INTRODUCTION

A Plea For Planning

Independence vitally necessitates making the country self-sufficient and raising the standard of living. And this is not impossible to achieve, for, there is a wide field for a planned programme of the development of industries. A systematic and scientific approach to the question of industrial planning, giving a lucid picture of the ways of solving, in a practical manner, the problem of scarcity and low national income is, therefore, essential. With regard to Uttar Pradesh, having 1,13,409 square miles of area and 6,32,15,742 heads to bring up, a deeper appreciation of the multiple uses of the 1,40,574 KWS. of installed power supplied through over 11,000 miles of transmission lines, and other available resources of the region and an effort at restoring those that have been depleted or destroyed, will convert this land of scarcity into a land of abundance.

It is only through harnessing these resources to a planned progress that the industrial set up of the state can be placed on a sounder footing and that the national wealth can be produced to add to the various amenities of life.

As industrial enterprises have grown in magnitude, as processes have become more refined, and competition more keen, and as the necessity of abolishing poverty has been more and more intensely felt, the problems of planning have steadily grown in importance. Planning has become the watch-word of the national economy. "Produce or Perish" is the slogan heard everywhere.
But the mere renouncing the tools and methods of our forefathers and replacing the former simple ways by those that are modern cannot be viewed as a true planning of the industries. At the same time, it is no planning if it does not include both big and small industries. With the progress of the humanistic side of civilisation and the end of the toilsome journey from slavery to liberty, we must attain higher ideals regarding industry. Industry is the business of the civilised world and therefore the greater part of our problems -- national, state or home -- must move around the great industrial questions.

The need for industrial planning is evident in the swift growth of population in modern times because the extension of industrial production has not kept pace with the increase of population. Industrial planning is also necessary to develop the load for the installed capacity of electric power which is expected to be doubled by the end of the First Five-Year Plan. The Second Five-Year Plan will have a few more power-projects (See Appendix XII). The author has further suggested a few schemes which can be advantageously implemented in the future plans of the State. These would prove to be white elephants if, side by side with the generation of new energy, a demand for its utilisation in a variety of industries be not created.

The Tennessee Valley Authority of U.S.A. and the Five Year-Plan of the U.S.S.R. constitute standing examples to the world at large of what can be achieved by planning and cooperation. The great benefits of the plans have transformed the
entire economic life of the countries concerned, and have brought about great material changes in the sphere of the standard of life and prosperity of the people.

India has become "planning-minded" since it put into execution the National Five-Year Plan. The State Government, too, is implementing the First Five-Year Plan in co-ordination with the National Plan. No doubt, the Uttar Pradesh is one of the most important industrial states in the Republic, yet all this time, its industrial potentialities still remain to be utilised to the fullest. The State continues to be predominantly agricultural, deriving only a low level of subsistence. Our War efforts have been substantial, and we could have done much more had we planned to the full the economic potentialities of the State.

**U.P. is a Planning Region**

Industrial planning does not preclude the idea of regional planning. Regional units are not determined by the political boundaries of the states, but are based on geological structure, natural resources, climate, soils, population density, etc. Thus, the Uttar Pradesh, as a whole, does not form one geographical unit. It is realised, however, that the existing administrative divisions of the country should be disturbed as little as possible. The difficulties of securing co-operation between two or more administrative units are too well known to need

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I. Chatterjee, S.P. 'Presidential Address', Association of Indian Geographers, Patna, 1947, Calcutta Geographical Review Vol. XI, June, 1949, p.5. "This tract (the Gangetic Valley, comprising the provinces of Bengal, Bihar, and United Provinces) may, therefore, be taken as one regional unit in national planning."
emphasis here. Besides, the Indian states are no less than the countries of Europe in some respects. With this consideration in view, deviation may be made from the natural boundaries to fit administrative regions. Thus, although political boundary is not a criterion in planning, the Uttar Pradesh can serve as the real unit of industrial planning.

Based on topography and geological structure, it is possible to classify the State into Himalayan, Vindhyan and the Plain areas as separate regions, but for planning purposes, they are so inter-dependent that their problems can best be tackled when they are treated as one unit. For example, the mountainous areas of U.P. are physically more similar to the mountainous areas of Bihar and Nepal than to the Ganga Plain of the State. But, they have many more ties of economic interests and common problems with the U.P. plains than with Bihar, Assam or the Panjab Himalayas, and it seems inappropriate to think of planning the industries of Uttar Pradesh without the co-operation of the Himalayan areas or vice-versa. Water power, irrigation, control of floods and soil erosion, transport, communication, trade, industry and its raw materials can best be developed as parts of one unit.

In a few instances, the plan has been extended into the territory of adjoining states, and this has been done where it has been felt that the best development of the areas can take place only when they are treated as part of the one whole, and the advantages secured by this far outweigh the difficulties of securing inter-state cooperation.
THERE IS A UNITY OF WORK EFFORT INNATE WITHIN THE WORLD OF INDUSTRY.

**AGRICULTURE**

This giant of the world, who feeds and sustains the people of the world, may only be seen in certain climates & thrives only under certain geographical conditions, but each day more and more relies upon the output of the manufacturer, who is both designer and operative. He is not of great stature but he is of paramount importance to the future welfare and smooth running of the world’s output yet is rendered inactive without the co-operation and good will of this undersized little man is essential. Exports and imports, the even distribution of the world’s wealth, is all handled by him, but how can he move without the energy of the tough little dwarf.

**TRANSPORT**

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**MR. MINER**

Brave and self-reliant, to be found both in unknown spots and in the congested coal-mining cities; he is a danger-seeking worker who serves the whole of the industry.
The foundation of regional planning lies in the utilization of the natural resources to increasing the wealth of the region. This amounts to exploitation of nature as opposed to the exploitation of man. The primary resources of the region are water and land. The former includes power and the latter minerals, forests and agriculture, not excluding man. These fundamental resources then create and multiply the wealth of the country under scientific industrial planning. But the task of industrial planning is too difficult and too stupendous for any individual. In the technical sense of the term, it needs an institutional mind, capable of thinking in terms of experience larger than that which comes to any individual, able to define distant goals, to devise efficient ways and means of attaining them. Hence, this cannot be looked upon as an exhaustive treatment of the subject.

The present thesis is a geographical approach to the problem, so it deals only with the geographical elements of industries like people, power, transportation, raw materials, etc. It attempts to review the chief industries, both large and small in the region, with particular reference to their geographic environment and future prospects. It also draws up a sketch of the long and short term plans for industrialisation of the State with regard to the basic needs of the people, full utilisation of the by-products of the existing industries, deficiencies, surplus and bottlenecks.

Establishment of the basic and key industries; reform in the present uneven character of the industrial system; decentralisation of some of the large-scale industries and their transference to regions where these might obtain raw materials and an
abundant supply of labour on the spot; and change in the relationship of the industrial centres to one another are in the forefront of the Industrial Planning. It also takes into consideration the growth of population at the rate of 6.6 lakhs a year.

Nothing is more characteristic of this Planning than the development of thriving industrial centres in the heart of the younger and immature economic regions which promise a higher tempo of development than the industries of the older industrial regions of the State. This would shift the industrial centre of gravity to backward areas whose resources have not yet been fully tapped and which will gain on those that are more advanced. The districts of Tehri, Garhwal and Almora in the North and the Bundelkhand in the South have been considered under-developed with a per capita income of one-tenth that of the developed districts of the State. With industrial investments of the same order of scarcity and available mechanical power much less than 1/20th that of the developed areas, their people are unable to compete with the advanced districts of the State. Untrained in modern technical skills - lacking plant and industrial equipment, languid by low productivity, they are unable to accumulate the necessary capital for educational and industrial improvements. Thus, they are trapped within an economic whirl-pool that is relentlessly drawing them downward to relatively lower and lower subsistence levels and eventually to partial extermination. Special attention has been paid in this treatise to the development of such areas. The Kumaun region has been dealt in a way that by launching the large, small and cottage industries as suggested by the author, it may be converted into the Switzerland of India.
Suitable sites for the location of marble slabs, fertilizers, lac culture, pulp and paper, etc. industries have been suggested in the undeveloped Mirzapur District with due consideration to geographical factors. A number of industries based on minerals occurring in the Rihand Valley Development area (R.V.D.). around Pipri (Map No.47) have also been described (pp.323-4). Similarly schemes of development have been suggested for the Bundelkhand region as well.

The execution of the plans for the development of industries of the State have been co-ordinated with those of the Bihar, the Panjab, Rajasthan, Madhya Pradesh and Nepal States as these are within the economic distances of our centres of consumption. Unco-ordinated development of industries will result in over-production and unhealthy competition. For instance, if the State were to take up an iron-smelting factory, the cost of production is likely to be higher than one in Bihar. Mr. G.D.H. Cole, the well-known economist, is highly critical of the uncoordinated fragments of sectional planning. As a result of unco-ordinated development, the consumer is made to pay for the cost of the uneconomic unit. Wherever it is considered fruitful, inter-state economic pacts have been suggested for inter-linking the interests of the adjoining states. Though it avoids economic self-sufficiency of the State as regional planning does not allow it, yet it promises a co-ordinated development of industries and trade for a state of economic balance.

Suggestions for the industrial development of this State have been based on certain broad assumptions. Firstly, the economy of this State depends primarily upon agriculture, for, without agricultural prosperity, the industrial prosperity of
the country cannot be assured. The converse is, of course, true, though not to the same extent, since it is only a prosperous industry that can absorb every agricultural raw material adequately.

The pressure of population on the soil has been steadily increasing, hence merely the reinstatement of agriculture will not better the situation. Millions of people are unable to find employment in rural areas. To support above six crore souls on the basis of self-sufficiency of food and other necessities of life, more possibilities have been sought for industrial development in processing agricultural raw materials or in those using large scale labour. This statement does not imply that this development of industries would attract the agricultural worker to the detriment of agricultural production. The fact is that more people are engaged in the field than is essential for its efficient cultivation. The establishment of industries in agricultural areas will draw on the surplus workers whose earnings will supplement the income of the family to bring about improvement. To talk of raising the standard of living and engaging them in less productive activities is a contradiction and a paradox. A high level of industrial production is capable of materially raising our standard of life much more than increased agricultural production.

The world's greatest industrial magnates, too, have always dreamt of closer ties between industry and agriculture. Their slogan is "One foot in the industry and the other in the soil". It means, the farmer must have goods and services that industry provides and industry must furnish a large part of the market for what the farmer produces. Or, in other words, out
of whatever scope for industrial development that is open to
our State, priority has been given to industries which directly
or indirectly assist our agricultural operations.

As for the conservation of resources, a long range view
has been taken to conserve them for future generations to come.
The land is the nation's primary and ultimate asset. The opti­
mum use of every acre of land has been made as the essence of
planning. To achieve this, it has been planned to collect all
scrap, waste and discarded materials with a view to reusing them
so that we may have to draw less upon our reserved resources of
raw materials.

Our industries should not cater either to sophisticated
tastes or to the requirements of the western pattern of life.
More stress has been laid upon development of industries connec­
ted with food, cloth, building, chemicals and pharmaceuticals,
rather than upon motor cars and such other luxuries.

By paying due attention and granting priority to the
development of cottage industries, we have to try to elevate
the very poor to the level of the educated lower middle class.
The industries, thus, with regard to the need particularly of
this class, have been considered essential for the first stage
of our industrial development.

Because of its large population, and availability of water
power after the implementation of the various schemes, the region
would be well adapted for small-scale industries which can be
located in rural areas and can provide full employment. This
in turn would bring with it to the rural areas, better roads,
cheaper and quicker transport, educational and medical facilities,
a better market for agricultural goods, a consumer class with
greater expending power, and better sanitation and water supply.
Thus, we should model ourselves closely on the lines of Japan
and Scandinavian countries. The availability of labourers
sufficiently skilled in the use of their hands will pose no pro­
blem. The farmers, since times immemorial, have been making
use of the slack farming season to augment their income by engag­
ing themselves in handicrafts and small industries. A short
training period is all that is required to prepare any section
of this large segment of the population to fit them for jobs in
simple new industries.

The author feels undesirable the abolition of such indus­
tries as the 'khandsari' sugar which, though a wasteful method
of production, provides employment to a very large section of
the population. Besides, its by-products can very well be
used for the production of rectified spirit and power alcohol.
Rohilkhand region alone produces about 75 per cent of the total
Indian production of 'khandsari'.

Our people are not in a position to think of their State
as a land in which everything has been discovered and in which
all the resources have been tabulated and entered. We have
often heard the planners and research workers lamenting this fact.
They say that they live in a State where there are vast areas
as yet scarcely explored and not yet fully mapped even from the
air. As a result, people are not using their land and not plan­
ing its future uses, to the best advantage. It is a sort of
waste that has to be positively checked; the sort of waste that
can be prevented only through the patient accumulation of facts
by trained and expert minds and their clear presentation in a form which even laymen can understand. Maps aim at a strictly objective and scientific presentation of the natural conditions and economic resources of the land to impart accurate knowledge of the State to the planners. They are also of service to research in many fields, since they present in convenient form the data upon which many conclusions and decisions of great importance may be based. The author, for a thorough inventory to the natural and economic resources of this State, has felt the greatest need of land utilization survey and the preparation of landuse maps of the whole State, on the lines of the United Kingdom where the pioneer work has been done under the direction of Dr. L. Dudley Stamp. It is certain that a concentrated study through maps from new points of view will not only disclose fresh resources in both its land and its people, but also new problems of which few are aware.

The reports, statistics, illustrations, charts, graphs and maps in this thesis, therefore, have been designed as material and guide for the planners' use.

With regard to transport in the under-developed regions of the North and the South, coordination will have more the aspect of planning the expansion of transport system in such a way as to give priority to the most urgent demands and at the same time to ensure in the long run the development of a harmonious system, avoiding overlapping of facilities. In the developed region of the Central Plain with extensive transport system coordination will have mainly the aspect balancing and integrating the different transport techniques in order to provide cheap and efficient services and avoid uneconomic competition.
In the earlier section of the thesis the author has critically examined the natural resources and attempted an industrial survey of the State as it is an essential preliminary step before any large scheme of industrial expansion can be put into effect. He has dealt the industries based on agricultural, forest, animal and mineral products separately and suggested the establishment of new industries based on respective raw materials and indicated lines of future development of the existing industries in the end of each chapter. Of all the industries especial mention may be made of the suggestions regarding the sites of a new fertilizer factory at Mirzapur, pulp factory at Dudhi, marble slab industry at Singrauli, news-print paper mill at Dehra Dun, rayon factory at Naini and a paper bag factory in the Bundelkhand region.

One full chapter has been devoted exclusively to the small and cottage industries. In the last chapter he has concluded the whole picture of industrial development of the State on regional basis with a tentative plan in a tabular form giving the sites for new industries and their sources of raw materials. He has also discussed the coordination of the various large, small and cottage industries and briefly mentioned their organisation in the end.

A brief description of the physical features of the region is also necessary to the plan, and hence it has been given in the first chapter.