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**ECONOMIC PROSPERITY OF
THE UNITED PROVINCES**

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ECONOMIC PROSPERITY OF THE UNITED PROVINCES

A STUDY IN THE PROVINCIAL INCOME
ITS DISTRIBUTION AND WORKING
CONDITIONS

1921—39

BY

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FOREWORD

I AM glad to have the opportunity of writing a Foreword to this work by Dr. Shri Gopal Tiwari.

The solution of nearly all the economic problems of India requires a knowledge of national income, and it is deplorable how little work has been done in this field. Dr. Tiwari is working along the lines pioneered by Professor V. K. R. V. Rao. By long and patient work he has shown some respects in which Professor Rao's methods can be improved. In doing so, he has revealed an intimacy of acquaintance with the business and agricultural communities of his Province which marks him out as a true economist and not a mere pedantic manipulator of figures.

Money national income is of little interest or value except in the ascertainment of real national income, the true object of our inquiries. For this reason I am bound to feel uneasy at much of the glib talk about social accounting, which is now so freely in circulation. I should be the last to deny that social accounting, properly applied, can yield valuable results. But by its nature it is solely applicable to questions of money income. The use of social accounting methods, therefore, carries with it a real danger that the much more important problem of real income will be neglected or relegated to a back seat.

Bureau of Industry,
Brisbane, B. 7,
Queensland, Australia.
22. 3. 50.

COLIN CLARK
Director

PREFACE

IN the present work an attempt has been made for the first time to compute the *per capita* income as well as the average income of the earners including earner equivalents of working dependants and of subsidiary workers of the United Provinces. Never before, so far as we know, was any attempt made in this direction either by the Department of Statistics of the Government or by any scholar working in India or abroad. On the basis of these findings considered together with the conditions of work in agriculture and industry and distribution of income, we have tried to form an estimate of the Provincial Prosperity between 1921-22 and 1938-39. We have selected the period of eighteen years between 1921 and 1939 for our investigation. We have given elsewhere¹ in detail the reasons for the selection of these dates. We may, however, mention here that they were chosen as they provided special advantages in the matter of availability of data and were also important in other ways.

Our study clearly brings out the fact that during the period between 1921-22 and 1938-39 Provincial Prosperity had been almost stagnant. The Real Income per head of the population for 1938-39 was lower by 1·6 per cent if we do not allow for under-estimation and was higher by 2·8 per cent if we allow for under-estimation in income assessed to income-tax. The Average Real Income of earners including earner equivalents of working dependants and of subsidiary workers for 1938-39 was 0·2 per cent lower if we do not allow for under-estimation and 4·2 per cent higher if an allowance for under-estimation is made, than that for 1921-22. The distribution of income between urban and rural areas as well as between agriculture and allied occupations, industry and services was much more

¹ See Chapter III, p. 48.

uneven in 1938-39 than in 1921-22. The improvement in the working conditions also was slow and inadequate. Thus the picture of the economic life of the Province as yielded by this investigation is a sad one. In the course of various chapters as also at the end of this work an attempt has been made to make concrete suggestions for the immediate and speedy amelioration of the economic life of the Province.

The data used in the work have been gathered from Reports and also from extensive personal enquiries, and an attempt has been made to bring together elaborate facts having bearing on the question of the Prosperity of the Province. These accumulated facts have been sifted and recognised methods for the calculation of income, namely, the *inventory* and the *income* methods have been used for obtaining the required results. These methods were first applied to data pertaining to Indian conditions by Dr. V. K. R. V. Rao in his pioneer work the *National Income of the British India (1931-32)* and we have with certain modifications followed his line of work in the computation of Income. At the same time the question of distribution has also been touched upon as it immediately concerns Prosperity of the people.

The present study may thus claim to be an original effort in the collection of new data as also in the assessment of the *per capita* income in relation to the larger question of Prosperity of the United Provinces. It should be mentioned here that on account of inadequate statistics and the personal factor that always enters into enquiries of this kind there may be a slight margin of error in the results, although we have tried at every stage in the body of the work to make a reasonable allowance for such errors. And we hope that the element of error, such as might have crept in, will not be so great as to alter our findings materially or to lead to any modification of the conclusions arrived at.

The present work is substantially based on findings embodied in a thesis approved by the Benares Hindu

University for the degree of Doctor of Letters in 1949. It is my pleasant duty to acknowledge gratefully the help rendered by Dr. B. R. Misra, now Professor of Economics, Patna University, under whose supervision the thesis was prepared and to Dr. A. K. Dasgupta, University Professor of Economics, Benares Hindu University, who gave me invaluable help in the later stages of the work. I am particularly grateful to Mr. Colin Clark not only for certain corrections that he made to the original draft of the thesis as an examiner, but also for the courtesy that he has shown me by writing a foreword to the book. Dr. Vera Anstey and Prof. V.K.R.V. Rao also helped me by various suggestions at different stages of the work. My thanks are due to them. The Government of the United Provinces (now Uttar Pradesh) was kind enough to grant me a sum of rupees one thousand and five hundred towards incidental expenses and provided me with other facilities in connection with my investigations on the subject, and I take this opportunity of recording my appreciation of the help that I received from them. I must also thank the librarians of the Benares Hindu University Library, U. P. Secretariat Library, Lucknow, Council Library, Lucknow and Central Secretariat Library, Delhi for the uniform courtesy that they showed to me while I worked in these places.

Department of Economics,
Benares Hindu University.
15. 6. 1951.

S. G. TIWARI

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CHAPTER I

INTRODUCTORY

THE object of the present work is to study the economic prosperity of the United Provinces. A number of reasons have prompted us to undertake the present study. The common feeling of pessimism among the people of the Province that they are worse off today than they were a generation ago or so has created an urge to make a statistical study and establish the truth or otherwise of their statement. Moreover, the United Provinces which has a population of 55 millions, which is greater than that of England and Wales, or Italy or France has its own peculiar problems which require drastic measures and special remedies. For some time there has been a hue and cry all over India for measures to raise the standard of living of the common man. The provincial governments have prepared and are still preparing various schemes to increase the prosperity of the people of the provinces to a higher level in the course of coming years. It is necessary, therefore, for us to be clear and definite about the notion of the word 'prosperity' and about the tests of provincial prosperity.

Meaning of Prosperity

The word 'prosperity' is used purely in the economic sense throughout this work. It is something which relates solely to the material side of human welfare or well-being. Prosperity is a state or condition of being more or less well off in a strictly material sense.¹

Prosperity generally relates to persons. By 'provincial prosperity', we mean the prosperity of the

¹ Benham, F. C.: *The Prosperity of Australia* (2nd edn.), 1932, p. 1.

people of a province. There is some vagueness about the notion of 'the people of a province'. By this we generally mean the people or community of residents within the territorial boundaries of a province. Prosperity of this community of residents of the province takes into consideration the material side of human welfare of this community, and is judged by various factors such as physical features, climatic conditions, the agricultural, industrial, mineral, live-stock, forest and other resources, good monsoon, better health, close co-operation between the government and the people,¹ total population, working population, age-composition of the population, sexes, expectation of life of the people, total volume of employment, volume of internal and external trade, wage rates, monetary, financial and trade policies of the government, general living conditions, general wealth, income of the people and the real value behind this income, its distribution and conditions of work in agriculture, industry and services. But the test which is most generally applied is that of Income which is supplemented by tests of General Wealth or Assets, Working Conditions and Distribution of Income.

The Provincial Income

The income of the community of residents of a province is called the provincial income or provincial dividend. It is measured over a year. The provincial dividend of any given year may be defined as the sum total of the incomes of the residents, the firms and companies. The local authorities and the provincial government are considered as the members of this group of persons or residents.

It is significant that the provincial dividend is generally the source of expenditure of the residents and the local authorities. It is the provincial dividend from which

¹ See Anstey, V.: '*Economic Development of India*', 1942, pp. 433-37.

food, clothing, shelter, necessaries, comforts and luxuries must come. From this the public authorities should ordinarily be able to meet their expenditure. It is from this source that further savings arise, investments increase, extension of buildings etc., takes place and constructive work such as expansion of education, social service, health and hygiene, public security, means of transport and communication and such allied things are financed. Hence we find that Income by far is the greatest test of Provincial prosperity, though it may be supplemented to some extent by Assets, Working Conditions and Distribution.

Provincial Assets

Provincial assets are generally measured at a point of time. The statistics of income alone do not always necessarily reveal the assets. The future assets depend on the saving capacity of the people. If savings have increased enormously in a given period of time, the future prosperity of a province is bound to increase. In some cases the assets may decrease on account of foreign borrowing, but this decrease can easily be set against the expenditure in the province in order to increase social and economic welfare. Sometimes the provincial government borrows money from outside in order to increase literacy, to make better provision for health, to increase civic amenities, to construct irrigation works for the development of agriculture and carry on the expansion of industries. Sometimes money is also spent over schemes of social insurance, and to improve means of transport and communication in order to provide easy marketing facilities. In these cases a reduction in assets does not signify a decrease in prosperity. Thus while considering the extent to which the position of a province in relation to future has improved or deteriorated account must be taken of an increase or decrease of assets and in the latter case the causes of the decrease should be properly traced.

Working Conditions

Under 'working conditions' we study residents of a province as producers (instead of consumers as we study under provincial dividend) and take into account the hours of work,¹ number of holidays with pay, overtime work and allowances, the conditions in factories, mines or place of work or the place of residence and other facilities provided by the employers such as provision for education, both general and technical, reading rooms, play-grounds and parks and supply of commodities at low prices. If the resident communities of the two provinces are on equal economic plane, the one working under better conditions is surely more prosperous than the other.

Distribution

Distribution is the third supplementary test of prosperity of the residents of a province. It affects prosperity by reducing or increasing the inequalities of income.

The State is in a position to remove inequalities of income by levying progressive income-tax, excess-profit tax, property tax, inheritance tax and death duties and spending the income so received on the poorer classes of society. But it should be clearly understood that there is a limit after which the reduction in inequalities will not increase prosperity. When taxes levied by the government are so heavy that the willingness of the people to save is affected adversely they may not like to save. Many of them fritter away a major portion of their property for fear of its being taken away by the State.

Hence there are definite limits within which an alteration in the distribution of income can increase prosperity. But within these limits there is much scope

¹ An increase in provincial income which may be the result of longer hours being worked would not lead to provincial prosperity.

for promoting prosperity. Thus we find that Distribution can claim to be a supplementary test of prosperity.

Prosperity, Population and Price Level

The size of the provincial dividend depends upon the number of residents. The total income is useful only in certain ways, for instance to measure the purchasing power of the province as a whole. It is the income per head of the population which is a determining factor of the prosperity of the residents. The average provincial income, as such, is not very useful in itself. It is the purchasing power behind this income which is important for judging the prosperity of the people of a province at different times to a great extent. However, sometimes an increase in the number of babies may result in an increase in the size of families and hence a fall in the average real income even though the total income is unchanged. This apparent fall cannot be regarded as a guide to a decrease in the prosperity of the province. In order to do away with apprehension like this, it would be desirable to divide the provincial income not by the total population, but by the *occupied* population. Hence the Real Income per head of the *occupied* population is the greatest test of prosperity. Similarly the first supplementary test is the Assets per head of the *occupied* population.

Public Policy

Public policy is followed with an implied object of maximising the general welfare of the people. The concept of 'general welfare' is much wider than that of 'prosperity'. Sometimes it becomes necessary to follow a particular policy in the interest of the masses even though it may reduce the present income of certain class of residents of a province. The prohibition policy of the provincial governments is an instance in point. Sometimes the public policy may be followed not only from a provincial or national stand point but from a broader stand point of other nations

too. The stoppage of the cultivation and manufacture of opium in India in the first quarter of the twentieth century resulted in a fall in the income of the cultivators and in a reduction of the income of manufacturers and businessmen, but the policy followed was to eradicate the social evil of the use of opium in China which lowered the standard of living of the Chinese people. Some policies are followed with a view to national self-sufficiency or for the industrial development of the country. The policy of discriminate protection followed in India since 1923 was to promote the growth of infant industries in the country and to start certain industries with a view to making provision for national defence and safety.

It is, therefore, obvious that Income supplemented by Assets, Working Conditions and Distribution is an important test of prosperity, but prosperity can to some extent be modified by public policy because it is always easier to pass an act in the parliament or state legislature than to propose measures to increase the provincial income.

Determinants of Prosperity

From a discussion on the tests of prosperity one thing is obvious that any factor affecting prosperity can do so either by affecting provincial dividend, or assets or working conditions or distribution. It should be clear that the most important group of factors affects prosperity by affecting provincial dividend. These factors can conveniently be grouped in the following order :—

- (a) Factors affecting the Provincial Dividend ;
- (b) Factors affecting the Provincial Assets ;
- (c) Factors affecting Working Conditions ;
- (d) Factors affecting Distribution.

We may consider the last three factors together. The assets arise specially on account of savings made by either private individuals, businessmen, local

authorities or a provincial government. The savings depend firstly on the ability to save and secondly on the will to save. Ability to save is largely governed by the provincial income per head of the *occupied* population. If the income can hardly meet the necessities of life or hardly keep men in efficient state of work, savings are not possible. In this case it is also not desirable to make savings. But if the income is more than what is necessary to keep the people in efficient working state, savings are desirable and they are often made. Considering this group of factors we can say that the Provincial Dividend is a great determinant as well as test of prosperity.

Now we come to the factors affecting Working Conditions. Any improvement in the working conditions such as reduction in the hours of work is possible only at the expense of the profits of the entrepreneurs. If these profits are scandalously low, it will not be possible to reduce the hours of work without adversely affecting the size of the Provincial Dividend. Under these conditions reduction in hours of work is possible only either by increasing the efficiency of workers or by increasing the Provincial Dividend. In a country like England where the wages are already sufficiently high on account of the strength of the trade unions, the lessening of the hours of work will certainly reduce the national income without any compensatory factors. But in a country like India where the trade union movement is in its infancy, the wages are generally lower than those in England and Australia for the same type of work. There is much scope for reduction in the hours of work and for the improvement in working conditions in India without any adverse effect on the Provincial Dividend. If in future the trade unions in India become very strong and are in a position to exact the highest possible wages, reduction in the hours of work will reduce national income unless the efficiency of labour is increased or rationalisation in industries is brought about simultaneously. At present there is sufficient scope for the

economies of large scale production. The wages paid to labourers, in the majority of cases, are much below what is necessary for keeping them in a state of efficiency.

Coming to the factors affecting Distribution we may point out that an organised effort on the part of the State to reduce the inequalities of income beyond a certain limit may result in diminishing the Provincial Dividend. Now we shall discuss the factors affecting the Provincial Dividend.

Determinants of the Provincial Dividend

If the United Provinces were an isolated province having no economic or political relationship with other countries or provinces in India, the money income for any year would be exactly equal to the value of production for the year. The real income in such a case would be the amount of goods and services produced inside the Province in a given year. The incomes of different classes of persons viz., enterprisers, workers, capitalists and land-owners will flow from this source. It is from this very pool that future savings would result, which may encourage further production. Every commodity or service which is consumed in the Province will be produced here. Thus it is the annual volume of production per head which will have to be increased in order to increase Provincial prosperity and the average real income per head.

In actual practice the things do not fit in with our assumption. The United Provinces produces a number of goods and services, some of which are consumed within the Province itself and some are exported to other provinces or countries in order to be exchanged for other goods and services to be consumed by the residents of the United Provinces. U. P. is not a self-sufficient province and hence it makes exchanges of goods and services. The terms upon which this exchange takes place affect the size of the Real Income. Moreover, the Province makes payments to foreigners

for the investment of foreign capital in U. P. and payment for such services as banking, insurance and shipping. The loss to the Province on account of payment for these services also affects the size of the Real Income. The Real Income thus has three determinants which have been symbolically expressed by Dr. Benham¹ thus :—

$$\begin{aligned} \text{Volume of Production} &= H + E \\ &= \text{Exports exchanged for Imports } (e_1) + \text{Exports to meet Interest payments } (e_2). \\ \text{Real Income} &= H + I \text{ ("I" being Imports received in exchange for Exports and not on account of External Borrowing).} \end{aligned}$$

The three determinants of Real Income therefore relate to :—

1. The size of $H + E$,
2. The exchange of e_1 for "I" and
3. The size of e_2 .

The factors affecting the size of Real Income per head will, therefore, be grouped and discussed under the following three heads :—

- (1) Production (the annual volume of production per head).
- (2) External Trade (the real terms upon which exports are exchanged for imports);
- (3) External Debtor and Creditor Relations (the real loss arising from external interest payments), besides the balance of receipts on income account from nationals of U. P. employed outside the Province over the remittances sent outside the United Provinces by the nationals of other provinces and countries residing in U. P.

¹ Benham, *op. cit.*, pp. 97-98.

The second and third factors are difficult of measurement of Provincial Income. In the absence of adequate data we will be concerned, in the case of second factor, with the balance of trade of the United Provinces with other provinces and with the countries outside India. We will consider under the third factor the net receipts and outgoings by way of interest on capital and the remittances of money by the inhabitants of one province or country serving in other provinces or countries to their homes or relations.

Production

For our purpose we are concerned with the annual volume of production per head of the occupied population. Production is a constant process and we compute it over a given period of time such as a week, a month or a year. For our purpose we compute it for a year per head of the occupied population as any increase in production, if accompanied by the proportionate increase of population supported from it, will not increase the size of the Real Income per head. We calculate production for our purpose at a fixed scale of prices. An increase in production is possible in two ways. Firstly, an increase in the quantity of goods and services of the same kind, and secondly, an increase in the quantity of goods of better quality on account of the change in the composition of the volume of production. Thus the volume of production is taken to mean both the quality and quantity of things produced.

It is very well said that production is a matter of man and environment, and the volume of production in any given area depends upon :

- (a) the *people* themselves,
- (b) their *environment*, and
- (c) the *relation* between the two.

The chief factors affecting the volume of production may now be considered.

(a) *The People*: It is a matter of common experience that the volume of production depends partly upon the proportion of the population engaged in production, partly upon the capacity of the people to produce, and partly upon the willingness to work and make the best use of their ability. The capacity to produce depends upon various factors such as health, strength, education both general and technical, skill, intelligence, age, sex and race. The willingness to work depends upon the incentive offered.

According to the Census of 1921 the population of the United Provinces was 453·7 lakhs in the British territory. The actual number of earners including the earner equivalents of working dependants and subsidiary workers (assuming five working dependants earning as much as two principal workers and three subsidiary workers as much as one principal worker) formed 44·0 per cent of the total population of the Province. In 1931 also it formed 44·0 per cent of the the total population while in 1938-39 43·5 per cent of the total population.¹

There is a huge waste involved in female labour in this country. Women are employed only in a few undertakings. They do not generally move out and are mostly busy in domestic work. Thus there is no greater obstacle to progress in India than the prejudice against the employment of women in occupations to which they are naturally adapted. A great source of national wealth is lost to the country as well as to different provinces. Women are only employed in relatively large numbers in indefinite and disreputable occupations. Actually the working female population is very low in U. P. as well as in India. The working women are mainly of artisan or agricultural class. In most of the other countries the proportion of female labour to the whole is much greater than that in U. P., while its efficiency is equal to the task performed;

¹ See Chapter II.

the contribution to the National Dividend resulting from this forms an appreciable part of the whole. If there were in western countries a movement aiming at exclusion of female labour from all except purely domestic tasks, that movement would endanger the whole economic fabric, and, if successful, would involve those countries in ruins.¹ The United Provinces discards what in England and elsewhere is an absolutely necessary element in the maintenance of their civilization. The fact that the Brahmins, the Rajputs and many other castes do not allow their women folk to go out of their homes and work in the field or elsewhere is alone sufficient to explain their poverty. In the United Provinces women are not employed in offices, shops etc. This creates a serious difficulty in the way of material progress. No progressive country could maintain its present standard without the assistance derived from female labour and no European country could maintain its present educational system without the aid of women as teachers. The social restrictions in respect of women require a removal for the economic uplift and prosperity of the Province.

It may be pointed out that in respect of the earners the Province cannot stand in comparison with other countries of the world because out of the population returned as occupied about 5 per cent are unemployable or have no income on account of either being ill or incapacitated or almost chronically unemployed while in Great Britain this is only 2 per cent. Again there is a large number of occupied persons (23,707 in 1931) who simply live on their income and do not render any productive service to the community. In addition to these there is an unproductive class of beggars, prostitutes etc. (170,447 in 1931) which is only a charge on the society. The total number of such workers was 18,88,942 out of the total number of 1,50,12,316 persons engaged in principal occupations

¹ Calvert, H. : *Wealth and Welfare of the Punjab*, (2nd edition), 1936, p. 373.

i.e., about 7·4 per cent of the principal occupiers are only a menace to the society. The vastness of this problem can at once be imagined when we realize that this number is greater than the total sum of the principal occupiers in Trade and Public Force in the Province. We have already said enough about the loss of female labour due to social prejudice.

If we suppose that death rate is a satisfactory index of the standard of the health of the people, we may say that the United Provinces is very poor in this respect when compared with the various countries of the world.¹ So far as education is concerned only 8 per cent of the population of the United Provinces in 1941 of the age of 5 and over was literate against 13 per cent in the Punjab, 23·2 per cent in Bombay, 16 per cent in Bengal and 45 per cent in the States of Travancore and Cochin combined; while the figure of literacy for women was only 2 per cent in the United Provinces against 8·3 per cent in the Punjab, 7 per cent in Bengal, 9 per cent in Bombay and 34 per cent in the State of Travancore. In the last decade some progress has been made as in 1931 the literacy figure for the United Provinces was 5·5 per cent, for the Punjab 6·3 per cent, for Bombay 11·6 per cent, for Bengal 11·1 per cent, and for the combined States of Cochin and Travancore 29·8 per cent. Literacy figures for women were 1·1 per cent for U. P., 1·7 per cent for the Punjab and 3·3 per cent for Bombay and Bengal.² It really sounds very strange that in U. P. only 8 per cent of the people can hardly read and write when illiteracy is almost absent in countries like the U.S.A., Great Britain and Australia. Turning to the side of technical education we can say that it is almost negligible in this Province.

¹ Death rates in 1931—

British India	... 24·9;	Japan	... 19·0;
Italy	... 14·8;	U.S.A.	... 11·1;
France	... 16·3;	Germany	... 11·2;
	England and Wales	12·3.	

² See Table 1.

TABLE 1
Showing the Percentage of Literacy in India

Provinces and States	1931			1941		
	Males	Females	Total	Males	Females	Total
United Provinces	9.4	1.1	5.5	16.0	2.0	8.0
Bihar and Orissa	—	—	5.3	—	—	—
Punjab	10.0	1.7	6.3	21.0	8.3	13.0
Central Provinces	—	—	6.6	—	—	—
Assam	—	—	9.3	—	—	—
Madras	—	—	10.8	—	—	—
Bombay	19.2	3.3	11.6	30.0	9.0	23.2
Bengal	18.1	3.3	11.1	25.0	7.0	16.0
Delhi	—	—	16.0	—	—	—
Baroda	—	—	20.9	—	—	—
Travancore*	40.7	16.7	28.9	—	—	—
Cochin*	45.9	22.0	33.7	56.0	34.0	45.0

*Combined figures for males, females and total literacy for Travancore and Cochin for 1931 are 41.7, 17.8 and 29.8 per cent respectively.

The Environment

We use the term 'environment' in a wide sense which covers all the assets or resources of the Province whether due to nature, such as land, mineral, forests, rivers, or to man, such as canals, wells, tube-wells, railways, roads, buildings and machinery.¹ It also covers such factors as rainfall, climatic conditions and geographical position, which affect the utility of those resources. It cannot be denied that mineral and industrial resources of the Province are poor in relation to its area, while the agricultural resources are comparatively large.² The nature has endowed the Province with the Indo-Gangetic Plain, one of the most fertile regions of the world. The defects of irregular and uncertain monsoon rainfall have to a considerable

¹ *op. cit.* Benham, p. 101.

² For a detailed discussion on the resources of U. P. see Chapter II.

extent been removed by the increased use of irrigation by wells and canals. The famines now have become rare. Irrigation has provided for the security of crops to a great extent.¹

The resources of a province affect its total production and not its production per head. The population does not spread in any region evenly but congregates in the most fertile areas. With the increase in population the income per head goes down. Hence resources have to be considered in relation to population rather than area.

When we study the case of the United Provinces in this light we find that the Province has nearly 2·5 per cent of the world population. It has vast potentialities of animal and human resources but in mineral resources it is very poor, and it is comparatively very badly equipped with such resources as buildings, industries, machinery and means of transport.

From the above discussion it is clear that on the whole the human material of the United Provinces and its environment (relatively to population) each does not compare very favourably with the advanced countries of the world. Now let us see what use the Province makes of its population and environment.

The Relation Between People and Environment

The whole history of the economic progress of the United Provinces can be written in terms of the use the people have made of their environment because productive activity is nothing but efforts of man to control his environment, to use it and to improve it for his ends, and to adapt himself to it.² The result of all this is reflected in the trends of Provincial Income of the United Provinces, and ultimately in the standard of living and the economic condition of the people of the Province.

¹ See Chapter XVI.

² Benham : *op. cit.*, p. 103.

Now the question is as to what is the economic condition of the people of the United Provinces and what the Government has been doing for improving it. An answer to these questions will be given in the following chapters where we discuss the resources of the Province and calculate the average income of the United Provinces with a view to determining the trend of Provincial prosperity. This is followed by a review of the agricultural and industrial policy of the Government besides public finance.

Plan of Work

We have divided our study into nineteen Chapters. In the first Chapter we discuss the tests and determinants of prosperity. It is followed by an account of the salient features of the economy of the United Provinces.¹ In the third Chapter we discuss the methods of calculation of the Provincial Income and in the fourth Chapter the number of incomes in U. P. in the urban and rural areas. We then deal with the value of agricultural and allied output, and the resulting income of earners engaged in agricultural and allied occupations.² This is followed by our calculations of the estimated income of all earners engaged in non-agricultural occupations.³ Next we calculate income from certain miscellaneous

¹ Chapter II.

² In Chapter V we compute the value of agricultural output, in Chapter VI we estimate the quantity and value of livestock products and in Chapter VII that of fish, forest produce and minerals.

³ Chapter VIII deals with the income of that section of non-agricultural earners who pay income-tax. Chapters IX to XII deal with the income of the remainder, *viz.*, those whose incomes were below the income-tax exemption limit. Chapter IX deals with the income of industrial workers, Chapter X with the salaries and wages of workers employed in the service of the State and in the working of railways, posts, telegraphs, and telephones, Chapter XI with the income of persons engaged in trade and in forms of transport (other than those dealt in the previous Chapter), in Chapter XII the income of earners engaged in professions and liberal arts and in Chapter XIII the income of domestic servants.

items and take into account certain additions and deductions not considered before.¹ This is followed by our estimate of the total income of the United Provinces and its distribution into (*a*) agriculture and allied occupations, industry and services and (*b*) urban and rural areas.² Further an attempt is made to review the agricultural and industrial policy of the Government and its bearing on the prosperity of the Province.³ It is followed by a review of the efforts of the Government (both Central and Provincial) to reduce the inequalities of income.⁴ Finally we have drawn certain broad conclusions from the foregoing Chapters.⁵

¹ Chapter XIV deals with income from house property and other additions and deductions.

² Chapter XV.

³ Chapter XVI deals with the land revenue policy and Chapter XVII with the industrial policy.

⁴ Chapter XVIII.

⁵ Chapter XIX.

CHAPTER II

THE ECONOMY OF THE UNITED PROVINCES

Introduction

THE environment influences the economic prosperity of a province in no way less than that of a country. A province rich in natural resources has an advantage over others which are poor in this respect. There are various factors which affect the prosperity of an agricultural province such as physical features, climate, rainfall, population, resources etc. We may now have a bird's eye view of the economy of the United Provinces with a view to assessing the present position of the Province and the degree of prosperity attained by now.

Physical Features

The physical features are the prime determinants of the products of a province, the occupations of the people, and the density and distribution of population.¹ We may divide the Province into four main natural divisions.

(a) *The Himalaya West*—It lies on the extreme north and consists of Kumaun revenue division, viz., Naini Tal, Almora and Garhwal districts, and Dehra Dun district of Meerut division. Its area is 14,959 square miles, that is, about 13·9 per cent of the total area of the Province. This region is hilly on the northern side and rises at places to the height of more than 25,000 feet where the mountains are always covered with snow. In the southern region we have the famous *Dun*, the garden of the United Provinces. In the hilly regions small patches of cultivation are to be found in the valleys and on the hill-sides where the ground is suffi-

¹ See Anstey, Vera: *The Economic Development of India*, (1942), p 11.

ciently level. The agricultural production being low and the condition of life very hard, the people are not very well off financially.

(b) *The Sub-Himalayas*—In the sub-montane tract between the Ganga and the Sarada river we find a strip of land called the *Bhabar* which is 20 miles wide in the west and gradually becomes narrow in the east. A large portion of the *Bhabar*¹ is covered with forests which are haunted by wild animals. Below the *Bhabar* runs a wide strip of land called the *Tarai*, a damp and marshy tract covered with thick forest and tall grass. The climate of this region is malarial and the place is difficult for human habitation. People, though better off than those on the hills, are still very poor.

(c) *The Indo-Gangetic Plain*—It is situated on the south of the Sub-Himalayas and extends from the western to the eastern parts of the Province. It stretches over an area of 53,467 square miles and is sub-divided into West, Central and East. The greatest part of the Western division is a sloping alluvial plain without any rock or stone near the surface of the soil except a few beds of *kankar*; and this tract consists of those portions of Mathura and Agra districts which lie south of the Yamuna with a great number of ravines and some red stone hillocks making the eastern termination of the Aravalli hills.

The plain is formed by the Ganga and its tributaries which have deposited silt on their way. The soil is mainly alluvial brought down from the Himalayas and is very fertile. The major portion of agricultural production in the Province is due to this fertile region. The plain has a very high density of population and the people are better off than in any other region in the Province.

(d) *The Trans-Yamuna Tract*—It consists of the

¹ Under the Grow More Food Scheme these jungles are being cleared and made fit for human habitation.

Central India Plateau and East Vindhya with an area of 14,875 square miles, *i.e.*, 13·8 per cent of the Province. The Plateau lies south-west of the Yamuna and belongs to a natural division of India which differs considerably from the main portion of the Province. It is known as Bundelkhand and comprises the districts of Jalaun, Banda, Hamirpur and Jhansi. It is broken by low rocky hills covered with stunted trees and jungle which are outlying spurs of the Vindhya mountains. The soil is largely rocky and infertile with considerable patches of the richer type known as "Black Soil" which differs entirely from the alluvium of the great plain.

The district of Mirzapur belongs to the East Vindhya of this tract. The part of the district, north of the Ganga, belongs to the Gangetic plain. The middle portion from the Ganga to the Son, consisting of the *tahsils* of Mirzapur, Chunar and the greater part of Robertsganj, belongs to the Vindhya Plateau. South of the Son are the hilly tracts of the Kaimurs, which include the wilderness of hills, valleys, forests, ravines and crags with here and there hill-encircled alluvial basin.

More than 50 per cent of the area of the Province is included in the Indo-Gangetic Plain which is well known for its fertility since times immemorial. It cannot be gainsaid that nature has richly endowed this Province with a large alluvial plain whose soil accelerates the growth of agricultural wealth and thereby the prosperity of the people. The existence of large forest areas is no less important here as the forests help to a very great extent in the conservation of soil, checking the soil erosion, supplying fuel and fodder resources, checking the floods, attracting monsoon rainfall and making the climate even.¹ The forests are rightly said to be hand-maid of agriculture.²

¹ Rigvi, S. N. : The Presidential Address, Geography and Geology Section, Indian Science Congress, 1941.

² *Agricultural Commission Report*, 1928.

Climate and Rainfall

The climate of the Province varies from one physical division to another on account of varying altitudes. Towards the north we have the snow covered Himalayas which check the cold winds of Central Asia. On the hills it is generally very cold in winter and refreshing in summer. In the *Tarai* the climate is malarial. In the Indo-Gangetic Plain West one can experience the hot winds of Rajputana in summer and also the cold winds from the Punjab in winter. As we proceed towards the east, the extremes of heat and cold are experienced less markedly till in the East Plain we find the climate more or less equable. In the Trans-Yamuna tract the climate is very hot in summer and cold in winter. The temperature in summer sometimes goes upto 118° and in winter comes down to 40°F. The rainfall varies from 60" in the east and on the hills to 26" in the west. The climate of the Province influences the growth of various crops in different regions. The location of sugarcane in the Sub-Himalayas is an instance in point. The growth of wheat in the Indo-Gangetic Plain West, and of rice in the East and Sub-Himalayas is also due to climatic conditions. The climate has affected agricultural production of the Province to a great extent and thereby has influenced the prosperity of the agriculturists.

Rainfall in the Province is most uncertain and irregular. It is also unequally distributed over the whole Province and in different seasons. The defective rainfall in the past resulted in the great famines of 1907-08, 1913-14 and 1918-19. They caused immeasurable distress and agony and weakened the people to an appreciable extent and reduced their power of resistance to diseases. These years of famine were the years of adversity in the history of the Province. The defects of uncertain and fluctuating rainfall have been mitigated to an appreciable extent by a suitable system of irrigation by canals and wells in the last few decades.

Population

There were 465 lakh people in the whole of the United Provinces in 1921 as against 484 lakhs in 1931 and 550 lakhs in 1941.¹

After all it is the people who are mainly responsible for the prosperity of a region. It is the human factor which is most important. If the population has increased qualitatively and quantitatively, we can unhesitatingly say that the prosperity of the region has increased because the people are now in a better position than before to have control over the forces of nature and harness them with greater facility to their best advantage.² The population of the Province has, undoubtedly, numerically increased though only a slight progress towards better living is noticed during the last twenty years.

Resources

The resources of a country are the basic essentials of its progress and prosperity. The resources of the United Provinces too reveal the progress made by the Province during a number of centuries. A brief survey of the position of the different resources will easily bring to one's mind the various stages on the path of progress in this Province.³ We may now study the resources of the Province.

(a) *Agricultural Resources*—As already mentioned, the economy of the Province is highly rural. About 76 per cent of the population derives its income from the Exploitation of Animals and Vegetation.⁴ Indeed, the agricultural resources are very important as they are the life and blood of the vast majority of the people

¹ For a detailed account see Chapter IV.

² For a detailed account see Chapter IV.

³ For a detailed account see Chapters V, VI and IX.

⁴ In 1931 about 18,370,739 persons out of 24,150,274 earners and working dependants derived their income from this source.

of the Province. A brief survey will disclose that the Province produced 1,807 thousand tons of rice as against 20,970 thousand tons in British India in 1940-41 ;¹ the production of wheat, sugarcane, linseed, rape and mustard, and sesamum was 2,826, 2,845, 161, 570 and 122 thousand tons as against 8,091, 5,439, 364, 1,087 and 348 thousand tons for British India for the same year.² The Province also produced 1,488 thousand tons of barley, 518 thousand tons of jowar, 451 thousand tons of bajra, 811 thousand tons of maize, 1,560 thousand tons of gram, 500 tons of indigo, 56 thousand tons of tobacco, 68 thousand tons of groundnut and 1,883 thousand lbs. of tea in the same year.

(c) *Livestock*—The importance of livestock and especially that of cattle in this agricultural Province cannot be over-emphasised. Without them the cultivators' fields remain unploughed, store and bin stand empty, and food and drink lose half their savour, for in an essentially vegetarian province what can be worse than to have no milk, butter or ghee. Indeed, it is difficult to have anything at all as all cooking is done with cakes of manure. The very *Huqqa*, beloved of the rustic, can hardly be smoked without the cow-dung fire that is almost universally used.³ The cow and the working bullock bear on their patient backs the whole structure of Indian agriculture.⁴ The actual as well as the potential value of India's cattle industry is huge even in its present undeveloped state. The annual value of milk and milk products was by a conservative estimate not less than Rs. 300 crores in the pre-war years. The output of hides and skins of which India was

¹ See the *Indian Year Book* 1945-46, p. 312.

² For comparison with other provinces see the *Indian Year Book*, 1942-43.

³ Darling, M. L. : *Punjab Peasant in Prosperity and Debt*, p. 32.

⁴ Observations of His Excellency, Lord Linlithgow in 1940 at the time of making presentation of two stud bulls for the improvement of cattle in Delhi Province.

the largest exporter in the British Empire was annually worth about Rs. 40 crores. Cattle labour was variously estimated to be worth between Rs. 300 and 500 crores annually, whilst the cash value of their manure which may be used either for increasing fertility of the soil or as fuel, was about Rs. 270 crores.

In the United Provinces there were 1,02,30,709 bulls and bullocks, 53,43,512 cows, 55,24,019 calves, 8,34,480 male buffaloes, 44,18,078 she buffaloes, 32,70,685 buffalo calves, 18,74,000 sheep, 54,73,000 goats, 3,81,000 horses and mares, 17,000 mules, 2,22,000 donkeys and 31,000 camels in 1944. U. P. comes only after the Punjab in the number of livestock. It produces 1,071.67 lakh maunds of milk in a year which is 17.3 per cent of the total production of India.¹ In the United Provinces the value of livestock products such as milk, hides and skins, meat, blood, horns etc., bones and wool was Rs. 3,949.8, 127.2, 436.9, 38.8 and 13.1 lakhs respectively in 1938-39.²

(c) *Minerals*—Mineral resources are the life and breath of a nation like the British, the American or the German. In India too the prosperity of Bihar and the C. P., more or less, is due to the vast mineral resources existing in those provinces. A survey of India's mineral resources reveals that the United Provinces is very poor in minerals. The potentialities of the mineral resources can best be judged from the fact that the total value of the minerals in the Province in 1939 was not more than Rs. 24 lakhs against Rs. 3,413.9 lakhs for the whole of India.³ Absence of strategic and other important minerals has left the Province undeveloped in respect of certain industries. There are, generally, minor and cottage industries which are sufficiently developed in the Province.

¹ cf. *Milk Marketing Report in India and Burma*, 1941, Appendix A.

² See Chapter VI.

³ See *Records of the Geological Survey of India*, 1941.

(d) *Forests*—As already stated, forests are the hand-maid of Indian agriculture. The total area of the state forests under the control of the Forest Department is 41,79,000 acres or 6,530 square miles approximately.¹ The chief forest products are timber (the principal kinds being *sal*, *chir*, *semal*, *haldu*, *deodar*, *shisham*, and *fir*), fuel, bamboos, *baib* grass, pine, resin, *katha*, and *lac*. They produced in 1938-39 about 1,08,09,000 cft. of timber, 5,60,87,000 cft. of solid fuel (about 2,80,43,000 mds.), 2,21,22,000 bamboos, 3,10,000 mds. of *baib* grass, 1,13,000 mds. of pine resin, 30,000 mds. of *katha* and 14,000 mds. of *lac*. Their potential value in our Province can be realised from the fact that in 1938-39 the forests contributed more than Rs. 48 lakhs to Government revenue which is almost twice as large as the revenue from mineral resources.² The forests provide

¹ Distribution of forest area—

	Acres (thousand)
(i) Sal	1,454
(ii) Chir	650
(iii) Deodar	15
(iv) Hill oak	142
(v) Hill miscellaneous	286
(vi) Plain miscellaneous including grass and grazing areas	1,165
(vii) Bundelkhand miscellaneous	197
(viii) Canal plantations	14
(ix) Ravine and other Afforestation division areas	27
(x) Dudhi Estate Mirzapur	229
	Total... 4,179

² Forest revenue for 1938-39—

I. Timber and other produce removed by Government Agency—				Rs.
(a) Timber				8,111
(b) Firewood				21,014
(c) Bamboos				31
(d) Resin industry				4,94,549
(e) Grass and other minor products				1,960
				Total ... 5,25,665

utilities of a collective economic character. They exercise an enormous influence on the climate and rainfall of the Province. They regulate the water courses of rivers in the valleys through their protection to the headwaters of the streams in mountainous regions. They also check soil erosion and formation of ravine lands.

The inhabitants of Northern India are paying the penalty for the ruthless policy of forest exploitation followed before Lord Dalhousie started his scheme of forest conservation (1855). Thousands of acres of land on the banks of the Yamuna, the Ganga, the Chambal and the Son have been turned into inhospitable ravine lands due to rapid deforestation. But apart from the deforestation which went on for centuries, even in recent times, not much has been done to bring forests under scientific management. The result of this narrow policy has been that the average net income from forests in U. P. is only Rs. 1.1 per acre when the best forests under scientific management earn as much as Rs. 15/- per acre.¹

There are small forest areas, in addition, in every district, which are of the nature of pasture and meadows used for cattle grazing. It may be further stated that the grazing of cattle in the forest areas is allowed only on a small payment of fee by the owners,² and in many

II. Timber and other produce removed from the forests by consumers or purchasers.			
(a)	Timber	... ..	... 35,47,824
(b)	Firewood and charcoal	... ..	... 1,05,222
(c)	Bamboos	... ..	... 97,305
(d)	Grazing and fodder grasses	... ..	... 1,38,462
(e)	Other minor produce	... ..	... 4,01,736
			<hr/>
Total			... 42,90,549
			<hr/>

¹ *Moral and Material Progress of India* (1924-25), p. 205.

² In 1938-39 about 17,00,000 heads of cattle grazed in the forests.

cases free grazing is also allowed.¹ The forests do provide necessary grasses for the manufacture of paper in Lucknow and Shahjahanpur. The paper and cardboard industries have a very bright future in the Province.

Building industries, manufacture of railway sleepers, match packing and bobbin manufacturing industries are generally fed by the forests.² Besides several transport vehicles, furniture, agricultural implements, boats and miscellaneous articles are also prepared from forest timber.

One point has to be noted that these forests are generally located in the hilly regions of the Sub-Himalayas and are not easy of access every where. Their unequal distribution in the Province minimizes their importance to some extent for their full use for industrial purposes.

(c) *Industrial Resources*—The economic history of the various highly developed countries of the world bears testimony to the fact that the rise in the standard of living of the people has generally accompanied the growth of industries. The highly agricultural countries without industries cannot maintain population beyond a certain density. India too being an agricultural country, it is beyond doubt that it is almost impossible to raise the standard of living of the masses until

¹ In 1939-40 in the United Provinces 4,53,875 animals grazed on payment of fees and 10,56,294 grazed free.

cf. Statistical Abstract of British India (1939-40) p. 573.

² Timber supplied by the forests in U. P. for certain industries is as below :—

Industries	Timber in cft. (thousand)
Building	7,000
Railway sleepers	1,620
Packing	222
Match	213
Bobbin manufacturing	85

The above figures relate to the year 1938-39.

tremendous efforts are made towards industrialisation of the country. Judging the industrial potentialities of the country as well as of the United Provinces we find that in 1938-39 there were 26 cotton mills in the Province as against 107 in the whole of British India, with 10,300 looms and 6,92,300 spindles daily at work.¹ These mills in the Province produced 232.9 million yards of main varieties of cloth.² The number of sugar mills was 71 as against 143 in British India. They produced 3,84,000 tons of sugar against 7,65,400 tons in the country. The annual value of the production of leather and leather goods was Rs. 125 lakhs, of soap industry Rs. 8 lakhs, of boiled oils about Rs. 3 lakhs, of glass industry Rs. 40 lakhs, of paper and straw board Rs. 20 lakhs, of electric bulbs Rs. 12 lakhs, and of heavy chemicals Rs. 10 lakhs. Besides there are other industries such as turpentine and rosin, bobbin, *katha* and *kutch*, metal working, wood working, pottery, *gur* making, basket making, *moondha* and *tatpatti* making and handloom weaving industries which make good contribution to the Provincial Income. Of the small scale industries, handloom weaving is most important as it employed about 7½ lakhs of weavers and helpers in 1935, and produced 2,979 million yards of cotton cloth including artificial silk cloth, 3.7 million yards of woollen cloth including carpet and 16 million yards of silk cloth including Banaras brocades.

Looking at the industrial picture of the Province in relation to the country as a whole we find that in 1939-40 the Province had 51 Government and Local

¹ See *Report on Hand-loom and Mills in India*, 1939.

² Cloth produced in U. P. in 1938-39 in million yards—

Dhoties	...	...	... 141.0
Tent cloth	...	...	... 44.7
Shirting and long cloth	...	...	... 25.0
Coloured piece goods	...	...	... 10.0
Drills and zeans	...	...	... 3.5
Sheeting	...	...	... 3.6
Prints	...	...	... 5.1

Fund perennial factories and 9 seasonal factories against 334 perennial and 27 seasonal factories for the whole country.¹ The position of the United Provinces as regards the perennial and seasonal factories in relation to the country as a whole in 1939-40 is quite clear from Table 2. An idea of the number of workers employed

TABLE 2

Showing the Number of Various Factories in 1939-40

Industries	Perennial factories in					
	U. P.	Madras	Bombay	Bengal	Punjab	British India
A. Perennial (other than the Government and Local Fund factories)						
1. Textile	47	79	832	183	111	1,303
2. Engineering	51	76	399	259	55	1,001
3. Minerals and Metals	22	25	35	13	71	187
4. Food, Drink and Tobacco	44	642	256	442	88	1,880
5. Chemicals, Dyes etc.	42	68	201	118	32	588
6. Paper and Printing	40	91	318	117	47	709
7. Processes relating to Wood, Stone & Glass	62	103	150	58	19	465
8. Processes connected with Skins and Hides	15	11	32	5	2	66
9. Gins and Presses	15	132	—	33	—	181
10. Miscellaneous	3	29	79	58	2	218
Total ...	341	1,256	2,302	1,286	427	6,598
Government and Local Fund Factories	51	36	55	68	43	345
B. Seasonal						
1. Government and Local Fund Factories	9	2	2	—	5	29
2. All other Factories	145	517	761	371	325	3,494
Total ...	154	519	763	371	330	3,523
Grand Total ...	546	1,811	3,120	1,725	800	10,466

¹ cf. *Statistical Abstract for British India, 1939-40*, p. 592.

in the Government Local Fund factories may be had from Table 3.

TABLE 3

Showing the Average Daily Number of Workers Employed by Various Factories in India in 1939-40

Provinces	Average number of workers daily at work in				Grand Total
	Government and Local Fund Factories		All other Factories		
	Perennial	Seasonal	Perennial	Seasonal	
United Provinces	20,888	770	87,649	50,431	159,738
Madras	5,646	65	161,970	29,585	197,266
Bombay	22,663	64	399,545	43,768	466,040
Bengal	36,669	—	497,252	37,618	571,539
Punjab	22,270	132	33,267	22,633	78,302
British India	131,066	1,380	1,329,248	289,443	1,751,137

Transport

Finally reference must be made to the means of transport which enormously influence the prosperity of the United Provinces.

Means of transport bridge the gulf between different countries, between different provinces, between different parts of the same country, and between rural and urban areas. The highly prosperous and advanced countries have a net-work of railways and roads. In India there were 41,134 miles¹ of railway routes of different gauges in 1938-39 open for traffic. The milcage for U. P. in the same year was 4,952.² Thus we find that

¹ 21,165 miles broad gauge, 15,862 miles meter gauge and 4,107 miles narrow gauge.

² 3,132 miles broad gauge, 1,788 miles meter gauge and 92 miles narrow gauge.

the Province (including Indian States territory with an area of 112,191 square miles) has only one mile of railway route for every twenty-three square miles of the territory. The means of transport are very poorly developed. A large number of towns in U. P. is not served by any railway.

As with the railways the country is also poorly served with roads. On the 31st of March, 1938 there were 284,191 miles of roads in the country out of which U. P. had 31,589 miles¹ *i.e.*, about one mile for every four square miles of the territory. But in respect of road mileage the United Provinces is comparatively better off than many other provinces.²

The inadequate means of transport in the Province, and specially so in the rural areas, have greatly affected the movement of agricultural produce from villages to towns and thereby depressed the prices of commodities in rural areas. The result was that in the absence of proper marketing facilities and low prices the backbone of the peasantry of the Province was unduly cracked in the past and they were steeped into the deep mire of poverty from which there was no salvation.

Conclusion

Physical features, population, natural resources, climate and rainfall and means of transport are regarded as important factors determining the prosperity of any country or region. In a nutshell, the prosperity depends upon the people, the environment and the use of the environment by the people. Thus the teeming millions living in the Province may improve their conditions of life if they make a better use of the environment

¹ Roads under Public Works Department were 4,024 miles and under local bodies 27,565 miles. *cf. Statistical Abstract for British India, 1939-40, p. 703.*

² Bombay has 19,571 miles, Punjab 25,142 miles and the Central Provinces and Berar 8,662 miles of roads.

than they have made in the past. So far as the environment is concerned, about 50 per cent of the total area of the Province lying in the Indo-Gangetic Plain belongs to one of the most fertile regions of the world. Nature has bestowed upon it its choicest blessings. The livestock in the Province is plentiful, though its quality is not of the best. The Province has a large forest area which serves to feed many industries like paper, wood-manufacture etc. The forests contribute towards the Provincial Income to the extent of Rs. 48 lakhs annually.¹ In mineral resources the Province is very poor and has to depend upon other provinces for its needs. Leaving aside the mineral resources we can state that the Province has vast potentialities of agricultural, livestock and forest resources. But these resources have not been fully utilized by the people of the Province. The history of agricultural production since 1901 points to one important fact that, inspite of a long period of more than forty years, Indian agriculture remains least affected by the modern technique of production and there has not been any appreciable increase in the annual agricultural production. As regards industrial production whatever expansion has taken place, is quite insignificant when compared with the vast area and huge population of the Province. Transport system is poorly developed. The conclusion is self evident that man in this Province has not made proper use of the environment. He has not increased his control over the forces of nature in order to march on the path of progress and prosperity.

In the next chapter we shall examine the concept of the Provincial Income and the methods adopted for its calculation.

¹ These are pre-war figures.

CHAPTER III

THE CONCEPT OF PROVINCIAL INCOME AND SOURCES AND METHOD OF APPROACH

BEFORE computing Provincial Income for judging the prosperity of the United Provinces it is essential to have a clear idea of the object and concept of the Provincial Income for an easy understanding of the problem as a whole.

The Object of Computation

The object of computing the Provincial Income is to gauge the standard of life of the people of the Province. The Provincial Income helps to a great extent in comparing the economic positions of the different provinces and the position of the same province at different times. The following statement of Simon Kuznets about the National Income holds true about the Provincial Income also :

“The national income can widely be used to gauge the performance of the economic system of the country. It can be used to measure changes in the economy's total accomplishment in relation to factors observers select as strategic ; to serve as a quantitative framework within which to judge policies proposed or opposed ; to diagnose progress or retrogression ; to claim credit or cast blame.”¹

Since the advent of the era of avowed interventionism and planning the periodic estimation of the National or Provincial Income has assumed greater importance. At the present time the estimation of the Provincial Income has become an urgent necessity, especially on account of the disturbed economy due to the last Great War (1939-45), and the consequent need for public action in the light of as much economic intelligence as can be mustered.²

¹ See the various estimates of India's National Income by Dadabhai Naoroji, William Digby, Lord Curzon, Shah and Khambhata and V. K. R. V. Rao.

² Kuznets, Simon: *National Income and Its composition* (1919-38), 1941 ; Carve, D. G.: *National Income: The Next Move in India*, *Ind. Journ. Econ.*, 1938-39, pp. 1-2.

The Concept of National Income

With various objects in view and specially for the fact that nearly all the propositions of economic science are concerned with statements about the National Income,¹ a number of eminent scholars in different countries have taken immense pains to compute National Income. The efforts of men like Flux, Bowley, Gini, Mitchell, King, Stamp, Sutcliff, Clark, Kuznets and others in countries outside India, and Dadabhai Naoroji, William Digby, Findlay Shirras, Shah and Khambhata, Wadia and Joshi, Vakil and Muranjan, V. K. R. V. Rao and others in India have proved to the hilt the importance and usefulness of the work. With the advancement of statistical methods and availability of adequate data, the computation of National Income has become more accurate and scientific in a number of countries.

The most important point about National Income is that it is to be conceived of as net addition to the wealth of a country during a period of time, say a year. Marshall states that 'the labour and capital of a country, acting on its natural resources, raise annually a certain net aggregate of commodities material and immaterial, including services of all kinds. This is the true net annual income of the country.....The national dividend is at once the aggregate net production of, and the sole source of payment for all the agents of production within the country.'² However, in making estimate of the National Income in India the net increment to wealth has not always been taken into account, and even in the British Census of Production only the cost of raw material used is deducted from gross production in order to arrive at the figure of National Income.³ The net addition to the wealth of a country is made up of a large number of distinct and separate

¹ Pigou, A. C. : *Economics of Welfare*.

² Marshall, A. : *Economics of Industry*, pp. 257-58.

³ *British Census of Production*, 1907 ; Pigou, A. C. : *Economics of Welfare*, 1920, pp. 36-40.

items of wealth. In order to determine these items we may have an idea of the variants of economic goods.¹

Variants of Definition of Economic Goods	Additional Groups of Goods
I. (Narrowest) Goods exchanged for money on private markets.	1. Goods sold by public agencies on markets characterized by compulsory power of public authorities.
II. (I) + (1)—All goods exchanged for money on all markets of the country.	2. Goods entering barter exchange (payments in kind by enterprises to employees or other participants in their activity).
III. (II) + (2)—All goods exchanged on all markets, whether for money or by barter.	3a. Goods not appearing on markets, products retained by producers for their own consumption (especially important for farmers).
IV. (III) + (3a) + (3d aa) + (3c) All products of the business and public economy but excluding most products of the family economy.	b. Services and products of individuals outside the market system, flowing to other individuals (especially services of house wives and other members of households).
V. (I) + (1 + 2 + 3)—All economic goods most broadly defined.	c. Services of individuals outside the market system to themselves (largely personal service which accounts for a great deal of active life outside working hours).
	d. Services of commodities owned and used by consumers.
	aa. residential real estate ;
	bb. other consumers' durable commodities ;
	cc. other consumers' goods.
	e. Services of publicly owned commodities to ultimate consumers and business agencies, e.g., roads.

¹ Kuznets, Simon: *National Income and Its Composition*, 1941, p. 9. All page references are to this.

An attempt on our part to state this heterogeneous mass (the net addition to the wealth) as a single quantity, makes it necessary to convert these items into their money value. At this stage a certain arbitrariness is introduced. It is not found practicable to convert every single item. Only those items which are actually sold for money are included, together with certain others which it becomes necessary to include on account of custom or some peculiar features of the economic structure of the country. A majority of the items of net wealth, not sold for money, is left out. So that, in practice, the National Income of a country becomes the aggregate money value of the net flow of goods and services, for which money payments are actually made, together with the estimated money value of certain items which do not fall within this category but which convention has decided to include in the National Income. This quantity corresponds to variant IV (of economic goods) omitting item 3e. It is this quantity which Bowley, Stamp, Clark and Kuznets attempt to estimate. They are all agreed on this point though they differ with regard to certain details in the computations.¹

¹ cf. Stamp, J. C. : *Wealth and Taxable Capacity*, p. 40.

“National Income is the aggregate of money expression of those goods produced and services performed (subject to certain reservation) by the inhabitants of the country in a year which are, as a fact, generally exchanged for money”.

See also *British Income and Property*, p. 416.

Bowley, A. L. : *Definition of National Income*, Journ. Roy. Stat. Soc., London, March 1922, p. 9.

“Social Income may tentatively be defined as the aggregate of goods produced in a country (less imported materials used in production) and of services rendered by persons in the country, and by the direct use of capital goods, less goods and services necessary to maintain capital (and trade connections and good-will), together with goods imported from (or services rendered) abroad in payment of interest or profits on capital or business owned by the residents of the country less similar goods

The Concept of the Provincial Income

The concept of the Provincial Income is derived from that of the National Income. The Provincial Income may be defined as the sum total of all incomes received by the members of the group of residents of a province in a given period of time, say, a year provided that institutions, governments, companies and other associations of persons are included as members and that no item of income is either omitted or counted more than once.

and services rendered to owners abroad, all reckoned during a year (or other fixed interval), services at sea, etc., to be included with home or foreign goods, but not both”.

Bowley and Robertson: *A Scheme for the Economic Census of India*, p. 9.

“The National Income is the money measure of the aggregate of goods and services accruing to the inhabitants of a country during a year, including net increments to, or excluding net decrements from, their individual or collective wealth. The catastrophic decrements to wealth are generally neglected”.

Bowley and Stamp: *National Income*, 1924.

Bowley, A. L.: *Studies in National Income* (1924-38), 1942.

Clark, Colin: *The National Income*, 1924-31, pp. 1-2.

“National Income for any period consists of the money value of the goods and services becoming available for consumption during that period reckoned at the prices actually paid for the new capital goods, minus depreciation and obsolescence of existing capital goods, and adding the net accretion of, or deducting the net drawings upon stocks, also reckoned at current prices. Services provided on a non-profit-making basis by the state and local authorities (*e.g.*, defence, elementary education) are included in the total at cost price; but where these services are “sold” in the market (*e.g.*, postal services, municipal tramway services) they are included on the basis of the charges made. Where taxation is levied upon particular commodities and services, the taxes are included in the selling value”.

Clark, Colin: *National Income and Outlay*, pp. 4-5.

This sum total of income does not coincide with the sum total of the income within the territorial boundary of a province. The latter is only called 'Home-Produced Income'. The Provincial Dividend is Home-Produced Income plus income derived by the residents from business and profession in other provinces. Really it should be corrected by what is termed 'External Debtor and Creditor Relations'. All the income which does not represent payment for imports has to be added with the Home-Produced Income. This income represents the interest on investment made abroad or in other provinces, rent on property owned outside the Province or money received from the residents of the Province employed in other provinces. Similarly income sent abroad as interest on borrowed capital, and remittances by residents of other provinces employed in the Province are deducted. Thus Home-Produced Income plus these additions and minus these deductions make the Provincial Income or Provincial Dividend.¹

Clark, Colin and Crawford, J. J. : *National Income of Australia*, p. 3.

Kuznets, Simon : *op. cit.*, pp. 3-9.

"National income is the net value of all economic goods produced by the nation and it includes all goods appearing on the markets of the country (subject to restrictions imposed by other issues), whether exchanged for money or for other goods, plus the retained products of activities most of which result in marketable goods, plus the imputed return from a type of consumer goods whose services are in large degree separable from the commodity itself and are bought and sold on markets."

Bowley, A. L. : *National Income in America and the United Kingdom*, *Economica*, May, 1942.

Flux, A. W. : *Report on the Census of Production, 1907*, (Cd. 6320), pp. 30-34—Inaugural Address as the President of the Royal Statistical Society, Nov. 20, 1928, on 'National Income', (*Jour. Roy. Stat. Soc.*), 1928.

¹ Simon, Kuznets : *ibid.*, pp. 53-54 ;

Stamp, J. C. : *Wealth and Taxable Capacity*, pp. 53-55 ;

Clark, Colin : *National Income and Outlay*, pp. 7-8 ;

Bowley, A. L. : *The National Income, 1924*, pp. 39-40.

We may define the Provincial Income, as given by Dr. Rao, to be the money value of the flow of commodities and services, excluding imports, becoming available for sale (or capable of being sold) within the period, the value being reckoned at current prices minus the sum of the following items :—

- (i) The money value of any diminution in stocks that may have taken place during the period.
- (ii) The money value of the flow of goods and services used up in the course of production.
- (iii) The money value of the flow of goods and services used to maintain intact the existing capital equipment. (Value being reckoned at current prices in all these cases).
- (iv) Receipts of the State from indirect taxes.
- (v) Balance of outgoings over incomings (including goods and transactions in treasure).
- (vi) Net increase in the province's foreign indebtedness or the net decrease in the holdings of balances and securities in other provinces or countries, whether by individual or the Government.

Method of Approach

The data generally available for estimating National or Provincial Income have been divided by Lord Stamp into the subjective and the objective. They may, perhaps, be better distinguished as those statistics which relate mainly to persons and incomes and those which relate to things. For the National (or Provincial) Income commonly expressed as annual may be described as a flow of goods and services either produced or appropriated in a year, or as an aggregation of individual incomes received or due in a year, plus those receivable by corporate bodies and not divided among persons. There are two well known methods. One is called the *census* or the *individual income* method, and the other *inventory* or *production* method. The

first aims at recording the earnings of individuals either by a comprehensive census or by a sample occupational enquiry. The *income* or subjective method and data involve the following distinct types :—

- (a) The statistics of a personal income-tax assessed in a total upon each individual, leaving for separate estimation the undivided corporate income.
- (b) The statistics of an impersonal income-tax which charges the founts of income at their source, i.e., companies on their profits, before distribution; or the occupant of an office upon the salary attaching to it, regardless of his total income; or the rental value of house which covers the interests of tenant, owner, ground-landlord, or mortgagee wherever resident.
- (c) The statistics of wages, as such, to supplement or check (a) and (b).
- (d) Estimates of any classes of income “intermediate” between (a) or (b) and (c), such as small shop-keepers or farmers below the particular income-tax limit.

The total thus recorded is said to represent total National or Provincial Income.

In the case of the second method, that is, the *inventory* method all the branches of national production are surveyed with a view to finding out their net annual output.

The *census* or *inventory* method comprises :—

- (a) A comprehensive sectional enquiry at particular selected years, of all manufacturers, and possibly of agriculture and setting out either gross or net output, or both.
- (b) A computation for intermediate years by means of index numbers of production, detached in industries, or as a whole.

- (c) An *ad hoc* inventory of particular trades and industries made specially for the National Income computation.
- (d) A supplementary estimate of the value of services, professions etc., not passing through the industrial machine, but paid for, out of net production proceeds, after they have become incomes (i.e., the so-called "duplication").

Sometimes only one method or set of facts is available; sometimes both are used to check each other; sometimes the total estimate must be arrived at by the use of each over a part of the field, and their subsequent aggregation. In order to minimise the range of error the use of both methods to check the results is highly desirable.

In England, Australia and the U.S.A. the census of production method has been adopted. Prof. Bowley has mostly made use of the *inventory* method, assisted by the income-tax statistics. In Australia and America *census* method is more common. Colin Clark has pressed into service the use of social insurance statistics and income-tax statistics for estimating National Income. In India as well as in the United Provinces the Government issues the estimates of the annual output of the principal agricultural crops and statistics of mineral output but no returns are published of the output of dairy industry. The census of industrial production is completely absent in the country. Income-tax statistics refer only to non-agricultural incomes and cover only a little over 3 per cent of the non-agricultural population. The *Provincial Wage Census* gives only a rough estimate of the wages of some principal types of factory workers, and workers in rural areas. There is no information on the subject of the number of wage earners and the number of independent workers in the United Provinces. There is no published literature on the earnings of transport workers and of persons engaged in trade. No returns are published of the

number or salary bills of Government servants or of the employees of local authorities. Nor is any information available on the earnings of domestic servants and persons engaged in Professions and Liberal Arts. Published literature on the income from house property as well as on the inflow and outflow of goods and treasure in the Province is absent. The social insurance statistics too are absent in this country. Thus the lack of adequate and reliable data for the income of all classes and groups of people is a very serious handicap in the path of enumerating individual incomes in the United Provinces, as also in other provinces of India. This method entails not only excessive expenditure, but the ever present danger that an undefined part of National Income, individual and collective, may be left out of account, without any indication as to the proportion that it may bear to the collected statistics.¹

The *inventory* method is not immune from practical difficulties. Firstly, if it is decided to include services in the income produced, their estimation and variation are bound to be a very difficult and uncertain affair. Secondly, the entire field of production is hardly ever available for being recorded, and even if it is, the difficulties of calculating the costs, which must be deducted to arrive at the income figure, are as great as ever.

The methods used by us for estimating the Provincial Income were determined by the availability of statistical material for the purpose. Some quantitative data on subjects like the number of people following different occupations, agricultural output, milk yield, product of certain industries etc., were collected from certain Government publications such as the *Census of U. P.* (giving the number of people and their occupational distribution for 1921 and 1931), *Agricultural Statistics of India, Season and Crop Reports* (giving area and yield of principal crops in U. P.), *Livestock Census*,

¹ Karve, D. G.: *National Income: Next Step in India*, Ind. Journ. Econ., 1938-39, p. 7.

Marketing Reports, Income-Tax Returns in U. P., Statistical Abstracts of British India, Monthly Survey of Cotton Spinning and Weaving Mills in India, Memorandum submitted by the United Provinces Government to the National Planning Committee in 1939 (giving production figures of certain industries in U. P. for 1938) and *Industrial Survey Reports in U. P. (1921-24)*. These reports and published literature supplied us extremely meagre data for work and hence in the beginning of the year 1945 an extensive tour of the United Provinces was undertaken for the collection of data from various industrialists and manufacturers' associations about the cost of raw material, depreciation and establishment charges and total value of industrial output. We also consulted various Government experts on different branches of industry in this connection and obtained valuable information. The war conditions prevailing in the Province did not enable us to make enquiries in a number of other directions, because people invariably hesitated in giving any information as it might be used against them in the determination of excess profit-tax, or the degree of bribery and corruption. After the termination of hostilities and restoration of normal conditions to some extent we further conducted economic surveys in eight villages with a view to finding out the value of output of fruits, vegetables and miscellaneous crops, the rate of seeds sown by the agriculturists, cost of depreciation, and replacement of agricultural implements and expenditure on feeding the livestock. We instituted a number of *ad hoc* inquiries into the earnings of various classes of non-agricultural workers. A brief account of them is given below while details have been left to the appropriate chapters. Copies of some of the forms from the various letters referred to in these enquiries are reproduced in Appendix A.

(1) We sent a circular letter to 85 municipalities and 49 district boards in the United Provinces requesting their Chairmen to furnish us with the statistics of the number of employees with their total salary bill, who were paying income-tax in 1921-22, 1931-32 and 1938-39

and the number of employees during these years under different income groups who were not subject to income-tax and salary of newly recruited peon by them in these years. We received only three replies to it. Not being satisfied with the nature of information supplied to us we personally approached a number of them and obtained information from six municipalities and eight district boards.

(2) We circularised the Chairmen of the different municipalities in U. P. requesting them to furnish us the statistics of cattle slaughtered within their municipalities and the average price of each type of animal in 1921-22, 1931-32, 1938-39 and 1946-47. We obtained replies from four municipalities only and could get information personally from one.

(3) We attempted an industrial and wage census. We sent to nearly 800 large scale industrial establishments a circular letter and three forms (one relating to industrial output, second relating to earnings of workers and the third relating to the number and earnings of income-tax payers). Out of 41 replies received only 10 included forms duly filled in.

(4) We attempted an enquiry into the earnings of transport workers in a number of towns and villages selected for survey. We also sent to the Divisional Superintendents of the E.I., O.T., G.I.P. railways and the Post Master General of U. P., a circular letter with two forms one dealing with the number of employees paying income-tax and their total salary bill and the other dealing with the number under different income groups and not subject to income-tax. We received no replies to our letters. Afterwards we approached personally the Divisional Superintendent, E.I.R. at Lucknow, and the Accounts Officer there was directed to help us in estimating the figures of earnings of the E. I. Railway employees. We also obtained data regarding the earnings of postal employees in U. P. from the Office of the Director General of Posts and Telegraphs, New Delhi.

(5) With a view to estimating the earnings of traders in rural and urban areas we made enquiries into their earnings in the villages selected for a detailed survey and into the earnings of 131 traders of Gajpur. We also enquired into the traders' margin in numerous branches of trade at Kanpur.

(6) We conducted an enquiry into the earnings of skilled workers (*i.e.* barber, washerman, tailor, potter, blacksmith, carpenter, mason, weaver) and priest in Banaras, Ballia, Lucknow and Kanpur and in the villages selected for economic survey and obtained adequate quantitative data.

(7) We sent a circular letter with two forms to the authorities of 120 High Schools and Intermediate Colleges requesting them to supply us the number and earnings of their employees subject to income-tax and the earnings of employees under various earning groups not subject to income-tax, besides the earnings of a newly recruited peon in 1921-22, 1931-32 and 1938-39. We received three replies and obtained information personally from 4 High Schools.

(8) We conducted an enquiry into the earnings of lawyers and their clerks in Etah, Mainpuri, Banaras, Agra and Allahabad and collected adequate data.

(9) We prepared a special form for the earnings of domestic servants, copies of which were printed and sent to a number of friends. We ourselves conducted enquiries in Banaras, Lucknow, Aligarh and Ballia and in the villages selected for detailed study by us.

(10) For estimating the earnings of *vaidyas*, doctors, nurses, unskilled workers etc. we consulted in detail, on approaching them, the establishment registers of six municipal boards and eight district boards and also made enquiries in Lucknow, Ballia, Aligarh and Meerut.

(11) For estimating the transfers of money (in connection with the calculation of incomings and outgoings in U. P.) made through postal agencies from

one province to the other we sent one letter to each of the Post Master General, U. P., the Deputy Accountant General, Delhi, and the Director General of Posts and Telegraphs, New Delhi. However, we did not receive any satisfactory reply.

(12) For estimating the income from house property we circularized the Chairmen of all the municipalities in U. P. requesting them to inform us the rate of house-tax and its yield in their municipalities in 1921-22, 1931-32 and 1938-39. We obtained information from 8 municipalities for 1938-39 and from 6 municipalities for 1931-32 and 1921-22.

(13) In order to obtain the amount of provident fund contributed by certain employees, we consulted a number of secretaries of municipal and district boards and a number of the heads of educational institutions.

(14) In order to find out the value of bamboos and straw annually required for thatching purposes, we made a number of inquiries in the villages surveyed by us.

Not being fully satisfied with the replies received for various letters and forms of questionnaire sent by us we under-took a tour of the United Provinces and met the Finance Minister, Economic Adviser and Director of Statistics, and Joint Director of Agriculture, U. P. Government, Statistician to the Director of Agriculture, Professors of Agriculture College, Kanpur, Oil-seeds and Cereal Experts, U. P. Government, Secretaries of various municipal and district boards, Chairman of the Northern India Employers' Association, Chairman of the Sugar Manufacturers' Association, Statistician to U. P. Labour Inquiry Committee, Income-tax Commissioner, United Provinces, Research Assistant to the Labour Commissioner, U. P. at Kanpur and numerous traders and businessmen. Most of them gave very useful information to us. The Economic Adviser very kindly put at our disposal the library of his Department besides the unpublished literature on an inquiry into the Family

Budgets of Mill-Workers in Kanpur City (1938-39). We also visited the head quarters of the Government of India and had very fruitful discussions with, and obtained valuable information from the Statistical Adviser, the Statistician to the Economic Adviser, the Deputy Director General of Posts and Telegraphs, Government of India. We sought advice of Dr. V. K. R. V. Rao, Director of the Delhi School of Economics on the general plan we were following in the computation of the Provincial Income and specially in the calculation of the incomings and outgoings in the Province. We covered a distance of thousands of miles, wandered, talked and discussed about the Income of the United Provinces.

The methods adopted by us for computing the Income of the United Provinces have been determined mainly by the availability of statistical material as stated above. We have made use of the *income* and *inventory* methods mostly on the lines followed by Dr. Rao in his two important works on the National Income of India. The two methods are complementary to each other in the computation of the Provincial Income. On the basis of the occupational distribution of population we have estimated the number of earners in the Province, the sum of whose incomes make up the Provincial Income. These earners have been divided into two categories—(i) those whose incomes we have calculated by the *inventory* method and (ii) those whose incomes we have calculated by the *income* method. The earners of first category belong to the occupations of agriculture, pasture, mines, forests, fishing and hunting; while the earners of the second category belong to industry, trade, transport, public force and administration, professions and liberal arts, and domestic service. Workers in the non-agricultural occupations have further been sub-divided into two sections, those who pay income-tax and those who do not. Incomes of the former have been estimated on the basis of income-tax statistics, while as regards the latter, we have used figures of average earnings

based on the results of our *ad hoc* inquiries, personal investigations and a use of published material. To these totals we have added an estimate of income from house property and other miscellaneous items which cannot be specially identified with any particular set of occupied persons. From each total we have deducted the money value of the goods and services consumed in the course of production with a view to avoiding double counting. We have also deducted the amount of goods and services necessary for maintaining capital intact. Of course, no allowance for depreciation of land and livestock could be made as it is not at all feasible. By aggregating the net totals and deducting the net increase in the foreign indebtedness of the Province, we have calculated the entire Provincial Income.

With a view to judging the prosperity of the Province during 1921-39 we have selected 1921-22 as the starting point of our inquiry as that is the first year of the period of our study and also the first year after the Montague Chelmsford Reforms (1919) for which statistics are available. That was a census year and a report of the industrial survey of the Province for that year is available. By 1921-22 the new Reforms had been in operation for a fairly long time so as to show the effect of the working of the new powers allotted to the provinces. 1938-39 is the last year before the beginning of the war that ended in 1945. After 1938-39 conditions became abnormal and necessary data for work extremely meagre. In between these two dates we have chosen 1931-32 as a definite stage marking the end of the first decade after 1921-22. That, too, was a census year and fortunately ample statistics are available for that year.

In the next chapter we proceed to estimate the number of earners in U. P. in 1921-22, 1931-32 and 1938-39 in order to compute the income of the United Provinces for the three years under consideration.

CHAPTER IV

THE NUMBER OF INCOMES

IN order to compute the Provincial Income for the purpose of gauging the economic prosperity, it is necessary to find out the number of earners in different years. We can calculate them from the *Census Report* giving a detailed account of the occupational distribution of population.

At this stage it is necessary to consider the various occupations carried on in the Province. The *Census Report* (1931) enumerates persons following each occupation under three heads :

- (1) those who are following it as their principal occupation,
- (2) working dependants and
- (3) those who are following it as an occupation subsidiary to their principal occupation.

In 1931 the total number of persons returned as following an occupation in the United Provinces was 235·5 lakhs consisting of 202·5 lakhs of principal workers and 33 lakhs of working dependants. About 29·1 lakhs of principal workers were engaged in some type of subsidiary occupation as well.

Table 4 gives in detail the number of persons who are principal workers or earners. The income arising from subsidiary occupations attributable to working dependants is calculated as a part of the income of the principal workers and not independently.

A redistribution of the item No. 11 in Table 4 will give a precise idea of the earnings of the workers in this group. Turning to the detailed figures we find that they are made up of various sub-heads given in Table 5. These sub-heads make it clear that the workers

TABLE 5

Showing the Number of Workers Engaged in Insufficiently Described Occupations in 1931

Description	Principal Occupation		Subsidiary Occupation		Working Dependants			
	Males	Females	Total	Males	Females	Total		
(a) Manufacturers, businessmen and contractors otherwise unspecified	7,452	—	7,452	1,685	—	1,685	76	
(b) Cashiers, accountants, book-keepers, clerks and other employees in unspecified warehouses, offices and shops	13,730	45	13,775	943	6	949	41	
(c) Mechanics otherwise unspecified	642	—	642	28	—	28	10	
(d) Labourers and workmen otherwise unspecified	3,55,455	1,75,963	5,31,418	1,23,972	22,536	1,46,508	8,525	
							29,509	38,034

Occupations in 1931

Dependants		Subsidiary Occupation		
Total		Males	Females	Total
25,31,357	29,83,942	14,63,694	3,26,591	17,90,285
588	822	887	64	951
1,14,514	1,51,448	4,58,679	51,349	5,10,028
262	1,935	37,270	563	37,833
46,744	67,619	2,11,112	35,267	2,46,379
17	355	13,342	3	13,345
28	917	7,392	30	7,422
3,717	7,905	52,642	4,578	57,220
—	—	9,543	541	10,084
11,486	15,380	51,214	12,475	63,689
29,509	38,161	1,26,628	22,542	1,49,170
4,344	33,050	20,066	4,323	24,389
27,42,566	33,01,534	24,52,469	4,58,326	29,10,795

the occupation specified in column 1 as

Dependants

Subsidiary Occupation

TABLE 5

Showing the Number of Workers Engaged in Insufficiently Described Occupations in 1931

Description	Principal Occupation		Subsidiary Occupation		Working Dependants				
	Males	Females	Total	Males	Females	Total			
(a) Manufacturers, businessmen and contractors otherwise unspecified	7,452	—	7,452	1,685	—	1,685	76		
(b) Cashiers, accountants, book-keepers, clerks and other employees in unspecified warehouses, offices and shops	13,730	45	13,775	943	6	949	41		
(c) Mechanics otherwise unspecified	642	—	642	28	—	28	10		
(d) Labourers and workmen otherwise unspecified	3,55,455	1,75,963	5,31,418	1,23,972	22,536	1,46,508	8,525	29,509	38,034

following insufficiently described occupations are generally employed in Industry and Trade. Sub-heads (c) and (d) relate to workers engaged in Industry and should be added to the figures under that head ; while sub-heads (a) and (b) may refer to workers engaged in either Industry or Trade. We assume that workers under heads (a) and (b) can be assigned in equal proportion to Industry and Trade, and get corrected, totals for the workers occupied in Industry and Trade (Table 6) Table 7 gives a corrected picture of the number of earners in each occupation. It may be pointed out that the number of persons described as occupied in column 2 of Table 7 were not all employed. No statistical information is available about the proportion of unemployability for the occupied population in the United Provinces. There is a large number of persons shown among the principal workers who cannot be employed on account of their old age, chronic diseases or being incapacitated. Colin Clark estimates unemployability in Great Britain as being 2 per cent of the occupied population. The corresponding figure for India as calculated by Dr. Rao is 5 per cent. We may adopt the figure of 5 per cent as the measure of unemployability in the United Provinces. These unemployable persons are generally to be found among the principal workers occupied in the Exploitation of Animals and Vegetation, Industry, Transport, Trade, Professions and Liberal Arts, and Domestic Service. Column 3 of Table 7 shows the estimated number of unemployable persons.

In addition to these unemployable persons there were a number of principal occupiers who were unemployed on account of the severe depression which began in 1929 and continued upto 1937. It affected Agriculture, Industry and Trade. Agriculture presents no difficulty as any change in the number of principal occupiers does not affect our conclusions.¹ The

¹ Here income is calculated on the basis of *Inventory* method.

TABLE 6

Showing the Number of Workers Employed in Industry and Trade in 1931

Occupation	Principal Occupation		Subsidiary Occupation		Working Dependents				
	Males	Females	Total	Males	Females	Total			
Industry	20,71,401	9,49,107	30,20,508	5,83,993	73,888	6,57,881	45,527	1,44,023	1,99,550
Trade	7,65,888	2,91,822	10,57,710	2,12,426	35,270	2,47,696	20,934	46,744	67,678

TABLE 7

Showing the Number of Principal Earners in 1931

Description	Total returned as Occupied	Estimated No. of Unemployable Persons	Estimated No. of Unemployed	Total No. of Actual Earners
1. Exploitation of Animals and Vegetation ...	1,48,78,595	7,43,930	—	1,41,34,665
2. Exploitation of Minerals ...	5,450	—	—	5,450
3. Industry ...	30,20,508	1,51,025	60,410	28,09,073
4. Transport ...	1,97,418	9,871	—	1,87,547
5. Trade ...	10,57,710	53,888	21,154	9,82,668
6. Public Force ...	95,597	—	—	95,597
7. Public Administration ...	76,950	—	—	76,950
8. Professions and Liberal Arts ...	2,59,854	12,993	—	2,46,861
9. Persons living on their Income ...	23,707	—	—	—
10. Domestic Service ...	4,61,613	23,081	—	4,38,532
11. Unproductive ...	1,70,447	—	—	—
Grand Total	2,02,47,849	9,94,788	81,564	1,89,77,343

unemployment percentage of 2 as used by Dr. Rao may be adopted in the case of Industry and Trade.¹ Column 4 of Table 7 shows the number of occupiers unemployed in Industry and Trade.

The number of persons living on their income are those who are getting pensions and live on them or those persons who collect rent and subsist on what they get by the collection of rentals.² These persons are of no importance to us as in the case of the former we suppose their income to be for the service already rendered by them while in the case of the latter the income is included in the income of the agriculturists or rent payers.

There is one more reduction which will have to be made before we arrive at the figures of actual earners or the number of incomes. There were 1,70,447 persons who were returned as persons following an unproductive occupation. These were generally (a) the inmates of jails, asylums and alm-houses, and (b) beggars, vagrants and prostitutes. The economic value of the activities of these persons is nil and the money value of their incomes is really a charge on the Provincial Income. The last column of Table 7 gives the actual number of earners necessary for the purpose of calculating the Provincial Income for 1931-32.

For the purpose of calculating the income of the non-agricultural workers it would be helpful to know the distribution of these earners into urban and rural areas because, generally, there is a marked difference in the rates of earning of the workers in the towns and in the villages. It is also necessary to distribute the workers into rural and urban population with their

¹ Dr. V. K. R. V. Rao has adopted 2 per cent in his book *The National Income of British India (1931-32)*.

² Persons living on their income are all those who actually do work or carry on business, whether personally or by means of servants, or who live on house rent, pensions etc. See *Census of India Report (1922)*, Vol. I, p. 236.

occupations. We start on the available occupational statistics of the urban population in the United Provinces.

In 1931 there were 22 cities and towns in U. P. in the British territory with a population of 24,16,482.¹ These data cover about 44·4 per cent of the urban population and they are stated in Table 9 which shows that 4 cities had a population of over 2 lakhs, 4 cities had between 2 and 1 lakh, and 14 cities and towns had below 1 lakh. Table 10 gives the statistics of principal workers in the towns and cities with a population of (a) 2 lakhs and over, (b) between 2 lakhs and 1 lakh and (c) below one lakh. It should be noted that the percentage of the earners to total population was 38·1 for cities having a population of

TABLE 8

Showing the Number of Cities and Towns and their Population in U. P. in 1931

No. of Cities and Towns	Population
22	24,16,482

TABLE 9

Showing the Size and Distribution of Cities and Towns in U. P. in 1931

Description of Size	No. of Cities and Towns	Total Population
Above 2 lakhs	4	9,53,493
Between 2 lakhs and 1 lakh	4	5,75,216
Below 1 lakh	14	8,87,773

¹ *Census of India Report, 1931, Vol. I, Order No. 54 and 55, p. 279 ; see also Table 8.*

about 2 lakhs, and it fell to 35·6 for cities with a population between two and one lakh and rose to 37·9 per cent for towns with a population below 1 lakh. The average for the rest of the population including small towns was 42 per cent. The condition of the small towns is more like that of villages than of big towns. The percentage of earners to total population in these small towns cannot be less than that (37·7) for the towns with population below one lakh. Under the circumstances we may assume 45 to be the percentage of earners to the total population in small towns.

The percentage of female earners to total earners goes on increasing as one passes from the bigger towns to smaller ones.¹ The average proportion of women earners to total earners for the population other than that of towns and cities was 21·3. It would not be far from correctness to place the percentage of women earners to total earners somewhere between 13·4 and 21·3. We may fix the figure of 19 per cent for our calculation. Table 11 gives the number of principal earners and female earners in urban areas.

We may now classify the urban earners under different occupations.² It may be noticed that inspite of great difference in the size of the cities and the towns there is not much difference in distribution of principal workers in different occupations except in the case of Agriculture, Industry and Public Force. The proportion of principal workers engaged in Agriculture and cattle farming shows first an increase from 10·9 to 16·2 per cent and then a fall to 14·8 per cent. The tendency of decrease in the case of Industry from 40·7 to 31·6 per cent and then an increase to 34·5 per cent is noticed. In the case of Public Force first there is an increase from 3·7 to 6·4 per cent and then a fall to

¹ The percentage increased from 10·5 for cities having a population over two lakhs to 12·7 for cities having a population between two and one lakh, 13·5 for towns below one lakh. See column 6 of Table 10.

² See Table 12.

TABLE 10

Showing the Number of Principal Workers in the Urban Areas in 1931

Towns and Cities with a Population of	Total Population	No. of Principal Earners	Percentage of Principal Earners to Total Population	No. of Principal Earners who are Females	Percentage of Females to total Principal Earners
2 lakhs and over ...	9,53,493	3,62,618	38.1	38,010	10.5
Between 2 lakhs and 1 lakh ...	5,75,216	2,04,987	35.6	26,023	12.7
Below 1 lakh ...	8,87,773	3,37,115	37.9	45,612	13.5
Total ...	24,16,482	9,04,720	37.4	1,09,645	12.1

TABLE 11

Showing the Estimate of the Number and Sex Classification of Urban Earners in U. P. in 1931

Description	Population	No. of Principal Earners	No. of Female Principal Earners
Urban population for which statistics are available ...	24,16,482	9,04,720	1,09,645
Urban population for which figures have to be estimated	30,08,139	13,53,662	2,57,195
Total urban population ...	54,24,621	22,58,382	3,66,840

TABLE 12

Showing the Details of Occupational Classification of Urban Earners in 1931

Description of Occupation	Cities with Population of 2 lakhs and over		Cities with Population of between 2 and 1 lakh		Towns with Population of below 1 lakh	
	Number of Earners	Percentage to Total Earners	Number of Earners	Percentage to Total Earners	Number of Earners	Percentage to Total Earners
1. Exploitation of Animals and Vegetation ...	39,427	10.9	33,185	16.2	50,015	14.8
2. Exploitation of Minerals ...	108	—	147	0.1	260	0.1
3. Industry*	1,47,540	40.7	64,721	31.6	1,16,098	34.5
4. Transport ...	23,254	6.4	12,537	6.1	26,030	7.7
5. Trade*	63,567	17.5	36,138	17.6	63,346	18.8
6. Public Force ...	13,274	3.7	13,141	6.4	12,112	3.6
7. Public Administration ...	7,080	2.0	5,277	2.6	7,382	2.2
8. Professions and Liberal Arts ...	19,759	5.4	12,500	6.1	20,624	6.1
9. Independent Income ...	5,096	1.4	1,282	0.6	2,151	0.6
10. Domestic Service ...	38,180	10.5	23,419	11.4	34,658	10.3
11. Unproductive ...	5,333	1.5	2,640	1.3	4,439	1.3
Total ...	3,62,618	100.0	2,04,987	100.0	3,37,115	100.0

*These figures include the number returned as following 'insufficiently described occupations'.

3·6 per cent. It may safely be assumed, therefore, that our conclusions regarding the classification of towns with a population below one lakh are also true in the case of smaller towns and this percentage may be applied to occupations in the smaller town. Table 13 gives the number of principal earners in different occupations in urban areas. In Table 14 the rural and urban earners are classified according to the occupations. The workers engaged in 'insufficiently described occupations' have to be distributed in order to have a precise notion of the distribution of earners in defined occupations.

A deduction for the unemployable, the unemployed, the persons living on their income and those carrying on unproductive services should be made. These adjustments are made in Table 14 and 15.

It is not very easy to adopt the elaborate procedure for finding out the exact number of earners and their classification in rural and urban areas for the year 1921 on account of a change in the method of classification in 1931 from that in 1921. Moreover, the conditions in 1931 were not the same as in 1921. There was a severe depression and unemployment in 1931 whereas there was inflation in 1921. Table 17 of the Imperial Tables, Vol. XVI Part II of 1921 gives the figures of population according to occupation (Table 16). The figures are classified under the following heads:—

Total Workers and Dependants.

Total Actual Workers—Males and Females.

Partially Agriculturist Workers—Males and Females.

Table X of Vol. XVIII, Part II (Imperial Tables) for 1931 gives the following classifications:—

Total following occupations—

As Principal Occupation—Males and Females.

As Working Dependants—Males and Females.

As Subsidiary to Other Occupations.

TABLE 13

Showing an Estimate of the Number of Workers Engaged in Different Occupations in Urban Areas in 1931

Description of Occupation	Urban Population for which Statistics are Known	Urban Population for which Figures have to be Estimated	Total Number of Earners in the Urban Area
1. Exploitation of Animals and Vegetation	1,22,627	2,00,342	3,22,969
2. Exploitation of Minerals ...	515	1,354	1,869
3. Industry ...	3,28,359	4,67,013	7,95,372
4. Transport ...	61,821	1,04,232	1,66,053
5. Trade ...	1,63,051	2,54,488	4,17,539
6. Public Force ...	38,527	48,732	87,259
7. Public Administration ...	19,739	29,781	49,520
8. Professions and Liberal Arts ...	52,883	82,573	1,35,456
9. Independent Income ...	8,529	8,122	16,651
10. Domestic Service ...	96,257	1,39,427	2,35,684
11. Unproductive ...	12,412	17,598	30,010
Total ...	9,04,720	13,53,662	22,58,382

TABLE 14

Showing the Classification of the Principal Earners of the Province into Urban and Rural Earners in 1931

(Figures in thousands)

Occupation	Total of Principal Earners	Estimate of Urban Earners		Estimate of Rural Earners	
		No.	Percentage of Earners in column 2	No.	Percentage of Earners in column 2
1. Exploitation of Animals and Vegetation	14,879	323	2.2	14,556	97.8
2. Exploitation of Minerals ...	5	2	40.0	3	60.0
3. Industry ...	3,020	795	26.3	2,225	73.7
4. Transport ...	197	166	84.3	31	15.7
5. Trade ...	1,058	418	39.5	640	60.5
6. Public Force ...	96	87	90.6	9	9.4
7. Public Administration ...	77	49	63.6	28	36.4
8. Professions and Liberal Arts	260	135	51.9	125	48.1
9. Persons living on their Income	24	17	70.8	7	29.2
10. Domestic Service ...	462	236	51.0	226	49.0
11. Unproductive Works ...	170	30	17.6	140	82.4
Total ...	20,248	2,258	11.1	17,990	88.9

TABLE 15

Showing the Classified Statistics of the Estimated Number of Actual Urban and Rural Earners in the Province in 1931
(Figures in thousands)

Occupation	Total of Actual Earners	Estimate of Urban Earners		Estimate of Rural Earners	
		No.	Percentage of Earners in column 2	No.	Percentage of Earners in column 2
1. Exploitation of Animals and Vegetation	14,135	307	2.2	13,828	97.8
2. Exploitation of Minerals	5	2	40.0	3	60.0
3. Industry	2,809	739	26.3	2,070	73.7
4. Transport	187	158	84.5	29	15.5
5. Trade	983	389	39.5	594	60.5
6. Public Force	96	87	90.6	9	9.4
7. Public Administration	77	49	63.6	28	36.4
8. Professions and Liberal Arts	247	128	51.8	119	48.2
9. Persons living on their Income	—	—	—	—	—
10. Domestic Service	438	224	51.1	214	48.9
11. Unproductive Works	—	—	—	—	—
Total	18,977	2,083	10.9	16,894	89.1

TABLE 16

Showing the Statistics of the Occupational and Sex Classification of all Workers in the Province in 1921
(Figures in thousands)

Occupation	Total of Workers and Dependents	Total Actual Workers		Partially Agriculturist Workers		Total	
		Males	Females	Males	Females		
1. Exploitation of Animals and Vegetation ...	34,777.2	12,425.8	6,430.9	18,856.7	78.5	15.3	93.8
2. Exploitation of Minerals ...	8.2	3.3	1.5	4.8	0.3	0.1	0.4
3. Industry ...	5,033.3	1,593.8	1,014.2	2,608.0	238.8	60.9	299.7
4. Transport ...	397.3	156.1	7.4	163.5	8.9	0.2	9.1
5. Trade ...	2,019.7	677.7	291.1	968.8	19.8	29.3	49.1
6. Public Force ...	246.5	117.2	2.3	119.5	28.5	0.1	28.6
7. Public Administration ...	239.3	80.6	1.9	82.5	8.9	0.1	9.0
8. Professions and Liberal Arts	479.2	158.6	43.3	201.9	20.8	2.5	23.3
9. Persons living on their Income ...	41.3	11.8	3.2	15.0	1.3	0.1	1.4
10. Domestic Service ...	815.8	276.4	186.2	462.6	23.7	13.2	36.9
11. Insufficiently described ...	918.3	340.9	169.4	510.3	22.2	12.0	34.2
12. Unproductive Works ...	399.4	163.6	80.7	244.3	13.7	4.2	17.9
Total ...	45,375.5	16,005.8	8,232.1	24,237.9	465.4	138.0	603.4

It is clear that the method of classification is different in the *Census Report* of 1931 from that in 1921. Thus we have to reduce the 1921 and 1931 figures to comparable forms, and to enumerate the total number of incomes in the two periods. The 'total actual workers' in 1921 may be held to be comparable with the 'total following occupations' in 1931, but in this way the total number of incomes cannot be arrived at. The figures of 1921 include persons who are following the occupations specified in the 1931 Tables as 'subsidiary occupations'. Therefore, the number of persons following specified occupations as their principal ones would be smaller, there being a certain element of double counting. The *Census Report* of 1921 gives statistics of persons belonging to other than the agricultural industry, who are following agriculture as a subsidiary occupation and this has to be deducted from the figure of the 'total actual workers'. But it gives no figures of persons whose principal occupation is agriculture but who are also following subsidiary occupations of a non-agricultural kind. This figure has to be estimated and to be deducted in order to arrive at the statistics of incomes or the number of principal workers in 1921.

For estimating this figure we have to find out from the *Census Report* 1931, the number of persons who had a subsidiary occupation in addition to a principal one. These were 2,910 thousands. Those who followed a non-agricultural subsidiary occupation were 1,230 thousands.¹ Assuming that the increase in this number as from 1921 is of the same order of magnitude as in the case of total population we get 1,065 thousands as the corresponding figure for 1921. Thus 3,975 thousands have to be deducted from the total number of actual workers to arrive at the number of principal workers.

Table 18 gives us the number of principal workers

¹ See Table 17.

TABLE 17

Showing the Number of Earners Following the Principal Occupations with an Agricultural or non-Agricultural Subsidiary Occupation in 1931
(Figures in thousands)

Description	No.
1. Following an agricultural subsidiary occupation	1,680
2. Following non-agricultural subsidiary occupation	1,230
Total	2,910

TABLE 18

Showing the Estimated Number of Workers Following the Principal Occupation with a Subsidiary Occupation in 1921
(Figures in thousands)

Occupation	Number of Workers Following		
	An agricultural subsidiary Occupation	This as a non-agricultural subsidiary Occupation	This as a subsidiary Occupation
1. Exploitation of Animals and Vegetation—			
(a) Cultivation ...	—	96·0	699·4
(b) Other than cultivation	93·8		
2. Exploitation of Minerals ...	0·4	0·8	0·8
3. Industry ...	299·7	441·2	441·2
4. Transport ...	9·1	32·7	32·7
5. Trade ...	49·1	213·0	213·0
6. Public Force ...	28·6	11·5	11·5
7. Public Administration ...	9·0	6·4	6·4
8. Professions and Liberal Arts	23·3	49·5	49·5
9. Persons living on their Income ...	1·4	8·7	8·7
10. Domestic Service ...	36·9	55·1	55·1
11. Insufficiently Described ...	34·2	129·0	129·0
12. Unproductive Works ...	17·9	21·1	21·1
Total ...	603·4	1,065·0	1,668·4

who are following a subsidiary occupation. Subtracting this figure from the 'total actual workers' we obtain the sum total of 'principal workers' and 'working dependants'. (Table 19).

We may divide it among the principal occupiers and working dependants in the same proportion in which they were divided in 1931 for which figures are available and find their number as given in Table 19.

The Provincial Income in 1921 may, therefore, be found in the sum total of the incomes of 192·8 lakhs of persons. In order to have an exact idea of the number of workers in different occupations, the item No. 11 of Table 19 must be properly distributed. On a detailed examination of the *Census Report* (1921) it is found that workers following an insufficiently described occupation are generally employed in Industry and Trade. But before classifying these workers in defined occupations, it is desirable to make a deduction for those who are also following subsidiary occupations. The number of persons following an agricultural subsidiary occupation in 1921 is known, but no statistics are available for those following a non-agricultural subsidiary occupation in 1931. It is assumed that an increase in this item from 1921 to 1931 is of the same order as an increase in the total population. The number of persons following a non-agricultural subsidiary occupation in 1921 may easily be arrived at. Column 4 of Table 20 gives these figures. In the last two columns of Table 20 the number of principal workers and working dependants is given which is arrived at after deducting the number of workers following a subsidiary occupation in addition to their principal one from the number of actual workers and distributing the remaining ones among principal occupiers and working dependants in the same proportion in which they were distributed in 1931 (see Table 20).

As in 1931, sub-heads (c) and (d) relate to workers engaged in Industry and should be added to that head; while sub-heads (a) and (b) may refer to workers engaged

TABLE 19

Showing the Number of Principal Workers, Working Dependants and those Following Subsidiary Occupation
in 1921

(Figures in thousands)

Occupation	Total Actual Workers	Principal Workers and Working Dependants	Principal Workers	Working Dependants	Workers following subsidiary Occupation
1. Exploitation of Animals and Vegetation	18,856.7	18,157.3	15,120.3	3,037.0	699.4
2. Exploitation of Minerals	4.8	4.0	3.5	0.5	0.8
3. Industry	2,608.0	2,166.8	2,042.0	124.8	441.2
4. Transport	163.5	130.8	129.6	1.2	32.7
5. Trade	968.8	755.8	709.9	45.9	213.0
6. Public Force	119.5	108.0	107.6	0.4	11.5
7. Public Administration	82.5	76.1	75.2	0.9	6.4
8. Professions and Liberal Arts	201.9	152.4	147.9	4.5	49.5
9. Persons living on their Income	15.0	6.3	6.3	—	8.7
10. Domestic Service	462.6	407.5	394.4	13.1	55.1
11. Insufficiently Described	510.3	381.3	356.6	24.7	129.0
12. Unproductive Works	244.3	223.2	187.0	36.2	21.1
Total	24,237.9	22,569.5	19,280.3	3,289.2	1,668.4

TABLE 20

Showing the Number of Workers Engaged in Insufficiently Described Occupations in 1921

(Figures in thousands)

Description	Actual Workers	Following this as a subsidiary Occupation	Total of Principal Workers and Working Dependents	Principal Workers	Working Dependents
(a) Manufacturers, businessmen and contractors ...	8.3	1.5	6.8	6.7	0.1
(b) Cashiers, Accountants, Book-Keepers, Clerks and other employees in unspecified warehouses, shops and offices ...	0.7 0.8	0.8 —	29.9 0.8	29.9 0.8	— —
(c) Mechanics otherwise unspecified ...	470.5	126.7	343.8	319.2	24.6
(d) Labourers and workmen otherwise unspecified ...	510.3	129.0	381.3	356.6	24.7
Total ...					

in either Industry or Trade. We would assign these workers equally to Industry and Trade. We get the corrected totals for workers occupied in Industry and Trade in 1921 as given in Table 21.

TABLE 21

Showing the Corrected Totals for Workers Occupied in Industry and Trade in 1921
(Figures in thousands)

Occupation	Principal Workers	Working Dependants	Subsidiary Workers
Industry	2,380·3	149·4	569·1
Trade	728·2	46·0	214·1

We may now distribute these earners between urban and rural earners. In absence of any statistical material we may assume that they were distributed in the same proportion in which they were distributed in 1931. We do not think it would result in any great margin of error. Table 22 gives the distribution of principal workers in urban and rural areas.

Persons engaged in unproductive occupations and living on their income are not important for the computation of income, because they do not render any productive service but are a charge on the society.

We may now take into account the question of unemployability and may make an allowance of 5 per cent for this in 1921 as we did for 1931 and obtain the figures of the actual earners as given in Table 23. The sum total of the incomes of these actual earners makes up the income of the United Provinces for 1921-22.

In 1941 there was no detailed occupational census and, therefore, statistical material on various occupations in the *Census Report* is missing. We have only the percentage of workers to the total number

following occupation for the whole of India, which gives us an idea of the changes in relative importance of these occupations when compared with those for 1931 for which figures are available in the *Census Report* of 1931. In the absence of any other data we would make use of this little information. Table 24 gives us the number of 'those following occupation', 'principal workers', 'working dependants' and 'those following these as subsidiary occupations' in U. P. in 1931. In column 6 of this Table we have the percentage of workers to 'total following occupation'. In columns 7, 8 and 9 we have the percentage distribution of 'total following occupation' under each group. In Table 25 we have in columns 2 and 3 the percentage distribution of 'total following occupation' in India in 1941.

TABLE 22

Showing Distribution of Principal Workers in Urban and Rural Areas

(Figures in thousands)

Description	Urban Earners	Rural Earners	Total Earners
1. Exploitation of Animals and Vegetation	332.6	14,787.7	15,120.3
2. Exploitation of Minerals ...	1.4	2.1	3.5
3. Industry ...	626.0	1,754.4	2,380.4
4. Transport ...	109.3	20.3	129.6
5. Trade ...	287.6	440.6	728.2
6. Public Force ...	97.5	10.1	107.6
7. Public Administration ...	47.8	27.4	75.2
8. Professions and Liberal Arts	76.8	71.1	147.9
9. Persons living on their Income	4.4	1.9	6.3
10. Domestic Service ...	201.1	193.3	394.4
11. Unproductive Works ...	32.9	154.1	187.0
Total ...	1,817.4	17,463.0	19,280.4

TABLE 23

Showing the Number of Actual Earners in U. P. in 1921

(Figures in thousands)

Description	Urban			Rural			Total actual Earners
	Principal Earners	Unemploy-able	Actual Earners	Principal Earners	Unemploy-able	Actual Earners	
	1. Exploitation of Animals and Vegetation ...	332.2	16.6	316.0	14,787.7	739.4		14,048.3	14,364.3
2. Exploitation of Minerals ...	1.4	0.1	1.3	2.1	0.1	2.0	3.3
3. Industry ...	626.0	31.3	594.7	1,754.4	87.7	1,666.7	2,261.4
4. Transport ...	109.3	5.5	103.8	20.3	1.0	19.3	123.1
5. Trade ...	287.6	14.4	273.2	440.6	22.0	418.6	691.8
6. Public Force ...	97.5	—	97.5	10.1	0.5	9.6	107.1
7. Public Administration ...	47.8	—	47.8	27.4	1.4	26.0	73.8
8. Professions and Liberal Arts ...	76.8	3.8	73.0	71.1	3.6	67.5	140.5
9. Domestic Service ...	201.1	10.1	191.0	193.3	9.7	183.6	374.6
Total ...	1,780.1	81.8	1,698.3	17,307.0	865.4	16,441.6	18,139.9

TABLE 24

Showing the Number and Proportion of Persons Following Different Occupations in 1931

Description of Occupation	(Figures in thousands)					Percentage of			
	Total Following Occupation	Principal Earners	Working Dependents	Those Following a Subsidiary Occupation	Workers to total following occupation	Principal Workers to total following occupation in each group	Working Dependents to total following occupation in each group	Those Following Subsidiary Occupation to total following occupation in each group	
1. Exploitation of Animals and Vegetation	19,652	14,878	2,984	1,790	74.3	75.7	15.2	9.1	
2. Exploitation of Minerals	7	5	1	1	—	71.4	14.3	14.3	
3. Industry	3,139	2,478	151	510	11.9	79.0	4.8	16.2	
4. Transport	237	197	2	38	0.9	83.1	0.8	16.1	
5. Trade	1,361	1,047	68	246	5.1	76.9	5.0	18.1	
6. Public Force	109	96	—	13	0.4	88.1	—	11.9	
7. Public Administration	86	77	1	8	0.3	89.4	1.2	9.4	
8. Professions and Liberal Arts	325	260	8	57	1.2	79.8	2.5	17.7	
9. Persons Living on their Income	34	24	—	10	0.1	70.6	—	29.4	
10. Domestic Service	541	462	15	64	2.1	85.4	2.8	11.8	
11. Insufficiently Described	740	553	38	149	2.8	74.7	5.1	20.2	
12. Unproductive	227	170	33	24	0.9	74.9	14.5	10.6	
Total	26,458	20,247	3,301	2,910	100.0	76.5	12.5	11.0	

TABLE 25

Showing the Estimated Percentage Distribution of all the Occupied Persons in U. P. in 1938-39

Description of Occupation	Percentage of workers to total following occupation in India in		Percentage of workers to total following occupation in U. P. in 1931	Estimated Percentage of total following occupation in U. P. in 1941	Estimated Percentage of total following occupation in U. P. in 1938-39
	1931	1941			
1. Exploitation of Animals and Vegetation	65.6	66.0	74.3	74.8	74.6
2. Exploitation of Minerals	0.2	0.3	—	—	—
3. Industry	10.4	10.0	11.9	11.4	11.5
4. Transport	1.7	2.5	0.9	1.3	1.2
5. Trade	5.5	5.5	5.1	5.1	5.1
6. Public Force	0.6	0.6	0.4	0.4	0.4
7. Public Administration	0.7	0.7	0.3	0.3	0.3
8. Professions and Liberal Arts	1.6	1.7	1.2	1.2	1.2
9. Persons Living on their Income	0.2	0.2	0.1	0.1	0.1
10. Domestic Service	7.5	7.0	2.1	1.9	2.0
11. Insufficiently Described	5.0	4.0	2.8	2.2	2.4
12. Unproductive	1.0	1.5	0.9	1.3	1.2
Total	100.0	100.0	100.0	100.0	100.0

We shall now make use of it to calculate the actual earners in 1938-39—the rate of change in the case of India is assumed to hold good for U. P. also—and calculate the percentages for U. P. as are given in column 5. We assume that this change in U. P. was even during the decade ending 1941 and obtain the percentages for 1938-39. We estimate 28,645 thousand as the number of 'total following occupation' on the assumption that they bore the same percentage to total population in 1938-39 as in 1931. Further we distribute these over 'principal workers', 'working dependants' and 'those following subsidiary occupation' in the same proportion in which they were distributed in 1931 and obtain their numbers as given in columns 3, 4 and 5 of Table 26.

Now we may distribute the persons under 'insufficiently described occupations' over 'Industry' and 'Trade' in the same proportion as those in 1931 *i.e.*, 90·8 : 9·2 in the case of 'principal workers'; 100 : 0 in the case of 'working dependants, and 98·7 : 1·3 in the case of 'those following subsidiary occupation'.

Table 27 gives the corrected figures for Industry and Trade. We make allowance for the unemployable in Table 28.

We may now distribute these earners into urban and rural earners. In the absence of any statistical material we may assume them to be in the same proportion¹ in 1938 as in 1931 and obtain figures for them as shown in Table 29. The sum total of the incomes of these estimated actual earners makes up the income of the United Provinces for 1938-39.

Out of 18,140, 18,977 and 20,630 thousand earners or incomes in 1921-22, 1931-32 and 1938-39, 14,368, 14,140 and 15,367 thousand incomes are calculated on

¹ There does not seem to be any change between 1931 and 1938. Of course after the out-break of the last war in September 1939 there was a movement of people from villages to the towns

TABLE 26

Showing the Number of Workers Following Different Occupations in U. P. in 1938-39

(Figures in thousands)

Description of Occupation	Estimated No. of total following Occupation	Estimated No. of		
		Principal Workers	Working Dependents	Following Subsidiary Occupation
1. Exploitation of Animals and Vegetation ...	21,362	16,171	3,267	1,924
2. Exploitation of Minerals ...	7	5	1	1
3. Industry ...	3,294	2,602	158	534
4. Transport ...	344	286	3	55
5. Trade ...	1,461	1,124	73	264
6. Public Force ...	114	100	—	14
7. Public Administration ...	86	77	1	8
8. Professions and Liberal Arts ...	344	274	9	61
9. Persons Living on their Income ...	29	20	—	9
10. Domestic Service ...	573	500	16	57
11. Insufficiently Described ...	687	514	35	138
12. Unproductive ...	344	258	50	36
Total ...	28,645	21,931	3,613	3,101

TABLE 27

Showing the Corrected Number of People Employed in Industry
and Trade in 1938

(Figures in thousands)

Description	Principal Workers	Working Dependants	Following Subsidiary Occupation
Industry ...	3,069	193	670
Trade ...	1,171	73	266

TABLE 28

Showing the Number of Principal Earners in 1938-39

(Figures in thousands)

Description of Occupation	Total returned as Occupied	Estimated Number of Un-employable Persons	Total Number of Actual Earners
1. Exploitation of Animals and Vegetation ...	16,171	809	15,362
2. Exploitation of Minerals ...	5	—	5
3. Industry ...	3,069	153	2,916
4. Transport ...	286	14	272
5. Trade ...	1,171	59	1,112
6. Public Force ...	100	—	100
7. Public Administration ...	77	—	77
8. Professions and Liberal arts	274	14	260
9. Persons living on their Income ...	20	—	—
10. Domestic Service ...	500	25	475
11. Unproductive ...	258	—	—
Total ...	21,931	1,074	20,579

TABLE 29

Showing the Number of Earners in Urban and Rural Areas in U. P.
in 1938-39

(Figures in thousands)

Description of Occupation	Urban Earners	Rural Earners	Total
1. Exploitation of Animals and Vegetation ...	338	15,024	15,362
2. Exploitation of Minerals. ...	2	3	5
3. Industry ...	767	2,149	2,916
4. Transport ...	230	42	272
5. Trade ...	439	673	1,112
6. Public Force ...	91	9	100
7. Public Administration ...	49	28	77
8. Professions and Liberal Arts	135	125	260
9. Domestic Service ...	243	232	475
Total ...	2,294	18,285	20,579

the *inventory* method in chapters V to VII, where we find out the value of agricultural, livestock and forest products, produce from mines, hunting and fishing. In chapters VIII to XIII we proceed to calculate the value of the remaining 3,772, 4,837 and 5,212 thousand incomes in the three respective years on the *income* method. By combining the results arrived at in these chapters and after making certain necessary additions and deductions of a miscellaneous kind, we arrive at the final figure of the Provincial Income in chapter XV.

In the next chapter we proceed to calculate the Income from agriculture.

CHAPTER V

THE QUANTITY AND VALUE OF AGRICULTURAL OUTPUT

BEFORE computing income from agriculture it is desirable that we should give a bird's eye view of the data available for this chapter. There are a number of Government publications relating to agriculture.¹ Estimates of area under principal crops, of final forecasts of yield and of harvest prices are available and it may appear to be quite easy to arrive at the quantity and value of principal agricultural produce in the United Provinces. And in fact this is what we have done after making due allowance for certain factors which are involved here.

We begin with the statistics of area under cultivation. Area sown under each main crop is determined with a very high degree of accuracy and the methods of obtaining these figures compare favourably with, and are indeed superior to those in use in the U.S.A. and several other countries.² The fundamental superiority of our figures is due to the fact that while figures of area in other countries are usually based on estimates, our figures are derived from a record based on actual field to field inspection.³ In spite of all this

¹ *Season and Crop Reports, U. P.*; *Agricultural Statistics of India* and *An Estimate of Area and Yield of Principal Crops in India*.

² See *Royal Commission on Agriculture in India Report, 1928*, p. 605; Bowley and Robertson: *A Scheme for the Economic Census of India, 1934*, p. 35;

Pande, J. K.: *Crop Estimation in U. P.*, 1945, p. 13;

Panse, V. G.: *Report on the Scheme for the Improvement of Agricultural Statistics, 1946*, p. 6.

³ These figures of area are recorded by the *Patwari* in his *Khasara*. The *Patwari* is given detailed instructions to make the entries after suitable *partals* (survey). These entries are checked

the figures of area can be still more improved if care is taken to see that the *Patwari* records correctly every year every change in the area of fields, crops, irrigation, tenure etc., after the survey of the land is over. At the present time the tendency of the village accountant, if not carefully looked after, is to avoid the trouble of recording changes, and to make the same entries year after year due to carelessness or from a desire to avoid questions.¹ The areas under mixed crops are not shown separately in the Government publications. But the areas covered by several crops in a mixed field are estimated on the basis of the formulæ prescribed by the Provincial Government in individual cases. The formulæ given in Table 30 were practised in U. P. for the years 1921-22, 1931-32 and 1938-39, for determining the percentage of area under various crops in a mixed field. In columns 3 and 5 of the Table we get the percentage of area under crops mentioned in columns 2 and 4.

In the case of area under mixed oil-seeds the following formula holds good:—

- (1) Area under mixed linseed = $\frac{1}{2}$ of the total acreage under gram + $\frac{1}{6}$ of the total acreage of wheat and barley and their mixtures.
- (2) Area under mixed rapeseed = $\frac{2}{3}$ of the total acreage of wheat, barley and their mixtures.

by supervisor *Kanungo* who has to test more than 7 per cent of the *Khasra* numbers in order to ascertain the accuracy of their work. But the supervisor *Kanungo* gives special attention to those blocks of fields where numerous changes appear to have occurred during the year and does not select fields on a random sample basis. The latter is not easily possible as the supervisor *Kanungo* has numerous other duties to perform. Moreover, a statistically random check would only indicate the probable degree of inaccuracy in the *Patwari's* entries, without actually correcting those not included in the sample.

¹ Bowley and Robertson: *ibid.*, p. 35; *Indian Famine Commission Report*, 1880; *Agricultural Statistics*, p. 45.

TABLE 30
Showing the Percentage of Area under Various Crops in a Mixed Field

Name of Mixture	Crop		Crop	
	Name	Percentage	Name	Percentage
1. Wheat-barley	Wheat	50	Barley	50
2. Wheat-gram	Wheat	50	Gram	50
3. Barley-gram—				
(a) Saharanpur-Meerut	Barley	40	Gram	60
(b) Gorakhpur Division, Faizabad and Gonda	Barley	25	Gram	75
(c) Rest of the Province	Barley	50	Gram	50
4. Juar-arhar—				
(a) Meerut Division and Naini Tal	Juar	80	Arhar	20
(b) Agra, Rohilkhand and Allahabad Divisions	Juar	75	Arhar	25
(c) Banaras, Lucknow and Faizabad Divisions	Juar	50	Arhar	50
(d) Gorakhpur Division	Juar	40	Arhar	60
5. Bajra-arhar—				
(a) Faizabad Division	Bajra	40	Arhar	60
(b) Lucknow Division	Bajra	60	Arhar	40
(c) Rest of the Province	As for juar-arhar			
6. Cotton-arhar—				
(a) Meerut and Agra Divisions and Naini Tal	Cotton	80	Arhar	20
(b) Allahabad and Rohilkhand Divisions	Cotton	75	Arhar	25
(c) Gorakhpur and Faizabad Divisions	Cotton	40	Arhar	60
(d) Banaras Division	Cotton	50	Arhar	50
(e) Lucknow Division	Cotton	60	Arhar	40

The outturn of linseed and rapeseed from mixed areas so deduced is to be calculated according to the following formulae :

- (1) Yield of linseed per acre sown mixed with gram = $1\frac{1}{2}$ mds.
- (2) Yield of linseed per acre sown mixed with a crop other than gram = $\frac{1}{2}$ md.
- (3) Yield of rapeseed per acre sown mixed = $1\frac{3}{4}$ mds.
- (4) Area under mixed til = $\frac{3}{4}$ of the total acreage under juar, bajra and their mixtures + $\frac{1}{2}$ of the total acreage under cotton and cotton-arhar.
- (5) Yield of til per acre sown mixed = 50 lbs.

The system of adopting these formulae is defective from two standpoints. Firstly, it assumes that yield of a crop sown mixed is at the same rate per acre as if sown unmixed. This may not necessarily be correct ; and indeed it is very likely that the yield of crop sown mixed should be appreciably more or less than if sown unmixed. Secondly, the proportion of constituents in mixed crops is likely to vary according to the level of prices and the ease and readiness with which different constituents are available to the cultivators at the time of sowing. Variations would, therefore, occur not only from area to area but in the same area from year to year. However, recent crop cutting experimental surveys for estimating the outturn of wheat in U. P. in 1943-44 conducted under the auspices of the Imperial (now Indian) Council of Agricultural Research reveal that the official procedure of estimating the outturn of wheat from mixed fields (the assumption being that half the acreage under mixed crop is under pure crop) is not far from being correct. In 1943-44

The village accountant more often does not make a correct entry in case in a plot two, three or more things in small patches are grown. He only makes an eye estimate of the area under different types of agricultural produce.

for the Province as a whole, the average ratios as calculated from the experiments in U. P. by the I.C.A.R. were found to be 0.54 and 0.51 for the irrigated and unirrigated fields respectively which agreed closely with the official ratio of 0.5.¹ However, the average ratios for 1944-45 being 0.63 and 0.56 were slightly in excess of the official figure of 0.5, showing that the official procedure slightly under-estimated the acreage and the outturn. The wheat content per acre in mixed fields was 55 per cent of the wheat content in pure wheat fields for irrigated wheat and 54 per cent in the case of unirrigated wheat. The over-all effect of this factor on the estimate of yield per acre and the total outturn was, however, very small, being less than two per cent of the total yield. Thus the official estimates are likely to have a certain margin of error due to wrong estimates of yield from mixed crops though this error is very slight when considered in relation to total agricultural output;² the statistics of area under principal agricultural produce, though fairly accurate, are not altogether free from error.

¹ See *Report on Crop Cutting Experimental Survey for Estimating the Outturn of Wheat in U. P.*, 1943-44, pp. 8 and 29.

² The importance of mixed crops can be very well understood from Table 31 which shows the areas sown under (i) wheat-gram, (ii) wheat-barley, (iii) barley-gram as available for final forecast of 1943-44 and compares them with corresponding areas under wheat unmixed, gram unmixed and barley unmixed and also area under juar, bajra, maize, sugarcane, cotton, linseed, til and castor seed. It reveals that the area under wheat-gram is slightly more than the area under barley unmixed as well as juar, bajra or maize. Similarly the area under barley-gram is about three-fourths of the area under barley unmixed, and is of about the same order as the area under juar, bajra or maize. Further the area under these three mixed food crops compares very favourably with the area under each of the non-food crops shown in Table 31, being generally in excess of the area under each of them. Under the circumstances it would be in the fitness of things that these mixed crops should be treated for all practical purposes as independent crops and the yield of wheat or of other food-grains deducted from the area sown under these mixed crops should not be added to the yield as derived from the area sown unmixed. See Pande, J. K. : *ibid.*, pp. 24-25.

Out of the total (net and double cropped) area of 41,142 and 41,838 and 42,784 thousand acres in 1921-22, 1931-32 and 1938-39 respectively, the area under principal agricultural crops¹ was 33,311, 34,244 and 35,067 thousand acres in the three respective years. The remaining area is classified into 'other food grains including pulses' (which consists of *mandua*, *kodan*, *sawan* and other food crops), 'fruits and vegetables' (potato and other vegetables and fruits), 'other oil-seeds', 'other fibres' and 'miscellaneous crops' which occupied 7,831, 7,594 and 7,717 thousand acres of land in 1921-22, 1931-32 and 1938-39 respectively. In other words

TABLE 31

Showing Area under Certain Crops

Name of Crops	Area in thousand acres	Period to which the figures relate
Gochana (wheat-gram)	2,854	Final (fourth) forecast for wheat, 1943-44.
Gojai (wheat-barley)	1,281	Do.
Bejhar (barley-gram)	1,925	Do.
Wheat (unmixed) ...	5,456	Do.
Gram (unmixed) ...	3,947	Do.
Barley (unmixed) ...	2,619	Do.
Juar ...	2,383	1943-44
Bajra ...	2,695	Do.
Maize ...	2,496	Do.
Sugarcane ..	2,158	Final forecast for 1943-44
Cotton	364	Revised final forecast for 1943-44
Linseed (pure) ...	198	} Final forecast for 1943-44
(mixed) ...	7 25	
Til (pure) ...	211	Actual revised area for 1943-44
(mixed) ...	1,094	Final forecast for 1943-44
Castor seed (mixed)	15	Annual Memorandum for 1943-44

¹ The crops were rice, wheat, barley, jowar, bajra, maize, gram, sugarcane, linseed, sesamum, rape and mustard, cotton, tea, indigo, tobacco and opium.

they account for 19·3, 18·1 and 18·0 per cent of the total cropped area in the three respective years, the value of the produce of which has to be separately estimated.

Further the area under various types of agricultural produce includes area covered by field ridges which is entered in the *Patwaris' Khasra* which is ultimately reported to the Director of Land Records, but it is actually neither sown nor cropped. The magnitude of this area is in the neighbourhood of 2 per cent.¹ It means that the published figures of area are over-estimated by 2 per cent as also the figures of yield.

Now we pass on to the second element in the formula viz., estimated yield. Forecasts of yield for rice, wheat, sugarcane, cotton, linseed, rape and mustard, and sesamum are prepared by the Director of Agriculture U. P., and sent to the Director General of Commercial Intelligence and Statistics for publication. The first forecast consists of an estimate of variation in area under certain crops mentioned above over the preceding year's area and the conditions of the season as supplied by crop reporters. The second forecast gives an information received from crop reporters of

¹ Pande, J. K: *ibid.*, pp. 15-16. During the time of Random Sampling Survey for Crop Cutting Experiment on Wheat under the I.C.A.R. in 1943-44 it was observed that the average length and breadth of a field were approximately 300 and 125 feet respectively. A reasonable figure for the average width of bunds was 1½ feet. On this basis the area covered by the field ridges was nearly 2 per cent. The same result was obtained in the Survey of 1944-45. From the Survey of Rice in 1945-46 it was found that the average length and breadth of paddy fields were 150 and 90 feet respectively. The average width of a bund was found to be approximately 1¼ ft. and working upon this basis the area occupied by field boundaries was found to be of the order of 2 per cent. Wheat and rice are the two very important crops grown all over U. P., and the area covered by the field ridges in their cases is representative of other crops also grown in U. P. See Sukhatme, P.V.: *ibid.*, para 25.

Report on the Crop Cutting Survey by the Random Sampling Method for Estimating the Outturn of Wheat, 1944-45, para 17 and of Paddy, 1945-46, para 20.

the crop on the anna condition based on a sixteen anna normal while a third forecast based on the information supplied by the Collectors shows the area under the pure crop, crop mixed with other crops and the out-turn expressed in anna of the pure crop only. The fourth forecast gives a final picture of area and yield arrived at after the examination of (a) the reports received direct from crop-reporters by the Director of Agriculture, giving information, amongst other things, about anna condition of the crop; (b) consolidated returns, paraganawise, of *rabi jinswar* from Collectors, showing for each *pargana* and each specified crop separately, the area under two heads—(1) irrigated and (2) unirrigated; and (c) reports for each month from the Collectors to the Director of Agriculture, giving the anna condition of the crop in their respective districts.¹ No forecast is prepared for tea but returns are obtained from plantation concerned. For barley, jowar, bajra, maize, gram, tobacco and indigo we get the returns of area and output from the *U. P. Season and Crop Reports*.

It is generally believed that except in the areas under "permanent settlement" the area sown under each main crop is known with fair accuracy.² But it may be pointed out at this stage that there is an over-estimate of area on account of the fact that the area covered by field ridges is included in the area of the field as entered in the *Patwari's Khasra*, which is ultimately reported to the Director of Land Records to enable him to make a complete picture of the area under different crops. This defect may result in an over-estimate of the agricultural produce by two per cent. We will not reduce the area and produce given in the Government publications but will only make a deduction of 2 per cent from the gross agricultural income for our calculation.

¹ Pande, J. K. : *ibid.*, pp. 10-12.

² Bowley and Robertson : *A Scheme for an Economic Census of India*, 1934, p. 35.

We have already discussed the reliability of statistical data relating to area under various crops. Now we pass on to the normal yield. The figures of normal yield are based on the average of quinquennium returns of the crop-cutting experiments generally conducted in various districts of the Province either by Assistant Settlement Officers or by Deputy Collectors.¹ The area of experiment is required to be so chosen as to present the typical agricultural features of the district, distinctly precarious tracts being avoided on the one hand and unusually rich tracts on the other. The experimenting officer is directed to select typical villages and suitable plots which should be fairly representative of their class of soil, and should be under crops which are typical for the harvest and the year in which the cuttings are made. The normal or average crop, according to *Bowley and Robertson Committee Report*,² is that crop which past experience has shown to be the most generally recurring crop in a series of years, the typical crop of the local area, the crop which the cultivator has a right (as it were) to expect and with which he is (or should be) content, while if he gets more he has reason to rejoice and if less he has reason to complain. Briefly, it is stated to be the average yield on average soil in a year of average character. This normal or average yield will not necessarily correspond with the average of a series of years' figures which indeed is an arithmetical abstraction and may possibly never occur. It appears from the very confused wording that the "mode of a series of years is the average intended". Indeed the Government of India as well as the Provincial Government have confused normal with average, ordinary, standard, full and full average. On April 18, 1881, the Provincial Government issued a circular asking all District Magistrates to state the yield of the principal *rabi* crop in their district, taking

¹ For a detailed information see Pande, J. K. : *ibid.*, pp. 53-59.

² See *Report*, p. 38.

16 annas as a *full* crop. In reply to a telegram from the Commissioners for a clarification of the word "full crop" the Provincial Government asked them to read "full average" for "full" in the circular. In 1884 the Government of India in their G.G.O. No. 89A referring to the estimates of wheat for the purpose of forecast directed that estimates must be made with reference to an average or ordinary crop. The Government of India in G.G.O. No. 9-27-4, dated October 23, 1897 substituted *normal* in place of average and no longer used the word 'average' in the sense in which they had used it in 1884, but in a narrow sense of arithmetic mean.¹ Again the normal of the Government of India differs from the 'normal' of the U.S.A. or a full or 16 anna crop as understood by the agriculturists in U. P.,² and seems to be somewhere between an average crop and the American Bureau's normal crop and is probably nearer to the latter than to the former.

The definition of the normal as given by the Government of India in 1898 is defective in various respects. It involves a loose definition of average. It is unreal, inaccurate and unscientific.³ The normal is arrived at by various crop cutting experiments which are conducted without due consideration to the instructions given to the Officers. There is a general lack of enthusiasm on the part of Officers concerned towards this work as it entails some trouble and loss of time which they cannot probably afford due to pressure of other more important duties. Whatever the reason, experiments, as they are actually done, do not fulfil their objective. The selection of an average crop on land of average fertility is a difficult task, though not an impossible one. It simply means that the experimenter must carefully assess the whole range of crop in a given locality and then select a field which, in his

¹ Quoted from Pande, J. K. : *ibid.*, pp. 34-36.

² "A normal crop.....particulars" quoted in Pande, J. K., *ibid.*, pp. 42-43.

³ Pande, J. K. : *ibid.*, pp. 42-43.

personal judgment, bears an average crop. In practice crops easily accessible and convenient to handle are alone selected. The more remote localities or crops of small cultivators who cannot be depended on to give the necessary facilities are generally omitted from selection. Plots much smaller in dimensions than the standard size prescribed are often harvested to save time and these dimensions are not always measured with a measuring tape or a chain, but simply by means of steps. It is not unusual practice on the part of the Officers entrusted with the conduct of experiments to delegate the work to subordinate staff.¹ Sometimes the data are concocted by the District Staff in the Province.² The net result is that the normal yield estimated under these conditions gets exaggerated, and this may ultimately result in the over-estimation of crop yield in the Province.³

Now we come to the question of crop conditions, one of the important factors with reference to which the yield of crops is estimated. There are two main sources—the District Collector and Crop Reporters. In the first case “once or more during the growth of the crop and again at the time of harvesting the village accountant estimates the yield as so many annas, taking a definite number of annas *e.g.*, 12 or 16 as standard. The Tahsildar receiving such statements from the villages in his tahsil takes some sort of average of them, using his general knowledge of crop condition, and reports a single result, such as 10 annas, for the tahsil to the District Officer. This official modifies these

¹ Panse, V. G. : *ibid.*, p. 19 ;

Pande, J. K. : *ibid.*, pp. 45-48.

² Pande, J. K. : *ibid.*, p. 49.

³ This has been proved true in the recent crop cutting surveys conducted by the Random Sampling Method for estimating the outturn of wheat and paddy. In the case of wheat in 1943-44 and 1944-45 the official figures were 15 and 10 per cent over-estimated and in the case of paddy in 1945-46 and 1946-47 the official figures were 8 and 3 per cent over-estimated. See *Reports*.

numbers according to his knowledge or discretion, and either proceeds as did the Tahsildar and selects a single number of annas for the district as a whole, or applying the anna yield to the area sown in each tahsil separately, reports an average for the district.¹ In the second place, there are certain official and non-official crop reporters² who send the information of crop condition direct to the Director of Agriculture. In the former case there is a general tendency on the part of the District Officers to over-estimate the figures, as, instead of calculating the weighted average, they generally report the arithmetic average. The non-official crop reporters generally under-estimate as they are hesitant in making sanguine reports on a matter which affects their revenue paying capacity. The supervisor *Kanungo* avoids making too low estimates and the tendency to over-estimate increases with poor crops. This is due to the fear of displeasing his superiors. The most important defect of the system is the bias on the part of crop reporters and it cannot be easily removed.

The figures of agricultural yield cannot be taken in historical light. They can serve a very useful purpose in the computation of Provincial Income. Of course they are somewhat over-estimated and contain certain margin of error for which we will make due allowance in this chapter.

Finally we come to the question of prices. We have calculated the value of agricultural output at harvest prices as it corresponds to value at the place

¹ Bowley and Robertson : *ibid.*, p. 36.

² Before 1940 there were only non-official crop reporters numbering nearly 600. From 1940 the following official crop reporters were also included : (i) Supervisor *Kanungos*—721 ; (ii) Agricultural Supervisors—309 ; (iii) Officers of Cane Development Department—32. The non-official crop reporters are zamindars of substance, resident on their estates, in cordial relation with their tenantry, versed in the agriculture of the country, and gifted with the true farmer instinct.

of production. For rice, wheat, barley, jowar, bajra, maize, and gram we obtain harvest prices for different districts in U. P. from which we have calculated the (median) average for the Province as a whole. The harvest prices of oilseeds, cotton, indigo and tea are not available. The wholesale prices of oilseeds and cotton of four markets in U. P. *viz.*, Kanpur, Agra, Banaras and Lucknow have been taken and a rough deduction of 5 per cent has been made to arrive at the harvest prices. In the case of tea we have used the prices supplied by the Tea-Estate Gardens in Dehra Dun to us. We have taken the figures of the value of opium from the *Detailed Estimates of Expenditure of the Central Government* where the value of opium purchased by the Government is given. We will also add the value of by-product of opium (seeds).¹

We may now proceed to the actual calculation. To begin with, we have given in Tables 32 and 33 the quantity and value of agricultural output in U. P. on the basis of the final estimates of area and yield for 1921-22, 1931-32 and 1938-39 as given in *Season and Crop Reports, and in Estimates of Area and Yield of Principal Crops in India* for 1922-23, 1932-33 and 1939-40 and harvest prices as given in *Season and Crop Reports, Marketing Reports* and from the information collected from the producers themselves for certain crops in the villages studied by us.

The figures of output in Tables 32 and 33 are obtained by the Department on the basis of the formula :

Standard yield \times Seasonal factor \times area under cultivation.

The standard yield figures for 1921-22 have been taken from the quinquennium reports on the average yield per acre for the period ending 1912-16 (for rice, jowar, bajra, maize, tea, cotton, indigo) and 1913-17 (for wheat, barley, gram, linseed, rape and mustard and

¹ Its yield and price were collected from village studies in U. P.

TABLE 32

Showing the Acreage, Output and Value of Principal Food Crops in U. P.

Crops	1921-22				1931-32				1938-39			
	Acreage (thousand acres)	Output (thousand tons)	Price per ton (Rs.)	Value (thousand rupees)	Acreage (thousand acres)	Output (thousand tons)	Price per ton (Rs.)	Value (thousand rupees)	Acreage (thousand acres)	Output (thousand tons)	Price per ton (Rs.)	Value (thousand rupees)
Rice	6,814	2,320	242	5,61,440	6,554	1,989	110	2,18,790	7,663	1,975	113	2,23,175
Wheat	6,609	2,673	174	4,65,102	7,784	2,610	70	1,82,700	8,371	2,642	80	2,11,360
Barley	4,304	2,052	87	1,78,524	4,049	1,607	49	78,743	3,900	1,182	65	76,830
Jowar	2,683	647	136	87,992	2,619	526	52	27,352	2,245	421	67	28,207
Bajra	2,662	556	160	88,960	2,150	343	55	18,865	2,057	308	71	21,768
Maize	2,074	815	139	1,13,285	2,115	833	42	34,986	2,053	607	62	37,634
Gram	6,058	2,114	137	2,89,618	5,686	1,560	57	88,920	5,529	1,481	82	1,21,442
Sugar raw	1,152	1,116	270	3,01,320	1,576	2,199	61	1,34,579	1,628	2,167	126	2,73,042
Total	32,356	12,293	...	20,86,241	32,533	11,667	...	7,84,935	33,446	10,783	...	9,93,458

sugarcane). For 1931-32 the figures for *Kharif* crops are taken from the Report ending 1927-31 and for *Rabi* crops from that ending 1928-32. For 1938-39 the figures are taken from the reports of 1927-32 and 1928-32. We believe that the figures of the quinquennium ending 1917-21, 1918-22, 1927-31, 1928-32, 1932-36 and 1933-37 will be more accurate than those used for calculating the outturn for these years. We are, therefore, revising the official figures of yield for 1921-22, 1931-32 and 1938-39 on the basis of standard yield given in the quinquennium reports for the periods ending 1917-21, 1918-22, 1927-31, 1928-32, 1932-36 and 1933-37 for *Rabi* and *Kharif* crops. The percentage additions or subtractions, as the case may be, to the output or value of crops are given in Table 34 on account of this factor.

Now we can compute the quantity and value of output of the principal agricultural produce in the United Provinces for 1921-22, 1931-32 and 1938-39.¹

The crops given in Table 35 covered 80·7, 81·9 and 80·0 per cent of the total cropped area in 1921-22, 1931-32 and 1938-39 respectively. The value of the crops grown on the remaining 19·3, 18·1 and 20 per cent of the total cropped area is not included in Table 35. This remaining area was sown with other crops,² the principal items being '*mandua*', '*kodon*', '*sawan*', '*potatoes*', '*fruits and vegetables other than potatoes*', '*other food grains including pulses*', '*other oil-seeds*', '*hemp*', '*fodder crops*', and '*other non-food-crops*'. With a view to finding out the value of output from '*other crops*', a detailed survey into the yield of these crops and their value was undertaken in eight villages in the United Provinces, namely, Todarpur (district Mainpuri), Atari (district Lucknow), Bihat (district

¹ These figures are subject to an error of ± 10 per cent due to defects in the methods of estimating yield figures by the Government.

² See Table 36.

TABLE 34

Showing the Percentage Additions to or Subtractions from the Output of Certain Crops Due to Changes in the Standard Yields

Crops	Standard Yield in lbs. as given in the Quinquennium Report for the period ending		Percentage Difference between the figures in columns 2 and 3	Standard Yield in lbs. as given in the Quinquennium Report for the period ending		Percentage Difference between the figures in columns 5 and 6	Standard Yield in lbs. as given in the Quinquennium Report for the period ending		Percentage Difference between the figures in columns 8 and 9
	1912-16 or 1913-17	1917-21 or 1918-22		1922-26 or 1923-27	1927-31 or 1928-32		1927-31 or 1928-32	1932-36 or 1933-37	
1	2	3	4	5	6	7	8	9	10
Rice	—	—	—	900	900	—	900	800	—11.1
Wheat	—	—	—	1,050	1,000	—4.76	1,000	900	—10.0
Barley	—	—	—	1,150	1,150	—	1,150	900	—21.7
Jowar	—	—	—	600	600	—	600	600	—
Bajra	—	—	—	550	550	—	550	500	—9.1
Maize	—	—	—	1,100	1,050	—4.55	1,050	1,050	—
Gram	—	—	—	800	750	—6.25	750	800	6.6
Linseed	—	—	—	500	500	—	500	450	—10.0
Til	—	—	—	280	280	—	280	250	—10.7

TABLE 23

Showing the Quantity and Value of Output of Principal Agricultural Crops
(Figures in thousands)

Commodity	1921-22		1931-32		1938-39	
	Quantity (tons)	Value (rupees)	Quantity (tons)	Value (rupees)	Quantity (tons)	Value (rupees)
Rice	2,320	5,61,440	1,989	2,18,790	1,756	1,98,428
Wheat	2,673	4,65,102	2,486	1,74,020	2,378	1,90,240
Barley	2,052	1,78,524	1,607	78,743	826	62,190
Jowar	647	87,992	526	27,352	421	28,207
Bajra	556	88,960	343	18,865	280	19,780
Maize	815	1,13,285	795	33,390	607	37,634
Gram	2,114	2,89,618	1,462	83,334	1,579	1,29,478
Sugarcane	1,116	3,01,320	2,199	1,34,579	2,167	2,73,042
Linseed	162	29,160	158	11,850	133	11,988
Til	128	31,360	123	12,546	90	11,409
Rape and mustard	476	80,920	476	32,844	433	36,805
Cotton (cleaned)	43	28,079	37	15,355	32	15,808
Cotton (seeds)	100	7,500	86	4,042	75	4,200
Tea	1,000 (lbs.)	220	1,367 (lbs.)	513	1,856 (lbs.)	522
Indigo	5 (cwt.)	308	0.3 (cwt.)	163	0.2 (cwt.)	410
Tobacco	45	20,430	47	1,081	76	14,440
Opium	—	7,020	—	3,080	—	577
Opium seeds	27	2,430	9	324	13	60
Total...	...	22,93,668	...	8,50,871	...	10,35,218

TABLE 36

Showing Area under Miscellaneous or Other Crops

(Figures in thousands)

Crops	Acreage in		
	1921-22	1931-32	1938-39
Mandua	113.5	79.5	77.8
Kodon	1,146.2	1,076.97	950.0
Sawan	644.2	552.95	504.1
Other food grains including pulses	5,171.2	4,907.1	4,958.2
Potatoes	78.3	115.5	157.6
Fruits and vegetables other than potatoes	363.6	397.0	423.7
Hemp	164.0	182.2	206.8
Other oil-seeds	24.0	74.0	194.0
Fodder crops	1,264.4	1,277.3	1,548.2
Other non-food crops	103.4	172.7	264.4

Sitapur), Gajpur (district Gorakhpur), Dhirpur (district Farrukhabad), Kandwa (district Banaras), Nangla (district Kanpur) and Tardih (district Allahabad). An inquiry was also conducted near Malihabad (district Lucknow) to find out the value of yield per acre from mango orchards. To determine the yield of potato we undertook a tour of Farrukhabad district, the centre of potato production, and made enquiries from numerous agriculturists. Further we consulted the Professors of Agricultural College, Kanpur, on the value and yield of these commodities and had the advantage of their mature opinion and advice. Besides we also had the advantage of expert advice of the Statistician to the Director of Agriculture, and Economic Botanists to the U. P. Government on cereals and oilseeds. The results of our enquiry with regard to outturn of *mandua*, *kodon*, *sawan*, potatoes, hemp and other oilseeds are given in Table 37.

The figures obtained from the Economic Botanist to the United Provinces Government are in close

harmony with those obtained from the village studies. On the basis of Table 37 it would not be, therefore, unreasonable to adopt the following figures of yield per acre for our purpose :—

	mds.		mds.
Mandua	... 7	Castor seeds	... 27
Kodon	... 8	Groundnut	... 11
Sawan	... 10	Potatoes	... 145
Arhar	... 9	Hemp	... 6
Urd	... 7	Other food crops	... 6
Mung	... 6	Peas	... 11

After an inquiry into the prices of these commodities from the agriculturists, and from the Superintendent, Kanpur Agricultural Farm we obtained the following figures of harvest prices :—

Crops	Prices in rupees per md. in		
	1921-22	1931-32	1938-39
Mandua	3/4/-	1/5/-	1/10/-
Kodon	3/8/-	1/6/-	1/12/-
Sawan	3/4/-	1/5/-	1/10/-
Arhar	6/6/-	2/10/-	3/2/-
Urd	6/-	2/6/-	2/12/-
Mung	6/8/-	2/12/-	3/4/-
Peas	4/4/-	1/12/-	2/8/-
Castor	8/-	3/-	4/-
Groundnut	8/-	3/4/-	4/-
Potatoes	3/8/-	1/4/-	1/8/-
Hemp	6/8/-	2/12/-	3/-

We may now calculate the value of outturn of 'mandua', 'kodon', 'sawan', 'other food grains including pulses', 'hemp' and 'other oilseeds'. Area under various pulses from that under 'other food grains including pulses' is not separately available. Here we assume, as is also brought out by our village enquiries, that this area is equally distributed among 'arhar',

'ard', 'mung' and 'peas'.¹ In the case of 'other oilseeds' we do not obtain statistics of area under different kinds of 'oilseeds' included here. But it has to be made clear that this area consists of areas under 'castor', 'groundnut', 'safflower', 'alsi' etc., *i.e.*, some very valuable and some poor crops. On the whole the crops under this head taken as a whole reveal that the value of outturn per acre is in no way less than that of the principal oilseeds. Hence here we use the figures of the value of output per acre of principal oilseeds for calculating the value of outturn under 'other oilseeds' for the years 1921-22, 1931-32 and 1938-39 respectively which are given in Table 38.

In the case of 'non-food crops' and 'other fodder crops' we find that the value of their outturn per acre is in the neighbourhood of the average value of the outturn per acre under poor crops like *mandua*, *kodon* and *sawan* and hence while calculating the value of yield of these crops we use the average value of yield per acre under *mandua*, *kodon* and *sawan*.

Finally, we come to 'fruits and vegetables other than potatoes' or what may be termed as 'garden crops'. An inquiry was made by us into the yield of various crops in the villages surveyed and for mango fruits in the famous gardens of Malihabad (district Lucknow) and for guavas in the well known producing centre of Allahabad. In the case of mangoes and guavas there is also much income from nursery. The yield (in some cases) and value of yield per acre of these crops is given in Table 39.²

We are not adopting the arithmetic average for our purpose because the more costly vegetables are grown on a small area to cater the needs of urban people while the poor rural population mostly purchase raddish,

¹ We have included other food grains except pulses under 'peas' as they are of the same order and value. Distribution of these crops requires further investigation.

² See *Kisanopakaraka*, November, 1936, p. 156.

red gourd, bottle gourd and sponge gourd. Hence for our calculation we adopt the value of average yield as Rs. 275/-, Rs. 125/- and Rs. 140/- for the years 1921-22, 1931-32 and 1938-39 respectively.

The value of yield from non-food crops and 'fruits and vegetables other than potatoes' is given below :—

Heads	1921-22	1931-32	1938-39
Area under Fruits and Vegetables (thousand acres)	363.6	397.0	423.7
Yield Per Acre (Rs.)	275	125	140
Value of Yield (Rs. thousands)	98,990.0	49,625.0	59,318.0

TABLE 39

Showing the Value of Yield Per Acre of Fruits and Garden Crops

Crops	Yield per acre	Value of Yields per acre in rupees in		
		1921-22	1931-32	1938-39
Mango	—	450	255	300
Guava	—	600	200	300
Cabbage	8,00 in number	300	150	175
Carrot	150 mds.	200	90	112
Chilli	15 "	300	125	150
Water melon	200 "	275	125	150
Brinjal	125 "	250	110	125
Ladies finger	50 "	250	110	125
Red Gourd	200 "	275	125	150
Bottle Gourd	120 "	300	125	150
Sponge Gourd	120 "	300	125	150
Tomato	250 "	450	210	250
Onion	200 "	400	180	200
Raddish	150 "	300	125	150
Karela	50 "	250	110	125
Cucumber	40 "	260	105	120
Arithmetic average		302	142	170
Average adopted for calculation		275	125	140

TABLE 38

Showing the Acreage, Output and Value of Certain Miscellaneous Crops

Crops	1221-22				1931-32				1938-39			
	Area (thousand) acres	Outturn (thousand) mds.	Price per md. Rs.	Value (thousand) Rs.	Area (thousand) acres	Outturn (thousand) mds.	Price per md. Rs.	Value (thousand) Rs.	Area (thousand) acres	Outturn (thousand) mds.	Price per md. Rs.	Value (thousand) Rs.
<i>Mandua</i> ...	113.5	794.5	3/4/-	2,582.1	79.5	456.5	1/5/-	599.2	77.8	544.6	1/10/-	885.0
<i>Kodon</i> ...	1,146.2	9,169.6	3/8/-	32,093.6	1,076.9	8,615.2	1/6/-	11,920.0	950.0	7,600.0	1/12/-	13,300.0
<i>Sawar</i> ...	644.2	6,442.0	3/4/-	20,936.5	552.9	5,529.0	1/5/-	7,256.8	504.1	5,041.0	1/10/-	8,191.6
Other food grains including pulses	5,171.2	41,369.6	5/12/-	2,37,875.2	4,907.1	39,256.8	2/6/-	73,234.9	4,958.2	39,665.6	2/14/-	1,14,038.6
Other oil-seeds ...	24.0	—	—	762.0	74.0	—	—	839.0	194.0	—	—	2,451.0
Potato ...	78.3	11,353.5	3/8/-	93,737.2	115.5	16,747.5	1/4/-	20,944.4	157.6	22,852.0	1/8/-	34,278.0
Hemp ...	164.0	984.0	6/8/-	6,396.0	182.2	1,093.2	2/12/-	3,006.3	206.8	1,240.8	3/-	3,722.4
Other non-food crops ...	103.4	—	—	2,998.6	172.7	—	—	1,986.1	264.4	—	—	3,862.2
Total ...	—	—	—	3,97,381.2	—	—	—	1,19,787.7	—	—	—	1,80,728.8

TABLE 33

Showing the Acreage, Output, Price and Value of Certain Crops in 1921-22, 1931-32 and 1938-39

Crops			1921-22				1931-32				1938-39						
			Acreage (000 acres)	Output (000 tons)	Price per ton (rupees)	Value (000 rupees)	Acreage (000 acres)	Output (000 tons)	Price per ton (rupees)	Value (000 rupees)	Acreage (000 acres)	Output (000 tons)	Price per ton (rupees)	Value (000 rupees)			
Linseed	pure	...	283	} 943	162	180	29,160	321	} 910	158	75	11,850	282	} 925	148	90	13,320
	mixed	...	660					589					643				
Sesamum	pure	...	250	} 1,225	128	245	31,360	329	} 1,212	123	102	12,546	321	} 1,301	101	126	12,726
	mixed	...	975					883					980				
Rape & mustard	pure	...	155	} 2,292	476	170	80,920	272	} 2,937	476	69	32,844	254	} 2,749	433	85	36,805
	mixed	...	2,137					2,665					2,495				
Cotton (cleaned)	...	...	807	43	653	28,079	739	37	415	15,355	652	32	494	15,808	
Cotton seeds	...	...	807	100	75	7,500	739	86	47	4,042	652	75	56	4,200	
Tea	...	...	6.5	1,006 lbs.	490	220	6.4	1,367 lbs.	840	513	6.4	1,856 lbs.	630	522	
Indigo	...	...	44	5.0 cwt.	1,232	308	2.6	0.3 cwt.	544	163	2.2	0.2 cwt.	2,050	410	
Tobacco	...	...	89	45	454	20,430	67	47	230	1,081	97	76	190	14,440	
Opium	...	...	121	—	—	7,020	41	—	—	3,080	6	—	—	577	
Opium seeds	...	...	121	27	90	2,430	41	9	36	324	6	1.3	46	60	
Total	...	...	5,527.5	—	—	2,07,427	5,915.0	—	—	81,798	5086.6	—	—	98,868	

Finally we may estimate the outturn and value of fodder crops and of the stalk and straw available as a by-product from areas growing food grains and food-crops of different kinds. Our study of the village surveys undertaken for the purpose led us to certain figures of their outturn and value per acre as given in Table 40.

TABLE 40

Showing the Value of Yield of Fodder per Acre (including stalk if any)

Description	Yield per Acre in mds.	Value of Produce per Acre in rupees in		
		1921-22	1931-32	1938-39
Stalk and Straw from :—				
Rice	28	14	5½	7
Wheat	8	16	6½	8
Barley	6	8	3	4
Pea	9	8	3	4
Gram	14	13	5½	7
Sugarcane	250	55	25.	30
<i>Mandua</i>	18	9	4	5
<i>Kodon</i>	18	9	4	5
<i>Sawan</i>	18	9	4	5
<i>Urd</i>	20	14	5½	7
<i>Mung</i>	18	10	5	6
<i>Arhar</i>	91	26	12	15
Ground-nut	6	4	2	2
Fodder crop	250	40	16	20
Jowar	50	30	12	15
Bajra	30	15	6	8
Maize	50	20	8	12

The value of fodder produced as calculated on the basis of the results of our enquiry are given in Table 41.

TABLE 41

Showing the Estimated Value of Fodder Produced

(Figures in Thousands)

Name of Crops	Acreage in			Value in rupees in		
	1921-22	1931-32	1938-39	1921-22	1931-32	1938-39
Rice	6,814	6,554	7,663	95,396	36,047	53,641
Wheat	6,609	7,784	8,371	1,05,744	50,596	66,968
Barley	4,304	4,049	3,900	34,433	12,147	15,600
Jowar	2,683	2,619	2,245	80,490	31,428	33,675
Bajra	2,662	2,150	2,057	39,930	12,900	16,456
Gram	6,058	5,686	5,529	78,754	11,825	38,703
Sugarcane	1,152	1,576	1,628	63,360	39,400	48,840
<i>Mandua</i>	113	80	78	1,017	320	390
<i>Kodon</i>	1,146	1,077	950	10,314	4,308	4,650
<i>Sawian</i>	644	553	504	5,796	2,212	2,520
Other food grains (usually average of arhar, urd, maize, and pea are used for calculation) including pulses	5,171	4,907	4,958	74,979	31,896	39,664
Fodder crops	1,267	1,277	1,549	50,680	20,272	30,980
Total				6,40,893	2,53,351	3,52,087

The gross value of agricultural output (see Table 42) amounted to Rs. 34,309·3, 12,736·3 and 16,273·6 lakhs for 1921-22, 1931-32 and 1938-39 respectively. These figures of value of output as calculated above are over-estimated by 2 per cent due to an over-estimation of area under various crops. We shall, therefore, bring down the total figures of value by 2 per cent. This gives us the gross value of agricultural output in 1921-22, 1931-32 and 1938-39 to be Rs. 33,623·1, 12,481·1 and 15,948·1 lakhs respectively. To arrive at the net value we have to make deductions on account of the following items :—

- (i) Wastage
- (ii) Seeds
- (iii) Fodder to bullocks
- (iv) Interest on agricultural debt¹
- (v) Maintenance and depreciation for draught cattle
- (vi) Repairs and depreciation for ploughs and other agricultural implements.

A part of the agricultural produce goes to waste and is neither sold nor consumed. The loss due to insects, rats and wild animals is substantial.² The Royal Commission on Agriculture in India estimated the waste from this source to the extent of Rs. 70 lakhs in U. P. The Famine Commission of 1880 estimated the loss from wastage to be nearly 5 per cent, while the Famine Commission of 1900 put it at 4·7 per cent. Dr. Rao, on the basis of information available to him

¹ Here we have deducted interest on agricultural debt. Of course, a part of it accruing to zamindars and tenants for lending money to other agriculturists should not be deducted. For this we have made allowance in chapter XIV.

² An inquiry was made in this connection from the Joint Director of Agriculture, U. P., who directed us to meet the Entomologist to U. P. Government at Kanpur. Unfortunately the Entomologist was not in a position to give any figure as no special work was done in his Department on the subject.

from certain Provincial Directors of Agriculture, adopted the figure of 3 per cent as the loss due to wild animals, rats and vermins. In the absence of any better guidance, we would adopt the figure of 3 per cent as loss to U. P. from this cause. The total loss for 1921-22, 1931-32 and 1938-39 on this account then comes to nearly Rs. 1,071·7, 387·2 and 495·4 lakhs respectively.

TABLE 42

Showing the Gross Value of Agricultural Output
(in lakh rupees)

Crops	Total Gross Value of Agricultural Output in		
	1921-22	1931-32	1938-39
Principal crops	22,936·7	8,508·7	10,352·2
Other crops excluding fruits and fodder	3,973·8	1,197·9	1,807·3
Fruits	989·9	496·2	593·2
Fodder crops	6,408·9	2,533·5	3,520·9
Total ...	34,309·3	12,736·3	16,273·6

But there is an important item—loss through storage and pests which has to be taken into account. At a very conservative estimate it may be assumed that in the United Provinces only 25 per cent of rice, 25 per cent of wheat, 10 per cent of jowar and maize, 10 per cent of barley and bajra, 10 per cent of gram, 40 per cent of linseed, rape and mustard and sesamum and 40 per cent of potatoes are being stored.¹ The damage due to (a) dampness, (b) insects and (c) vermin attack is given in Table 43 in the case of above crops.

¹ The information was supplied by the Statistician to the Director of Agriculture, U. P. Also see Lal, K. B. : *Insects Pests of Stored Grain in the United Provinces and their Control*, 1944 ; *Marketing Reports on Wheat, Barley, Linseed, Gram, Rice and Potatoes*.

TABLE 43

Showing the Value of Loss due to Insects, Pests and Storage

Name of Crops	Percentage of Damage or Loss due to			Percentage Loss of total produce	Value of Loss or Damage in thousand rupees in		
	Storage	Dampness	Insects		Vermin attack	1921-22	1931-32	1938-39
Rice	25	1	—	—	1,403.5	546.7	496.0
Wheat	25	1	—	—	1,162.7	435.0	475.5
Barley	10	2	—	—	357.0	157.5	124.4
Jowar	10	2	—	—	176.0	54.7	56.4
Bajra	10	2	—	—	177.9	37.7	39.5
Maize	10	2	—	—	226.6	66.8	75.3
Gram	10	1	—	—	579.2	166.7	258.9
Linseed	40	3	1.5	—	349.9	142.2	143.6
Rape and mustard	40	3	—	—	971.0	394.1	441.6
Sesamum	40	3	—	—	376.3	150.6	136.1
Potato	40	50	—	—	18,747.4	4,188.9	6,855.6
Total	...	...	...	...	24,527.5	6,340.9	9,102.9

Taking into account other remaining crops for which no statistics are available, we can reasonably state that the total loss to the agricultural produce stored would be nearly Rs. 256·0, 68·0 and 97·0 lakh for 1921-22, 1931-32 and 1938-39 respectively.¹ We should bring down these figures by 2 per cent on account of over-estimated yield due to wrong acreage under crops. Thus the net loss would amount to Rs. 250·9, 66·7 and 95·0 lakhs in the three respective years.

A part of the output has to be set off against seed. The Famine Commission of 1900 put the same at 6·2 per cent. Dr. Rao, on the basis of replies from the Provincial Directors of Agriculture, adopted 6 per cent for the purpose. Here it may be made clear that the amount of seed used in a given year depends upon the area sown and the type of soil and not upon the output because the output from a given field may vary, depending upon seasonal conditions, but the quantity of seed may remain unchanged. Now we may calculate the quantity of seed used in the Province and see whether the assumptions made above tally with our results. From the village studies undertaken by us we obtained the figures of quantity of seed used per acre which is given in Table 44.

We may now calculate the value of seed required at harvest price for the three years 1921-22, 1931-32 and 1938-39 respectively. This is given in Table 45.

To this we must add the value of seed required for vegetables other than potatoes. Usually the agriculturists do not purchase a large amount of seed when the quantity needed is negligible, as in the case of red gourd, bottle gourd, sponge gourd, cucumber etc. In other cases the cost of seed does not in any case exceed one per cent of the total value of produce. Any way, to be very liberal, we can make an allowance

¹ The figures for these crops are estimated on the basis of the nature and value of produce of other crops.

TABLE 44

Showing the Quantity of Seeds Required for Different Crops

Crops	Quantity of seeds sown per acre in the village						As given in Marketing Reports	Figures adopted by us for calculation	
	Todarpur	Atari	Bihat	Gajpur	Kandwa	Tardih			
	Md. sr. ch.	Md. sr. ch.	Md. sr. ch.	Md. sr. ch.	Md. sr. ch.	Md. sr. ch.	Md. sr. ch.	Md. sr. ch.	
Paddy	{ — — 0 35 0	{ 0 35 ¹ 0 0 12 8 ² 1 0 0	{ 0 37 8 ¹ 0 12 8 ² 1 10 ⁵ 0	{ 0 32 ³ 0 0 36 ⁴ 0 0 36 ³ 0	{ — — 1 0 0	{ — — —	{ — — —	{ 0 18 0 — —	{ 0 18 0 — 1 0 0
Wheat	{ — — 0 35 0	{ — — 1 5 0	{ 1 ⁶ 0 0 0 35 ⁷ 0 1 15 ⁵ 0	{ 0 30 ⁴ 0 — 1 10 ³ 0	{ — — 1 5 0	{ — — 1 10 0	{ — — 1 0 0	{ — — 1 0 0	{ — — 1 5 0
Barley	{ — — 0 5 0	{ — — 0 5 0	{ 1 4 ⁶ 0 0 35 ⁷ 0 0 6 4	{ 1 ⁴ 0 0 — 0 5 5	{ — — 0 6 0	{ — — 0 6 0	{ — — —	{ — — —	{ — — 0 5 8
Jwar	0 5 0	0 5 0	0 6 4	0 5 5	0 6 0	0 6 0	—	0 5 8	
Bajra	0 2 8	0 3 0	0 3 0	0 2 8	0 3 0	0 3 0	—	0 3 0	
Maize	0 5 0	—	0 6 4	0 6 4	—	0 6 4	—	0 6 0	
Gram	0 30 0	0 35 0	0 37 8	0 25 0	0 32 0	0 37 8	0 35 0	0 35 0	
Sugarcane	50 0 0	—	45 0 0	—	48 0 0	—	48 0 0	48 0 0	
Mandua	—	0 2 5	0 2 8	—	—	0 3 4	—	0 3 0	
Kodon	—	0 6 4	0 5 0	0 5 0	—	0 5 0	—	0 5 0	
Sawan	—	0 5 0	0 5 0	0 6 0	0 5 0	—	—	0 5 0	
Arhar	0 6 4	0 7 8	0 6 4	0 5 0	0 7 8	0 6 4	—	0 6 4	
Urd	0 5 0	0 5 0	0 5 0	—	—	—	—	0 5 0	
Mung	0 5 0	0 5 0	0 6 4	—	—	—	—	0 5 0	
Pea	—	1 10 0	1 0 0	1 10 0	—	1 5 0	—	1 5 0	
Linseed (pure)	0 10 0	0 10 8	0 10 8	0 10 0	0 10 0	—	0 10 0	0 10 0	
(mixed)	—	0 1 4	0 1 4	0 1 4	—	—	—	0 1 4	
Rape & mustard (pure)	—	—	—	0 10 0	0 10 0	—	—	0 10 0	
(mixed)	1 4 0	0 1 4	—	0 1 4	—	—	—	0 1 4	
Sesamum (pure)	0 12 8	0 10 0	0 12 0	0 10 0	—	—	—	0 10 0	
(mixed)	1 4 0	0 1 4	0 1 4	—	—	—	—	0 1 4	
Potato (Patna)	3 30 0	3 30 0	3 20 0	3 20 0	—	—	—	—	
(deshi)	7 0 0	6 20 0	6 10 0	6 20 0	—	—	6 20 0	6 0 0	
Castor	0 10 0	—	—	—	—	—	—	0 10 0	
Fodder (jowar)	0 12 0	0 12 8	0 12 8	0 10 0	0 12 0	0 12 0	—	0 12 0	
Groundnut	1 10 0	1 5 0	1 10 0	—	—	—	1 5 0	1 5 0	
Hemp	0 30 0	—	—	—	0 32 0	0 30 0	—	0 30 0	
Cotton	0 5 0	—	—	—	0 6 0	—	—	0 5 0	
Tobacco	0 0 4	—	—	—	0 0 4	0 0 4	—	0 0 4	
Opium	0 1 8	—	—	—	—	—	—	0 1 8	

1 Broadcast rice. 2 Transplanted. 3 For Kachhar land. 4 Bangar land. 5 Matiar soil. 6 Dumat soil. 7 Sandy soil.

*Wheat Marketing Report (Abridged Edition), 1938, p. 91;

Report on the Marketing of Barley, 1945, p. 15;

Report on the Marketing of Gram, 1945, p. 16;

Report on the Marketing of Rice, 1941, Appendix 7.

Report on the Marketing of Sugar, 1943, pp. 19, 20, 25 and 27.

Report on the Marketing of Groundnut, 1941, p. 313.

Report on the Marketing of Linseed, 1938, p. 20.

Report on the Marketing of Potatoes, 1941, pp. 4-5.

TABLE 45
Showing the Estimated Quantity and Value of Seeds (Figures in Thousands)

Description	1921-22		1931-32		1938-39	
	Quantity (tons)	Value (Rs.)	Quantity (tons)	Value (Rs.)	Quantity (tons)	Value (Rs.)
Rice	113.6	27,491.2	109.2	12,012.0	127.7	14,430.1
Wheat	244.8	42,595.2	288.3	20,181.0	310.0	24,800.0
Barley	197.3	15,699.1	168.7	8,266.3	162.5	10,560.2
Jowar	13.7	1,863.2	13.4	696.8	11.4	763.8
Bajra	7.4	1,184.0	6.0	330.0	5.7	404.7
Maize	11.5	1,598.5	11.7	491.4	11.4	706.8
Gram	196.3	26,893.1	184.3	10,505.1	179.2	14,690.4
Sugarcane	2,048.0	55,296.0	2,801.8	17,091.0	2,894.2	36,466.9
Mandua	0.3	26.3	0.2	7.1	0.2	8.8
Kodan	5.3	500.9	5.0	186.0	4.4	207.9
Jawan	3.0	250.0	2.6	74.6	2.3	101.0
Other food-grains including pulses	47.9	7,424.5	45.5	2,912.0	45.9	3,356.7
Linseed	3.3	612.0	3.6	270.0	3.4	306.0
Rape and mustard	3.9	663.0	5.6	386.4	5.2	442.0
Sesamum	3.7	906.5	4.4	448.8	4.4	554.4
Other oilseeds	—	300.0	—	54.0	—	70.0
Potato	17.0	2,088.0	25.7	866.6	35.0	1,400.0
Other fruits and vegetables	—	990.0	—	496.2	—	593.2
Cotton	3.7	277.5	3.4	159.8	3.0	168.0
Tobacco	—	204.3	—	76.5	—	102.0
Opium	0.2	18.0	0.6	2.4	—	0.5
Fodder crops	14.0	1,917.6	14.2	738.4	17.1	1,145.7
Non-fodder crops	—	52.7	—	25.9	—	44.9
Total		1,88,851.6		76,278.3		1,11,324.0

of 1 per cent of the total value of yield as the cost of seed used.

Thus the deduction on account of seeds will amount to Rs. 1,892.1, 766.8 and 1,117.4 lakhs for the years 1921-22, 1931-32 and 1938-39 respectively. These figures are for the area sown which is 2 per cent over-estimated. Hence the net deduction on account of seeds would amount to Rs. 1,854.3, 751.5 and 1,095.1 lakhs in the three respective years, which formed 5.6, 6.1 and 6.9 per cent of the gross agricultural produce in these years.

Interest on agricultural debt has to be deducted in so far as the debt is incurred for productive purposes, that is, for the current needs or for making improvement in the land either in the past or at the present time. According to the U. P. Banking Enquiry Committee, the agricultural debt in the Province was Rs. 124 crores in 1929-30 out of which 64 per cent only was productive. The Committee covered a period before the commencement of depression which began at the end of 1930, and after the inflationary tendency which began in 1918 and continued with certain variations up to the year 1929. In spite of the fact that the data on which the estimates of the Committee were based were not satisfactory, we have no other alternative but to make use of these figures. As the depression started at the end of 1930, there was bound to be an increase in the agricultural debt as very little must have been repaid and advances must have been made liberally. Hence it would not be unreasonable to assume that the agricultural debt in 1931-32 was in excess of that in 1929-30 at least by 25 per cent.¹ The Agrarian Committee in U. P. estimated the agricultural debt in

¹ The rate of interest on long term loans was 9 per cent and on intermediate 11%. Thus it is not unreasonable to assume an average of 10% as interest and hence the interest if unpaid will be nearly 21% of the principal. Our assumption of 25% increase in debt in 1931-32 over that in 1929-30 is quite reasonable.

1936 to be Rs. 200 crores, while Mr. A. G. Kher¹ estimated cautiously the rural debt for 1937-38 to be Rs. 186·0 crores,² though he felt that it might be even greater than this. In the circumstances, we can very reasonably assume the rural debt to be in the neighbourhood of Rs. 200 crores for 1938-39, the figure adopted by the Agrarian Committee. We have no estimates of debt for the year 1921-22. Of course, M. L. Darling estimated the agricultural debt for 1924 for the whole of India to be Rs. 600 crores on the basis of the debt of the Punjab. The fall in prices from 1921 to 1924 at least by 6 per cent would not have in any way affected the amount of debt as the prices were still very high and did not compel the agriculturist to incur debt. Hence we can very reasonably assume the total rural debt in India for 1921-22 to be Rs. 600 crores and may assume the rural debt in U. P. to bear the same percentage to Indian debt as that of 1929-30 for which data are available. Thus the agricultural debt in U. P. in 1921-22 would be nearly Rs. 84 crores. We may also assume that the productive debt in 1938-39 and 1921-22 was 64 per cent of the total debt as in 1931-32. Thus the productive rural debt in U. P. in 1921-22, 1931-32 and 1938-39 was nearly Rs. 54·0, 79·0 and 128·0 crores respectively. Assuming the average rate of interest to be 10 per cent, the interest paid on this debt would be nearly Rs. 5·4, 7·9 and 12·8 crores for the three respective years.

Now we come to the expenses with regard to maintenance of draught cattle. The number of draught cattle used for work in 1935 was 99,71,462 bullocks and 8,28,304 buffaloes while the total population of

¹ Scheme for the Redemption of Debt, Control of Money Lending and Establishment of a State Bank, prepared at the instance of U. P. Congress Assembly party for submission to the Expert Committee on Rural Indebtedness (1937-38) under the Chairmanship of Mr. Johnston.

² *Report of U. P. Expert Committee on Rural Indebtedness, 1937-38*, paras 7 and 9.

TABLE 46

Showing the Number of Bulls, Bullocks and Buffaloes Used for Work
(Figures in Lakhs)

Class	Number in											
	1920		1925		1930		1935		1944			
	Total	Used for work	Total	Used for work	Total	Used for work	Total	Used for work	Total	Used for work		
Bull and bullocks	99.1	97.5	102.2	100.5	100.9	99.5	101.5	99.7	101.2	100.5		
Buffaloes	8.3	7.1	7.8	6.7	7.8	6.7	9.4	9.4	8.3	7.1		

bulls and bullocks was 1,01,53,285 and of buffaloes 9,43,223, that is, nearly 98·5 per cent of the total number of bullocks and 86 per cent of the total number of buffaloes. In the absence of such data, we may assume this very percentage of working population of bulls and bullocks and buffaloes for other years. Thus the figures of working population for 1920 and 1930 would be as given in Table 46.

If we assume that increase in the population of bullocks and buffaloes which were used for work increased at equal paces during 1920-25, 1930-35 and 1935-44, we get the following figures of bullocks and buffaloes used for working purposes in 1921-22, 1931-32 and 1938-39 (see Table 47):—

TABLE 47

Showing the Estimated Number of Bullocks and Buffaloes
Used for Work in 1921-22, 1931-32 and 1938-39

(Figures in Lakhs)

Class	1921-22	1931-32	1938-39
Bullocks	98·1	99·5	100·0
Buffaloes	7·0	7·2	8·6
Total	105·1	106·7	108·6

Out of this total number nearly 30 lakhs are used for cart and other purposes except agriculture.¹ Hence the total number of those used for agriculture was 75·1 lakhs for 1921-22, 76·7 lakhs for 1931-32 and 78·6 lakhs for 1938-39, or we may say that there were 37·5, 38·4 and 39·3 lakh pairs of bullocks and buffaloes used for agricultural purposes in the three respective years. Now we have to calculate the value of fodder, roughage and concentrates fed to these in

¹ See Rao, V. K. R. V., *ibid.*, p. 76.

the three years. The bullocks everywhere are generally fed at the rate of 15 srs. of dry roughage and $1\frac{1}{2}$ srs. of concentrates per pair during the agricultural operations for nearly four months. During the remaining months they are fed smaller quantities *i.e.*, only nearly 10 srs. of dry roughage and 1 sr. of concentrates daily. Calculating on this basis and taking the value of dry roughage at the harvest prices (as obtained from our village studies) *i.e.*, Re. -/14/- per maund for 1921-22, Re. -/5/4 for 1931-32, Re. -/8/- for 1938-39 or Rs. 92·0, Rs. 35·0 and Rs. 52·0 per pair for the three respective years, we find it to be worth Rs. 3,454·6, 1,344·0 and 2,787·5 lakhs for 1921-22, 1931-32 and 1938-39 respectively. The value of concentrates at a very conservative estimate has to be computed at the rate of Rs. 4/- per maund for 1921-22, Rs. 1/12/- per maund for 1931-32 and Rs. 2/8/- per maund for 1938-39¹. Thus the total value of concentrates fed to working cattle in the three years was Rs. 1,575·0, 706·5 and 1,029·6 lakhs respectively.²

As regards interest on the purchase price of cattle, we have already taken it into account while considering the rural agricultural debt. As regards depreciation no special deduction is necessary as there is supposed to be more or less natural replacement of old cattle, who retire or die by new entrants, while we will take into account the value of net increment to stock in the next chapter.

Regarding the expenses on repairs and replacements of agricultural implements we do not have any published data, and hence we undertook this study also in our village surveys.

¹ The value of concentrates is calculated on the basis of prices during these years.

² This gives the expenditure on concentrates per pair as Rs. 42/-, Rs. 18/6/- and Rs. 23/10/- for 1921-22, 1931-32 and 1938-39 respectively.

³ See Table 48.

Besides the plough there are a number of agricultural implements such as sickle, *khurpi*, leveller, *kudal*, water bag etc. The number of ploughs in U. P. in 1930 was 5,053 thousands as against 5,196 thousands in 1935. Assuming an increase or decrease between 1921 and 1938 being of the same order as that between 1930 and 1935, the number of ploughs in 1921, 1931 and 1938 would be nearly 4,800, 5,181 and 5,281 thousands respectively. The cost of plough with its parts, and other agricultural implements is given in Table 48 as was obtained from the village studies.

This makes us assume the following yearly expenses per plough and for various agricultural implements.

Description	1921-22	1931-32	1938-39
	Rs.	Rs.	Rs.
Plough	1/2/-	1/-/6	2/2/-
<i>Khurpi</i>	-/1/-	-/1/-	-/2/-
<i>Kudal</i>	-/1/-	-/1/-	-/2/-
Sickle	-/1/-	-/-/9	-/2/-
<i>Phawra</i>	-/2/-	-/1/9	-/4/-
Water bag	5/-	4/-	10/-
Rope	1/9/-	1/4/-	3/-
<i>Bedi</i> (swing basket)	-/4/-	-/3/8	-/8/-
Leveller	-/4/-	-/3/3	-/8/-

Thus the expenses per plough come to Rs. 2/2/-, 1/-/6 and 2/2/- in 1921-22, 1931-32 and 1938-39 while the expenses of agricultural implements after every plough will be Rs. 1/2/-, -/8/3 and -/9/9 in the three respective years. The total expenditure on ploughs will be Rs. 102·0, 53·4 and 59·4 lakhs and on agricultural implements Rs. 54·0, 26·7 and 29·7 lakhs in the three respective years. Besides payment is made to the carpenters and blacksmiths for the maintenance of agricultural implements. Each of these is paid in kind in general at rates varying from place to place—in Toldarpur village (Mainpuri district) the payment for

each is 26 seers, in Atari 28 seers, in Bihat 30 seers, and in Gajpur 32 seers per year. It would, therefore, not be unreasonable to assume the payment of 30 seers of grain per plough to carpenter and blacksmith. It gives the expenditure of Rs. 4/2/-, 2/- and 2/8/- per plough or Rs. 198·0, 103·6 and 132·0 lakhs on ploughs and agricultural implements in 1921-22, 1931-32 and 1938-39 respectively.

Assuming one *bedi* for every six acres of land where canal irrigation is practised, there were nearly 8·5 lakhs *bedis* used in 1938-39 and their cost was nearly Rs. 2·1 lakhs. In 1931-32 and 1921-22 the expenditure on account of *bedis* was nearly Rs. 1·6 and 2·0 lakhs respectively.

As regards leather bag we require one of ordinary size in a year for nearly 5 acres of land. We might have calculated the number of buckets on this basis but we find that there is a large number of *kachcha* wells in use in the Province and the cost of pots etc. is very small. Hence to arrive at the figures correctly

TABLE 49

Showing Total Expenditure on account of Agricultural Implements in Lakhs of Rupees in U. P.

Description	Total Expenditure in		
	1921-22	1931-32	1938-39
Replacement of ploughs ...	102·0	53·4	59·4
Replacement of agricultural implements ...	54·0	26·7	29·7
Maintenance of ploughs and implement. ...	198·0	103·6	132·0
Maintenance and replacement of leather buckets and ropes	120·0	50·0	53·0
Cost of <i>bedi</i> ...	2·0	1·6	2·1
Total ...	476·0	235·3	276·2

TABLE 48

Showing the Amount of Expenses in Rupees on Repair and Replacement of Agricultural Implements

Agricultural Implements	Period for use	1921-22					1931-32					1938-39				
		Todarpur	Atari	Bihat	Gajpur	Kandwa	Todarpur	Atari	Bihat	Gajpur	Kandwa	Todarpur	Atari	Bihat	Gajpur	Kandwa
<i>Kur</i>	2 yrs.	-/8/-	-/8/-	-/8/-	-/8/-	-/8/-	-/6/-	-/6/-	-/6/-	-/6/-	—	1/-	1/1/-	1/1/-	1/-	1/1/-
<i>Haris</i>	6 yrs.	1/4/-	1/8/-	1/6/-	1/6/-	1/4/-	1/-	1/2/-	1/2/-	1/1/-	—	2/2/-	2/4/-	2/4/-	2/2/-	2/2/-
<i>Parihari</i>	1 month	-/1/6	-/2/6	-/2/-	-/2/-	-/2/-	-/1/3	-/2/-	-/1/3	-/1/9	—	-/3/-	-/3/6	-/3/3	-/3/-	-/3/-
<i>Phara</i>	2 yrs.	-/8/-	-/10/-	-/8/-	-/6/-	-/8/-	-/6/-	-/8/-	-/8/-	-/8/-	—	-/15/-	1/-	-/15/-	1/-	-/14/-
<i>Yoke</i>	6 yrs.	-/4/-	-/5/-	-/4/-	-/5/-	-/4/-	-/3/-	-/4/-	-/3/6	-/3/9	—	-/8/-	-/10/-	-/9/-	-/8/-	-/8/-
<i>Khurpi</i>	2 yrs.	-/2/-	-/2/6	-/2/-	-/2/6	-/2/-	-/1/6	-/2/-	-/2/-	-/1/9	—	-/4/-	-/4/-	-/4/-	-/4/-	-/4/-
<i>Kudal</i>	6 yrs.	—	-/8/-	-/8/-	-/10/-	-/10/-	—	-/7/-	-/7/-	-/7/-	—	1/2/-	1/4/-	1/2/-	1/1/-	1/1/-
<i>Sickle</i>	3 yrs.	-/2/-	-/2/6	-/2/-	-/2/6	-/2/-	-/1/6	-/2/-	-/2/-	-/2/-	—	-/4/-	-/4/-	-/4/-	-/4/-	-/4/-
<i>Phawara</i>	2 yrs.	1/4/-	—	1/6/-	1/2/-	—	1/-	—	1/1/-	1/-	—	2/4/-	2/6/-	2/4/-	2/2/-	2/2/-
<i>Water bag</i>	1 yr.	—	—	—	—	5/-	—	—	—	—	4/-	—	—	—	—	10/-
<i>Rope</i>	1 yr.	—	—	—	—	1/8/-	—	—	—	—	1/4/-	—	—	—	—	3/-
<i>Bedi</i>	1 yr.	-/5/-	-/4/-	-/4/-	-/5/-	—	-/4/-	-/3/-	-/3/-	-/3/2	—	-/9/-	-/9/-	—	—	—
<i>Leveller</i>	3 yrs.	-/12/-	-/12/-	-/10/-	-/12/-	—	-/10/-	-/10/-	-/9/-	-/10/6	—	2/-	1/14/-	—	—	—

we would take one water bucket after every $6\frac{1}{2}$ acres of land irrigated. Thus the expenditure on leather buckets and ropes in 1938-39 would be nearly Rs. 53·00 lakhs. For 1931-32 and 1921-22 the figures would be Rs. 50·0 and Rs. 120·0 lakhs respectively.

The total expenditure on account of agricultural implements is shown in Table 49. The total deductions under various heads are shown in Table 50.

The net income from agriculture in 1921-22, 1931-32 and 1938-39 would be Rs. 25,086·8, 8,455·1 and 9,214·8 lakhs respectively subject to an error of ± 10 per cent.

TABLE 50

Showing Total Deductions under Various Heads in Lakhs of Rupees

Description	Total Deductions in		
	1921-22	1931-32	1938-39
Wastage—			
(a) due to wild animals ...	1,071·7	387·2	495·4
(b) in storage ...	250·9	66·7	95·0
Seeds ...	1,854·3	751·5	1,095·1
Fodder to bullocks ...	3,454·6	1,344·0	2,787·5
Concentrates ...	1,575·0	706·5	1,029·6
Interest on agricultural debt ...	540·0	790·0	1,280·0
Maintenance and purchase of agricultural implements ...	476·0	235·3	276·2
Total ...	9,222·5	4,281·2	7,058·8

In the next chapter we proceed to calculate the output and value of milk, meat and other livestock products.

CHAPTER VI

THE QUANTITY AND VALUE OF LIVE-STOCK PRODUCTS

LIVESTOCK products are said to include the following items :¹

1. Power employed in agriculture
2. Power employed in carting
3. Manure
4. Milk
5. Meat, bones, tips, horns etc.
6. Hides and skins
7. Bones
8. Wool
9. Increment to stock.

The cattle power as well as farmyard manure contribute towards the production of agricultural commodities. They need not be evaluated as their value has already been included in the value of agricultural produce calculated in the previous chapter. For the remaining items the figures of production are not published. It is only for 1934-35 that the estimated figures of production of milk, hides and skins are available from the Marketing Reports.² The number of cattle of different classes is published in the *Cattle Census Report* of the Province after every five years.³ The census figures are available for 1920, 1925, 1930, 1935 and 1944 while calculations relate to the years 1921-22, 1931-32 and 1938-39. We may use for our purpose the figures of 1921, 1931 and 1938. The figures for 1921-22 and 1931-32, two out of three

¹ cf. Rao, V. K. R. V. : *op. cit.*, p. 83.

² cf. *Report on the Marketing of Milk in India and Burma* (1939);
Report on the Marketing of Hides in India and Burma (1943);
Report on the Marketing of Skins in India and Burma (1943).

³ After the year 1935 the cattle census was taken in 1944.

years of our enquiry may be calculated on the assumption that increase for every year during the quinquennium ending 1925 and 1935 is the same. The figures for 1938 may be calculated on the assumption that the annual rate of increase after 1935 is the same as in the quinquennium ending 1930 (see Table 51). This may be accounted for the fact that the annual rate of increase or decrease between 1935 and 1944 was not the same for each year. After the out-break of war in September 1939 a large percentage of cattle population was slaughtered to meet the requirements of the army. Besides the bulls and bullocks, the buffaloes and all other classes of cattle have decreased to an appreciable extent.¹ The Department of Economics and Statistics of the United Provinces Government which conducted the last cattle census, states that the decrease in 1944 in cattle population was due not to the slaughter of cattle for military needs but to an over-estimate in 1935.² Perhaps this statement is made merely to defend the Government from public criticism. A study of the cattle census taken in different years reveals that at no time (except in the quinquennium ending 1920³ in which the World War I took place)

¹ Figures in thousands for 1935 and 1944 are as below :—

		1935	1944
Cows	...	6,005	5,344
Young stock	...	7,019	5,524
Male buffaloes	...	943	834
She buffaloes	...	4,245	4,418
Sheep	...	2,069	1,874
Goats	...	7,933	5,473

² From personal enquiries.

³ Figures in thousands for 1914-15 and 1920 are as below :—

		1914-15	1920
Cows	...	6,853	6,211
Calves	...	9,603	9,221
Buffalo calves	...	834	834
Male buffaloes	...	3,836	3,594
She buffaloes	...	3,836	3,594
Sheep	...	2,795	2,321
Goats	—	9,781	3,779

an all round decrease in different classes of cattle was observed. This decrease is, therefore, specially due to the slaughter of cows, cow calves, sheep and goats for beef and mutton to be consumed by the soldiers. The figures in columns 8, 9 and 10 of Table 51 are used for subsequent calculation of the value of the product of livestock.

Milk

The cow, the she buffalo and the goat are the only sources of milk yield in the United Provinces. It is commonly believed and generally observed in day-to-day life that cows are mostly kept for breeding rather than milking purposes while the she buffaloes are kept mostly for milking purposes.¹ The cow is very poor in milk yield. The majority of them produce only as much milk as is hardly sufficient for their young ones.²

The milk yield of cows as well as of she buffaloes varies from breed to breed and from place to place and even at the same place the yield of different cows varies greatly. The cows of fine breeds of the Punjab,³ Sind and Gujrat are very good in milk yield while *desi* ones show very poor results. In the western part of U. P. the milk yield per cow is definitely higher than that in the eastern parts on account of adequate fodder supply. This fact is clearly established by our study of village surveys conducted in U. P.

¹ cf. *Agricultural Commission Report*, 1928, p. 196. 'The she buffalo rather than the cow is the milk producing animal of India'.

² Out of 1,000 cows, about 937 produce less than 3 seers of milk which is hardly sufficient for their young ones. cf. Rao, V. K. R. V.: *ibid.*, p. 87.

³ The average annual milk yield per cow in Lyallpur was 4,259·3, 4,679·3, 4,171·9, 5,493·0 and 6,037·0 lbs. in 1930-31, 1931-32, 1932-33, 1933-34 and 1934-35 respectively. cf. *Milk Supply in Lyallpur* (Board of Economic Inquiry, Punjab, Publication No. 55), p. 35.

TABLE 51

Showing the Number of Different Classes of Cattle in U. P.
(Figures in Thousands)

Description of Livestock	Number in					Annual Rate of Increase (+) or Decrease (—) during the quinquennium ending				Estimated Number in		
	1920	1925	1930	1935	1935	1925	1935	1921	1931	1938		
Bulls and Bullocks	9,901	10,324	10,095	10,153	+12	+85	9,986	10,107	10,189			
Cows	6,211	6,184	6,232	6,005	-25	-5	6,206	6,207	5,930			
Young stock	6,183	6,198	6,579	7,019	+88	+3	6,186	6,667	7,283			
Male buffaloes	834	784	781	943	+32	-10	824	813	1,039			
She buffaloes	3,596	4,072	4,081	4,245	+33	+95	3,691	4,114	4,344			
Buffalo calves	3,037	3,583	3,690	4,103	+83	+109	3,146	3,773	4,352			
Sheep	2,321	2,153	2,231	2,069	-32	-34	2,287	2,199	1,973			
Goats	3,779	7,473	6,563	7,933	+274	+739	4,518	6,837	8,755			
Camels	20	25	26	32	+1	+1	21	27	35			

To find out the annual milk yield of an animal one has to take into account the average milk yield per day, the period of lactation and the interval between two calvings. In the United Provinces the period of lactation of the *desi* cows generally extends over 6 to 8 months and in rare cases goes to 10 months; the same is the case with the Punjab cows. The interval between the two calvings varies from 12 to 18 months. As regards buffaloes the lactation period varies between 10 and 12 months while the interval between the two calvings ranges over 10 to 24 months.

Very few inquiries into the milk yield of cows and buffaloes in U. P. have been made. An inquiry was conducted by the Agricultural Marketing Department in Kosi village.¹ It was found that the daily milk yield per cow was 3·89 lbs. in a lactation period of 8·25 months and the total yield in the lactation period was 865 lbs. The total milk yield per she-buffalo at the rate of 7·06 lbs. in the lactation period of 9·25 months was 1,768 lbs. In two different villages in Gorakhpur the annual milk yield per cow was found to be 90 and 180 lbs., while that per buffalo was 360 and 796 lbs. respectively.² In a village in Agra district the annual milk yield per cow was 640 lbs., and that per buffalo was 1,280 lbs. The Kosi cow yields 2,000 lbs. milk per year while *desi* buffalo 2,308 lbs. The results of milk yield of cows and buffaloes in the five villages surveyed by us are given in Table 52, which reveal that the lactation period of cows varies from 5 to 9 months and that of buffaloes from 8 to 14 months. The period between the two calvings in the case of cows varies from 10 to 24 months.

The average annual milk yield in Todarpur village was 650 lbs. per cow and 1,400 lbs. per buffalo, in Bihat 550 lbs. per cow and 1,110 lbs. per buffalo,

¹ *cf.* Report on the Marketing of Milk in India and Burma, 1939, p. 6.

² *cf.* Rao, V. K. R. V. : *ibid.*, Appendix C.

in Kandwa 600 lbs. per cow and 1,300 lbs. per buffalo and in Gajpur 300 lbs. per cow and 900 lbs. per buffalo. These figures reveal one important fact that the milk yield per year is higher in the western districts of U. P. than in the eastern districts. Thus it is evident that in the case of a cow the milk yield ranges over 90 to 2,000 lbs. per year while in the case of a buffalo it ranges over 300 to 2,308 lbs. in a year.

TABLE 52

Showing the Lactation Period, Annual Milk Yield and Period between two Calvings in the case of Cows and Buffaloes

Name of Village	Lactation Period of		Annual Milk Yield of		Period between two calvings in the case of	
	Cow	Buffalo	Cow	Buffalo	Cow	Buffalo
	(months)		(lbs.)		(months)	
Todarpur	6-9	10-14	650	1,400	12-16	12-24
Atari	6-8	8-12	600	1,250	12-17	11-24
Bihat	6-8	9-12	550	1,100	12-18	10-24
Kandwa	5-7	9-12	600	1,300	12-18	10-20
Gajpur	5-7	10-12	300	900	12-18	10-24

The *Milk Marketing Report* reveals that in U. P. the average annual milk yield per cow in 1935 was 625 lbs., while that per buffalo was 1,240 lbs. We have used these figures for calculating milk yield for the years 1921-22, 1931-32 and 1938-39. It is true to say that some improvement in the breeds of cattle has been made and it should reflect in the milk yield of the cattle but with an increase in human population and more area having been brought under food and commercial crops, less fodder resources are available for the cattle. The improvement in breeds, though little, can safely be set against the deterioration due to decrease in fodder resources in the Province. Therefore, these average annual yields will hold good for the

three different years for which we want to make calculation of milk yield. Moreover, the position of milk yield during this period is almost unchanged and no error is likely to creep in our calculation.

From Table 51 it is clear that there were 6,206, 6,207 and 5,930 thousand three year old cows. At the rate of 625 lbs. per year the total milk yield of cows in the Province would be nearly 47,187, 47,309 and 45,088 thousand maunds for the years 1921-22, 1931-32 and 1938-39 respectively.

There were 3,691, 4,114 and 4,344 thousand buffaloes in the three different years, which were generally kept for breeding and milking purposes. Taking 1,240 lbs. as the approximate annual yield per she buffalo their total milk yield in 1921-22, 1931-32 and 1938-39 would be nearly 58,537, 63,057 and 65,529 thousand maunds respectively.

Goat is another source of milk supply. It is the poor man's cow.¹ The recent marketing surveys show that the daily milk yield of goat varies from 2 oz. in Bihar and Orissa to 12 oz. in south-western Punjab and Sind. The lactation period generally ranges over 4 to 5 months. In the United Provinces, according to the *Milk Marketing Report*, about 1,619 thousand goats out of the total number of 7,933 thousands were in milk i.e., the milch goats formed about 25 per cent of the total number of goats in the Province. On this basis the number of milch goats in 1921-22, 1931-32 and 1938-39 was 1,130, 1,709 and 2,189 thousands respectively. Assuming the approximate annual yield per goat in the Province, as given in the *Milk Marketing Report*², to be 125 lbs., the total milk supply from them in 1921-22, 1931-32 and 1938-39 would be nearly 1,723, 2,605 and 3,337 thousand maunds respectively.

¹ *Agricultural Commission Report*, 1928, p. 175.

² See *Report*, Appendix 1, p. 294.

Let us now calculate the value of milk produced in the Province. The producer's price was annas $-/1/9$ and the retailer's price annas $-/2/3$ per seer. About 67 per cent of the retailer's price was received by the producers.¹ The producer's, collector's and retailer's prices, from our personal observations and enquiries for 1938-39, were found to be $-/1/3$, $-/1/6$ and $-/2/-$ per seer respectively. About 62 per cent of the retailer's price was received by the producers. Thus the income to the producers was Rs. $3/2/-$ per maund from the sale of milk.

The producer's, collector's and retailer's prices of buffalo milk in 1938-39 were $-/1/6$, $-/1/8$ and $-/2/-$ respectively. The producers received about Rs. $3/12/-$ per maund of milk.

In the case of goat milk the producer's price was anna one per seer while retailer's price was annas $-/1/6$ in 1938-39. The producer received Rs. $2/8/-$ for a maund of milk.

In 1931-32 the producer's price of cow's milk was $-/1/-$ per seer, the price of buffalo's milk was $-/1/6$ per seer while that of goat was $-/1/9$ per seer. This comes to Rs. $2/8/-$, $3/12/-$ and $1/14/-$ per maund as the producer's price of cow's, buffalo's and goat's milk.

In 1921-22 cow's milk was sold in Bombay at the rate of $-/3/-$ per lb. i.e., about 22 seers a rupee. On this basis, at a time when the prices of most of the commodities were high, it would not be wrong to assume that cow's, buffalo's and goat's milk was sold in U. P. at the rate of 8 seers, 6 seers and 10 seers a rupee respectively.

The value of cow's milk would, therefore, be Rs. 2,35,935 thousands while that of buffalo's and goat's milk Rs. 3,90,247 and 6,892 thousands in 1921-22. The total value of milk yield in the Province would be Rs. 6,33,074 thousands (see Table 53).

¹ cf. *Milk Marketing Report of India and Burma* (1945), p. 108.

TABLE 53

Showing Yield, Price and Value of Milk

Description of Milch Cattle	1921-22			1931-32			1938-39		
	Yield in thousand maunds	Price per maund in rupees	Value in thousand rupees	Yield in thousand maunds	Price per maund in rupees	Value in thousand rupees	Yield in thousand maunds	Price per maund in rupees	Value in thousand rupees
Cow's milk	47,187	5-000	2,35,935	47,309	2-500	1,18,272	45,088	3-125	1,40,900
Buffalo's milk	58,537	6-660	3,90,247	63,057	3-750	2,36,472	65,529	3-750	2,45,735
Goat's milk	1,723	4-000	6,892	2,605	1-875	4,884	3,337	2-500	8,343
Total	1,07,447	...	6,33,074	1,12,971	...	3,59,628	1,13,954	...	3,94,978

In 1931-32 the value of cow's, buffalo's and goat's milk would be Rs. 1,18,272, 2,36,472 and 4,884 thousands, the total value of the milk yield being Rs. 3,59,628 thousands.

In 1938-39 the value of cow's milk would be Rs. 14,900 thousands while that of buffalo's milk Rs. 2,45,735 thousands and of goat's milk Rs. 8,343 thousands, the total value of milk yield being Rs. 3,94,978 thousands.

Meat, Blood, Horns, Tips etc.

There are no official statistics of the output of meat and other by-products of slaughter. From the *Report on the Marketing of Hides and Skins in India and Burma* (1943) it is possible to have some idea of the slaughtered animals in 1935. For other years no published literature is available. From the study of various village surveys in the United Provinces it is obvious that meat is largely consumed in the urban centres. Hindus are generally vegetarian and especially so in the rural areas. Mohammedans, Christians and Europeans largely demand meat and beef in urban areas. Mohammedans in the rural areas like their Hindu brethren do not take meat or beef except on festival occasions.

We conducted an enquiry about cattle slaughtered in various municipalities in the United Provinces in connection with the computation of income from livestock products in U. P. We sent a questionnaire on cattle slaughtered in the licenced slaughter houses to 85 municipalities in the United Provinces, of which five supplied information for 1946-47, three for 1938-39, two for 1931-32 and one for 1921-22.¹ After

¹ The following municipalities supplied information for years mentioned against them:—

1946-47—Kanpur, Naini Tal, Roorkee, Moradabad, Unnao

1938-39—Kanpur, Naini Tal and Lucknow

1931-32—Kanpur and Naini Tal

1921-22—Naini Tal.

this inadequate response a tour of the towns of U. P. was undertaken and various municipalities were approached and reminded for supplying information at an early date but this did not bear any fruit. Having failed in this attempt we tried to consult the annual reports of the municipalities which we could obtain at Lucknow, Kanpur, Meerut, Agra and Banaras,¹ and obtained the figures of animals imported in the municipal limits and the number of animals re-exported. As most of these animals are slaughtered a few are required for milking purposes and for replacement of milch cattle in cities. On the whole this figure cannot be more than 10 per cent of the number imported during the year. Hence we have reasonably assumed that 90 per cent of the imported minus re-exported animals are slaughtered within the municipal limits. We have also made use of the statistics of cattle slaughtered in certain municipalities in U.P. as obtained by Dr. Rao for calculating the national income of India in 1931-32.

For 1931-32 we have the statistics of cattle slaughtered in nine municipalities² with slaughter houses and inhabited by 8,89,469 persons (5,20,103 Hindus, 1,464 Sikhs, 4,846 Jains, 14 Budhists, 3,49,175 Muslims and 13,867 others). Of these 5,94,438 persons³ had no objection to taking mutton and 3,08,586

¹ We obtained information of the following municipalities for the years mentioned against them :—

1938-39—Banaras, Allahabad, Bareilly, Mirzapur, Jaunpur, Jhansi, Gonda, Faizabad and Bara Banki.

1931-32—Allahabad, Banaras, Bareilly and Faizabad.

1921-22—Faizabad, Banaras and Bareilly.

² We used the figures of the following municipalities only :—
Lucknow, Deoband, Firozabad, Amroha, Faridabad, Unnao, Meerut, Hardwar and Agra.

³ This number is obtained by deducting from the total population of these towns and cities, the number of (a) Jains, (b) Budhists, (c) children below five years of age (13%) and people aged 65 and over (2%) and 30% of the adult Hindu population. See *Report on the Marketing of Fish in India*, 1946, p. 42.

to taking beef or buffalo meat.¹ The number of cattle slaughtered in these municipalities was 60,549 and sheep and goats 2,55,849. We assume the habits of the various communities for meat eating to be the same in the remaining municipalities and towns for which no statistics of cattle slaughtered are available, as in the case of eight municipalities mentioned above. Thus in the case of the remaining towns the number of cattle slaughtered would be 579 thousands and sheep and goats 1,286 thousands. In the urban areas in 1931-32 the number of cattle slaughtered was 639 thousands and of goats and sheep 1,542 thousands. To this we may add 5 per cent to cover slaughter carried on outside the licenced slaughter houses. This gives us the figures of 671 thousand cattle and 1,619 thousand goats and sheep slaughtered in the urban areas in U. P. In the rural areas there were 42,984 thousand persons (36,676 thousand Hindus, 37 thousand Sikhs, 37 thousand Jains, 5,108 thousand Muslims and 125 thousand others) in 1931, of whom 4,448 thousands had no objection to taking beef and 24,620 thousands to mutton. In the rural areas meat taking is not so rampant as in towns and cities. The annual consumption of mutton per head of those who relish it (assuming 24 lbs. per head of sheep or goat) comes to nearly 10 lbs. in urban areas. In the rural areas it would not be less than $2\frac{1}{2}$ lbs. per head of the consuming population. This is also brought out by village studies undertaken by us. This gives us the consumption of 6,15,50,000 lbs. of mutton obtained from slaughter of 2,564 thousand sheep and goats. The average consumption of beef and buffalo meat comes to 37 lbs. per head of the consuming population (assuming 100 lbs. of meat per head of cattle). In the rural areas the consumption of beef would not be more than 10 lbs. per head of

¹ This number is obtained by deducting from the total population of these cities the number of (a) Hindus, Jains and Budhists, (b) children under 5 years of age and people aged 65 and over.

the consuming population. This gives us the slaughter of nearly 1,83,200 cattle.

From the above discussion it is clear that the total number of sheep and goats slaughtered in 1931 was 4,183 thousands and of cows and buffaloes 854·2 thousands i.e., the amount of mutton consumed was nearly 1,004·0 lakh lbs. and of beef and buffalo meat 854·0 lakh lbs. The consumption of mutton per head in the Province, therefore, comes to 2·04 lbs. on an average in 1931-32 and the consumption of beef to nearly 1·7 lbs.

For 1938 we have the statistics of cattle slaughtered in the three municipalities of Kanpur, Naini Tal and Lucknow but not of the various communities residing in them, whose number for 1931 is known from the *Census Report*, on the basis of which alone it would not be desirable to proceed. We have only the figures of the total number of animals possibly slaughtered (and not of the different classes of cattle). Under these circumstances it is not wise to calculate the consumption of meat in the cities and towns on the basis of the data available, but rely upon the per capita figures of consumption of mutton and beef in 1931 and use them for calculation for 1938 and 1921 as the habits of the people do not seem to have changed to any appreciable extent. Proceeding on the above basis we find that the amount of mutton consumed in 1938-39 was 1,089 lakh lbs. and beef and buffalo meat 908 lakh lbs. when the estimated population of the Province was nearly 534 lakhs. In 1921 the consumption of mutton, on the above basis, would be nearly 749 lakh lbs. and that of beef and buffalo meat 790 lakh lbs.

Now we may calculate the value of meat etc. It is found on enquiry that in 1938-39 the price of mutton varied between annas 7 and 9 per lb. while that of beef between annas $1\frac{3}{4}$ and $2\frac{3}{4}$ per lb. In 1931-32 the price of mutton varied between annas 3 and 4 per lb., while that of beef between $1\frac{1}{2}$ and $2\frac{1}{2}$ annas. In 1921-22 the price of mutton and beef varied between 4 and 6

annas, and $2\frac{1}{2}$ and $3\frac{1}{2}$ annas per lb. respectively. At an average price of 5 annas a lb. of mutton and 3 annas a lb. of beef for 1921-22, the value of output of meat would be Rs. 382·0 lakhs. At an average price of $3\frac{1}{2}$ annas a lb. of mutton and 2 annas a lb. of beef in 1931-32, the value of output of meat would be Rs. 326·3 lakhs. When the average price of mutton and beef is annas 4 and annas $2\frac{1}{4}$ per lb., the value of the output of meat would be Rs. 400·0 lakhs for 1938-39.

To the value of meat must be added the value of by-products of slaughter, such as blood, horns, tips etc.

On the basis of 10 annas per head for small and 20 annas for big ones for 1921-22, 8 annas and 16 annas for small and big ones for 1931-32 and 9 annas and 18 annas for small and big ones for 1938-39, we find the value of the by-products of slaughter to be Rs. 27·6, 29·4 and 36·9 lakhs in 1921-22, 1931-32 and 1938-39 respectively. The combined value of meat and by-products of slaughter amounts to Rs. 409·6, 355·7 and 436·9 lakhs in the three years respectively.

Hides and Skins

The annual production of cow, bullock and bull hides and calf skins in the United Provinces and States in 1935 was 16 lakh pieces out of which 11·2 lakhs were fallen and 4·8 lakhs slaughtered.¹ Making a deduction of 2 per cent for the States the number of fallen and slaughtered pieces in 1935 was 11 lakhs and 4·7 lakhs, the total being 15·7 lakhs. The production of buff hides in the same year in the United Provinces and States was 3·7 lakh fallen and 1·9 lakh slaughtered pieces, the total being 5·6 lakhs.² Making a deduction of 2 per cent for the States the figures for the United Provinces would be 3·6 lakh and 1·9 lakh fallen and slaughtered pieces, the total being 5·5 lakhs.

¹ *Report on the Marketing of Hides in India and Burma, 1943*, p. 7.

² *ibid.*, p. 9.

It is clear that when the total number of cows, bulls, bullocks and calves was 231·7 lakhs, the number of fallen pieces was 11 lakhs. It formed about 4·7 per cent of their population. In the case of buffaloes and their young stock the number of fallen pieces was 3·6 lakhs when their population was 92·9 lakhs *i.e.*, the number of fallen pieces was 3·9 per cent of the population.

Now assuming that the production of fallen pieces of kips and buff hides bears the percentage of 4·7 and 3·9 to the respective population of livestock, we find that in 1921-22, 1931-32 and 1938-39 the number of kips would be 10·5, 10·8 and 11·0 lakhs and the number of buff hides 3·0, 3·4 and 3·8 lakhs respectively. There were 4·7 lakh slaughtered pieces of kips and 1·9 lakh slaughtered pieces of buff hides. They formed 2·1 per cent of the cows, bulls, bullocks etc., and 2·0 per cent of the buffaloes, young stock etc. If we assume that the slaughtered pieces of kips and buff hides bore the same ratio to their respective population in 1921-22, 1931-32 and 1938-39 as in 1935, we obtain 4·7, 4·8 and 4·9 lakh slaughtered pieces of kips and 1·5, 1·7 and 1·9 lakh slaughtered pieces of buff hides in the three respective years.

Adding the number of fallen pieces to the slaughtered ones we find that the number of kips in 1921-22, 1931-32 and 1938-39 would be 15·2, 15·6 and 15·9 lakhs respectively. The number of buff hides in the same years would be 4·5, 5·1 and 5·7 lakhs respectively (Table 54).

The annual production of goat skins in U. P. and States in 1935 was 53·2 lakhs, out of which 41·1 lakhs were slaughtered and 12·1 lakhs fallen pieces.¹ Making a deduction of 2 per cent for the States the fallen and slaughtered pieces for the United Provinces would be 40·3 and 11·9 lakhs. The fallen pieces bore a percentage of 15·0 to goat population in the Province.

¹ *The Marketing of Skins in India and Burma* p. 5.

The number of fallen pieces of sheep skins in 1935 was 3.3 lakhs for the United Provinces and States. The number for U. P. would be 3.2 lakhs if we make a deduction of 2 per cent for the States. Therefore, the number of fallen pieces was 15.5 per cent of the sheep population in U. P. If the percentages of fallen pieces of goat and sheep skins in U. P. for 1935 hold good for 1921-22, 1931-32 and 1938-39, the number of fallen pieces of goats for these three years would be 6.8, 10.3 and 13.1 lakhs respectively. The number of fallen pieces of sheep skins for these years would be 3.5, 3.4 and 3.0 lakhs respectively.

TABLE 54

Showing the Number of Hides and Skins
(Figures in Lakhs)

Description	1921-22	1931-32	1938-39
Slaughtered Fallen	<i>Kips</i>		
	4.7	4.8	4.9
	10.5	10.8	11.0
Total	15.2	15.6	15.9
Slaughtered Fallen	<i>Buff Hides</i>		
	1.5	1.7	1.9
	3.0	3.4	3.8
Total	4.5	5.1	5.7
Slaughtered Fallen	<i>Goat Skins</i>		
	23.0	34.7	44.5
	6.8	10.3	13.1
Total	29.8	45.0	57.6
Slaughtered Fallen	<i>Sheep Skins</i>		
	14.9	14.2	12.8
	3.5	3.4	3.0
Total	18.4	17.6	15.8

The number of goats and sheep slaughtered in 1935 in U. P. and States was 41·1 lakhs and 13·7 lakhs. Deducting the share of the States, their number for the United Provinces would be 40·3 lakhs and 13·4 lakhs respectively. The goats slaughtered formed 50·8 per cent of the goat population and sheep slaughtered 64·8 per cent of sheep population. If the number of slaughtered goats in 1921-22, 1931-32 and 1938-39 bore the same ratio to total goat and sheep population as in 1935, the number of the slaughtered goats in the three respective years would be 23·0, 34·7 and 44·5 lakhs and of the slaughtered sheep 14·9, 14·2 and 12·8 lakhs.

We would now calculate the value of these pieces of hides and skins. The declared value of raw goat skins exported from India in 1921-22 and 1931-32 per 100 pieces was Rs. 138/- and Rs. 125/- respectively.¹ For sheep skins the figures of declared value of export for these years were Rs. 100/- and Rs. 69/- only. For 1938-39 the average annual price of raw goat and sheep skins per 100 pieces was Rs. 94/- and Rs. 47/- respectively. On the basis of these prices the value of goat skins for the three different years would be Rs. 41·1, 56·2 and 54·1 lakhs and of sheep skins Rs. 18·4, 12·1 and 7·4 lakhs respectively (Table 55).

The declared value of raw hides exported from India was Rs. 26/14/-, Rs. 20/9/- and Rs. 24/3/- per md. of kips (of the average weight of $4\frac{1}{2}$ seers each) and Rs. 19/3/-, Rs. 17/12/- and Rs. 25/2/- of buff hides (of the average weight of $6\frac{1}{4}$ seers each) for the years 1921-22, 1931-32 and 1938-39 respectively. On calculation we find that the price of kip per piece was Rs. 3·0, 2·3 and 2·7 and the price of buff hide per piece Rs. 3·0, 2·8 and 4·0 respectively in 1921-22, 1931-32 and 1938-39. On the basis of these prices the value of kips was Rs. 45·6, 35·9 and 42·93 lakhs and of

¹ See *Review of Foreign Trade of India for 1931-32 and 1938-39; Inland Trade of U. P., 1921-22.*

buff hides Rs. 13.5, 14.3 and 22.8 lakhs respectively. The total value of raw hides and skins in 1921-22, 1931-32 and 1938-39 was Rs. 118.6, 118.5 and 127.2 lakhs respectively.

Bones

There are no statistics of bone production. Only the figures of bones exported are available from *Inland Trade in U. P.* The total amount of bones exported from the United Provinces in 1938-39 was 4,72,575 maunds. If we assume 'home consumption' to be 2.5 times the export from the Province, we find the net product to be nearly 16 lakh maunds.¹ The figure for 1931-32 would be nearly 14.0 lakh maunds, and for 1921-22 about 9 lakh maunds. The declared value of bones exported² in 1938-39 and 1931-32 was Rs. 2/6/5 and Rs. 3/- per maund. The price of bones imported in U. P. by rails in 1921-22 was one rupee per maund.³ Thus the total value of bones used or exported in 1921-22, 1931-32 and 1938-39 would be nearly Rs. 9.0, 42.0 and 38.8 lakhs respectively. It may be stated that on account of religious sentiments a large portion of bones is not at all utilized in the United Provinces.

Wool and Hair

The production of wool per animal depends upon the topography, rainfall, available pasture land and the breed of the animal. All these factors vary widely from region to region and even from district to district and hence the quantity of wool produced per clip is also bound to vary. The statistics of wool production are not complete. The *Report on the Marketing of Wool and Hair in India* published in 1946 is the only available

¹ Assumption made in consultation with the bone exporters and agriculturists.

² *Trade Review of India for 1931-32 and 1938-39.*

³ *Rail and River Borne Trade (Inland) in U. P. 1921-22.*

literature on the subject so far as U. P. is concerned, in which attempts have been made to estimate the production of wool and hair in U. P. A detailed survey of U. P. has revealed that in the Province the sheep are generally shorn twice a year, and the production of wool per adult sheep works out nearly 3 lbs.¹ It has been observed that the average annual yield of wool per clipped lamb works out 1.5 lbs., the lambs forming nearly 22.2 per cent of the total sheep population in 1935. Further, 95 per cent of the adult sheep and 75 per cent of lambs were clipped for wool. In the case of camels nearly 80 per cent were clipped and average yield per clip was nearly 2 lbs. In the case of goats very few, i.e., nearly 0.3 per cent were clipped and yield per clip was 1.25 lbs.² On the basis of these data we may now estimate the production of wool, goat hair and camel hair and find it as given in Table 56.

In order to calculate the value of wool and hair we have to find out their prices which are, however, not available. From the *Marketing Report on Wool and Hair* we find that in 1940 the price of wool per maund in India varied between Rs. 28/- and Rs. 38/-. Sheep in U. P. do not yield superior quality of wool and we can, therefore, very reasonably assume that in 1940 the price of wool was not far from Rs. 28/- per maund or more precisely it was nearly Rs. 28/- per maund. In 1940 the prices were nearly 25 per cent higher than those in 1938. We can bring the price of wool in 1940 to the level of 1938 and find it to be Rs. 21/- per maund or in other words annas 4 per lb. In 1931 the average wholesale price in India was annas 3 per lb. as is given by Dr. Rao. These figures of prices of wool for 1938 and 1931 are quite in harmony with those of imported wool at annas 8 and annas 6 per lb. in 1938-39 and 1931-32 respectively. For 1921-22 we find from *Industrial*

¹ *Report on the Marketing of Wool and Hair in India*, 1946. p. 9.

² *ibid.*

TABLE 56

Showing the Yield of Wool in U. P.

Description	Estimated Number in thousands			Percentage Clipped	Average Yield per head (lbs.)	Yield in thousand lbs. in		
	1921	1931	1938			1921	1931	1938
Adult sheep	} 2,287	2,199	1,973	95.0	3.0	4,876.0	4,575.0	
Lambs				75.0	1.5	529.0	493.0	
Goats	4,518	6,837	8,755	0.3	.33 (pulled up wool)	169.0	146.0	
Camels	21	27	35	80.0	2.0	28.5	30.0	
						43.0	58.0	

Survey Reports that the price in different parts of U. P. varied between Rs. 16/- and Rs. 25/- per maund. We may take the mean of the two, i.e., Rs. 20/8/- per maund or annas -/4/- per lb. The price of wool in U. P. is again in harmony with the import price of wool at annas -/8/- per lb. In the case of goat hair the import price in 1938-39 was nearly 3·1 annas per lb. while the price of goat hair at Peshawar was Rs. 15/- per maund for grey, Rs. 17/- for black and Rs. 20/- for white.¹ The quality of goat hair may be definitely far better in Peshawar than that in U. P. Under the circumstances it would not be unreasonable to assume the price of goat hair in U. P. in 1938-39 to be 1·75 annas per lb. In 1931-32 the price of goat hair was nearly 25 per cent below that in 1938-39 and we may adopt the figure of annas -/1/3 for our purpose for this year. In 1921-22 the price of hair was generally $37\frac{1}{2}$ per cent higher than that in 1931-32 and we may therefore, adopt the figure of annas -/2/- per lb. for 1921-22. The price of camel hair in 1938-39 varied between Rs. 5/- and Rs. 6/- per maund at Panipat, one of the biggest centres for camel hair in India. In the absence of any other literature we may reasonably assume the figure of anna -/1/- per lb. as the price of camel hair in U. P. For 1931-32 and 1921-22, taking into account the changes in prices from 1921 to 1939, we may adopt the figures of pies -/-/9 and anna -/1/- per lb. respectively for evaluating the camel hair. We may now calculate the value of wool and hair in U. P. as shown in Table 57.

Increment to Livestock

In Table 51 we have already given figures of increase in stock of different classes of cattle. At the average rate of Rs. 50/- per pair of bullocks, Rs. 40/- per she-buffalo, Rs. 20/- per male buffalo, Rs. 20/- per cow, Rs. 10/- per calf and Rs. 7/- per goat or sheep, we get Rs. 50·8

¹ *cf. Marketing Report on Wool and Hair in India, 1946, pp. 18 and 54.*

TABLE 57

Showing the Value of Yield of Wool and Hair in U. P.

Description	Yield in thousand lbs. in			Price per lb. in			Value of Yield in thousand rupees in		
	1921-22	1931-32	1938-39	1921-22	1931-32	1938-39	1921-22	1931-32	1938-39
Wool	5,811·0	5,568·0	5,214·0	-/4/-	-/3/-	-/4/-	1,452·7	1,044·0	1,303·5
Goat hair	15·0	28·5	30·0	-/2/-	-/1/3	-/1/9	1·9	2·4	3·3
Camel hair	33·0	43·0	58·0	-/1/-	-/9	-/1/-	2·1	2·0	3·6
Total	5,859·0	5,639·5	5,302·0	—	—	—	1,456·7	1,048·4	1,310·4

lakhs as the value of increment to livestock in 1931-32. At the average rate of Rs. 40/- per pair of bullocks, Rs. 30/- per she-buffalo, Rs. 15/- per male buffalo, Rs. 15/- per cow, Rs. 7/8/- per calf and Rs. 5/- per goat or sheep we get Rs. 38·4 lakhs as the value of increment to livestock in 1938-39. The prices of animals in 1921-22 were much higher than those in 1938-39 or in 1931-32. At the average rate of Rs. 70/- per pair of bullocks, Rs. 50/- per she-buffalo, Rs. 25/- per male buffalo, Rs. 25/- per cow, Rs. 13/- per calf and Rs. 9/- per goat or sheep, we get Rs. 158 lakhs as the value of increment to livestock in 1921-22.¹

Table 58 gives the value of livestock products in U. P. The gross value of livestock products was Rs. 7,049·8, 4,176·4 and 4,632·2 lakhs in 1921-22, 1931-32 and 1938-39 respectively subject to an error of ± 8 per cent. To arrive at the net value we have to make deductions on account of fodder and concentrates given to the she-buffaloes, cows, goats etc., if any. The goats and sheep are rarely fed anything. Even the cow has to depend upon the little quantity of grass which it can pick up from the fields and grazing lands during the day. It is only in the case of better breeds of cows that some fodder is given to them. Generally these are the she-buffaloes which get fodder as well as concentrates specially when they are in milk. In the dry period these too have to depend upon the pasture or the grazing land. It has further been observed during investigations in the Province that the quantity of concentrates given is more in the western districts of U. P. and less or almost insignificant in the eastern districts. This is more or less due to lack of better breeds in the eastern part and the poverty of the people in general. The quantity of fodder and concentrates given also depends upon the size of the buffalo. A *murrah* breed buffalo is generally

¹ The prices of milch animals are specially regulated by the prices of their milk all over U. P. We have calculated the prices for 1921-22 and 1938-39 on this basis.

given concentrates all over the Province while the local breed is given a small quantity in the western and very little or almost nil in the eastern districts—the quantity varying from 1 seer to nothing. On an average we find that 8 seers of dry straw and 6 *chattacks* of concentrates are given during a day to a buffalo in the lactation period.¹ At any time there will not be more than 50 per cent of the total number of buffaloes in milk. Calculating on this basis and taking the value of dry roughage at the harvest prices, viz., annas -/14/- per maund for 1921-22, annas -/5/4 for 1931-32 and annas -/8/- for 1938-39 we find it worth Rs. 1,004·8, 459·2 and 794·2 lakhs for the three years respectively. The value of concentrates at the rate of Rs. 4/- per maund for 1921-22, Rs. 1/12/- per maund, for 1931-32 and Rs. 2/8/- per maund for 1938-39 would be nearly Rs. 215·5, 113·1 and 186·2 lakhs for the three respective years. Thus the total value of roughage and concentrates given to milch cattle etc. was Rs. 1,220·3 lakhs in 1921-22, Rs. 572·3 lakhs in 1931-32 and Rs. 980·4 lakhs in 1938-39.

TABLE 58

Showing the Value of Livestock Products in U. P. in
Lakhs of Rupees

Description	Value in		
	1921-22	1931-32	1938-39
Milk ...	6,330·7	3,596·3	3,949·8
Meat, blood, horns, tips etc. ...	409·6	355·7	436·9
Hides and skins ...	118·6	118·5	127·2
Bones ...	9·0	42·0	38·8
Wool ...	14·6	10·5	13·1
Increment to livestock ...	158·0	50·8	38·4
Total	7,040·5	4,173·8	4,604·2

¹ These remarks are based on the investigations conducted in different villages in U. P.

Thus the net income from livestock was Rs. 5,820·2, 3,601·5 and 3,623·8 lakhs in 1921-22, 1931-32 and 1938-39 respectively subject to an error of ± 8 per cent.

In the next chapter we proceed to discuss the income from fishing and hunting, forests, straw and bamboos used in thatching and income from mineral resources.

CHAPTER VII

VALUE OF FISHING, HUNTING ETC.

Value of Fishing and Hunting

FROM the *Marketing Report on Fish in India* we find the production of fishes in U. P. in 1944 to be 1,47,000 maunds valued at Rs. 22.7 lakhs. The same figures of production seem to hold good for 1941, out of which 7.1 thousand maunds are caught by non-professional fishermen and consumed by themselves, and 139.9 thousand maunds are available for sale. These are supposed to be consumed by 35,928 thousand inhabitants of U. P. who have no objection to taking fish.¹ Thus the per capita consumption on the basis of number of persons who eat fish comes to 0.32 lb. and on the basis of total population 0.2 lb. Assuming the habits of people for consuming fishes to be the same in 1921, 1931 and 1938 as in 1941, we find the consumption of 110.7, 120.5 and 122.8 thousand maunds of fishes available for sale. To this we may add 5.5, 6.0 and 6.1 thousand maunds consumed by the non-professional fishermen who catch them. Thus the total production of fishes in 1921, 1931 and 1938 would be nearly 116.2, 126.5 and 128.9 thousand maunds respectively. Now we may calculate the value of fishes produced. In 1938-39 the producer's price of fish varied between Rs. 1/6/- and Rs. 2/- per maund. We may adopt the figure of Rs. 1/12/- per maund and find the value of fishes to be Rs. 2.3 lakhs. In 1931-32 on account of depression the ruling price varied between Re. 1/- and Rs. 1/8/- per maund. We may adopt the figure of Rs. 1/8/- per maund and find the value of fishes produced to be Rs. 1.9 lakhs. In 1921-22 due to high prices the average price of fishes was Rs. 3/4/- per maund and the total value of fishes produced was, therefore, Rs. 3.6 lakhs.

¹ cf. *Marketing Report on Fish in India*, 1946, p. 42.

No figures for hunting are available. We find from the *Census Report* that there were 2,159 principal male and 83 female earners in 1931-32. We may credit them with an average annual income of two-thirds of that of a fisherman. This gives us Rs. 0.45, 0.2 and 0.3 lakh as the net annual income of those engaged in hunting in 1921-22, 1931-32 and 1938-39 respectively. Thus the total value of output of those engaged in fishing and hunting was nearly Rs. 4.0, 2.1 and 2.6 lakhs in the three respective years. These figures are subject to an error of ± 15 per cent.

Forests

The income from forests in 1921-22, 1931-32 and 1938-39 was Rs. 86.0, 47.0 and 54.0 lakhs respectively.¹

Bamboos and Straw for Thatching

There is sufficient quantity of thatching material obtained from forests and other places which also has to be taken into account. Thatches are mostly used in the central and western U. P. On a rough estimate it can be said that thatches are required for nearly one-third of the total number of villages in the United Provinces. Each thatch can be used for a period of nearly three years. Thus we find that thatches are needed every year for the one-ninth of the total number of villages in U. P. Every such village of an average population of 500 persons or 100 families requires 200 thatches prepared out of 40,000 small bundles of straw every year. The total value of straw required at the rate of 40 bundles a rupee in 1921-22, 100 bundles a rupee in 1931-32 and 70 bundles a rupee in 1938-39 would be nearly Rs. 111.1, 44.4 and 63.4 lakhs. An equal sum may also be added for the value of bamboos grown in rural areas. Thus the total income from

¹ See *Forest Administration Reports, U. P.* for 1921-22, 1931-32 and 1938-39.

this source would be nearly Rs. 222·2, 88·8 and 126·8 lakhs in 1921-22, 1931-32 and 1938-39 respectively.

The total income from forests and material for thatching would amount to Rs. 308·2, 135·8 and 180·8 lakhs in 1921-22, 1931-32 and 1938-39 respectively.

Mineral Resources

The United Provinces are very poor in mineral resources when compared to other provinces. Table 59 gives the income from mineral resources in 1921-22, 1931-32 and 1938-39.¹

The total income from various sources dealt in this chapter amounts to Rs. 328·7, 147·0 and 208·2 lakhs in 1921-22, 1931-32 and 1938-39 respectively.

TABLE 59
Showing the Value of Minerals in U. P.

Description	Value in rupees in		
	1921	1931	1938
Gold ...	—	264	260
Sandstone ...	4,905	3,103	725
Limestone and <i>kankar</i> ...	2,40,255	5,52,336	6,91,535
Slate ...	5,851	4,139	180
Clay ...	—	—	609
Steatite ...	13,440	6,183	719
Saltpetre ...	13,85,340	3,42,916*	67,487
Ochre ...	—	560	—
Gypsum ...	—	—	3,330
Granite ...	—	—	1,31,565
Building material and metal ...	—	—	15,88,380
Total ...	16,49,791	9,09,501	24,84,790

*Output of saltpetre was 2,135 cwts. and it is valued at the export price.

¹ Figures for these years are not available. We have used the figures for 1921, 1931 and 1938 for our calculation.

We have now completed our calculation of the net value of the output of all agricultural and allied occupations in the United Provinces. We have made use of the *Inventory* or *Production* method in calculating the income of all the workers employed therein. We shall now proceed to make use of the *Census* or *Income* method to estimate the income of the remaining workers.

CHAPTER VIII

INCOME ASSESSED TO INCOME-TAX

WE have so far discussed the method of calculating income of the majority of earners of the United Provinces, that is those engaged in the Exploitation of Animals and Vegetation. We will now discuss the method adopted in the case of the remaining earners engaged in occupations other than those described above.

There are a large number of persons who are following non-agricultural subsidiary occupations in addition to their principal ones. We will divide these income receivers into two groups viz., (i) those who pay income-tax and, therefore, whose income has been Rs. 2,000/- or more in 1938-39 and 1921-22 and Rs. 1,000/- or more in 1931-32 and (ii) those who do not pay income-tax and, therefore, have an income of less than Rs. 1,000/- a year in 1931-32 and less than Rs. 2,000/- a year in 1921-22 and 1938-39. We shall calculate the income of the former with the help of income-tax statistics, and of the latter, except for persons returning as their occupation service under the Government of India, the Provincial Government, Local Authorities, Posts and Telegraphs and Railways, with our estimates of average earnings by workers in each major occupational group. By aggregating the incomes of these two sections we obtain the income of non-agricultural workers in U. P.

For the calculation of income in 1938-39 and 1931-32 we are using the income-tax statistics of 1939-40 and 1932-33, except in the case of salaries whose statistics we have used for 1938-39 and 1931-32, because, under the Indian Income-tax Act, the basis of assessment is the income of the previous year (except in the case of salaries which are assessed for the current year). That is, the income assessed to tax in 1939-40 and 1932-33

is the income accruing to the assesseees in 1938-39 and 1931-32. For 1921-22 we have been compelled to use the statistics of income-tax of 1923-24 as this was the first year after the reorganisation of the Income-tax Department for which reliable statistics of U. P. were published in the *U. P. Income-Tax Returns*.

The total income assessed to tax in 1923-24, 1932-33 and 1939-40 (the salaries being for 1923-24, 1931-32 and 1938-39) was Rs. 1,832, 1,636 and 1,547 lakhs respectively as shown in Table 60.

TABLE 60

Showing the Total Income Assessed to Income-Tax in Lakh Rupees

Description	Income Assessed to Income-tax in		
	1923-24	1932-33	1939-40
1. Salaries	314	421	566
2. Interest on securities	49	33	28
3. Profits of companies	523	173	249
4. Profits of registered firms	74	22	6
5. Income of Hindu undivided families	180	594	373
6. Profits of unregistered firms	692	83	64
7. Income of associations of individuals		15	13
8. Income of individuals other than from salaries		295	248
Total	1,832	1,636	1,547

The total number of assesseees in possession of these incomes were 27,378, 43,861 and 26,650 in 1922-23, 1931-32 and 1938-39 respectively. This number is not, however, equal to the total number of tax-payers. In actual practice the legal word "assessee" means, sometimes, more than one person. The Hindu undivided family may consist of a number of earners, and so also the registered firms, unregistered firms and associations

of individuals. Thus it is essential for us to find out the actual number of earners paying income-tax and their distribution among different occupations in order to avoid double counting.

From Return IX of the *United Provinces Income-Tax Return* we obtain the number of assesseees separately for each class for 1931-32 and 1938-39 as given below.

TABLE 61

Description	Number of Assesseees paying Income-tax in	
	1931-32	1938-39
Salaries	12,664	13,702
Companies	117	190
Registered firms	60	157
Unregistered firms	2,154	884
Hindu undivided families	18,477	6,721
Associations of individuals	557	202
Individuals	9,832	4,804
Total	43,861	26,660

We have no classified statistics of assesseees for 1922-23 except their total number. Keeping in view the inflationary conditions prevailing in 1922-23 and the statistics available for 1938-39 we may estimate the number of each class of assesseees on the basis of their income assessed to income-tax in 1922-23. The following is our estimate for 1922-23:—

Salaries	...	7,600
Companies	...	70
Registered firms	...	48
Unregistered firms	...	1,200
Hindu undivided families	...	6,160
Associations of individuals	...	150
Individuals	...	12,150
Total		27,378

But some of these assesseees have been counted twice over (such as those receiving income from the ownership of the companies as well as from other sources), while some have been under-estimated (such as registered firms, unregistered firms, Hindu undivided families and associations of individuals). Thus in order to find out the total number of earners paying income-tax we should strike off the number of assesseees under the heading 'companies'.¹ For calculating the number of earners in U. P., we had the opportunity of having a detailed discussion with the Income-tax Commissioner, U. P., and came to the conclusion that the average number of occupied persons paying income-tax in the case of registered and unregistered firms each is three and in the case of associations of individuals four. On this basis we find the income-tax payers to be 48,734, 1,05,274 and 49,321 in the three years 1922-23, 1931-32 and 1938-39 respectively (see Table 62).

Now we may distribute these income-tax payers over various occupations. Except for the salariat, the rest of the assesseees are obviously to be assigned to Industry, Trade and Professions and Liberal Arts. From Return I of the *U. P. Income-Tax Return* we find that out of Rs. 36,54,267 of income-tax assessed on salaries in 1938-39 a sum of Rs. 28,75,393 was paid by the Central and Provincial Governments including the Local Bodies, and Rs. 7,78,874 by companies, other public bodies, associations and private employers. We may assume that the amount of tax paid per person was the same for both the classes of salariat and estimate their number at 10,769 and 2,933. On the basis of the same assumption the number of tax payers under the two classes of salariat in 1931-32 was 8,382 and 4,280. For 1922-23 we may estimate the number of tax payers on the assumption that their ratio in the year under the two classes was the same

¹ The assesseees in the case of companies have already been included under salaries and their inclusion now would result in double counting.

TABLE 62
Showing the Number of Income-Tax Payers in U. P.

Description	1922-23	1931-32	1938-39
Salaries ...	7,600	12,664	13,702
Registered firms ...	48 x 3 = 144	60 x 3 = 180	157 x 3 = 471
Unregistered firms ...	1,200 x 3 = 3,600	2,154 x 3 = 6,462	884 x 3 = 2,652
Hindu undivided families ...	6,160 x 4 = 24,640	18,477 x 4 = 73,908	6,721 x 4 = 26,884
Associations of individuals ...	150 x 4 = 600	557 x 4 = 2,228	202 x 4 = 808
Individuals ...	12,150	9,832	4,804
Total ...	48,734	1,05,274	49,321

TABLE 63

Showing the Estimated Number of Income-Tax Payers in Various Occupations

(Figures in Thousands)

Description of Occupation	Estimated No. of Income-tax Payers in			Total Earners in each Occupation in			Estimated No. of Earners not paying Income-tax in		
	1921-22	1931-32	1938-39	1921-22	1931-32	1938-39	1921-22	1931-32	1938-39
Industry	21	48	19	2,261	2,809	2,916	2,240	2,761	2,897
Service of Government, ¹ Railways, Posts and Tele- graphs	6	8	11	269	267	284	263	259	273
Trade and other transports	20	44	17	692	1,101	1,282	672	1,057	1,265
Professions and liberal arts	2	5	2	140	247	260	138	242	258
Domestic service	—	—	—	375	438	475	375	438	475

¹ Out of the total number of persons employed in the Government service nearly 13·9, 19·5 and 19·1 thousands were returned in the Census Report as employed in Industry and 3·5, 5·2 and 4·1 thousands in teaching, law and medicine in 1921-22, 1931-32 and 1938-39 respectively.

as in 1938-39 and find them to be 5,874 and 1,726. The first of the two classes comprises not only the persons engaged in the service of the State and Local Bodies but also those employed in Railways, Posts and Telegraphs whose income was over Rs. 2,000/- per year in 1922-23 and 1938-39 and Rs. 1,000/- per year in 1931-32. The second group clearly relates to persons engaged in Industry, Trade and Professions¹. The combined total of income-tax payers belonging to these three occupations comes to 42,860, 96,892 and 38,552 in 1922-23, 1931-32 and 1938-39 respectively, and may be assigned to the Professions, Industry and Trade and Transport other than by State Railway and Posts and Telegraphs in the proportion of 1 : 10 : 9. Table 63 gives an estimate of the number of income-tax payers in each group.

In columns 5, 6 and 7 we have the statistics of total earners. By deducting the number of income-tax payers from the total of earners we get an estimate of the number of earners in each group whose incomes are below Rs. 2,000/- per year in 1921-22 and 1938-39 and below Rs. 1,000/- in 1931-32. In the next chapter we proceed to calculate the income of industrial workers whose earnings are below the income-tax exemption limit.

¹ The income-tax payers engaged in 'Professions' mainly belong to instructions, law and medicine and their proportion as given by the Income-tax Commissioner was 1 : 3 : 1.

CHAPTER IX

INCOME OF WORKERS ENGAGED IN INDUSTRY

WE have seen that there were 2,261, 2,809 and 2,916 thousand principal workers in 1921-22, 1931-32 and 1938-39 who obtained their income from Industry. Besides, there were 149, 199 and 193 thousand working dependants and 569, 658 and 670 thousand persons following industry as a subsidiary occupation in 1921-22, 1931-32 and 1938-39 respectively. Out of the total number of principal workers employed in Industry there were 21 and 19 thousands with an income above Rs. 2,000 in 1921-22 and 1938-39 and 48 thousands in 1931-32 with an income above Rs. 1,000. We have to estimate the income of the remaining 2,240, 27,761 and 2,897 principal earners in 1921-22, 1931-32 and 1938-39.

With a view to calculating the earnings of these workers it is essential for us to classify them into urban and rural workers as there are wide variations in the earnings in urban and rural areas. Further we must separate the skilled workers from the unskilled ones as there are also great differences in the earnings of these classes of workers. We will also classify the workers into those engaged in organised industry and handicrafts.

We have estimated the actual number of urban industrial workers in chapter IV to be 595, 739 and 767 thousands and that of rural industrial workers to be 1,666, 2,070 and 2,149 thousands in 1921-22, 1931-32 and 1938-39 respectively. The number of unskilled workers was not less than 17 and 24 per cent of the total industrial workers in 1921-22 and 1931-32 respectively (and nearly 23 per cent in 1938-39) as the persons returned under the census head, 'labourers and workmen otherwise unspecified' are likely to be

mostly unskilled workers. Besides, a part of the number returned under 'Industry' proper must also be unskilled workers. On the whole we may estimate the number of unskilled workers to be not less than 25 and 33 per cent in 1921-22 and 1931-32 respectively. The figures for 1938-39 would be in the neighbourhood of 32 per cent. This includes the unskilled workers who are engaged in organised industry such as the majority of the workers employed in gins and presses and in rice and flour mills and 75 per cent of the workers employed in glass factories¹ and sugar mills,² 40 per cent of the workers in tea gardens³ and 70 per cent of the workers in ordnance factories,⁴ majority of the workers engaged in food industries and nearly 10 per cent of the remaining workers employed in organised industry. The total number of unskilled workers engaged in registered factories is likely to be 25,791, 36,130 and 70,882 in 1921-22, 1931-32 and 1938-39 respectively. As all these unskilled workers are located in towns, the unskilled workers engaged in organised industry can all be said to be urban workers. The majority of the workers engaged in industry and paying income-tax reside in towns. To be on the safe side we may assume 1,000, 2,500 and 1,000 in 1921-22, 1931-32 and 1938-39 as residing in rural areas. Now we may estimate the classified statistics of industrial workers, which are given in Table 64.

We have already taken into account in the last chapter the income of industrial workers who pay income-tax. With regard to workers engaged in organised

¹ In 1938-39 and 1946-47 in the Ganga Glass Works, Balawali, there were 273 and 731 unskilled workers out of the total of 358 and 998 employed in the factory in the two respective years.

² In 1938-39 and 1946-47 in the Simbhaoli Sugar Mill Ltd. (Meerut) the number of unskilled workers was 502 and 715 out of a total of 616 and 1,000 in the two respective years.

³ In 1931-32, 1938-39 and 1946-47 in Gorakhpore Tea Estate, Dehradun, there were 21, 23 and 12 unskilled workers out of a total of 49, 47 and 28 in the three respective years.

⁴ In 1946-47 in the Ordnance Depot, Allahabad, there were 75% unskilled workers of the total employed.

TABLE 64

Showing the Distribution of Workers Engaged in Industry in Urban and Rural Areas

(Figures in Thousands)

Description	1921-22		1931-32		1938-39		
	Urban	Rural	Urban	Rural	Urban	Rural	
	Total	Total	Total	Total	Total	Total	
Earners with income above Rs. 1,000/- in 1931-32 and Rs. 2,000/- in 1921-22 and 1938-39 ...	20.0	1.0	45.5	2.5	18.0	1.0	19.0
Workers in organised industry including unskilled workers employed therein	69.4	—	93.2	—	155.1	—	155.1
Independent artisans and other skilled workers ...	429.0	1,202.2	467.4	1,309.5	494.5	1,385.2	1,879.7
Other unskilled workers ...	141.9	397.5	234.3	656.6	226.8	635.4	862.2
Total ...	660.3	1,600.7	840.4	1,968.6	894.4	2,021.6	2,916.0

industry¹ we shall make use of the figure of workers and their earnings as available from the *Report on the Working of the Payment of Wages Act 1936 for the years 1939 and 1939-46*², the Inquiry into the Family Budgets of Industrial Workers in 1930 and 1938-39, the elaborate *ad hoc* inquiry conducted by us into industrial earnings and the figures of earnings collected by Dr. Rao for the year 1931-32. As regards the independent artisans such as tailors, blacksmiths, potters, weavers, cobblers etc., and other skilled workers, the value of their contribution is generally equal to the value of their labour services, especially when they do not employ power and use their own capital. We shall make use of the *ad hoc* inquiry into the earnings of skilled workers in urban areas for this purpose. For estimating the income of the unskilled workers we will use the figures obtained by us from various factories for the purpose.

As regards the rural workers employed in industrial occupations we shall make use of the estimates of earnings of rural craftsmen from our village studies in U. P. and from the *Provincial Report on Handloom Weaving Industry in U. P., 1934*, and *An Inquiry into the Earnings of Rural Workers in U. P., 1947*. For unskilled labour in U. P. we shall make use of the information available to us from the village studies made by us in U. P.

Earnings of Workers in Organised Industry

Before the year 1939 there was no wage census in any sense of the term. In 1939 for the first time the earnings of workers in organised factories regulated by the Factories Act of 1934 were recorded under the Payment of Wages Act of 1936. Since then every year this data is collected. As our study relates to the

¹ Their number is given in Tables 65 and 66.

² For details see Tables 67, 68, 69 and 70. (Data collected from U. P. Labour Commissioner's Office, Kanpur).

TABLE 65

Showing the Number of Factories other than the Government and Local Fund Factories and the Average Number of Persons employed Daily Therein

Description	1921		1931		1938	
	No. of Factories	No. of Workers	No. of Factories	No. of Workers	No. of Factories	No. of Workers
<i>Perennial Groups</i>						
<i>I. Textile</i>						
Cotton (spinning, weaving and other factories) ...	18	18,534	21	29,319	26	42,834
Hosiery ...	—	—	—	—	7	325
Jute mills ...	1	—	—	1,065	3	6,133
Silk mills ...	—	—	1	—	2	35
Woollen mills ...	1	2,995	4	1,485	3	2,381
Miscellaneous ...	1	52	3	185	4	214
Total ...	21	21,541	29	32,054	45	51,922
<i>II Engineering</i>						
Coach building and motor car repairing ...	—	—	5	152	5	207
Electrical engineering ...	—	—	—	—	1	25
Electrical generating and transforming stations ...	—	—	8	953	10	1,222

General engineering	5	1,836	13	886	13	1,310
Metal stamping	—	—	1	38	1	51
Railway workshops	5	9,250	5	3,883	6	3,730
Steel truck, locks and cutlery	1	61	2	333	1	471
Tramway works	1	125	1	120	—	—
Miscellaneous	—	—	3	40	6	126
Total	12	11,272	38	6,405	43	7,142
<i>III. Minerals and Metals</i>						
Foundries	1	290	8	240	11	411
Iron and steel smelting and steel rolling mills	—	—	—	—	4	76
Miscellaneous	1	61	1	36	2	23
Total	2	351	9	276	17	510
<i>IV. Food, Drink and Tobacco</i>						
Breweries and distilleries	—	—	2	114	4	227
Dairy produce	1	70	1	71	1	72
Floor mills	6	741	12	781	12	886
Ice and aerated water	—	—	1	26	4	115
Rice mills	1	53	—	—	10	591
Sugar	11	3,036	—	—	7	1,557
Tobacco	—	—	1	364	2	822
Miscellaneous	—	—	1	46	4	494
Total	19	3,900	18	1,402	44	4,764

TABLE 65 (contd.)

Description	1921			1931			1938		
	No. of Factories	No. of Workers	No. of Factories	No. of Workers	No. of Factories	No. of Workers	No. of Factories	No. of Workers	
	V. <i>Chemicals, Dyes etc.</i>								
Bones and manures	1	107	1	210	2	536			
Chemicals	—	—	1	240	3	243			
Dyeing and bleaching	—	—	2	172	2	213			
Gas works	—	—	1	36	2	64			
Matches	—	—	2	885	6	1,166			
Oil mills	9	782	21	2,325	21	3,247			
Soaps	—	—	—	—	1	14			
Turpentine and rosin	—	—	1	95	1	190			
Miscellaneous	—	—	1	94	1	161			
Total	10	889	30	4,057	39	5,834			
VII. <i>Paper and Printing</i>									
Paper mills	1	668	1	712	3	1,426			
Printing, book-binding etc.	6	1,479	27	2,273	36	2,627			
Miscellaneous	—	—	—	—	1	45			
Total	7	2,167	28	2,985	40	4,098			

VII. Processes relating to Wood, Stone and Glass

Bricks and tiles	...	—	1	18	—	—
Carpentry and cabinet making	...	—	1	433	4	308
Cement, lime and potteries	...	—	4	67	3	41
Glass	...	—	16	1,725	47	4,219
Saw mills	...	—	—	—	1	21
Miscellaneous	...	—	2	317	3	485
Total	...	...	24	2,170	58	5,074

VIII. Processes connected with Skins and Hides

Leather and shoes	6	4,381	3	2,079	5	2,978
Tanneries	4	643	5	674	7	1,444
Total	10	5,024	8	2,753	12	4,422

IX. Gins and Presses

Cotton ginning and baling	...	—	—	—	20	1,843
Jute presses	...	—	—	—	—	61
Total	...	...	...	...	21	1,904

X. Miscellaneous

Brushes	2	438	2	478	1	164
Miscellaneous	—	—	1	80	2	173
Total	2	438	3	558	3	337
Total of Perennial Factories	83	45,582	187	52,660	322	86,007

TABLE 65 (contd.)

Description	1921		1931		1938	
	No. of Factories	No. of Workers	No. of Factories	No. of Workers	No. of Factories	No. of Workers
<i>I. Food, Drink and Tobacco</i>						
	<i>Seasonal Groups</i>					
Rice mills	—	—	6	368	—	—
Sugar	1	170	61	9,592	74	43,631
Tea	—	—	14	1,060	16	847
Total	1	170	81	11,020	90	44,478
<i>II. Gins and Presses</i>						
Cotton ginning and baling	111	9,558	105	9,876	59	5,420
Jute presses	1	170	2	120	1	74
Total	112	9,728	107	9,996	60	5,494
Total of Seasonal Factories	113	9,898	188	21,016	150	49,972
Grand Total	196	55,480	375	73,676	472	1,35,979

TABLE 60
Showing the Number of Government and Local Fund Factories and the Average Number of Persons Employed Daily Therein

Description	1921			1931			1938		
	No. of Factories	No. of Workers	No. of Factories	No. of Workers	No. of Factories	No. of Workers	No. of Factories	No. of Workers	
		<i>Perennial Group</i>							
Army clothing department	1	871	1	1,463	1	1,422	1	1,422	
Arsenals	1	416	—	—	—	—	—	—	
Carpentry	2	635	2	500	2	462	2	462	
Cotton mills	—	—	1	141	1	128	1	128	
Engineering (general)	5	673	7	588	6	550	6	550	
Leather works	1	1,696	—	—	—	—	—	—	
Ordinance factories	1	100	2	1,697	2	3,214	2	3,214	
Printing presses	4	2,088	4	1,844	5	1,792	5	1,792	
Railway workshops	2	6,258	17	11,486	16	9,112	16	9,112	
Saw mills	1	270	1	190	1	40	1	40	
Water pumping stations	4	595	6	528	6	646	6	646	
Miscellaneous	1	320	8	1,110	10	1,228	10	1,228	
Total	23	13,922	49	19,547	50	18,594	50	18,594	
	<i>Seasonal Group</i>								
Forge presses	—	—	—	—	6	324	6	324	
Miscellaneous	—	—	—	—	2	188	2	188	
Total	...	...	...	...	8	512	8	512
Grand Total	23	13,922	49	19,547	58	19,106	58	19,106	

TABLE 67

Showing the Amount of Wages Paid to Factory Workers (Subject to the Payment of Wages Act, 1936) in U. P. in 1939

Description	Average Number of Workers	Total Amount of Wages Paid (thousand rupees)
<i>A. Government and Local Fund Factories</i>		
<i>Perennial Group</i>		
Army clothing	1,759	698.0
Carpentry	223	41.0
Cotton mills	99	1.1
Engineering (general)	466	69.7
Ordnance factories	4,691	1,022.7
Printing presses	1,784	605.1
Saw mills	40	19.3
Water pumping stations	714	135.3
Miscellaneous	938	93.2
Total	10,714	2,685.4
<i>Seasonal Group</i>		
Forage Presses	615	81.3
Miscellaneous	161	8.0
Total	776	89.3
<i>B. All Other Factories</i>		
<i>Perennial Groups</i>		
<i>I. Textiles</i>		
Cotton (spinning, weaving and other) factories	41,544	11,235.3
Hosiery	487	103.3
Jute mills	5,775	858.8
Silk mills	24	3.5
Woollen mills	2,362	594.7
Miscellaneous	197	17.4
Total	50,389	12,813.0

TABLE 67 (contd.)

Description	Average Number of Workers	Total Amount of Wages Paid (thousand rupees)
<i>II. Engineering</i>		
Coach building and motor car repairing	253	72.1
Electrical engineering	19	1.0
Electrical generating and transforming stations	1,543	475.4
General engineering	992	194.5
Metal stamping	45	9.6
Steel trunk, lock and cutlery	846	120.8
Miscellaneous	220	40.6
Total	3,918	914.0
<i>III. Minerals and Metals</i>		
Foundries	462	69.1
Iron and steel	349	46.9
Miscellaneous	52	7.8
Total	863	123.8
<i>IV. Food, Drink and Tobacco</i>		
Bakeries, biscuits and confectionery	—	—
Breweries and distilleries	190	28.7
Dairy produce	68	15.9
Flour mills	930	167.8
Ice and aerated water	88	21.3
Rice mills	617	52.7
Sugar	2,028	120.2
Tobacco	995	258.8
Miscellaneous	604	126.7
Total	5,520	792.1

TABLE 67 (contd.)

Description	Average Number of Workers	Total Amount of Wages Paid (thousand rupees)
<i>V. Chemicals and Dyes etc.</i>		
Bone and manures	520	46.9
Chemicals	181	31.9
Dyeing and bleaching	176	16.7
Gas works	82	19.2
Matches	1,067	221.2
Oil mills	3,033	424.5
Soaps	16	3.9
Turpentine and rosin	207	36.3
Miscellaneous	160	32.6
Total	5,442	833.2
<i>VI. Paper and Printing</i>		
Paper mills	1,397	276.3
Printing and book-binding etc.	2,500	530.6
Miscellaneous	42	5.8
Total	3,939	812.7
<i>VII. Processes Relating to Wood, Stone and Glass</i>		
Carpentry and cabinet making	377	49.8
Cement, brick and potteries	26	2.1
Glass	3,047	435.1
Saw mills	21	3.8
Miscellaneous	658	94.7
Total	4,129	585.5

IX INCOME OF WORKERS ENGAGED IN INDUSTRY 165

TABLE 67 (contd.)

Description	Average Number of Workers	Total Amount of Wages Paid (thousand rupees)
<i>VIII. Processes Connected with Skins and Hides</i>		
Leather and shoes	2,655	704.1
Tanneries	1,730	301.8
Miscellaneous	—	—
Total	4,385	1,005.9
<i>IX. Gins and Presses</i>		
Cotton ginning and baling	6,117	107.3
Total	6,117	107.3
<i>X. Miscellaneous</i>		
Brushes	201	47.6
Miscellaneous	165	4.1
Total	366	51.7
<i>Seasonal Groups</i>		
<i>I. Food, Drink and Tobacco</i>		
Sugar and tea	42,500	7,417.0
Miscellaneous	738	58.1
Total	43,238	7,475.1
<i>II. Gins and Presses</i>		
Cotton ginning	5,193	190.7
Jute presses	140	23.2
Miscellaneous	—	—
Total	5,333	213.9
<i>III. Miscellaneous</i>	Total	163
		18.4

TABLE 68

(Showing Average Annual Earnings of Factory Workers during 1939-46)

Year	Average Annual Earnings (Rs.)	Annual Nominal Wage Index
1939	175/4/2	100·0
1940	223/2/11	127·3
1941	241/13/6	137·9
1942	303/1/0	172·9
1943	411/6/2	234·7
1944	453/4/3	258·9
1945	493/1/2	281·3
1946	518/1/11	295·6

years 1921-22, 1931-32 and 1938-39, we made an ambitious attempt at a private wage census in the winter of 1947-48. We sent a circular letter and three printed forms to all the industrial establishments in U. P. employing over 20 workers. One form related to the earnings of industrial workers, the second to the details of the value of output and the third to the number and earnings of those paying income-tax. We thus sent our circular letter to 530 establishments including the concerns run by Government and Local authorities, names and addresses being obtained from the *List of Factories in the United Provinces*, registered under the Factories Act, 1934 (as corrected upto 1938). We received 103 replies out of which 52 were our circular letters and enclosures returned to us through the Dead Letter Office, as the addressees had either left or could not be discovered due to winding up of the concern. Nearly 41 replies were regrets and refusals, many of which tried to avoid answering our questions. Only 10 replies¹ included forms which had been filled up.

¹ Statistics were obtained from :

(a) Gopal Rai Govind Ram Cotton Ginning, Oil, Pulses and Rice Mill, Delhi Gate, Aligarh.

Of these we had to reject two forms due to incomplete information. These eight establishments employed 3,576, 2,241 and 5,174 workers in 1921-22, 1931-32 and 1938-39 respectively. Thus the data covered a very small fraction of the total industrial workers in the three years. Not being satisfied with too few statistics, we tried to approach Mr. Jackson, the Chairman of the Northern India Employers' Association, as we were advised by certain industrial establishments to approach him for they had supplied him information which we needed. Mr. Jackson advised us to approach the Chairman of the U. P. Labour Enquiry Committee as he had supplied information to him in a consolidated form. In case we were to face any difficulty we might, he said, approach him at a later stage. The Secretary of the Labour Inquiry Committee, however, appeared to be unable to supply us information except on a written advice from the Chairman of the Northern India Employer's Association to this effect. We tried to have an interview with Mr. Jackson for his permission but he was not courteous enough to grant one and when again requested on the 'phone' for the information he refused flatly to do anything. Being helpless we did not move further in the matter.

The statistics obtained by us after an *ad hoc* inquiry are not representative at all but they help us in having an idea of the relative earnings of the industrial workers

- (b) R. B. Amolak Chand Mewa Ram Cotton Ginning and Pressing Factory, Khurja.
- (c) Government Harness and Saddlery Factory, Kanpur.
- (d) The Simbhaoli Sugar Mills Ltd., Simbhaoli, Meerut.
- (e) Ordnance Depot, Allahabad.
- (f) Ganga Glass Works Ltd., Balawali, Dist. Bijnor.
- (g) The Western India Match Company Ltd., Bareilly.
- (h) Gorakhpore Tea Estate, Dehradun.
- (i) Udhiya Bagh Tea Estate, Udhiya Bagh, Dehradun.
- (j) The Lakshmi Khetan Sugar Mills Ltd., Lakshmiganj, Deoria.

TABLE 69
 Showing the Amount of Wages Paid in Various Industries Together with Average Number of Workers
 Employed Therein

Description of Industry	1944		1945		1946	
	Number of Workers	Wages in lakh rupees	Number of Workers	Wages in lakh rupees	Number of Workers	Wages in lakh rupees
Cotton mills	52,875	311.7	55,680	319.5	54,815	330.6
Ordnance factories	40,013	203.6	53,246	335.6	37,695	264.8
Sugar factories	43,687	128.3	34,597	99.4	38,960	112.4
Army clothing factories	8,130	42.8	7,636	50.5	4,051	28.7
Leather and shoes	9,152	60.2	7,496	49.4	5,850	35.5
Jute mills	8,356	35.1	7,363	29.0	7,442	32.5
Government engineering works	4,719	22.1	4,335	27.9	6,109	38.8
Woollen mills	4,601	25.2	4,600	24.4	4,150	24.4
Iron and steel works	3,823	20.6	3,950	23.4	2,542	15.6
Oil mills	5,486	19.0	5,551	21.9	5,340	23.5
Glass factories	5,476	15.4	6,041	18.8	6,337	25.9
Tanneries	3,380	16.1	3,455	15.2	3,806	17.9
Government printing presses	—	—	2,322	13.1	2,295	15.9
General printing and book binding	—	—	2,669	12.4	2,829	17.5
Tobacco factories	2,196	12.2	2,143	11.8	2,350	13.3
Electrical power works	1,839	10.6	1,895	11.4	1,895	14.7
General engineering	2,737	10.9	2,811	10.2	—	—
Paper mills	—	—	—	—	2,365	11.1

in some of the factories for the years under study and in making an estimate of the earnings of industrial workers with other available statistical data. From the data collected by us we obtained the average annual earnings of a worker not subject to income-tax as given in Table 71.

TABLE 71

Showing the Average Annual Wages of Workers
in Certain Industries

Nature of industry	Average wages per worker according to our inquiry			
	1921-22	1931-32	1938-39	1946-47
Cotton ginning and pressing	215	204	—	—
Tea plantations ...	276	240	280	405
Sugar factory ...	—	—	151	345
Match ...	—	230	222	990
Ordnance ...	—	—	199	316
Harness and saddlery ...	230	206	220	244
Glass ...	—	—	133	531

The average annual earnings of workers in organised industries in 1939 were Rs. 175/4/2 as is revealed from Table 68. *The Factory Administration Report* reveals that wages in 1938 were not lower than those in 1939 by more than 3 per cent. Thus the average earnings of a worker for 1938-39 would be nearly Rs. 170/-. On this basis the total wage bill for the year 1938-39 would be nearly Rs. 263·7 lakhs subject to an error of ± 10 per cent.

The average income of workers in the textile industry in Kanpur as obtained from the study of their family budgets¹ for 1938-39 was Rs. 20/5/8 per month

¹ Mr. J. K. Pande, the Economic Adviser to the U. P. Government was kind enough to furnish this information from an unpublished report.

TABLE 70

Showing Average Wage Industry-wise during 1939-46.*

Class of Industry	1939			1940			1941			1942			1943			1944			1945			1946			Percentage increase in 1946 over 1939
	Rs.	as.	p.	Rs.	as.	p.	Rs.	as.	p.	Rs.	as.	p.	Rs.	as.	p.	Rs.	as.	p.	Rs.	as.	p.	Rs.	as.	p.	
<i>Perennial</i>																									
1. Government and Local Fund ...	250	10	3	319	15	11	354	3	9	430	10	3	440	14	6	495	13	7	604	9	1	674	8	1	168.9
2. Textile ...	254	4	3	280	2	0	280	2	7	366	5	2	561	8	11	557	4	6	546	7	8	581	3	0	128.8
3. Engineering ...	233	4	6	280	12	0	250	4	9	319	10	6	411	3	7	470	0	4	481	3	5	598	9	1	156.1
4. Minerals and metals ...	143	7	10	172	8	6	182	8	2	253	3	6	356	11	5	495	10	10	527	15	6	598	6	2	318.2
5. Food, drink and tobacco ...	143	8	0	156	5	6	170	8	4	213	3	5	350	5	7	358	0	11	364	8	3	394	5	10	173.6
6. Chemical dyes etc. ...	153	1	8	168	5	0	170	3	5	207	9	10	296	4	7	359	6	10	406	10	3	441	2	3	188.2
7. Paper and printing ...	206	5	4	199	2	6	210	7	8	218	7	0	326	1	9	377	9	10	438	12	6	549	13	0	167.2
8. Wood, stone and glass ...	141	12	8	166	6	3	145	9	5	173	8	3	249	8	9	308	0	10	355	14	6	416	15	1	193.7
9. Skins and hides ...	229	6	3	278	8	3	324	10	11	404	8	2	598	1	10	609	8	2	589	13	7	552	13	9	141.5
10. Gins and presses ...	17	8	8	85	2	0	66	9	8	126	13	2	206	9	4	258	4	7	235	9	2	354	7	10	1,950.0
11. Miscellaneous ...	141	7	6	211	1	6	267	2	0	344	7	9	259	3	2	531	12	4	599	14	9	322	12	4	129.1
<i>Seasonal</i>																									
1. Food, drink and tobacco ...	103	8	0	142	4	2	135	11	0	162	11	6	217	7	1	290	8	0	284	1	8	285	6	9	174.0
2. Gins and presses ...	40	1	8	37	10	0	50	12	3	56	4	11	65	12	7	107	4	9	158	3	7	200	8	6	402.5

*See the Annual Report on the Working of the Payment of Wages Act, 1936, for the year 1946, Appendix II.

while that given in the *Report on the Working of the Payment of Wages Act of 1936 for the year 1939* was Rs. 21/3/-, which supports our adopting the figures for calculating the income of 1938-39. The *Labour Investigation Committee* appointed by the Government of India in September 1943 under the Chairmanship of Mr. D. V. Rege, I.C.S., also studied the earnings of industrial workers in India. In the case of the cotton textile (mill) industry at Kanpur from a wage census covering nearly 21,992 workers it was found that the average net earnings of a worker in March 1944 were Rs. 2/1/6 per day¹ as against Rs. 1/12/- for 1944 as obtained from the *Report on the Working of the Payment of Wages Act of 1936, for the year 1944*. If we add the dearness allowance of -/6/6 per day per worker to the wages obtained by them, the figures of wages obtained from the two sources tally closely. Similarly the figures of earnings of industrial workers for match industry,² tanneries and leather goods³ and sugar industry⁴ are also in close harmony with those given in the *Report of the Payment of Wages Act of 1936 for the year 1943*.

In the year 1931-32 the depression was acute and it continued upto 1934 by which time wages fell by nearly 10 per cent. From 1934 to 1938 there was an increase in wages by nearly 7½ per cent, i.e., the average earnings of a worker in organised industry in 1931-32 were generally 3 per cent more than that in 1938-39 which is clearly brought out from our *ad hoc* inquiry. Our assumptions are still more supported

¹ Deshpande, S. R. : *Report on an Inquiry into Conditions of Labour in the Cotton Mill Industry in India*, 1946, p. 78 (Table XLIV b).

² Deshpande, S. R. : *Report on An Enquiry into the Condition of Labour in the Match Industry in India*, 1945, p. 26 (Table XII).

³ Ahmad, M. : *Report on an Inquiry into Labour conditions in Tanneries and Leather Goods Factories*, 1946, p. 19 (Table XIV).

⁴ Ahmad, M. : *Report on an Inquiry into Labour Condition in Sugar Industry*, 1946, pp. 35-36.

by the fact that from the Supplementary Memorandum submitted by the U. P. Government to the Royal Commission on Labour in 1930 we find that the average monthly earnings of workers whose family budgets were studied (nearly 729 families) were Rs. 24/6/- as against Rs. 22/4/- in 1938 obtained from the family budgets of workers in Kanpur. Due to a steep fall in price index from 160 in 1929 to 110 in 1930 and 75 in 1931 (with the year 1873 as the base) it is not unlikely that between 1930 and 1931 wages did not keep pace with the prices and fell only by about 10 per cent. We may, therefore, calculate the earnings of the workers for 1931-32 on the basis of an average annual income of Rs. 175/- per worker to be Rs. 163·1 lakhs in organised industry. The figures of income are subject to an error of \pm 10 per cent

There is no adequate statistical material of the nature of a wage census for 1921. We have some data regarding the earnings of certain workers employed in different industries.¹ This data, keeping in view the earnings of workers in 1938, enable us to conclude that the average wages of organised industrial workers in 1921, when there was inflationary tendency in the Province, were nearly 115 per cent higher than those prevalent in 1938-39. Thus we may reasonably assume the average earnings of a worker to be Rs. 365/- per year and the total wage bill of the workers in organised factories for 1921-22 to be Rs. 253·3 lakhs subject to an error of \pm 10 per cent.

We may now check the results of our enquiry by finding out the net increment value of organised

¹ See *Industrial Survey Reports*, U. P., 1921-24. The following figures of earnings of workers for 1921-22 may be of interest :

Skilled workers in rice mill ...	Rs. 25/- per month
Cotton weavers ...	Re. -/10/- per day
Shoe manufacturers ...	Rs. 35/- per month
Hosiery workers ...	Rs. 28/- per month
Workers engaged in chemicals	Rs. 35/- per month

industry and see how far these two results arrived at by *census* and *production* methods tally. With a view to finding out the total income by the *census* method we may assume that the total income of those paying income-tax and returned as following 'industry' as an occupation in the *Census Report* were all employed in organised industry. We may further make a bold assumption that the income of those assessed to income-tax and employed in industry bore the same ratio to total income taxed as the number of income-tax payers in industry to the total number of income-tax payers. On this basis the income assessed to tax in industry in 1921-22, 1931-32 and 1938-39 would be nearly Rs. 785, 748 and 600 lakhs respectively. Thus the total income of the persons engaged in industry in these three years was Rs. 1,038, 911 and 864 lakhs respectively.

Now we may calculate by *inventory* method the contribution of organised industry to Provincial Dividend.

It is very difficult to measure the contribution of industries to Provincial Dividend with great precision. Statistics of output are available for cotton weaving, sugar, leather, oil, glass, hydrogenated fat, metal working, soap, heavy chemicals, paper, match and wood working industry for 1938-39. For 1931-32 we get the statistics of production of cotton spinning mills, paper, glass and sugar industry. For 1921-22 the figures of output of cotton, woollen, paper and sugar mills are available. For other organised or factory industries we get figures of number of establishments and men employed.

We obtained the statistics of production of sugar mills from the Statistician to the Director of the Indian Institute of Sugar Technology, Kanpur, of oil mills and *ghanis* from the Research Chemist, Harcourt Butler Technological Institute, Kanpur, of glass industry, metal working industry, soap works, heavy chemicals, paper mills, wood-working, pottery and a number of other

minor industries from the *Memorandum* submitted by the U. P. Government to the Congress National Planning Committee in 1939 and the various *Industrial Surveys* in U. P. and the *Tariff Board Reports*.

For those industries whose value of production is available we have to find out the cost of raw material, depreciation and establishment charges in order to assess correctly the net contribution made by them. With a view to arriving at the correct figures, a tour of the important industrial towns such as Kanpur, Shikohabad, Agra, Aligarh, Hathras, Sasni, Bahjoi, Ghaziabad, Modinagar, Moradabad, Bareilly, Lucknow and Banaras was undertaken and necessary data were collected for the purpose. Great difficulties were experienced in obtaining these figures from different industrialists, mill managers, secretaries of associations and individuals because they always suspected that the information supplied by them might be used for determining their income, leading ultimately to enhancement of taxes on income. It was not easy to convince them that the information was being collected purely for academic use. The information secured from these sources was of different types, such as the cost of various kinds of raw material, labour charges and their income per unit of goods produced. This unit varied from one industry to another; e.g., in the case of locks the cost was given of a lock of a definite size, in the case of brass wares the cost of one maund of utensils, in the case of shoes the cost of one pair of shoes, in the case of wood manufacture the cost of a single article, for glass the cost of one maund of glass, for bangles the cost per *tora* of six dozens each and so on so forth. The information was suitably modified to serve our purpose.

The replies received to our circular sent to different industrial establishments also gave us an idea about the cost of raw material, establishment and depreciation charges in certain industries. Hence we made use of these statistics too for computing the income for 1938-39.

For 1931-32 we are able to get much information about the product, its value and the cost of raw material from various *Tariff Board Reports*. As for the rest, we have had to attempt an estimate which is of a less accurate character. For 1921-22 the figures of output and value are available for a number of industries but for others we will have to attempt an estimate. Now we may calculate the value of output of organised industry.

Table 72 gives the consolidated figures of output of yarn and cloth in the United Provinces.¹

TABLE 72

Showing the Output of Cotton Cloth and Yarn in U.P.

(Figures in Thousands)

Description	Output in		
	1921-22	1931-32	1938-39
Yarn (in lbs.) ...	40,477	89,818	1,17,704
Cloth (in yds.) ...	39,865	1,44,201	2,38,802
Cloth (in lbs.) ...	11,895	35,335	59,701

Calculating the value of cloth at the rate of 2·7 annas per yard for 1938-39 we find it worth nearly Rs. 402·3 lakhs (Table 73). The yarn unused by the mills was generally of 1-10 counts and 10-20 counts which was 23 and 33 million lbs. respectively. The value of 1-10 counts yarn at the rate of Rs. 3/- per bundle of 10 lbs. each would be nearly Rs. 69 lakhs, while that of 33 million lbs. yarn of 10-20 counts at the rate of Rs. 4/4/- per bundle of 10 lbs. each would be Rs. 140 lakhs. Thus the total value of yarn unused would be nearly Rs. 209 lakhs. Calculating the value

¹ *Monthly Statistics of Cotton Spinning and Weaving Mills in India* for March 1922, 1932 and 1939. See also the *Report of the Indian Tariff Board (Cotton Textile Industry Enquiry)*, Vol. II, 1927.

of cloth at the rate of 2·87 annas per yard for 1931, the value of cotton cloth would be nearly Rs. 259·2 lakhs. The value of unused yarn was nearly Rs. 162·6 lakhs. The value of yarn not used by mills in 1921-22 was nearly Rs. 210 lakhs while the value of cloth manufactured was Rs. 168 lakhs.¹

TABLE 73

Showing the Value of Mill Made Cloth and Unused Yarn
by Them

(Figures in Lakh Rupees)

Description	1921-22	1931-32	1938-39
Mill made cloth ...	168·0	259·2	402·3
Unused yarn ...	210·0	162·6	209·0

From the gross value we have to deduct the cost of fuel and cotton consumed by the mills and depreciation charges in order to find out the net increment value of the industry. Table 74 gives the relevant figures.

TABLE 74

(Figures in Thousands)

Description	1921-22	1931-32	1938-39
Consumption of cotton (mds.)	541	1,093	1,430
Value ² (Rs.) ...	12,984	14,537	17,732
Fuel and depreciation charges.	4,300	5,300	7,640

¹ Value of mill made cloth for 1921 is taken from the *Statistical Abstract for British India*, 1921. For other years the value is calculated at export price.

² Cotton wholesale prices per maund at Kanpur were: Rs. 24/- in 1921; Rs. 13/3/- in 1931; Rs. 12/4/- in 1938. cf. Gupta, R. B.: *Agricultural Prices in U. P.*, 1939.

The net increment value of the cotton textile industry in 1921-22, 1931-32 and 1938-39 was nearly Rs. 205·2, 223·4 and 357·6 lakhs respectively.¹

We get the statistics of the output of sugar from factories for the whole of India for 1921-22, 1931-32 and 1938-39 from the *Review of Sugar Trade in India*.² For 1931-32 and 1938-39 we get separate figures of production of sugar in the Province. For 1921-22 we have the statistics for the whole of India. For this year our study helps in assuming that U. P. produced 44% of mill manufactured sugar in India, 70% of *khandsari* sugar and 24% of sugar refined from *gur*. Table 75 gives the production of sugar in U. P.

TABLE 75

Showing the Production of Sugar in U. P.

(Production in Tons)

Year	Mill	Khandsari	Gur Refined
1921-22	12,161	35,000	35,850
1931-32	66,312	1,74,000	48,000
1938-39	3,20,000	70,000	4,200

The price of white sugar was Rs. 286/- per ton, while that of *Khandsari* sugar of fair average quality Rs. 300/- and of *gur* refined sugar Rs. 275/- per ton in 1938-39. In 1931-32 the price of factory sugar was Rs. 252/- per ton and that of *Khandsari* and *gur* refined sugar Rs. 265/- and Rs. 225/- per ton respectively. In 1921-22 the prices of the three types of sugar were Rs. 750/-, 725/- and 700/- per ton respectively. Table 76 gives the value of sugar produced.

¹ For the cost of manufacture of cloth see the *Report of the Indian Tariff Board (Cotton Textile Industry Enquiry)*, Vol. II, p. 37.

² The figures were adjusted in consultation with the Statistician, Indian Institute of Sugar Technology, Kanpur.

TABLE 76

Showing the Value of Sugar Production in U. P.

(Figures in Lakh Rupees)

Year	Mill	Khandsari	Gur Refined	Total
1921-22	91.2	253.7	251.0	595.9
1931-32	167.1	463.7	108.0	738.8
1938-39	915.2	210.0	11.5	1,136.7

We have the statistics of the amount of cane crushed by mills in 1931-32¹ and 1938-39. For 1921-22 we have the statistics of the output of sugar from mills. If the recovery is supposed to be 8.5 per cent, the quantity of cane crushed would be nearly 1,43,070 tons. In the case of *khandsari* sugar the recovery by the *khanchi* process is 4.4 per cent, while in a centrifugal concern it varies from 5 to 5.5 per cent and in open pan process from 5.5 to 7 per cent in an efficiently worked factory.² As no separate statistics of the output of *khandsari* sugar from various processes are available, we assume the recovery to be 5.75 per cent.³ In the case of sugar refined from gur the recovery is generally 60 per cent.⁴

In the case of mills, sugar refineries etc., we may assume the cost of fuel used to be $2\frac{1}{2}$ per cent of the value of total output. The depreciation charges may be set against the value of molasses and these, therefore, need not be considered for our calculation.

¹ Statistics were obtained from the statistician of the Indian Institute of Sugar Technology, Kanpur.

² See *Report of the Indian Tariff Board on the Sugar Industry* (1936).

³ The percentage figure of recovery was fixed after consulting a number of *Khandsari* sugar manufacturers at Bareilly.

⁴ See the *Report of the Tariff Board on Sugar Industry* (1936), p. 91.

TABLE 77

Showing the Quantity and Value of Raw Material Consumed by the Sugar Industry

Year	Mill		Khandsari		Sugar Refined from Gur			
	Cane (thousand tons)	price per ton (rupees)	Value (lakh rupees)	Cane (thousand tons)	Value (lakh rupees)	Gur (thousand tons)	Price per ton (rupees)	Value (lakh rupees)
1921-22	143.1	12.0	17.2	608.7	73.0	59.7	272.0	162.5
1931-32	774.9	8.5	65.9	3,043.5	258.7	80.0	128.0	102.4
1938-39	3,505.4	11.9	417.0	1,217.4	144.9	7.0	150.0	10.5

Making deduction of the cost of raw material¹ and fuel we get the figures of the net increment value of sugar industry as given in Table 78.

TABLE 78

Showing the Contribution of Sugar Industry in U. P.

(Value in Lakh Rupees)

Year	Mill	Khandsari	Gur Refined	Total
1921-22	71.6	174.4	82.2	328.2
1931-32	97.0	193.4	2.9	293.3
1938-39	475.4	59.9	0.7	536.0

There were six match factories in all employing 1,166 persons and producing about 3 million gross boxes annually in 1938-39. The total sale value of the output was nearly Rs. 37.5 lakhs at the rate of Rs. 1/4/- per gross boxes. The cost of raw material and depreciation charges were 75 per cent of the value of total output.² The net increment value of match industry, therefore, was Rs. 9.4 lakhs.

There were three important chemical works in 1938 employing 243 persons per day. Sulphur which is the key raw material of this industry was imported from Italian and American sources. The quantity of sulphur used for this purpose amounted to about 1,800 tons per year. The bauxite that is required for the manufacture of alum and alumino-ferric is obtained from Alwar and the Central Provinces. About 500 tons of bauxite were obtained for this purpose.

¹ See Table 77.

² This assumption is supported by the figures of value of production, cost of raw material, depreciation and establishment charges as supplied to us by the Western India Match Company, Bareilly. For detailed information see the *Report of the Tariff Board on Match Industry, 1938.*

The amount of sulphuric acid of chamber strength manufactured annually was about 5,500 tons. About one-fourth of this quantity was sold as sulphuric acid and the rest was used for the manufacture of the other two acids and the sulphates. The following are the quantities of various chemicals manufactured yearly :

Alumina ferric	2,000 tons
Alum	500 „
Copperas	100 „

The quantities of hydrochloric and nitric acids manufactured were comparatively small and varied according to requirements. Chemicals worth Rs. 405 lakhs were produced in 1938. Net income from this industry for 1938 was nearly Rs. 2.5 lakhs.

There were 21 oil mills in 1938 employing 3,247 persons. Table 79 gives the amount of oil-seeds crushed by the mills, oil extracted and the value of oil and oil cake for 1938-39.

In 1938-39 the total value of oil and oil-cake was Rs. 34,592.3 thousands and the cost of oil-seeds was Rs. 29,361 thousands. The net increment value of oil mills was Rs. 5,231.3 thousands.

There were two paper mills and one straw board factory in the Province.¹ In 1931 and 1921 there was only one mill namely the Upper India Couper Paper Mill, Lucknow. Adequate information is available from *The Tariff Board Report on Paper and Paper Pulp Industries*. In the Upper India Couper Paper Mill the *sawai* grass required for preparing one ton of paper or pulp was 2.5 tons in 1938. The price of grass varied from Rs. 1/4/- to Rs. 1/8/- per maund. Taking the average price of grass at Rs. 1/6/- per maund, the value of grass used in preparing one ton of paper was Rs. 93/8/-. The cost above material was nearly 45 per cent of the cost of raw material *i.e.*, Rs. 42/4/-. The

¹ They were the Upper India Couper Paper Mill, Lucknow, Star Paper Mills Ltd., and Star Board Manufacturing Co. Ltd., Saharanpur.

TABLE 79

Showing the Amount of Oilseeds Crushed by the Mills, Oil Extracted and the Value of Oil and Oilcake in 1938-39

Description	Oilseeds (thousand maunds)	Oil Extracted (thousand maunds)	Price of Oil per maund in rupees	Value of Oil (thousand rupees)	Quantity of Oil cake (thousand tons)	Value of Oilcake (thousand rupees)	Total Value of Oil and Oilcake (thousand rupees)	Value of Oil-seeds (thousand rupees)
Mustard and rape	3,651	1,460	12	17,520	8.5	7,913.1	25,433.1	21,906
Linseed	400	160	12	1,920	9.0	634.5	2,554.5	2,040
Til	150	60	15	900	3.3	346.5	1,246.5	900
Castor	375	150	12	1,800	8.2	287.0	2,087.0	1,875
Groundnut	600	240	10	2,400	13.3	871.2	3,271.2	2,640
Total	5,176	2,070	...	24,540	...	10,052.3	34,592.3	29,361

depreciation and establishment charges were nearly Rs. 65/- per ton. The total cost per ton of paper manufactured was nearly Rs. 201/- while its sale price was Rs. 420/-. Thus the net increment value of paper industry was nearly 52 per cent of the total value of goods manufactured. In other words the income from this industry in 1938 was nearly Rs. 1,032 thousands when the gross income was Rs. 1,984 thousands. In 1921-22 and 1931-32¹ when the value of goods manufactured was nearly Rs. 1,814·7 and 1,800 thousands respectively, the net increment value of the industry was nearly Rs. 943·3 and 1,000·0 thousands respectively.

The statistics of production and the value of goods manufactured by glass factories are available only for 1938-39. In this year there were 47 factories employing 4,219 persons daily. The approximate consumption of the main raw materials was as follows :

	(Thousand maunds)
Sand	340
Soda	113
Coal	950
Lime	35

The value of glass goods manufactured in the Province including glass bangles was nearly Rs. 42 lakhs which is as follows² :

	Value (000 rupees)
Bangles	2,500
Block-glass	320
Sheet glass	300
Bottles	200
Miscellaneous	900

In the case of the bangle factories the cost of raw material and depreciation charges were 40 and 10 per cent

¹ See *Statistical Abstract for British India* for 1921-22 and 1931-32 (Sections on industries).

² Statistics of value were obtained from Mr. P. N. Agrawal, Assistant Glass Technologist to U. P. Government, Kanpur.

respectively of the total value of goods manufactured.¹ For block glass the cost of raw material and depreciation charges formed about 85 per cent of the total value of goods produced.² Sheet glass is manufactured only by the United Provinces Glass Works, Bahjoi, where the value of raw material and depreciation charges formed 80 per cent of the total sale value of goods. Bottles are manufactured at Shikohabad, Sasni and Naini. The cost of raw material and depreciation charges were in the neighbourhood of 30 per cent in Khandelwal Glass Works, Sasni, and about 40 per cent in Paliwal Glass Works, Shikohabad. We may adopt the average of 35 per cent for our calculation. For miscellaneous articles the percentage of the cost of raw material and depreciation charges to total sale value in U. P. Glass Works, Bahjoi was 50 per cent, in Sasni nearly 40 per cent and in Shikohabad about 40 per cent.³ We may use the figure of 40 per cent for our purpose. Thus the net increment value of glass factories was Rs. 2,028 thousands in 1938-39. The gross income for 1921 and 1931 from this industry is estimated to be Rs. 30 and 35 lakhs respectively. The 'cost of raw material' and 'depreciation and establishment charges' formed 40 and 10 per cent of the gross income. Hence the net contribution of this industry in 1921-22 and 1931-32 was nearly Rs. 15.0 and 17.5 lakhs respectively.

There were 7 large scale tanning factories and 5 large scale leather working factories in 1938. They employed 4,442 persons daily on an average. The annual value of production of leather and leather goods in 1938 was nearly Rs. 75 lakhs. The cost of raw material and depreciation charges formed about 75

¹ Mr. Nand Lal Paliwal, Secretary, Glass Manufacturers' Association, Firozabad was kind enough to help in determining these percentages.

² Figures obtained from Ganga Glass Works, Balawali.

³ Figures obtained personally from the managements of different concerns.

per cent of the total value of these goods.¹ Thus the value of the net product of this industry was Rs. 19 lakhs. Table 80 gives the value of the net product of the above discussed large scale industries and the number of persons employed therein.

We may now assume that in the case of the organised industries the net increment value of the remaining industries bears the same proportion to the number of workers employed in them as it bears to the workers employed in those factories for which statistics of net increment value are available. On this basis the net increment value of remaining organised industries (including Local Fund Factories) employing 36,607, 40,583 and 43,699 persons (changing the workers employed in seasonal factories into those of perennial factory) in 1921-22, 1931-32 and 1938-39 would be nearly Rs. 755·4, 565·3 and 563·6 lakhs respectively.² Thus the total net increment value of organised industry would be nearly Rs. 1,298·2, 1,109·5 and 1,571·0 lakhs in 1921-22, 1931-32 and 1938-39 respectively.

There is a great disparity between the figures obtained by the *income* method and by the *production* method, specially for the years 1921-22 and 1938-39. The main reason is that in 1921-22 on account of inflationary tendency the industrialists earned huge sums but they tried to evade income-tax to a great extent. They also succeeded in their efforts

¹ The percentage of the cost of raw material, establishment and depreciation charges to the sale value of various types of goods varied from one factory to another. In Dayal Bagh Factory for the standard shoe it was 85 per cent; for Darbar Factory it was 80 and in other factories it was 75 per cent. For shoes other than the standard ones the percentage varied from 60 to 70. The figure of 75 per cent for our calculation was determined in consultation with Mr. Mashooq Hussain, Secretary, Leather Manufacturers' Association, Agra.

² We assume that seasonal rice mills and the forage presses work only for 4 months and Tea gardens 9 months during the year. This assumption is based on the information supplied to us by various establishments in U. P.

TABLE 80

Showing the Contribution Towards Provincial Income by Certain Large Scale Industrial Establishments in U. P.

Description of Industrial Establishment	1921-22		1931-32		1938-39	
	Number of Workers	Contribution of Industry (lakh Rs.)	Number of Workers	Contribution of Industry (lakh Rs.)	Number of Workers	Contribution of Industry (lakh Rs.)
Sugar*	3,206	328.2	9,592	293.3	45,188	536.0
Cotton*	28,092	205.2	39,195	223.4	50,097	357.6
Match	—	—	—	—	1,166	9.4
Chemicals	—	—	—	—	243	2.5
Oil mills	—	—	—	—	3,247	52.3
Paper	688	9.4	712	10.0	1,426	10.3
Glass	—	—	1,728	17.5	4,219	20.3
Leather	—	—	—	—	4,422	19.0
Total	31,986	542.8	51,227	544.2	1,10,008	1,007.4

*Seasonal workers are generally engaged for four months in the sugar mills and for about five months in cotton ginning and pressing mills during a year.

because the machinery instituted for the collection of income-tax was not very efficient and there was evasion of the tax on a large scale which ultimately forced the Government to reorganise the Income-tax Department at that time. In 1931-32 the earnings of industrialists went down enormously and the exemption limit in the case of the tax was brought down to Rs. 1,000 which resulted in doing away with the evasion of the tax to a great degree even though the evil could not be eradicated. Since 1938-39 recovery from depression and gains to industry began to increase. But the factory owners and industrialists tried to maintain a pessimistic attitude stating that recovery was only slight and on that ground submitted false returns and succeeded in evading the tax to a great extent. The disparity between the figures arrived at by two methods gives us an insight into the extent of evasion of income-tax by the industrialists in the three years. For our purpose, therefore, we will make necessary alterations at a later stage in this work in the figures of income of those persons who pay income-tax and whose income we have tried to calculate with income-tax statistics.

Income of Independent Artisans and Other Skilled Workers

We have seen in the previous few pages that the average income of a worker in organised industry may be estimated at Rs. 365/-, 175/- and 170/- per year or Rs. 30/6/8, 14/9/4 and 14/2/8 per month in 1921-22, 1931-32 and 1938-39 respectively. The average income of an independent artisan need not be lower than that of a worker in organised industry. Thus the income per head of 429·0, 467·4 and 494·5 thousand independent urban artisans in 1921-22, 1931-32 and 1938-39 respectively is not likely to be more than Rs. 365/-, 175/- and 170/-. After making enquiry in the urban areas it appears that the average annual income of a weaver or a barber or a washerman (they form majority of the urban artisan class) rarely exceeds Rs. 350/-, 160/- and 180/- We may further analyse it with the data

from the study of our *ad hoc* enquiry¹ into the earnings of various classes of workers and a survey of handloom industry, besides the figures of value of output of certain industries for 1938-39 from the Memorandum of the U. P. Government submitted to the National Planning Committee in 1939.

Before estimating the earnings of this class of people it may be made clear that owing to a fall in prices since 1929 due to depression conditions all the world over there was a steep fall in the earnings of proprietors of cottage and small scale industries. But the wages did not fall in sympathy with the prices. Further due to recovery since 1935 there was considerable increase in the earnings of proprietors but the wages showed only a very small rise. During this period it has been observed that the wages in 1931-32 were nearly 3 per cent higher than those in 1938-39 while the earnings of proprietors were 37½ per cent less than those in 1938-39. The value of payment made to unskilled workers in kind in the rural areas changed in sympathy with the prices of agricultural produce and hence in estimating the earnings of different groups of people under this class we have taken these factors into consideration.

The average monthly earnings of a weaver in 1935 varied from Rs. 5/10/- in Gorakhpur to Rs. 9/12/- at Mau,² the average being Rs. 7/3/- . In 1938-39

¹ Results of our enquiry into the earnings of skilled workers are given in Table 81.

² Average monthly earnings were as follows :—

Name of Centre	Earnings (Rs.)
1. Amroha	6/2/-
2. Etawah	6/12/-
3. Sandila	8/8/-
4. Bara Banki	6/6/-
5. Gorakhpur	5/10/-
6. Mau	9/12/-
Average	7/3/-

TABLE 81

Showing Estimated Average Annual Earnings of Urban Earners in 1938-39 as Obtained from Personal Enquiry

Occupation	Kanpur		Lucknow		Ballia	
	No. of Earners	Earnings (Rs.)	No. of Earners	Earnings (Rs.)	No. of Earners	Earnings (Rs.)
Barber	15	144	18	150	12	144
Carpenter	20	192	13	198	14	180
Potter	8	100	10	120	6	80
Tailor	10	190	14	216	10	180
Washerman	15	120	15	130	12	110
Goldsmith	—	—	12	360	6	240

TABLE 82

Showing Estimated Annual Earnings of Rural Artisans in 1938-39 as Obtained from our Personal Enquiry (in Rupees)

Occupation	Todarpur	Atari	Kandwa	Gajpur	Bihat
Barbar ...	67	101	180	68	70
Carpenter ...	93	120	240	130	102
Blacksmith ...	97	115	—	—	112
Tailor ...	142	120	180	150	—
Potter ...	48	—	96	68	—
Washerman ...	37	62	—	110	40
Goldsmith ...	135	—	240	220	—
Sweeper ...	45	48	—	—	—

the earnings due to the recovery and increasing patronage of Indian goods were $37\frac{1}{2}$ per cent more than those in 1935 and we find the average earnings of weavers as Rs. 9/14/- per month or Rs. 118/8/- per year. Further the maximum income of a weaver was Rs. 135/- per year while the minimum Rs. 45/-, the average being Rs. 60/-. Thus in 1935 the average income of a cotton weaver in urban areas was nearly Rs. 94/- and in rural areas Rs. 55/- per year, while in 1938-39 it

was nearly Rs. 118/- and Rs. 75/- per year. In 1931-32 due to depression conditions the earnings being 25% less than those in 1938-39 the average annual earnings for urban and rural areas were Rs. 89/- and Rs. 56/- respectively. The annual wages of an artificial silk weaver were Rs. 350/- in Tanda and Rs. 60/- in Bilari, the average being Rs. 130/-. The artificial silk weavers are mostly residing in big towns; and taking into account the changes in prices of commodities, we can say that their average wages in 1938-39 and 1931-32 would be nearly Rs. 179/- and Rs. 155/- respectively. On the basis of changes in prices since 1921-22 we may reasonably assume the average wages of a cotton and artificial silk weaver in urban areas to be Rs. 254/- and Rs. 385/- and of a cotton weaver in rural areas to be Rs. 160/- per year in 1921-22. In the case of the silk industry which is also concentrated in the big towns, the average annual wages in 1934 were Rs. 155/-. Taking into account the changes in prices we can say that the average wages in 1921-22, 1931-32 and 1938-39 were Rs. 457/-, Rs. 160/- and Rs. 213/- per year. The average annual earnings of a worker in wool industry were Rs. 140/- in 1934. It may be stated that nearly three fourth of the workers were residing in big towns. We may, therefore, reasonably assume the average earnings of an urban worker in woollen textile to be Rs. 150/- and of the rural worker to be Rs. 110/-. Taking into account the changes in prices, the average earnings of an urban worker in 1921-22, 1931-32 and 1938-39 would be nearly Rs. 443, Rs. 156 and Rs. 206 respectively. Giving due weight to the average earnings on the basis of the workers employed in handlooms for cotton, silk and wool weaving we find the average earnings of a textile worker in U. P. in urban areas to be Rs. 430/-, Rs. 150/- and Rs. 200/-, and in rural areas Rs. 170/-, Rs. 60/- and Rs. 79/- in 1921-22, 1931-32 and 1938-39 respectively. The average earnings in 1921-22 are well brought out by the *Industrial Survey Reports* of the different districts in U. P. in 1921-24.

The important and widely scattered industry of hides and skins gave employment to nearly 84,000 persons of whom 50,000 were tanners and 34,000 leather workers. In 1938-39 nearly 14,000 leather workers were in urban areas and 20,000 in rural areas. The village tanners and leather workers are mostly agriculturists and field coolies. A rough estimate of the value of product of various branches of this industry is given below :—

		(Thousand rupees)
(a)	1. Foot wear in small factories ...	1,024
	2. Foot wear by cottage workers in towns ...	4,000
	3. Village workers ...	1,836
(b)	Other miscellaneous articles—	
	1. By small factories ...	45
	2. By cottage workers in towns ...	270
	3. By village workers ...	60

In the case of small factories the cost of raw material, depreciation and establishment charges were nearly 66 per cent,¹ while in the case of cottage and village industries they were nearly 50 per cent.² In the case of miscellaneous articles the cost of raw material varied from 60 to 70 per cent. We may adopt the figure of 66 per cent for our calculation. Thus we find that the earnings of the urban workers were Rs. 1,815 thousands and those of the rural workers Rs. 938 thousands. It gives the average earnings of an urban earner in this industry to be Rs. 130 and of a rural earner Rs. 47/- per year in 1938-39. Taking into account the variations in prices, we find that the average wages of an urban and rural worker in 1931-32 were Rs. 98/- and Rs. 38/- while in 1921-22 they were Rs. 280/- and Rs. 103/- respectively.

¹ From personal enquiries at Agra and Kanpur.

² Enquiries made from Mr. K. L. Muir, Principal Government Leather Textile School, Kanpur and Leather Expert to U. P. Government.

The number of principal workers employed in 1938-39 in wood carving at Saharanpur was 200 and in ebony work at Nagina 50. The annual production of Saharanpur wood work was nearly Rs. 1 lakh and of ebony box at Nagina Rs. 0.3 lakh. The separate cost of raw material, depreciation and establishment charges to the total value of output at these two places was approximately 30 and 25 per cent. Thus the income from wood carving at Saharanpur was Rs. 0.7 lakh and from ebony box at Nagina Rs. 22,500/-. It gives the average income of a skilled worker in wood carving to be Rs. 350/- and in ebony box Rs. 450/- per year. As regards the earnings of carpenters we made an enquiry in Kanpur, Lucknow and Ballia and found that his average income per year was Rs. 192/- in Kanpur, Rs. 198/- in Lucknow and Rs. 180/- in Ballia.¹ Kanpur and Lucknow are definitely big cities and Ballia is a big town. Under these circumstances we would assume the average income of a carpenter to be Rs. 180/- per annum. Taking into account the income of highly skilled workers such as wood-carvers at Saharanpur etc., it would not be unreasonable for us to adopt Rs. 185/- as the annual average income of an urban worker engaged in industries connected with wood in 1938-39. Considering the changes in wages we may reasonably state that the average earnings of a man engaged in occupation connected with wood in 1931-32 was Rs. 195/- and in 1921-22 Rs. 400/-. We also made enquiry into the earnings of skilled workers in the rural areas and found that the average annual income of a carpenter was nearly Rs. 120/- in 1938-39. In 1931-32 and 1921-22 his annual income was nearly Rs. 100/- and Rs. 200/- respectively.²

The metal industry includes the making of brass and copper utensils on cottage lines, artistic brass

¹ See Table 81.

² This is brought out from the *Rural Wages in U. P.*, 1947.

wares, locks and cutlery, hardware and building fittings, electrical goods and iron implements, castings etc. This industry employed nearly 86,000 people in 1938 of whom nearly 45,000 were in urban areas. An estimate of production for 1938-39 is as below :—

	Value (thousand rupees)
Brass and copper utensils ...	250.00
Artistic brass-wares ...	10.00
Locks and building fittings ...	2.50
Knives, <i>saraotas</i> and spoons ...	1.25
Scissors ...	1.26
Iron castings ...	2.50

In the case of brass and copper utensils the cost of raw material plus depreciation and establishment charges formed 65 per cent of the total value of output¹ while for locks and scissors we gathered from Rai Saheb L. P. Tewari, Assistant Director of Industries (Metals), Aligarh (U. P.) that the percentage of the cost of raw material to the total value of output was 50. For knives and *saraotas* this percentage was 60.² In the case of artistic brass-wares the cost of raw material to the value of goods manufactured was 33 per cent while for iron castings it was 70 per cent. Thus the income of nearly 45,000 urban workers engaged in this industry was nearly Rs. 97 lakhs or the average annual income of a worker was Rs. 215/- per year in 1938-39. The earnings of an independent artisan would be nearly Rs. 200/- per year. We may adopt the figure of Rs. 208/- for our calculation for 1938-39. Taking into account the changes in prices and wages we can say that the average annual income of a worker engaged in industry connected with metal was Rs. 200/- in 1931-32 and Rs. 400/- in 1921-22.

¹ The figure of percentage of raw material plus depreciation and establishment charges to the total value of output was calculated in consultation with Mr. Mohammad Naushay, Secretary, Brass-wares Manufacturers' Association, Moradabad.

² Figures obtained from leading manufacturers at Hathras and Aligarh.

The average yearly earnings of a blacksmith in rural areas as obtained from village studies and supported by the wage census in U. P. in 1938-39 were Rs. 100/-. In 1931-32 and 1921-22 their average annual earnings were nearly Rs. 84/- and Rs. 175/- respectively.

The glass bangle industry in Firozabad gave employment to nearly 12,000 persons or 3,000 families or 6,000 principal earners in 1938-39 who manufactured the following articles (with their value) :—

	Value (thousand rupees)
Country bangles 3 lakh <i>toras</i> of 6 dozen pairs each ...	1,000
<i>Karas</i> 1.5 lakh <i>toras</i> ...	75
Glass phials ...	60
Other articles ...	5

In the case of country glass bangles and *karas* the cost of raw material was about 50 per cent of the total value of goods ; in the case of block glass it was 90 per cent, while in the case of glass phials and other articles it was only 60 per cent.¹ Thus the net increment value of this industry at Firozabad was Rs. 6 lakhs or in other words the average annual income of a principal worker in glass industry was Rs. 100/- in 1938-39. The average annual earnings in 1931-32 and 1921-22 were nearly Rs. 75/- and Rs. 220/-.

As regards pottery we have the statistics of the number of workers employed and the value of output of toys, glazed and black ornamented pottery as shown below :

Description	Persons Engaged	Value of Goods Produced (Rs.)
Toys	433	40,000
Glazed pottery	307	60,000
Black ornamented pottery	140	30,000
Total	880	1,30,000

¹ Percentages were determined in consultation with Mr. Nand Lal Paliwal, Secretary, Glass Manufacturers' Association, Firozabad.

The expenditure on raw material was 10% of the value of output. Thus the average income of a highly skilled worker in pottery comes to Rs. 133/- per year in 1938-39. In the case of other potters we found on enquiry that their average earnings in 1938-39 were nearly Rs. 90/- per year. Taking all the potters and tile makers into account we may reasonably state that the average annual earnings of an urban worker would be nearly Rs. 92/- per year in 1938-39. In 1931-32 and 1921-22 their average annual earnings would be nearly Rs. 98/- and Rs. 160/- In the case of workers living in rural areas the average earnings as obtained from the village studies were Rs. 60/- in 1938-39. In 1931-32 and 1921-22 their average annual earnings were nearly Rs. 50/- and Rs. 110/- respectively.

Rice pounders, huskers, flour grinders and grain parchers form the majority of those engaged in food industries. They are no better than unskilled workers. Hence we would calculate their earnings with the unskilled workers.

Barbers and washermen form majority of workers among those employed in industries of dress and toilet. From our studies of earnings of these workers in towns and villages we have found that the average earnings of a barber in urban areas in 1938-39 were Rs. 144/- while in rural areas Rs. 70/- per year and those of a washerman in urban and rural areas were Rs. 110/- and Rs. 50/- respectively. From the family budgets of industrial workers in Kanpur we find that the average monthly expenditure per family on the services of barber and washerman in 1938 was $\frac{-}{5/6}$ and $\frac{-}{6/-}$. If we take into account the people residing in smaller towns where the charges are low we can reasonably assume the expenses of a family on barber and washerman to be $\frac{-}{5/-}$ and $\frac{-}{5/6}$ respectively.

In 1938-39 there were nearly 1,284.4 thousand families in urban areas and their expenditure on barbers and washermen would be nearly Rs. 48.2 lakhs and

Rs. 53·1 lakhs respectively. At this time there were nearly 33,000 barbers and 48,000 washermen in urban areas and 140 thousand barbers and 160 thousand washermen in rural areas. The average annual income of a barber in urban areas would be Rs. 146/- and of a washerman Rs. 110/-. In the case of rural areas the expenditure per family on the services of washerman and barber each was nearly Re. 1/- per year. This brings the annual expenditure in rural areas on barbers and washermen to Rs. 188 lakhs when 94·0 lakh families lived in the villages. This gives us the average annual earnings of barbers and washermen in villages to be Rs. 67/- and Rs. 59/- respectively in 1938-39. We may for our calculation use the figures of average earnings of barbers and washermen as obtained from our enquiry. Taking into account the changes in the wage rates of this class of people,¹ we may reasonably assume the average annual earnings of a barber in 1931-32 and 1921-22 to be Rs. 155 and Rs. 280 and those of a washerman in the two years to be Rs. 120 and Rs. 220 respectively in the urban areas. In the rural areas the average annual earnings of a barber in 1931-32 and 1921-22 would be Rs. 60/- and Rs. 140/- and of a washerman Rs. 48/- and Rs. 116/- respectively.

Furniture industry engages only a very small number of workers and is mostly confined to towns. In Bareilly this industry employed nearly 1,000 workers in 1938-39, who produced goods worth Rs. 3·75 lakhs. The cost of raw material plus depreciation and establishment charges formed 35 per cent of the gross income. Thus the net income was nearly Rs. 245 lakhs. It gives us the average annual income of this class of workers to be Rs. 245/- in 1938-39. In 1931-32 and 1921-22 the average annual income was nearly Rs. 185/- and Rs. 480/- respectively.

¹ Wages in towns in 1931-32 were nearly 6 per cent higher than those in 1938-39 for barbers and 9 per cent for washermen and in 1921-22 they were higher than those in 1931-32 by 90 per cent for barbers and 93 per cent for washermen.

There are a large number of tailors in both urban and rural areas. The average annual earnings of this class of workers in towns varied from Rs. 216/- in Lucknow to Rs. 180/- in Ballia, the average being Rs. 195/- in 1938-39. The wage rates of tailors in 1931-32 and 1921-22 were nearly 8 and 94 per cent higher than those in 1938-39 and hence their average annual earnings would be nearly Rs. 211/- in 1931-32 and Rs. 379/- in 1921-22. In the rural areas the earnings of tailors were lower than those in towns and cities. Their average annual earnings, as obtained from our enquiry, varied from Rs. 120/- in Atari to Rs. 180/- in Kandwa (which is five miles from the city of Banaras and where to some extent town conditions prevail), the average for all the villages being nearly Rs. 148/-. Taking into account changes in the wage rates as in the case of tailors in towns, we obtain their average annual earnings in 1931-32 and 1921-22 to be nearly Rs. 160/- and Rs. 288/- respectively.

Now we may tabulate the earnings of different classes of skilled artisans and independent workers in rural and urban areas in 1921-22, 1931-32 and 1938-39 and after giving them weights on the basis of their number we obtain the average annual income of a skilled worker in urban areas as Rs. 364/-, Rs. 151/- and Rs. 175/- and in rural areas Rs. 163/-, Rs. 70/- and Rs. 84/- in the three respective years (see Table 83). The total earnings of skilled workers and independent artisans in urban areas would be Rs. 1561·6 705·8 and 865·4 lakhs and in rural areas Rs. 1,959·6 916·7 and 1,163·6 lakhs in 1921-22, 1931-32 and 1938-39 respectively. These figures of income are subject to an error of \pm 15 per cent.

Unskilled Workers in Urban and Rural Areas

Now we may calculate the earnings of unskilled workers in urban and rural areas. With our circular letter sent to different industrial establishments we enclosed a printed form seeking information on the

TABLE 83

Showing the Average Annual Earnings of Skilled Workers in Urban and Rural Areas in Rupees

Description	Average Annual Earnings in					
	Urban Areas			Rural Areas		
	1921-22	1931-32	1938-39	1921-22	1931-32	1938-39
Weaver	430	150	200	170	60	75
Leather worker	280	98	130	103	38	47
Utensil maker or blacksmith	400	200	208	175	84	100
Carpenter	400	195	185	200	100	120
Glass bangle maker	220	75	100	—	—	—
Tailor	379	211	195	288	160	148
Potter	160	98	92	110	50	60
Barber	280	155	144	140	60	70
Washerman	220	120	110	116	48	58
Weighted Average	364	151	175	163	70	84

daily wages of the coolies in their factories. On the basis of information¹ supplied by them we may say that in 1938-39 the daily wages of unskilled workers in urban areas varied between 4 annas and 8 annas in the majority of cases. We may, therefore, reasonably assume the daily average earnings of an unskilled male worker to be -/7/- in 1938-39. Assuming that he works for 312 days during the year, his annual earnings would be nearly Rs. 134/8/-. If we also take into account the women employed as unskilled workers (who form nearly 33 per cent of the workers) and the wages of three women to be equal to those of two men, we may state that the average annual earnings of an unskilled worker in urban areas to be Rs. 120/- per year. The daily wages of a male worker in 1931-32 varied between 5 annas and 8 annas, 7 annas being paid in the majority of areas. We may reasonably adopt -/6/- per day. On this basis the average annual earnings of a worker for 312 days during the year would be nearly Rs. 117/-. Taking into account the large number of female workers employed we may state that the average annual earnings of an unskilled worker in urban areas in 1931-32 were Rs. 104/-. In 1921-22 the average daily wages varied between 4 annas and 8 annas, the majority of the workers being paid -/5/-. On this basis the average annual earnings of a worker for 312

¹ For details see Table below.

Daily Wages in Annas

S. No. of factories	1921-22			1931-32			1938-39		
	Male	Female	Child	Male	Female	Child	Male	Female	Child
1	4	2½	—	5	4	—	7	5	—
2	6	4	—	7	5	—	8	6	—
3	8	—	5	8	—	5	8	—	5
4	—	—	—	—	—	3½	8	—	4
5	—	—	—	—	—	—	4	6	—
6	—	—	—	—	—	—	8	9	—

days in the year would be nearly Rs. 97/8/-. If we take into account the female workers employed, we can reasonably say that the average annual wages of an unskilled worker in 1921-22 were Rs. 85/-. Taking into account the dearness, overtime and other allowances to these wage earners, we can say that in 1921-22 their average annual earnings were nearly Rs. 200/-. We also obtained some data on this subject from municipalities in U. P. In order to have an idea about it we had made in our circular sent to the Chairmen of Municipal Boards a request for information on the average monthly wages of a newly recruited peon in their municipalities. A number of municipalities did not recruit any peon in the course of the year. The information supplied to us reveals that the average wages varied between Rs. 8/- and Rs. 13/- in 1938-39, Rs. 10/- being paid in the majority of cases.¹ This gives us Rs. 126/- as the average annual earnings, which is not far from the figure already obtained by us. In 1931-32 also the average monthly wages of a newly recruited peon varied between Rs. 8/ and Rs. 13/-, Rs. 10/- being given to the majority of persons. On this basis the average annual earnings of a worker in 1931-32 were Rs. 120. In 1921-22 the basic wage varied between Rs. 8/- and Rs. 12/-, majority of them being paid Rs. 9/-. On this basis his average annual basic earnings were nearly Rs. 108/-. But due to increased cost of living as a result of high prices the workers in urban areas were getting sufficient allowances in 1921-22. These figures of average annual earnings are quite in harmony with those obtained earlier by us. Calculating on the basis of Rs. 200/-, Rs. 104/- and Rs. 120/- as the average annual earnings of an unskilled worker in urban areas in 1921-22 1931-32 and 1938-39 the total earnings of all the unskilled workers excluding those in organised factories would be Rs. 283·8 243·7 and 272·2 lakhs respectively subject to an error of \pm 10 per cent.

1 For details see Table 84.

Now we consider the earnings of rural unskilled workers. According to the quinquennial wage census of the United Provinces taken in the year 1928 the daily wages of a reaper, weeder and ploughman were, on an average, 4·75, 4·5 and 5·4 annas respectively while ploughman paid by month received Rs. 8/3/-. It gives us Rs. 98/- as the average annual earnings of a ploughman in 1928. From 1921 to 1928 the wages fell by about 25 per cent and, therefore, on this basis the average annual earnings of a ploughman in 1921 would be nearly Rs. 131/-. It may be stated that we have taken ploughman's wages only as representative of rural labour and not in order to include them in our inventory of agricultural wealth. In 1934 a ploughman paid by the month received Rs. 5/9/- or an annual income of Rs. 66/12/-. In 1934 the wages fell nearly 10 per cent when compared to 1931. On this basis the average annual earnings in 1931 would be Rs. 74/2/-. The payment to a ploughman paid monthly in 1939 was Rs. 5/12/-, i.e., the annual payment was Rs. 69/-. We may now estimate the income of unskilled rural workers engaged in industry. At

TABLE 84

Showing the Salary of the Newly Recruited Peon in Municipalities
(Figures in Rupees)

Name of Municipality	1921-22	1931-32	1938-39
Gonda ...	8	8	8
Agra ...	9	10	12
Banaras ...	9	10	10/8
Azamgarh ...	8	8	9
Lucknow ...	9	10	10/8
Gorakhpur ...	9	10	11
Naini Tal ...	12	12	12
Muzaffarnagar ...	10	12	10
Aligarh ...	13	13	13
Unnao ...	10	0	10
Allahabad ...	—	—	11

TABLE 85

Showing the Earnings of Workers Engaged in Industry not Subject to Income-tax

Description	1921-22		1931-32		1938-39		Margin of Error
	Number of Workers (thousand)	Estimated Earnings (lakh Rs.)	Number of Workers (thousand)	Estimated Earnings (lakh Rs.)	Number of Workers (thousand)	Estimated Earnings (lakh Rs.)	
<i>Urban</i>							
Workers in organized industry	69.4	253.3	93.2	163.1	155.1	263.7	±10
Independent artisans and other skilled workers	429.0	1,561.6	467.4	705.8	494.5	865.4	±15
Unskilled workers	141.9	283.8	234.3	243.7	226.8	272.2	±10
<i>Rural</i>							
Village artisans and other skilled workers	1,202.2	1,959.6	1,309.5	916.7	1,385.2	1,163.6	±15
Unskilled workers	397.5	520.7	656.6	486.8	635.4	438.4	±15
Total	2,240.3	4,579.0	2,761.0	2,516.1	2,897.0	3,003.3	...

the rate of Rs. 131/-, 74/2/- and 69/- per annum their total earnings would be Rs. 520·7 486·8 and 438·4 lakhs in 1921-22, 1931-32 and 1938-39 respectively subject to an error of ± 10 per cent.

Conclusion

We sum up in Table 85 the earnings of the workers engaged in industry except those who paid income-tax in 1921-22, 1931-32 and 1938-39.

To this we must add Rs. 567·5 300·3 and 344·3 lakhs in 1921-22, 1931-32 and 1938-39 respectively on account of 149, 199 and 193 thousand working dependants and 569, 658 and 670 thousand subsidiary workers who were engaged in industry. The working dependants do not actually receive any wage, but their activities ultimately result in increasing the earnings of those principal workers whose dependants they are. We may from our personal experience reasonably assume that three working dependants add as much to the income as one principal earner and five part-time workers in an occupation earn as much as two principal workers.

The total earnings of persons engaged in 'industry' with the exception of those who paid income-tax are estimated to be Rs. 5,146·5 2,816·4 and 3,347·6 lakhs with a margin of error of $\pm 13·8$ per cent., $\pm 12·0$ per cent and $\pm 13·4$ per cent in 1921-22, 1931-32 and 1938-39 respectively.

In the next chapter we shall calculate the income of employees of Central and Provincial Governments and Local Bodies including those engaged in the working of Railways, Posts and Telegraphs.

CHAPTER X

SALARIES AND WAGES OF WORKERS ENGAGED IN PUBLIC ADMINISTRATION AND IN THE WORKING OF RAILWAYS, POSTS AND TELEGRAPHS

THERE were nearly 268·7, 267·5 and 284·5 thousand workers employed in the service of the Central and Provincial Governments, Municipal and other Local Boards¹ and in Railway transport in 1921-22, 1931-32 and 1938-39 respectively. Of these we have already taken into account nearly 6·0, 8·0 and 11·0 thousand employees (including State railway employees) in chapter VIII, who pay income-tax. We shall make an estimate of the total earnings of these 6·0, 8·0 and 11·0 thousand persons besides those employed in private railways paying income-tax and deduct their income from the total for the year to arrive at an estimate of the wages and salaries of those who did not pay income-tax in the three respective years.

Salaries and Wages of Employees of Municipal and Other Local Boards

There is no published literature on the salary of the employees of Municipal, District or Union Boards or notified areas. Hence we addressed a letter to the Chairmen of all the 85 municipalities and 49 District Boards in U. P. requesting them to fill in the three forms enclosed therein pertaining to (a) number of their employees paying income-tax and their total salary bill, (b) number of employees having an income below the income-tax exemption limit and their total salary bill, (c) average monthly income of the employees in varying income groups and (d) the salary of a

¹ Figures for Local Bodies relate to persons working in administrative capacity.

newly recruited peon for the years 1921-22, 1931-32 and 1938-39. We had a very poor response to our circular¹. It was, therefore, considered necessary to undertake a tour of the Province for obtaining data. As the task was difficult and it required considerably long time to go to all these 85 Municipal and 40 District Board Offices and obtain information from their establishment registers, we thought of making a random sample enquiry. We divided these municipalities on the population basis into thirteen groups² and by lottery selected Baraut, Kasganj, Deoband, Jaunpur, Amroha, Gorakhpur, Mathura, Saharanpur, Aligarh, Meerut, Moradabad, Allahabad and Lucknow. We also divided the District Boards on population basis into eleven groups³ and

¹ In the beginning only the Naini Tal Municipal Board sent back to us the forms duly filled. Later on we also received forms from the municipalities of Muzaffernagar and Gonda.

² Details of these groups are as below :

i.	Upto the population of	10,000
ii.	Above 10,000 but not more than	20,000
iii.	20,000	30,000
iv.	30,000	40,000
v.	40,000	50,000
vi.	50,000	60,000
vii.	60,000	70,000
viii.	70,000	80,000
ix.	80,000	90,000
x.	90,000	1,00,000
xi.	1,00,000	1,50,000
xii.	1,50,000	2,00,000
xiii.	2,00,000	

³ Details of these groups are as below :

i.	Upto the population of 5 lakhs	
ii.	Above 5 lakhs but not more than	6 lakhs
iii.	6	7
iv.	7	8
v.	8	9
vi.	9	10
vii.	10	11
viii.	11	12
ix.	12	14
x.	14	16
xi.	16 lakhs	

by lottery selected one District Board from every group. The District Boards so selected were Pilibhit, Hamirpur, Fatehpur, Agra, Unnao, Rae Bareli, Aligarh, Bahraich, Allahabad, Azamgarh and Gorakhpur. We tried to approach these municipal and district boards but were told, when we had been to only three out of thirteen municipalities, that all the salary bills before the year 1943 had been destroyed and in certain places even the establishment registers giving an approximate estimate of the salary of different employees were also destroyed. Having been informed like this we did not consider it worthwhile to spend nearly three months moving about from one part of the Province to the other. We tried to collect data from those municipalities and district boards which came in our way during our statistical studies on various subjects in the different parts of U. P. with all care to approach as many municipalities and district boards of the samples as possible. During our tour we realised that collection of these statistics involved enormous waste of time as the majority of employees of these local bodies were found coming late to the office and starting work at 12 noon. In certain cases they were not to be found in their places and we had to wait for their return indefinitely. During the short time at our disposal between 12 noon and 4 P.M. we could not progress much and had to spend nearly two days in every Board. We also found that orders were given by some Chairmen on our circular for the supply of information at an early date but the employees in the office did not pay any heed to it. At some places we were told that their office did not receive any circular and therefore, a formal permission of the Chairman was needed before they could give us required information, though we came to know later that our circular had already been received by them and they had been instructed to supply us information immediately. The indifference of these persons is further revealed from the fact that in the case of one 'A' class municipality the Chairman had ordered

for the necessary action on our circular letter addressed to him but the Executive Officer did not even care to go through the contents of the letter and taking it to contain samples of stationery ordered the store-keeper to see if the forms were useful to them. At one place we were told by the Executive Officer that to be frank enough his staff was already very busy and he would attend to the private queries only if there was spare time after rendering services to the tax-payers to whom they were responsible. At a number of places we were refused to be supplied with any information on the pretext that the establishment registers were not traceable or the man in-charge was on leave, and we were asked not to waste our time and were assured that all the requisite information would be sent to us by post. To our utter disappointment we did not receive any reply from these municipalities. In spite of all these difficulties we succeeded in obtaining statistics from nine municipalities¹ and eight district boards.² From the data available we calculate the average income per head of those not paying income-tax to be 313/-, 314/- and 353/- in 1921-22, 1931-32 and 1938-39 respectively.³ The number of employees of these local bodies whose incomes were above Rs. 2,000/-per year in 1921-22 and 1938-39 and above Rs. 1,000/-per year in 1931-32 and who, therefore, paid income-tax was 22, 67 and 141 or 1.0, 8.0 and 2.0

¹ The municipalities of Naini Tal, Gonda, Muzaffarnagar, Allahabad, Banaras, Agra, Aligarh, Azamgarh and Gorakhpur were kind enough to supply us information. See Table 86 for statistics.

² The District Boards of Unnao, Aligarh Lucknow, Banaras, Azamgarh, Allahabad, Agra and Gorakhpur very kindly supplied us information.

³ The figures of frequency distribution of earnings of 1,444, 1,599 and 3,451 employees of certain municipal and district boards in 1921-22, 1931-32 and 1938-39 respectively may be interesting in this connection. See Table 87. We have not considered the information supplied by Naini Tal, Gonda and Muzaffarnagar Municipal Boards as the figures appear to be over estimated due to a large number of temporary workers being included therein.

per cent of the total number employed in 1921-22, 1931-32 and 1938-39 respectively. The number of persons employed in municipal and other local board services in 1931 was 14,302 and on the basis of Rs. 314/- per year applied to 92.0 per cent of this number we get Rs. 41.3 lakhs as the total income of the employees of municipal and other local bodies under this head not

TABLE 86

Showing the Distribution of All the Employees of Certain Municipalities in 1921-22, 1931-32 and 1938-39 (not subject to Income-tax)

Average Monthly Income per employee in rupees	Number of Municipalities	Population	Number of Employees
	1921-22		
5-10	2	64,999	896
10-15	4	2,99,503	3,315
30-35	1	16,517	440
Total	7	3,81,019	4,651
	1931-32		
10-15	6	4,15,125	5,001
30-35	1	17,375	499
Total	7	4,32,500	5,500
	1938-39		
10-15	5	3,35,699	3,716
15-20	3	4,58,808	6,372
30-35	1	17,375	659
Total	9	8,11,982	10,747

paying income-tax in 1931-32. The total income of such employees not paying income-tax at the rate of Rs. 313/- per year would be Rs. 22.3 lakhs when their number was 7,139 in 1921-22. For 1938-39 we have no statistics of these employees. We may assume that

their number from 1931 to 1938 increased in the same proportion as the number of employees during this period in the case of those bodies for which data is available. On this basis their number in 1938-39 was

TABLE 87

Showing the Distribution of Municipal and District Board Employees (not subject to Income-tax) in Various Earning Groups in 1921-22, 1931-32 and 1938-39

Monthly Earning Groups (rupees)	Number in		
	1921-22	1931-32	1938-39
5-10	401	184	346
10-15	301	506	1,156
15-20	110	125	285
20-25	147	153	335
25-30	86	124	198
30-35	69	91	278
35-40	81	103	147
40-45	33	77	106
45-50	25	30	103
50-60	32	64	117
60-70	46	66	90
70-80	36	51	51
80-83	17	25	36
83-90	2	—	22
90-100	7	—	34
100-120	29	—	72
120-140	8	—	27
140-160	7	—	28
160-167	7	—	20
Total	1,444	1,599	3,451

15.7 thousands and the total income of those not paying income-tax at the rate of Rs. 353/- per year would be Rs. 54.2 lakhs. To the figures for 1931-32 we may add the sum of Rs. 1.3 lakhs for the earnings of 85 working dependants and 946 subsidiary workers, assuming the

earnings of three working dependants to be equal to the earnings of one principal worker, and of five subsidiary workers to two principal workers. For the working dependants and subsidiary workers in 1921-22 and 1938-39 we should add the sum of Rs. 0·7 lakh and Rs. 1·7 lakhs respectively. Thus the earnings of the employees (not paying income-tax) of municipal and other local bodies in 1921-22, 1931-32 and 1938-39 would be nearly Rs. 23·0, 42·6 and 55·9 lakhs respectively. At this stage it should be made clear that we have taken into account only the earnings of such employees and other local bodies who are mostly concerned with the administrative work. We have left the teachers and professors, majority of sweepers in the conservancy department of municipalities and temporarily employed road gangs. If we take into account all the municipal employees, the figures arrived at by us will swell enormously and be nearly three times¹ of what may be calculated on the basis of the Census Report.

Salaries of Government Servants

With a view to estimating the salaries of the Government servants we approached the U. P. Government but were only directed to consult the Detailed Estimates of Expenditure of the Government for the purpose. After a great deal of effort we arrived at the combined figure of the salaries of officers and pay of establishments of the U. P. Government as shown in Table 88.

¹ In 1931-32 in seven municipalities with a total population of 4,32,500 there were 5,500 employees in all. On this basis in the eighty-five municipalities with a total population of 34,14,859 there should be 44,582 employees while in municipal and other local bodies during this year, according to the Census Report 1931, there were only 14,299 employees of whom only 329 were women. This fact clearly supports our case for leaving the majority of sweepers of the conservancy departments in the municipalities who are mostly women. In 1931-32 in Banaras Municipal Board there were 1,458 persons in the conservancy department.

If we leave a large number of *chaukidars* employed on a salary from Rs. 2/9/- to Rs. 3/- per month, the average income of a U. P. Government employee comes to Rs. 446, Rs. 502 and Rs. 478 in 1921-22, 1931-32 and 1938-39 respectively. From the Detailed Estimate of Expenditure of the Central Government

TABLE 88

Showing the Total Salary Bill of the
U. P. Government Employees

Year	Total Salaries and Pay in lakh rupees
1921-22	487
1931-32	508
1938-39	561

we estimated the earnings of the Central Government civil employees in U. P. to be nearly Rs. 32, 27 and 33 lakhs in 1921-22, 1931-32 and 1938-39, the persons employed being 3,691, 2,982 and 2,626 which gives an average income of Rs. 868, 905 and 1,256 per year.

TABLE 89

Showing the Earnings of Central
Government Employees in U. P.

Year	Total Salary Bill (lakh rupees)
1921-22	32
1931-32	27
1938-39	33

Now we may consider the income of persons employed in the army. In 1931-32 the total salary bill of Defence Department was Rs. 22.7 crores for

1,75,048 persons which gives an average salary of Rs. 1,297/- per head. As in the army there were highly paid European soldiers in large number, it would not be unreasonable if we assume Rs. 1,000/- to be the average income of an Indian soldier in 1931-32. Thus the total salary bill of persons of U. P. employed in the army was for Rs. 346 lakhs in 1931-32. In 1921-22 the total bill was nearly for Rs. 350·0 lakhs and in 1938-39 for Rs. 430·0 lakhs.

Earnings of Workers in Rail Transport

There were nearly 53·2, 51·2 and 49·0 thousand railway employees in 1921-22, 1931-32 and 1938-39 respectively of whom nearly 31·0, 30·5 and 29·1 thousands were employed in State railways nearly 10·9, 10·4 and 9·4 thousands served as labourers employed on railway construction or coolies or porters. With a view to obtaining the figures of earnings of the railway servants we addressed letters to the Divisional Superintendents in U. P. of the E.I., O.T. and B.B. and C. I. Railways. In the absence of a reply we proceeded to Lucknow and consulted the Divisional Accounts officer, E. I. Railway, Lucknow Division, who was kind enough to furnish information regarding the earnings of the E. I. Railway employees. These figures of earnings are subject to an error of ± 10 per cent. The information supplied to us reveals that the average earnings of an E. I. Railway employee not paying income-tax in 1938-39 were nearly Rs. 28/- per month or Rs. 336/- per year.¹ If we take into account the income of those also who paid income-tax, the average income would be nearly Rs. 36/- per month or Rs. 432/- per year. At this rate the total salary bill of 29,083 employees would be Rs. 125·6 lakhs. In 1931-32 the average salary which was nearly 10 per cent higher than that in 1938-39 as there were cuts in wages during the period of depression, would be

¹ Table 90 showing the frequency distribution of the various employees in different income groups may be interesting.

nearly Rs. 475/- per year. In 1931-32 the number of railway employees in U. P. was 51,179 of whom nearly 30,500 were employed in the E. I. Railway and the remaining in other railways. The number in 1931 was higher than that in 1938 as there was retrenchment in railways after 1931. The average salary of an E. I. Railway employee was nearly twice as much as that in railways operated by private companies in U. P.,¹

TABLE 90

Showing the Monthly Earnings of
E. I. Railway Employees in 1938-39

Earning Groups (rupees)	Number of Employees
10-15	10,066
15-20	5,832
20-25	1,627
25-30	3,296
30-35	957
35-40	648
40-45	1,426
45-50	187
50-55	1,798
55-60	55
60-65	573
65-70	184
70-75	384
75-80	112
80-90	359
90-100	62
100-120	353
120-140	196
140-160	90
160-167	71
Over 167	807
Total ...	29,083

¹ See *Labour Investigation Committee Report on an Enquiry into Non-Gazetted Railway Services, 1946*, pp. 35-45.

and hence on this basis the average annual salary of an employee in other railways in 1931-32 and 1938-39 was nearly Rs. 273/- and Rs. 216/- respectively. Thus the total salary bill of the railway employees in U. P. in 1931-32 and 1938-39 was nearly Rs. 193·9 and 168·6 lakhs respectively. The salary bill in 1921-22 of 62·2 thousand persons was nearly Rs. 200·0 lakhs.

We may also take into account the earnings of labourers employed in railway premises, whose number in 1931 was 10,403 and who are mostly like unskilled workers in towns. The average monthly earnings of a railway coolie in 1916 were Rs. 6/14/- while in 1928 they were Rs. 10/3/-, in 1934 Rs. 10/10/- and in 1939 Rs. 9/1/-.¹ The earnings of a coolie in 1921 were generally 10 per cent higher than those in 1928 i.e., Rs. 11/3/- per month. The monthly earnings in 1931 would be nearly Rs. 10/7/- and in 1938-39 Rs. 9/-. On this basis the earnings of this class of workers in 1921-22, 1931-32 and 1938-39 would be nearly Rs. 14·6, 13·0 and 8·7 lakhs. Hence the earnings of those employed in railway transport as principal workers in 1921-22, 1931-32 and 1938-39 were nearly Rs. 214·6, 206·9 and 177·3 lakhs respectively. To these figures we must add the sum of Rs. 3·2, 3·1 and 2·1 lakhs as the earnings of 2·0, 1·9 and 1·6 thousand subsidiary workers in railway transport in 1921-22, 1931-32 and 1938-39 respectively whose income has not been accounted so far. Thus the total income of those employed in railway transport in the three respective years would be nearly Rs. 217·8, 210·0 and 179·4 lakhs.

Earnings of Postal, Telegraph and Telephone Employees

Regarding data on the earnings of postal, telegraph and telephone employees in U. P. we addressed a letter to the Post Master General, U. P., requesting him to supply us the required information. We were given to understand that the information was not available

¹ See Chaturvedi, S. C. : *Rural Wages in U. P.*, 1947, p. 105.

with him and were directed to write to the Deputy Accountant General, Posts and Telegraphs, Delhi. We did the same and waited for the reply for nearly a month after which we approached the authorities in Delhi. But the Accounts Officer was unable to supply us information as, according to him, all the information concerning the salary bills for 1921-22, 1931-32 and 1938-39 had been destroyed for they were not required to maintain accounts of the type for more than five years. He informed us that the statistics might be available in the office of the Director General of Posts and Telegraphs or in the Budget Section of the Post and Telegraph Department in the Indian Secretariat. We approached both the offices but the subordinate staff was not inclined to help us. We, however, succeeded in obtaining statistics for 1938-39 only from the office of the Director General after getting the permission of the Deputy Secretary, Ministry of Communications, and the Joint Director of Posts and Telegraphs. The earnings of Postal, Telegraph and Telephone employees on the basis of information given to us were Rs. 85·86 lakhs in 1938-39 (see Table 91). For 1931-32 we find the total earnings of Postal, Telegraph and Telephone employees not for U. P. alone but for the whole of India to be Rs. 796 lakhs.¹ In 1938-39 their earnings in U. P. (Rs. 85·86 lakhs) were only 10·9 per cent of the total salary bill of the employees all over India.² Assuming that the earnings of employees in U. P. in 1931-32 bore the same ratio to their earnings in India as they did in 1938-39, we estimate their earnings in U. P. to be nearly Rs. 86·67 lakhs in 1931-32. For 1921-22 we do not have the statistics of the total salary bill but only of the expenditure charged to revenue as Rs. 640·9 lakhs. In 1931-32 the total salary bill was nearly 73·8 per cent

¹ See Rao, V. K. R. V. : *op. cit.*, p. 161.

² Mr. S. Subramanian, Statistician to the Economic Adviser to the Government of India, very kindly helped us in the collection of these statistics (see Table 91).

of the total expenditure charged to revenue.¹ If we assume that the earnings of Postal employees in India in 1921-22 had the same ratio to total expenditure charged to revenue, as they did in 1931-32, and also that their earnings in U. P. had the same ratio to their earnings in India as in 1938-39, we obtain Rs. 51·55

TABLE 91

Showing the Earnings of Postal, Telegraph and Telephone Employees in Thousand Rupees in 1938-39

Month	Postal	Telegraph	Telephone	Total
April ...	580	100	23	703
May ...	584	100	23	707
June ...	595	101	23	719
July ...	596	103	23	722
August ...	597	104	23	724
September ...	595	104	24	723
October ...	593	104	24	721
November ...	593	102	24	719
December ...	589	103	24	716
January ...	584	102	24	710
February ...	579	104	24	707
March ...	588	104	23	715
Total...	7,073	1,231	282	8,586

We may now add the totals of salaries and wages of the workers mentioned above and find them as given in Table 92.

These figures of income include the salaries of the State employees with income above Rs. 2,000/- in 1921-22 and 1938-39 and above Rs. 1,000/- in 1931-32, which have already been taken into account in chapter VIII. The amount to be deducted on this account would be nearly Rs. 222·8, 254·2 and 431·8 lakhs

¹ Total expenditure charged to revenue in 1931-32 was Rs. 1,064·6 lakhs.

lakhs as the earnings of employees in U. P. in 1921-22, for 1921-22, 1931-32 and 1938-39 respectively.¹ We have also to deduct the earnings of 13,922, 19,547 and 19,106 employees working in Government and Local Fund Factories which would amount to Rs. 70·0, 47·1 and 44·7 lakhs in 1921-22, 1931-32 and 1938-39 respectively. A deduction of nearly Rs. 3·0, 4·0 and 5·0 lakhs is also to be made for earnings of employees

TABLE 92

Showing the Totals of Salaries and Wages of workers Engaged in Public Administration and in the Service of Railways Posts and Telegraphs in lakh rupees

Persons in the Service of	1921-22	1931-32	1938-39
Local authorities ²	23·0	42·6	55·9
Provincial Government ³	487·0	508·0	561·0
Government of India	382·0	375·0	463·0
Railways (including labourers and porters and coolies)	217·8	210·0	179·4
Posts, Telegraphs and Telephones	51·6	86·7	85·9
Total ...	1,161·4	1,220·3	1,345·2

¹ Income-tax on salaries paid by Government and Local Bodies accounted for 71·6, 63·7 and 77·7 per cent of the total tax assessed on salaries. The total of income from salaries assessed to tax was Rs. 314, 421 and 566 lakhs. If we assume that the average rate of tax paid by a Government employee was the same as that paid by other salaried persons, the total salary of Government servants which was assessed to tax would come to Rs. 224·8, 268·2 and 439·8 lakhs. Deducting the sum of Rs. 2·0, 14·0 and 8·0 lakhs as the earnings of the employees of Local Bodies, we obtain Rs. 222·8, 254·2 and 431·8 lakhs as the earnings of Government employees

² In the case of Local Authorities the figures refer only to those employees who were not required to pay income-tax.

³ The figures are inclusive of the income of Government employees working in industries.

of private railways who were subject to income-tax.¹ Net addition to be made on account of the earnings of persons discussed in this chapter would, therefore, be Rs. 865·6, 915·0 and 863·7 lakhs in 1921-22, 1931-32 and 1938-39 respectively.

We shall now proceed to estimate in the next chapter the earnings of workers engaged in trade and in the forms of transport other than Railways, Posts, Telegraphs and Telephones.

¹ We have tried to estimate these figures on the basis of the number (viz 807) of the E. I. Railway employees paying income-tax in 1938-39. The number of income-tax payers in other railways where salaries were very low, would not exceed 200 and their total salary bill would be nearly Rs. 5·0 lakhs. Their salary bill in 1921-22 and 1931-32 is estimated to be nearly Rs. 3·0 and 4·0 lakhs respectively.

CHAPTER XI

INCOME OF PERSONS ENGAGED IN TRADE AND IN FORMS OF TRANSPORT OTHER THAN RAILWAYS AND POSTS AND TELEGRAPHS

WE have stated in chapter IV that there were 691·8, 983·0 and 1,112·0 thousand earners engaged in trade in 1921-22, 1931-32 and 1938-39 respectively, of whom 273·2, 389·0 and 439·0 thousands were working in towns and 418·6, 594·0 and 673·0 thousands in villages in the three respective years. The number of persons employed in transport was 123·1, 187·0 and 272·0 thousands of whom 103·8, 158·0 and 230·0 thousands were living in urban areas and the remaining 19·3, 29·0 and 42·0 thousands in rural areas in the three respective years. In chapter VIII we have already taken into account the income of 20·0, 44·0 and 17·0 thousand persons mainly engaged in trade and whose income was assessed to income-tax in 1921-22, 1931-32 and 1938-39 respectively. In chapter X we have estimated the income of nearly 70·4, 69·8 and 64·3 thousand persons employed in Railways, Posts, Telegraphs and Telephones. Most of the persons employed in the above two categories of services were urban workers. Now we have to estimate the income of 671·8, 939·0 and 1,095·0 thousand traders of whom 253·2, 345·0 and 422·0 thousands lived in towns and 418·6, 594·0 and 673·0 thousands in villages. Of 52·7, 117·2 and 207·7 thousand remaining transport workers 33·4, 88·2 and 165·7 thousands lived in towns and 19·3, 29·0 and 42·0 thousands in villages in the three respective years.

Income of Traders

In absence of any statistics regarding the earnings of traders in U. P. we attempted to estimate their earnings in the villages surveyed by us. We also made a detailed

survey of the earnings of 131 traders in Gajpur (of whom six were paying income-tax in 1938-39),¹ who cater to the needs of a sufficiently wide area around them and, therefore, can be treated more or less like urban traders. The average earnings of a trader not paying income-tax in 1938-39 are estimated to be Rs. 33/- per month or Rs. 396/- per year. On this basis the earnings of 422·0 thousand traders not paying income-tax in 1938-39 were nearly Rs. 1,671·1 lakhs. The average earnings of traders in 1931-32 due to acute depression were very low. In a number of cases they suffered heavy losses, what to speak of avoiding them. Most of the traders were satisfied even with 2½ per cent earnings on the turn-over of their business. Moreover, the average income of a trader not subject to income-tax would ordinarily be 18 per cent lower than that in 1938-39 due to a lower income-tax exemption limit. Under the circumstances it would not be unreasonable to assume the average earnings of a trader not subject to income-tax in 1931-32 to be nearly Rs. 225/-². The average income was sufficiently high in

¹ For details see Table 93.

² Our assumption is very much based on the information supplied to us by traders in Kanpur. The wholesale dealers in cloth in Kahu Kothi and General Ganj sold cloth at a margin of 2 to 3 per cent in 1938-39. In 1931-32 the margin was 1 to 2 per cent. The retail dealers in cloth had a margin of 5 per cent in 1938-39 while only 2 to 3 per cent in 1931-32. The Kirana wholesale dealers in Nayaganj had a margin of 2 per cent in 1938-39 while only 1 to 1½ per cent in 1931-32. The retail dealers in Kirana in 1938-39 had a margin of 3 per cent while in 1931-32 only 1½ to 2 per cent. The wholesale dealers in iron goods in 1938-39 had a margin of 4 to 6¼ per cent while in 1931-32 the margin was 2 to 4 per cent. The margin of retail dealers in iron goods was 5 to 10 per cent in 1938-39 and 4 to 5 per cent in 1931-32. Wholesale dealers in leather goods on the A. B. Road had a margin of 3 to 6¼ per cent in 1938-39 and 2 to 4 per cent in 1931-32. The retail dealers in leather goods had a margin of 6¼ to 12½ per cent in 1938-39 and not more than 6¼ per cent in 1931-32. The wholesale dealers in cycles had a margin of 5 per cent in 1938-39 and 3 to 4 per cent in 1931-32 while the retail dealers had a margin of 10 per cent in 1938-39 and 6¼ per cent in 1931-32.

1921-22 due to inflationary conditions in India. The traders had windfall profits to a great extent and hence it would not be unreasonable to assume the average earnings of an urban trader in 1921-22 to be Rs. 900/- per year.¹ At the rate of Rs. 225/- and Rs. 900/- per year as the average earnings of a trader not subject to income-tax in 1931-32 and 1921-22 respectively, the earnings of traders in the two respective years would be nearly Rs. 776·3 and 2,278·8 lakhs.

TABLE 93

Showing the Distribution of Traders in
Gajpur in Various Earning Groups
in 1938-39

Monthly Earning Groups				No.
Upto	Rs. 10			—
Above	Rs. 10	but not more than	Rs. 15	10
"	15	"	25	52
"	25	"	35	31
"	35	"	45	12
"	45	"	55	7
"	55	"	65	4
"	65	"	95	4
"	95	"	135	3
"	135	"	167	2
Over	Rs. 167			6
Total				131

With a view to calculating the earnings of traders in rural areas we attempted an estimate of earnings in the villages of Todarpur, Atari, Bihat and Dhirpur for the year 1938-39. The results of our enquiry are shown in Table 94. On the basis of Rs. 201/- as the average annual

¹ Prices in 1921-22 were nearly three times as high as in 1938-39. The figures of earnings for 1921-22 have been estimated in consultation with the leading businessmen and trade associations in U. P.

earnings of a village trader the earnings of 673·0 thousand traders not subject to income-tax were nearly Rs. 1,352·7 lakhs. We find from the various *Marketing Reports* that nearly 38 per cent of the gross agricultural produce except fruits and fodder crops was being traded in 1938-39. The difference between the harvest price and the average annual retail price of cereals was nearly 10 per cent. Of the total number of persons returned under trade in 1931-32 nearly 30 per cent were dealers in grains and pulses. Assuming 30 per cent of earners under 'trade' in 1938-39 to be also dealers in grains and pulses and the earnings of two principal workers to be equal to six working dependants or five subsidiary workers, we find the earnings of these dealers to be nearly Rs. 462·1 lakhs, which gives us the average annual earnings of a dealer in grains and pulses to be nearly Rs. 204/-. The dealers in food stuffs formed nearly 70 per cent of the total earners engaged in trade and, therefore, the average annual earnings of a trader cannot be far from Rs. 201/-. On account of depression in 1931 the earnings of traders in 1931-32 must be very low and will not be far from Rs. 152/- per year. In 1921-22 when the prices of agricultural and other commodities were high (nearly three times of what they were in 1938) the average annual earnings of a village trader would be nearly Rs. 600/-. Thus the income of 418·6 and 594·0 thousand village traders in 1921-22 and

TABLE 94

Showing the Average Annual Earnings of a Trader in Certain Villages in U. P. in 1938-39

Village	Earnings Per Trader Rs.
Todarpur	192
Atari	210
Bihat	204
Dhirpur	198
Average	201

1931-32 would be nearly Rs. 2,511·6 and 902·9 lakhs respectively. The total earnings of all the traders in 1921-22, 1931-32 and 1938-39 would be nearly Rs. 4,790·4, 1,679·2 and 3,023·8 lakhs respectively. To this we must add the earnings of 46·0, 67·7 and 73·0 thousand working dependants and 214·1, 247·7 and 266·0 thousand subsidiary traders in 1921-22, 1931-32 and 1938-39 respectively. Assuming the earnings of two principal traders to be equal to six working dependants or five subsidiary workers, the addition to earnings on account of them would be nearly Rs. 605·4, 185·0 and 262·7 lakhs in the three respective years. Thus the total net income of all the persons engaged in Trade not subject to income-tax in 1921-22, 1931-32 and 1938-39 would be Rs. 5,395·8, 1,864·2 and 3,286·5 lakhs respectively. These figures are subject to an error of \pm 15 per cent.

Income of Transport Workers

Data regarding the earnings of transport workers other than those employed in Railways, Posts, Telegraphs and Telephones are almost absent. The Municipal and District Board establishment registers give us some idea of the earnings of motor drivers, cleaners, workers of road gangs etc. We undertook an inquiry into the earnings of *ekka* and *tonga* drivers and the owners, drivers and cleaners of motor buses in Gorakhpur, Banaras, Agra, Aligarh, Lucknow, Kishni, Etah and Muzaffarnagar. We also tried to investigate the earnings of the owners and drivers of bullock carts in the rural areas.

The transport workers other than the employees of Railways, Posts and Telegraphs were mostly engaged in plying *ekkas*, *tongas*, private motor buses or working as porters and messengers and were generally distributed in the proportion of 74 : 15 : 10. The results of our enquiry about the net earnings of *ekka* and *tonga* owners and drivers and bus owners, drivers and cleaners for 1938-39 are given in Table 95.

TABLE 95

Showing the Average Monthly Earnings in Rupees of Transport Workers in Certain Cities and Towns in U. P.
in 1938-39

Description	Banaras	Lucknow	Agra	Muzaffarnagar	Aligarh	Kishni	Brah	Gorakhpur	Average
Ekka owner and driver ...	18	20	20	16	15	12	15	14	16
Tonga owner and driver	30	32	30	24	22	—	20	21	25
Motor owner ...	100	120	130	115	125	100	120	120	116
Motor driver ...	30	25	30	30	36	22	25	25	27
Motor cleaner ...	10	11	12	11	11	9	10	8	10

This gives us Rs. 192/- as the average annual earnings of an *ekka* owner and driver, Rs. 300/- of a *tonga* owner and driver, Rs. 1,392/- of a motor bus owner, Rs. 324/- of a motor driver, and Rs. 120/- of a motor cleaner. Hence the average annual earnings of a person engaged in motor bus transport (taking one owner, one driver and one cleaner per bus) would be nearly Rs. 612/-. Persons engaged in the repair of roads were paid the average monthly wages of Rs. 11/-, 9/-, 11/- and 10/8/- in the municipalities of Allahabad, Gorakhpur, Agra and Muzaffarnagar respectively. This gives us the average wages of a person engaged in the repair of roads or working as a porter or messenger to be Rs. 12/- per month or Rs. 120/- per year. Giving weights to these earnings of various classes of transport workers according to their number we obtain the average annual earnings of an urban transport worker as Rs. 205/- in 1938-39. The earnings in 1931, being nearly 10 per cent higher than those in 1938-39, would be nearly Rs. 225/-. In 1921-22 due to increased charges on account of inflationary tendencies the average annual earnings were nearly Rs. 250/-.¹ At the rate of Rs. 250/-, Rs. 225/- and Rs. 205/- as the average annual earnings of an urban transport worker in 1921-22, 1931-32 and 1938-39 their total earnings for these three years would be nearly Rs. 83·5, 198·4 and 339·7 lakhs respectively.

Now we may estimate the earnings of transport workers in rural areas. These workers are mainly engaged in plying bullock carts, in the maintenance and repair of roads, and working as porters and messengers and are distributed in the ratio of 68 : 25 : 7. The average annual earnings of a worker plying bullock cart in 1938-39 as obtained from our enquiry were Rs. 141/-²

¹ These figures are based on the earnings of municipal employees in transport services in 1921-22, 1931-32 and 1938-39, as obtained from the Establishment Registers of various Municipal Boards.

² For details see Table 96.

while those of a worker engaged in the repair and maintenance of roads and bridges, as obtained from the District Board Establishment registers were Rs. 108/- in 1938-39.¹ The average annual earnings of porters and messengers who are like unskilled workers except for the fact that they get something for refreshment besides their usual money wages, would be Rs. 80/- in 1938-39 when those of an unskilled worker were Rs. 69/-. Giving due weights to the earnings of these various classes of rural transport workers we obtain Rs. 128/- as the average annual earnings of a transport worker. At this rate the total earnings of 42·0 thousand workers would be Rs. 53·8 lakhs.

TABLE 96

Showing the Average Annual Earnings
of a Bullock Cart Owner

Name of the Village	Earnings (Rs.)
Todarpur ...	144
Atari ...	150
Bihat ...	145
Gajpur ...	125
Dhirpur ...	140
Average	141

In 1931-32 the earnings of workers engaged in plying bullock carts, which were somewhat higher than those in 1938-39, amounted to nearly Rs. 150/- per year. The average annual earnings of those engaged in the maintenance and repair of roads, as obtained from different District Boards, were nearly Rs. 98/-.² The annual earnings of porters and messengers, usually as they are higher than those of an unskilled labourer,

¹ See Table 97.

² For details see Table 98.

TABLE 97

Showing the Monthly Earnings of Workers Engaged in the Maintenance and Repair of Roads in 1938-39

Earning Groups (Rs.)	Number in							Total
	Gorakhpur	Agra	Aligarh	Banaras	Unnao	Azamgarh	Total	
5-6	6	—	40	—	—	54	100	
6-7	43	30	—	—	—	108	181	
7-8	8	4	85	14	—	9	120	
8-9	141	29	—	—	56	18	244	
9-10	1	13	1	1	70	—	86	
10-12	54	1	19	17	—	—	91	
12-14	28	—	—	1	—	—	29	
Over 14	3	1	—	3	4	3	14	
Total	284	78	145	36	130	192	865	

TABLE 98

Showing the Monthly Earnings of Workers Engaged in the Maintenance and Repair of Roads in 1931-32

Earning Groups (Rs.)	Number in								Total
	Gorakhpur	Agra	Allahabad	Unnao	Azamgarh	Aligarh			
5-6	—	—	—	—	—	36			36
6-7	56	26	91	—	32	—			205
7-8	—	2	42	—	64	79			187
8-9	99	27	34	28	6	2			196
9-10	—	13	23	35	10	18			99
10-12	—	1	—	—	—	—			1
12-14	24	8	8	—	—	1			41
Over 14	3	1	3	2	2	2			13
Total	182	78	201	65	114	138			778

were in the neighbourhood of Rs. 90/-. Giving due weights to these various classes of workers we obtain the average annual earnings of a rural transport worker to be Rs. 133/-. On this basis the total earnings of 29.0 thousand rural transport workers would be nearly Rs. 38.6 lakhs.

TABLE 99

Showing the Average Monthly Earnings of Workers Engaged in Repair of Roads in 1921-22

Earning Groups (Rs.)	Number in			Total
	Agra	Allahabad	Azamgarh	
5-6	—	—	—	—
6-7	1	74	66	141
7-8	24	76	8	108
8-9	16	—	1	17
9-10	20	22	—	42
10-12	—	—	—	—
12-14	6	1	—	7
Over 14	1	1	1	3
Total	68	174	76	318

In 1921-22 on account of high prices of agricultural commodities the earnings of workers plying bullock carts in rural areas were much higher than those in 1931-32. From our enquiry we learnt that the average annual earnings of these workers were nearly Rs. 240/-. The yearly earnings of workers engaged in the maintenance and repair of roads and bridges were nearly Rs. 100/- as obtained from certain District Boards in U. P.,¹ besides the dearness allowance of nearly Rs. 50/-. Thus their average annual earnings were nearly Rs. 150/- in 1921-22. The earnings of porters and messengers were nearly Rs. 140/- per year. Giving

¹ For details see Table 99.

due weights to the earnings of these various classes of workers we obtain the average annual earnings of a transport worker to be nearly Rs. 210/- and the total earnings of 19·3 thousand rural transport workers as Rs. 40·5 lakhs.

To this we must add the earnings of 1·2, 1·9 and 3·0 thousand working dependants and 32·7, 37·3 and 55·0 thousand subsidiary workers engaged in Transport other than Railways, Posts and Telegraphs in 1921-22, 1931-32 and 1938-39 respectively. Assuming the earnings of two principal workers to be equal to those of six working dependants or five subsidiary workers, we obtain their earnings in the three respective years to be nearly Rs. 31·8, 31·5 and 43·6 lakhs.

Thus the total earnings of these other transport workers amount to Rs. 155·8, 268·5 and 437·1 lakhs in the three respective years. These figures of income are subject to an error of \pm 10 per cent.

The combined total earnings of the workers discussed in this chapter amount to Rs. 5,551·6, 2,132·7 and 3,723·6 lakhs in 1921-22, 1931-32 and 1938-39 respectively. In the next chapter we shall estimate the earnings of persons engaged in Professions and Liberal Arts.

CHAPTER XII

INCOME OF EARNERS ENGAGED IN PROFESSIONS AND LIBERAL ARTS

THERE were 140·5, 247·0 and 260·0 thousand actual earners in 1921-22, 1931-32 and 1938-39 respectively, of whom 73·0, 128·0 and 135·0 thousands lived in urban areas and 67·5, 119·0 and 125·0 thousands in rural areas in the three respective years. Distribution of these earners among some important professions in 1931-32 and 1938-39¹ was as given in Table 100. Of these we have already (in chapter VIII) calculated the earnings of 2·0, 5·0 and 2·0 thousand workers paying income-tax, who mostly lived in urban areas.

With a view to estimating the earnings of priests and ministers we included in our rural and urban studies an inquiry into the earnings of this class in 1938-39. For the earnings of lawyers and their clerks who live in urban areas we made inquiries in Etah, Mainpuri, Banaras, Agra and Allahabad. We tried to arrive at the average annual earnings of doctors,

¹ We have estimated the distribution of actual earners in 1938-39 among various occupations on the assumption that in the case of those following religion as an occupation the number in 1938-39 increased in the same proportion as the total number of earners under those following professions in 1938 to those in 1931. The figures for those who were engaged in law have been estimated after taking into account their increasing number in U. P. due to want of other avenues of employment after the depression in 1929. The figures of doctors, vaccinators, compounders, midwives and nurses have been estimated on the basis of their number in municipalities and district boards in U. P. The figures under instructions have been estimated on the basis of the number of teachers from the Annual Report of the Director of Public Instruction, U. P. for 1931-32 and 1938-39. The number of dancers went down in 1938 due to growing hatred of the general public towards their occupation after the Civil Disobedience Movement in 1931.

TABLE 100
Showing the Distribution of Persons Engaged in Professions and Liberal Arts (Figures in thousands)

Description	1931-32			1938-39		
	Urban	Rural	Total	Urban	Rural	Total
<i>Religion</i>						
Priests, ministers etc.	29.0	79.0	108.0	30.2	82.9	113.1
Other religious workers	0.9	1.7	2.6	0.9	1.7	2.6
Servants in religious edifices, pilgrim conductors etc.	2.4	2.0	4.4	2.4	2.0	4.4
<i>Law</i>						
Lawyers of all kinds including Kazis, law agents and Mukhtars	9.7	—	9.7	11.5	—	11.5
Lawyer's clerk, petition writers etc.	11.3	—	11.3	13.3	—	13.3
<i>Medicine</i>						
Registered medical practitioners including oculists	5.1	—	5.1	6.0	—	6.0
Other persons practising the healing art without being registered	6.1	—	6.1	7.0	—	7.0
Dentists	0.6	—	0.6	0.7	—	0.7
Veterinary surgeons	0.7	—	0.7	1.0	—	1.0
Vaccinators and compounders	2.4	—	2.4	3.6	—	3.6
Midwives and nurses	4.0	10.0	14.0	5.0	14.8	19.8
<i>Instruction</i>						
Professors and teachers of all kinds	25.3	12.6	37.9	27.0	13.5	40.5
Clerks and servants connected with education	9.2	1.5	10.7	9.8	1.6	11.4
Letters, Arts and Sciences	0.7	—	0.7	0.7	—	0.7
Musicians, Actors and Dancers	5.5	21.5	27.0	4.6	18.5	23.1

compounders, vaccinators, midwives from the Establishment Registers of those Municipal and District Boards which were studied by us for the earnings of the servants of municipal and other local bodies. In the case of earnings of the teachers in the rural areas we made use of the Establishment Registers of the District Boards. For the urban areas we made use of the Establishment Registers of the Municipal Boards and also sent nearly one hundred and twenty letters to various Head Masters of High Schools and Principals of Intermediate Colleges requesting them to supply us information on the earnings of their employees. We received only eight replies out of which one was rejected due to insufficient data.¹

We have already considered in chapter VIII the earnings of 2·0, 5·0, and 2·0 thousand earners under 'Professions and Liberal Arts' who are subject to income-tax and who are distributed over Law, Medicine and Instruction in the proportion of 3 : 3 : 2. Almost all of these earners are residents of towns and are either lawyers or doctors or professors and teachers in schools and colleges. We may now proceed to calculate the earnings of those not subject to income-tax. Among those who are following religion as a profession, priests and ministers constitute more than ninety per cent. Our inquiry in the rural and urban areas² in certain parts of U. P. reveals that in 1938-39 the average annual earnings of a priest in rural areas were Rs. 184/-, while in the towns and cities Rs. 262/-. The average earnings in 1931-32 were higher than those in 1938-39 and we can reasonably assume them to be Rs. 200/- and Rs. 275/- in the rural and urban areas respectively.

¹ The heads of the following institutions were kind enough to supply us information :—Christ Church High School, Kanpur ; Municipal High School, Banaras ; M. A. B. Girls School, Lucknow ; Aminabad High School, Lucknow ; D. A. V. Inter-College, Muzaffarnagar ; Hindu High School, Shahjahanpur ; and K. D. Jain High School, Unnao.

² For details see Tables 101 and 102.

Persons engaged in Law are mostly residing in towns and cities. We made enquiries in certain towns and cities in U. P. and obtained the average annual earnings of a lawyer as Rs. 720/- and of a lawyer's

TABLE 101

Average Annual Earnings
of Priests in Rural Areas

Village	Rupees
Todarpur ...	195
Atari ...	180
Gajpur ...	160
Bihat ...	200
Average	184

TABLE 102

Earnings of Priests in Towns
and Cities

Name of Town or City	Earnings (Rs.)
Lucknow ...	320
Ballia ...	240
Etah ...	250
Mainpuri ...	260
Aligarh ...	240
Average	262

clerk Rs. 268/- in 1938-39.¹ In 1931-32 when there was severe crisis due to depression and the exemption limit of income-tax was very low, the yearly earnings of lawyers and their clerks would be nearly Rs. 550/-

¹ For details see Tables 103 and 104.

and Rs. 225/-. Giving weights on the basis of their number to the earnings of these classes of persons,

TABLE 103

Showing the Average Monthly Earnings of Lawyers of all Classes in 1938-39

Earning Groups (Rs.)	Number in					
	Etah	Manipuri	Banaras	Agra	Allahabad	Total
15-20	3	2	3	—	—	8
20-35	4	3	2	8	2	19
35-45	3	3	2	6	16	30
45-55	4	7	4	10	20	45
55-65	3	5	3	6	15	32
65-75	2	3	3	5	10	23
75-85	2	2	2	3	8	17
85-90	1	1	1	2	6	11
95-105	1	—	1	2	3	7
Over 105	1	—	1	3	3	8
Total ...	24	26	22	45	83	200

TABLE 104

Monthly Earnings of Lawyers' Clerks and Petition Writers in 1938-39

Earning Groups (Rs.)	Number in					
	Etah	Mainpuri	Banaras	Agra	Allahabad	Total
15-20	40	20	30	35	26	151
20-25	25	19	16	32	28	120
25-30	16	10	10	18	22	76
30-35	—	—	5	9	10	24
35-40	—	—	—	4	6	10
Total ...	81	49	61	98	92	381

we obtain the average annual earnings of a person engaged in 'Law' to be nearly Rs. 477/- and Rs. 375/- in 1938-39 and 1931-32 respectively. For 1921-22 we may reasonably assume the annual earnings of this class of workers to be nearly Rs. 425/-.¹

TABLE 105

Showing Monthly Earnings of Doctors

Earning Groups (Rs.)	Number in		
	1921-22	1931-32	1938-39
30-35	—	—	—
35-40	1	—	5
40-50	3	1	16
50-60	11	9	20
60-70	18	12	16
70-80	9	23	8
80-83	13	4	5
83-90	4	5	4
90-100	1	14	8
100-120	13	4	24
120-140	1	2	7
140-160	3	2	7
160-167	1	1	4
Over 167	22	21	25
Total	100	98	149

As regards the earnings of doctors, compounders, vaccinators and midwives we consulted the Municipal and District Board Establishment Registers and obtained the average annual earnings of a doctor (neither in administrative post nor subject to income-tax) to be nearly Rs. 1,080/-, Rs. 828/- and Rs. 996/- in 1921-22, 1931-32 and 1938-39 respectively.² The average annual

¹ These figures were estimated in consultation with the lawyers of long standing in U. P.

² For details see Table 105.

earnings of a compounder or vaccinator were nearly Rs. 320/-, 360/- and 370/- while the earnings of a midwife were Rs. 370/-, Rs. 380/- and Rs. 390/- in the three respective years,¹ The earnings of dentists are, more or less, like the earnings of doctors while the earnings of veterinary surgeons are like those of compounders or persons practising healing art without being registered. All these classes of persons mostly

TABLE 106

Average Monthly Earnings of Compounders, Vaccinators and Midwives

Earning Groups (Rs.)	Number in		
	1921-22	1931-32	1938-39
12-15	18	10	15
15-20	26	39	36
20-25	68	47	61
25-30	26	41	52
30-35	26	30	65
35-40	42	29	72
40-45	2	15	19
45-50	2	12	2
50-55	2	14	21
55-60	—	—	—
60-65	1	—	2
Over 65	—	—	—
Total	213	237	345

reside in towns and cities. Of 4.0 and 5.0 thousand midwives and nurses in cities in 1931-32 and 1938-39 nearly $12\frac{1}{2}$ per cent were midwives and the remaining nurses. The average annual earnings of a nurse as obtained by us from inquiry were nearly Rs. 260/- in towns and Rs. 144/- in villages in 1938-39, while in 1931-32 they were nearly Rs. 250/- and Rs. 135/-

¹ For details see Table 106.

Giving weight to the earnings of these various classes of workers under this head on the basis of their number, we find the average annual earnings of a worker engaged in the profession of medicine and not subject to income-tax to be nearly Rs. 135/- and Rs. 144/- in rural areas and Rs. 476/- and Rs. 523/- in urban areas in 1931-32 and 1938-39 respectively.

TABLE 107

Monthly Earnings of District Board Teachers
(except the Vernacular Middle and
Training School Teachers)

Earning Groups (Rs.)	Number in		
	1921-22	1931-32	1938-39
8-10	697	—	—
10-15	2,158	811	990
15-20	1,504	1,630	3,147
20-25	529	1,022	1,638
25-30	186	322	459
30-35	132	188	365
35-40	—	—	81
Total	5,206	3,973	6,680

Of the persons engaged in 'instructions' teachers and professors in schools and colleges constitute the majority. From the Establishment Registers of District Boards already referred in chapter X we obtain the average annual earnings of a teacher in a primary school who generally comes from village to be Rs. 186/-, 232/- and 237/- in 1921-22, 1931-32 and 1938-39 respectively.¹ The average annual earnings of primary, middle and technical school teachers in urban areas were nearly Rs. 264/-, Rs. 360/- and Rs. 333/- in the three respective years.² The average annual earnings of a

¹ For details see Table 107

² For details see Table 108.

teacher employed in High Schools were nearly Rs. 648/-, Rs. 624/- and Rs. 797/- in the three respective years.¹ The average annual earnings of lecturers and professors in Intermediate and Degree colleges and Universities in U. P. were nearly Rs. 1,300/- in 1938-39.² In 1931-32 the average earnings would not be less than Rs. 900/- per year.

TABLE 108

Showing the Average Monthly Earnings of
Municipal and District Board Middle
and Training School Teachers

Earning Groups (Rs.)	Number of teachers in		
	1921-22	1931-32	1938-39
10-15	180	38	106
15-20	69	171	370
20-25	133	126	234
25-30	79	231	226
30-35	101	277	400
35-40	62	87	106
40-45	21	28	92
45-50	7	4	30
50-55	26	59	79
55-60	4	6	7
60-65	19	46	63
65-70	—	—	3
70-75	—	—	2
75-80	—	—	5
80-83	—	—	1
Over 83	—	1	4
Total	701	1,074	1,728

The average annual earnings of clerks as obtained from our inquiry were Rs. 400/-, Rs. 420/- and Rs.

¹ See Table 109.

² An M. A. in an Intermediate College was usually appointed on a fixed salary of Rs. 90/- per month in 1938-1939.

480/- in 1921-22, 1931-32 and 1938-39 respectively.¹ The average annual earnings of servants in rural areas were nearly Rs. 84/-, Rs. 90/- and Rs. 93/- and in urban areas Rs. 95/-, Rs. 102/- and Rs. 104/- in 1921-22, 1931-32 and 1938-39 respectively.² In 1931-32 and 1938-39 the number of clerks was 0.5 and 0.6 thousand,

TABLE 109

Showing the Average Monthly Earnings of High Schools Teachers

Earning Groups (Rs.)	Number of Teachers in		
	1921-22	1931-32	1938-39
15-20	—	—	—
20-25	2	1	—
25-30	4	—	6
30-35	1	8	3
35-40	2	6	6
40-45	1	5	8
45-50	2	5	15
50-60	1	16	17
60-70	2	10	13
70-80	2	6	19
80-83	1	—	2
83-90	—	24	6
90-100	2	—	13
100-120	—	—	6
120-140	1	—	2
140-160	—	—	4
160-167	—	—	4
Over 167	—	—	5
Total	21	81	129

and of servants in urban areas 7.6 and 7.9 thousands, whose earnings we are required to calculate in this chapter. A man engaged in letters, arts or sciences earned as much as a teacher in the employment of

¹ For details see Table 110.

² For details see Table 111.

municipal middle and primary schools. The average annual earnings of a dancer or a musician were nearly Rs. 120/- in the rural areas and Rs. 175/- in urban areas in 1938-39. In 1931-32 their earnings were nearly Rs. 130/- and Rs. 260/- in rural and urban areas.

TABLE 110

Showing the Average Monthly Earnings of Clerks

Earning Groups (Rs.)	Number in		
	1921-22	1931-32	1938-39
15-20	—	—	—
20-25	—	1	2
25-30	2	2	—
30-35	2	2	2
35-40	1	1	2
40-45	1	1	1
45-50	—	1	1
Over 50	—	1	3
Total	6	9	11

TABLE 111

Showing the Average Monthly Earnings of Servants

Earning Groups (Rs.)	Employed in					
	Urban Municipal & District Board Middle Schools			Rural (District Board) Schools		
	Number in			Number in		
	1921-22	1931-32	1938-39	1921-22	1931-32	1938-39
5-10	281	305	517	153	93	404
10-15	9	61	153	—	—	—
15-20	—	4	2	—	—	—
20-25	—	1	2	—	—	—
Over 25	—	—	—	—	—	—
Total	290	371	674	153	93	404

Taking all these things into account and giving due weights to the average annual earnings of these various classes of persons under 'instruction' on the basis of their number, we obtain the average annual earnings of persons engaged in 'instruction' as Rs. 333/- and Rs. 340/- in urban areas and Rs. 165/- and Rs. 164/- in rural areas in 1931-32 and 1938-39 respectively.¹

Taking into account the various classes of earners (leaving those persons who are subject to income-tax and whose earnings have already been calculated in chapter VIII) and giving weights to the average earnings of these workers on the basis of their number, we find the average annual earnings of a person engaged in Professions and Liberal Arts to be Rs. 209/- and Rs. 177/- in rural areas and Rs. 345/- and Rs. 381/- in urban areas in 1931-32 and 1938-39 respectively. Our study of the earnings of teachers and compounders for 1921-22 reveals that the average annual earnings of a worker in towns as well as in villages were nearly 15 and 10 per cent less than those in 1931-32. On this basis the earnings of a worker in 1921-22 in urban and rural areas would be nearly Rs. 294/- and Rs. 180/- respectively.

We may now calculate the earnings of persons not subject to income-tax excluding, of course, the doctors, lawyers, teachers and professors in Government service whose earnings we have already calculated

¹ In 1938 there were nearly 19·7, 4·5 and 0·8 thousand employees in primary and middle schools, High schools and Inter and Degree colleges. In 1931-32 their number was 19·4, 3·3 and 0·7 thousands respectively in urban areas. The average annual earnings of teachers and professors amount to Rs. 416/- and 447/- in 1931-32 and 1938-39 in urban areas. There were 0·6 thousand clerks and 8·1 thousand servants in 1938-39 and 0·5 thousand clerks and 7·7 thousand servants in 1931-32 in urban areas and the average annual earnings of this class of workers were Rs. 132/- and Rs. 121/- in 1931-32 and 1938-39 respectively.

in chapter X.¹ Calculating the earnings of these workers at the rates given before, we obtain the earnings of urban workers to be nearly Rs. 198·5, 406·5 and 491·1 lakhs and of rural workers nearly Rs. 121·5, 248·7 and 221·2 lakhs. To this we must add the sum of Rs. 50·5, 70·5 and 76·9 lakhs as the earnings of 4·5, 7·9 and 9·0 thousand working dependants and 49·5, 57·2 and 61·0 thousand subsidiary workers in the three respective years, assuming that two principal earners earn as much as six working dependants or five subsidiary workers. The total earnings of workers engaged in Professions and Liberal Arts in 1921-22, 1931-32 and 1938-39 were nearly Rs. 370·5, 725·7 and 789·2 lakhs respectively subject to an error of ± 10 per cent.

In the next chapter we proceed to discuss the earnings of domestic servants.



¹ The number of these persons was nearly 3·5, 5·2 and 4·1 thousands in 1921-22, 1931-32 and 1938-39 respectively. These persons mostly resided in towns.

CHAPTER XIII

INCOME OF DOMESTIC SERVANTS

THERE were 374·6, 438·0 and 475·0 thousand actual earners in 1921-22, 1931-32 and 1938-39 respectively, of whom 191·0, 224·0 and 243·0 thousands lived in urban areas and the remaining 183·6, 214·0 and 232·0 thousands in the rural areas in the three respective years. Besides these there were 13·1, 15·4 and 16·0 thousand working dependants and 55·1, 63·7 and 57·0 thousand subsidiary workers in the three years.

As there is no published literature on the earnings of domestic servants, we were compelled to conduct an inquiry of our own. We circulated a printed form on the wages of domestic servants to friends, colleagues and relations in both urban and rural areas in U. P. The copies of the form of domestic servants in Banaras, Ballia, Gorakhpur, Lucknow and Etah were filled in by ourselves. We also included in our village studies an inquiry into the earnings of rural domestic servants.

From the data available to us we obtained the average annual earnings of a servant in towns to be Rs. 123/- and of a servant in villages Rs. 75/- in 1938-39.¹ At these rates the earnings of domestic servants in urban and rural areas in 1938-39 would be nearly Rs. 298·9 and 174·0 lakhs respectively, the total earnings being Rs. 472·9 lakhs.

For 1931-32 and 1921-22 we have the statistics of the basic wages of servants of boarding houses of District Board schools in Aligarh. These servants mostly lived in rural areas. The average annual basic wage bill of a servant in 1931-32 and 1921-22 was for Rs. 80/- and 79/- respectively.² Our study reveals

¹ For details see Tables 112 and 113.

² For details see Table 114. Here the dearness allowance for 1921-22 is not considered.

TABLE 112

Showing the Earnings of Domestic Workers in Urban Areas in 1938-39

Monthly Earning Groups (Rs.)	Number of Earners in							Total
	Ballia	Banaras	Lucknow	Agra	Kanpur	Aligarh	Total	
Below 8	15	15	—	—	—	—	—	30
8-9	25	25	25	15	12	7	—	109
9-10	10	28	20	20	15	11	—	104
10-11	7	30	14	30	20	15	—	116
11-12	3	12	7	18	16	20	—	76
12-14	2	8	5	12	13	9	—	49
Over 14	—	4	3	6	9	3	—	25
Total	62	122	74	101	85	65	—	509

that wages in 1931-32 were nearly 5 per cent higher than those in 1938-39 and hence we can reasonably assume them to be nearly Rs. 129/- per year for urban worker in 1931-32. For 1921-22 the average annual earnings due to high prices, as revealed to us on enquiry, were nearly Rs. 200/- and 131/- in the urban and rural

TABLE 113

Earnings of Domestic Workers in Rural Areas
in 1938-39

Village	Monthly earnings (Rs.)
Lakhaoti	7.50
Kosi	7.25
Dhirpur	6.75
Asara	6.50
Atari	6.00
Todarpur	6.50
Bihat	6.00
Gajpur	5.50
Average	6.50

TABLE 114

Monthly Earnings of Workers in Aligarh
in 1931-32 and 1921-22

Earning Groups (Rs.)	Number in	
	1931-32	1921-22
Below Rs. 5	1	1
5-6	4	5
6-7	32	34
7-8	10	4
8-9	4	4
Total ...	51	48

areas.¹ If we use these rates for the whole of the Province, we can obtain the earnings of domestic servants in the urban and rural areas to be Rs. 289·0 and 171·2 lakhs in 1931-32 and Rs. 382·0 and 240·5 lakhs in 1921-22, the total for the two years being Rs. 460·2 and 622·5 lakhs.

To these figures we must add the sum of Rs. 43·9 32·2 and 28·0 lakhs for the working dependants and subsidiary workers engaged in 1921-22, 1931-32 and 1938-39 respectively, assuming that the earnings of two principal workers were as much as those of six working dependants or five subsidiary workers.

The total earnings of all the domestic servants in 1921-22, 1931-32 and 1938-39 were nearly Rs. 666·4 492·4 and 500·9 lakhs subject to an error of ± 15 per cent.

In the next chapter we shall calculate income from house property and also make such other miscellaneous additions to and deductions from the Provincial Income as are not assignable to any specific set of earners.



¹ Figures estimated on the basis of inquiry from old people in urban and rural areas. These figures include dearness allowance also.

CHAPTER XIV

INCOME FROM HOUSE PROPERTY AND OTHER ADDITIONS AND DEDUCTIONS FROM PROVINCIAL INCOME

IN this chapter we will take into account all those miscellaneous items which could not be brought either under the *inventory* or *income* method. Thus to the figures of income obtained in the preceding nine chapters, we will add our estimates of income from house property, pensions and provident funds, excess of incomings over outgoings, the excess of the value of imports over exports on income account, revenue from indirect taxes, the amount of income on which tax has been evaded and which has not, therefore, been considered so far, and a part of the interest on agricultural debt which has not been included in the income of the traders. We are not to add the income of persons living on their income as it has already been included under one head or other in the previous chapters. From the total of these items we will deduct the revenue from indirect taxes and interest on unproductive provincial debt. Whatever remains will be our estimate of the Income of the United Provinces in 1921-22, 1931-32 and 1938-39.

Income from House Property

We have already stated that in 1921, 1931 and 1938 there were 10·7, 12·4 and 12·8 lakh occupied houses in towns and 88·6, 89·1 and 94·0 lakhs in villages. It has to be noted that the houses in villages are mostly huts thatched with straw, and in a large number of cases they do not deserve to be known as any thing but hovels.¹ They do not fetch any rental value in villages. For our purpose we may assume an average rental value of Rs. 6/- per year per hut and estimate

¹ Rao, V. K. R. V. : *op. cit.*, 176.

the annual income from house property in the villages as Rs. 531·6, 534·6 and 564·0 lakhs in 1921-22, 1931-32 and 1938-39 respectively.

For the urban areas which generally command rent we have no statistics of annual value of house property. From *Municipal Administration Reports of U. P.* we have the statistics of income from house tax levied by municipalities with a population of 15·9, 21·7 and 17·0 lakhs in 1921-22, 1931-32 and 1938-39 respectively. The income obtained from tax on houses and land was Rs. 7·0, 11·0 and 11·5 lakhs in the three years. Assuming that income from rent on houses and land in the remaining municipalities where the tax is not levied bears the same ratio to the residents as in the case of the municipalities in which the tax is levied, the total tax would amount to Rs. 13·0, 16·9 and 21·8 lakhs in 1921-22, 1931-32 and 1938-39. With a view to find out the rates of property tax in various municipalities in U. P. we attached with our circular letter a form addressed to the chairmen of municipal boards requesting them to supply us the rates of house tax in their municipality and the amount realised thereof in 1921-22, 1931-32 and 1938-39. We obtained information from eight municipalities for 1938-39 and from six municipalities for 1931-32 and 1921-22. The average rate of house tax in 1921-22, 1931-32 and 1938-39 was nearly 4·05, 3·78 and 3·71 per cent of the annual rental of the houses.¹ Our data covered nearly 64 per cent, 70 per cent and 73 per cent of the total tax collected in 1921-22, 1931-32 and 1938-39 respectively. Using these very rates in the case of 85 municipalities with a population of 29·2, 34·1 and 34·1 lakhs and a property tax of Rs. 13·0, 16·9 and 21·8 lakhs we obtain Rs. 321·0, 447·0 and 587·6 lakhs as the estimated net annual value of income from property within municipal areas in 1921-22, 1931-32 and 1938-39 respectively. To this must be added Rs. 137·7, 175·6 and 482·1 lakhs on account of

¹ For details see Table 115.

TABLE 115

Showing Income from House Property in Rupees

Name of the Town or City	Rate of the Tax (%)	House Tax in			Income from House Property in		
		1921-22	1931-32	1938-39	1921-22	1931-32	1938-39
Lucknow	2½	—	97,499	1,20,134	—	38,99,960	48,05,360
Kanpur	3½	1,60,521	2,11,522	2,35,105	51,36,672	67,68,704	75,23,360
Banaras	4½	92,355	1,39,746	1,35,427	20,52,333	31,05,467	30,09,489
Agra	4½	58,252	94,117	1,08,385	12,94,489	20,91,489	24,08,556
Allahabad	4½	82,293	1,53,605	1,67,049	20,25,674	37,81,046	41,11,976
Unnao	7½	5,180	8,064	10,144	69,067	1,07,520	1,35,253
Naini Tal	10	50,900	69,516	55,245	5,09,000	6,95,160	5,52,450
Roorkee	7½	—	—	8,597	—	—	1,14,627
Total...		4,49,501	7,74,069	8,40,086	1,10,87,235	2,04,49,346	2,26,61,071

the estimated value of house property of 18·8, 20·1 and 42·4 lakh urban residents who do not live within municipal limits.¹ The total value of urban house property on this basis would be Rs. 458·7, 622·6 and 1,069·7 lakhs in 1921-22, 1931-32 and 1938-39. We must deduct Rs. 45·7, 55·6 and 106·5 lakhs as the value of house property in 1921-22, 1931-32 and 1938-39 respectively which has already been included in chapter VIII in the income assessed to income-tax. The amount to be added on account of the annual value of house property, both in urban and rural areas, is thus Rs. 944·6, 1,101·7 and 1,527·2 lakhs respectively. The error in our estimate is not likely to exceed ± 15 per cent.

Income From Poultry Farming

The statistics of the number of eggs collected, number of eggs retained for consumption by the producers, the number of eggs retained for hatching, and the balance available are found in the *Report on the Marketing of Eggs in India and Burma, 1937*.² Out of the total number of eggs collected we will deduct the number of eggs used for hatching and find out the value of the remaining ones for our purpose. The number of eggs consumed either by producers or by consumers is as follows :

	Figures in lakhs
<i>Desi</i> hen eggs	3,367·3
Improved hen eggs	482·7
Duck eggs	307·6
Guinea fowl eggs	116·0

In the absence of any data for 1938-39 we assume the figures of 1937 to hold good for 1938-39 also. The average wholesale price of *desi* hen eggs varied from Rs. 20/- to Rs. 24/- per thousand in different

¹ We suppose that income in the remaining urban areas is 66% of that within the municipal limits

² *cf. Report, Appendix II-XV.*

months in India in 1936-37. For our calculation we may take the mean of the two prices i.e., Rs. 22/- per thousand. The price of improved hen eggs per 100 varied from Rs. 2/9/- for 'A' grade to Rs. 2/7/8 for 'B', Rs. 2/4/11 for 'C', and Rs. 1/11/10 for small ungraded eggs. We may assume a price of Rs. 2/4/- per 100 for improved hen eggs. The price of duck eggs was nearly Rs. 16/- per 1,000 in 1938.¹ In the absence of any record of price for guinea fowl eggs we may assume its price to be Rs. 20/- per thousand in 1938.² Thus the income from eggs for 1938-39 was as under :

		(Lakh rupees)
Desi hen eggs	...	74
Improved hen eggs	...	11
Duck eggs	...	5
Guinea fowl eggs	...	3
Total	...	93

The income in 1931-32, when the prices were low, is estimated at Rs. 64 lakhs, while in 1921-22 it will be nearly Rs. 50 lakhs. These figures are subject to an error of \pm 15 per cent.

Pensions³ and Provident Fund

The total amount of superannuation allowances and pensions paid by the Provincial Government in 1921-22, 1931-32 and 1938-39 was nearly Rs. 47.6, 61.2 and 75.2 lakhs respectively. The amount of Provident Fund contributed by the Municipal Boards in the three years was Rs. 1.2, 2.2 and 2.7 lakhs, while the contribution by the District Boards in 1931-32 and 1938-39 was Rs. 2.5 and 2.7 lakhs respectively. No separate figures of the contribution of District

¹ *Report on the Marketing of Eggs in India and Burma, 1937, P. 84.*

² Assumption is based on enquiries made from persons in different towns in U. P.

³ Here it is assumed that the total amount of pensions earned by the people are as much as are actually distributed by the Government in any year.

Boards in 1921-22 are available ; we only have consolidated figures of the amount of expenditure on various departments. If we assume that the total contribution by the District Boards towards the Provident Fund in 1921-22 bore the same ratio to total expenditure as it did in 1931-32, we find their contribution to be nearly Rs. 1·9 lakhs in 1921-22. The pensionary charges for the Postal, Telegraph and Telephone employees in U. P. were Rs. 12·9 lakhs in 1938-39.¹ For 1931-32 and 1921-22 we have no data of the kind but only statistics of an estimate of salary bill. We may assume that during these years the pensionary charges bore the same ratio to the total salary bill as in 1938-39 and obtain these charges to be Rs. 13·9 and 7·7 lakhs in 1931-32 and 1921-22 respectively. There is no published literature on the pensions of the remaining Central Government employees in U. P., and the Provident Fund of the railway employees and teachers and professors in aided and unaided institutions. For the employees of the Central Government we may assume that the amount of their pensions bore the same ratio to their total salary bill as the pensionary charges of Postal employees bore to their total salary bill in the three years. On this basis the pensionary charges of the Central Government employees other than Postal employees would amount to Rs. 57·3, 56·0 and 69·5 lakhs in 1921-22, 1931-32 and 1938-39 respectively when the total salary bill of these persons was Rs. 382·0, 373·0 and 463·0 lakhs in the three respective years. We may estimate the amount of Provident Fund of professors and teachers of private and aided institutions and railway employees to be Rs. 20·4, 20·6 and 17·7 lakhs in 1921-22, 1931-32 and 1938-39 respectively.² The total amount of pensions and

¹ Figures obtained from the office of the Director General of Posts and Telegraphs, New Delhi.

² The contribution paid to the Provident Fund by railways other than the E.I.Railway and private as well as aided schools and colleges was one anna in the rupee of the salary of the employees. The E.I.Railway paid one and a half anna in the rupee.

Provident Fund for 1921-22, 1931-32 and 1938-39 was nearly Rs. 136·1, 156·4 and 180·7 lakhs respectively.

Treasure and Capital Movement

There is always some movement of goods and treasure between the U. P. and other provinces of India or foreign countries on account of either trade between them or remittances of money by the inhabitants serving in foreign lands.

According to the *Census Report*, 1921,¹ of 452 lakh people living in the Province, 449 lakhs were born in U. P., 2·1 lakhs in other parts of India and the remaining ones in foreign lands, particularly in Asia, Europe, Africa, America and Australia. The persons residing in U. P. but born in other parts of Indian Provinces mostly belong to labour class. Of the people from Asia the majority was from Nepal, who generally served as peons and watch-men. Most of these were men whose number in 1921 was 1,25,394 in U. P. of whom 88,770 were from other provinces, 21,839² from Asia and 14,785 were white people. In 1931 the number of men in U. P. from other provinces was 2,06,128, from Asian countries 29,439 and others, mostly white people, 15,553. In the *Census Report* of 1941 all these statistics are missing and hence it is not easy to find out the exact number of persons residing in U. P. but born outside the Province. One thing is obvious that due to depression all over the world after 1929 there was no bright prospect in U. P. for the people of other provinces and hence the immigration was almost at a standstill. The people born in U. P. but working outside the Province also began to return home on account of gloomy prospects everywhere as is brought out from the *Census Report of Rajputana Agency* that in 1931 and 1941 the persons from

¹ For the year we have the quantity of and value of exports and imports through rails and rivers from the *Rail and River Borne Trade of U. P.*

² For details see Table 116.

U. P. in this area decreased from 81,674 to 72,448. On this basis we can reasonably assume that in 1941 the inhabitants of U. P. working in other provinces were nearly 12 per cent less than those in 1931. This very assumption possibly holds good for 1938 also.

Now we may estimate the inflow and outflow of money in and from U. P. in 1921. As we have seen in previous chapters, the level of average money income of the people was very low. The average earnings of a peon in 1921-22 were nearly Rs. 200/- per year in urban areas. Out of this there was hardly a saving of Rs. 50/- per year due to inflationary conditions in the Province. The average earnings of white people have always been high and it would not be unreasonable to assume in their case an average saving of Rs. 1,000/- per year.¹ On this basis the yearly remittances by the people of Asia and other continents working in U. P. would be nearly Rs. 158·7 lakhs in 1921-22. The average annual saving of a person from other provinces was nearly Rs. 60/- in 1921-22. At this rate the total saving of such persons would amount to Rs. 52·2 lakhs. Thus the total remittances out of savings in 1921-22 were nearly Rs. 210·9 lakhs. In 1931-32 the average wages were still lower and savings of a Nepali or a person from other provinces were not more than Rs. 40/- per year. On this basis the total remittances of such persons might be to the extent of Rs. 94·2 lakhs. Savings by white people were nearly Rs. 202·2 lakhs due to low cost of living. Thus the total remittances might be to the extent of Rs. 296·4 lakhs in 1931-32. For 1938-39 in absence of any data we may assume the remittances to be as much as in 1931-32, that is, Rs. 296·4 lakhs.

In order to calculate the money receipts in the Province due to employment of the inhabitants of U. P. in other provinces or countries we may assume

¹ On a conservative estimate every Englishman, as he was highly paid, easily saved Rs. 80 to 90 per month in 1921-22.

TABLE 116

Showing the Population of U. P. by Birth Place

Description	1921			1931		
	Male	Female	Total	Male	Female	Total
	Persons born within the Province ...	2,35,82,772	2,13,16,415	4,48,99,187	2,51,95,675	2,26,67,636	4,78,63,311
Persons born in India outside the Province ...	88,770	1,22,132	2,10,902	2,06,128	2,88,180	4,94,308
Persons born in Asia outside India ...	21,839	14,837	36,676	29,439	16,578	46,017
Persons born in Europe ...	14,247	3,225	17,472	14,937	3,017	17,954
Persons born in Africa ...	163	76	239	175	168	343
Persons born in America ...	243	215	458	251	374	625
Persons born in Australia ...	132	119	251	189	164	353
Persons born at sea or unspecified ...	—	—	—	1	12	13
Total	2,37,08,166	2,14,57,019	4,51,65,185	2,54,46,795	2,29,76,129	4,84,22,924

that the average money receipt per head per annum was as much as of the people of other provinces employed in U. P. On this basis the money receipts in 1921-22, 1931-32 and 1938-39 would be nearly Rs. 290·6, 392·8 and 345·7 lakhs.

Thus the net gain to the Province was nearly Rs. 79·7, 96·4 and 49·3 lakhs in 1921-22, 1931-32 and 1938-39 respectively.

Taking into account the inter-provincial trade¹ we find that the excess of imports over exports was Rs. 904·5 and 2,059·3 lakhs in 1921-22² and 1938-39.³ For 1931-32 we have no published literature as the publication of *Rail and River Borne Trade of U. P.* was discontinued during 1923-33. Taking into account the fall in prices and slump in trade during the depression and the volume of trade in 1938-39 we can reasonably assume the exports and imports to the extent of Rs. 3,400·0 and 4,800·0 lakhs, the excess of imports over exports being Rs. 1,400·0 lakhs in 1931-32.

Thus there will be a net addition of Rs. 984·2, 1,496·4 and 2,108·6 lakhs to the Provincial Income in 1921-22, 1931-32 and 1938-39 on account of this item.

Revenue from Indirect Taxes

We have already pointed out that for the estimation of the Income of the Province we should evaluate the flow of commodities and services at current prices. As

¹ We take this into account in order to find out the balance of receipts on income accounts which is supposed to consist of various items, the balance of trade being assumed to be one of them.

² For the year we have the quantity and value of exports and imports through rails and rivers from the *Rail and River Borne Trade of U. P.*

³ For the year we have only the quantity of exports and imports. We have calculated their value by taking into account the wholesale prices of foodgrains in U. P., and export and import prices when the wholesale prices are not available.

we have calculated them only at the point of production, leaving that portion of current prices which is due to indirect taxes, we would add the income from indirect taxes here which was nearly Rs. 12·6 crores in 1921-22, 14·5 crores in 1931-32 and Rs. 14·4 crores in 1938-39.

Under-Estimation in Income Assessed to Income-tax

The tax payers everywhere try to evade the income-tax and hence that part of income of the people (even when they are subject to income-tax) on which tax has been evaded does not appear in the income calculated with the help of income-tax statistics. Our calculation of the net increment value of organised industries with the help of the *census* as well as *inventory* methods revealed a great disparity between the figures so obtained, which is mostly due to the evasion of income-tax by the industrialists. This disparity amounted to nearly Rs. 260·2, 198·5 and 707·0 lakhs in 1921-22, 1931-32 and 1938-39 respectively. The amount of income from trade and transport on which tax has been evaded is commonly much more than that in industry, because in the former case there are greater chances of evasion. Under the circumstances it is not unlikely that evasion per tax-payer engaged in trade and transport might be 40 per cent more than that in organised industry. On this basis the income on which tax was evaded by traders and persons engaged in transport was nearly Rs. 346·9, 254·8 and 885·5 lakhs in 1921-22, 1931-32 and 1938-39 respectively. Thus that part of income from industry, trade and transport which was not taken into account by the *income* method was nearly Rs. 607·1 lakhs in 1921-22, Rs. 453·3 lakhs in 1931-32 and Rs. 1,592·5 lakhs in 1938-39. There is no possibility of evasion in the case of such persons engaged in 'Professions and Liberal Arts' as are salariat. However, there are some chances in the case of registered or un-registered medical practitioners and lawyers. The number of those paying income-tax and engaged in the profession of medicine and law will not be more than 1·0, 3·0 and 1·0 thousands in the three years and the income on which

tax might have been evaded would not be far from Rs. 11·6 11·8 and 25·0 lakhs in 1921-22, 1931-32 and 1938-39 respectively.

Thus the net addition to the Provincial Income on account of this item would be nearly Rs. 618·7 lakhs in 1921-22, Rs. 465·1 lakhs in 1931-32 and Rs. 1,617·5 lakhs in 1938-39. These figures are subject to an error of ± 8 per cent.

Interest on Agricultural Debt

In chapter IV we have calculated interest on agricultural debt to be Rs. 540·0 lakhs in 1921-22, Rs. 790·0 lakhs in 1931-32 and Rs. 1,280·0 lakhs in 1938-39 and have deducted it from the gross value of agricultural output. Perhaps a portion of this item reappeared in the income of the traders paying income-tax or engaged in money lending. Still there are a large number of people in the rural areas who are engaged in the 'Exploitation of Animals and Vegetation' but also carry on the work of money lending. These are mostly the tenants or landlords. Dr. Rao has estimated the income of these people from money lending to be nearly 31 per cent of the interest on agriculture for the whole of India. In the absence of any published literature on the subject in U. P. where money lending by landlords and tenants is widespread we may assume that 33 per cent of the total interest on rural agricultural debt was appropriated by persons engaged in the 'Exploitation of Animals and Vegetation', which we have not included in the value of agricultural output. Thus the addition to the Provincial Income on account of this item would be nearly Rs. 170·0 lakhs in 1921-22, Rs. 244·9 lakhs in 1931-32 and Rs. 396·8 lakhs in 1938-39.

Deductions: Revenue from Indirect Taxes

We have already pointed out that the revenue from indirect taxes will have to be deducted from the gross figures of provincial income in order to arrive at the net figure. The amount to be deducted on this account

would be Rs. 12·6 crores in 1921-22, Rs. 14·5 crores in 1931-32 and Rs. 14·4 crores in 1938-39.

Interest on Internal Public Debt

We have to deduct only that part of interest on public debt which is raised for other than productive enterprises. In the United Provinces almost the whole of public debt was incurred for productive purposes and hence the question of its deduct on does not arise.

The net addition to be made on account of items discussed in this chapter would be nearly Rs. 2,903·6 lakhs in 1921-22, Rs. 3,528·4 lakhs in 1931-32 and Rs. 5,923·8 lakhs in 1938-39. These figures allow for under-estimation in income assessed to income-tax. If we do not allow for under-estimation, the net addition to be made would be only Rs. 2,284·9 lakhs in 1921-22, Rs. 3,063·3 lakhs in 1931-32 and Rs. 4,306·3 lakhs in 1938-39. These figures are subject to an error of ± 8 per cent.

In the next chapter we shall bring together all the figures calculated in this and previous chapters and arrive at our estimate of the Income of the United Provinces in 1921-22, 1931-32 and 1938-39.

CHAPTER XV

THE INCOME OF THE UNITED PROVINCES

WE can now estimate the Income of the United Provinces for 1921-22 to be Rs. 47,953·2, 23,985·1 and 28,125·1 lakhs in 1921-22, 1931-32 and 1938-39 respectively. The *per capita* Income amounted to Rs. 105·7 in 1921-22 with a margin of error of $\pm 10\cdot1$ per cent, Rs. 49·5 in 1931-32 with a margin of error of $\pm 8\cdot9$ per cent and Rs. 53·0 in 1938-39 with a margin of error of $\pm 9\cdot6$ per cent.¹

The money income per head of the population is not very significant unless we know the amount of goods and services which can be had for it. From the *Index Number of Indian Prices* (1861-1931) and its Addenda for 1932-40 we find the weighted index number of 100 articles for 1921, 1931 and 1938 to be 273, 157 and 149 respectively with reference to the base year 1873 (=100). Taking 1921 as our base year (=100), therefore, the index numbers for 1931 and 1938 come to just about 57 and 54 respectively. These index numbers, however, do not seem to represent correctly the trend of the general level of prices in the United Provinces for the years under review as the relevant figures provided in chapters V, VII and VIII above will have shown that prices were definitely higher in 1938 than they were in 1931. In the absence of any official index number for the Province, we were compelled to prepare one ourselves for the purpose in hand. We have assumed that half of the agricultural and livestock products, two thirds of industrial products, five-sixth of the forest products and the whole of the mineral products are traded in the Province. With 1921-22 as our base and giving weights on the basis of the money value of the various commodities traded, we obtain the index number of retail prices for 1931-32 and 1938-39 to be 47 and 51 respectively. With reference to these index

1 See Table 117.

numbers we find the adjusted income *per capita* for 1921-22 to be Rs. 105·7, for 1931-32 Rs. 105·4 and for 1938-39 Rs. 104·0. If, therefore, the Real Income represented for 1921-22 be expressed as 100, the Relative Real Income for 1931-32 and 1938-39 would be 99·7 and 98·4 respectively.¹ Hence, in relation to 1921-22, we find there was a fall in the Real Income per head of 0·3 and 1·6 per cent in 1931-32 and 1938-39 respectively.

TABLE 118

Showing the Changes in the Real Income Per Head (Not Allowing for Under-estimation)

Year	Income Per Head (Rs.)	Price Index	Income Per Head	
			Absolute (in terms of 1921-22 price level)	Relative (income index with 1921-22 as the base)
1921-22	105·7	100	105·7	100·0
1931-32	49·5	47	105·4	99·7
1938-39	53·0	51	104·0	98·4

It may be pointed out that these calculations do not take into account that part of income calculated on the basis of income-tax statistics on which income-tax is evaded and which, therefore, does not appear in the computation of income. If we account for this item, an alternative estimate of the Income of the United Provinces will be Rs. 48,571·9, 24,450·2 and 29,742·6 lakhs in 1921-22, 1931-32 and 1938-39 respectively. The *per capita* Income would amount to Rs. 107·0 in 1921-22 with a margin of error of $\pm 10\cdot0$ per cent, Rs. 50·5 with a margin of error of $\pm 8\cdot8$ per cent in 1931-32 and Rs. 56·1 with a margin of error of $\pm 9\cdot5$ per cent in 1938-39. With reference to the index number of prices as formulated

1 See Table 118.

TABLE 117

Showing the Figures of Net Provincial Income

Description	1921-22		1931-32		1938-39	
	Value in lakh rupees	Margin of Error percentage	Value in lakh rupees	Margin of Error percentage	Value in lakh rupees	Margin of Error percentage
Value of Agricultural Output ...	25,086·8	±10·0	8,455·1	±10·0	9,214·8	±10·0
Value of Livestock Products ...	5,820·2	±8·0	3,601·5	±8·0	3,623·8	±8·0
Value of Fishing and Hunting ...	4·0	±15·0	2·1	±15·0	2·6	±15·0
Value of Forest Products ...	308·2	—	135·8	—	180·8	—
Value of Mineral Produce ...	16·5	—	9·1	—	24·8	—
Income assessed to income-tax ...	1,832·0	—	1,636·0	—	1,547·0	—
Income not assessed to income-tax of workers engaged in Industry ...	5,146·5	±13·8	2,816·4	±12·0	3,347·6	±13·4
Incomes not assessed to income-tax of the State, Railways, Posts, Telegraph and Telephone employees ...	865·6	—	915·0	—	863·7	—
Incomes not assessed to income-tax of workers engaged in Trade ...	5,395·8	±15·0	1,864·2	±15·0	3,286·5	±15·0
Incomes not assessed to income-tax of workers engaged in Transport other than Railways, Posts and Telegraphs ...	155·8	±10·0	268·5	±10·0	437·1	±10·0
Incomes not assessed to income-tax of workers engaged in Professions and Liberal Arts ...	370·5	±10·0	725·7	±10·0	789·2	±10·0
Incomes not assessed to income-tax of workers engaged in Domestic Services ...	666·4	±15·0	492·4	±15·0	500·9	±15·0
Miscellaneous (excluding under-estimation in income assessed to income-tax) ...	2,284·9	±8·0	3,063·3	±8·0	4,306·3	±8·0
Total ...	47,953·2	±10·1	23,985·1	±8·9	28,125·1	±9·6
Under estimation in income assessed to income-tax ...	618·7	±8·0	465·1	±8·0	1,617·5	±8·0
Grand Total ...	48,571·9	±10·0	24,450·2	±8·8	29,742·6	±9·5

by us with 1921-22 as the base, the adjusted Income *per capita* for 1921-22, 1931-32 and 1938-39 would be Rs. 107·0, 107·5 and 110·0 respectively. If, therefore, the Real Income represented for 1921-22 be expressed as 100, the Relative Real Income for 1931-32 and 1938-39 would be 100·5 and 102·8 respectively. Hence, in relation to 1921-22, we find that there was an increase in the real income per head of 0·5 and 2·8 per cent in 1931-32 and 1938-39 respectively.¹

TABLE 119

Showing Changes in the Real Income (Allowing for Under-estimation)

Year	Income Per Head (Rs.)	Price Index	Income Per Head	
			Absolute (in terms of 1921-22 price level)	Relative (income-index with 1921-22 as the base)
1921-22	107·0	100	107·0	100·0
1931-32	50·5	47	107·5	100·5
1938-39	56·1	51	110·0	102·8

We may now estimate the income per earner and find out the trends in the Prosperity of the United Provinces. From Table 120 it is quite obvious that the percentage of the working population to total population was the same in 1931-32 as in 1921-22 but it went down by 0·6 per cent in 1938-39 in relation to 1921-22. This shows that the prosperity of the people of the Province in 1931-32 was more or less the same as in 1921-22 but there was an increase in 1938-39 in relation to 1921-22. The Real Income per earner, allowing for under-estimation in income assessed to income-tax, increased by 0·3 and 4·2 per cent in 1931-32 and 1938-39 in relation to 1921-22. Not

1 See Table 119.

allowing for under-estimation we find the Real Income to have fallen by 0·3 and 0·2 per cent in 1931-32 and 1938-39 in relation to 1921-22.

Table 121 points out that 78·7 per cent of the total *occupied* population depended on agriculture and allied occupations in 1921-22 as against 74·7 per cent in 1931-32 and 75·1 per cent in 1938-39. Nearly 12·8 per cent of the total *occupied* people were supported by industry in 1921-22 as against 14·8 per cent in 1931-32 and 13·9 per cent in 1938-39. Services including trade, transport, Government and local bodies, professions and domestic service supported 8·4 per cent of the total *occupied* population in 1921-22 as against 10·6 per cent in 1931-32 and 11·0 per cent in 1938-39. It clearly brings out that our economy is highly rural. The increased population was absorbed more than proportionately by industry and services during 1921-31 and by agriculture and services during 1931-38.

We may now estimate the distribution of the two alternative figures of Income of the United Provinces among (a) agriculture and allied occupations, (b) industry and (c) services. It is clear from Table 122 that the services are being paid at a much higher rate per worker than the labour of those who are engaged in the production of material goods. But in the case of a province like U. P. with its under-developed economy material wealth should constitute a greater portion of the Provincial Income than is shown by our figures. It is further to be pointed out that the proportion of income from agriculture and allied occupations has been falling all these years while that from industry and services has mostly been rising. Income from agriculture and allied occupations formed 64·3 per cent of the total Provincial Income (which allows for under-estimation in income assessed to income-tax) in 1921-22 as against 49·9 per cent in 1931-32 and 43·8 per cent in 1938-39. Industry contributed 12·7 per cent towards the Provincial Income in 1921-22 as against 15·4 per cent in 1931-32 and 15·6 per cent in 1938-39, while services contributed 18·6 per cent

TABLE 120

Showing the Average Income per Earner

Year	Number of Earners in lakhs including Earner Equivalents of Working Dependents and o Subsidiary Workers	Total Population in lakhs	Percentage of the Working to Total Population	Income Per Earner (Rs.)			Real Income Per Earner			
				Allowing for Under-estimation in Income Assessed to Income-tax	Not Allowing for Under-estimation		Absolute (in terms of the price-level of 1921-22)		Relative (1921-22 income index being 100)	
1	2	3	4	5	6	7	8	9	10	
1921-22	198.8	453.7	43.8	244.3	241.2	244.3	241.2	100.0	100.0	
1931-32	212.2	484.1	43.8	115.2	113.0	245.1	240.4	100.3	99.7	
1938-39	229.2	530.2	43.2	129.8	122.7	254.5	240.6	104.2	99.8	

TABLE 121

Showing the Proportion of Earners Plus Earner Equivalents of Working Dependents and of Subsidiary Workers Engaged in Various Occupations

Year	Total Number (lakhs)	Those engaged in			Percentage of the earners given in column					
		Agriculture, Pasture, Hunting and Fishing (lakhs)	Industry (lakhs)	Service including Transport, Trade, Govt., Professions and Domestic Service (lakhs)	3 of the Figure in column 2	4 of the Figure in column 2	5 of the Figure in column 2	6	7	8
1	2	3	4	5						
1921-22	198.8	156.6	25.4	16.8	78.7	12.8	8.4			
1931-32	212.2	158.5	31.4	22.5	74.7	14.8	10.6			
1938-39	229.2	172.2	31.8	25.1	75.1	13.9	11.0			

in 1921-22 as against 23.2 per cent in 1931-32 and 27.3 per cent in 1938-39. If we do not make any allowance for under-estimation in income assessed to income-tax we find that the proportion of income from agriculture and allied occupations to the total Provincial Income was 65.1, 50.8 and 46.3 per cent, from industry 12.4, 14.9 and 14.0 per cent and from services 18.1, 22.5 and 25.7 per cent in 1921-22, 1931-32 and 1938-39 respectively. It is, therefore, quite evident that the contribution of agriculture for the well-being of the people of the Province has been going down. This has inevitably led to a fall in the standard of living of the people of the Province as is clearly brought out from columns 11 and 12 of Table 122. Allowing for under-estimation in income assessed to income-tax, we find from column 11 of Table 122 that the Relative Real Income per worker engaged in agriculture and allied occupations fell by 18.0 per cent in 1931-32 and 25.7 per cent in 1938-39 in relation to 1921-22; in the case of industry it increased by 4.5 per cent in 1931-32 and 17.8 per cent in 1938-39 in relation to 1921-22 and in the case of services it fell by 0.3 per cent in 1931-32 and increased by 18.2 per cent in 1938-39 in relation to 1921-22. If we do not make any allowance for under-estimation we find that the Relative Real Income per worker engaged in agriculture fell by 18.0 per cent in 1931-32 and 25.7 per cent in 1938-39 in relation to 1921-22 while in the case of industries it increased by 3.4 and 4.2 per cent in 1931-32 and 1938-39 respectively. In the case of services it fell by 1.1 per cent in 1931-32 and increased by 9.3 per cent in 1938-39. The fact is quite obvious that in 1938-39 the distribution of income in various types of occupations was more uneven than it was in 1921-22. The standard of living of the poor peasantry has gone down enormously. This is because the yield from agriculture has been low while the number of those depending on it has been increasing. This is obvious from Table 123 showing the production of major food grains during 1921-39. A decrease in the size of average holdings in U. P. within the last few decades has led to the decrease of output per man and sometimes

to the total output per unit of land. According to the *United Provinces Zamindari Abolition Committee Report*, the holdings of nearly 93·9 per cent of the cultivators in U. P. are uneconomic, if 10 acres is taken as the average size of an economic holding.¹ Such cultivators number 1,15,33,800 and hold only 64·9 per cent of the total holdings area. Furthermore 37·8 per cent of the cultivators have holdings of less than 1 acre and have among them only 6·0 per cent of the total holdings area.²

TABLE 123
Showing the Production of Major
Food Grains in U. P.

Year	Area (lakh acres)	Total Production (lakh tons)
1921-22	318	112
1922-23	322	108
1923-24	318	108
1924-25	313	99
1925-26	305	96
1926-27	304	100
1927-28	315	91
1928-29	306	76
1929-30	298	95
1930-31	309	93
1931-32	313	96
1932-33	301	91
1933-34	312	90
1934-35	305	95
1935-36	302	97
1936-37	311	93
1937-38	310	93
1938-39	322	88

We may re-classify our statistics of Income, Assuming that most of the income-tax payers reside in towns, we

1 See *Report*, p. 24.

2 See Table 124.

TABLE 124
Showing the Size and Distribution of Holdings in U. P. in 1944-45

Size of Holdings in acres	Total Number of Persons	Percentage of the Total Number of Persons to the Grand Total of column 2	Total Area in acres	Percentage of Total Area to the Grand Total of column 4
Not exceeding 0·5	26,43,431	21·5	9,25,457	2·2
Exceeding 0·5 but not 1	19,95,900	16·3	15,55,708	3·8
" 1 but not 2	22,05,597	18·0	33,61,180	8·1
" 2 but not 3	14,29,860	11·6	35,73,178	8·7
" 3 but not 4	9,92,496	8·1	34,57,670	8·4
" 4 but not 5	7,03,472	5·7	31,50,323	7·6
" 5 but not 6	5,14,655	4·2	28,16,963	6·8
" 6 but not 7	3,78,480	3·0	24,46,436	5·9
" 7 but not 8	2,83,200	2·3	21,12,053	5·1
" 8 but not 9	2,15,980	1·8	18,30,090	4·4
" 9 but not 10	1,70,729	1·4	16,17,358	3·9
" 10 but not 12	2,06,345	1·7	22,64,957	5·5
" 12 but not 14	1,38,002	1·1	17,76,344	4·3
" 14 but not 16	95,620	0·8	14,23,674	3·4
" 16 but not 18	68,040	0·6	11,51,958	2·8
" 18 but not 20	51,415	0·4	9,72,086	2·4
" 20 but not 25	70,412	0·6	15,70,473	3·8
" Over 25	1,14,655	0·9	53,10,572	12·9
Grand Total	1,22,78,289	100·0	4,13,16,480	100·0

TABLE 125
Showing the Distribution of Income in Rural and Urban Areas

Description	Population (lakhs)	Number of Earners (lakhs)	Total Income ¹ in lakhs		Income Per Head		Income Per Earner		Percentage of	
			Allowing for under estimation	Not allowing for Under-estimation	On the basis of Total Income as per column 4	On the basis of Total Income as per column 5	On the basis of Total Income as per column 4	On the basis of Total Income as per column 5	Figures in column 4 to Total Provi- ncial Income when we allow for Under estimation	Figures in column 5 to Total Provincial Income when we Do Not allow for Under-estimation
1	2	3	4	5	6	7	8	9	10	11
Urban	48.0	18.0	10,675.3	1921-22	222	210	574	542	22.0	21.0
Rural	405.7	180.2	36,862.4	10,083.3 36,835.7	91	91	205	204	75.9	76.8
Urban	54.2	23.1	7,186.0	1931-32	133	125	311	292	29.4	28.1
Rural	429.9	189.1	15,703.8	6,744.0 15,680.7	37	36	83	83	64.2	65.4
Urban	64.2	25.0	9,277.8	1938-39	145	121	371	310	31.2	27.6
Rural	466.0	204.2	18,263.3	7,748.8 18,174.8	39	39	89	89	61.4	64.6

¹ A part of the total income whose source cannot be traced with certainty has been left out.

TABLE 126

Showing the Real Income Per Head of the Population in Rural and Urban Areas

Description	Income Per Head (Rs.)				Real Income Per Head												
	1921-22		1931-32		1938-39		Absolute				Relative						
	Allowing for Under-estimation	Not Allowing for Under-estimation	Allowing for Under-estimation	Not Allowing for Under-estimation	Allowing for Under-estimation	Not Allowing for Under-estimation	1921-22 On the basis of Figures in column	1931-32 On the basis of Figures in column	1938-39 On the basis of Figures in column	1921-22 On the basis of Figures in column	1931-32 On the basis of Figures in column	1938-39 On the basis of Figures in column	1921-22 On the basis of Figures in column	1931-32 On the basis of Figures in column	1938-39 On the basis of Figures in column		
1	222	210	133	125	145	121	8	10	11	12	13	14	15	16	17	18	19
Urban	91	91	37	36	39	39	222	210	283	266	284	100	100	127	126	128	113
Rural							91	91	79	77	76	100	100	87	85	84	84

TABLE 127

Showing Average Real Income of Earners Including Earner Equivalents of Working Dependents and of Subsidiary Workers in Rural and Urban Areas

Description	Income Per Earner (Rs.)								Real Income Per Earner									
	1921-22		1931-32		1938-39		Absolute			Relative								
	Allowing for Under-estimation	Not Allowing for Under-estimation	Allowing for Under-estimation	Not Allowing for Under-estimation	Allowing for Under-estimation	Not Allowing for Under-estimation	1921-22 On the basis of Figures in column 2 3	1931-32 On the basis of Figures in column 4 5	1938-39 On the basis of Figures in column 6 7	1938-39 On the basis of Figures in column 8 9	1931-32 On the basis of Figures in column 10 11	1921-22 On the basis of Figures in column 12 13						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Urban	574	542	311	292	371	310	574	542	662	621	727	608	100	100	115	115	127	112
Rural	205	204	83	83	89	89	205	204	177	177	175	175	100	100	86	87	85	86

get the figures of income per head of the total population and per head of the earners including earner equivalents of working dependants and of subsidiary workers as given in Table 125. Tables 126 and 127 show the changes in the Real Income per head and per earner including earner equivalents of working dependants and of subsidiary workers for urban and rural areas. From the figures given therein we draw the following conclusions in two sections relating to two figures of the Provincial Income :—

1. (When we take into account the under-estimation in income assessed to income-tax)—

- (a) That the share of Income arising in rural areas to the total Provincial Income fell from 75·9 per cent in 1921-22 to 64·2 per cent in 1931-32 and 61·4 per cent in 1938-39 ; while in the case of urban areas it increased from 22·0 per cent in 1921-22 to 29·4 per cent in 1931-32 and 31·2 per cent in 1938-39.
- (b) The Real Income per head fell in rural areas by 13 per cent in 1931-32 and 16 per cent in 1938-39 while it increased in the case of urban areas by 27 per cent in 1931-32 and 28 per cent in 1938-39 in relation to 1921-22.
- (c) The Average Real Income of the earners including earner equivalents of working dependants and of subsidiary workers in rural areas fell by 14 per cent in 1931-32 and 15 per cent in 1938-39 while in urban areas it increased by 15 per cent in 1931-32 and 27 per cent in 1938-39.

2. (When we do not take into account the under-estimation)—

- (a) The Income arising in rural areas formed 76·8, 65·4 and 64·6 per cent while in urban areas 21·0, 28·1 and 27·6 per cent of the total Provincial Income in 1921-22, 1931-32 and 1938-39 respectively.

- (b) The Real Income per head fell in rural areas by 15 per cent in 1931-32 and 16 per cent in 1938-39; and it increased in urban areas by 26 per cent in 1931-32 and 13 per cent in 1938-39 in relation to 1921-22.
- (c) The Average Real Income of the earners including earner equivalents of working dependants and of subsidiary workers fell in rural areas by 13 per cent in 1931-32 and 14 per cent in 1938-39 while in urban areas it increased by 15 per cent in 1931-32 and 12 per cent in 1938-39 in relation to 1921-22.

The fact is obvious that the Average Real Income in rural areas has been falling and in urban areas it has almost been rising since 1921-22.

*Conclusion*¹

In spite of the fact that there was a tendency for the Average Income of the earners including earner equivalents of working dependants and of subsidiary workers to vary little in 1938-39 in relation to 1921-22, the distribution of Income in 1938-39 was much more uneven than what it was in 1921-22. The Average Real Income of this class of persons in rural areas in 1938-39 was 15 per cent less than that in 1921-22, so that the income in the urban areas seems to have increased at the expense of the rural population. This is still more supported by the fact that the Average Real Income of the earners including earner equivalents of working dependants and of subsidiary workers engaged in agriculture and allied occupations was nearly 25·7 per cent less in 1938-39 than that in 1921-22, while in industry it was 17·8 per cent more and in services 18·2 per cent more than that in 1921-22. If, therefore, in judging real Prosperity, we take into

¹ Figures refer to that estimate of Provincial Income which takes into account the under-estimation in income assessed to income-tax.

account, as we should, the Distribution of Income besides the Average Income as such, it is doubtful if there was any increase in the Prosperity of the Province in 1938-39 as compared with 1921-22. 1931-32 was the year when the Provincial Prosperity was definitely on the decrease as is clearly shown by the Real Income per head of the earners including earner equivalents of working dependants and of subsidiary workers in relation to 1921-22. The Average Real Income of these people in 1931-32 was 0·3 per cent more in 1931-32 than that in 1921-22, the Real Income per earner engaged in agriculture and allied occupations was 18·0 per cent less than that in 1921-22, while the Real Income per earner engaged in Industry was 4·5 per cent higher and in services 0·3 per cent less than that in 1921-22. The distribution of income between the rural and urban areas was more uneven than it possibly was in 1921-22 as the Real Income per earner in rural areas was 14 per cent less and in the case of urban areas 15 per cent more in each year than that in 1921-22.

In the next chapter we proceed to discuss the Land Policy of the U. P. Government and its effect on the Prosperity of the Province.

CHAPTER XVI

LAND POLICY

Introduction

IN a predominantly agricultural province like the United Provinces no item of revenue, whether excise duties, income-tax, income derived from irrigation works or forests can compare in importance with land revenue. Agrarian problems and policies immensely influence the prosperity of agriculturists in the Province. Hence pride of place must be given amongst all the activities of the Government to those which relate to the problem of land revenue, that is the principles of assessment, tenancy legislation, protection of cultivators from the exploitation of zamindars, construction of irrigation works, introduction of scientific methods of cultivation and the introduction of co-operative movement.¹

All these activities of the Government have gone a long way in increasing the prosperity of the agriculturists of the Province, as they have increased production by affecting the ability and willingness of the farmers.

Features of Land System

In India there are two main types of land tenure system—*ryotwari* and *zamindari*. In the United Provinces the *ryotwari* form of tenure is conspicuous by its absence; the *zamindari* tenure in its two different forms viz., *zamindari* and *talugdari*, is prevalent. The former prevails in the Province of Agra while the latter in the Province of Oudh. The distinction between the *talugdari* and *zamindari* tenures is only for revenue purposes. From an economic point of view the distinction is of very little significance. The Province as a

¹ Misra, B. R. *Land Revenue Policy in U. P.* p. 4.

whole, except the area represented by the old Banaras division is temporarily settled. The settlement is revised after every forty years.

Among the various measures taken by the Government to create favourable conditions for increased production, the tenancy legislation occupies the most important place. It has provided for (a) simplicity, permanency and security of tenure, (b) fair rents and (c) improvements. It is desirable at this stage to study the effect of the various changes brought about by the tenancy legislation in the United Provinces during 1921-39.

Before 1939 there were two different Rent Acts in the Provinces of Agra and Oudh. In Agra we had the Agra Tenancy Act and in Oudh the Oudh Rent Act.

Agra Tenancy Act

In 1921-22 the Province of Agra was governed by the Agra Tenancy Act of 1901. The Act recognised the following five classes of tenants :—

1. Permanent tenure holders,
2. Fixed-rate tenants,
3. Ex-proprietary tenants,
4. Occupancy tenants, and
5. Non-occupancy tenants.

The first two classes of tenants are found in the permanently settled area of old Banaras division. The first class of tenants possess a permanent transferable interest in the land and are not liable to enhancement. The second class of tenants are also entitled to hold land at fixed rates and have a prescriptive right of occupancy. These two classes of tenants held 7,24,668 acres of land in 1921-22 and 7,22,775 acres in 1925-26. The third class of tenants pay fixed rates of rent to landlords for cultivating the land which was either *Sir* or *Khudkashit* when they had proprietary rights in the land. Their rent is four annas in the rupee less

than the prevailing rate of rent payable by tenants-at-will for similar land with similar advantages. Their rents are liable to enhancement in the same way as those of occupancy tenants. This class of tenants held 5,64,254 acres of land in 1921-22. The fourth class of tenants i.e., occupancy tenants had acquired the right of occupancy by holding the same land or any land owned by the same landlord continuously for a period of twelve years. These tenants held 1,01,25,152 acres of land in 1921-22. The non-occupancy tenants had no declared rights in land. These persons held their land on leases of not less than seven years without the right of occupancy accruing to them. They held 80,52,835 acres of land out of a total of 2,86,34,096 acres.

From the foregoing discussion it is clear that in 1921-22 1,14,14,074 acres of land were held by tenants with a defined right of occupancy while 80,52,835 acres of land were held without any declared right. In addition to these tenants who had undeclared rights in land, there were a large number of tenants-at-will who held the *Sir* land of the *zamindars* at the latter's pleasure. The area of *Sir* land was 34,85,653 acres in 1921-22. Besides *Sir* land the zamindars also held 24,00,903 acres of land as *Khudkasht* which they cultivated either with their family labour or with the help of hired labourers or gave it to tenants on *batai* (share) basis. The illegal exactions in huge sums at the expiry of the term of lease were common. Fair rents were always evaded. The fact is obvious that most of the land (about 50 per cent) was cultivated either by tenants-at-will, share tenants or hired labourers and under such circumstances it was useless to expect an efficient system of farming in the Province. Much litigation developed and the tenants were ejected before the completion of 12 years as the period for the accrual of occupancy rights.

The Act of 1926 made some important changes in the system of tenancy. It removed the time limit

of 12 years for the accrual of occupancy rights. Occupancy rights, under the Act, could not be acquired by lapse of time ; they could be acquired only by grants or sales.

The Act granted the right of life tenancy to every tenant-in-chief other than a tenant-of-*Sir* with the right to the heir to hold on for another five years after the latter's death. This system increased fixity of tenure to a great extent. The Act introduced the system of *roster* year for the revision of rents¹ Other changes introduced by the Act were² :—

- (a) Enlargement of *Sir* area with an elastic provision for its further increase in future ;
- (b) Zamindar's power of compulsory acquisition of land from ex-proprietary, occupancy and statutory tenants and heirs of statutory tenants for the purpose of farming on improved lines and for certain other purposes mentioned in the Act ;
- (c) Introduction of cheaper and simpler methods for the realization of rent ; and
- (d) Right of landlord to make improvement on the holding of a tenant not having a right of occupancy with or without his consent ; and on the holding of a tenant having a right of occupancy with the written consent of the tenant.

The creation of statutory tenants giving them a life tenancy was good for agriculture. It gave the tenant greater security of tenure during his life-time. It put an end to seven or ten years' lease system which was common since 1901. But life tenancy alone is incompatible with any permanent advance in the method of agriculture. The possession of land for a life-time

¹ *Roster* year is the agricultural year fixed by the Local Government for the determination of rents.

² Misra, B. R. : *Land Revenue Policy in U. P.*, p. 146.

did not induce the cultivators to adopt modern technique and methods. The provision for zamindars to increase their *Sir* land was highly undesirable as it led to further growth of share tenancy and the number of hired labourers engaged in cultivation. It cannot be said that upto 1939 the Province of Agra had advanced much towards a system of tenure which could induce those working on the land to make the best use of it. In 1926-27 occupancy rights under the Act were conferred for 2,30,251 acres of land. The statutory tenants held 58,58,521 acres of land and their heirs 1,49,448 acres. The zamindars increased their *Sir* from 33,55,668 acres in 1926-27 to 33,95,864 acres in 1939-40 and acquired new land under *Khud-Kasht* to the extent of 13,72,380 acres. We may now pass on to the measures taken in the Province of Oudh before the U. P. Tenancy Act of 1939 came in force.

Oudh Rent Act

Before the introduction of Oudh Rent Act of 1921 the following two main classes of tenants were recognized with some declared rights :—

- (a) Under proprietary tenants and
- (b) Ex-proprietary tenants.

We have already discussed the second class of tenants in connection with the Province of Agra. Coming to the first class of tenants we find that these were the persons who held subordinate rights in 1855 or just before the annexation of Oudh and were in possession as proprietors of some portion of land in a village within thirty years just before February 13, 1856. These tenants had the right of occupancy.

The above two types of tenants held 6,32,004 acres of land out of a total of 1,00,14,909 acres. The ordinary tenants of whom some were statutory tenants with a right of occupancy for seven years, held 81,22,053 acres of land. The period of occupancy for seven years did not provide security of tenure so as to induce

the cultivator to make improvements on his land. On the contrary he exploited the land to the full without sinking any capital in the soil. This was the worst type of peasant as he left the land completely impoverished. He knew fully well that if he was not in a position to pay a huge sum as *nazrana* and enhanced rates of rent after the expiry of the period (7 years) of lease, he would be ejected. The *taluqdars* held 4,22,673 acres of land as *Sir* and 7,19,232 acres of land as *Khudkasht* and *Kader* which was generally cultivated by share tenants, tenants-at-will and the hired labourers. The cultivators were entitled for a year's rent as compensation for disturbance. A tenant could not make any improvement without the written consent of the landlord. A right of appeal, however, existed in case the *zamindar* refused his consent.

The system upto 1921 was full of defects. To remedy it the Oudh Rent (Amendment) Act of 1921 was passed. In addition to the classes of tenants already recognised, two more classes of tenants were recognised—occupancy tenants with occupancy rights and statutory tenants with some declared rights. According to the Act the statutory period of tenancy was raised from seven to ten years. Every resident tenant was given a tenure for life and rent could be enhanced after the expiry of the statutory period of ten years. The heirs of the statutory tenants were allowed to hold land for a period of five years without the privileges enjoyed by the statutory tenants. Provision was made for the determination of fair and equitable rents on the basis of the *roster* year system. The payment of *nazrana* for obtaining leases was made illegal. Sub-letting was discouraged in the case of statutory tenants and their heirs. Proprietors' rights in the case of *Sir* land were considerably increased. The whole of the land of a proprietor held by him as *Sir* as well as *Khudkasht* before the passing of the Act was declared to be *Sir* and any land cultivated by him in future for a continuous period of ten years could also become *Sir*. The *taluqdars*

were given wide powers for acquisition of land from their tenants for self-cultivation and for agricultural development.

In spite of a large number of provisions made in the Act the condition of the tenantry did not improve appreciably. The introduction of *lif* tenancy was a good augury. The *roster* year system did improve things to some extent, but the wide powers of the *taluqdars* for the acquisition of new land and increasing their *Sir* area produced harmful results. Plots of land with good soil were generally requisitioned from the tenants. The *Sir* land increased from 4,22,673 acres in 1921-22 to 6,42,348 acres in 1939-40. The area held by statutory tenants in 1922-23 was 69,32,677 acres, while their heirs and others held 2,22,234 and 9,38,936 acres respectively. In 1939-40 the area of land held by the statutory tenants fell to 54,77,827 acres while that held by their heirs and others increased to 15,38,693 and 11,02,967 acres respectively. This clearly reveals the state of things in the Province. The heirs of statutory tenants were not given the rights enjoyed by their predecessors and in many cases land of statutory tenants, after the expiry of five years after death, was taken away from heirs and given to tenants-at-will. The system did not prove very satisfactory and involved a number of defects on account of which good agriculture was not a considered proposition. The number of share tenants and hired labourers went on increasing at an enormous speed which was highly detrimental to the improved type of agriculture in the Province. To remove these defects the U. P. Tenancy Act of 1939 was passed.

The United Provinces Tenancy Act of 1939

This Act repealed the Acts of 1921 and 1926 and abolished the statutory tenants and created hereditary tenants in their place. The new Act applies equally to Agra and Oudh. In Agra the statutory tenants and their heirs have been given hereditary rights, and besides them certain non-occupancy tenants have also

been granted these rights. Similarly, statutory tenants and their heirs in Oudh have been made hereditary tenants. The old statutory tenants cultivated 25 per cent of the total cultivated area in Agra and about 70 per cent in Oudh. The new class of hereditary tenants created out of them is thus a very important class of tenants. It forms the bulk of the peasantry in the Province. Their holdings are heritable and their tenancy rights do not terminate with the death of the tenants. They cannot be ejected by the land ords. Their rents can only be increased under the provision of section 110 which provides rules for framing standard rates for hereditary tenants. The Act thus recognizes the following classes of tenants :—

- (1) Permanent tenure holders,
- (2) Fixed-rate tenants,
- (3) Tenants holding on special terms in oudh,¹
- (4) Ex-proprietary tenants,
- (5) Occupancy tenants,
- (6) Hereditary tenants, and
- (7) Non-occupancy tenants.

Besides the creation of hereditary tenants the Act of 1939 has made certain modifications in connection with *Sir* land and has laid down definite and important rules for the determination of rents for hereditary and occupancy tenants. Further it made some other provisions regarding payment and recovery of rents, sub-letting of holdings, the limits and compensation for acquiring land by the landlords, improvements on land etc.

Provisions Regarding Sir Land

The Acts of 1921 and 1926 provided for a considerable increase in the *Sir* area. The landlords

¹ These tenants hold land under a special agreement or a judicial decision made or passed before the passing of the Oudh Rent Act of 1886. They are like the occupancy tenants now but their rent rate is equivalent to that of the ex-proprietary tenants *i.e.*, two annas in the rupee less than that of the occupancy tenants in Oudh.

and permanent tenure holders could acquire *Sir* according to certain rules. This inevitably led to dispossession of statutory tenants who might be reduced to the position of non-occupancy tenants. The landlord could also take into possession much of the *gauhan* (land near the village) and could freely sub-let his *Sir*. The tenants cultivating *Sir* could never acquire any occupancy rights in that land. The process of rack-renting thus continued through the sub-letting of *Sir*. The present Act lays down the principle that—

(a) The area of *Sir* should be reduced to the minimum, and

(b) Sub-letting of *Sir* should not be permitted.

Thus according to the present Act, *Sir* acquired by bigger landlords¹ under the Act of 1926 ceases to be *Sir*. This has removed the defect of sub-letting. But the *Sir* acquired by these landlords before the Acts of 1921 and 1926, which is not sub-let, continues to be *Sir*. But if a part of the *Sir* is sub-let and the total area of *Sir*, both cultivated and sub-let exceeds 50 acres, and the area sub-let does not exceed 50 acres, the whole of the self-cultivated *Sir* together with so much of the *Sir* let out as would make 50 acres would be *Sir* under the Act. If the total *Sir* area both let and unlet is less than 50 acres, the whole of it remains as *Sir* under the present Act. In the case of smaller landlords² the *Sir* acquired before and after the passing of the Acts of 1921 and 1926 continues to be *Sir* under this Act. This is because smaller landlords need *Sir* for genuine cultivation and not for sub-letting. There should be no further accrual of *Sir* either in the case of big or small landlords. The tenants who were cultivating *Sir* lands under the previous Acts but which have ceased to be *Sir* under the present Act, shall acquire the right of hereditary tenants in such

¹ Those who pay more than Rs. 250/- annually as land revenue.

² Those who pay Rs. 250/- annually or less as land revenue.

lands. Further if a landlord has *Khudkasht* land in addition to *Sir*, the *Khudskasht* can be converted into *Sir* area, provided hereditary rights are given to tenants for an equal area of *Sir*, who would otherwise be deprived of such rights under the 50 acres rule.

The effect of these provisions has been to put a check to sub-letting of *Sir* and the practice of rack-renting, to give a greater security to tenants by conferring hereditary rights over such lands and to encourage small landlords who in most cases are real agriculturists. The cause of agricultural progress is thus being fostered by these provisions.

Provisions Regarding the Determination and Modification of Rents

The Act has laid down that when a tenant is admitted to the occupation of land, the initial rent may be agreed upon between him and his landlord. Rent once agreed upon shall not be altered unless

- (a) A period of 10 years or such longer period as may have been decreed or ordered, has elapsed.
- (b) The period of settlement of local area in which the holding is situated has come to an end.
- (c) The area of the tenant's holding has been increased by alluvion or decreased by diluvion.
- (d) The productive powers of the land held by the tenant have increased by the fluvial action or by an improvement affected by the landlord or decreased by causes beyond control.

Standard rates of rent are to be fixed to which all rents must ultimately conform. The basis for fixing such rates for hereditary and occupancy tenants is given in section 110 of the Act. The rent-rate officer, while determining such rates, shall take into consideration—

- (a) The level of rents paid by tenants who held

- or were admitted to land at different times and in particular the level of rents agreed to by tenants who were admitted to holdings in or between the years 1309 and 1313 *Fasli* ;
- (b) The prices of agricultural produce prevailing at such times ;
 - (c) The changes in the crops grown and in the amount of the produce ;
 - (d) The value of the produce with a view to seeing that the valuation of the holding of the hereditary tenants at the proposed rates does not exceed one-fifth of such value ; and
 - (e) The expenses of cultivation and the cost to the cultivator of maintaining himself and his family.

The standard rates shall be taken into consideration, when the question of commutation, abatement or enhancement of rent arises. The rent of tenants (except that of the permanent tenure holders and fixed-rate tenants) is liable to abatement if the rent paid by the tenants is substantially greater than the rent calculated at the sanctioned rates, or if the productive power or the area of the holding has decreased, or if it is specified in a lease, agreement or decree held by the tenant that the rent is liable to abatement. Similarly, the rent is liable to enhancement, if the rent paid by the tenant is substantially less than the sanctioned rates, or if the productive power or the area of his holding has increased.

Finally, the Act has made provisions for the remission or suspension of rent and revenue during times of agricultural calamity. The provisions regarding the fixing and modification of rents are likely to have far reaching effects. They will put an end to the practice of rack-renting and excessive enhancement at frequent intervals. Rents calculated on the basis of expenses of cultivation and cost of living will lighten the burden

of rent payments. The provision that the rent must not exceed one-fifth of the value of produce is bound to be most beneficial. The provisions regarding the remission of rents and revenue shall be quickly put into practice, for such decision will no more depend upon the will of the exactor.

Miscellaneous Provisions

Finally we may relate some miscellaneous provisions which have been laid down regarding the payment and recovery of rents. All receipts for rents must be granted on printed forms sold by the Government. A landlord who habitually fails to grant receipts is liable to a fine or imprisonment. A decree for arrears of rents may be executed by the sale of the interest of the tenant in whole or portion of holding. The tenant cannot be arrested under the decree. The Court is given power to lease the holding for a maximum period of six years to any person who pays the amount outstanding in the decree.

As regards sub-letting the holdings, the Act allows all the tenants except non-occupancy tenants to sub-let for 5 years and to sub-let again after an expiry of a period of 3 years.

The landlord's right to acquire land has been restricted to 5 acres for a house, a garden or a grove, and the compensation to be paid for acquiring such land has been increased.

As regards improvements, a tenant can construct on his holding a residential house or some other building for agricultural purposes without the permission of his landlord. Occupancy tenants and hereditary tenants may make any improvement except raising buildings near their holdings and the construction of tanks. But non-occupancy tenants shall not make any improvement unless they have obtained the written consent of their landholders.

Summary

Finally, we may summarise the effects of the tenancy legislation on the economic prosperity of the cultivators. From the foregoing discussion it is obvious that the various tenancy Acts have aimed at providing security and fixity of tenure and fair rents. In 1921-22 the tenants had a defined right in nearly 60 per cent of the area of land cultivated by them in the Province of Agra, while the under-proprietary tenants in Oudh cultivated only 6.3 per cent of the land and tenants with seven years' leases 81 per cent of the land. The Oudh Rent Act of 1921 was a great improvement over the previous Act. It created occupancy and statutory tenants; the latter class of tenants held 69,32,677 acres of land in 1922-23. The Act made the payment of *nazrana* for obtaining leases illegal and introduced *roster* year system for determination of fair and equitable rents. The Act had an ugly feature of giving wide powers to landlords for increasing their *Sir* land. The Agra Tenancy Act of 1926 contained provisions of similar nature as the Oudh Rent Act of 1921 with regard to the determination of rents and the powers of zamindars for increasing their *Sir* land. These two Acts did improve the economic welfare and prosperity of the tenants to some extent.

The condition of tenants began to worsen from 1930 when depression in the Province had already set in. There was a rapid fall in prices. The tenants and petty zamindars were hard hit. In 1930 in a number of divisions in the Province rents were heavily in arrear as the tenants could no longer pay their rent out of the sale of their produce. Although prices had fallen as compared to what they were nearly 30 years ago, rents generally had become nearly doubled. In the United Provinces rents increased much faster than revenue, the proportion of relative increase of these two during the first 30 years of this century being nearly five to one. Thus while the Government's income from land increased considerably, the tenants remained, as ever, at starvation

level. In 1930-31 the number of relinquishments increased from 6,561 to 24,161. In 1931-32 the Government took various measures to relieve agricultural distress. They were—

- (a) Remission of land revenue ;
- (b) Reduction of canal rates for 1339 *Fasli* for certain crops at the cost of nearly Rs. 10·16 lakhs ;
- (c) The introduction in the Legislative Council of the U. P. Arrears of Rent Act of 1932 to protect tenants and *thekedars* from ejection on account of arrears of rent for 1337 and 1338 *Fasli* ; and
- (d) A notification issued under section 61 of the Civil Procedure Code exempting one-third of the produce of the current *Rabi* harvest from sale in execution of a Civil Court decree.

Afterwards the agricultural prices began to rise and by 1937 the depression was almost over.

The U. P. Tenancy Act of 1939 is an important milestone in the history of the tenancy legislation of this Province, which has enormously improved the lot of distressed tenantry, and has removed a number of defects observed in the working of the previous Acts in Agra and Oudh. The Act being applicable to the whole Province, has removed a great disparity observed in the application of the two different Acts. The creation of hereditary tenants for statutory tenants has increased security of tenure to an appreciable extent. Restriction on the extension of the area of *Sir* land in the case of big landlords has reduced sub-letting of land and litigation. The Act has also made suitable provision for modification and determination of rents.

It is, therefore, obvious that most of the conditions necessary for improved type of farming were in existence in 1939, while they were almost absent in 1921. The working conditions in agriculture improved enormously

and on this account the cultivators were better off in 1939 than in 1921, though in 1931 the condition had progressively deteriorated due to depression which was over by 1937.

Abolition of Zamindari

In spite of various measures taken by the U. P. Government to protect the rights of tenants and improve their lot, it has not been possible to put the land system permanently on a stable basis. The class war all through this century has embittered the relationship between the zamindars and tenants. The agrarian unrest in the Province in 1931 was one of the signal points of the evils inherent in the land tenure system. The zamindari system in the Province involved the financial loss to the Government, absence of contract between the Government and the cultivators, absence of agricultural improvements, evils of sub-infeudation and administrative defects.¹ The majority of the Bengal Land Revenue Commission were of the opinion that no other solution save State acquisition of land would be adequate to remedy the defects of the present land system. The Commission were convinced that in order to improve the economic condition of the cultivators, the zamindari system should be replaced by a *ryotwari* system, under which the Government would be brought into direct relationship with the actual cultivators by the acquisition of all superior interests in agricultural land.² After the attainment of independence in August 1947 the problem came to the forefront as it was felt that with the dawn of the new era freedom should be restored to the cultivator for the development of his personality, which he enjoyed in the olden days, and the Government should institute a land tenure system in place of the present zamindari tenure, which should be helpful in effectively tackling various problems relating to land.

¹ *Bengal Land Revenue Commission Report* (1940), pp. 35-39.

² *ibid.*, p. 41.

The abolition of zamindari system is at the present time necessary not only from economic but also psychological standpoint.¹

The zamindari has lost its usefulness to society. In August 1946 the U. P. Legislative Assembly accepted the principle of the abolition of zamindari system and passed a resolution for acquiring by the Government all the rights of the intermediaries between the cultivator and the Government on payment of equitable compensation and asked the Government to appoint a Committee to prepare a scheme for this purpose. To give effect to the resolution and to prepare the necessary scheme, the Zamindari Abolition Committee was appointed under the chairmanship of the Hon'ble Premier. The committee was specially required to make recommendations on the following points:—

- (1) Accepting the principle of the abolition of zamindari system,
 - (a) What rights of intermediaries should be acquired?
 - (b) What would be the principles for the determination of equitable compensation for the acquisition of such rights, and
 - (c) What administrative and financial arrangements would be required to give effect to the proposals formulated under (a) and (b)?
- (2) What would be the basic principles and precise scheme of land tenure which will replace the existing system of zamindari in the Province?
- (3) What would be the administrative organisation required to give effect to the new scheme of land tenure, and, in particular, what would be the machinery for collecting Government dues?

¹ See the Address of the Chairman of the U. P. Zamindari Abolition Committee at Press Conference on the 7th October, 1948.

The Report of the Committee was published in October 1948. It aroused keen public interest and there was a great deal of discussion in the press and on the platform. The Government after giving due weight to the public opinion introduced the United Provinces Zamindari Abolition and Land Reform Bill, 1949 in the Assembly on the 9th July, 1949, which was later on referred to a Joint Select Committee of both the Houses of Legislature. The Bill as modified by the Joint Select Committee was discussed by the Assembly and the third reading was over on the 4th August, 1950. It seeks to provide for the abolition of intermediaries between the State and the actual cultivator in the Province and acquire the rights, titles and interests of such intermediaries and to amend the law relating to land tenure as a result of such changes.

In the Statement of Objects and Reasons it has been pointed out that without a radical change in the existing land system no coordinated plans of rural reconstruction can be undertaken to ensure agricultural efficiency and increased food production, to raise the standard of living of the rural masses and to give opportunities for the full development of the peasant's personality. The landlord tenant system established by the British for reasons of expediency and administrative convenience, should with the dawn of political freedom, give place to a new order which restores to the cultivator the rights and freedom which were his and to the village community the supremacy which is exercised over all the elements of village life.

As soon as the Bill is enacted the Provincial Government will publish in the Gazette its decision of acquiring all the rights of the intermediaries (after which no body is entitled to cut or remove any tree or cause injury to the land) and at a later date may notify the time from which the rights of the intermediaries shall vest in the Government. These rights shall be in the nature of (a) all rights, title and interest of all the intermediaries in

every estate including land, grove land, forests, fisheries, wells, tanks, ponds, water channels, ferries, pathways, *abadi* sites, *hats* and bazars, and in all sub-soil including rights in mines and minerals, (b) all rights and confirmation of titles of the acquired land, (c) all rents, cesses, local rates and *sayar*, (d) all arrears of revenue, cesses or other dues and (e) every mortgage-land. The Government will, then settle with different persons having either possession of any right or interest in the land in a suitably defined way.

The amount of compensation paid to any intermediary having interest or right in land will depend upon his net assets which shall be calculated by a Compensation Officer from the gross assets. The Compensation Officer will prepare a Draft Compensation Assessment Roll for various *mahals* or villages and then for every intermediary in respect of one or more *mahals* or villages after having prepared a statement of gross assets of such villages or *mahals* or intermediaries. The gross assets of a *mahal* or village shall consist of (a) cesses and local rates, rents paid in cash plus their computed value if paid in kind, (b) rent to be determined at hereditary rate if it has not been determined, (c) computed value at the hereditary rate of intermediary's grove, *Khudkasht* or *Sir*, (d) *sayar* including income from *hat*, bazar, and fisheries, (e) income from forest, (f) income from royalties and gross income from the mines if directly worked. The Draft Compensation Assessment Roll of an intermediary will show (a) his gross assets and net assets, (b) the arrears of land revenue, cess and other dues and (c) land revenue payable in the previous agricultural year.

The gross assets shall be the aggregate of the gross assets held separately by him plus the share in the jointly held gross assets in a *mahal* or a village. The net assets shall be arrived at by deducting from the gross assets the following :—

(a) any sum payable in the nature of revenue,

- rent cess or local rate in the previous agricultural year,
- (b) amount of agricultural income-tax of the previous year,
 - (c) cost of management and irrecoverable arrears equal to 15 per cent of the gross assets,
 - (d) computed value at ex-proprietary rate deducting items (a), (b) and (c) above of the land under personal cultivation as *Sir*, grove or *Khudkasht*,
 - (e) income-tax in respect of royalties and the cost of collection,
 - (f) ninety five per cent of the gross income from mines if directly worked.

The amount of compensation payable shall be eight times of the net assets in respect of the interest of the intermediary in the *mahal* or village except for *thekadar* in whose case the compensation shall be determined having regard to (a) the premium paid at the commencement of the *theka*, (b) loss to *thekadar* due to determination of the *theka*, (c) the gross and net assets of the estate or estates and (d) the amount annually payable by the *thekadar*. In no case the payment made to the *thekadar* and the intermediary shall exceed the amount based on the Compensation Assessment Roll. In the case of mineral rights acquired the Provincial Government shall be required to pay compensation which will be determined with due regard to the genuineness of the transaction and the period for which the lease has been in force.

Besides a rehabilitation grant shall be payable to all the intermediaries paying land revenue less than Rs. 5,000/- (except *thekadars*) which will be a multiple of the net assets. In the case of intermediaries other than *waqf*, trust or endowment the multiples of net assets shall be as follows :—

Land Revenue		Multiples
upto Rs. 25		20
Exceeding Rs. 25	but not Rs. 50	17
" 50	" 100	14
" 100	" 250	11
" 250	" 500	8
" 500	" 2,000	5
" 2,000	" 3,500	3
" 3,500	" 5,000	2

In the case of *wagfs*, trusts or endowments the rehabilitation grant is based on the purposes for which they were created. In the case of those for purely religious or charitable purposes an annuity equal to the net asset of such an institution minus $2\frac{1}{2}$ per cent as interest on the amount of compensation payable to it shall be paid. Where the institution is for purposes other than religious or charitable, the rehabilitation grant will be the same as in the case of intermediaries with that very amount of net assets. For institution which is partly for religious and charitable purposes, an annuity shall be determined in respect of that part of the estate which is utilized for religious and charitable purposes as already described while in respect of the remaining portion of the estate rehabilitation grant will be determined as in the case of intermediaries.

After the abolition of zamindari a new type of land tenure system shall be introduced in which there shall be three classes of people having right or interest in the land.

1. *Bhumidhar*—an intermediary having *Sir*, *Khud-kasht* or grove shall be entitled to have possession over such land as a *Bhumidhar*. An occupancy tenant, a hereditary tenant or a tenant on *Patta Dawami* or *Istamarari* with transferable rights over his holding or a permanent lessee in Oudh, or a fixed-rate tenant, or a rent free grantee, or a person granted a declaration under the U. P. Agricultural Tenants (Acquisition of

Privileges) Act, 1949 will also have *Bhumidhari* rights over his land.

2. *Sirdar*—person holding land as (1) tenant holding on special terms in Oudh, (2) ex-proprietary tenant, (3) occupancy tenant, (4) hereditary tenant, (5) grantee at favourable rate of rent or (6) grove holder or (7) a person admitted to vacant land will be entitled to retain his land as *Sirdar*.

3. *Asami*—a man holding land as (1) non-occupancy tenant of intermediary's grove, (2) sub-tenant of grove land, (3) mortgagee of the types of tenants who have right to become *Sirdar*, (4) non-occupancy tenant of pasture land, land covered with water used for growing *singhara* or other produce or land in the river bed used for occasional cultivation, (5) a non-occupancy tenant of a tract of shifting and unstable cultivation or land set apart for *taungya* plantation, (6) a *thekadar*, (7) a person admitted by *Bhumidhar* or *Sirdar* as a lessee of land in his holding, (8) a person admitted by the *Gaon Sabha* as a lessee of land or (9) any person who acquires the rights of *Asami* under this Act shall retain the land as *Asami*.

A person to whom *Sirdari* rights accrue can automatically become *Bhumidhar* after paying eleven times the annual rent of his holding to the Provincial Government. *Bhumidhari* rights can also be acquired in respect of waste-land to which a person is admitted on payment of eleven times the land revenue. In both these cases land revenue payable in future shall be halved. The *Bhumidhar* will have the right to the exclusive possession of all land comprised in his holding and to use it for any purpose whatsoever and will have transferable right in such land. Both the *Sirdar* and *Asami* shall have the exclusive possession of all land comprised in their holding and use it for any purpose connected with agriculture, horticulture or animal husbandry and make improvement in such land, but their rights are non-transferable. However, if an *Asami* who has made improvement on land with the

consent of the *Gaon Sabha* shall be entitled for compensation on ejection, which will be determined with due regard to cost of work, increase in the value of holding, period over which improvement was spread and the age of trees if so planted and income from them.

No person will be entitled to acquire land by way of purchase, gift or otherwise from a *Bhumidhar* if he with his family members owns more than thirty acres of land. The rights of possession in a land mortgaged cannot be transferred to the mortgagee. Sub-letting of land in all cases (except a minor, widow, physically disabled or a person in the service of military, navy or air force) has been disallowed. The *Bhumidhars* or *Sirdars* are authorised to exchange land among themselves without being affected in their rights. For all purposes transfers of land by a *Bhumidhar* will be considered as a sale. The *Bhumidhar* and not a *Sirdar* or *Asami* can bequeath his holding in accordance with the personal law. A holding shall not be partible among co-tenure holders if it does not exceed $6\frac{1}{4}$ acres, nor in the case of a suit if the area claimed by the plaintiff or plaintiffs does not exceed $6\frac{1}{4}$ acres. In the case of the latter the claimants shall be entitled for the value of the land of their share.

Both the *Sirdar* and *Asami* have the option of surrendering their rights but the former can do it either in the whole or part of that holding, while the latter in the whole of the holding. On the extinction of the interest of *Bhumidhar* or *Sirdar* the interest of the *Asami* shall also extinguish and the land under him shall be taken over by the *Gaon Sabha* which is entitled to admit people as *Asamis* on these vacant lands.

Rents in future shall be paid in cash and will not be variable.

A tenant of *Sir*, a sub-tenant of land other than grove land or a person recorded as occupant of any

land after July 1, 1948 or preceding this date shall retain possession of his land as *Adhivasi*. He is not liable to ejection except on arrears of rent, transfer of his holding, or use of land for purposes other than agriculture, horticulture or animal husbandry. If at any time after the expiry of five years after the passing of this Act an *Adhivasi* pays to the Government 15 times the rent computed at hereditary rate in respect of *Sir* or *Khudkasht* and 15 times the rent payable in the case of any other land he will acquire the rights of a *Bhumidhar* and compensation shall be paid to the land holder of the *Adhivasi*, which shall be one-third of the amount deposited by the *Adhivasi* for the *Sir*, *Khudkasht* or grove land and the whole amount deposited for any other land besides the compensation and rehabilitation grant at prescribed rates. If the predecessor in-interest is a *Sirdar* the amount so paid to him shall be one-third of the sum deposited by the *Adhivasi*.

If the holding of a *Bhumidhar* or *Sirdar* under his personal cultivation is less than 8 acres and a portion of his holding is being cultivated by *Adhivasi*, the latter can be ejected from as much land as to make the land under personal cultivation of the former eight acres. The *Adhivasi* can be admitted by *Gaon Sabha* to as much vacant land as may be equal to the value of land from which he is ejected.

Rights in all lands, forest and trees (except in any holding or grove), public wells, fisheries, *hats* and *bazars*, tanks, ponds, private ferries, water channels, pathways and *abadi* sites shall be vested in *Gaon Samaj* (which shall be a corporate body and shall consist of all adult residents of the locality and holding land as *Bhumidhars*, *Sirdars* or *Asamis* or members of a co-operative farm established) on whose behalf the *Gaon Sabha* will superintend, manage and control all land, forest trees etc. and will have the functions and duties for

- (a) the development and improvement of agriculture,

- (b) the prevention, maintenance and development of forests and trees,
- (c) the maintenance and development of *abadi* sites and fisheries,
- (d) the management of *hats* and bazars,
- (e) the development of co-operative farming,
- (f) the development of animal husbandry,
- (g) the consolidation of holdings,
- (h) the development of cottage industries,
- (i) maintenance and development of village communities.

There will also be a *Gaon Fund* to which money shall be credited in case it accrues to the *Gaon Samaj* and shall be utilized by the *Gaon Sabha* to discharge its duties and functions.

All the *Bhumidhars* and *Sirdars* shall be jointly responsible for the payment of land revenue and local cess at such times as prescribed in the Act. Land revenue cannot be increased before the next settlement which will be after a period of 40 years. In assessing land revenue the Settlement Officer shall have regard to the estimated average surplus produce of the holding after deducting the ordinary expenses of cultivation. The land revenue shall be in graduated scale and a certain percentage of the surplus produce which can be varied by an Act of Legislature according to the variations in the prices of agricultural produce. It cannot be varied due to increase in fertility on account of improvement made by *Bhumidhar* or *Sirdar* in his holding. The Bill provides for the remission or suspension of land revenue in case of agricultural calamities and enhancement or abatement of land revenue due to increase or decrease in the cultivated area.

The *Gaon Panchayat* or any other agency will be responsible for the collection of land revenue for which it will be paid certain commission. The holdings of

Bhumidhar or *Sirdar* are liable for sale in respect of arrears of land revenue.

Any ten or more members of a *Gaon Samaj* having *Bhumidhari* or *Sirdari* rights in fifty acres or more in a circle can start a co-operative farm with the permission of the Registrar of Co-operative Societies. A co-operative farm of uneconomic holdings can also be formed if not less than two-thirds of the total number of persons holding *Bhumidhari* or *Sirdari* rights in uneconomic holdings and owning not less than two-third of the area of all uneconomic holdings apply jointly to the Collector to this effect. In the event of formation of such a farm the remaining one-third members may also be asked by the Collector to join the farm. All the members of such a co-operative farm shall be obliged to contribute funds, personal labour, agricultural implements, agricultural stock or any other article in any manner to any prescribed extent. Such a farm will be entitled for the following concessions and facilities and shall be responsible for the payment of land revenue, and local cesses :—

- (a) reduction of land revenue,
- (b) reduction of, or exemption from, agricultural income-tax,
- (c) free technical advice from Government experts,
- (d) financial aid and grant of subsidy or loan,
- (e) admission to land by the *Gaon Sabha*, and
- (f) Priority in irrigation from State irrigation works.

The State Assistance

The Government in the United Provinces performs certain functions which are also performed by the State in Russia and landlords in England with a view to increasing the prosperity of the cultivators. The policy of State interference has been observed in the field of

agriculture for a very long time. The passing of various tenancy and debt legislations, the provision of credit through the co-operative societies and improved varieties of seeds, implements, irrigation facilities are some of the instances in point. We may now discuss all these measures and their effect on the economic condition of the cultivators.

(a) *Debt Legislation*—The increasing pressure of population resulted in greater demand and keen competition among the agriculturists for land. This led to their often being rack-rented. The smallness of holdings and their grotesque fragmentation, the constantly recurring losses of cattle from drought and disease, the ignorance of agriculturists and the provision of easy and facile credit led cultivators into the deep mire of poverty and debt. The evil genius of the money-lender which always provided debt for productive as well as unproductive purposes, went a long way in increasing rural indebtedness in the Province. In 1929-30 only 30 per cent of the total agricultural debt was productive while 34 per cent unavoidable and 36 per cent unproductive.¹ The heavy indebtedness gave rise to transfer of land from the agriculturists to non-agriculturists or from poor cultivators to rich ones. The Land Alienation Act and the Debt-legislation attempt to protect the agriculturists from exploitation by the *Mahajan*. We would now discuss the various types of State aid to agriculture.

The Bundelkhand Land Alienation Act (II of 1903)

This Act aimed primarily at preventing or mitigating evils which rose incidently out of the introduction of British rule.² It checked the unhealthy tendency of the transfer of land from agriculturists to non-agriculturists in payment of debt, which was the cause

¹ See *Report of the U. P. Provincial Banking Enquiry Committee 1929-30*, Vol. I, p. 140.

² Anstey, V. : *op. cit.*, p. 103.

not only of eviction of a large number of genuine cultivators but also of the practice of sub-letting and rack-renting.

To give the cultivators a measure of relief during the depression a number of Acts were passed which aimed at providing relief either for a short term or for a long term. The main short term measures to afford relief were :

- (1) Stay of execution proceedings (e.g. the U. P. Temporary Regulation of Execution Act (XXIV) of 1934).
- (2) Measures to reduce the liabilities of the debtors in respect of the past arrears of interest (e.g., the U. P. Agriculturists' Relief Act of 1934).
- (3) Measures to provide relief in respect of the payment of the principal of the loan (e.g., the United Provinces Regulation of Sales Act of 1934).

Among the long term measures may be mentioned the various money lenders' Acts for regulating the business of money lending and providing safeguards for the protection of the person and property of the debtors against undue exploitation by the creditors. We may now discuss the short term measures.

Agriculturists' Relief Act of 1934

The main object of debt legislation is to relieve the debtor of what he cannot pay, while insisting on his paying the utmost he can within a reasonable time.¹ With this aim in view the United Provinces Agriculturists' Relief Act was passed. The Act was extensively used either for the grant of instalments or for reduction of interest on decree.²

¹ See *Royal Commission on Agriculture in India Report*, p. 441.

² *Revenue Administration Report of U. P., 1935-36*, p. 17.

The U. P. Usurious Loans (Amendment) Act (XXIII) of 1934 defined excessive rates of interest and afforded considerable relief to debtors of all classes, its provisions being often applied to claims before plaintiffs are filed with a consequent reduction in litigation. Relief under the Act has often been given in *ex parte* cases also, and it had clearly some effect in checking usury.¹

The U. P. Encumbered Estates Act provided assistance to land owners paying land revenue of more than Rs. 10/- from becoming insolvent owing to slump in prices. The Act ensured the liquidation of debt by equated instalments over a period of years coupled, if these proved to be insufficient, with the transfer of least possible area of land.² The amount of interest which a creditor was allowed to recover on his loans was limited to a sum equal to the amount entered as principal in the last document executed before 1917.³ Under this Act 34,000 applications were made involving debts of about Rs. 25·5 crores.

The United Provinces Temporary Regulation of Execution Act (XXIV) provided temporary relief to all landlords paying land revenue of less than rupees ten and to all cultivators. Under the Act relief was granted by scaling down of decrees provided that the payment was promptly made on debts decreed by a Civil Court. Very little use was made of the Act in the Province.

The United Provinces Regulation of Sales Act⁴ (XXVI) of 1934 checked the undue transfer of land from agriculturists due to slump in prices. It provided that in no case the creditor could claim more land for

¹ Revenue Administration Report, 1935-36, pp. 16-17.

² Misra, B. R.: *Land Revenue Policy in U. P.*, pp. 245-46.

³ *Revenue Administration Report of U. P.*, 1933-34, p. XVI.

⁴ The provisions of this Act have been extended from time to time upto the present day.

his debt than he could have obtained under the pre-slump prices for his debt. Under the Act in 1935-36 there were nearly 33,000 cases for disposal involving a sum of Rs. 8·17 crores. This Act saved a large number of debtors from the loss of much of their property, and gave considerable relief in the individual cases of decreed debts to which it applied. Its comparatively simple and expeditious procedure led creditors to regard it with less resentment than other measures.

In addition to the debt legislation the Government in 1933-34 issued orders under section 61 of the Civil Procedure Code exempting one-third of the produce from sale in execution of Civil Court decrees. This order remained in force till 1935-36.

We may now discuss the three long term measures of the United Provinces Government to provide relief to the agriculturists. The United Provinces Debt Redemption Act, 1940, reduced the amount of interest by the application of low rates of interest— $4\frac{1}{2}$ percent per annum simple interest in the case of secured debt and 6 per cent per annum simple interest in the case of unsecured debt where the contractual rate is greater than these rates. The Act also provided for the application of the law of *damdupad* in the form in which it applies to unpaid interest. Decrees passed under the provisions of the Act will not be executable under the ordinary law except as regards execution against land and agricultural produce. If such decrees are sought to be executed by sale of land, the Court will, if the debtor so desires, transfer the necessary amount of land at a valuation to the decree holder and will not sell any land. Further a portion of the debtor's land, the local rate payable in respect of which does not exceed Rs. 25/-, will be altogether protected from sale or transfer in execution of a decree for debt. As regards execution against agricultural produce, only one quarter of the agricultural produce of the debtor will be liable to attachment at any one time and the period of limitation for the execution of decrees against

such produce is reduced to four years. The Act provided much expected relief to the agriculturists on the debt incurred before the Act came into force, that is 1940.

The United Provinces Regulation of Agricultural Credit Act of 1940 dealt with the debts that might be contracted on or after June, 1940. It provided that no decree can be executed against agricultural produce after four years have expired from the date of the passing of the decree and that not more than one quarter of agriculturist's crops can be attached at any one time in satisfaction of any one decree or any number of decrees. The object of the Act was to limit the capacity of the debtor of an average status to borrow indefinitely from money-lenders by putting restrictions upon the transferability of the only security he can offer, *viz.*, land. The Act also provided that the land of a proprietor paying less than Rs. 250/- as land revenue is protected and cannot be sold in execution of a decree for debt. All that the creditor can do is to obtain a self-extinguishing usufructuary mortgage for 20 years at the expiry of which the land reverts to the debtor free from all encumbrances. This has nipped in the bud the inclination of the small proprietors to over-borrow, and of the lenders to over-lend with a desire to become proprietors.

The passing of various debt legislation from 1930 to 1939 was a timely step taken by the Government to relieve the cultivators as well as the proprietors from the crushing burden of debt. In their absence transfer of land, sub-letting and rack-renting would have been rampant and the backbone of the poor peasantry would have completely been broken. The standard of living of the people would have gone down to an extent unthinkable in the history of the Province. There is no doubt that cheap and facile credit has completely disappeared after the passing of these Acts, but it has also prevented the unintelligent and extravagant use of loan, which is bound to reduce the poverty of the people.

Now we may pass on to the aid rendered by the Government to the cultivators by way of providing credit through co-operative societies.

(b) *Agricultural Co-operation*—There is no doubt that indebtedness in India has tended to become a permanent condition, while in other countries it has been a temporary phase in the career of an individual debtor who, in the majority of cases, ultimately clears himself of debt.¹ In order to relieve the peasantry of the burden of indebtedness and to ameliorate their condition the Government passed the Co-operative Societies Act (X) of 1904 and controlled as well as organised the Co-operative Movement in the country unlike England and Denmark where it has sprung from the people themselves. To remove certain defects observed in the working of the Act the Co-operative Societies Act (II) of 1912 was passed. The MacLagan Committee (1915) on Co-operation was appointed to examine if the movement in India in its financial aspects was progressing on sound lines, and to suggest measures for further improvement. The Committee made important recommendations with a view to improving the working of the societies. Later on the progress of the movement was reviewed by various provincial committees appointed for the purpose in different provinces. The Oakden Committee in the United Provinces (1926) brought about a transfer of supervisory functions from the Central Banks to the Provincial Co-operative Union.

In spite of State control and supervision the Movement has not progressed on sound and healthy lines. In 1926 it was found that the principles of co-operation had not taken root, and that the Movement was not flourishing.² In the years of depression the Movement, though reorganised, received a set-back due to slump

¹ Anstey, V.: *op. cit.*, pp. 187-88.

² See *Report of the Co-operative Committee of U. P. (1926)*, para 14.

in prices. The problem of overdues became a menace and a large number of societies were liquidated. The proportion of arrears to total outstanding was 26·2 per cent in 1925-26.¹ In 1929-30 about 502 societies were liquidated and it was hoped that another 1,000 would have to be liquidated in the next two or three years. During such difficult times the Registrar, Co-operative Societies, U. P., realised that the workers had a difficult job to do. The Movement in the Province was still "labouring under a vast stretch of clouds" and it was officially believed that it would take at least five to ten years more of strenuous efforts before the clouds could begin to disperse.² Between the years 1926 and 1930 every earnest endeavour was made to pull the societies out of the rut and liquidate those which were impossible to reclaim. It was very lately (after 1926) realised that credit was not the be-all and end-all of co-operative endeavour. Credit or better banking is only one of the four sides of the square, the other three being, better living, better farming and better marketing.³ The number of better-living societies went up to 5,474 in 1939-40. Recently there has been a craze for multi-purpose co-operative society *i.e.*, the society extending its activity in all directions for the uplift of the villagers. The sound and healthy development of village life on progressive lines requires us to attack the vicious system on all fronts. We have to see that the cultivators by their united action and self-reliance attain higher and more prosperous standard of life.

Inspite of various difficulties the Movement has immensely helped the cultivators. It has, to a great

¹ *Annual Report of the Working of Co-operative Societies, U. P., 1925-26.*

² *Annual Report of the Working of Co-operative Societies, U. P., 1928-29.*

³ Fay, C. R. : *Co-operation at Home and Abroad* (1939) Vol. II, pp. 379-80. For the growth of unlimited co-operative credit societies in U. P. see Table 128.

extent, loosened the hard grip of the money lenders on the poor villagers.

Finally reference must be made to the effect of irrigation works on the economic prosperity of the cultivators.

TABLE 128

Showing the Growth of (unlimited)
Co-operative Credit Societies in the
United Provinces

Year	Number of Societies	Number of Members
1921-22	4,848	1,16,442
1922-23	5,199	1,24,429
1923-24	5,436	1,30,606
1924-25	5,672	1,40,267
1925-26	5,894	1,44,225
1926-27	5,874	1,48,332
1927-28	5,697	1,37,454
1928-29	5,390	1,27,430
1929-30	5,043	1,17,661
1930-31	5,009	1,13,408
1931-32	5,045	1,08,234
1932-33	5,083	1,06,014
1933-34	5,096	1,03,495
1934-35	5,476	1,09,025
1935-36	6,004	1,25,336
1936-37	6,427	1,41,927
1937-38	6,293	1,60,069
1938-39	7,213	1,71,282
1939-40	6,741	1,69,959

(c) *Irrigation and Water Supply*—In a highly agricultural province like U. P. the prosperity of the people largely depends on the proper development of agriculture and its increased production. Agricultural production is always open to the risk of the shortage of rains and inadequate water supply in many places. Monsoon affects prosperity to a great extent as it is an

important factor in determining the production of various crops. It is generally irregular and uncertain. Moreover, there is a marked tendency for the normal rainfall to decrease in most of the districts.¹ To eliminate these uncertainties and protect the Province from the grip of famine the importance of irrigation is immense. Irrigation plays so important a part in agriculture in U. P. that no investigation into rural conditions would be complete which fails to examine its present position and future possibilities from the agricultural point of view.² The various means of irrigation make for security of life, they increase the yield and value of land and income derived from it. They have lessened the cost of famine-relief and have helped to civilize whole regions. "To those who have seen a famine, the most important thing about irrigation is the increase in security and well-being that is the result. Only those who can visualise the effect of scarcity—the able-bodied on relief works, the women carrying soil, the children thin and worn, cattle dying and the desolation of fields can realise the difference in passing to an irrigated area where the crops are green, grain is plentiful, where families are intact, and children have energy to play about. The difference in the sum of happiness involved cannot be expressed in terms of money".³ The importance of irrigation in U. P. can be judged from the fact that out of 3,59,22,514 acres of area sown in 1940-41, 1,15,92,767 acres was irrigated by various sources. The canals irrigated 37,73,991 acres and wells (tube-wells and others) 59,36,267 acres. The estimated value of crops raised with the aid of State-owned irrigation works during the year amounted to Rs. 26,42,63,346.⁴

¹ See Table 129.

² *Royal Commission on Agriculture in India Report*, p. 324.

³ Knowles, L. C. A.: *The Economic Development of British Overseas Empire*, Vol. II, p. 368.

⁴ For the growth of irrigation in U. P. see Table 130.

Conclusion

A critical study of the land policy of the United Provinces Government reveals three stages. Under the rule of the East India Company and upto the year 1859 when the first tenancy Act was passed, the policy of the Government was of the least interference in matters pertaining to land. The political power of the East India Company was not thoroughly established and

TABLE 130

Showing the Growth of Irrigation in the United Provinces
(area in thousand acres)

Year	Area Irrigated by				
	Government Canals	Private Canals	Reservoirs	Wells	Other Sources
1921-22	2,240.2	16.3	60.9	5,261.4	2,253.6
1922-23	2,260.2	38.2	64.7	4,888.9	2,595.7
1923-24	1,612.5	23.2	63.3	4,252.4	1,994.5
1924-25	1,878.9	21.7	66.5	4,308.9	2,183.3
1925-26	2,281.4	26.9	67.6	4,973.0	2,379.9
1926-27	2,434.0	28.1	70.2	5,378.8	2,369.3
1927-28	1,925.6	20.9	60.6	2,847.6	650.3
1928-29	2,928.3	19.5	56.4	5,806.8	1,592.9
1929-30	3,325.1	24.1	63.8	5,610.5	1,947.4
1930-31	3,060.3	36.7	64.3	4,914.3	2,109.9
1931-32	2,849.3	30.2	58.9	4,745.0	2,346.0
1932-33	3,275.9	28.5	62.8	5,135.0	1,466.3
1933-34	3,117.5	25.0	48.4	4,850.3	2,139.0
1934-35	3,239.8	29.6	58.8	5,091.6	2,192.4
1935-36	3,510.9	26.9	61.0	5,292.4	1,832.5
1936-37	3,121.3	20.4	64.2	4,765.9	2,184.5
1937-38	3,827.7	33.0	99.5	5,303.6	2,292.2
1938-39	3,762.1	36.4	58.2	5,554.0	2,506.7

Area Irrigated by Tube Wells
(thousand acres)

1939-40 ...	432.0
1940-41 ...	512.1
1941-42 ...	581.5
1941-42 ...	581.5
1942-43 ...	463.2
1943-44 ...	554.0

TABLE 129

Showing the Variations in Normal Rainfall in Inches

Districts	1905-06 to 1914-15	1915-16	1916-17	1917-18	1918-19 to 1922-23	1923-24	1924-25 to 1932-33	1933-34 to 1936-37	1937-38 ot 1938-39	1939-40 to 1940-41	Increase (+) or decrease (-) in inches in 35 yrs.	Percentage increase (+) or decrease (-)
1	2	3	4	5	6	7	8	9	10	11	12	13
<i>Canal Districts</i>												
Saharanpur ...	38·13	38·13	37·27	37·52	37·57	37·42	36·99	36·98	36·97	36·47	-1·66	-4·35
Muzaffarnagar ...	30·26	30·26	39·64	29·81	30·10	30·03	29·67	29·69	29·67	29·67	-0·59	-1·95
Meerut ...	27·48	27·48	28·06	28·21	28·12	28·09	28·09	28·10	28·09	27·53	+0·05	+0·18
Bulandshahar ...	26·30	26·60	25·97	26·14	25·86	25·83	26·00	26·00	26·00	26·00	-0·30	-1·14
Aligarh ...	26·02	26·02	25·47	26·62	25·08	25·02	25·09	25·09	25·09	25·09	-0·93	-3·57
Mainpuri ...	31·57	31·57	30·56	30·69	29·84	29·79	29·70	29·73	29·74	29·74	-1·83	-5·80
Etawah ...	32·00	32·00	31·30	31·42	30·82	30·79	30·79	30·77	30·78	30·78	-1·22	-3·81
Mathura ...	24·46	24·46	24·11	24·14	23·42	23·34	23·61	23·63	23·54	23·54	-0·92	-3·76
Farrukhabad ...	34·29	34·29	31·64	31·84	30·92	30·88	30·89	30·73	30·53	30·53	-3·76	-10·96
<i>Unprotected Districts</i>												
Bareilly ...	47·09	47·09	45·07	45·36	44·91	44·80	44·48	44·48	44·86	44·86	-2·23	-4·73
Bijnore ...	43·51	43·51	44·03	44·18	43·91	43·77	43·48	43·49	43·49	43·49	-0·02	-0·05
Agra ...	26·32	26·32	25·47	25·65	25·00	24·95	24·08	25·09	25·09	25·09	-1·23	-4·67
Budaon ...	33·81	33·81	33·39	33·52	32·80	32·74	32·91	32·91	32·92	32·92	-0·88	-2·60
Allahabad ...	37·42	37·42	37·14	37·19	37·28	37·26	37·22	37·33	37·43	37·43	+0·01	+0·03
Jhansi ...	36·63	36·63	35·84	35·86	34·30	32·28	32·24	34·41	34·41	34·41	-2·22	-6·06
Jalaun ...	32·71	32·71	31·85	31·91	31·36	31·32	31·64	31·65	31·64	31·64	-1·07	-3·27
<i>Well-Irrigated Districts</i>												
Banaras ...	39·86	39·26	39·26	39·29	39·60	39·62	39·99	39·99	39·99	39·99	+0·13	+0·33
Jaunpur ...	42·26	41·46	41·46	41·48	41·08	41·09	40·62	40·62	40·62	40·62	-1·64	-3·88
Ghazipur ...	39·48	38·81	38·81	38·79	39·46	39·39	39·53	39·55	39·54	39·54	+0·06	+0·15
Ballia ...	41·86	40·83	40·83	40·84	41·18	41·16	41·45	41·45	41·45	41·45	-0·41	-0·98
Gorakhpur ...	48·23	48·03	48·03	48·10	48·30	48·25	48·15	48·15	48·15	48·15	-0·08	-0·17
Basti ...	48·78	48·08	48·08	48·16	47·99	47·93	47·67	47·67	47·68	47·68	-1·10	-2·26
Azamgarh ...	40·95	40·28	40·28	40·30	41·12	41·07	40·42	40·40	40·32	40·32	-0·63	-1·54

military and diplomatic pre-occupations left hardly any time for framing a systematic land policy. Consequently the basis of settlement and the conditions of relationship between the tenantry and the zamindars on the one hand, and the State on the other varied greatly in different parts. When after the Mutiny (1857) the Government of the Province passed from the Company to the Crown, early steps were taken to put the land system of the Province on a regular and rational basis and the first tenancy Act, as we have said already, was passed in 1859. This ushered in the second stage of development during which the Government has been taking active steps by repeatedly amending and over-hauling the laws relating to land tenure in order to ameliorate the lot of the tenantry or to ensure a fair distribution of income from land between the peasant and the zamindar in order to increase the prosperity of the Province. The process, however, has been very slow and various factors have impeded the progress in the right direction. The boldest step of the kind was the Tenancy Act of 1939 sponsored by the Congress Ministry of 1937-39. This Act, as we have seen, made drastic improvements and gave to the tenantry of the Province many specific and valuable rights which had been denied to them earlier. After the passing of this Act the Congress Ministry went out of office and then followed a period of six years during which the Province was ruled by the Governor and his Advisers. During this period zamindars took advantage of certain sections of the Act of 1939 which were beneficially meant but were liable to wrong interpretation, and ejected a very large number of tenants.¹ Certain inadequacies of the Act

¹ Over 2,56,511 ejectments took place after the passing of the Act.

Sections	Cases Instituted	Cases Disposed	Persons Ejected	Land Acquired (acres)
54	1,893	1,828	—	800
171	1,50,142	1,38,918	17,168	—
180	2,49,050	2,27,409	—	1,29,562
175	—	98,832	—	56,781

were also discovered in the working. On account of the harassing attitude of the zamindars and unwillingness of the Advisers' Government to protect the tenants the poor people of the country-side had to suffer great hardships. The unfortunate facts of these six years convinced many people that reform in land policy cannot be effective unless it is thorough and complete. Tinkering and patch work in the shape of amendments in the existing laws are more or less futile. This is the conviction of the congressmen who again formed Ministry after the termination of hostilities in September 1945 and are responsible for the Government of the Province. Their last election manifesto gave high priority to abolition of zamindari and land reforms, and in order to implement that pledge, they got a resolution for abolition of the zamindari on payment of equitable compensation passed on the basis of which the U. P. Zamindari Abolition Committee was appointed which submitted its report to the Government in August 1948 and prepared a comprehensive plan for the land reforms to be made in the United Provinces. The main recommendations of the Committee were embodied in the U. P. Zamindari Abolition and Land Reform Bill, 1949. This Bill has already been passed by the Assembly and will in all likelihood be passed by the Council in the near future. Thus the final step towards a revolutionary change in land policy has already been taken. We are on the threshold of the third and final stage of the development of the land policy when the zamindar who has claim for more than 150 years to be the proprietor of the land is on the verge of elimination. The village communities are bound to serve a very useful purpose in place of the zamindar in the new scheme of things.

In the following chapter we will discuss the industrial policy of the Government and its effect on the prosperity of the Province.

CHAPTER XVII

INDUSTRIAL POLICY

Introduction

THE importance of industrial policy cannot be minimised in a study of the economic prosperity of the United Provinces. The conditions of life and work in the factories go a long way in affecting the prosperity of those employed therein. The factory legislation and a number of other Acts during the last twenty-five years have aimed at increasing the efficiency of the workers by removing the evils of factory system to an appreciable extent and have increased the prosperity of the workers.

Perhaps it may be more desirable to study the effect of the various provisions period-wise than Act by Act. We divide our study into two periods—the first period extends from 1921 to 1930, and the second from 1931 to 1938.

Period I (1921-30)

Hours of Work, Rest, Interval and Holidays

From 1921 to 1922 the working hours for children and women in the case of non-textile industries were limited to 7 and 11 respectively. Children in textile factories were to work for six hours and adult males for 12 hours per day. The working time for children, women, and adult males in textile factories was limited to the period between 5-30 A.M. and 7 P.M. The Factories Act (II) of 1922 abolished the old distinction between textile and non-textile factories and reduced the hours of work for children to 6 per day and for adults (both male and female) to 11 per day and 60 per week. This reduction in the hours of work was

desirable for the simple reason that very long hours of work made the workers dead tired, gave them little time for rest and sleep, ruined their health and bred in them a habit of excessive drinking, resulting in accidents and diminution in production.

Before 1922 all factories were required to stop work for at least half an hour after every six hours' work. There was a weekly holiday on Sunday, or on any other day substituted instead, in the week. From 1922 onward all workers were to have a period of one hour's rest after every six hours of work or if they so desired they could divide the period into two at their option. No child was required to work for more than four hours at a stretch.

Social Legislation

In every civilized country there is suitable provision for old age pensions, sick insurance, unemployment insurance, maternity benefit etc. The wage earner has to distribute his small and precarious wages over an existence whose hazards are unknown. He lives under the constant threat of risks, which, if they materialise, will stop his work and deprive him of his wages, the only source of his income and of his family. The industrial accidents, general and occupational diseases, invalidity, old age, early death and unemployment are some of the risks which must be covered. It was with a view to covering the risk due to disability or death in employment that the Workmen's Compensation Act (VIII) of 1923 was passed.

According to this Act payment of compensation was made obligatory on all employers. The injured workman or the dependants of the killed could receive compensation in all cases where personal injury was caused by accidents arising out of and in the course of his employment. In addition to the bodily injuries, a workman was also allowed compensation if he had been in the service of the same employer for more than

six months and was disabled on account of his contracting the disease of anthrax or any other occupational disease while in employment.

The Act laid down important rules for the determination of the amount of compensation paid to the worker or to his dependants. In the case of death from injury the amount of compensation for an adult would be equal to thirty months' wages or Rs. 2,500/-, whichever was less, and in the case of a minor only Rs. 200/-. In the case of permanent total disablement the compensation for an adult was equal to forty-two months' wages or Rs. 3,500/-, whichever was less. Where permanent partial disablement resulted from injury, the compensation was determined according to the percentage of the loss of earning capacity caused by the injury.

This Act was the stepping stone of a social legislation and provided security to the workmen in the case of disability. It helped to remove the distress and trouble of the workers to a great extent. This Act was amended by the Act (XXIX) of 1926 to clarify the ambiguity in the interpretation of the rules about the workers employed in any industry involving the handling of hides and skins. The Act was again amended in 1929 to remove some of the discrepancies in the Act of 1923, which had resulted in litigation and unrest among the workers. The Act provided that in future compensation would not be paid directly to the workers but would be deposited with the Labour Commissioner who would either pay the sum to the workers or invest it for the benefit of the beneficiary. The employers were required not to advance more than Rs. 50/- to the dependant of a deceased worker for performing funeral rites.

Miscellaneous Provisions

In 1921 the conditions of employment were governed by the Factories Act (XII) of 1911. The

minimum age limit for the employment of children was nine years which was subsequently raised to twelve years in 1922. This measure aimed at prohibiting children below a certain age to be employed in factories in order to avoid a permanent breakdown of their health and loss of national efficiency.

The various factories Acts made provision for the security and welfare of labourers in factories. By the Act (XV) of 1881 children and women were not to be employed in certain dangerous types of work. The fly-wheel, water-wheel, hoist or teagle or any other dangerous machinery at the option of the Inspector had to be fenced. The accidents, if any, were to be reported to the Inspector. The Act (XII) of 1911 provided that the employers had to make arrangement for ventilation, lighting, fire-escapes, water-supply, latrines, urinals, accommodation etc., in their factories. From 1922 onward women and young persons under the age of 18 were prohibited from being employed in certain lead processes. The exclusion of women and children from employment in certain dangerous undertakings is based on the ground that the welfare of a nation is dependant upon its progeny, therefore, the health of the mother as well as of the child must be safeguarded if the society is not to degenerate.¹

The Trades Disputes Act (VII) of 1929 was the first Act of its kind passed to make provision for the investigation and settlement of trade disputes. The main body of the Trades Disputes Act was divided into three parts. The first provided for the appointment of Courts of Enquiry and Boards of Conciliation; the second contained special provisions with regard to strikes in public utility services; and the third dealt with illegal strikes and lock-outs. The Act authorised the Government of India in the case of railway companies or any other concern controlled by it, and the Local Government in the case of all other concerns, to refer

¹ Loknathan, P. S. : *Industrial Welfare in India*, p. 28.

any matter appearing to be connected with dispute which existed or which was apprehended, to a Court of Inquiry appointed by them or to a Board of Conciliation for promoting a settlement. This could be done subject to the provision that both parties to the dispute applied separately or conjointly for a reference to a Court or a Board and the Government, either Central or Provincial, was satisfied that the persons applying represented the majority of each party. The Act made it a penal offence for persons employed in public utility services to go on strike without giving at least fourteen days' notice in writing of their intention to do so. Similar provision was made for employers in the case of lock-outs.

The Act provided that any strike or lock-out would be illegal if it had any object other than the furtherance of a trade dispute within the trade or industry in which the strikers or employers locking out were engaged, and which was designed or calculated to inflict severe, general and prolonged hardship upon the community and thereby to compel the Government to take or abstain from taking any particular course of action. It was also made illegal to contribute or apply any sums in direct furtherance or support of any such illegal strike or lock-out. These illegal strikes and lock-outs were made penal offence.

It is desirable to pass on to the second period in order to assess the improvements in the condition of factory workers.

Period II (1931-39)

This period marked a great advance in the field of factory as well as social legislations over the previous decade. These years are noted for the enactment of various legislations which improved the condition of workers with a view to increasing their efficiency and removing many of the risks inherent in the factory system. The Act (XXV) of 1934 was passed with this

implied object. It increased the scope of the factories and divided them into perennial and seasonal ones. It made important provisions to improve the working conditions in the factories.

Hours of Work, Rest, Interval, Holidays, Overtime and Spreadover

According to the Factories Act of 1934 the workers were divided into (i) adults above the age of 17,¹(ii) adolescents between the ages of 15 and 17 and (iii) children below the age of 15.² The maximum hours of work per week for an adult worker were 60 in a seasonal and 54 in a perennial factory. For children and uncertified adolescents the period of work was 5 hours per day in both the perennial and seasonal factories. No adult worker was allowed to work in a perennial factory for more than 10 hours per day. In a seasonal factory a male adult worker might work upto 11 hours per day.³

The provisions of the Acts of 1911 and 1922 with regard to interval for rest⁴ and holidays⁵ were unchanged

¹ According to the Factories Act of 1948 a person above the age of 18 years is considered as adult while between the ages of 15 and 18 as adolescent.

² According to the Factories Act of 1948 no person below the age of fourteen can be employed in a factory.

³ According to the Factories (Amendment) Act of 1946 an adult was not to work for more than nine hours per day in a perennial factory and for ten hours in a seasonal factory. The weekly hours of work were limited to 48 in perennial and 54 in seasonal factories. The Factories Act of 1948 has abolished the distinction between the perennial and seasonal factories and an adult is not required or allowed to work for more than 9 hours on any day and 48 hours in any week. A child is to work only for 4½ hours per day.

⁴ According to the Factories Act of 1948 every worker is to get at least half-an-hour rest after working for five hours on any day.

⁵ According to the Factories (Amendment) Act of 1945 every adult worker was entitled for leave on full pay for a period of ten days and a child for fourteen days, besides the weekly holiday,

in the Factories Act of 1934. According to the U. P. Maternity Benefit Act (IV) of 1939 a woman worker who had a child of less than one year of age was entitled to two intervals for rest of half an hour each, one in the forenoon and the other in the afternoon, at such time as she thought fit in addition to the interval of one hour allowed to her by the Factories Act of 1934. These two additional intervals of rest were of a quarter of an hour each in case an employer maintained a creche at the factory. The Weekly Holidays Act (XVIII) of 1942 has made provision for one holiday per week to persons employed in shops, restaurants and theatres.

The Factories Act of 1922 did not lay down any specific rule with regard to the number of hours of overtime work in the case of the workers of factories exempted from the operation of the Act. The Factories

after completing his continuous service for twelve months in any factory and this leave could be availed of during the subsequent twelve months. In case it was not availed wholly or partly, it could be carried forward to a succeeding period but in no case would exceed ten days for adults and fourteen for children. The wages paid to a worker during the holidays were to be equal to the daily average of his wages as defined in the Payment of Wages Act of 1936, for the days on which he actually worked during the preceding three months exclusive of any earnings in respect of overtime and the payment for half the total pay for the holidays was to be made to the worker before his holidays began. According to the Factories Act of 1948 an adult worker is allowed one day leave with full pay for every twenty days of work performed by him during the preceding twelve months subject to a minimum of ten days and a child one day for every fifteen days of work performed subject to a minimum of fourteen days. A worker is also entitled for holidays for the period of service if he has worked continuously for four months and then his services have been terminated. The unavailed leave can be carried forward provided it does not exceed fifteen days in the case of an adult and twenty days in the case of a child.

According to the Factories (Amendment) Act of 1945 if a worker is deprived of his weekly holiday for any reason, he will get compensatory holidays of equal number of days as soon as possible. According to the Act of 1948 these compensatory holidays will be available within a month or two.

Act of 1934 put a limit on the number of hours for which overtime work could be done by a worker. With regard to overtime allowance, where a worker in a factory worked for more than 60 hours in any week, or where a worker in a factory other than a seasonal factory worked for more than 10 hours on any day, he was entitled in respect of the overtime work to a payment at the rate of $1\frac{1}{2}$ times his ordinary rate of pay. If the worker of a perennial factory worked for more than 54 hours upto 60 hours per week, he was to be paid for the overtime work at the rate of $1\frac{1}{4}$ times of his ordinary pay.¹

The Factories Act of 1934 made a very important provision and introduced the principle of spreadover i.e., the limitation of the period of consecutive hours during which the daily limits of hours of work might be availed of by the owner or occupier of a factory. The spreadover in the case of adults was limited to thirteen consecutive hours and for children to $7\frac{1}{2}$ continuous hours on any day. The adult women and the children can be employed only within the span of 13 hours between 6 A.M. and 7 P.M.²

¹ The Factories (Amendment) Act of 1946 provided that if a worker of a non-seasonal factory worked for more than nine hours on any day or 48 hours in any week or if in a seasonal factory he worked for more than nine hours on any day or fifty hours in any week, he was entitled in respect of the overtime worked to pay at the rate of twice his ordinary rate of pay. In the Factories Act of 1948 the provisions of the Act of 1946 regarding the non-seasonal factories have been retained which are applicable to all types of factories as no distinction is maintained between a seasonal and a perennial factory.

² The Act (X) of 1946 changed the period of spreadover to ten and half hours in the case of perennial and eleven and a half hours in the case of seasonal ones for the adult workers. According to the Act (LXIII) of 1948 the period of spreadover is ten and a half hours for all factories. In the case of a child the period of spreadover in 1946 was fixed at seven and a half hours. Since 1948 the period of work of all children is limited to two shifts which should not spread over more than five hours each, and a child can be employed only in one of the relays.

Payment of Wages

The regulation of payment of wages is most essential for increasing the efficiency of workers. In the absence of any such regulation of wages before 1936 the factory owners were free to make payment to the workers at any time they liked. They used to make various kinds of illegal deductions and impose fines at their will. All these things put a great obstruction in the way of the workers to carry on their peaceful vocation. The workers had neither any desire to work efficiently nor did they like to improve their methods. It also increased inequalities of income as the major share of the product of industries was appropriated by the employers. To remove these defects the payment of Wages Act (IV) of 1936 was passed.

The Act has defined wages and put a stop to various kinds of illegal practices adopted by the employers. The bonus was generally granted to the workers subject to their satisfactory work and higher efficiency. Whenever the employers were not satisfied or were hostile towards some worker, they did not allow him any bonus. The Payment of Wages Act of 1936 has made bonus a part of the wages. The Act has also defined wage period and has laid down that it shall not exceed one month. All wages are to be paid in current coins or currency notes or in both. The wages of any person employed in any railway, factory or industrial establishment in which less than 1,000 persons are employed are to be paid before the expiry of the seventh day and in establishments employing more than 1,000 workers before the expiry of the 10th day after the last day of the wage period in respect of which the wages are payable. Where the employment is terminated, the wages earned by the workers are to be paid before the expiry of the second working day from the date on which his employment is terminated.

The Act has also defined the deductions which are permissible. No deductions other than those clearly

stated in the Act can be made by the employer before making payment of wages. The Act has also fixed the definite rates at which deductions can be made, if they are permissible e.g., in cases of absence from duty without any notice, loss or damage to the property and so on.

As regards fines the Act has laid down that no fines are to be imposed on children. Fines on any employed person can be levied only in respect of such acts and omissions on his part which have been exhibited in notices by the employers with the previous approval of the Local Government or the prescribed authority. The fine is not to be imposed unless the person concerned has been given an opportunity for showing cause against the fine. The total amount of fine imposed on a person in any wage period is not to exceed an amount equal to $1\frac{1}{2}$ annas in the rupee of the wages payable to him for that wage period. The fine cannot be realised after the expiry of two months from the date of its imposition. All the fines realised are to be recorded in a register and are to be spent only on services beneficial to the workers of the factory concerned. The Act has put a check to the desire of the employers to impose unnecessarily a heavy fine on workers and deduct it from their wages.

Social Legislation

(a) *Workmen's Compensation for Disability*.—The Act (VIII) of 1923 had many loopholes. It was applicable only to workers of certain defined manufacturing and other establishments. It covered workmen employed in factories, mines, docks, certain types of building work and telegraph and telephone linesmen, underground sewage workers, members of fire brigades and most of the railway workers. The employers could not advance more than Rs. 50/- to any dependant after the death of the worker from injury. In certain cases the amount paid by the employers

was not adequate. To remove all these defects the Act of 1923 was amended by the Amending Act (XV) of 1933. The Act increased the scope of the previous Act¹ and fully explained the word 'dependant'. It reduced the number of days from 10 to 7 as the period in which a workman, if he did not recover after total or partial disability, would be given compensation.

The amount of compensation payable to the workman or to his dependant was also altered. To an adult the compensation payable in the case of death as well as for permanent disablement depended on the monthly income of the worker. In the case of death it varied from Rs. 500/-, where the salary was less than Rs. 10/-, to Rs. 4,000/-, where the salary was more than Rs. 20/- per month. For permanent total disablement the compensation varied between Rs. 700/- and Rs. 5,600/-. The compensation payable for a minor in the case of death was only Rs. 200/-, but for permanent disablement it was Rs. 1,200/-. For partial disablement from injury the compensation was a certain percentage of the compensation paid for total disablement. This percentage was determined according to the percentage of the loss of earning capacity caused by the injury to total disablement. For temporary disablement of adult the half monthly payments as compensation varied from Rs. 5/- to Rs. 30/- depending upon the wages received by a workman.

¹ The new Act of 1933 covered all workers other than those working in clerical capacity, employed in the manufacture or handling of explosives, road, bridge, tunnel, wharf, quay, sea-wall or other marine work including any moorings of ships, any occupation involving outdoor-work in Indian Posts and Telegraphs Department, blasting operations, excavation where more than 50 persons have been working for 12 months, operation of any ferry boat capable of carrying more than 10 persons, coffee, rubber, tea or cinchona estate employing more than 25 persons for more than 12 months, generation or supply of electrical energy and gas, light house, cinematograph pictures, training keeping or working of elephants or wild animals or employed as drivers, besides those covered by the Act of 1923.

The Act laid important rules regarding the payment of compensation. The amount which could be advanced to the dependant after the death of the workman for the funeral rites was raised to Rs. 100/-.

There was a glaring defect in the working of the Act of 1933. A workman employed on wages payable otherwise than by the month was not supposed to be a workman within the meaning of the Workmen's Compensation Act and, therefore, he was not given any compensation. His case in the Court was declared null and void. The Act (XIII) of 1939 was passed to remove this defect. The Act laid down that monthly wages would mean the amount of wages deemed to be payable for a month's service (whether the wages payable by the month or by whatever other period or at piece rates). It further asked the Courts to restore the proceedings of the cases of those persons whose interests were prejudicially affected under the Act of 1923, if they applied for it within six months from the commencement of the Act.

(b) *Sickness Insurance*.—A sickness insurance scheme for industrial workers in India has recently been instituted. It was conspicuous by its absence during 1931-38. It was for the first time that in the year 1931 the Royal Commission on Labour made a strong plea for exploration of all methods that might lead to the alleviation of the hardships due to the absence of a sickness insurance scheme. They recognised that statistical material available was insufficient, and recommended that special enquiries should be instituted at selected centres as soon as possible. When these preliminary enquiries were completed, only then the question of framing schemes could be examined.¹ The Government of India consulted the Standing Advisory Committee of the Central Legislature and the Public Health Department in London and directed its Labour Department to send a circular to the Provincial Governments to know their views

¹ *Royal Commission on Labour Report*, pp. 265-69.

on the feasibility of a statistical enquiry of the kind contemplated by the Royal Commission on Labour and on the alternative possibility of building on the actual experience gained in the operation of small experimental schemes.¹

The majority of the Provincial Governments did not believe in the utility of such an enquiry and, therefore, nothing was done in this connection by them during 1931-39.² In U. P. the Workmen's Compensation Act and the Maternity Benefit Act have fallen much short of the ideal of the social insurance. The sickness insurance is of the greatest social interest and will go a long way towards ameliorating the condition and health standard of the workers.

(c) *Maternity Benefit*.—For a very long time in the field of labour legislation no provision was made for any payment to woman worker by the employer during the period immediately following her delivery. The women workers for this period were supposed to be absent from duty. The U. P. Maternity Benefit Act (IV) of 1939 has made satisfactory provision for women workers of perennial factories. It prohibits an employer from employing a woman in any factory during the four weeks immediately following the day of her delivery or during the two weeks immediately following the day of her miscarriage. It prohibits women workers also from working during this period in any factory.

The Act has laid down definite rates at which and the period for which the payment of maternity benefit

¹ See the Circular letter No. L-3019 dated the 30th April, 1935 of the Department of Industries and Labour, Government of India to all local governments and administration.

² Prof. B. P. Adarkar as an Officer on Special Duty framed a scheme for sickness insurance for industrial workers in India and submitted the Report on the 15th August, 1944. In 1948 the Government passed Employees' State Insurance Act which is being applied to factories in the first instance.

is allowed. The Act has also made specific provision for benefit for four weeks during the period of miscarriage. According to the Act, every woman worker of perennial factory is entitled to the payment of maternity benefit at the rate of her average daily earnings for a period of three months preceding the date of the notice to the employer, or at the rate of annas -/8/- per day, whichever is greater, for her absence not exceeding four weeks during the period immediately following her confinement. A woman is entitled to the benefit to the maximum period of 8 weeks—four weeks upto the day of delivery and four weeks immediately following the day. In the case of death of the woman during this period benefit would be payable only for the days upto her death.

The Act has also laid down a suitable procedure for calculation of benefit and for its realization by the women workers themselves or some other persons who look after them, or their sons in case they die. The Act makes it obligatory for every employer in whose factory 50 or more women workers are employed or where not less than 25 per cent of the workers employed are women and the number of women is either 10 or more, to set apart a room in the factory premises which shall be used as a creche for the children of women workers, and employ a female attendant to look after those children and also employ partly or wholly a trained woman health visitor to look after the welfare of the women workers.

Miscellaneous Provisions

The provisions of the Act of 1922 with regard to control of artificial humidification had been expanded. By the Factories Act of 1934 the Local Governments were given powers to prescribe standards for the cooling properties of the air in factories in which the humidity of the air was artificially increased and regulate methods used for artificial humidification and prescribe tests

for it.¹ It empowered the Local Government to authorise the Chief Inspector or any other factory Inspector to call upon the manager of the factory to carry out the specific measures to increase the cooling properties of the air if in their opinion it was insufficient to secure workers against injury to health, or against serious discomfort, and that they could be increased to a great extent by measures which did not involve an amount of expense which was unreasonable under the circumstances.

Act (XXVI) of 1938 was passed to regulate the admission of children to certain industrial employments, such as occupations connected with the transport of passengers, goods or mails by railways, and in any occupation involving the handling of goods within the limits of any port. According to the Amending Act (XV) of 1939 no child below the age of twelve can be employed in any workshop which involves the processes of *bidi* making, carpet weaving, cement manufacture including bagging of cement, manufacture of matches, explosives and firework, mica-cutting and splitting, shellac manufacture, soap manufacture, tanning and wool cleaning.

The Factories Act of 1934 empowered the Local Government to make rules for the following four matters in connection with workers' welfare² :—

¹ These provisions have been enormously expanded by the subsequent Acts. Now every factory is to be properly cleaned. Adequate provision for ventilation, lighting, drinking water, latrines, urinals and spittoons is to be made. The provisions regarding safety devices have been greatly expanded.

² The recent Acts have provided for adequate and suitable facilities for washing, for keeping clothes not worn during working hours and for the drying of wet clothes, suitable arrangements for sitting, provision for a canteen (in every factory employing more than 250 workers), adequate and suitable shelters or rest rooms and lunch rooms with provision for drinking water (in every factory employing more than 150 workers), provision for a creche (in every factory employing more than 50 women workers) and the employment of a welfare officer in a factory employing at least 500 workers.

- (1) for the maintenance of a sufficient and suitable supply of water for washing for workers employed in processes connected with obnoxious substances ;
- (2) for adequate shelter for rest for the workers of a factory employing more than 150 workers ;
- (3) for reserving suitable rooms for the use of children under the age of six years of women in factories employing more than 50 women workers ; and
- (4) for the maintenance of adequate first aid appliances.

The Factories Act of 1934 empowered the factory Inspectors to call upon the managers to carry out such tests as might be necessary to determine the strength or quality of any specified parts of the structure of factories, if in their opinion, on account of any defect or deficiency in the construction of any factory it was dangerous to human life or safety. Local Governments were further empowered to make rules for furnishing the certificates of stability by such factories.

Before the passing of the Factories Act of 1934, the Local Government was authorised to exempt certain classes of workers from all or any of the restrictive measures of the Factories Act. The Act of 1934 limited these powers and laid down that no exemptions were to be granted in respect of the provisions for spreadover, prohibition of night work and the limitation of weekly hours for women and children. This was an important deviation from the former position with regard to the powers of the Provincial Government.

The period between 1931 and 1939 was marked by a large number of strikes in the Province. An examination of various disputes in U. P. in this period points to one important fact that the majority of these disputes were the results of some type of wage problem—a reduction or cut of wages or agitation on

the part of the workers to get their wages increased. During this period of depression there was a general tendency for wage-cuts which was confirmed by the Bombay (Labour) Inquiry Committee.¹ The Government of the United Provinces appointed a Labour Enquiry Committee² under the Chairmanship of Dr. Rajendra Prasad to examine and report on the conditions of life and work of the labourers employed in factories at Kanpur at a time when the Province was in the grip of strikes. The Committee submitted its draft Report to the U. P. Government on March 24, 1938.³ The recommendations of the Committee, though acceptable to the Government, could not be put into force as the employers did not accept all of them.

The Child Pledging Act (II) of 1938 removed a very great social evil regarding the pledging of the labour of children by their parents or guardians in due discharge of debt or obligations. The Act prohibits the making of agreement to pledge the labour of children and the employment of children whose labour has been pledged previously.

Conclusion

The period during 1921-30 saw only a few legislations passed with a view to increasing the welfare of industrial workers and removing many of the evils which had crept in due to the modern factory organisation. The end of the period saw the daily hours of work in the case of children and adult workers reduced to 6 and 11 respectively. A suitable provision was made for rest, interval and holidays for workers. Women and children were prohibited from being

¹ See *Report*, para 239, pp. 238-39.

² See the U. P. Government Notification No. 3275/XVIII dated November 11, 1937.

³ The Final Report appeared in the United Provinces Government Gazette dated April 24, 1938.

employed in certain dangerous undertakings in order not to let the future efficiency of the workers be impaired. Security of factory structure by way of fencing the dangerous parts of machine, and providing for artificial cooling and humidification, was increased.

During this period the working conditions in factories did improve to a certain extent. The Trade Disputes Act of 1929 provided only a rough and halting machinery hitherto unprovided. The Workmen's Compensation Act was the only solace to the millions of unfortunate ones to get some compensation due to their disability either partial or total at a time when life's risks were innumerable. The period saw merely the dawn of a few legislations aimed at ameliorating the condition of the poor and needy factory workers.

The period from 1931 to 1938 is marked for far reaching changes in the condition of factory workers. The Factories Act of 1934 provided for labour welfare, shorter hours of work, intervals for rest, spreadover and overtime work. This important measure enormously reduced the causes leading to inefficiency, dullness and monotony in factory work. The payment of Wages Act of 1936 has allayed the resentment most prevalent among workers on account of unabated attempts on the part of the employers to exact as much as possible from the workers due to perishable nature of labour. The provision that wages would be paid in coins or currency notes affords greater freedom to labour and relieves it, to some extent, from the hard clutches of the employers. No wage period can exceed a month; the wages in all cases are to be paid before the 10th day after the expiry of wage period. In order to stop illegal deductions the Act has also provided for the permissible deductions from wages. This provision has removed a great evil of uncertainty of earnings in the case of factory workers and has immensely helped them in increasing their standard and efficiency on a permanent basis.

During this period many of the defects observed in the working of the Workmen's Compensation Act have been removed. The provision of maternity benefit was greatly hailed from all quarters. As one of the important social legislations it is bound to increase the efficiency of women workers and the future efficiency of workers of the Province.

It is self-evident from the facts given above that the conditions of life and work in factories were definitely far better during 1931-38 than in 1921-30. The workers in the second period were more contented and prosperous than in the first and naturally worked with greater efficiency.

No body can deny the fact that industrial production can be increased by a proper system of rationalisation of industry, by an increase in the efficiency of workers and by a suitable machinery for the settlement of industrial disputes (specially in the case of India where disputes are common). The efficiency of workers can be increased by providing better conditions of work and removing the haunting shadow of insecurity and uncertainty. The earnings of the workers go a long way in removing some of the uncertain factors in the life of a person. The earnings should be such as to maintain him and his family in a reasonable state of comfort—his earnings must not be below a minimum necessary level. Fixation of minimum wages in U. P. by the Provincial Government on the basis of the recommendations of the U. P. Labour Inquiry Committee (1946-48) will go a long way in raising the standard of living of the workers.¹ The industrial Disputes Act of 1947

¹ The U. P. Labour Inquiry Committee have accepted the principle of 'living standard wages' in the sense of 'subsistence plus level' and have made it as the basis of minimum living wage. The Committee have recommended for the fixation of a minimum wage of Rs. 30/-, 40/-, 50/- and 75/- per month for unskilled, semi-skilled, skilled and highly skilled workers respectively in U. P. In the case of the clerks a long-term time-scale commencing from Rs. 55/- per month and rising to Rs. 250/- per month, with three

has provided a suitable machinery for the settlement of industrial disputes in the country.¹ The industries

efficiency bars in between has been recommended, while in the case of graduates and stenographers a higher minimum of Rs. 75/- per mensem, in the case of clerks drawn from working class population, employed in factories on very elementary work, not educated beyond lower middle standard, a scale of Rs. 40-4-80. The Committee have recommended equal wages to men women and adolescents and Rs. 25/- per mensem for 'children'. The Committee have suggested that the Government should ask the factories to employ disabled persons, duly registered and medically certified, upto 2 per cent of the total labour strength in the factory and these disabled workers should get the same wage as an adult male worker in the occupation where they can stand up to the working conditions of employment. These recommendations have been made for workers in all 'registered factories' including watch and ward staff, *chaprasis*, *malis* and sweepers etc.

¹ For the prevention and settlement of industrial disputes the Act has provided for works committees consisting of representatives of employers and workmen, and industrial tribunals. Power has been given to appropriate Government to require works committees to be constituted in every industrial establishment employing 100 workmen or more and their duties will be to remove causes of friction between the employer and the workmen in the day-to-day working for the establishment and to promote measures for securing amity and good relations between them. A reference to an Industrial Tribunal will lie where both parties to an industrial dispute apply for such reference, and also where the appropriate Government considers it expedient to do so. An award of a Tribunal may be enforced either wholly or in part by the appropriate Government for a period not exceeding one year. The power to refer disputes to Industrial Tribunals and enforce their awards is an essential corollary to the obligation that lies on the Government to secure conclusive determination of the disputes with a view to redressing the legitimate grievances of the parties thereto, such obligation arising from the imposition of restraints on the rights of strike and lock-out, which must remain inviolate, except where considerations of public interest over-ride such rights. According to the Act conciliation will be compulsory in all disputes in public utility services and optional in the case of other industrial establishments. With a view to expedite conciliation proceedings, time limits have been prescribed for conclusion thereof—14 days in the case of conciliation officer and two months in the case of Board of Conciliation from the date of notice of strike. A re-settlement arrived at in the course of conciliation proceedings will be binding for such period as may be agreed upon by the parties

conference held from the 15th to 18th December, 1947 considered the urgency of increasing production in the country and decided to bring about a 3 years' Truce in industrial relations.¹ The Factories Act of 1948

and where no period has been agreed upon, for a period of one year, and will continue to be binding until revoked by a three months' notice by either party to the dispute. According to the Act, strikes and lock-outs have been prohibited during the pendency of conciliation and adjudication proceedings of settlements reached in the course of conciliation proceedings and of awards of Industrial Tribunals declared binding by the appropriate Government. The Act also empowers the appropriate Government to declare, if public interest or emergency so requires by notification in the official Gazette, any industry to be a public utility service, for such period, if any, as may be specified in the notification.

¹ The following resolutions were passed by the Conference :—

“This Conference considers that the increase in industrial production, which is so vital to the economy of the country, cannot be achieved without the fullest cooperation between labour and capital and stable and friendly relations between them. The employer must recognise the proper role of labour in industry and the need to secure for labour fair wages and working conditions. Labour for its part must give equal recognition to its duty in contributing to the increase of the national income, without which a permanent rise in the general standard of living cannot be achieved.

Mutual discussion of all problems common to both, and a determination to settle all dispute without recourse to interruption in or slowing down of production, should be the common aim of employers and labour.

The system of remuneration to capital as well as labour, must be so designed that while in the interests of the consumers and the primary producers, excessive profits should be prevented by suitable measures of taxation and otherwise, both will share the product of their common effort after making provision for payment of fair wages to labour, a fair return on capital employed in the industry, and reasonable reserves for the maintenance and expansion of the undertaking.

For attaining these objectives, this conference recommends :

- (a) That the fullest use should be made of statutory and other machinery for the resolution of industrial disputes in a just and peaceful manner ; where it does not exist, it should be created without delay. Such machinery should as far as possible be uniform throughout India.

seeks to secure the right of factory labour to better conditions of work.

Sir William Beveridge in his monumental Report on social security in Great Britain has enumerated five "Giants—Wants, Disease, Ignorance, Squalor and Idleness"—which must be attacked simultaneously in order to provide a decent level of human existence to every living person in the country. India, too, requires that every son and every daughter should be provided a minimum level of well-being. The people should be freed from the five big Giants at the earliest possible moment. A small beginning has been made in this direction after the passing of the Employees' State

- (b) The establishment of machinery—central, regional and functional—for the study and determination of fair wages and conditions of labour, and fair remuneration for capital, and methods for the association of labour in all matters concerning industrial production, such as the formation of central, regional and unit production committees.
- (c) The constitution in each industrial undertaking of works committees, representing management and duly elected representatives of labour, for the settlement of any dispute which may arise from day to day.
- (d) That as a first step towards improving the standard of living of workers, immediate attention should be devoted to the problem of housing of industrial labour; the cost of such housing should be shared in suitable proportions between the Government, employers and labour, the share of labour being given in the shape of a reasonable rent.

This Conference invites labour and management to assist Government to agreements between the parties as will usher in a period of contended and orderly advancement towards a co-operative commonwealth".

Following this Resolution two separate Committees to consider the question of profit sharing and of fixing fair wages were set up. The reports of these committees have already been submitted but no action has so far been taken by the Government.

Insurance Act of 1948.¹ We have to aim at providing a minimum level of well-being and making life richer and happier and stabilize employment.² The provision of social security in India, as far as possible, may be

¹ The Act applies in the first instance to India's 25,00,000 industrial workers in perennial factories and will be extended to others when feasible. The benefits to the worker will comprise medical care and treatment, a cash sickness benefit at over half his average daily wage for a maximum period of 56 days, a maternity benefit for women at the rate of -/12/- annas a day for a period of 12 weeks and disablement and dependants' benefits in the form of pensions for employment injury or death. The right to these benefits will accrue to every worker insured under the scheme. A fund will be created from out of contributions by both the employer and the worker and will be managed by a statutory corporation. No contribution will be levied in the case of employees earning less than Re. 1/- per day. Medical care and treatment will be supervised by a statutory council. The cost of provision of medical care is intended to be borne by the Corporation and the Provincial Governments in the proportion of two to one. The Central Governments' contribution will be two-thirds of the entire cost of administration of the scheme for the first five years. Expenditure under the scheme over medical benefits is expected to be Rs. 6/- per head per year—an advance not only on the existing medical facilities, but also on what the Bhore Committee have recommended. The provisions of this Act have been put into effect in certain industrial centres.

² For a detailed account see :

- (i) 'Ten years of Social Security in America' a feature article by Arthur J. Altmeyr.
- (ii) Mills and Montgomery: *Labour's Risks and Social Insurance* (1938).
- (iii) Don D. Lescossier: *The Labour Market* (1919).
- (iv) E. Wight Bakke: *The Unemployed Man* (1933).
- (v) Paul W. Kellogg: *Case Studies of Unemployment* (1931).
- (vi) Paul, H. Douglas: *Social Security in the United States* (2nd edition, 1939).
- (vii) *The United Nations Charter* (1945).
- (viii) *The United States and the Peace*, Part II (1945), United States Information Library, Bombay.
- (ix) Senate Bill 1161 (U.S.A.) on June, 1943.
- (x) Social Security Act (Amendments) of 1943 (U.S.A.).

based on the social Security Act (1947) in Great Britain and the Social Security Act of 1935 in U.S.A. as amended by the Senate in 1943.

There is a growing sense of realisation in India that an individual's need is usually due not to his own inadequacy, but to his economic and social environment, to bad luck or other fortuitous circumstances. The state has to provide some safeguards against misfortunes which cannot be wholly eliminated in this man-made world.

It is to our satisfaction that the Economic and Social Council since its constitution has been doing all that is possible for promoting

- (a) higher standards of living, full employment, and conditions of economic and social progress and development ;
- (b) Solutions of international economic, Social, health and related problems : and international cultural and educational co-operations ; and
- (c) Universal respect for, and observance of, human rights and fundamental freedoms for all without distinction as to race, sex, language, or religion.

In the next chapter we would discuss the Financial Policy of the U. P. Government and its effect on the distribution of income.

CHAPTER XVIII

PUBLIC FINANCE

Introduction

PUBLIC finance is in no way less important in relation to the prosperity of the Province than the agricultural and industrial policies. The latter affect production while the former affects not only production but also the distribution of income.

In order to judge the effect of taxation we should take into account the taxes levied by the Central as well as the Provincial Governments in the Province. We have thus to construct a consolidated account of the tax-revenue of the Central and Provincial Governments arising in U. P. In the absence of any specific data on the contribution of different provinces to the Central revenue in respect of customs, central excise and salt tax we assume that the provincial contribution to the total revenue from these sources bore the same proportion as the population of the Province bore to the whole of British India¹ and estimate the revenue under different heads for U. P. as given in Table 131.

The structure and content of the tax-system of the United Provinces have been determined partly by the financial traditions of the past, partly by the economic and social organisation of the people and partly by the general lay out and functions of the (Provincial and Central) Governmental machinery. The taxes levied at the present time are both direct and indirect—taxes on income and land revenue (if it be considered at all a tax) are important direct taxes, while customs, salt and excise duties, stamp and registration fees are in the nature of indirect taxes. Of these taxes only those

¹ We assume that the tax and duties were being borne by the inhabitants of British India.

on income (income-tax and super-tax) are progressive during the period under review, the income-tax system in our country did not provide for enough graduation and did not differentiate between earned income and unearned income. It was only in 1939 that the slab system was introduced, giving the income-tax structure

TABLE 131

Showing the Percentage of the Total Tax Revenue Arising in U. P.

Description	1921-22	1931-32	1938-39
A. Total revenue from (inclusive of land revenue)			
(1) Income and super tax	11.0	6.5	5.8
(2) Stamps and registration	7.3	7.8	6.2
(3) Land revenue	31.5	30.7	30.8
(4) Customs and excises (including salt tax)	50.2	54.6	54.6
(5) Other taxes and duties	—	0.4	2.6
Total	100.0	100.0	100.0
B. Total revenue from (exclusive of land revenue)—			
(1) Income and super-tax	16.0	9.4	8.3
(2) Stamps and registration	10.7	11.3	8.9
(3) Customs and excises	73.3	78.7	79.0
(4) Other taxes and duties	—	0.6	3.8
Total	100.0	100.0	100.0

a more progressive character. The revenue from taxes on income fell from Rs. 2.4 crores in 1921-22 to Rs. 1.5 crores in 1931-32 and Rs. 1.3 crores in 1938-39.¹ It formed 11.0, 6.5 and 5.8 per cent of the total tax revenue inclusive of land revenue and 16.0, 9.4 and 8.3 per cent of the total tax revenue exclusive of land revenue

¹ See Table 132.

in 1921-22, 1931-32 and 1938-39 respectively. Thus it is clear that the proportion of the only progressive tax of the total tax revenue, instead of increasing, fell

TABLE 132

Showing Taxation in the United Provinces

Description	1921-22	1931-32	1938-39
	(Revenue in crores of rupees)		
Income and super-tax ...	2.4	1.5	1.3
Customs ...	6.3	8.1	7.8
Central excise ...	1.5	1.7	1.7
Salt tax ...	1.1	1.5	1.6
Provincial excise ...	2.1	1.3	1.3
Stamps ...	1.5	1.7	1.3
Registration ...	0.1	0.1	0.1
Other taxes ...	—	0.1	0.6
Total (excluding land revenue) ...	15.0	16.0	15.7
Land Revenue ...	6.9	7.1	7.0
Total (including land revenue) ...	21.0	23.1	22.7
Payment per head of the population in U. P.—			
(i) Exclusive of land revenue ...	3 4 10	3 5 0	2 11 9
(ii) Inclusive of land revenue ...	4 13 3	4 12 4	4 4 6
Percentage of the tax burden exclusive of land revenue to total Provincial income—			
(i) Allowing for under-estimation	3.1	6.6	5.3
(ii) Not allowing for under-estimation ...	3.1	6.8	5.6
Percentage of the tax burden inclusive of land revenue to total Provincial income—			
(i) Allowing for under-estimation	4.3	9.6	7.7
(ii) Not allowing for under-estimation ...	4.4	10.0	8.1

in 1931-32 in relation to 1921-22 and in 1938-39 in relation to 1921-22 and 1931-32. On the other hand the proportion of customs and excise duties including salt tax (which are mostly regressive in their nature) to total tax revenue inclusive of land revenue increased from 50·2 per cent in 1921-22 to 54·6 per cent in each of the years 1931-32 and 1938-39 and their proportion exclusive of land revenue increased from 73·3 per cent in 1921-22 to 78·7 per cent in 1931-32 and 79·0 per cent in 1938-39. The burden of stamp and registration fees falls both on the rich and the poor classes of people but more on the latter than on the former. The percentage of revenue from this source increased in 1931-32 while it fell in 1938-39 in relation to 1921-22.

Land revenue, if it at all be said to be a tax, is another direct tax besides income-tax. Its proportion to total tax revenue fell from 31·5 per cent in 1921-22 to 30·7 per cent in 1931-32 and increased to 30·8 per cent in 1938-39. The land revenue demand in the Province is theoretically based on the principle of economic rent but in reality it takes many other factors into consideration.¹ This tax is defective from a number of standpoints. Firstly, it is a tax in *rem* and not in *personam*. The tax is not based on ability to pay and does not differentiate between earned and unearned incomes. It has created vast inequalities of tax burdens. At the one end are big *taluqdars* of Oudh and on the other the cultivators of uneconomic holdings who are impoverished under the heavy burden of rent and illegal exactions.² Furthermore, the rent varies widely from place to place even for the same class of cultivators.

¹ The *Indian Taxation Enquiry Committee Report* (1924-25), p. 60.

² The United Provinces Banking Enquiry Committee made a detailed enquiry and concluded that 30 per cent of cultivators possess holdings which are definitely uneconomic; while 52 per cent possess holdings which are either just above the economic level or possess uneconomic holdings with a subsidiary occupation. See *Report*, p. 99.

It also varies with regard to the different classes of cultivators, the rent for privileged or superior classes being much lower than for tenants with few or no rights in the land.¹

From the above it would appear that the tax structure in the United Provinces has been regressive all through and no concerted effort has been made by the Government to lessen the extent of regressiveness or reduce the inequalities of income. It is only typical of the tax structure for India as a whole, as is brought out in Tables 133, 134 and 135. For British India as a whole taxes on necessities of life and means of production formed 47·2, 47·7 and 51·2 per cent of the total customs and excise revenue, and 29·5, 32·9 and 35·8 per cent of the total tax revenue excluding land revenue in 1921-22, 1931-32 and 1938-39 respectively.²

The money tax-burden exclusive of land revenue per head of population in U. P. increased from Rs. 3/4/10 in 1921-22 to Rs. 3/5/- in 1931-32 and fell to Rs. 2/11/9 in 1938-39. The tax-burden inclusive of land revenue per head fell from Rs. 4/13/3 to Rs. 4/12/4 in 1931-32 and Rs. 4/4/6 in 1938-39 as shown in Table 137.

¹ Figures for 1945-46 are as below :—

Description	Incidence of Rent in rupees per acre	
	In Agra	In Oudh
Permanent tenure-holders ...	1·9	—
Fixed-rate tenants ...	3·97	—
Exproprietary tenants ...	4·76	5·12
Occupancy tenants (all kinds) ...	4·78	3·67
Hereditary tenants (all kinds, including tenants on special terms in Oudh)	6·09	6·38
Non-occupancy tenants ...	5·84	7·01

See U. P. *Zamindari Abolition Committee Report*, 1948, p. 529.

² See Table 136.

On the basis of 1921-22 price level the absolute tax burden exclusive of land revenue was Rs. 7/0/9 and Rs. 5/5/10 and inclusive of land revenue was Rs. 10/2/4 and Rs. 8/6/4 in 1931-32 and 1938-39 respectively. With 1921-22 money burden as the base (=100) the relative real burden exclusive of land revenue was 213·6 and 162·5 and inclusive of land revenue was 210·1 and 173·9 in 1931-32 and 1938-39 respectively. The total tax-burden exclusive of land revenue formed 3·1, 6·6 and 5·3 per cent of the total Provincial Income, if an allowance for under-estimation in income assessed to income-tax is made, and 3·1, 6·7 and 5·6 per cent of the total Provincial Income if no allowance for under-estimation is made in 1921-22, 1931-32 and 1938-39 respectively. The total tax-burden inclusive of land revenue formed 4·3, 9·4 and 7·6 per cent of the total

TABLE 133

Showing Taxation in India (Central and Provincial)

Description	1921-22	1931-32	1938-39
(Tax Revenue in lakh rupees)			
1. Income-tax and super-tax ...	2,217·5	1,757·0	1,728·1
2. Stamps and registration ...	1,201·7	1,306·6	1,133·3
3. Customs and excise ...	5,738·7	6,919·5	7,269·0
4. Other taxes and duties (excluding land revenue) ...	—	43·2	250·8
5. Total (excluding land revenue) ...	9,157·9	10,026·3	10,381·2
6. Land revenue ...	3,355·6	3,273·9	2,579·7*
Total (including land revenue) ...	12,513·5	13,300·2	12,960·9
7. Payment per head of population assuming that the whole of taxation is paid by inhabitants of British India :			
(1) exclusive of land revenue (Rs.)	3 11 4	3 10 6	3 11 11
(2) inclusive of land revenue (Rs.)	5 1 1	4 13 7	4 10 10

TABLE 134

Percentage Contribution of Direct and Indirect Taxes in India and the United Kingdom (including Land Revenue in the case of India)

Description	Percentage of the Total Tax Revenue in			
	India (Central and Provincial) in			U.K. in
	1921-22	1931-32	1938-39	1926-29
1. Income-tax and super-tax	17.7	13.2	13.3	44.9
2. Stamps (taxes on transactions and registration)	9.6	9.9	8.8	4.0
3. Estate and Death duties	—	—	—	11.0
4. Land revenue ...	26.8	24.6	19.9	—
5. Land tax and land values duties ...	—	—	—	0.1
6. Customs and Excise (Central and Provincial including salt tax) ...	45.9	52.0	56.1	} 39.9
7. Other taxes and duties	—	0.3	1.9	
	100.0	100.0	100.0	100.0

TABLE 135

Percentage Contribution of Direct and Indirect Taxes in India and the United Kingdom (excluding Land Revenue in the case of India)

Description	Percentage of the Total Tax Revenue in India			
	(Central and Provincial) in			U.K. in
	1921-22	1931-32	1938-39	1926-29
1. Income-tax and super-tax	24.2	17.5	16.7	44.9
2. Stamps (taxes on transactions and fees) ...	13.1	13.1	10.9	4.0
3. Estate and death duties	—	—	—	11.1
4. Land tax, land values duties ...	—	—	—	0.1
5. Customs and excise ...	62.7	69.0	70.0	} 39.9
6. Other taxes and duties	—	0.4	2.4	
Total	100.0	100.0	100.0	100.0

TABLE 136

Showing the Nature of Consumption Taxes in India

Year	Total Tax- Revenue Excluding Land Revenue (lakh Rs.)	Total Customs and Excise Revenue (lakh Rs.)	Taxes on Necessaries of Life and Means of Production (lakh Rs.)	Percentage of Figures in	
				Column 4 to column 2	Column 4 to column 3
1921-22	9,157.9	5,738.7	2,709.5	47.2	29.5
1922-23	9,771.2	6,613.9	3,130.5	47.3	32.0
1923-24	10,125.0	6,848.9	3,209.9	46.9	31.7
1924-25	10,305.3	7,199.2	3,601.0	50.0	34.9
1925-26	10,484.7	7,326.6	3,365.0	45.9	32.1
1926-27	10,410.9	7,310.8	3,277.6	44.9	31.5
1927-28	10,476.3	7,387.8	3,304.6	44.8	31.6
1928-29	10,864.4	7,599.2	3,464.1	45.6	31.8
1929-30	11,057.1	7,760.7	3,499.2	45.1	31.6
1930-31	9,997.9	6,957.8	3,047.5	43.8	30.5
1931-32	10,026.3	6,919.5	3,301.4	47.7	32.9
1932-33	10,862.4	7,615.4	3,628.2	47.6	33.4
1933-34	10,104.8	7,011.1	3,087.7	44.0	30.6
1934-35	10,604.1	7,481.8	3,666.1	49.0	34.6
1935-36	10,744.3	7,687.4	3,847.7	50.0	35.8
1936-37	10,570.0	7,672.5	3,632.6	47.3	34.5
1937-38	10,569.1	7,566.0	3,158.0	41.7	29.8
1938-39	10,381.2	7,269.0	3,719.4	51.2	35.8

Provincial Income, if we make an allowance for under-estimation, and 4.4, 9.6 and 8.1 per cent of the total tax revenue if no allowance is made for under-estimation in 1921-22, 1931-32 and 1938-39 respectively. It is really very sad that in 1931-32 when the masses were generally hard hit, the sacrifice made by them on account of the payment of taxes was more than twice as much as in 1921-22. The sacrifice in 1938-39 though less than that in 1931-32 was more than that in 1921-22. The fact is clear that the Government only cared to balance the budgets and did not adjust the burden of taxation to the income of the people. Though the burden of

TABLE 137
Tax Burden Per Head in the United Provinces
(in rupees)

Description	Money Burden in			Absolute Real Burden in (1921-22 price level being 100)			Relative Real Burden in (1921-22 burden index being 100)		
	1921-22	1931-32	1938-39	1921-22	1931-32	1938-39	1921-22	1931-32	1938-39
Exclusive of land revenue	3 4 10	3 5 0	2 11 9	3 4 10	7 0 9	5 5 10	100·0	213·6	162·5
Inclusive of land revenue	4 13 3	4 12 4	4 4 6	4 13 3	10 2 4	8 6 4	100·0	210·1	173·9

taxation in the Province is not very heavy, its distribution has been highly unsatisfactory.

In the absence of adequate data on the family budgets of different classes of people for the period under review it is not possible to determine the effect of taxation on the distribution of income. We have only some information about the family budgets of certain working class people of Kanpur for 1930 and 1938-39 which were studied by the Department of Industries of the U. P. Government but these too were not collected with any specific object of determining the tax-burden on them. Such effects can be determined only in future when investigations on the line indicated by the Colwyn Committee in Great Britain are undertaken in the Province.¹

Expenditure

The policy of expenditure is no less important than that of taxation. The Central Government is responsible for the defence of the country. The first charge on the revenue of the Provincial Government is expenditure on law and order which is followed by that on the nation building departments. In the early stages of civilization when the duty of the Government was only to save life and property of the residents, the expenditure was mainly on defence, law and order. With the advance in civilization and outlook of the people, the Government is now supposed to be responsible for all types of activities essential to increase National as well as Provincial Prosperity. The State increases production and reduces inequalities of income by incurring expenditure more on the poor than on the rich. We would now study the expenditure in the United Provinces and its effect on the life and prosperity of the people of the Province.

¹ The Colwyn Committee calculated the burden of taxation, direct and indirect taxes on the various incomes for the years 1903-04, 1913-14, 1918-19, 1923-24 and 1925-26.

Provincial expenditure under the Reforms of 1919 was broadly divided into two classes, namely (1) expenditure on law and order and (2) expenditure on development departments. The expenditure on administration of justice, jails and convict settlements and police formed 35·3, 34·1 and 31·9 per cent of the total expenditure during 1921-22, 1931-32 and 1938-39 respectively.¹ This shows a clear tendency for the expenditure to fall on this account.

A study of the expenditure on nation-building services in the Province reveals that the expenditure formed 20·9, 24·3 and 28·4 per cent of the total provincial expenditure in the three respective years, which points to the tendency of a rise in expenditure of 3·4 per cent in 1931-32 and 7·5 per cent in 1938-39 in relation to 1921-22. The expenditure on various development departments is given in Table 139. The expenditure has been the greatest on education followed by that on agriculture.

Regarding the progress of education in the Province it may be said that during 1921-39 the number of educational institutions increased from 21,566 to 25,248. The enrolment went up to a high mark of 17,68,984 in 1938-39 as against 10,29,565 in 1921-22. It was for the first time in 1919 that the United Provinces Primary Education Act permitting Municipal Boards to make primary education compulsory for children between the ages of 6 and 11 was passed. A special feature of the quinquennium ending with 1921-22 was the attempt to extend education among the depressed classes which was started in 1920-21.²

The number of students reading in the primary schools in 1921-22 was 8,32,940 as against 12,68,665 in 1938-39. During the course of 17 years the number of girls in primary schools increased from 45,203 to

¹ See Table 138.

² See the *General Report of the Department of Public Instruction* for the quinquennium ending 31st March, 1922.

78,104. It may be pointed out that a very small percentage of the total number of children of the Province even in 1938-39 went to primary schools. There is much waste in the case of primary education. Out of the total number of 1,23,153 children entering the infant classes, only 43,170 reached Class I, 26,358 Class II, 15,552 Class III and 10,142 Class IV. It shows that less than 9 per cent of the children entering infant classes are able to reach class IV. Those who join Class V are only 5 per cent of those entering the infant classes. This was the sorry state of things in the case of education and specially so in primary education in our Province in the year 1938-39.

Out of 1,05,640 villages in the United Provinces compulsory primary education in 1938-39 was in 1,224 villages including town areas and four notified areas. There was compulsory primary education in 36 urban areas also. Compulsory primary education for girls was in force only in selected areas of three municipalities (viz. Kanpur, Mirzapur and Mathura) and two district boards (viz. Etawah and Lucknow).

There were 2,834 adult night schools in 1938-39 as against 391 in 1937-38. The number of persons reading there increased from 10,594 to 83,552. Besides these the Rural Development Department started a number of adult schools. There were 171 High Schools, 71 English middle schools and 556 vernacular middle schools in 1921-22. In 1938-39 the number of vernacular and anglo-vernacular schools was 2,26,114 and 882 respectively. The enrolment number in High Schools, vernacular and anglo-vernacular schools was 50,605, 49,238 and 10,751 respectively in 1921-22 and 1,03,567, 95,479 and 14,302 respectively in 1938-39. In the latter year there were 6,757 scholars in Intermediate classes which were started in U. P. after the constitution of the United Provinces Board of High School and Intermediate Education in 1922.

The number of scholars in the universities was 7,128 in 1921-22 and 13,683 in 1938-39.

TABLE 138
Showing the Provincial Expenditure

Year	Expenditure (in crores rupees)			Percentage of Figures in column 3 to column 2	Percentage of Figures in column 4 to column 2
	Total	Development Departments	Law and Order		
1921-22	11.49	2.40	4.05	20.9	35.3
1931-32	11.84	2.88	4.04	24.3	34.1
1938-39	12.80	3.63	4.08	28.4	31.9

TABLE 139
Showing Expenditure on National Building Services
(in crores of rupees)

Year	Total	Education	Medical	Public Health	Agriculture	Industries
1921-22	2.40	1.52	0.23	0.29	0.27	0.09
1931-32	2.88	1.93	0.33	0.19	0.31	0.12
1938-39	3.63	2.08	0.36	0.24	0.55	0.19

Girls' education has been most backward in the Province. The education of girls goes a long way towards increasing the efficiency, health and condition of the children. If mothers are well educated, children do well in life by getting proper education from them.

In U. P. there were 69 girl students in universities, 3,133 in high schools, 4,339 in English middle schools in 1921-22 while in 1938-39 there were 580 in colleges, 8,927 in high schools, 10,444 in English middle schools, 46,839 in vernacular middle schools and 77,747 in primary schools. This education has not increased according to expectations. In the case of primary education the benefit is entirely derived by the poorer classes; in secondary education it is shared by the poor and the rich; while in the university education the benefit is exclusively confined to the middle and richer classes.

Agriculture is the second important item among the nation building departments. In 1921-22 the Government paid only little attention to an important industry like agriculture in the the United Provinces. The amount of seeds distributed was less than one lakh maunds while the implements and the parts issued were no more than five thousands. A small beginning was made for the development of animal husbandry by starting a stud bull farm at Madhurikund with only 354 heads of cattle. Agricultural education was almost negligible as there were only 33 students in the two years diploma course in the Agricultural College, Kanpur.

By 1931-32 sufficient work was done in the field of agriculture as in that year 9,89,920 acres of land was under improved varieties of sugarcane as against less than 10,000 acres in 1921-22. The amount of seeds distributed was 9,48,752 maunds and implements and parts issued to farmers were 13,435. Besides 34,670 maunds of cakes and fertilisers were also disposed. Vigorous research work in the field of economic botany was being undertaken and crops suitable to different areas and types of soils found out. The work was also started in the field of entomology and plant pathology.

The boring of wells for irrigational purposes was being undertaken and as many as 1,499 wells were completed during the year. The number of cattle in the stud farms also increased to 1,726.

By 1938-39 the work of the Government greatly increased. As many as 20,86,498 maunds of grains were issued from seed stores besides 56,758 implements and parts and 7,37,787 maunds of manures. The number of bulls issued for the public use was no less than 1,043. A number of agricultural exhibitions were being held with the specific object of familiarising the cultivator with the latest agricultural technique. Research on various crop pests and diseases was being pursued. Agricultural propaganda and publicity were important methods adopted by the Government for the dissemination of the new knowledge and of the technique and best agricultural methods and practices.

The above analysis clearly reveals that throughout the period of 1921-29 the activities of the Government for the development of agriculture were on the increase.

Another important item among the nation building services is medical and public health. Expenditure on them increases the standard of health and decreases the death rate. The efficiency of the people is easily increased, which ultimately results in increasing their income and thereby their prosperity. The expenditure on medical and public health in the United Provinces is given below in lakhs of rupees :

Description	1921-22	1931-32	1938-39
<i>Medical</i>			
Provincial Government ¹ ...	23·0	37·0	33·0
Municipal Board ...	2·2	5·6	7·2
District Board ...	21·2	19·6	20·4
<i>Public Health</i>			
Provincial Government ...	29·0	19·0	25·0
Municipal Board ...	65·4	52·7	63·2
District Board ...	—	5·9	6·4

¹ This amount excludes the grant given to local bodies.

Dealing with the question of public health we may point out that in 1921-22 no attention was paid by the District Boards to this important item, though in later years nearly six lakhs of rupees were spent on these services. In 1921-22 the money spent on public health which included water supply, conservancy (including road and latrine), cleaning and watering epidemics and other sanitary requirements was Rs. 65·4 lakhs. These services have gone a long way in improving the health standard of the people residing within the Municipal limits.

From the following Table it is clear that the birth rate in 1938 was more than in 1931 or 1921. The death rate has fallen from 39·57 in 1921 to 22·84 for the quinquennium ending in 1937. In the case of infantile mortality much progress has been made. It has decreased from 236·53 per mille deaths in 1921 to 179·07 in 1931 and 142·3 in 1937. Very striking results have been achieved in this direction and we hope that with an increase in the public health services the death rate and infantile mortality rate would be immensely reduced. The Government should do its best for the attainment of the minimum of health standard at an early date to avoid enormous waste of Provincial wealth.

Year	Birth Rate	Death Rate	Infantile Mortality Rate
1921	34·39	39·57	236·53
1931	35·60	26·97	179·07
1933-37 (Av.)	37·38	22·84	142·30 (for 1937)
1938	36·79	25·82	148·6

Coming to the problem of death rate from different causes we find that fever has always taken a heavy toll of life in the Province. This has been followed by plague and cholera. In 1911-20 the average death from fever was 29·69 per mille, while the average for 1921-30 fell to 19·94 and the average for 1928-37 was 18·19¹.

¹ See Table 140.

TABLE 140
Showing Death Rates from Different Causes

Chief Causes of Mortality	Average Death Rate for 1911-20	Death Rate per mille for 1921	Average Death Rate for 1921-30	Death Rate per mille for 1931	Average Death Rate for 1928-37	Death Rate per mille for 1938
Cholera	1.24	3.30	0.93	0.64	0.55	1.46
Small-pox	0.12	0.03	0.13	0.07	0.21	0.09
Plague	2.37	0.53	0.94	0.64	0.62	0.28
Fever	29.69	30.01	19.94	21.18	18.19	19.43
Dysentery and diarrhoea	0.39	0.38	0.29	0.32	0.37	0.43
Respiratory disease	0.55	0.67	0.65	0.76	0.82	0.97
Injuries	0.54	0.51	0.47	0.42	0.43	0.42
All other causes	5.27	4.13	3.07	2.93	2.74	2.74
All causes	40.19	39.57	26.45	26.97	23.92	25.82

It is gratifying to note that remarkable progress has been made by the distribution of quinine in rural areas. Still the majority of population has a very low standard of diet and cannot withstand the strain of a long fever. Improvement in the diets and increased public health and medicinal facilities would be in the right direction.

During the last few years good progress has been made in the field of public health. At the time of the introduction of reforms in 1919 the state of public health in the Province was very poor. In 1922 only 83 lbs. of quinine was freely distributed in the Province¹ against 4,480 lbs. of quinine and 3,608 lbs. of cinchona febrifuge in 1938.² There were 32 travelling dispensaries³ in the Province. They treated 1,91,147 patients and inoculated 44,375 plague and 2,10,847 cholera patients. This system of travelling dispensaries was conspicuous by its absence in 1921. The provision for village medicine chests numbering nearly 4,000 has provided relief to some extent from minor ailments where hospitals are few and far between. The first maternity centre was started in 1922 while in 1938 the number of such centres increased to 301⁴ (147 rural and 154 urban).

In respect of water supply, conservancy and sanitation in municipal areas much progress has been made since 1921. In rural areas too we find provision being made for water supply from wells, rural latrines, rural housing, public health improvements through village *panchayats* under the Village Aid Scheme since 1931 onwards.

As regards industries nothing important has been done for their development by way of finance and

¹ The figure for 1921-22 does not include Nainital.

² *Report of the Director of Public Health for 1938*, p. 37.

³ 26 Provincial, 3 District Board, 1 Forest and 2 Tarai and Bhabar Estates dispensaries.

⁴ *Report of the Director of Public Health, 1938*, p. 39.

provision of adequate marketing facilities in the Province. It was only after the Congress Ministry took office in 1937 that encouragement was given to cottage industries. Rs. 10,000 was granted in 1937-38 to the All-India Spinners' Association for the development of hand spinning and weaving under the Khaddar Protection Act of 1934. In 1938-39 the Government sanctioned various schemes for the development of leather and leather working, spinning and weaving, groundnut oil, gur, glass, hand-made paper, sun hemp and carpet-making. A sum of Rs. 20,000 was exclusively set apart for the development of hand spinning.

In 1937-38 the Government sanctioned a sum of Rs. 10,000 for the labour welfare scheme started in Kanpur in order to provide healthy recreation and amenities of life to workers, to try to wean them away from drink and drug and to inculcate in them habits of temperance and cleanliness. In 1938-39 the welfare scheme was extended to two more centres, one at Chamanganj in Kanpur and the other at Lucknow near the Charbagh area and a sum of Rs. 20,000 was allotted for the purpose. Expenditure for the development of agriculture increased from Rs. 27 lakhs in 1921-22 to Rs. 31 lakhs in 1931-32 and Rs. 55 lakhs in 1938-39. But considering the size of the Province and the number of people depending on agriculture, the increase in expenditure has not been very significant. Much has to be done to put agriculture on a stable footing.

Conclusion

A brief survey of the policy of public finance in the Province reveals that tax policy has been regressive. No attempts seem to have been made by the Government to reduce the inequality of income by tax measures. On the expenditure side, the position is a little better. The percentage expenditure on nation building departments is definitely on the increase. And yet the improvement does not seem to be significant enough. The standard of literacy and of public health is still low.

It is a welcome sign that the new constitution of India enjoins upon the Government to accept the responsibility for the achievement of a steadily rising and equitably distributed Provincial Income, which can only be accomplished successfully with full knowledge of the anatomy and the physiology of the economy of the Province. But as no statistical information of this nature is available in the Province or in India it is desirable that a committee for carrying out the Census of distribution like that of Great Britain (1945) be appointed to study the distribution of income.

CHAPTER XIX

CONCLUSION

IN judging the Economic Prosperity of any country or province we have to take into account the Real Income per head of the *occupied* population, the Wealth per head, Working Conditions, and Distribution of Income. Out of these indices of Prosperity the first one is most important but the other three also do enter into the conception of Prosperity. The average income of the earners including earner equivalents of working dependants and of subsidiary workers in the United Provinces for 1921-22, 1931-32 and 1938-39 was Rs. 244·3, 115·2 and 129·8 respectively. The Absolute Real Income (on the basis of the price level of 1921-22) was Rs. 244·3, 245·1 and 254·5 while the Relative Real Income (1921-22 income index being 100) was 100·0, 100·3 and 104·2. These figures of Relative Real Income show that the Income per earner¹ increased by 0·3 and 4·2 per cent in 1931-32 and 1938-39 respectively compared to the Income of the base year 1921-22. Thus during the course of 1921-39 the real income increased only by 4·2 per cent which is not a very happy result specially when the standard of living of the people is notoriously low.

The economic development of the Province is lop-sided. There is over-crowding in agriculture which was a deficit industry even as late as in 1921-22 and since then conditions have further deteriorated. The absence of functional balance between the primary, secondary and tertiary occupations is evident from the fact that they engaged nearly 79·1, 12·6 and 8·3 per cent of the *occupied* population in 1921-22, 74·7, 14·6 and 10·7 per cent in 1931-32 and 74·7, 14·7 and 10·6 per cent in 1938-39.

¹ The word 'earner' in this chapter has been used to mean 'earner including earner equivalent of working dependant and of subsidiary worker'.

With regard to the Working Conditions it may be stated that there has been some improvement in the working condition of the agriculturists who constitute a vast majority of the population of the Province. Changes in the tenancy legislation during the period served to improve the lot of the tenant in the Province by giving him greater security of tenure, freedom from enhancement of rent, and protection against harassment and illegal exactions by the zamindar, to which he had been subject for a long time. Legislation contemplating drastic changes in their favour is now in the offing and it may be hoped that in the near future the condition of the peasantry in the Province will improve greatly. Likewise in the case of industrial labour protective and ameliorative legislation has steadily secured for them shorter hours of work, better wages and better conditions of work in the factories. There is yet, however, much scope for improvement in the housing of industrial labour and provision of facilities for healthier and better life. The provisions for social security are also inadequate, particularly with regard to privileges of unemployment insurance and old age pensions. The tempo of progress in this direction has not been as fast as it could be.

As regards distribution it was more uneven in 1938-39 than in 1921-22. The Average Real Income of an earner engaged in agriculture and allied occupations fell by 18·0 per cent in 1931-32 and 25·9 per cent in 1938-39 in relation to 1921-22, while the Average Real Income of earners engaged in industry increased by 4·5 and 17·8 per cent and in services it was almost unchanged in 1931-32 and increased by 18·2 per cent in 1938-39. Further, the Average Real Income per worker increased in the urban areas by 15 and 27 per cent in 1931-32 and 1938-39 in relation to 1921-22 while the Average Real Income per worker increased in the rural areas by 15 and 27 per cent in 1931-32 and 1938-39 in relation to 1921-22 and the Average Income for rural areas fell by 14 per cent in 1931-32 and 15

per cent in 1938-39. Thus there appears to be a transfer of wealth from the relatively poor in the rural areas (most of whom are persons engaged in industry, trade, transport, services and professions and liberal arts). Thus the distribution of income seems to have become more uneven in 1931-32 and 1938-39 than it was in 1921-22.

The tax structure in the United Provinces has not helped to reduce these inequalities of income. Instead of being progressive, it was more regressive in 1931-32 and 1938-39 than in 1921-22. The policy of expenditure progressed in the right direction—more money having been spent in 1931-32 than in 1921-22 and in 1938-39 than in 1931-32 on nation building department. But this increased expenditure does not seem to have offset the increased regressiveness in the tax structure of the Province. On the whole, therefore, the presumption is that the policy of public finance tended to increase the inequalities of income in the Province instead of reducing them.

Our study thus reveals that during the period of eighteen years, 1921-39, the rise in the Prosperity of the United Provinces was only nominal. At one stage, during the period of slump in 1931-32, the Average Real Income per earner was almost unchanged. When the period of low prices was over in 1938-39, the rise in Real Income per earner was 4·2 per cent as compared to 1921-22. The improvement in the conditions of work was not as thorough and adequate as one would wish it to have been and the distribution of income became more uneven. In a word, during the span of 17 years the Provincial Prosperity was marking time and there does not appear any substantial improvement either in the standard of incomes or in the standard of living.

The state of arrested progress as revealed by the present study has its own moral for those who are responsible for the administration of the Province and

consequently for its Prosperity. During the past the Province moved on the path of progress at a snail's pace, when other countries were advancing fast towards greater Prosperity, with the result that the standard of life and income in the Province was deplorably poor in comparison to that of other civilized countries of the world. In 1938-39 the *per capita* income of the Province was Rs. 56.1 as against Rs. 980/- in Great Britain, Rs. 1,406/- in the U.S.A., Rs. 603/- in Germany and Rs. 218/- in Japan. Conditions of work in other countries too were very much better than those prevailing in the Province. In most of those countries agriculturists had better rights over land and working with improved implements and better resources, earned more decent income. Likewise, factory labour in the U.S.A. and many of the European countries enjoyed valuable and important privileges denied to labourers in the Province upto this time. In 1938-39 in Italy, New Zealand and the U.S.A. there was a 40 hour week, in Australia 44 and in England and other western countries 48 hour week while in U. P. there was 54 hour week for perennial and 60 hour week for seasonal factories. The provisions of social security were started in Germany as early as 1883 when the Law of Sickness Insurance and a year later the Law for Workmen's Compensation for Disability in Employment were passed ; in England in 1897 when first Workmen's Compensation Act was passed, in Mary Land in 1902 and in New York in 1910 but in India as late as 1923 when the first Workmen's Compensation Act was passed. The Social Security Act of 1935 and the amended Act of 1939 in the U.S.A. and the Social Security Act of Great Britain (1946) provide every type of security against risks in the life of a man and turn his fears into hopes. Most of these measures were conspicuous by their absence in the United Provinces as well as in India till the recent past. The conclusion is clear that the conditions of life and work in U. P. are not very wholesome. Bold and drastic steps are necessary to redeem the Prosperity of the Province from stagnation. A timorous and half-

hearted policy of slow reforms has now to yield place to comprehensive planning and quick steps in all necessary directions for a more balanced and coordinated economic system.¹ The uneconomic outlook of the people has also to be replaced by a scientific outlook. Thus alone can life be made worth living for the 55 million people of the Province who have so far suffered from poverty and privation.

It is regrettable that the newly achieved political freedom of India has not put new vigour and energy in the masses necessary for greater drive for production. There should no longer be any fear of a lack of co-operation between the Government and the people which has been hitherto one of the main factors retarding material progress. It is, however, a reassuring feature that our National Government is alive to its responsibilities in this direction. The following are certain clauses embodying the Directive Principles of State Policy and Fundamental Rights as incorporated in the Constitution of India.

The State shall not discriminate against any citizen on grounds only of religion, race, caste, sex or any of them.

There shall be equality of opportunity for all citizens in matters of employment under the State.

'Untouchability' is abolished and its practice in any form is forbidden. The enforcement of any disability arising out of 'Untouchability' shall be an offence punishable in accordance with law.

The State shall strive to promote the welfare of the people by securing and protecting as effectively as it may a social order in which justice, social, economic and political, shall inform all the institutions of the national life.

¹ Anstey, V., *op. cit.*, pp. 478-85.

The State shall, in particular, direct its policy towards securing—

- (i) that the citizens, men and women equally, have the right to an adequate means of livelihood ;
- (ii) that the ownership and control of material resources of the community are so distributed as best to subserve the common good ;
- (iii) that the operation of the economic system does not result in the concentration of wealth and means of production to the common detriment ;
- (iv) that there is equal pay for equal work for both men and women ;
- (v) that the strength and health of workers, men and women and the tender age of children are not abused and that citizens are not forced by economic necessity to enter avocations unsuited to their age or strength ;
- (vi) that childhood and youth are protected against exploitation and against moral and material abandonment.
- (vii) The State shall take steps to organise village *Panchayats* and endow them with such powers and authority as may be necessary to enable them to function as units of self-government.
- (viii) In particular the State shall endeavour to promote cottage industries on individual or co-operative basis in the rural areas.
- (ix) The State shall regard the raising of the level of nutrition and standard of living of its people and the improvement of public health as among its primary duties.
- (x) The State shall, within the limits of its economic capacity and development, make effective provision for securing the right to work, to education and to public assistance

in case of unemployment, old age, sickness, disablement, and other cases of undeserved want.

- (xi) The State shall make provision for securing just and humane conditions of work and for maternity relief.
- (xii) The State shall endeavour to secure, by suitable legislation or economic organisation or in any other way, to all workers, industrial or otherwise, work, a living wage, conditions of work ensuring a descent standard of life and full employment of leisure and social and cultural opportunities.
- (xiii) The State shall endeavour to secure for the citizens a uniform civil code throughout the territory of India.
- (xiv) Every citizen is entitled to free primary education and the State shall endeavour to provide, within a period of ten years from the commencement of this constitution, for free and compulsory education for all children until they complete the age of fourteen years.
- (xv) The State shall promote with special care the educational and economic interests of the weaker sections of the people and, in particular, of the scheduled castes and the scheduled tribes, and shall protect them from social injustice and all forms of exploitation.

These directive principles are comprehensive and lay down almost everything that is to be done by the present and future Governments of the land to bring about speedy economic amelioration. It is only to be hoped that adequate steps will be taken to implement the ideals set down.

We may here indicate in general the steps that should be taken immediately to speed up the progress of the Province on the path of Prosperity. It is urgently

necessary to increase the agricultural and industrial output with a view to increasing the income of the people and thus enabling the Government to raise more funds to be spent particularly on the nation building programmes. The present inflationary tendency in the Province which is adversely affecting the economic life of the common man can only be curbed by increasing the production of material goods in the Province, checking speculation, black-marketing and corruption and adopting strict economy measures. The efforts made so far by the Central and Provincial Governments as also by the public spirited men have not proved very fruitful. More intensive measures are necessary to root out these evils .

An early abolition of zamindari on the basis of the recommendations of the U. P. Zamindari Abolition and Land Reform Bill 1949 is expected to result not only in better distribution but also in greater production.¹ Addressing a press conference at Lucknow on October 7, 1948 the Premier of the United Provinces and the Chairman of the U. P. Zamindari Abolition Committee remarked : "Abolition of *zamindari* is consonant with the freedom and independence of our land just as landlordism was the creature of the British rule. One was the outcome, and perhaps the inevitable outcome of our subjugation, and the other that we propose now to introduce appropriately fits in with the dawn of the new era. We are doing something which is in complete accord with the genius and traditions of our country". The abolition of *zamindari* will considerably help the smaller tenants by lowering the rates of rent paid by them and at the same time help the Provincial Government by placing at their disposal larger funds for being spent on the well-being of the people. It will also place the common people in direct relationship with the Government by liquidating an unproductive class

¹ The Bill was recently passed and with minor modifications become an Act in January, 1951.

of intermediaries. Other reforms in the land system of the Province namely, checking of sub-letting and sub-division of holdings below $6\frac{1}{4}$ acres, the vesting of village *abadi*, forest, pasture and waste land in the village community to be managed by the village *panchayat* in the interest of the villagers as a whole, introduction of co-operative farming, fixation of minimum wages of agricultural labour on the lines of the Agricultural Wages (Regulation) Act, 1924 of England, the recognition of the trade unions of agricultural labourers whenever they are formed, and the stabilisation of agricultural prices are to be taken for increasing the agricultural produce of the Province. The steps which are being taken by the Government in the direction of provision of better facilities for irrigation, making available of cheap electricity with the help of multi-purpose river valley schemes, development of means of transport and communication and supply of good seeds, manures and agricultural implements with a spread of knowledge of the rudiments of scientific cultivation are bound to bear fruits in the near future. The village economy in the Province as is being built up afresh on co-operative basis, with an elected *panchayat* for every village or group of villages entrusted with essential responsibilities and endowed with defined powers of punishment and taxation on the basis of U. P. Panchayat Raj Act of 1947 will provide for self-governing village republics and a higher standard of living for the vast number of people of this Province.

The recognition of a definite role of cottage industries is essential to correct the mal-adjustment which exists today in the country. The Government should fix targets for increasing production in the field of agriculture and industry and explain to the people the extent of sacrifice needed to achieve these objectives. It is the duty of the people to realise that most of the ills are due to their own weakness and no Government, however powerful it might be, can increase the wealth of the country if people are unwilling to make sacrifice

and cooperate with it for the attainment of the common end.

A vigorous propaganda among the labourers that they should strengthen the hands of the Government at the present critical time by maintaining industrial peace is likely to result in checking further strikes and increasing industrial production which is the need of the hour to check inflation. The protection given by the Government to various newly started industries on the basis of the recommendations of the Tariff Board is in the right direction.

In order to quicken the rate of progress the Government should strengthen its Department of Statistics. It should be put on an efficient basis and the collection and compilation of statistical data should be made up-to-date as it will enable the Government to assess the present conditions and take necessary measures for improvement. The Government will also be able to judge the results of the working of its various plans with the help of the statistics so gathered.

The economy of the Province, as much as the economy of country as a whole, is in a rut out of which it must be lifted. And nothing but the most intensive effort on the part of the Government and the people would succeed in doing that. The *per capita* income of the United Provinces is very much lower than the barest minimum necessary for just physical existence. It has been recently estimated that to ensure the minimum standard of living in India, a *per capita* income of Rs. 74 at pre-war prices is essential.¹ As against this Dr. Rao's estimate of *per capita* income for India as a whole for 1931-32 is Rs. 65 whereas ours for the United Provinces is only Rs. 56. If this is the average, how much more deplorable must the 'margin' be, when account is taken of the inequality of incomes. Not only, therefore, must regional resources be tapped to

¹ *A Plan for the Economic Development of India* by Sir Purushottamdas Thakurdas and others, p. 20.

the fullest extent so as to secure the maximum possible output, steps must also be taken towards an improvement in the distribution of income. All this would require the closest co-operation between the Government and the people. While the Government must pursue an active policy giving concrete shape to the ideals laid down in the New Constitution of India, the people must also realise their responsibility ; they must know that no policy of any Government, however well designed can be of any avail unless individual activities are adjusted to it. A conscious collective effort has to be made if our economy is to be raised, as it must be, to anything like a civilised standard.

APPENDIX A

COPIES OF CIRCULAR LETTERS AND PRINTED FORMS USED IN THE INVESTIGATION

1. Copy of the covering letter sent along with the forms of questionnaire.
2. Forms No. 1, 2 and 2(a) sent to large scale industrial establishments in U. P.
3. Forms No. 2(a) and 3 sent to Municipal Boards, District Boards, Post Master General, U. P., Divisional Superintendents of the E.I., O.T. and G.I.P. Railways in U. P., Educational Institutions, Lawyers, Doctors, *Vaidis* etc.
4. Forms No. 4 and 5 sent to various municipalities.
5. Form No. 6 used for enquiry about the persons paying income-tax and engaged in the professions of law, medicine, instruction and trade.
6. Form No. 7 used in enquiries about the earnings of skilled and unskilled workers engaged in industry, transport, trade, municipal and district boards, railways and professions and liberal arts.
7. Form No. 8 used for the earnings of domestic servants and unskilled/skilled urban/rural workers.
8. Letter sent for additional information to all those persons whom a copy of questionnaire was sent.

S. G. Tiwari, M.A.,
Professor of Economics.

New F/5, Staff Residence,
Benares Hindu University,
February, 1948.

Dear Sir,

I am carrying on investigations under the auspices of the Economics Department of the Benares Hindu University for the calculation of the *per capita* income with a view to studying the prosperity of the United Provinces. In this connection I need information under heads mentioned in the accompanying form or forms. I request you to facilitate my work and help the advancement of knowledge by providing information. I shall gratefully acknowledge your valuable help at the time of publication of my work. I need hardly assure you that the information supplied by you will be used purely for academic purposes.

Yours faithfully,

S. G. Tiwari

Form No. 1

EARNINGS OF INDUSTRIAL WORKERS

Name of the Firm or Company

Place of Business

Nature of Business

Is your concern a seasonal or a perennial factory?

If seasonal, kindly state the number of months
you worked in the years 1946-47
1938-39
1931-32
1921-22

Please Note—

- (1) The particulars asked for below are only for factory workers (excluding supervising and clerical staff).
- (2) Figures required for column 2 should be worked out on the basis of the *muster roll* for the month of *December*.
- (3) If you are paying your workmen on the basis of daily, weekly or fortnightly rates, please calculate the earnings for 26 working days.

Monthly Income Groups	Number of workers falling in Each Group mentioned in Column 1 in				Remarks
	1946-47	1938-39	1931-32	1921-22	
Below Rs. 10					
Over Rs.10 & below Rs. 20					
" 20 " 30					
" 30 " 40					
" 40 " 50					
" 50 " 60					
" 60 " 70					
" 70 " 80					
" 80 " 83					
" 83					
Total number of workers					

DAILY WAGES OF COOLIES IN YOUR FACTORY

Person	Year			
	1946-47	1938-39	1931-32	1921-22
Man 				
Woman 				
Child 				

Kindly also give below the factory price of certain standard types of commodities manufactured by you with full specification.

Commodities with their size/weight	Prices in			
	1946-47	1938-39	1931-32	1921-22
1.				
2.				
3.				
4.				
5.				

STATISTICS OF INDUSTRIAL OUTPUT

No.	Particulars	Years			
		1946-47	1938-39	1931-32	1921-22
1.	Name of Firm or Company				
2.	Place of Business				
3.	Nature of Business including description of articles manufactured or repaired or otherwise altered				
4.	Quantity and value of Output by <i>different items</i>				
5.	Quantity and value of Raw Materials and Stores used in the business by different items				
6.	Allowance for Depreciations				
7.	Allowance for Repairs				
8.	Number of Persons Employed (Skilled) Men— Women— Children— (Unskilled) Men— Women— Children				
9.	Total Wage Bill Skilled Workers Unskilled Workers				
10.	Any other information considered relevant to the enquiry				

In case the information required by me cannot be conveniently contained in this form, please arrange the information on a different sheet of paper in a way convenient to yourself and send it to me.

EARNING GROUPS OF EMPLOYEES

Earning groups		Number of persons in		
		1938-39	1931-32	1921-22
Over Rs.	Below Rs. 10			
	10 and below Rs.			
	15			
”	20			
”	25			
”	30			
”	35			
”	40			
”	45			
”	50			
”	55			
”	60			
”	65			
”	70			
”	75			
”	80			
”	83			
	Total			

SALARY OF NEWLY RECRUITED PEON

Year	Salary
1938-39	
1931-32	
1921-22	

STATISTICS OF CATTLE SLAUGHTERED IN LICENSED SLAUGHTER HOUSES

Year	Heads of livestock slaughtered						
	Bullocks	Bulls	Cows	Buffaloes	Sheep	Goats	Total
1946-47							
1938-39							
1931-32							
1921-22							

Year	Prices of different classes of livestock slaughter						
	Bullock	Bull	Cow	Buffalo	Sheep	Goat	Total
1946-47							
1938-39							
1931-32							
1921-22							

POPULATION OF MUNICIPALITY

Year	Persons residing in municipality
1946-47	
1938-39	
1931-32	
1921-22	

LIVESTOCK SLAUGHTERED OUTSIDE THE LICENSED SLAUGHTER HOUSES (an estimate)

Year	No. of livestock killed outside the slaughtered houses					
	Bullocks	Bulls	Cows	Buffaloes	Sheep	Goats
1946-47						
1938-39						
1931-32						
1921-22						

RATES OF PROPERTY TAX (Tax on Land and Buildings)

Year	Rate	Income from the Tax
1947-48		
1938-39		
1931-32		
1921-22		

BUILDING PERMITS

Year	No. of building permits issued
1946-47	
1938-39	
1931-32	
1921-22	

PERSONS PAYING INCOME TAX

Profession	No. of persons paying Tax and the amount paid in					
	1938-39		1931-32		1921-22	
	No. of persons	Tax (Rs.)	No. of persons	Tax (Rs.)	No. of persons	Tax (Rs.)
Law						
Medicine						
Instruction						
Trade						

**EARNINGS OF RURAL/URBAN SKILLED/UNSKILLED
WORKERS OR DOMESTIC SERVANTS**

1. Name	...			
2. Name of the town where he/she is employed	...			
3. Designation	...			
4. Age	...			
5. Native place	...			
6. Religion	...			
7. Part time or whole time	...			
8. If part-time, in how many other places is he/she working?	...			
9. Monthly wages/earnings	...			
10. With Board and Lodging or not	...			
11. Description and value of any additions in kind or extras he/she may be receiving	...			
12. If part-time, total amount of wages/earnings he/she receives in other places	...			
13. How long has he/she been employed with you?	...			
14. Is he/she married? If so, how many children have they got? Total number of members is his/her family	...			
15. How many of the children and the husband or wife as the case may be are also earners? What are their approximate total earnings? How many are dependants?	...			
16. Are there any other earners or dependants in his/her family?	...			
17. How many members of his/her family are staying with him/her in the town and how many are staying in the villages receiving support from him/her.	...			

(x)

Shri Gopal Tiwari, M.A.,
Professor of Economics.

New F/5, Staff Residence,
Benares Hindu University.
Feb. , 1948.

Dear Sir,

In continuation of my present/earlier letter soliciting information in connection with my investigations into the Prosperity of the United Provinces, I request you to provide the following additional information :

1. The number of employees with an annual income over Rs. 2000/- a year or Rs. 167/- a month (those paying income-tax) with their total salary bill for the years 1946-47, 1938-39 and 1921-22 separately.
2. The commission usually allowed to agents or wholesale buyers.

Hoping to be excused for this extra trouble.

Yours faithfully,

S. G. Tiwari

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