirements of research for regional planning and development, the panel found that the data collected for rational delineation of the Region needed further quantification; that the data on agricultural base of the region was inadequate and hence had to be improved; and that lack of data on unemployment and types of skills needed and available handicapped proper perspective planning. The panel recommended that cost-benefit studies of industrial complexes which seem promising for the region be made before deciding upon a general policy for the location of industries; that a detailed traffic count at important intersections, and origin and destination survey may be undertaken in order to understand the magnitude of traffic congestion problem and to suggest efficient system of circulation for Metropolitan Kanpur; and that data may also be collected on the functional relationships between Kanpur and Lucknow.

The general panel on regional analysis considered the findings of the four Seminar panels on methods and techniques of regional analysis for the Kanpur Region and came to the conclusion that there was a good case for the creation of a research unit to undertake action-oriented regional research programmes on a continuing basis. In respect of the requisite research organisation and its relationship to the local academic authorities, the panel suggested :

- (a) The I.I.T. Kanpur should establish a separate unit in order to provide the facilities and personnel for research. It should also undertake to provide teaching courses in regional science.
- (b) The unit must be of an inter-disciplinary nature, with all the required types of personnel for this kind of action-oriented research.
- (c) Entrepreneurs and government officials, directly dealing with regional problems and responsible for the implementation of action programmes, should be appropriately associated with this unit.
- (d) Facilities for discussion with outside experts and academic research workers in this field should also be provided.

About the substantive content of the research to be undertaken by the proposed unit, the panel suggested the following guidelines :

- (a) Since research has to be action-oriented, effort may be directed to compilation of data relating to elements of regional accounts, the demand and

supply position, inter-regional trade, and inter-industrial transactions under a variety of possible regional technologies, including suitable agricultural inputs.

- (b) Once consistent basic data are available, research may be oriented to obtain solution of specific problems of regional development. Various types of models may be experimented with, such as regional input-output models, regional trade models (whether fixed flow types or gravity models), and also optimising programming models, both intra-locational and inter-regional for a specific activity or for an aggregate of all sectors.
- (c) Research programmes should be flexible enough to plug in new technologies that are suitable for regional growth or to take account of investment needs.
- (d) Action programming should be consistent, at the minimum and optimal or efficient, at the maximum. The optimum element can be posed, for example, as: given a total amount of investment and the foreign exchange available to the region, what should be the maximum rate of growth and the pattern of location decision of investment; or given the predetermined goals with due consideration to the region's relation to the state or national economy, what should be the minimum requirement of total investment and foreign exchange component.
- (e) Initially, the programming may begin with an inter-regional analysis. It would then be checked and cross-checked with the expert knowledge of those who are connected directly with implementation. Agriculture can be treated separately wherein the right type of input requirements for optimising agricultural output could be incorporated, provided the right kind of inputs have been identified by experts in this field.
- (f) A proper environment for inter-disciplinary team-work should be created.

Further, regarding the definition of region and scope of regional research, following points emerged from the discussions of the participants:

- (a) The definition or delimitation of the region depends on over-all perspectives of development. If the region is to be viewed from a perspective of advanced technology, the delimitation should be based on the requirements of that perspective technology. On the other hand, if a region continued to be an agricultural one, the definition of region should be based on the unity of problems of land-use, sub-soil and surface water, agricultural resources etc. Here the problems of conserving and promoting water-use should be kept in mind.
- (b) Since regional analysis had to be directed to finding solutions to development problems, the nature of action must be specified in concrete terms.

- (c) The decisions for action must be made in the light of receptivity of the people for whom they are made. A part of the regional analysis should be directed to evaluation of factors responsible for stagnation or retarded growth in the region.
- (d) Institutional and organisational aspects should receive proper attention. In this regard, the people who are actually working in these organisations can be the best informants on the basis of their past experience and knowledge.

It will be seen that there was considerable overlapping of issues discussed in the four panels. This is indicative of the common approach adopted by the different panels, each constituted largely of participants from the same or closely related disciplines. The abridgement of the reports has not sought to eliminate the overlapping in order precisely to show this common thinking of individual panels. The abridgement has been rather difficult but this only indicates the breadth of perspective and the depth of analysis with which the panels addressed themselves to their task. The presentation of these reports took over 150 minutes of the time allotted to the plenary session. Deducting further 90 minutes spent in the inaugural session, the time left for discussion of the issues at the plenary meetings comes to nearly 500 minutes or over 6 hours. This permitted, apart from the interventions, as many as over 70 participants to have their say, quite a number of them more than once. It is notable, however, that the manner in which the reports were prepared and presented avoided controversy and debate, with the only exception of the rather provocative presentation of the report of the Chairman of the panel on economic prospects. Consequently, one after the other, the participants came forward only to recount undisputed issues and problems faced in the region. The consensus which emerged from the plenary session is embodied in the recommendations presented at the Open Session. It remains thus to note a few issues that did raise some debate in the plenary session.

The second panel's proposal to establish a hierarchy of urban centres on the basis of the central place theory was generally endorsed. But the 'geometry' of hexagons, implied, was questioned. The actual pattern may resemble, it was contended, a rhombus or a square like the development in the Meerut region of U. P. It was explained that the geometry was merely an analytical tool and the actual pattern would in fact considerably differ. The applicability of the theory was particularly great in the Kanpur region, where there was historically derived uniformity of distribution of human settlements.

The theory of growth point development too was generally accepted but the crux of the problem was pointed out to be the identification and actual assessment of the growth potentialities of such points. There did not obtain complete agreement among the participants in respect of the criteria for choosing a growth point. On the one hand, it was contended that exogenous variables must be used for the purpose in

addition to indogamous ones and on the other, it was proposed that only the local resources in men and materials be considered. Attention should not, in this connection be limited to the present status, but historical trends as well as assessed future potentialities should be duly considered. It was further suggested that the selection, in the first instance, should be limited to a small number of places in order to gain pilot experience in the application of this approach.

The question of incentives to be offered to private entrepreneurs for participation in the development of industries attracted relatively greater attention. Some participants were of the view that additional incentives were not required, when some of the existing ones were not availed of and were, in any case, not properly administered and it would be sufficient to take care of the existing administrative barriers to the implementation of development policies and to administer the loan and other programmes of financial assistance liberally and expeditiously, especially in the case of technically trained candidates for entrepreneurship. Several others did, however, think that the incentives were essential and they must be offered on a very liberal scale, so much so that they should, according to a few participants, include a guarantee of 18 per cent profit on capital invested. There was a general feeling among the participants that a policy of both 'the carrot and the stick' should be judiciously applied. It was also pointed out that such a policy can be applied not for the Kanpur Region alone, but for the State as a whole and further that it should, in determining the net size of incentives, keep in sight the danger of provoking interstate competition in the matter.

Then, there was the issue of conflict between the two goals of employment and output, to which the Chairman of the panel of economic prospects had referred. The dangers of political repercussions pointed out by him in respect of the attitude of according preference to output as against employment were shared by some of the participants but many others felt that in present situation of an extremely small size of the whole cake, the risk was worth taking, because once the output picked up the prospects of successful solution of the other problem would start improving.

About the role of cooperatives in the field of small-scale agricultural processing and other agro-based industries, there was no unanimity among the participants about the chances of its success. The basic premise of the proposal was not questioned, but reference was made to the past failures of the cooperative movement and also to the recent experience of the Punjab, where the attempt had been made. It was further mentioned that it would prove too costly to the Government to take upon themselves the cooperativisation of this sector. In any case, encouragement to cooperative organisations was already included as an important element in the State policies relating to economic development in general.

Another issue that attracted attention of several participants was the creation of new official agencies for regional development. The case for the creation of a new

bureaucracy was strong but the participants did not feel that there was enough assurance that such an agency would be any more effective than those already dealing with the different aspects of development. The lack of coordination between the existing agencies, the defects, delays and formalities involved in their working, their attitudes towards and behaviour with the public, their routines, their deficiency in technical knowledge and skills of management and their general approach to the problem of development were pointed out as requiring improvement and reorientation. The participants, however, agreed that a new authority may be appropriately constituted if a thorough examination and review of the working of the present agencies indicated the need to do so.

There were other issues as well, but they, as also the above ones, cannot be considered to be new and constitute the perennial issues under discussion in connection with the process of planning in India. Instead of harping on them, it may be interesting to give a verbatim account of a participation or two. For this purpose, reference is made to an interesting intervention of the transportation and communications specialist from the U. S. A. who felt that transportation had not received adequate consideration. This is what he said :

"It was not possible to digest all of the material considered by Panel—I. So, yesterday we fed all the papers and tapes plus the Chairman's report to the computer next door, which became extremely sullen and has refused to work ever since."

"The purpose of the computer run was to ask the machine to kindly put together the various ideas and tell us anything about priorities and inter-relations.

"We now have the print out. This is what it says : All professors agreed on connections between rural-urban economics. The trouble is, there are no connections. Villagers in the region, virtually isolated. Transport cost by bullock cart, excessive. Time, excessive, Load carrying capacity, too low. Farmers, not getting inputs. Farmers, not able to produce surplus. Anyhow, no way to get surplus to market. Discussion of cow hides for pedestrian footwear, insufficient consideration of transportation.

"Economic prospects of the region, very promising if concerted effort is made to improve agricultural output, agro-based industries, and production of consumer goods for the whole area.

"Get a regulated market established in Kanpur. Also outside Kanpur.

"Add industrial estates outside for processing. Start canning peas. Make more cornflakes. Grow potato chips.

**"Get a fleet of trucks to be operated by regulated markets. Have them distribute fertiliser, pumps, hybrid seed to outlying sub-yards. Also, flash-lights, transistor radios, eye-brow pencils."**

**"Get planners in Delhi to give priorities for the needed inputs as stated in the Fourth Plan. Don't take no for an answer."**

**"Start rural works programme on large scale for well-drilling and village roads. Get the State to use the Fourth Plan money for rural roads, where it will do the most for agriculture."**

**"Start local broadcasting from Kanpur and broadcast to the farmer. Use I. I. T. to help. Stop listening to canned programmes from Delhi. Do your own canning."**

**"You can build an agro-industrial system based on natural potentials of indigenous resources. And you can break down the time-space barrier between the city and the rural areas to create a revitalized, economically viable, inter-dependent Kanpur Region".**

To conclude with a quotation, this is what the Director of the London Town and Country Planning Association said towards the close of the Plenary Session.

**"It would be undesirable to try to spread industrialisation evenly throughout the region, giving every existing locality a share of growth. The resources available - of industrial growth, of public investment and of personnel for planning and development - are much too limited to permit this. A prosperous agriculture, which is to be the over-riding aim of national and state policy, is the best hope for all those settlements in the region now stagnant or in decline. Alongside this, economic and social forces are at work to promote the faster-than average growth of a small number of sizeable towns in the region. To harness these forces presents the best hope for carrying the benefits of urban and industrial growth to the region's hinterland, and also to avoid the continuing excessive growth of Kanpur city.**

**"This is not to argue for allowing the 'natural' economic forces entirely free play. It is to argue that the main need is to harness them and guide, or even divert them, in order to locate urban growth in the places where it can most satisfactorily be accommodated without excessive interference by public agencies for planning and development. All this points to the need to select a relatively small number of towns for substantial growth rather than dissipating resources - and probably frustrating economic enterprise - by spreading them too thinly over too great an area."**



## **VII A POSTSCRIPT**

The Kanpur International Seminar highlighted, perhaps for the first time in this country, the importance of applying a regional approach to the problems of economic and social development. It would, therefore, be in order to recall here the conclusions of another international Seminar on Regional Development and Accelerated Growth, which was held at Herzlia, Israel in the fall of 1964, under the auspices of the Technical Cooperation Branch, Development Department of the Organisation for Economic Co-operation and Development. Some of these conclusions are given below:

“Development planning is a dynamic process, comprising a continuous cycle of preparation, implementation, evaluation and replanning..... This requires a continuous link between policy-makers, planners and those responsible for implementation at all levels.

“The region, being the link between the national and the local community, provides a framework for the realisation of such a comprehensive planning cycle. Firsthand knowledge of local conditions, contacts with the local population and the integration of social, institutional and environmental factors in planning, bring the planning process nearer to reality and effect action and change.

“In regional development planning, we cannot wait for the final truth. We should confine ourselves to the absolutely necessary initial studies and should not forget that the emphasis is on the implementation stage, on action and not on the formulation of perfect plans.

“Planners at the national and at the regional level must also arrive through this dialogue at a balance between the objectives of achieving an optimum rate of national economic growth and of reducing the inequalities between the different regions of the country.

“Provisions for strengthening and improving these services should therefore be included in the formulation of development policies and the plan's objectives should be adapted to the administration's capacity to implement programmes.

“An appropriate degree of decentralisation of administration and the delegation of proper authority to regional and local officials is a necessary condition for successful regional planning. Regional authorities should have means of implementation at their disposal and should be given the necessary power of initiative to adapt programmes to changing local conditions. Only then will they be able to win the cooperation of the local population and will their staffs develop a feeling of identification with local problems and of individual participation and responsibility for the success or failure of the programme.

"Due attention must be given to the promotion of the private sector. The planning process should thus include a study of the motivations and incentives for the development of this sector as well as of the direct and indirect effects of various policy measures.

"The role of the regional planning team should be seen as supporting the local leadership in its task of activating the inhabitants of the region and mobilising the services of the people concerned. The team should itself live within the region, and should study ways of stimulating the motivation of the population to achieve the desired changes.

"While in national planning organisations the emphasis in regard to personnel is on the economist, assisted by sectoral planners of the various ministerial departments or by consultants, the regional planning team should include all the professions engaged in the process, e. g. economists, agronomists, sociologists, engineers, architects, town planners, administrators... The most difficult task is that of the team leader, who should be capable of understanding each process in planning as part of the whole. He should have special qualifications for leadership in the co-ordination of a team of professionals of different disciplines. He should be able to adapt the findings of the team to given situations encountered in the region.

"In view of the urgent need for planning personnel it was felt that the organisations engaged in development activities should take further steps to facilitate the creation of educational and training facilities on the following lines: (i) inclusion of the study of theoretical and practical methods for solving social, institutional and environmental problems of development, in the curricula of university faculties from which development planners are recruited; (ii) inter-faculty post-graduate course in comprehensive development planning for the training of team leaders and project directors; (iii) intensive course in regional planning for teams composed of professional workers of different disciplines; (iv) inter-disciplinary seminars at university level for practical training in the preparation of development projects; (v) cooperation between university faculties and planning organisations in support of the above."

## APPENDIX A

**Agarwala, A. N.**

"A Design for the Integration of Hinterland with Metropolis in Kanpur Region."—Panel III.

Spells out the intra-regional flows of commodities and services, giving a schematic representation of the rural-urban links in Kanpur Region. Inter flows relate to consumer goods, capital goods, labour and socio-cultural influences. Includes discussion also of entrepreneurial inflow, inflow of religious and tourist attractions as well as outflow of infra-structural services and civic amenities.

**Agarwala, N. N.**

"Development of Industries in Uttar Pradesh."—Panel II.

Discusses four important directions for the development of industries, viz., (i) Development of new industries, (ii) Technological transformation of the existing ones, (iii) Proper utilisation of the existing production machinery in the State, and (iv) Improving the quality of the products.

**Alam, S. Manzoor**

"Metropolitan Growth Trends and Regional Relationship—A comparative Study on Metropolitan Hyderabad and Kanpur." \*—Panel IV.

Attempts a comparison between Hyderabad and Kanpur in respect of demographic trends, morphological evolution and ecological patterning and distribution pattern of social and high urbanisation areas.

**Balls, John**

"Industrial Opportunities in Agricultural Development with reference to the Kanpur Region."—Panel I.

Reviews agricultural development, points out prospects of agricultural growth based on climate, soil and labour resources and discusses requirements in terms of the expansion of industrial activity necessary for agricultural growth.

**Banerji, H.**

"The Population and Employment Structure of Towns in W. Bengal and the Kanpur Region: The scope for planning a hierarchy of urban centres."

\*Working paper prepared by workshop members.

Examines correlation of employment in public service, treated as autonomous, with employment in other services and uses it as a measure of the size of expected total employment and population for a comparative assessment of towns in W. Bengal outside Calcutta Industrial Area and towns in the Kanpur Region.

**Berry, Brian J. L.**

“Policy Implications of an urban Location Model for the Kanpur Region.”\*

Examines the process of regional development, the failure of trickle down mechanisms in the Indian case, indicating its policy implications, and the nature of theoretical urban hierarchies. Evaluates on the basis of the above the existing hierarchy of the Kanpur Region, with particular reference to the administrative set up, the status of Kanpur city and structural relations obtaining in the region. Discusses also urbanisation and centralisation alternatives available indicating job requirements and the issues to be resolved.

**Bhat, L. S.**

“Regional Growth Approach for Industrialisation and Urbanisation of the Kanpur Region.”\* Panel—II.

Reviews briefly regional approach to planning in India, the status of the Kanpur Region in a macro regional setting and regional urban and industrial structure and suggests a spatial pattern and hierarchy of settlements for the region, indicating some of its implications.

**Bose, Ashish**

“Industrial and Urban Growth of Kanpur Region; Problems, Prospects and Policies.”—Panel I.

Discusses some demographic, economic and social aspects of the problem, directing specific attention to the question of delimitation and its position in the Fourth Plan Programme of the preparation of regional plans. Emphasises agricultural character of the region and discusses the prospects of industrialisation in the light of recent trends.

**Desai, P. B. and Pal. M. N.**

“Economic Activity in the Kanpur Region, Present Pattern and Perspective Dimensions.”\*—Panel I.

Against the background its recent history the paper discusses the question of delimitation and examines for the area as delimited by the Research Unit, population trends and level of development; provides a tentative estimate of consumer demand and of net domestic product. Discusses also the problems of major industries in the region.

**Dev Raj**

**"The Machinery for Regional Planning and Development."\*—Panel III.**

Assuming the need to stem the drift of population towards the city, the paper discusses industrial policy and its implementation, examines the existing administrative set up and offers proposals for planning and development authorities.

**Fontera, Richard M. and Thomas, Wyndham**

**"Planning the Growth of the Kanpur Region: Suggestions for policy and Machinery."\*—Panel III.**

Part I, by Fontera, briefly discusses the basic functions to be performed for treating the area as a political system; considers generally the situation in India in respect of the role of government and bureaucracy in development activity. Part II, by Thomas, suggests some broad lines of development policy for the Kanpur Region, its age structure and labour force participation for the region, the Kanpur City, Kanpur district and also for towns in other districts of the region.

**Johnson, E. A. J.**

**"The Integration of Industrial and Agrarian Development in Regional Planning."\*—Panel II**

Directing attention to the inseparability of agrarian and industrial development, the paper examines incentives for farmers indicating the essential nature and how they can be developed, suggests development of market towns as foci for production incentives, examines the physical and ideational separation of many Indian villages from the all India economy and from an organic development process and emphasises the need for creating an investment climate in emergent market towns.

**Joshi, M. D.**

**"Local Finance with special reference to Kanpur Municipal Corporation."\*—Panel IV.**

Traces the history of municipal government in India, examines constitutional and other functions of local bodies and discusses their financial resources and limitations. Examines in detail financial provision, taxation powers, tax structure, borrowings, expenditure pattern etc. of the Kanpur Nagar-Mahapalika for recent years.

**MCRoble, George**

**"Action for Area Development."\*—Panel II**

In the belief that area development approach offers the best opportunity for developing and fostering adoption of low cost technologies, the paper briefly

examines the task of drawing up and implementing an area programme based upon identification and fostering of growth centres, the linking of industry with agriculture and making maximum use of local resources. Considers also action for promoting indigenous technologies which are less costly, are in harmony with existing conditions and are, therefore, reproducible in large numbers.

**Mathur, O P.**

“Industrial Dispersal and Growth Centres.”—Panel II.

Viewing that dispersal of industrial growth promises immense social and economic gains, this paper briefly considers how and where the new industrial activity should be located; suggests the adoption of the approach of growth centres and discusses criterion for the assessment of economic potentiality of a growth centre; also suggests the types of data that may be used for this purpose.

**Mishra. R. K.**

“Urban and Industrial Growth in India; its constitutional and Legal Implications.”—Panel III.

This comprehensive paper reviews legal growth in India with particular reference to the problems of urbanisation and industrialisation, examines social objectives of economic growth and suggests a constitutional frame work for regional planning and discusses also problems relating to property relations and social control.

**Owen, Wilfred**

“Transport and Communication in Kanpur's future.”—Panel I.

Referring particularly to Kanpur's links with other urban centres and parts of the country, regional links between rural and urban economies and movement within the city itself, the paper discusses the role of transport and communication, emphasising inadequacy, high costs and time consuming character of the present facilities, and suggests a total communications strategy needed for comprehensive development of the region.

**Prasad, K.**

“Industrial Prospects of the Kanpur Region.”—Panel I.

Explores the possibility of industrial development in future in the Kanpur Region, points out requirements and limitations of the exploration; attempts a general assessment of the potentialities in the light of the trends in recent years and discusses the growth prospects of several industries.

**Rajgopalan, C.**

"The Nature and Characteristics of Urbanisation in Kanpur Region."\*

—Panel IV.

Attempts a comprehensive analysis of the urbanisation process in the region directing particular attention to the pattern of location and distribution of urban settlements, underlying factors and their basic social, economic and other characteristics. The emphasis of the paper is on the intra-regional differences in the structure of urban settlements.

**Rege, M. A.**

"Distribution of Urban Population."\*—Panel II.

Against the background of the historical growth of urban population in India, the paper attempts to project the national pattern of the distribution of the cities for 1981 and 2000. For the Kanpur Region examines the distribution of urban settlements by size and suggests the development of hierarchy for the region, indicating the types of services and facilities that centres of different sizes may require.

**Ridker, Ronald G.**

"Prospects and Problems of Agriculture in the Kanpur Region."\*—Panel II.

Discusses the need to stress agricultural development, examines the potentialities in agriculture referring particularly farm costs and revenues for different crops under existing and improved techniques for irrigated land. Also gives an inventory of physical inputs required and discusses such related aspects as marketing, price effects, incentive goods and achievement motivations etc.

**Roy, (Mrs.) Krishna**

"Urbanisation in Kanpur Region—Retrospect and Prospect."—Panel IV

Directing attention to the declassification of towns resulting in 50% reduction in the urban centres in the region, this paper examines the character of the urbanisation in the region and further gives an analysis of the cost of urban development, expressing the fear that urbanisation may prove a remedy worse than the disease and argues for improving the occupational composition of urban populations through establishment of agro-industrial complexes.

**Roy, Ramashray**

"Some Administrative Factors in Industrial Development in U. P."—Panel III

Emphasising the role that the State has come to play in industrialisation under planning, this paper attempts to examine the administration of industrial

programmes in U.P. and seeks to provide in particular evaluation of qualitative performance of the concerned department of the State. The role of the department is examined against the background of economic characteristics of the State, having direct bearing on its industrial prospects and in the light of the alternatives of industrial development open to the State Government. (The conclusions of the paper were considered in the light of the comments on the paper received from the Directorate of Industries U. P.).

**Sharma, K. N.**

**"Social Dimensions of Industrial Growth of Kanpur Region."—Panel IV**

Examines the role of the industrial entrepreneurs in the Kanpur Region, evaluates their performance in terms of expectations based on a hypothetical ideal, and discusses the effect of tradition and social milieu on entrepreneurship. Also considers the role of labour in industrialisation directing attention particularly to their commitment to industrial employment in the light of their social background.

**Singh, Shiv Mangal**

**"Seller purchase stability in Rural Central Places located towards the periphery of the Kanpur Region."—Panel II.**

Examines different aspects of the process of stabilisation (a state of equilibrium of function) of rural central places—stability being conceived in terms of commodity, price, storage and building material, route, location, service zones and cultural landscape. The process of attainment of stability is viewed in terms of four stages—the unstable stage, the beginning of stability towards greater stability and the stage of stability.

**Singh, V. B.**

**"Industrial Relations Climate in Kanpur."—Panel I**

Offers certain types of generalisations about the industrial relations climate in the city and the region after discussing its three dimensions, namely, the entrepreneur, the state and the worker, and a review of the characteristics of the trade unions in Kanpur. The generalisations relate to state policy, legislation, procedure, machinery, collective agreements and research etc.

**Sinha, J. N.**

**"Occupational Structure of three major Textile Centres in India."—Panel I**

Assuming that the growth of a metropolis is interlinked with the surrounding region and that given neutral technology economic viability of the metropolis and its region may be measured in terms of the changes in the size and occupational structure of the labour force, the paper attempts to highlight the main

features of the occupational structure of Kanpur and compare them with two major textile centres of India, namely, Bombay and Ahmedabad. The basic data is taken from the census reports and is supplemented by data on employment in registered factories in the bulletins of the Research Unit.

**Trivedi, Harshad**

**"An Interpretative Note on Some Towns of Kanpur Region."—Panel II**

On the basis of field studies conducted by the author in respect of a selective sample of towns in the region, the study aims to discern social, political and administrative problems underlying overall economic development of the region, to review the progress made so far in the light of peoples' aspirations and needs and to find out the amount of concerted effort made by the people themselves towards the fulfilment of their needs.



## **APPENDIX B**

### **PARTICIPANTS**

*(Abbreviations : L. A. C. for Local Advisory Committee; R. C. for Reception Committee;  
R. U. for Research Unit and S. C. for Steering Committee.)*

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