The Economy Of Nepal

OR

A STUDY IN

PROBLEMS AND PROCESSES OF INDUSTRIALIZATION

B. P. Shreshtha

Department of Economics,

Tribhuvan University, Kathmandu, Nepal.

With a Foreword

by

Wilfred Malenbaum

VORA & CO., PUBLISHERS PVT. LIMITED

3, Round Building, Kalbadevi Road, Bombay-2

B. P. Shreshtha

First Edition,
1967

Published by

K. K. Vora,
for Vora & Co.
Publishers Pvt. Ltd.,
3, Round Building,
Bombay-2

Printed by

M. K. Kulkarni, B.Sc.,
Displaycraft,
109-A
Industrial Area
Sion,
Bombay-22.

FOREWORD

I

The entire world is conscious today as never before of the impoverished economic state of most of the world's countries and of the extremes in material well-being among nations. Indeed, as it becomes clear that the wealthy lands of North America and Europe are increasing their per capita incomes more rapidly than are the nations of Asia, Africa, and Latin America, there is increasing awareness that, at the least, incomes per capita in the poorer countries must be pushed upward, and at as rapid a rate as possible.

But consciousness and awareness of the problem are at best preludes to a solution. Even today, well past the middle of the United Nations' Decade of Development, the tasks of initiating a path of continuing economic growth in long-static societies remain elusive. We know that there are no magic formulas: political independence and status do not automatically beget economic vigour and progress; nor does formulation of development programs, nor negotiation of international assistance. All these may be necessary, but they are certainly far from sufficient to the end of continuous economic progress.

The fact that we have not found the solution is not inconsistent with the truth that the problem has received great attention, both from a theoretical and operational point of view. And much has been learned from the experiences of the last decade or two. Broadly, present emphasis in development theory does *not* focus on the contribution from greater investment. Instead, emphasis is placed on the need for programs which are tailored carefully to the characteristics of each poor country. Until these are better known and understood, no program for progress can expect to succeed.

A second point to be stressed—as a result of new insights from theory and experience—is the need to narrow internal gaps, whether by region, sector, or income groups in poor lands. Most poor countries manifest a striking dualistic structure as between relatively small modern parts of the economy and relatively large parts which are essentially traditional in character. There are strong forces in the pre-growth economy, as well as in many

of the familiar programs for growth, which serve to widen these internal gaps. If the economy is actually to embark upon a path of expanding economic progress, we now believe that programs to achieve this must stem this tendency for greater dualism. Very important here are the efforts which intellectual leaders, who are key elements in the modern sector, actually devote to specific activity aimed at closing these gaps.

This is a new way of appraising the problem, and warrants some elaboration. Before doing this however, we should note the importance of Dr. Shreshtha's study on Nepal in this connection. He makes a marked contribution by adding significantly to our knowledge of one of the world's least advanced and, to date, least known lands. Moreover, it is a study by an eminent economist, himself a Nepalese. By devoting intensive efforts to the major problems of his country, he is taking first steps in the key process of seeking integration in a nation which manifests precisely those dualistic tendencies which combat integration.

Both these aspects of the present work make it an important contribution toward dealing with today's major problem of growth in poor lands in general and in Nepal itself in particular.

II

Dr. Shreshtha is particularly concerned with the inadequacies of past efforts to expand industrial output, and advances a strong case for a more comprehensive program for public support and action to this end. It is important for a nation to have an industrial base, particularly where the economic prospects for its maintenance and expansion are clear—as seems to be true, Dr. Shreshtha says, in Nepal. The question remains as to the significance of consistent industrial expansion for consistent overall economic expansion. The consistency—indeed the dependence of the latter on the former—are implied in this study.

What about the interdependence of these two parts of the nation: the backward, predominant, rural, agricultural traditional sector—which Shreshtha describes so well—and the new, small and modern part, for which he gives a formula for expansion? Once this expansion is initiated, will it proceed on its own and eventually absorb the backwardness of the vast remainder of the nation? It is precisely here where the lessons of recent experience have left their mark. What seems to be the obvious and direct path encounters major deterrents. The route to national modernity proceeds not from changes in the modern itself, but from changes in the backward parts of the economy.

On this basic matter, debate has long waged. Most of the theoretical arguments in support of programs for growth have stressed "growing points" where new investment, and indeed very large shares of total investment, are needed, and where favourable returns will spread their influence over the backwardness of the rest of the nation. In addition, such concentration of effort at these more modern points is expected to help in the difficult task of resource mobilization. Concentration on these centers of growth means that a large percentage of the product is fed back into subsequent investment. In contrast, spreading the initial investment means an expansion in product for people who would tend to consume rather than save for subsequent investment. Focus on the "growing points" will give more product from any given amount of investment; it will also provide a feedback to the investment stream of a larger percentage of the increment in product.

This general line of argument has taken various specific forms. Initially all are based on the assumption that non-growth is a result of the relative shortage of some production factors, especially capital or certain skills. The resulting imbalance in factor supplies must somehow be rectified, from abroad if not from domestic sources. This scarce new increment (of capital, usually) may need to be available in a minimum essential size. It must also be used so as to give the largest increment to subsequent product. The first consideration arises from the presumption that indigenous capital is insufficient to cope with the inherent discontinuities in the needed expansion of investment, especially in the overhead sectors like transport, power and communication. The second is consistent with the theme that output potential in poor lands simply will not suffice for both minimum consumption and the requisite level of new capital formation. Therefore, the larger the increment to product, the better.

These ideas are familiar through the writings of Rosenstein-Rodan, Arthur Lewis and Ragnar Nurkse, among others. They have contributed the substance of such theories as the big push, the low level equilibrium trap and balanced growth. They provide the intellectual theme for most of the development efforts now being made in poor countries seeking to accelerate their rates of economic expansion.

But the record of performance leaves many questions about the appropriatencess of the assumptions on which such theories are built. In the poor nations of the world, rapid growth did occur at "growing points", but overall growth has lagged, and seems still to lag despite the high level of new investment. Rates of growth in poor lands are slowing down despite the significant

expansion in the rate of investment in the 1960's, as against the 1950's. In general, these tools for growth seem to have accentuated the previous degree of inequalities, while the nation as a whole has not experienced important and sustained growth. Increasingly therefore, economists as well as other social scientists are putting more stress upon so-called precondition models for growth, which stress indigenous changes that must precede a poor nation's emergence as a modern state.

Mostly these involve the attitudes of mind on the part of persons involved in the economic process. But basic attitudes mean traditional patterns of behavior and these are perpetuated in institutional and legal devices. Precondition models for growth call for changes in these devices—the legal system, the land ownership and control pattern, for example. In themselves, these adjustments are important only as they begin to reach the spirit and motivational drives of the people. Programs for education and training are essential.

In these views the work of a psychologist, David McClelland, and of an economist, Everett Hagen, loom large. Also, stage models of growth, well expounded by W. W. Rostow, may also be placed in this category—one that emphasizes the fundamental importance of evolutionary changes within the poor nation. As against what seems to be a precise, relatively short-period time table for constructing new and modern economic facilities, as in the "growing points" view mentioned above, precondition ideas involve a long pre-growth state, of uncertain duration. Custom in the techniques of producing or distributing national product needs to be replaced by principles of marginalism, by actions geared to minimizing costs and maximizing private—and social gains. If this view of the nature of the growth process is the correct one, the scope for achievement in the near future is limited. Active growth in poor countries, a "catching up" with the rich, remain targets for the very remote future.

Some "precondition" ideas seem to have influenced the formulation of the Alliance for Progress. On the whole however, this way of thinking of the development problem takes importance in another, more practical approach. It is obvious that every poor country manifests internal differences in output per man—whether by region, industrial sector, or income grouping. On the whole these differences have tended to persist over long periods. As suggested earlier the evidence is that the differences are now widening under existing programs for growth: programs which tend to focus the new development effort on the already-advanced parts of the economy. In this situation there are major opportunities for expanding output by focussing attention on

narrowing these internal gaps. Since they have not narrowed through the pull from the more advanced parts of the economy, there is a growing recognition of the need to accelerate the rate of expansion in the traditional sector so that the differences between it and the modern sector narrow. Insofar as the traditional sector is characterized by underutilization of its resources, programs for change may be able to take advantage of the excess capacity. The right type of program will result in significant expansion in product as well as closer integration between modern and traditional components of the nation.

The intellectual heritage for this approach to change can be found in economic theories of maximizing product in a dual economy. Output is inefficiently produced so long as there are unutilized resources and flexible approaches to production techniques. Poor nations fail to make effective use not only of their labour supplies—presumably in abundant supply—but also of their capital supplies—presumably in very short supply. "Bargain sectors", suggested by Nurkse, offer major opportunities for large increments in product. Binding agents and linkage forces, stressed by Hirschman, can serve to pull complementary components of the dual structure closer. Even Schumpeter's entrepreneur, now in the image of a government committed to finding ways of expanding output per man in the large traditional sector, finds new importance in this approach to growth. The key concept is the set of interrelations among parts of the economy through which closer ties can be established. Unless a greater degree of integration can be achieved, the poor and developing nations will not achieve continuous economic expansion.

III

On the basis of this summary of recent trends in thought on the problem of poverty, it would seem that Nepal needs to devote a large part of its development effort to stepping up output per man for most of its labour force; that is, for the people who are committed to agriculture and related activities, to traditional types of production and service. Such an effort is an essential adjunct of the government effort to mount a modern industrial complex, on which we have Dr. Shreshtha's valuable material and analysis. Without success in the former, the latter cannot succeed, no matter how well government organizes and finances its modern sector.

Most poor nations entered the post-war period with the determination to industrialize. Most development effort and resources were put to this task. Success here has not brought the nations closer to a state of self-sustaining growth. In most

cases, quite the contrary has been true. Today, there seems to be a general awareness of the priority that must be given to the expansion of agricultural output. In word, if not in deed, the priority has shifted. But the tasks of change in agriculture are much more difficult than those in industry. Modernization through new and greater capital allocations will not do the job. The task is rather one of helping to bring new horizons and attitudes to people who actually have more material resources than are used to expand product. These new horizons cannot be brought from abroad nor even from new output of modern domestic activities. Only the determination of leadership to bring about such basic change offers the prospect of accomplishing it in any reasonable span of time. When the elite groups recognize that modernization and industrialization require initially a significant increase of output per man in a traditional sector with some 80-90 per cent of the total labour force; when this recognition prompts the adoption and pursuit of programs to achieve such increase, then only will a basis be established for modern industrial activity in a developing nation.

Nepal can take important steps to that end. Dr. Shreshtha's volume is in itself a contribution; it provides basic information upon which many of the necessary leadership programs can be built. This is true not only for industrial growth proper, but also for beginning the process of change and of expanded productivity in the agricultural, small industry and service sectors. Progress in these is a condition for overall progress in Nepal.

Professor of Economics
University of Pennsylvania
Philadelphia, Pa. 19104

WILFRED MALENBAUM

PREFACE

Nepal presents a fascinating case-study of a small underdeveloped country, forging ahead only very recently as an emergent nation between the two giant neighbours, India in the south and China in the north. Shut out as it was deliberately from the outside world, Nepal remained for a long time in isolation and obscurity like a silkworm in its cocoon. It was only in early 1951 that the century-old Rana regime, committed to a policy of ruthless exploitation and regimentation, was overthrown. The political change was, however, followed by a series of unstable governments which went out of office, one after another in close succession, before they could formulate any economic plan based on a clear vision of long-term perspective and a broad strategy of development.

Even today formulation of realistic and workable economic plans is vitiated by numerous gaps in our understanding of the economy, both in its historical sequence and dynamic context. Though patch works are not lacking altogether, an integrated study embracing an entire range of the economy is conspicuously absent. Even more pressing need at this stage is to dispel our morbid ideas and obsessive doubts about the problems which accompany the process of development. The present work is, therefore, devoted to identify these problems and provide workable solutions.

However useful they may be in many ways, the recent experiences of neighbouring countries can hardly serve as a ready-made model for modernization of small countries like Nepal, starting late and almost from scratch. In fact, the relative backwardness of agricultural sector is holding back the so-called forward-looking programme for modern industrial complex in a number of Asian countries. Besides, the vast local diversities and other institutional peculiarities demand a somewhat indigenous approach to the problems of development in each nation. It is thus urgent on the part of the newly emerging nations like Nepal to reappraise their position and work out realistic programmes for accelerating development without serious bottlenecks. The scheme of development process as visualised in this study is based, among other things, on the conviction that rationalization of traditional sector is a pre-condition for modernization of the economy on a viable basis.

In the preparation of this work I owe a great deal to many people whom I could not mention here in detail. I should, however, mention with gratitude the name of my revered teacher, Dr. P. R. Brahmananda, under whose able guidance the work was completed originally as a doctoral dissertation in 1961. During my three years' work in the Department of Economics at University of Bombay, I had both stimulating and enlightening experience which I consider as one of my most cherished possessions in life.

I am also grateful to Dr. Wilfred Malenbaum for his kind contribution of a very thoughtful essay on the problems of economic development in underdeveloped countries as a Foreword to this book.

Of course, none has borne the brunt of this work more cheerfully than my wife; for her most enduring patience I thank her.

Department of Economics,
Tribhuvan University,
Kathmandu, Nepal.

B. P. SHRESHTHA.

CONTENTS

LIST OF TABLES

Chapter 1

INTRODUCTION

1. *Physical Environment*

Sandwiched between India in the south and the Tibet region of China in the north lies the Kingdom of Nepal along the southern slopes of the Himalayas, encompassing an area of 54,362 square miles[1] and stretching all along 500 miles between 80° 50′ and 88° 10′ of the east longitudes and along 80 to 150 miles between 26° 20′ and 30° 10′ of the north latitudes. Its shape, therefore, resembles roughly an elongated rectangle.

Nepal may be divided into four natural regions lying almost parallel to one another. The Terai region in the extreme south comprises a narrow strip of alluvial plain of some 9,000 square miles having a low altitude between 600 to 1200 feet above sea level. This is, in fact, the northern extension of the Gangetic plain.[2] Enclosed between the Chure and Mahabharat ranges, which separate the Terai from the southern part of the country, are situated broad longitudinal valleys composed of gravels and alluvia. These valleys are called *Bihtri Madesh* (Inner Terai) which correspond to Dums in India. They comprise an area of about 5,000 square miles, attaining an elevation of about 2,500 feet. Between the Himalaya region in the extreme north and the Mahabharat range in the south lies the most extensive highland called the Hills region accounting for about half of the total area of the country. The Mahabharat range, which is composed of highly compressed rocks, runs right through the entire length of the country. At intervals this mountain wall is pierced by gorges of transverse rivers. The Hills-region is aptly described as a "clusterous succession of mountains varying in elevation from 4,000 to 10,000 feet".[3] The topographical structure of this region presents a rugged and dissected picture. Parallel to the Hills-region stands the northern frontier of the country called the Himalaya region

1. *Census of Population of Nepal* 1952-54, Department of Statistics, His Majesty's Government of Nepal, 1958, p. 4.
2. "This plain is the result of filling up by long-continued alluviation of a tectonic basin formed when the strata of the Tethys sea were folded and raised into the Himalaya mountains." (P.P. Karan, *Nepal —A Cultural and Physical Geography*, Lexington, 1960, p. 22.)
3. Quoted by P. Landon, *Nepal* Vol. I, London, [illegible]

nestled on either side of the Main Himalaya range rising above the snowline into peaks of perpetual snow.[4]

Nepal falls within the monsoon region of the south-east Asia. The south-west monsoon responsible for the largest part of precipitation in the country, breaks out about mid-June and lingers on until the end of September. "There is fairly steady east to west decrease in amount of rainfall."[5] The eastern part of the country receives rainfall twice as much as that in the western part.[6] It is guessed that rainfall is roughly 50 inches in the low land of the eastern Terai, rising to about 70 inches in the foot-hills and still much higher in the southern slopes of the Main Himalaya. In higher altitudes greater part of precipitation is in the form of snow. During the winter, the north-west wind, which sets on towards the end of December and lasts until January, brings some precipitation, "usually about 5 to 10 inches in the western Terai and about 20 inches in the Western mountains."[7]

The climatic conditions of Nepal are also bewildering in their variety. In general, temperature varies inversely with altitude. In the low land of the Terai, maximum temperature rises as high as 110°F in the west and 105°F in the east. However, in the winter, temperature comes down to as low as 40°F or even less at times in the west. As one moves towards the rising altitude of the north, cooler conditions prevail. In the Mahabharat range, even the summer temperature does not exceed 70°F. In the valleys enclosed between the various spurs, it rises even up to 80°F at places. In other hilly parts of the country rising as high as 15,000 ft., the maximum temperature never exceeds 55°F, while during the winter, even the day-time temperature approximates to the freezing point. As aptly said, "One can choose one's climate in Nepal all the year round."

4. The isolated groups of these snow peaks are known under different names such as Annapoorna Himal, Khumbhakarna Himal, Jugal Himal, Ganesh Himal, Mustang Himal etc. Nepal contains not only the highest peaks in the world but also the greatest number of such peaks. Besides the Sagarmatha (native name for the Mount Everest), which rises above all peaks of the world, "there are five peaks over 27,000 ft., six over 26,000 ft. and more than thirteen peaks over 25,000 ft." (K. M. Malla, *Nepal—A General Geographical Account*, Kathmandu, p. 5.)
5. P. P. Karan, *op. cit.*, p. 25.
6. "The reason for this is to be sought in the fact that eastern Nepal lies closer to the Bay of Bengal, above which the summer monsoon becomes saturated with moisture." (Toni Hagen, *Nepal—The Kingdom in the Himalaya*, Berne, 1961, p. 44).
7. P. P. Karan, *op. cit.*, p. 25.

2. *Administrative Division*

Nepal is divided into numerous districts for administrative purposes. The division, though imperfect on economic grounds, is largely based on major water-sheds and river basins. It begins with "Nepal Valley" (Kathmandu Valley) popularly known as "*Khas Nepal*" (Nepal proper). The hilly districts lying immediately east and west of Nepal Valley are called "East No. 1, 2, 3 and 4" and "West No. 1, 2, 3 and 4" respectively. There are at present 32 administrative districts excluding Nepal Valley.

Recently the country has been divided into 14 Zones (Anchal) and 75 Development Districts in such a way as to include, wherever possible, part of the Terai and the hilly area in each Zone.[8] Though a complete reorganisation of a country should have been preceded by some thoroughgoing study of both quantitative and qualitative aspects of economic potentialities, geographical conditions and social considerations, yet the recasting of administrative districts of Nepal into fairly large economic regions may help in minimizing the existing disparities between regions in respect of both economic resources and environmental conditions. This may also serve as a basis for economic planning and development in the country at both national and regional levels. However, so long as the old administrative division is also maintained intact as before, the new Zonal division may only create a lot of administrative confusion due to overlapping of powers and duplication of efforts. Thus, if the new division is to serve the purpose for which it is done, the district administration should soon be reorganised entirely on the Zonal basis, eliminating all the existing district boundaries and jurisdiction.

3. *Means of Transportation*

Prior to the implementation of Nepal's Five Year Plan in 1956, 390 miles of road (162 miles metalled and 228 miles fair weather), 51 miles of narrow gauge railway lines, 14 miles of overwrought ropeway and 360 miles of airway linking a few urban centres with less than half a dozen of landing grounds, represented the entire modern transport system of the country with a population of about 9 million, living in 28,770 villages and cities. These facilities were also confined to Kathmandu Valley and some parts of the Terai, which together accounted for less than one-fifth of the total area and one-third of the total population, while the remaining part of the country was left virtually without any means of modern transport system. The position has changed but little in recent years.

8. *Cf. Development Districts and Zonal Division Committee Report*, His Majesty's Government of Nepal, Kathmandu, 1961.

Even in this latter half of the 20th century, most of the goods are being carried from one part of the country to another on human backs.[9] For millions of persons scattered over far-flung and isolated villages, the only available means of transportation are steep narrow foot-trails and narrow plank or loose tree-trunks-bridges over turbulent rivers, which are really difficult and unsuitable even for "pack animals".[10] In the high Himalayas "the trails . . . are narrow paths clinging desperately to almost perpendicular rock walls. The turbulent mountain streams crossing these trails are often bridged by trees felled across the water."[11]

The land-locked position of the country has presented another set of problems comparable with those of two other land-locked countries of the ECAFE region, namely, Laos and Afghanistan. Development of trade and industry of such land-locked countries is heavily contingent upon the nature of relations with their neighbouring countries which provide them transit facilities. For example, Afghanistan has to depend on Pakistan, Laos on Vietnam and Cambodia and Nepal on India.[12] It is with the object of obtaining transit facilities that these land-locked countries have entered into bilateral agreements with their neighbours.[13]

The Five Year Plan (1956-57—1960-61) of Nepal fully acknowledged that "There is probably no country in the world which has so few means of intercourse between its various areas." It is estimated that the country needs additional 4000 miles of

9. The horrible sight of two thousand persons carrying a steam-roller wheel over a bridle path in Nepal is compared by a Western observer with that of "ants on a wall pulling a huge crumb." (Taya Zinkin, *Manchester Guardian*, April 16, 1955. Quoted by P. T. Bauer and B. S. Yamey, *The Economics of Underdeveloped Countries*, London, 1957, p. 124.)

10. One English author was wonderstruck to find coolies carrying "most of the country's goods bearing enormous loads ... along roads which are often hacked out of a cliff face, sometimes no more than a foothold ... and over delicate-looking bridges of ropes, some of them suspended by chains forged in the 15th century." (R. N. Bishop, *Unknown Nepal*, London, 1952, p. 47.)

11. P. P. Karan, *op. cit.* p. 88.

12. About 80 per cent of Afghanistan's imports and exports in 1954-55 passed through Pakistan, 51 per cent of Laotian imports came through Cambodia and about 47 per cent of its exports went to or through Cambodia in 1955, while more than 94 per cent of Nepal's imports and exports are with India at present. (*Economic Survey of Asia and the Far East*, 1957, Bangkok, p. 186.)

13. *Ibid.* p. 186.

roads just to establish a normal link between various parts."[14] The Plan. therefore, accorded the top-most priority to development of transportation and communications. However, the progress made under the Plan was very discouraging. Only about 563 miles of roads were constructed as against the target of 900 miles.[15] In fact, there was a net addition of only 380 miles, because the reported construction of 563 miles included conversion of 183 miles of the then existing metalled and fair-weather roads into full-ground pitched and metalled roads. The Three Year Plan (1962-63—1964-65) aims at building 724 miles of all-weather roads, converting 124 miles of jeepable tracts into all-weather roads and bituminising 42 miles of all-weather roads.[16] The idea of converting 37 years' old narrow gauge railway line running 29 miles between Raxaul and Amlekhganj into metre gauge and extending it right up to Hitaura seems to have been given up after some preliminary works,[17] while a new ropeway having a capacity of 25 tons per hour went into operation only in early 1964 as against the plan-schedule of 1962. It was constructed in place of the old one, the capacity of which had gone down from 8 tons to less than 5 tons at the time of its replacement. The internal net-work of air services now covers about 600 miles. The Three Year Plan envisaged improvement works in all the existing important air-fields in addition to construction of four fair-weather air-strips in the hilly region.[18]

The foregoing account amply demonstrates the extreme inadequacy of modern means of transportation in the country. In a mountainous country like Nepal, economic development cannot

14. *Draft Five Year Plan—A Synopsis*, Government of Nepal, 1956, p. 40.
15. *Five Year Plan Progress Report*, National Planning Council Secretariat, Nepal, 1961, pp. 57-62.
16. *Three Year Plan (English)*, National Planning Council, HMG, Nepal, p. 154.
17. The survey report of the scheme is said to have stated that it would involve heavy cost and benefits that accrue from it would be far less in proportion. It may, however, be noted that the proposed intensive development of Rapti Valley and establishment of timber and other industries will need additional transport facilities. This will demand additional capacity of the existing lines to cope with the growing volume of imports and exports at cheaper rates. Besides, conversion of the existing line and its extension up to Hitaura will eliminate great delay and high cost caused by too many trans-shipment points. At present there are three trans-shipment points at Raxaul, Amlekhganj and Hitaura. The extension of the line will reduce them to only one at Hitaura which has already been linked by a new ropeway.
18. *Three Year Plan*, pp. 163-165.

get into its gear without additional efforts for an extensive network of modern transport system which alone can make the available resources of the country economically accessible and exploitable. "There are many instances of known supplies of natural resources in various parts of the under-developed world which depend on improvements in economic accessibility before their utilization becomes worthwhile; until this happens, they are valueless and unused resources."[19]

4. *Natural Resources*

The amount of water-power available in Nepal is practically unlimited. But her position in respect of other sources of power such as coal, oil and gas has not yet been fully ascertained. Partial exploratory works so far undertaken have not, however, shown any encouraging results.[20] The poor underground power resources so far known or discovered in the country do not, therefore, warrant thermal power plants on a permanent basis, though their temporary installation may be justifiable on technical grounds. A country cannot afford to rely perpetually upon outside supply of oil to run diesel engine-driven generating stations when alternative source of supply can be harnessed and used without external dependence. The steam power plants also do not justify their operation in a country like Nepal where coal is virtually non-existent. Nepal is, no doubt, rich in wood, but she cannot afford to utilize wood for burning in boilers for steam-raising and deplete her valuable forest wealth. Water is thus likely to remain as the only potential source of power supply in Nepal.

The potential source of power in Nepal is her perennial rivers streaming out from perpetual snows of the Himalaya and flowing across the country. The big rivers like Saptakosi in the

19. Bauer and Yamey, *op. cit.*, p. 53.

20. A permanent flame nourished by gas pouring out of a cleft at Muktinath in Western Nepal is taken as an indication of possible underground gas-source in Nepal, (Cf. Toni Hagen, *Draft of the General Report*, Nepal Bureau of Mines, 1958 p. 42). A detailed survey of Thakkhola area in central Nepal suspected petroleum deposits underground. The reconnaissance surveys so far undertaken indicate absence of coal deposits of commercial value in Nepal. The preliminary investigations of possible mineral occurrences in Central Nepal carried by Welch and others have shown only a float of small coal fissures. Similar observations were also made in other survey reports as well. (Cf. *Preliminary Investigation of Possible Mineral Occurrences—Central Nepal*, Nepal Bureau of Mines, p. 1.) Toni Hagen's impression that "Nepal possesses no coal deposits worth the name" holds true so far.

east. Gandhaki at the centre and Karnali in the west and their numerous tributaries drain the entire Nepal. A detailed hydrological survey of the country has not yet been done. A preliminary survey of five big river-basins undertaken in collaboration with the Central Water and Power Commission of India has estimated hydro-power potentiality of Nepal at about 8.6 million KW. as shown below. It may be noted that Nepal ranks first among the countries of South East Asia and the Far East in respect of per capita potential hydro-power capacity.[21] However, the existing per capita hydro-power capacity is probably the lowest in Nepal where only 0.018 per cent of the potential capacity has so far been exploited as against 42 per cent in Japan or 11 per cent in South Korea.

Table 1 : 1

ESTIMATED HYDRO-POWER POTENTIALITY IN NEPAL
(In Million KW)

No.	Basin	Preliminary survey estimate	Expected after detailed survey
1.	Kosi Basin	4.8	4.8
2.	Gandhak Basin	0.282	4.0
3.	Karnali Basin	2.745	5.4
4.	Rapti Basin	0.032	0.7
5.	Mahakali Basin	0.732	1.5
	Total	8.591	16.4

Source: P. P. Shah, *Nepal Ko Jala Bidyut Sakti, Vikash*. Vol. 1, No. 3. Planning Board, His Majesty's Government, 2015.

Electricity was introduced in Nepal only in 1911 when a hydro-power plant with a capacity of 900 KW was installed at Sundarijal, eight miles north of Kathmandu. The supply was increased by 450 Kw. when another hydro-power plant was installed at Pharping in 1939. Since then the Government power supply remained constant or even decreased considerably until a diesel plant, having capacity of 1600 KW, was put into operation in 1959. Under the Five Year Plan, additional supply of 750 KW was made available from two diesel plants at Kathmandu and

21. *ECAFE Bulletin*, Vol IX, No. 3, Dec. 1958, p. 40 and *Economic Survey of Asia and the Far East*, 1949, p. 373.

Bhaktapur cities as against the original target of 22,500 KW. Subsequently two more diesel plants with total capacity of 1000 KW were installed to cope with the increasing load conditions in Kathmandu. The Three Year Plan also set the target of supplying 22,000 KW of additional power. A number of power projects initiated but not completed during the Five Year Plan were also carried over for completion under the Three Year Plan.[22]

Between 1939 and 1949, two joint stock companies were set up to supply power at Biratnager in the eastern Terai and at Birganj in the central Terai. The total installed capacity of these two companies was about 2000 KW. During the same period, a number of factories were set up having in some cases their own power generating plants. Biratnager Jute Mills, for instance, operate at present three diesel generators with a total capacity of 1600 KW. and one steam turbo-generating set having a capacity of 1400 KW. Similarly, a host of rice and oil mills organised as proprietary or partnership firms from 1944 to 1963 have also installed their own small thermal power plants whose total capacity may be estimated on the basis of available information at about 1000 KW. Thus the total installed capacity in Nepal at present may be estimated at about 20,000 KW of which only 15 per cent is hydro-electric power and the Government power supply accounts for less than one-fourth of the total estimated installed capacity.

Table 1:2

ESTIMATED INSTALLED POWER CAPACITY, 1964

(IN KW.)

Type	Government		Private		Total	
Hydro	1350		1600		2950	(15.0)
Thermal	3350		13396		16746	(85.0)
Total	4700	(23.9)	14996	(76.1)	19696	(100.0)

(Figures in brackets indicate percentages of the grand total.)

22. The major projects, which are likely to be completed during the Three Year Plan, include Trisuli Hydel Project (900 KW), Panauti Hydel Project (2400 KW) and Hitaura Diesel Plants (4470 KW) implemented with the Indian, Soviet and U. S. Aids, respectively.

The popular belief that Nepal is rich in mineral resources is based largely on historical accounts of ancient travellers,[23] administrative records relating to mining licenses and bases, and also on existing evidences of ancient metal-crafts and findings of old abandoned mines here and there in the country.[24] Mining works seem to have gradually slackened along with the exhaustion of easily extractable surface minerals, since the primitive techniques and tools and poor knowledge of geological structure of the country were inadequate for further exploration and exploitation of minerals hidden deep underground. It also demanded huge capital investment and good organisation which might have proved beyond the capacity of the ancient miners. These difficulties were accentuated all the more by the absence of transport facilities and fuel supplies. It is also suspected that the hardships meted out to poor labourers by the all-powerful mine-owners gave "a blow to the enthusiasm of the workers and this more or less led to the stagnancy which followed."[25]

23. Kirkpatrick had appreciated the high quality of Nepalese copper and described its market even in European countries. He had also described the discovery of silver and presence of lead, antimony, mercury and sulphur in Nepal. In his words, "Lime stone as well as slate seem abound everywhere." (Cf. *An Account of Kingdom of Nepal*, London, 1911, pp. 176-178). Francis Hamilton had reconfirmed the presence of "'much iron, lead and copper with some zinc and a little of gold in the channels of some rivers" in Nepal (Cf. *An Account of Kingdom of Nepal*, London, 1819, p. 76).

24. The old records on mining leases available in the *Rakam Bando Basta Adda* have also reinforced the popular belief that Nepal is rich in various minerals. In the course of a series of preliminary surveys of possible mineral occurrences undertaken in the country, it was found that with the exception of a few districts there seem to exist at least one or two old abandoned mines everywhere. (Cf. P. B. Malla, *Nepal Ko Khanij Dhan, Vikash* Vol. I No. 1, Planning Board, p. 39.) The life-size statues of kings in city squares, the dignified bronze reliefs of saints or the noble conception of gods executed in hammered brass or caste copper and also a large production of various metal wares and temple-materials, even for export in large quantities to Tibet, would not have been possible in the absence of well-developed mining and mineral works in Nepal during the Malla period. (For interesting details of such craft-works, see P. Brown, *Picturesque Nepal*, London 1912 and P. Landon, *Nepal* Vol. 1. London, 1928.)

25. *Draft Paper of Five Year Plan on Minerals*, His Majesty's Government, p. 1. Dr. Toni Hagen, who completed the geotectonic survey of Nepal, reported that he found at many places "the old people

Prior to 1952 some officers of the Geological Survey of India visited Nepal several times in connection with geological surveys and ground-water sources studies. A series of reconnaissance surveys were also conducted by the United States technicians of the Nepal-American Mineral Co-operative Services and also by the trained personnel of the Nepal Bureau of Mines. However, it was only after the implementation of the Five Year Plan, that the exploratory works were intensified on a coordinated basis. The general geological exploration and survey works were carried on a wider scale to determine and map the geological structure of the country. Some intensive geological examination of mineralized deposits were also made to assess the extent and grade of the ore-bodies located in the course of initial surveys. As a result of all these exploratory efforts put forth since 1952, many hidden resources of the country came to notice, but only small proportions of them seem to have been quantitatively measured and their values assessed for commercial exploitation.

Though iron ore deposits have been found or suspected at about thirteen places, it is only the deposits of Phulchok, Lavdi Khola were those that warrant further investigations for both quantitative and qualitative assessment. The deposit of Phulchoki mine has been estimated at 10.25 million tons,[26] whereas the contents in two other mines have been put at 7 and 9 million tons, respectively.[27] Copper deposits, too, have been found at many places, but the prospects of only one or two places are encouraging. The largest copper-cobalt veins ever reported in Nepal have been traced at Buddha-Khola in South-central Nepal

who were complaining and telling striking stories on unable Government Officers who have ruined the mines by bad treatment of the labour and bad management." (*Draft of the General Report, op. cit.* p. 37.)

26. The Phulchoki iron ore deposits at Godavari have been studied several times. The estimated quantity of 10.25 million tons is said to be only "a conservative figure". It is expected that the actual contents of the mine would be greater than what have already been ascertained, since "the work so far done reveals only the surface extension of the vein of the iron ore" and "underground extension of the vein still remains to be studied further." (P. B. Malla, *Report of Phulchoki Iron Deposit and Lead-Zinc Deposit*, Godavari, Nepal Bureau of Mines, His Majesty's Government, Sep. 1955. p. 9).

27. Cf. R. C. Pradhan, *Nepal ko Khanij Dhan, Vikash*, Vol. I, No. 5, 5, 2016, p. 20; Rourke, Sharma and Suwal, *The Lavdi Khola Iron Prospect*, Nepal Bureau of Mines; 1959 and *The Three Year Plan*, *op. cit.* p. 121.

near Rapti Valley with a proved tonnage of 100 thousand tons and possible tonnage of another one million.[28] Mica deposits in Bhojpur, Bajhang, East No. 2 and West No. 1, lead in Arkaula, lignite in Phulchok, talc in East No. 1 and West No. 2, slate in Bandipur, limestone in Bhainse, Markhu and Godavari are all expected to be available in economic quantities The possibility of striking gold is also now under consideration, since gold particles were reported to have turned up while drilling the bed of the Paroudi river in the Riddi Valley.[29]

It is rather unfortunate that the only large deposits so far discovered in Nepal, namely, iron ore, do not seem to warrant an immediate establishment of any pig-iron or steel factory in the country. Leaving aside the limitations imposed by a state of technical backwardness and narrow internal market composed of a diversified demand for numerous types and sizes of iron and steel products—each in small quantity —, the essential fuel, namely coking coal, has not so far been discovered in any commercially exploitable quantity either in the vicinity of iron ore deposits or elsewhere in the country. "The Philippines and the Federation of Malaya, though substantial producers of iron ore, are short of coal and hence almost the entire output of iron ore in these two countries is exported to Japan."[30] The new process by which a steel plant can be run without coking coal is inconceivable in Nepal in the foreseeable future. The technical difficulty in using iron-ore deposits in Nepal can, therefore, be overcome either by discovery of coal deposits in sufficient quantities at suitable places or by examining thoroughly whether imported coal could be economically used. The latter possibility may be more expensive or less economical in view of the transport costs and the larger quantity of coal requirement per unit of ore to be smelted and refined. Moreover, in the present state of affairs, it is doubtful whether a pig-iron or steel industry may be able to produce metal in various forms in which it is required for local use.[31]

28. Cf. J. C. Rourke and others, *Buddha-Khola-Copper-Cobalt Prospect-Bandipur District*, Nepal Bureau of Mines 1959; *Summary of Geological Field Investigation in Nepal*, NBM, 1958; *Darakali Copper Prospect;* Bara Baise, East No. 1, by Rourke, NBM, 1958 and *Khokling Copper Cobalt Mine-Taplejung, Eastern Nepal* by Rourke and Sharma, NBM, 1958.
29. *Three Year Plan, op. cit.*, p. 119.
30. *ECAFE* Bulletin, Vol. IX, No. 3, p. 43.
31. It is because of this technical difficulty, the Union of South Africa, for example, imports copper to the extent of about 15,000 tons a year, though it exports at the same time the metallic copper of about 32,000 tons per annum. (Cf. *Non-ferrous Metals*, UNDEA, p. 63.)

With the present state of knowledge of mineral wealth of Nepal, one may feel that the mineral base of the country for a quick and extensive industrial development is rather very weak and uncertain. At present there are only a few non-metallic deposits such as talc, ochre and slate which warrant their immediate exploitation. Among non-ferrous metals, only copper deposits provide some hope for commercial exploitation in the near future. Though most of the exploratory works are yet in their reconnaissance stage and detailed studies of the mineralized zones and of specific deposits have still to be carried out more intensively, yet the investigational results of the past one decade or so, tend to suggest that the country is not so rich in mineral wealth as one is often tempted to believe on the basis of some ancient records and legends.

Nepal is, however, fortunate enough to have been endowed with rich and valuable forest wealth, which if conserved, developed and exploited on scientific lines, can contribute substantially to the initial stages of development in the country. It was rightly assessed that the forest resources could provide "the most promising base for a rapid strengthening of the economy" in Nepal.[32] But the history of man's relationship to these immense potentialities of Nature makes a sad reading—"a tale of wanton misuse and reckless exploitation"—through the recorded history of the country.

The "shifting cultivation" in the past as well as at present on some scale, has been a cause of destruction of forests in Nepal as in other forested areas of the world. J. V. Collier, who had worked in Nepal as a forest adviser from 1918 to 1931, made a striking remark that the "history of mankind in Nepal has been and still is in many places a story of struggle against forests and their denizens...The original form which this struggle took was that of shifting cultivation."[33] The deforestation process due to conversion of rich forests into shifting cultivation is not good even for agricultural development, since it does not imply a permanent settlement any more than hunting implies nomadism. On the contrary, it has reduced the resistance-power of land against flood and denudation. Consequently, erosion and landslides are encroaching more and more upon good cultivated neighbouring land. The use of fire to clear forests and reckless grazing of cattle are also contributing to the fast process of deforestation.[34]

32. *Five Year Plan—A Synopsis, op. cit.* p. 37.
33. *Forestry in Nepal,* published as Appendix IX in Perceval Landon's *Nepal,* Vol. II, London, 1928, p. 251.
34. The Three Year Plan has aptly reappraised the existing situation in the following words: "Long years of irregular and uncontrolled use,

The second heavy drain on the forest resources is their permanent use as fuel in cooking and heating in almost every household all over the country. The accidental fires, plant plagues and diseases of various kinds are another cause of destruction. In the absence of scientific management and efficient administration of forests, such natural calamities are frequently visiting good forests in Nepal. It is reported that there are still many forests in the world where the losses due to these natural calamities balance gross increment of new woods so that there is no net growth at all.[35] This indicates the importance of preventive measures against fires, insects and diseases in forests.

The destruction and depletion of the richest forests in the tropical zone of Nepal may be attributed to the reckless exploitation in the past and to some extent, even at present. Since these tropical forests of the Terai are favourably situated for transportation across the national boundary, they were exploited "beyond the limits allowable in the interests of their technical development."[36] "The Terai forests are practically all ruined and can no longer contribute to the country's economy."[37] Even the forests of the Mahabharat ranges were reported to have been "dwindling and throughout this area, the problem of soil conservation demands urgent solution."[38]

In the absence of any scientific inventory showing the types, stocks, quantity, density and constitution of forests, any precise assessment of the existing forest resources in Nepal is impossible. The area under forests is the only an indication of the forest potentiality in the country. It is estimated that 17,500 square miles, i.e. 32.5 per cent of the total area, are under forests in Nepal.

deforestation, contract system (in felling of trees), unrestricted cattle grazing and lack of forest demarcation, forest paths, fire lines, forest acts and forestry services have, however, brought the forest wealth to a pitiable state. In consequence, much damage has been done to the forest and the problems of landslides and soil erosion have assumed alarming proportions." *Op. cit*, p. 230.

35. *The Growth of Forest Industries and their Impact on the World Forest Resources*, FAO, Rome, 158, p. 7.
36. E. Rauch, *Report to the Government of Nepal on Agriculture of Nepal: Suggestions for Its Improvement*, FAO, 1951, p. 6.
37. G. Earnest Robbe, *Report to the Government of Nepal on Forestry*, FAO, Rome, 1954, p. 11.
38. *Ibid.*, p. 11.

Table 1:3

FOREST AREA AND ITS DISTRIBUTION IN NEPAL

Type of Forest	Area in sq. miles	Percentage Distribution
New Riverian Forests	800	
Old Riverian Forests	1200	
Sal Forests of the Plain	3500	
Foothill Forests	2000	
Oak Forests	8000	
Conifer Forests	2000	
Total	17500	100.00

Source: *Report to the Government of Nepal on Forestry*, 1954.

In 1954 Mr. Robbe estimated the annual consumption of wood in Nepal at 31.0 million cu. ft., the breakdown of which into fuel-wood and industrial wood were 24 million and 7 million, respectively. He estimated the annual fuel-wood consumption on the basis of 20 cu. ft. per family. Accordingly, the total annual fuel consumption in Nepal should be about 35.5 million cu. ft in 1961 as against 24 million cu. ft. in 1954 for the simple reason that the 1961 census reported 17,75,645 families in the country. If the consumption of industrial wood remains the same, total annual requirements may be estimated at about 42.5 million cu. ft. as against 31 million cu.ft. in 1954. This would mean an annual consumption of about 110 cu. metres per 1000 persons, which with the exception of India, Cambodia, Ceylon, Laos and Vietnam, was the lowest among the South and South-East Asian countries in 1956-57.[39] However, it is not the low per capita consumption but the highly unsatisfactory proportion of wood consumption as fuel that should deserve a more serious consideration. This itself is an indication of a backward economy of the country. Roughly, higher the stage of industrial development, the greater is the use of wood for industrial purposes.

If the present level of consumption of 42.5 million cu. ft. along with the estimated annual export of 3 million cu. ft. is to be maintained, there should be a net annual addition of 26,000

39. *Year Book of Forest Products Statistics*, FAO, Rome, 1958, pp. 150-151.

cu. ft. per square mile or 2.9 cu. metre per hectare, or else the existing forest reserves will be gradually depleted. Under Indian conditions of forest management, a hectare is reported to have produced a net 1.8 c. metre of wood in the year 1950-51, whereas the same in Cambodia (1953), Indonesia (1950-52), and Ceylon (1948-52) was only 0.5 c. metre per annum.[40] If the standard of growth in Nepal is far greater than that in India or in many other Asian countries, the present level of consumption and export can possibly be maintained without further destruction and depletion of forest wealth. On the contrary, if it is as low as that of Burma (0.06 c. metre), the position will be just reversed.

What the country needs at present is the most vigorous measures for protection and conservation of the existing forests from further abuses and misuses by man and afforestation of deforested areas on a planned basis. There should be an optimum relationship between the rate of exploitation and the rate of growth of forests. The principle which has received a wide recognition for maintaining this relationship is known as the principle of "Sustained and Maximum Yield."[41] The idea underlying the principle is that if the removal is limited to a net increment of forest output, it will ensure, on the one hand, the sustained yield in perpetuity and on the other, the forest capital will also remain, at least, intact. Assuming that this principle of sustained yield is followed, the yield will also be maximum, if "at the prescribed intervals, the products harvested are both of the highest possible quantity and of the highest possible quality."[42] If the policy of Government is guided by the objectives of discreet use and scientific conservation and development of forests in future, Nepal with her present 4.5 million hectares of land under forest containing a large proportion of sal trees of great dimensions, a sufficiently large proportion of conifers and oaks and an equally great amount of sabai grass, can very well feed a number of industries on economic scales comparable with those in some advanced countries of the world.

5. *Decade of Planning and Development*

During the Rana regime (1846—1951), no serious attempts were made until 1930 for initiating economic development on a systematic basis. It was only in 1935 that a development agency was constituted by the name of Udyog Parishad (Development Board), the primary function of which was stated to be one of helping in various ways the growth and expansion of agri-

40. *World Forest Resources*, FAO, Rome, 1955 pp. 94-95.

41. *The Growth of Forest Industries, op. cit.*, p. 24.

42. *Forest Policy, Law and Administration*, FAO, Washington, 1950, p. 30.

cultural, industrial and commercial activities in the country.[43] The Development Board was soon followed by a host of specialised development agencies such as *Krishi Parishad* (Agricultural Board), *Khani Adda* (Bureau of Mines), *Kathmal Report Adda* (Department of Forests), *Nepali Kapada Ra Gharelu Ilam Prachar Adda* (Department of Cottage Industry) etc. But all that was done through these agencies in a spasmodic and haphazard manner proved to be too inadequate for bringing about any perceptible change in an all-pervasive state of economic backwardness inherited from past decades of negligence. There was also an announcement of what was then known to be a 20-Year Plan just before the outbreak of the Second World War. Nothing was, however, heard of what was done about it in practice until a National Planning Committee was set up in 1949 for formulating a 15-Year Plan, which, as the earlier one, disappeared along with the dissolution of the National Planning Committee itself.

The economic conditions of the country persisted more or less in the same state of stagnation for a few years even after the political change in 1951, though the problems of economic planning and development had all along been a popular subject of discussion both within and outside the Government.[44] The unstable Governments, which followed the political change in 1951, had gone out of existence one after another in close succession before they could formulate any long-term plans in their proper perspective. The economic plan in Nepal may be said to have taken some formative shape only towards the end of 1955 when the draft outline of the Five Year Plan was announced by a Royal Proclamation. It is believed that the Draft Plan was also prepared primarily for its being incorporated in the Colombo Plan,

43. Cf. *Khalganishana* of Marga, 9, 1992 (1935), *Udyog Parishad*, Nepal. *Khadganishana* means a charter having signature of the Rana Prime Minister and also a seal bearing the sign of a sword.

44. The contemporary publications on Nepal described the situation in the following words: "The whole country (in 1954 and early 1955) seethed with discontent. No effort had been made to solve any of the outstanding problems in the economic field. Despite politicians' professions of concern for the peasantry, they had not taken a single step to ensure even the security of tenure to tenants..." (G. Jain, *India Meets China in Nepal*, Bombay, 1959, p. 42) "All (political parties) promised land reform, development of unexploited resources, hydro-electric power, industry, improvement of health, education and communication and so on... But the realities of Nepal remain: the stark contrast between wealth and poverty..." (P. P. Karan, *op. cit.*, p. 11) Also see Sir F. Tuker, *Gurkha—The Story of the Gurkhas of Nepal*, London, 1957, p. 270.

when Nepal attended its Singapore session on October 17, 1955 as a full-fledged member-country. It took about a year when at last the final draft of the Five Year Plan was announced on September 21, 1956. The Five Year Plan came to its premature end in July, 1961. The year following the termination of the Plan was treated as an interim period when many changes were made in the development projects carried over from the Plan. After the lapse of a year, a second Plan called the Three Year Plan was put into operation from the fiscal year of 1962-63.[45] The Three Year Plan was formulated by a high level National Planning Council constituted in February, 1961 under the chairmanship of His Majesty the King himself.

The two plans, though projected on different scales in terms of their financial outlays, are virtually identical in their essential features. Both of them contained the same general long-term objectives as commonly found in contemporary development plans of underdeveloped countries, namely, increase in production, improvement in standard of living, creation of employment opportunities, provision of social services, justice in distribution and so on. Since these objectives, though desirable in themselves, are mutually competitive and often contradictory in nature, at least in the short period, it should have been one of the major tasks of the planning agency to determine a well-defined system of priorities in terms of which these broad objectives should be pursued with varying degrees of emphasis at different phases of development over a period of time. It is in this sense that the Plans may be said to be devoid of any clear vision of a long-term perspective of economic development in the country. While apparently the short-term objectives of the Plans also seem to be substantially different—the first Plan placing a major

45. In fact, the termination of the Five Year Plan was to be followed immediately by the Second Five Year Plan without any gap in the continuity of the development plans. The Second Five Year Plan envisaged rather very ambitious targets of increasing national income by 30 per cent and creating employment opportunities for 5 lakhs of people with a total investment of Rs. 1960 million. Though the major assumptions of the Plan model had no adequate factual basis and were open to question on many grounds, yet it made an attempt for the first time to define a system of objectives in terms of overall investment, employment and output targets, indicating, at least roughly, a broad strategy of development over a period of time. Subsequently, with the change in the Government, the Plan was scrapped off and in its place, the Three Year Plan was conceived. For details see B. P. Shreshtha, *Nepal's Second Five Year Plan—Its Employment Potential and Some Aspects of the Second Five Year Plan of Nepal*, Vasudha, July 1960 and Oct., 1960.

emphasis on simultaneous advance on all material fronts of the economy and the second one concentrating more on organizational and institutional changes than on material achievements, yet a close analysis of the programmes as envisaged in them indicates that the difference is only a matter of degree rather than of substance.

Equally striking similarity between the two Plans is their common technique of planning. In fact, the Plans were essentially an amalgamation or aggregation of a large number of different individual projects selected and prepared largely by the concerned Departments of the Government without any rational order of priorities in relation to available resources and requirements of the country. The total outlays of the Plans were derived simply by adding up the roughly estimated costs of projects and the targets were fixed without any reference to functional relationship between investment and output. Besides, the scope of the Plans was confined exclusively to the programme of activities in the public sector alone. Briefly, neither of the two Plans could incorporate what were generally considered to be the essential components of a comprehensive plan.[46]

It is not surprising if an unrealistic plan manifests numerous inconsistencies and differences between intention and performance at the operational stage. Actually this is what happened during the implementation of the Five Year Plan. In the first place, since projects were taken up without proper consideration of costs, the sectoral programmes in the course of their operation proved to be in excess of the outlays earmarked in the Plan.[47] This deprived the Plan of its operational value as well. Originally, it was estimated that the budgetary resources of the Government would be increased at least by Rs. 170 million of which Rs. 95 million would be made available for allocation under the Plan.[48] However, at the end of the Plan, the total financial contribution of the Government could hardly reach Rs. 60 million, which too, was made available more by drawing down the Treasury reserves than by fresh mobilization of domestic resources through budgetary measures.[49] It was unfortunate that even the annual development budgets were not properly

46. *Cf. Economic Bulletin for Asia and the Far East*, Vol. XII, No. 3, December 1961, p. 2 and *Programming Techniques for Economic Development*, ECAFE, Bangkok, 1960.
47. *An Outline of the Second Plan*, National Planning Council, His Majesty's Government, Nepal 1962, p. 1.
48. *Draft Five Year Plan—A Synopsis, op. cit.* p. 13.
49. *Three Year Plan. op. cit.*, p. 20

related to financial outlays envisaged in the Plan. The result was that the allocations of the development budgets reached the figure of Rs. 576 million, whereas the total outlay as proposed under the Plan was only Rs. 330 million! The real performance, on the contrary, lagged so far behind these estimates on paper that the actual total outlay on the Plan could hardly reach Rs. 220 million.

Table 1:4

ALLOCATION AND EXPENDITURES UNDER THE FIVE YEAR PLAN (1956-57—1960-61)

No.	*Head of Expenditure*	*Allocation under FYP*	*Allocation in Develop. Budget*	*Actual Expenditures*
1.	Village Development (A)	425	681	266.78
2.	Agriculture and Forest	320	279	69.45
3.	Transport and Communications	1240	2095	949.01
4.	Power	300	531	133.45
5.	Industry, Mining and Tourism	250	573	103.56
6.	Health	250	305	160.04
7.	Education	190	504	212.84
8.	Irrigation and Drinking water	200	411	131.22
9.	Miscellaneous (B)	125	383	117.72
	Total	3300	5762	2144.07

(A) Including Co-operatives, Local Improvement Works and Rapti Valley Project.

(B) Including Surveys and Land Reforms.

Source: *Progress Report of the First Five Year Plan, op. cit.*, p. 4.

The achievements of the Plan measured by the difference between the estimated targets and their actual fulfilment, were rather disheartening, even if an allowance were made for the limitations which might have handicapped its smooth operation at various stages. Though, on the whole, about 65 per cent of the financial target as shown in Table 1:4 above, was somehow achieved, yet the physical targets failed to register corresponding progress. In most of the strategic fields such as power, transport

and irrigation, for instance, which together accounted for more than half of the actual expenditures, the results as summarised in Table 1:5 on page 21 were very disappointing. Except in some fields like education, the gap between expectation and actual performance is conspicuously wide. This should not, however, be misconstrued as indicating that the targets as envisaged in the Plan were too ambitious to be within the reach of the country. In fact, the Plan was launched on a very modest scale calling for just a small fraction of total efforts required to bring about some perceptible change in production and employment levels of the country.

The poor performance of the Plan may be attributed to a number of mutually reinforcing factors. In the first place, the discouraging results in physical output was largely due to unnecessary dealy in the execution of projects in various fields. The delay was again an unavoidable outcome of administrative inefficiency. As frankly pointed out, "Reluctance to assume responsibility and overlapping of authority created both frictions and delays in reaching or implementing decisions."[50] The National Planning Council itself realised that "inefficiency of administrative machinery" is one of the main reasons for the partial success of the Plan.[51] The low level of administrative efficiency, in its turn, may be the result either of inadequacy of talent and experience or of misallocation of available talent and experience at different echelons of administrative hierarchy or both. Waste of local talent is probably as much important a problem as shortage of talent in underdeveloped countries like Nepal. It is not too much to assume that even in future success of a plan depends largely upon administrative capability of the Government, which varies directly with how appropriately the available human resources of the country are allocated at all administrative levels. Secondly, "As the progress in terms of both financial outlays and physical outputs was conspicuously poor during the first three years of the Plan, emphasis seems to have been placed more on financial outlays than on tangible results from such outlays in the remaining two years."[52] As most of the projects on which the money was spent had a gestation period longer than two years, the financial outlays could not, therefore, be accompanied by corresponding results in physical output during the Plan period. In a

50. H. B. Wood and B. Knall, *Educational Planning in Nepal And Its Implications* (Draft Report of the UNESCO Mission to Nepal) Kathmandu, May 1962, p. 124.

51. *An Outline of the Second Plan*, p. 1.

52. B. P. Shreshtha, *An Introduction to Nepalese Economy*, Kathmandu, 1962, p. 247.

Table 1:5

ACHIEVEMENTS OF FIVE YEAR PLAN IN SELECTED FIELDS

Project	*Unit*	*Plan Target*	*Target Fulfilled*	*Col. 4 As% of col. 3*
1	2	3	4	5
Power	KW	20,000	750	3.7
Highway	Mile	900	380 (A)	42.2
Railway	,,	54	(B)	0.0
Ropeway	,,	28	(C)	(70.0)
Telephone Lines	No.	1,500	700	46.6
Irrigation	Acre	2,75,000	65,200	23.7
Hospital Beds	No.	240	105	43.7
Co-operatives	,,	4,500	378	8.4
Agricultural Farms	,,	18	8	44.4
Livestock Centres	,,	7	4	57.1
Village Development Centres	,,	48	38 (D)	79.2
Health Assistants and Nurses Training	,,	190	97	51.0
Milk, Cheese etc. Centres	,,	11	11	100.0
Primary, Middle and High Schools	,,	766	2,165	282.6
Post Office	,,	107	292	292.0
Ayurvedic Dispensaries	,,	43	57	132.5

(A) Conversion of metalled roads into pitch roads is not taken into account.

(B) Only survey works were completed.

(C) About 70 per cent of the work was reported to have been done.

(D) Centres not properly working are excluded.

Source: ***Progress Report of the Five Year Plan, op. cit.,*** **pp. 2-3.**

country like Nepal where periodic evaluation or inspection of planning progress is entirely lacking, it is quite likely that financial outlays and physical output may fail to maintain a commensurable relationship. Finally, even in the absence of relevant information and data, it may be suspected on general observation that the proportion of overhead costs, mostly in the form of allowances and emoluments, to total outlay on the Plan might have also gone high enough to create some discrepancy between expenditures and output in tangible forms.

Over the period of the past decade, the progress as recorded in different sectors of the economy, particularly in irrigation, power, transport and health, does not appear to be very impressive by any standard (Table 1:7). Looking at the targets set in the Three Year Plan against the actual achievements made within a long period of a decade (1951-1961), one may tend to be somewhat sceptical about the prospect of their fulfilment in a short period of three years. In fact, even the total financial outlay on the Three Year Plan is likely to fall short of the target by about 30 per cent as against 35 per cent under the Five Year Plan. In strategic fields such as power, irrigation and transport, the actual results are wide off the targets (Table 1:6).

Even assuming that the Three Year Plan targets were fully achieved, the overall economy of the country will continue to remain so deficient that there will be hardly more than 5 per cent of the cultivated land under irrigation or hardly more than 1,800 miles of highway to link as many as 29,000 villages scattered over 54,362 square miles. The primary educational facilities will be available at the most to only 15 per cent of the school-going children, while one hospital bed will have to be shared by more than 8,000 people. The country will continue to remain heavily dependent upon imports even for simple consumer goods such as cotton textiles, for instance. All this is just an indication of the formidable tasks that are lying ahead.

4. *Objectives of the work*

An obvious explanation for the glaring shortcomings in the formulation of economic planning in Nepal lies in the existing state of incomplete and imperfect knowledge in basic economic conditions of the country. The statistical information is so inadequate that there are hardly any reliable data even on simple economic variables. The resources of the country are yet largely unexplored. No attempt was made until very recently to estimate the national income of the country. Balance of payments position is still unknown. Until 1953, even the size of population was estimated haphazardly. The two Plans were prepared without any preliminary surveys and research. It is, therefore, no wonder

Table 1:6

FINANCIAL OUTLAY UNDER THE THREE YEAR PLAN
(Rs. in Million)

No.	Subject	Plan Target	First Year 1962-63	Second Year 1963-64	Third Year 1964-65(C)	Total (Col. 2+3+4)	Col. 5 As. % Col. 1
		1	2	3	4	5	6
1.	Organizational Improvement (A)	79.2	18.8	19.0	84.7(D)	122.5	154.6
2.	Transport, Communications and Power	234.5	25.5	52.0	75.3	152.8	65.1
3.	Agriculture, Irrigation and Forest	81.6	17.4	17.4	18.4	53.4	65.4
4.	Industry and Tourism	102.0	12.3	21.5	22.1(E)	55.9	54.8
5.	Social Services (B)	102.7	20.7	32.0	35.1	87.8	85.5
	Total	600.0	94.9	141.9	235.6	472.4	78.7

A=Cadastral Survey, Panchayat Survey, Statistics, Training, Publicity, Administrative Reform etc.
B=Education, Health and Recreation.
C=Revised Estimates (Actual expenditure, as usual, may fall short of the estimates by about 25%).
D=Including Rs. 53.3 million for public works.
E=Industry and Commerce.
Source: *The Economic Affairs Report*, No. 3, Vol. II., August 1964, p. 2 and *Budget Speech of* 1965-66.

Table 1:7

DECADE OF DEVELOPMENT

(1956-57—1964-65)

Field of Development	*Unit*	*Position in* 1956-57(A)	*Position in* 1961-62	*Three Year Plan Target*	*Two Year Progress* 1962-63 1963-64	*Position in* 1963-64	*Expected Position in* 1964-65
		1	2	3	4	5	6
A. *Industry and Power*							
1. Sugar (Md. per Annum)		42,245	70,000	8,00,000	3,20,000 (B)	3,63,092	8,70,000
2. Jute (Ton per Annum)		13,348	15,034	8,600	N	17,015	23,634
3. Cotton Cloth (1000 Yds.	p.a.)	3,761	N(C)	20,000	N	N	20,000
4. Match (1000 Gross	,,)	120	296	N	N	387	387
5. Cigarettes (Million sticks	,,)	NA	118	2,000	2,000(D)	2,249	2,249
6. Cement (Tons	,,)	N	N	5,00,000	N(E)	N	50,000
7. Paper (Tons	,,)	N	N	6,000	N(F)	N	6,000
8. Power (KW)	,,)	1,600	17,000	22,000	N(G)	17,000	39,000
B. *Transport and Communications*							
9. Road (Miles)		390	885	924	541 (H)	1,426	1,809
10. Railways (,,)		51	51	N	N	51	51
11. Ropeway (,,)		14	14	14	28 (I)	28	28
12. Airfield (Nos.)		5	12	23	4	16	35
13. Telephone Line (Nos.)		335	1,455	900	N	1,455	2,355
14. Post Offices (Nos)		107	376	26	12	387	401

		1	2	3	4	5	6
C. *Agriculture*							
15. Irrigation (Acres)		50,000	1,17,700	1,16,000	10,000	1,27,700	2,33,700
16. Cadastral Survey (Acres)		NA	11,77,000	46,00,000	3,76,000	15,53,000	57,77,000
17. Agri. Extension Centres	(Nos)	N	5	9	3	8	14
18. Agronomy and Horticulture Centres	(,,)	3	21	27	5	26	48
19. Livestock Dev. Centres	(,,)	13	23	33	23	46	56
D. *Health & Education*							
20. Hospitals	(,,)	34	39	3	N (J)	39	42
21. Hospital Beds	(,,)	649	903	290	66	969	1,193
22. Primary and Middle Schools	(,,)	1500	4665	1250	857	5522	5,915
23. Colleges	(,,)	13	32	N	N	32	32

NA = Not available; N = Nil.
A = The position in 1951-52 may not be materially different from that in 1956-57
B = This is the full capacity production of the Russian-aided sugar mill which went into operation only in the third year (1964-65) of the Plan. The present production is less than the figure indicates.
C = The existing one cotton mill is not in operation since 1958.
D = This is full capacity production of the Russian-aided cigarette factory which went into operation only in the third year of the Plan. The present production is less than the figure indicates.
E and F = The scheme of setting up a cement factory and a paper mill with the Chinese aid was given up later on.
G = Only about 7370 KW is likely to be generated at the end of the Plan from a hydro-electric plant at Panauti and three diesel plants at Hitaura and Birgani.
H = This includes improvements of the existing roads.
I = The old 14-mile long ropeway is replaced by a new 28-mile long ropeway.
J = Most of the construction works of the proposed three hospitals were completed.
Source: *Three Year Plan, op. cit.*, pp. 64-69, *The Economic Affairs Report*, No. 3, Vol. II (passing) and *Department of Industry*, HMG.

that many off-hand estimates remained their primary basis. However, the authors of the First Plan had stressed at more than one place the urgency of survey and research works on Nepalese economy for a realistic planning in future.[53] In view of a relatively high priority accorded to such works in the Plan, one would have reasonably expected that by the end of the Plan some statistical basis would be ready for a comprehensive planning in the country. But while formulating the Second Plan, the National Planning Council confessed that "In spite of 5 or 6 years' planned development, our knowledge of our country's economic system is yet almost insignificant... In the absence of statistical data it is rather very difficult to say anything definitely about the existing economic conditions and about the situation to be aimed at in future. The difficulties which existed when the Five Year Plan was formulated are persisting even at present."[54] This probably is the reason for conceiving of the three Year Plan merely as a "Preparatory Plan" pending the growth of statistical service required for a comprehensive planning in future. In view of this process of procrastination ever since the political change in 1951, there is every good reason for anyone to be rather apprehensive of a more realistic and comprehensive plan even in the next stage of planning in the country. A period of twelve years is not indeed a short duration by any standard, particularly for a country like Nepal where development had already been delayed by many decades in the past.

Though it may be rather premature to place too much emphasis on macro-planning based on functional relationships and inter-industry co-ordination, yet one cannot rule out altogether the scope for considerable improvement and refinement in both the method and content of the plan in the country. This needs systematic collection and scientific processing of data, available otherwise in crude and scattered form. Some statistical gaps can also be eliminated partly by interpolation, sample surveys and periodic studies on specific problems and partly by a cautious application of experience gained by neighbouring countries at comparable stages of their development. A proper allocation and use of technical assistance from a host of friendly nations and international agencies can also contribute much to avoid crudities in both formulation and implementation of a plan. A realistic plan does not always presuppose the pre-existence of ready-made statistics showing all essential relationships. In fact, one can hardly conceive of any realistic plan without painstaking efforts and the best use of available talent and experience in the country.

53. See *Draft Five Year Plan, op. cit.*, p. 4 and p. 80.

54. *Three Year Plan, op. cit.*, p. 3.

Probably being discouraged by many heavy odds, no comprehensive study seems to have been undertaken so far in the Nepalese economy on a systematic basis. The present work is undertaken to fill up, at least partially, the existing gaps in our understanding of Nepalese economy in its dynamic context. However, as its contents suggest, the work is concerned largely with the problems of industrial development; but in so far as the problems of industrialization are basically the problems of overall economic development in Nepal, as in many newly developing underdeveloped countries, the scope of the work may be considered to be correspondingly wide.

Chapter 2

POPULATION AND LABOUR FORCE

1. *Size and Structure of Population*

The supply of labour force is primarily a function of size and structure of population. The size of population in Nepal was not known precisely until the first scientific census was taken in 1952-54[1]. The total population as revealed by the enumerations of 1952 and 1954, stood at 8.47 million, of whom 8.25 million were at home during the census period and the rest were absent from home for six months or more. It increased from 8.25 million to 9.38 million in 1961 when the second census was taken simultaneously all over the country. The changes in regional distribution and density of population between the two census periods may be seen from Table 2:1 on page 29.

The regional distribution shows that the Hills-region alone accounts for about two-thirds of the population, but density per square mile is here just half of that in the Terai. Between the two census periods, there was some decrease in the proportion of population both in the Hills and Inner Terai with a corresponding increase in the Terai. This cannot probably be attributed altogether to regional difference in natural growth rates of population alone. In the Terai the average annual rate of growth was much higher than that for the whole country, whereas the same in some parts of the Terai was as high as 5.48 per cent. This may be partly due to inflow of people from outside the country and partly due to migration of the people from both the hills and Inner Terai to some adjoining parts of the Terai, or else the abnormal growth in some parts and abnormal decline in most parts of the Inner Terai need a different explanation.

A simple relationship between the size of population and the volume of labour force is too obvious to need any elaboration. But the structure of population showing various proportions of the population in different age and sex groups is no less decisive than the size in determining the potential supply

1. Though the plan for the census was drawn up on the lines recommended by the United Nations for the World Census of 1950, the entire country was not enumerated at a time. The eastern part of the country was enumerated in May, 1952 and the Western part in May, 1954.

Table 2:1

DISTRIBUTION OF POPULATION
1952-54 and 1961

Census Region	Population present at home		Persons per Square Mile	
	1952–54	1961	1952–54	1961
1. Eastern Hills	17,08,816 (20.7)	18,82,925 (20.0)	169	186
2. Western Hills	32,29,177 (39.1)	36,50,849 (38.9)	108	122
3. Kathmandu Valley	4,10,995 (5.0)	4,56,804 (4.9)	1885	2095
Hills Region (1–3)	53,48,988 (64.8)	59,90,578 (63.9)	133	149
4. East Inner Terai	1,89,228 (2.3)	1,75,909 (1.9)	103	96
5. Central Inner Terai	2,39,677 (2.9)	2,40,824 (2.6)	98	98
6. West Inner Terai	89,315 (1.1)	98,764 (1.0)	125	138
Inner Terai Region (4–6)	5,18,220 (6.3)	5,15,498 (5.5)	104	103
7. Eastern Terai	18,06,049 (21.9)	22,10,034 (23.5)	353	432
8. Middle Western Terai	3,48,179 (4.2)	4,00,017 (4.3)	266	306
9. Far Western Terai	2,35,189 (2.8)	2,71,534 (2.9)	83	95
Terai Region (7-9)	23,89,417 (28.9)	28,81,585 (30.7)	258	311
Nepal (1-9)	82,56,625(100.0)	93,87,661 (100.0)	152	172

(Figures in brackets indicate percentages of totals)

Source: *Census of Population—Nepal* 1952-54. Department of Statistics. His Majesty's Government. Kathmandu and *Preliminary Results of National Census of Population of Kingdom of Nepal* 1961. Central Bureau of Statistics, HMG. Nepal, 1962.

of labour force in a country, for it can set a ceiling on man-power that can effectively participate in gainful economic activities. Generally underdeveloped countries have a high proportion of population under 15 and a low proportion over 60. Nepal is still in the first stage of evolution in the relative size of age-groups marked by "heavy youth dependency".[2] About 40 per cent of the population in Nepal is under 15. This high proportion of children indicating a state of "heavy youth dependency" not only sets a ceiling on man-power supply but also acts as a heavy drain on family resources, in so far as each member of the family within the productive age-group has to support a large number of dependants.

This broad-based and sharply tapering age-distribution is the consequence of a high fertility level. The economy must support this huge unproductive population until the birth rate is considerably brought down; for a change in fertility is generally associated with a corresponding change in percentage of age-distribution. It is sometimes argued that a reduction in mortality rate enabling thereby more children to attain their adulthood, can alleviate the heavy burden of youth dependency. But so long as the level of fertility remains unchanged, the reduction of mortality leads to an increase not only in the number of adult workers but also in the number of parents producing again more children in their turn. It is believed that the rise in the number of children is somewhat greater than the rise in the number of workers.[3] Thus the decline in the level of fertility can alone be an effective solution to the problem of huge waste of scarce resources on account of maintaining the growing army of children in countries like Nepal.

2. F.W. Notestein has distinguished three stages of evolution in the relative size of age-groups. The first stage is characterised by "heavy youth dependency" when the proportion of children is high and that of old persons low, whereas the second stage is marked by "light dependency" when the ratio of children to adults has fallen considerably without yet being balanced by a corresponding increase in the ratio of aged dependants with the result that the combined proporion of the two groups to that of adults is low. The third stage, which is described as "heavy old-age dependency", is one in which the ratio of the aged to the adult working population is mounting at the rate no longer balanced by decline in the ratio of children. (*Determinants and Consequences of Population Trends*, 1953, U.N., p. 194.)

3. A. J. Coale and E. M. Hoover, *Population Growth and Economic Development in Low Income Countries*, 1959, p. 23, footnote 3.

The composition of population by sex at the time of census revealed that there were 100 males for 103 females. If the persons absent from home for six months or more were also counted, the ratio would be 100 males to 99 females. The ratio varied from 100:107 in the Eastern Hills to 100:91 in the Far Western Terai. This may be attributed partly to the fact that most of the males absent from home were from the Hills rather than from the Terai. How the sex-ratio influences the supply of labour force depends partly on the standard of behaviour accepted by the community about the status of women and partly on marital and economic conditions.

2. *Size of Labour Force by Age, Sex and Region*

The size of labour force or working population, may be defined as that portion of the population which is considered to be economically active. Following the "Labour force" approach, the "Census of Population of Nepal, 1952-54" has included in the economically active population all those who "were either working or had a job from which they were temporarily absent or were looking for work at the time of census." Persons "engaged in their own home—housework, students, persons too young to work, the handicapped, the retired—whether self-supporting or supported by others, those living in institutions, beggars and others not available for work" have been considered to be economically inactive and thus excluded from the labour force. On this basis, the size of labour force in 1952-54 was 4.1 million which comprised 2.4 million males and 1.7 million females. The labour force participation rates worked out to be 60.7 and 40.4 for males and females, respectively. The combined rate for both sexes stood at 50.4. This high rate of participation in Nepal may be attributed largely to the high rate of participation by women in the labour force. In a purely agricultural country like Nepal where farm enterprises are organised on family basis, women can participate as actively as men in all agricultural operations. It may, however, be noted that there is often great difficulty in distinguishing the active females from the inactive ones. The accuracy of the rate of women's participation in labour force depends largely upon how correctly the census returns were collected.

Children's share in labour force is also quite significant in Nepal. The children under 15, for example, accounted for 6.2 per cent to the total labour in Nepal as against one per cent or less, in North America, Northwest Europe, Japan, Australia and New Zealand. A high proportion of children in labour force is characteristic of many usderdeveloped countries. In most of the Latin American countries child-workers constitute well

over 5 per cent of the total working population. The contribution of old persons over 60 is, however, low in Nepal, accounting for only 3.9 per cent of the total labour force as against 7 per cent in France and 5 per cent in Japan, despite the fact that their rate of participation is very high. In industrialized countries, the rate of participation of aged persons is considerably lower than that in underdeveloped countries. The system of compulsory retirement, old-age pension and other social security measures have contributed to the low rate of participation in advanced countries, whereas in primitive agricultural countries like Nepal even old persons continue to work in farms until they are physically unfit. In every country, adult population provides the bulk of labour supply. It is indeed the backbone of labour force, both quantitatively and qualitatively. In Nepal it accounts for about 90 per cent of labour force.

The variations in labour force participation rate in Nepal by age and sex are shown in the table below.

Table 2:2

LABOUR FORCE PARTICIPATION RATE, 1952-54

Age Group	Male	Female	Both
All ages	60.7	40.4	50.4
Under 15	9.1	7.3	8.2
15 — 24	96.1	72.8	84.5
25 — 44	99.1	61.4	80.2
45 — 59	98.1	52.9	45.5
60 and over	61.4	22.6	39.8

There is also a significant regional variation in the labour force participation rate, particularly among females. The regional variation for males ranged from 57.6 per cent in the West Inner Terai to 67.8 per cent in the Mid-Western Terai, whereas the same for females ranged from 24.6 per cent in the Eastern Terai to 50.5 per cent in the Central Inner Terai. This wide variation for females is attributable to regional differences, partly in marital status and partly in economic conditions and social attitude towards women's participation in gainful pursuits. Despite all these differences, the labour force situation is fairly uniform throughout the country. This may be substantiated by the

fact that there is a high degree of correspondence between the proportion of population and the proportion of labour force in each region. This may be seen from the following table.

Table 2:3

LABOUR FORCE SITUATION 1952-54

Region	*Regional Population as Percentage of Total Population*	*Regional Labour Force as Percentage of Total Labour Force*
1. Eastern Hills	20.7	21.7
2. Western Hills	39.1	41.4
3. Kathmandu Valley	5.0	4.4
Hills Region	64.8	67.3
4. East Inner Terai	2.3	2.1
5. Central Inner Terai	2.9	3.2
6. West Inner Terai	1.1	1.0
Inner Terai Region	6.3	6.3
7. Eastern Terai	21.9	19.1
8. Mid-Western Terai	4.2	4.4
9. Far Western Terai	2.8	2.9
Terai Region	28.9	26.4
All Nepal	100.0	100.0

3. *Future Trends in Population and Labour Force*

The magnitude of the problem involved in the process of economic development in Nepal on account of a single strategic variable, namely, population, may be ascertained, rather very roughly, on the basis of the probable size and structure of population over period of next 20 years. However, in the absence of any comprehensive and reliable data, it is hazardous to predict the future trends of population in Nepal. Yet the importance of some rational projection of the future behaviour of this major economic variable need not be exaggerated, specially in countries like Nepal where economic development is now

visualized on a somewhat planned basis. In fact, the problems of production, employment and investment cannot correctly be gauged without any reference to some expected size and composition of population. "A careful appraisal of the available statistics, even though they are fragmentary and defective, can yield future population estimates that have practical utility for planners, just as weather forecasts, fallible as they are, have a practical value for farmers".[4]

It is believed that there is evidence of partial population counts during the 19th century. The first census of population for which aggregate figures are available was taken only in 1911 and since then censuses were taken roughly every decade. However, it was not until 1952-54, that the census was taken on a scientific basis and the data were tabulated more or less in conformity with international patterns. As aptly remarked, the earlier censuses were merely a "stock-taking" without any information on demographic, social and economic characteristics of population. The census of 1952-54 was also conducted in two stages. Part of the country was enumerated in 1952 and the rest in 1954. It was only in 1961 that the population census was taken at a time all over the country. The following table brings out the results of the past censuses:

Table 2:4

GROWTH OF POPULATION, 1911-1961

Year	*Population*	*+ Growth or —Decline*	*Percentage Change*
1911	56,38,749	—	—
1920	55,73,788	64,961	—1.2
1930	55,32,574	41,214	—0.8
1941	62,83,649	+7,51,075	+13.5
1952-54*	84,73,478)	+21,89,829)	+34.8
1954†	86,61,853)	+23,78,204)	+37.8
1961	97,53,378	+10,91,525	+12.6

*Actually enumerated.

†After adjusting part of population enumerated in 1952.

4. *Methods For Population Projection by Age and Sex—Population Studies*, No. 25, U.N., p. 1.

It is interesting to note that between 1911 and 1920, population declined by 64,961 persons. The explanation for this decline is twofold. First, it is believed that a large number of persons were swept away by the countrywide epidemic of influenza in 1918. Secondly, thousands of Nepalese were recruited in the Allied armies during the First World War. An English author has recorded that "During the 1914-18 war, 200,000 Gurkhas (Nepalese) volunteered for service with the British Army—a figure which represents something like 20 per cent of the eligible male population. During the course of this bitter and bloody struggle, the Gurkhas suffered a casualty which is a sad tribute to their courage and devotion, its final total reaching the shocking figure of 20,000—one man in every ten".[5] It is, therefore, most likely that these two sad episodes might have accounted for the substantial decline in population between 1911 and 1920. However, it is also equally probable that there might have been considerable under-enumeration in 1920, for, even if the population was growing on an average by one per cent every year between 1911 and 1920, there should have been an addition of more than five lakhs of persons. It is doubtful whether the casualties suffered during the two events had more than offset the natural increase in population.

Between 1920 and 1930, too, there was a further decline of 41,214 persons. This is again attributed to the fact that, because of a threat of war between Nepal and Tibet, people feared that census was taken for the purpose of making up lists for conscription of men into the army. It is unfortunate that the enumeration of 1941 was also affected by a large number of the Nepalese recruited for the Second World War and, to some extent, by heavy casualties in the earthquake of 1934. The number of reported deaths in the earthquake alone was of the order of 30,000,[6] while the war cost the lives of another 24,000 persons.[7] In spite of these heavy casualties, there was an increase of 7,51,075 persons in 1941 over 1930 or an increase of 1.2 per cent every year. If the unusual casualties of this period were commensurate with the possible under-enumeration in 1930, this rate would be an indication of population growth in Nepal between 1930 and 1941.

The census of 1952-54, though scientifically organised and enumerated, was conducted in two stages. Part of the country, as stated earlier, was enumerated in 1952 and the rest in 1954.

5. R. N. Bishop, *op. cit.*, p. 83.
6. D. R. Bhandary, *Nepalko Aitihasik Vivechana*, Banaras, 1958; pp. 310-,311.
7. R. N. Bishop, op. cit., p. 83.

If the population of 1941 is compared with the adjusted population of 1954, there was an increase of 37.8 per cent, showing an average annual increase of 2.9 per cent, which was more than double the rate observed between 1930 and 1941. Part of the explanation for this high rate of growth was attributed to the return of discharged military persons after the Second World War. The most convincing reason for this phenomenal increase should, however, be sought in the comprehensive and careful enumeration of 1952-54. It was only in 1961 that the population census was taken simultaneously all over the country showing an average annual growth of 1.8 per cent over the adjusted population of 1954.[8] The average rate of growth during the period of 43 years from 1911 was 1.2 per cent a year. It was 2.2 per cent over the period of 24 years from 1930 to 1954 and 2.9 per cent over 13 years from 1941 to 1954. Since all the censuses taken before 1952-54 were affected in varying degrees by under-enumeration or by unusual events such as wars, epidemics and quakes, these rates of growth do not serve any useful basis for the projection of future population trends in Nepal. It is only the average annual increase between the two scientific censuses (i.e., the censuses of 1952-54 and of 1961) which may be taken as indicating roughly a probable rate of growth in future.

Since the current size and structure of population is the result of past rates of fertility, mortality and migration, the same factors should obviously determine the future size and structure. As information on these variables is yet non-existent and the past rates of growth are but a poor guide, practical difficulties in predicting future rates of population growth in Nepal are clear. However, from the age distribution of population, marital status and deeply ingrained religious and cultural beliefs of the people as well as from the age-old agrarian character of the country, one may fairly assume high rates of both fertilily and mortality in Nepal. The high death rate is a consequence of poor standard of living, primitive sanitation and inadequacy of effective preventive and curative medical facilities, whereas the high birth rate is largely a result of traditional beliefs and customs. In a peasant economy like that of Nepal where the costs of rearing a child are very low, because education or schooling of children is not a matter of any serious concern to parents and where children also contribute at an early age to agrarian production and considered as a traditional source of security in the old-age of peasants, the burden of children is not properly

8. If those absent from home for six months or more and living outside the country were excluded from both the 1954 and 1961 censuses, the average annual rate of growth between the two periods would be only 1.6 per cent.

understood or not probably felt at all. The experience of the neighbouring countries, which are more or less under comparable conditions, shows that the rates of population growth vary from 1.5 per cent to 2.5 per cent or more in some cases. In all these countries, there has been a continuous rise in population owing to a stable fertility rate at a high level with a gradually falling mortality caused by an application of cheap and effective disease control measures. Some population projections of Nepal, which have been made in recent years, are also based largely on these common observations and experience of other countries. The results of these projections are presented below:

Table 2:5

NEPAL'S POPULATION PROJECTIONS, 1955-1975

Year	U.N.	U.N.	Thakur		Dept. of Statistics		
			High	Low	High	Medium	Low
	1	2	3	4	5	6	7
			(I) Size of Population (in thousand)				
1955	8,600	8,600	8,784	8,784	8,563	8,555	8,546
1960	9,140	9,400	9,379	9,303	9,243	9,180	9,107
1965	9,820	10,500	10,243	9,954	9,986*	9,839*	9,666*
1970	10,680	11,600	11,380	10,862	—	—	—
1975	11,750	13,100	12,876	12,046	—	—	—
			(II) Average Annual Rate of Growth				
1955-60	1·25	1·86	1·35	1·18	1·58	1·46	1·31
1960-65	1·58	2·34	1·84	1·40	2·00†	1·79†	1·53†
1965-70	1·75	2·09	2·22	1·82	—	—	—
1970-75	2·00	2·58	2·62	2·18	—	—	—

* For 1964 † 1960-64

Source: Col. 1, *The Population of Asia and the Far East*, 1950-1980, U.N. Dept. of Economic and Social Affairs, New York, 1959.

Col. 2, *The Future Growth of World Population*, 1955-1975, U.N. Dept. of Economic and Social Affairs, New York, 1958.

Cols. 3 and 4, H.N. Thakur, *Population Projection of Nepal*, 1955-1975, General Bureau of Statistics.

Cols. 5, 6 and 7, *Census of Population, Nepal* 1952-54 *op. cit.*

The projection made by the Department of Statistics is not of any use at present, for it is extended only up to 1964, whereas the U.N. estimate of 1958 (Col. 2 above) appears defective in so far as there is an abrupt fall in the rate of growth between 1965 and 1970. This is not consistent with the assumption of a stable fertility rate with a gradually falling mortality rate on which the projection was based. The two other projections, which have been considered here, have assumd fertility to remain constant at 44 (U.N.) and 50 (Thakur) over the entire period of projection. The U.N. assumption of fertility rate of 44 at the base year appears to be reasonable. Mr. Thakur has, however, claimed that even the rate of 50 is lower than the one obtained on the basis of reverse survival ratio method applied to 5-9 age group of the 1952-54 population. He has made the downward adjustment to 50 to allow for small amounts of possible shifting of children aged 3 and 4 in 5-9 age group, thereby bloating it up and making the sex-adjusted birth rate a little too large. In the case of mortality, Mr. Thakur has assumed that the expectation of life at birth at the base year is 27.5 and 25.0 years for males and females, respectively. This expectation is assumed to increase by one year per year throughout the period of projection in one case and by half year per year up to 1965 and thereafter by one year in the second. The U.N. projection is based on the assumption that the expectation of life at birth for both sexes is 30 years, which will be improved by only half year per year. While the expectation of life at birth at the base year appears to be a little high in the U.N. estimate, the assumption of improvement by half year per year is probably more realistic than the other assumptions, for the common experience of several countries is that when the expectation of life at birth is very low, a reduction in death rate results in an improvement of expectation normally by only half year per year.

On the basis of these projections it may be safely assumed that the rate of population growth in Nepal over the period of next one decade or so may far exceed 2 per cent per annum. If it is further assumed that the labour force participation rates for both male and female in each of the three broad age-groups (under 15, 15-59 and 60 and over) remain constant at the same rates as those actually observed in 1952-54 census results, the volume of labour force in Nepal on the basis of the estimated population will be as follows.[9]

9. The labour force participation rates for different age and sex groups undergo changes only with some significant changes in the socio-economic conditions and/or in the structure of population. With the scale of development works as visualized for the coming years, it would be rather unrealistic to assume any such changes in the

(contd.)

Table 2:6

ESTIMATES OF LABOUR FORCE, 1955-1975

Year	*As per U.N. Population Projection*	*As per Thakur's Population Projection*	
		Low	*High*
	(i) Size of Total Labour Force (in thousand)[10]		
1955	4290	4180	4180
1960	4530	4415	4441
1965	4834	4740	4837
1970	5223	5234	5420
1975	5708	5806	6134
	(ii) Size of Adult Labour Force only (in thousand)*		
1955	3848	3713	3713
1960	4053	3933	3953
1965	4316	4219	4293
1970	4651	4666	4811
1975	5070	5169	5407

*Age group 15—59

socio-economic setting of Nepal by 1975 as might affect significantly the labour force participation rates for different age and sex groups. The experience of several countries also indicates that the participation rates except for children, have remained more or less constant over a long period of time.

10. Based on the following participation rates by age and sex groups which were actually found in 1952-54 census of population:

Age group	*Male*	*Female*	*Both*
Under 15	9.1	7.3	8.2
15—59	97.9	61.0	80.2
60 and over	61.4	22.6	39.8

The volume of additional labour force in 1975 over 1955 will thus vary from 19.54 lakh persons to 15.28 lakh persons of whom the adults in the age group of 15-59 alone will number between 16.94 lakh and 13.57 lakh. These figures give a rough idea of additional employment required to absorb the annually grouping labour force, ignoring altogether the existing backlog of unemployment and under-employment. If employment opportunities outside agriculture are not growing at the same rate as the increase in labour force, there will be a corresponding increase in the pressure of population on land, resulting not only in a further accumulation of idle man-power on land, which will act as a heavy drain on potential capital formation, but also in an operation of the law of diminishing returns in a more accentuated form, impairing thereby even actual capacity of saving and investment. The magnitude of investment required to absorb the annually growing labour force in the non-agricultural sector may not probably be less than Rs. 400 million a year—the amount which is almost twice as much as the total outlay on the Five Year Plan financed largely from external resources in the form of outright grants!

It appears from the foregoing account that the prospect for initiating a fairly high rate of economic growth in Nepal in the face of mounting pressure of population is very bleak. Even if the country is somehow prepared to make "critical minimum efforts" required to raise the rate of output well above the population growth for some time, yet it is very likely that the economy may eventually degenerate itself to the original position of stagnation, unless the initial efforts were sustained even on a greater scale, until the birth rate, under the impact of initial development efforts, responds favourably and takes a downward course with the death rate.

The commonly observed historical facts of demographic transition in Europe and some other parts of the world indicate that in the course of economic development there is always a long time lag between the decline in the death rate and the decline in the birth rate, resulting in substantial increase in population. If the same course of events is repeated in low-income countries, then, as the low-income agrarian economy characterised by a high death rate and a high birth rate, undergoes a process of economic transformation, first the average death rate starts to decline, partly as a consequence of improvement in the living standard and changing economic environment and partly as an impact of extension in medical care and public

health services. The experience of some newly developing countries tends to suggest that the part of fall in the death rate, which is attributable to improvement in medical practices, is even more spectacular than that part which is due to improvement in the standard of living. The underdeveloped countries like Ceylon and Malaya, for example, have substantially brought down their death rate without any fundamental change in their economic structures. In other words, a marked decline in mortality rate is now possible even without any substantial improvement in living conditions. Obviously this is due to the development of antibiotics and insecticides along with the innovation and extension of less expensive methods of public sanitation.

Though it is difficult to describe in any precise manner the expected behaviour of vital events in underdeveloped countries in the course of their economic development, yet it appears that the population problem in these low-income countries may be more serious than it was ever before in the European countries where populations were probably never anywhere near 3 per cent per annum. Even in their initial stages of development, the birth rates were not so high as 40 or more as they are to-day in a number of low-income countries. In the course of their development, too, the death rates went down so gradually that the birth rates had also begun to fall before the death rates reached their lower levels. The course of events in the underdeveloped countries like Nepal may be somewhat different. Here the death rate is likely to decline with a spectacular speed even if the initial rate of economic development is modest. This may happen under the impact of effective control of epidemics and other diseases through the expansion of preventive and curative medical facilities. In view of the limited resources now available for looking after a number of pressing needs, the provision made for social services in contemporary economic plan of underdeveloped countries is fairly high. In Nepal, it was 17.4 per cent of the outlay in the Five Year Plan and 17.1 per cent in the Three Year Plan. Though the health statistics are not available, yet life expectancy is known to be low and maternal and child mortality to be high. Intestinal parasites, filaria, tuberculosis and veneral diseases are common.[11] Malaria alone affected about 30 per cent of the two-thirds of the population living in malarial areas. (Dr. Taylor reported that out of 785 patients examined in Central Nepal, 121 had amoebiasis.[12] In his opinion, the principal health problem

11. *Five Year Plan—A Synopsis, op. cit., p.* 69.

12. Carl E. Taylor, *A Medical Study of the Kali Gandak and Pokhara Valley of Central Nepal, Geographical Review*. XLI, 1951. p. 929. Quoted by P. P. Karan, *op. cit.*, p. 74.

in the hilly parts of Nepal is amoebiasis and there is a correspondingly high incidence of other intestinal infections. Though the existing public health services in Nepal are exceedingly inadequate,[13] yet the recent trends suggest that the increasing efforts will be made in this direction when development programmes will be launched on larger and more ambitious scales in future. This will also contribute to a progressive decline in the death rate.

Apart from the division of labour, urbanisation and changing status of women, which are all likely to follow the process of economic transformation, the primary reason for the decline in the birth rate in due course with a falling death rate is said to be the decline in the death rate itself. If the infant mortality is high, a family desirous of having just a few adult children must give birth to a large number of children. When more children survive, parents realise the burden of having more children when a small number of births can satisfy their urge for family continuity, need for support in old age etc. The parents may then change their attitude in favour of having a small number of births. The birth rate thus declines automatically, after a time lag, depending upon how fast the parents change their attitude towards child-bearing. In a country like Nepal where literacy percentage is probably the lowest in the world and where the outlook of the masses in rural areas is dominated by a deep sense of fatalism and where value judgements are based on primitive beliefs and taboos, it would be rather quite unrealistic to expect anything more than a slow change in the attitude towards child-bearing, even when the death rate makes a marked decline.

4. *Qualitative Aspects of Labour Force*

There is a growing tendency in recent years to place much more emphasis than ever before on human investment. The entire session of ECAFE Working Party on Economic Development and Planning in 1959 was devoted to discussions on this subject. The Economic Commission for Europe has also found in one of its recent studies that in the post-war economic development of the Western countries, "Inputs of labour and capital account form only a part—and often a relatively small part—of growth and that more intangible factors, whether they are labelled 'technique

13. Until 1956, Nepal had altogether 625 hospital beds. There were only 34 hospitals, 16 modern dispensaries and 15 health centres manned by not more than 50 qualified medical officers. At the end of the Five Year Plan in 1961, 105 new hospital beds were added and 44 health centres were opened. The number of doctors, nurses and health assistants were also increased by 96, 30 and 65, respectively. About 20 lakhs of people were also protected from malaria.

or 'organization' or 'the human factor, play a very important role."[14] This may be attributed largely to the fact that "The major capital stock of an industrially advanced country is not its physical equipment; it is the body of knowledge amassed from tested findings and the capacity training of the population to use this knowledge effectively."[15]

Quite different, however, is the situation facing countries like Nepal where poor education and low skill-formation, combined with malnutrition and unhygienic conditions of living, result in an invariably low quality of labour force incapable of quick adaptation and assimilation of immense innovational possibilities generated in the course of a long and painful development of the so-called industrialized countries of the West.

Nepal is one among the few countries having the lowest percentage of literacy and the lowest level of education. The accompanying table shows that only 8.2 per cent of males and 0.7 per cent of females, 5 years old and above, claimed themselves to be able to read and write. There were (are?) places where literacy percentage of females was as low as 0.1 (e.g., Dailekh, Puithan and Dhading in Western Hills, Kabre Palanchok, Chisankhu and Mazhkirat in Eastern Hills and East Inner Terai) and that of males approaching to only 2.3 per cent (e.g., Jumla in Western Hills). The level of education as indicated by the number of examinations passed by the people was also extremely low. Only 0.5 per cent of males and less than 0.1 per cent of females passed primary, secondary or higher examinations.

In recent years, the position has been gradualy changing. The growing number of educational institutes, students and teachers is quite indicative of this improving situation. Between 1954 and 1961, the number of educational institutes increased from 1334 to 4043, whereas the numbers of students and teachers went up from 73,206 and 3,610 to 2,08,689 and 9,320, respectively. There is, however, a considerable imbalance in the regional distribution of population and educational facilities. On the whole about 15 per cent of primary school-age children and 2.6 per cent of secondary school-age children were reported to have been enrolled in 1961. The regional percentages varied from 2.8 per cent to 36.2 per cent in the case of primary education and from 0.3 per cent to 20.7 per cent in the case of secondary education. While the country as a whole is yet inadequately served with educational

14. *Economic Bulletin for Asia and the Far East, Vol.* XII, No. 3 Dec., 1961. p. 7.
15. *Processes and Problems of Industrialization in Underdeveloped Countries,* U.N., New York, 1956, p. 5.

Table 2:7

Literacy and Level of Education, 1952-54

(As percentage of persons, 5 years old and above by sex and regions.)

Region	Literacy		Level of Education							
			Primary Examination		Secondary Examination		Higher Examination		Total passing exams.	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Eastern Hills	7·4	0·2	0·1	—	—	—	—	—	0·1	—
Western Hils	7·7	0·3	—	—	—	—	—	—	0·1	—
Kathmandu Valley	27·2	6·0	3·1	0·3	1·3	0·1	0·7	—	5·3	0·4
Central Inner Terai	4·7	0·3	—	—	—	—	—	—	—	—
West Inner Terai	7·8	0·5	1·0	—	—	—	—	—	0·1	—
East Inner Terai	5·0	0·1	—	—	—	—	—	—	0·1	—
Eastern Terai	7·3	0·8	0·3	—	0·1	—	—	—	0·6	—
Mid-Western Terai	7·0	0·7	2·0	—	0·1	—	—	—	0·3	—
Far-Western Terai	4·3	0·8	0·1	—	—	—	—	—	0·2	—
Nepal	8·2	0·7	0·3	—	0·1	—	—	—	0·5	—

Note: Insignificant percentage of less than 0.1% is not shown in the Table.

Source: *Census of Population, op. cit.*, pp. 39-43.

facilities, it appears that most of the interior parts of the Hills and the Terai are more inadequately provided with these facilities than the rest of the country.

Table 2:8

GROWTH OF EDUCATION

Year	*Primary School*	*Middle School*	*High School*	*College*	*Total*	*Index of Growth*
		1. No. of Educational Institutes				
1954	921	316	83	14	1334	100·0
1961	3845*		156	33	4034	302·4
		2. No. of students				
1954	26186	33408	12697	915	73206	100·0
1961	176701*		26845	5143	208689	285·1
		3. No. of Teachers				
1954	1278	1325	921	86	3610	100·0
1961	7331*		1572	417	9320	258·2

*Primary and middle schools combined.

Source: Hugh B. Wood and Bruno Knall, *Education Planning in Nepal and Its Economic Implications* (Draft Report of the UNESCO Mission to Nepal), Kathmandu, May 1962, p. 25.

Since 1951, large numbers of students have also been sent outside the country for higher education and training under His Majesty's Government and foreign government scholarships. Out of 2,163 students, who received these scholarships between 1951 and 1961,[16] 1567 have already completed their studies. Within the country itself, training facilities have been made available mostly for lower grade personnel through a number of technical institutes. At present there are nine such institutes in operation at Kathmandu.

16. 'Number of scholarships granted by each government is as follows: His Majesty's Government, 189; India, 1401; U.S.A. 225; Malaya, 100; U.K. 62; USSR, 61; Australia, 22; Pakistan 28; China 14; Israel, 14; and Burma, West Germany, Japan, Czechoslovakia, Ceylon, New Zealand, Poland, Hawaii, Canada, France and Yugoslavia together 47.

Table 2:9

TRAINING IN FOREIGN COUNTRIES, 1951-1961

No.	Subject	Total No. of Students Sent	Attrition	No. Remaining in Study	No. Returned	No. Known to be Employed	Disposition Unknown
1.	Mining, Engineering and Industry	674	38	200	436	87	349
2.	Agriculture, Co-operation and Village Development	344	4	100	240	118	122
3.	'Aviation, Communications and Publicity	109	1	4	104	64	40
4.	Forestry	55	1	13	41	27	14
5.	Survey and Statistics	26	1	2	23	NA	23
6.	Health	418	50	110	258	65	193
7.	Administration	53	2	1	50	13	37
8.	General Education	415	18	41	356	106	250
9.	Others*	69	2	8	59	31	24
		2163	117	479	1567	511	1056

*Include Law, Tourism, Police, Tax, Customs, Excise, Fine Arts and Crafts.

Source: *Progress Report of Five Year Plan, op. cit.*, and Wood and Knall, *op. cit.*, p. 56.

The expansion of education in Nepal during the past decade is not without any flaws. The attempts so far made in this direction have but a very limited relation to man-power requirements of the country. Under the existing conditions, when the country needs a fast multiplication of hands trained in technical subjects and productive crafts, the emphasis so far placed on consumptive type of general education appears to be out of all proportions. While a smooth execution of development programmes, even on a modest scale, has so far been handicapped, among other things, by a critical shortage of trained hands almost at all levels of operation, the annually growing university graduates now find no ready market for their service. This signifies that a large amount of funds allocated to higher education in Nepal fail to produce skills readily saleable in the labour market. In effect, all this amounts to a huge wastage of scarce resources on both national and individual accounts. A proper allocation of resources thus needs a complete reorientation of policy in favour of vocational and technical education in relation to some rational calculation of man-power requirements of the country, or else forced idleness may become a rule rather than an exception among the college and university turnouts in the near future.

The existing system of education also entails a considerable wastage in time, energy and resources due to a high percentage of failure in examination. The results of past few years indicate that half or even more of the students failed in secondary, intermediate and baccalaureate examinations. Failure in examination, as elsewhere, entails either an intangible loss in the form of despair and degradation or a tangible loss in the form of repetition of efforts and duplication of resources or both. This may again be attributed to a number of mutually reinforcing factors of which the faulty evaluation and examination system, indiscriminate admission and enrolment, defective curricula and poor materials and methods of training deserve a close consideration. If the existing wastage on this account can alone be reduced, education even within the present system will be less expensive and more productive than what it is at present.

Finally, there is still a considerable scope for an effective utilization of skill acquired by the Nepalese students in foreign countries under different scholarships, mostly grants in aid by friendly nations. As Table 2:9 on page 46 reveals, the disposition of more than two-thirds of the students already trained and returned home is not known. If this figure is unquestionable, it tends to indicate an absence of any proper plan for training students for specific jobs and placing them in these jobs soon after their return from abroad. Of course, it is the general policy of the Government that those who receive training under scholarships should serve the Government for a period of 3 to 5 years. If this

policy has been enforced in practice, the question of indisposition of the trained students in large numbers should not have arisen at all. "In many cases, there is no written bond and the grantee may not feel a strong moral responsibility to the Government, so he takes other employment. In other cases, there has been no employment available to the returning grantee. In still other cases, the returning grantees have been placed in government positions having little or no relationship to their training."[17] It appears that wastage of available talent is probably as serious a problem as shortage of talent in underdeveloped countries like Nepal.

Table 2:10

PERCENTAGE OF FAILURE IN EXAMINATIONS

	Period	*No. of Students Taking Exam.*	*No. of Students Failing in Exam.*	*Col. 4 as percentage of Col. 3*
1	2	3	4	5
Secondary Examination*	1952–61	20,522	12,318	60.04
Intermediate† ,,	1955–61	4,042	2,354	58.23
Baccalaureate§ ,,	1955–61	2,191	1,066	48.65

* School Leaving Certificate Examination.

† Intermediate Arts, Science, Commerce and Sanskrit Examinations.

§ Bachelor of Arts, Science, Commerce, Education, Law and Sanskrit examinations.

Source: *S.L.C. Board*, Education Ministry, HMG and *Examination Board, Tribhuvan University*, Kathmandu (Quoted by Wood and Knall, *op. cit.*, pp. 42 and 54).

The agrarian economy bound up with family units, clans or communities, does not generally create suitable conditions for an emergence of a new industrial leadership or for growth of entrepreneurial ability which is essentially a crucial factor in the process of economic transformation of a society. It is the specially motivated and talented type of individuals called entrepreneurs who alone can undertake a combination of factors by introducing new goods and new methods, exploiting new resources and opening new markets. In the absence of such creative and innovational qualities in individuals, mere accumulation of

17. Wood and Knall, *op. cit.*, p. 57.

capital and reserve of unused resources cannot by themselves initiate the process of development. As Schumpeter asserts, "It is the leadership rather than ownership that matters."

The social organisation built up on closely-knit peasant families and well-integrated village communities also exert a considerable immobilising influence upon labour, for the emotional attachment to family or community may be so strong that it cannot be easily superseded by mere monetary incentives. Besides, a rigid occupational stratification by caste, reinforced by primitive beliefs and value judgements based on age-old fatalism, is also acting as a barrier against all possible attempts towards occupational changes and penetration into new fields of economic activities so as to provide potential industrial leadership and entreprenuerial ability. A tendency towards immobility may be observed in recent years even among the educated persons in Nepal. Generally they do not prefer to move out of the capital town of Kathmandu. In fact, this is partly responsible for some signs of idleness among them at present. Particularly in Nepal, the physical barriers and transport inconveniences have also made all the more difficult a free mobility of labour between regions. Nepal is, therefore, characterised more by closed and isolated village economies at subsistence level rather than by integrated and inter-connected economy at national level.

Chapter 3

AGRICULTURE AND FOOD SUPPLY

1. *The State of Agriculture*

Nepal is probably one among the few countries whose material prosperity is inextricably bound up with agriculture. However, the existing state of agriculture in Nepal is far from satisfactory. It is conspicuous, on the one hand, by the mounting pressure of population and primitive conditions of production and, on the other, by the irrational distribution of land and insecurity of tenure. Rationalization of agriculture in the sense of higher productivity per man and acre presupposes, under these conditions, a substantial improvement both in land tenure and factor-combination.

The increasing accumulation of labour force on land over the period of past decades has already raised man-land ratio out of all proportion, especially in the Hills-region. The first "Sample Census of Agriculture" has revealed that total arable land in Nepal is only 4.2 million acres, representing just 12.2 per cent of total geographical area of the country.[1] While an average size of a household in Nepal consists of 5.26 persons, an average size of arable land per agricultural household measures just 2.83 acres, which appear to be rather too small a size for full and effective utilization of latent potentialities of labour force on land. The per capita arable land now available in the country is only 0.47 acre which is very inadequate, particularly under the existing conditions of agriculture, for sustaining a reasonable standard of living.

1. No complete land survey has so far been carried out in Nepal. The first "Sample Census of Agriculture" was conducted only in 1961 in response to a request made to all member countries by FAO in 1960. The sample census covered the whole Kingdom of Nepal, except the districts of Jumla and the trans-Himalayan portions of the districts whose boundary limits extend in the north to the Himalayas. The sampling unit was a village. All the villages recorded in the population census of 1961 were classified on the basis of the number of households per village into four strata in the case of Hills and three in the case of Terai. For each district ten per cent of the villages were selected from each stratum by the random selection method and a complete enumeration was carried out in each of the selected villages.

Table 3.1

ARABLE LAND, 1961

(Area in Acres)

No.	Region	Arable Land (A)	Arable Land as % of Total Area	Per Capita Arable Land (C)	Average Size of Arable Land per Agricultural Family.	Average Size of Family
1.	Eastern Hills (B)	4,34,164	6.7	0.24	1.42	5.52
2.	Western Hills (B)	6,77,315	3.5	0.18	1.14	5.31
3.	Kathmandu Valley	67,065	48.1	0.14	1.15	5.28
	Hills-Region	11,78,544	4.6	0.21	1.23	5.39
4.	East Inner Terai	1,16,059	9.9	0.66	3.76	5.02
5.	Central Inner Terai	1,31,616	8.4	0.54	3.83	6.04
6.	West Inner Terai	1,43,527	31.4	1.45	10.94	7.19
	Inner Terai	3,91,202	12.2	0.75	5.00	5.79
7.	Eastern Terai	18,49,982	56.5	0.83	5.13	4.90
8.	Mid-Western Terai	4,20,525	50.2	1.05	5.85	4.66
9.	Far-Western Terai	4,00,066	21.9	1.49	12.52	6.18
	Terai	26,70,573	45.0	0.92	5.77	4.96
	All Nepal	42,40,319	12.2	0.47	2.83	5.26

(A) Arable land includes land under seasonal crops and current fallow defined as one where no crops are grown for a maximum period of four years. It excludes land under tree-crops, groves, orchards and permanent pastures.

(B) These two regions do not include the whole district of Jumla together with the trans-Himalayan portions of those districts where boundary limits extend to the Himalayas. The per capita arable land for these two regions is worked out by deducting the part of population in Jumla and the trans-Himalayan portions of other districts. The population of these areas is estimated by multiplying the total number of households by the average number of persons per household in each district where the sample census could not cover the entire area.

Source: *Sample Census of Agriculture*, Nepal 1962 (Preliminary Reports), Central Bureau of Statistics, HMG and *National Census of Population of Kingdom of Nepal.*

The problem of high man-land ratio would not have been so severe even if the distribution of arable land were fairly proportionate to the existing geographical distribution of population in the country. Table 3:1 above shows that the per capita arable land or the average size of arable land per agricultural household in the Hills-region is less than one-fourth of that in the Terai where the flat and rolling topography lends itself admirably to extensive cultivation. This explains precisely why the arable land in the Terai accounts for as high as 45 per cent of the total geographical area as against 4.6 per cent in the Hills-region where the mountainous topographical structure severely limits the scope for further reclamation of land on an extensive scale. In fact, a large part of easily accessible land surface of the mountainous ranges have long been hacked out quite meticulously for what is called the "terraced and slope-cultivation."[2]

The possibilities for agricultural development in Nepal include, among other things, an expansion of arable land by 0.44 million acres[3] and an increase in double cropping area by

2. The bench-terrace cultivation is very striking in the hilly parts of the country. Describing the overcrowding conditions of agriculture in "Central Nepal Himalaya," the scientific expedition team of Japanese scholars observed that, "Every patch of ground which can render a reward for labour is sought. Slanted mountain sides which can support terraced fields are all under cultivation. The scene on the high hillside with many levels of terraced paddy fields is a monument to the generations of Nepalese to make arable land for their livelihood." (*Cf.* H. Kihara ed.), *Land And Crops of Nepal Himalaya,* Vol. II, Kyoto, Japan, 1956, p. 95.) A Danish Journalist, being wonderstruck at the sight of terraced farming in one part of the Hills-region in Nepal, described the situation in the following words: "Each hut was surrounded by a web of long, narrow terraces planted with potatoes, barley or corn. At one place I counted eighty-two terraces, as regular as a staircase. It must have taken the owner about an hour to climb from the lowest to the highest of his fields ..... it had taken many hundred years to build them, but the oldest ones hardly yielded anything. Every year the people had to add some new terraces. There were hardly any mountainsides left which could be brought under cultivation, but there was an ever-increasing number of mouths to feed ..... " (*Cf.* Karl Eskelund, *The Forgotten Valley—A Journey into Nepal,* London, 1959, pp. 109-11.)
3. Though a precise figure cannot be determined without more detailed surveys, it is clear that the total land available for increasing the area of cultivation cannot be more than a small fraction of the area already cultivated. "Farmers in most parts of Nepal have pushed

(Contd.)

about 1.45 million acres, provided adequate irrigational facilities could be made available for both the purposes.[4] Even on the assumption that these possibilities will be fully exploited over a period of next decade or so, which is rather very doubtful, the high rate of population growth and consequent pressure on land, are very likely to keep the man-land ratio almost as high as it is at present, unless a large proportion of annually growing labour force is absorbed elsewhere outside agriculture. It has been estimated that the size of population after a decade will be somewhere around 12 millions, while the total arable land at the most will never exceed 6.18 million acres, thus keeping the per capita arable land around 0.51 acre or slightly more.

Where the density of population on land is very high, an average size of holding should necessarily be small. Where the average size of holding is small and land distribution is sharply skewed, a larger number of farms should be smaller than the average. This is exactly the position in Nepal where the average size of arable land per agricultural family is only 2.83 acres and two-thirds of the land belongs to large landowners.[5] Most of the holdings are too small to provide sufficient means of livelihood.[6] A pilot survey carried out in Kathmandu Valley reveals that in most of the villages examined, the size of a family farm varied from only 1.0 to 1.5 acres.[7] A similar survey of 143 family-holdings of five villages in Kathmandu Valley has also indicated the same situation which may be seen from Table 3:2 on p. 54. This situation is not peculiar to Kathmandu Valley alone. In fact, it is a common feature of almost all the hilly parts of the country. For instance, a socio-economic survey of 212 families in four villages of Pokhara Valley in the Western Nepal has revealed that, except in one village, majority of family holdings measure 10 ropanis (1.3 acres) or less, whereas 16 families do not possess any land at all. The families having more than 20 ropanis (or 2.6 acres) account for less than one-fifth of the total families having land for cultivation. The number of holdings in different size-groups are as set out in Table 3:3.

the limits of cultivation as far as they can with the technological resources at their command. Extension of cultivation, therefore, will be a slow and expensive process, and at best limited in scope." (P. P. Karan, *op. cit.*, p. 45.)

4. E. Rauch, *Agriculture of Nepal: Suggestions for Its Development*, 1950/51, *op.cit.*, p. 6.
5. E. Rauch, *Report to the Government of Nepal on Farm Enterprises*, *op.cit.*, p. 3.
6. E. Rauch, *op.cit.*, p. 5.
7. E. Rauch, *Farm Enterprises op.cit.*, p. 6

Table 3:2

SIZE OF HOLDINGS IN SELECTED VILLAGES OF KATHMANDU VALLEY

Size of Holding in Village	*Pharping*	*Sundarijal*	*Budanil-kantha*	*Halchok*	*Nakadesa*	*Total*
Under 1.24 Acres	19(82.6)	15(75.0)	18(60.0)	27(90.0)	35(87.5)	114(79.7)
1.25 to 2.50 Acres	3(13.0)	4(20.0)	6(20.0)	3(10.0)	3(7.5)	19(18.3)
Over 2.5 Acres	1(4.4)	1(5.0)	6(20.0)	—(0.0)	2(5.0)	10(7.0)
Total Farm Holdings	23(100.0)	20(100.0)	30(100.0)	30(100.0)	40(100.0)	143(100.0)

(Figures in brackets indicate percentages of the totals.)

Source: P. P. Karan, *op. cit.*, p. 39.

Table 3:3

Size of Holdings in Selected Villages of Pokhara Valley

Village	Size of holdings in Ropani*							Total No. of Family Holdings
	Below 1	1—2	2—3	3—5	5—10	10—20	Over 20	
Batulechaur	5(10·4)	0(0·0)	2(2·1)	4(8·4)	19(39·6)	8(16·6)	10(20·8)	48(100)
Arghau	0(0·0)	3(3·2)	2(3·2)	3(4·8)	11(17·4)	14(22·2)	30(47·6)	63(100)
Bhalam	0(0·0)	(2·69)	2(6·9)	3(10·3)	10(34·5)	10(34·5)	2(6·9)	29(100)
Armala	6(10·9)	6(10·9)	7(12·7)	6(19·9)	14(25·5)	9(16·4)	4(7·2)	55(100)
Total	11(5·6)	11(5·6)	13(6·7)	19(9·8)	54(27·7)	41(21·0)	46(23·1)	195(100)

*One ropani is equal to 0.13 acre. Figures in brackets indicate percentages of the totals.

Source: B. P. Shreshtha, *Report on Village Development in Pokhara*, Department of Economics, Tribhuvan University, 1963, p. 11.

From a preliminary survey of 268 farm families having an average cropped area of 1.8 acres each in Kathmandu Valley, where cultivation is more intensive than elsewhere in the country, it was found that as many as 220 families (each family having seven members on average) had to buy food for their own consumption on an average of Rs. 300 per annum.[8] It thus follows that the crucial problem facing Nepal is not only one of economic operation of land so as to relieve land of the increasing pressure and reduce the degree of underutilization of labour power, but also one of minimum size of operation which can promise at least a minimum subsistence to the tillers.

However, the situation in the Terai, particularly in the Western parts, is very much different. Here the problem at places is even one of labour shortage in relation to readily available or easily cultivable land. In fact, vast tracts of fertile land are found to be underutilized or left altogether as current fallow for no other convincing reason than the short supply of manpower. The cultivated land largely owned by a few big landlords does not extend beyond a few miles from the nucleated centre of human habitation representing a handful of peasant households. Though the Hills-region accounts for about two-thirds of the total population, yet the arable land available here is less than one-fourth of that in the Terai. This explains precisely why the net per capita arable land in the Hills is only 0.2 acre as against 0.9 acre in Terai. In fact, the average size of land holding per agricultural family in the Far Western Terai is eleven times larger than that in the Western Hills.

It thus appears that some consistent efforts on a long-term basis for a gradual integration of the two segmented and practically isolated economies of the Hills and Terai can alleviate the problem of increasing pressure of population on land in the Hills and create conditions required for a more rational combination of the two crucial factors, namely, land and labour, both of which remained so far underutilized for one of the simple reasons that there is no proper ratio between these two factors in either regions. Since land is immobile by nature, the combination of surplus labour of the Hills with the underutilized land of the Terai needs a planned migration of population from the Highland to the low land of the Terai. Such a planned migration of population presupposes, among other things, a planned programme of rehabilitation, so that there remains basically one problem, namely, the problem of adaptation to new physical, social and cultural environment. The process of social adjustment and cultural assimilation is usually very slow and difficult, yet the

8. *Ibid.*, p. 10.

economic incentives in the form of new opportunities for a better and more secured life may gradually supersede the existing nature of immobility on the part of the people. So long as the potentially surplus Terai is left to remain in isolation, the scope for raising the standard of living of the vast population in the deficit area of the Hills is severely limited by the existing disproportionate factors-combination. Even for political unity and emotional integration on a national scale, it is necessary that the present economic disparities between the two regions be reduced to their minimum through a planned programme of economic integration.

The method of cultivation in Nepal is, as yet, very primitive. The agricultural implements, which were found in use by Kirkpatrick in 1793, are still being used practically without any substantial improvement.[9] Perpetuation of the outdated modes of production should not, however, be attributed altogether to inertia or any deep-rooted prejudice of rural folks against technical change. In fact, the rural folks, though illiterate and ignorant, appear to be quite liberal and receptive in their attitude towards any change for the better. They do not seem to have been misled by an illusion of "what is old is gold". Yet one finds them using the same antiquated tools and traditional manure, not because they have any sentimental attachment to cowdung or any special fascination for the primitive wooden plough, but because they are either ignorant of better alternatives or the so-called better alternatives have not so far been within their reach. From whatever attempts that have been made for introducing better techniques and materials, the results so far have not fully convinced the villagers that the so-called better alternatives are really superior to their own old ones. This may be either because the essence of the so-called improved alternatives has not so far been fully assimilable and intelligible to the folks or because the demonstration and dissemination of information on the better methods have not yet been extended to the thresholds of the rural folks. All this may again be the result of the fact that the attempts have been made so far either on a limited scale or in an improper way.[10]

While the improved types of implements are known but little to the peasantry, the number of traditional implements now available do not seem to meet the needs. "The Halo (plough) which is the most universally used major farm equipment in the country, is in such short supply that there is on an average not even one per family in three villages out of four" examined in Pokhara. "About 40 per cent of the families do not possess

9. *Ibid.*, pp. 100-101.

10. *Cf. Report on Village Development in Pokhara, op.cit.*

any Halo at all, while more than half of the families possess not more than one per family. There is but one family out of 212 having more than 5 Halos at its disposal." Even in the case of a simple but essential implement like Kuto (large hoe), the position is not encouraging. "The number of families having not even one Kuto at their disposal account on the whole for as high as 44.8 per cent" and in all the villages the overwhelming majority of the families have not more than two Kutos each. The bull is the only source of draught power in agriculture. But about 40 per cent of the families do not have any bulls at all, while majority of them have only 1 or 2 bulls.[11] The poor farm equipment is an indication of a low capital formation accounting for low yield of land.

The country is also facing the problem of soil and water conservation in the Hills and that of river bank-cutting, water logging, and floods in the plains of the Terai.[12] Deforestation, causing large-scale soil erosion and landslides in the mountainous region and frequent floods in the Plains, have contributed to a quick and continuous washing away of fertile soil from the country. The scientific plant-breeding or plant protection from pestilence has yet to be introduced in the country. It is reported that plant pests are at present causing destruction of about one-fifth of agricultural output every year.[13] During the Five Year Plan period, insecticides were used only at a few places on an experimental basis, while chemical fertilisers were applied to only 10,706 acres of land and better seeds were used in only 8,518 acres. Half a dozen of agricultural demonstration farms set up under the Plan, distributed altogether less than 52 lbs. of better seeds of cereals.[14] All this shows that Nepal has yet to make considerable progress in agro-technical fields.

Credit institutions or marketing organisations were conspicuous by their total absence until quite recently. The village money-lenders, who are mostly the landlords themselves, charge exorbitant rates of interest. The rates ranged from 10 per cent to

11. The foregoing account has been brought out in the *Report on Village Development in Pokhara*, pp. 19-22. The situation differs but little in other parts of the hilly region.
12. "Between 3,000 feet, the average upper limit of the endemic malaria zone and 10,000 feet, the average upper limit of cultivation, soil erosion is widespread and severe, having been considerably accelerated by improper land use practices. This situation raises vital problems for almost three-fourths of Nepal's population." (P. P. Karan, *op.cit.*, p. 31.)
13. *Five Year Plan Progress Report, op. cit.*, p. 26.
14. *Ibid.*, p. 18.

100 per cent. *Dhyake* (24 per cent) and *Choke* (48 per cent) systems are prevalent in Western Nepal.[15] The Land Reform Commission of 1952, also pointed out that "Even though legislation prohibiting the charges of interest at exceeding 10 per cent in cash and 20 per cent in kind by persons lending to the agriculturists is in force, it appears that even 50 per cent interest is being charged by seeking to take advantage of the financial weakness of the agriculturists." The Land Act of 1957 fixed the maximum rate of interest at 10 per cent, but this, too, remained largely ineffective in practice. The co-operative movement initiated after the political change in 1951 gained some momentum only after 1956. By the end of January 1962, as many as 457 co-operative societies were sponsored by the Government. But an average size of a society was too small to be a viable and workable economic unit. On an average each society consisted of less than 30 members having an equity capital of only Rs. 900. They were heavily subsidised by the Government by providing loan at nominal interest rate of 2 per cent. Such Government loan to each society amounted on an average to Rs. 5190 in early 1962.[16] It is, therefore, advisable to concentrate future efforts more on consolidation and strengthening of the co-operative societies now in existence than on multiplication of similar ones.

One of the surest means of increasing productivity of soil is to make available adequate water through irrigational works. The technical experts have suggested now and again that the productivity of land in Nepal can be increased substantially by providing irrigational facilities, for which natural advantages of the country are almost incomparable. The existing facilities are very poor and extremely inadequate. The three canal systems commanding less than 50,000 acres of land represented until recently the entire major irrigational works in the country. As these canals were constructed long back—Chandra Canal in 1928, Jagadish Canal in 1942 and Judha Canal in 1946—and repairs and reconditioning works were made but very inadequately their original capacity has already gone down to a considerable extent. During the Five Year Plan period, the area under irrigation was expanded by 65,200 acres as against the target of 2,75,000 acres. The total area commanded at present by all the canals is roughly 1,27,700 acres, which represent just a small fraction of the total arable land of 4.24 million acres.

15. Under the *Dhyake* system, 2 pice is charged per rupee per month and under the *Choke*, 4 pice per rupee per month.
16. *Five Year Plan Progress Report, op.cit.*, p. 54 and *Department of Co-operation*, HMG, Nepal.

2. *Land Tenure Systems*

Primarily there are two forms of land tenure in Nepal. One is called *Birta* and the other *Raikar*. Originally all land was owned by the State. In course of time, partly due to the state divestiture of its ownership of land in favour of private individuals and partly due to subinfuedation of the State land, the direct relationship between the State and the actual tillers of land was virtually obliterated. The *Birta* land tenure system may be defined as one under which the State divests itself of its ownership of land in favour of private individuals. Such alienation of ownership took place out of many different considerations. The State granted land to some officials for their meritorious services. Priests (Brahmins) were also the recipients of such grants for their religious and educational functions.[17] In some cases, the *Birta* grants were made for extension of area under cultivation. But the primary consideration behind the lavish grants of State land to a number of local chieftains and members of nobility and ruling classes is purely political. The *Birta* system, thus, served as a firm foundation for consolidation of political and administrative authority in the country both during the Shah rulers following the conquest in 1769[18] and during the Rana

17. The liberal grants bestowed on royal priests and preceptors suggest that these few selected Brahmin families were being compensated for the political support they extended to the regime. In many cases the grants bore an open tinge of favouritism ..... In any case, since even religious grants were by the very nature of things limited to a restricted circle of Brahmins who thronged the palaces of the Rana rulers, the political motivations behind these grants are obvious." (M. C. Regmi, *Land Tenure and Taxation in Nepal*, Vol II, Berkeley, 1964, p. 17.)

18. "Prithvi Narayan Shah (who founded Shah dynasty in 1769) moulded the *Birta* system to suit his political and military requirements. He gave *Birta* holdings to reward his victorious generals, to placate the defeated chieftains and in this way to create a feudal land nobility that should constitute an important prop to his newly-founded kingdom." (M. C. Regmi, *Some Aspects of Land Reform in Nepal*, Kathmandu, 1960, p. 8.) "On several occasions, *Birta* grants were made in appreciation of assistance rendered during military campaigns. In 1773, for instance, Prithivi Narayan Shah promised *Birta* lands to a Brahmin for the financial and other assistance the latter rendered in the military campaign in eastern Nepal." (*Itihas Prakash*, Vol. I, pp. 12-13). ".....In 1777 his successor, King Pratap Shah (1775-78) granted *Birta* lands to a military commander ... for his successful military expeditions in the same area." (*Itihas Prakash*, Vol. I. p. 12.) "....In the last decades of the eighteenth century, the

rulers following the emergence of Jung Bahadur as Prime Minister in 1846. There is, however, one notable difference in the policy of *Birta* grants during the Shah rulers and Rana rulers. While the Rana rulers granted *Birta* land mostly for their own personal enrichment and for the enrichment of their relatives and favourities, the Shah rulers did the same mostly for winning the political support of the nobility.[19]

Until recently it was held that the alienation of State land to private individuals "may or may not imply the right to actual possession of the land" because "a large number of *Birta* grants have only been in the form of assignment of land revenue to the *Birta* holders and not to the Government."[20] Thus *Birta* has sometimes been defined as "an assignment of land revenue to the *Birta* holders and not to the Government."[21] It has now been proved that "the system actually involved a grant of the land itself rather than a mere assignment of land revenue."[22] This does not, however, imply in any way the absolute ownership rights, for *Birta* grant either entails some obligations to the State or is subject to some limitations and restrictions.[23] In spite of this conditional nature of Birta grant, the rights of the *Birta* owners, in general, to possess, occupy, transfer, mortgage, and bequeath *Birta* lands have seldom been denied.

The *Raikar* land tenure system is one under which the State gave out land to private individuals called *Mohis* for their

Shah ruler also granted Birtas to the chieftains and members of the nobility in some of the hilly principalities ..... that were annexed in the process of political unification of Nepal." (All quotations from *Taxation and Land Tenure in Nepal*, Vol. II, *op.cit.*, p. 21)

19. "The Rana rulers pursued this policy with such vigour that by 1950 three leading Rana families owned a total of 22,705 acres or 42.5 per cent of the cultivated *Birta* land in the Terai....." (*Ibid.*, p. 22.)
20. *Some Aspects of Land Reform in Nepal, op.cit.*, pp. 2-3.
21. *Draft Five Year Plan—A Synopsis, op.cit.*, p. 33.
22. M. C. Regmi, *Land Tenure and Taxation in Nepal*. Vol. I, Berkeley, 1963, p. 25.
23. For instance, "The provisions in many *Birta* grants impose restrictions on transferability or inheritability and sometimes even entail the performance of specific functions, such as the maintenance of rest-houses or the recitation of religious prayers. Several forms of *Birta* enjoin on the recipient the obligation to remain in attendance at Court or to supply men and materials in times of war.....numerous forms of the *Birta*.....did not involve any such specific conditions, but even in these instances loyalty to the king remained the prime condition for continued possession." (M. C. Regmi, Vol. I, *op.cit.*, p. 26.)

cultivation on the condition of payment of certain revenue to the Government. In contrast to *Birta* land, the ownership of *Raikar* land is invariably retained by the State itself. The *Raikar* tenure system thus partakes of the nature of State landlordism under which the private cultivators are given only the occupancy rights and not the ownership of land. But with the passage of time when easily accessible, readily cultivable or productive land became scarce in some areas, the occupancy rights also assumed the nature of property rights involving financial investment in the transactions of such occupancy rights at certain value. Such transfers of the occupancy rights must have been encouraged when tax on Raikar land assessed originally in kind was commuted into cash at rates which became eventually much lower than the actual prices of agricultural products in the market. Since the proportion of output accruing to the state in the form of tax in cash became quite smaller than what it was when realised in kind as a result of growing difference between the market price levels and the official prices of agricultural products for conversion of tax in kind into cash, the *Raikar* land, even when it implied only the occupancy rights, gained higher value. The occupancy rights which so developed into a form of property became almost as tangible as the ownership rights in *Birta* land. This has not only tended to blur the distinctive characteristic which originally differentiated *Birta* land from *Raikar* land, but also created an intermediary class between the State and actual cultivators in *Raikar* land, for the occupancy rights in *Raikar* land had gradually been passed on to non-cultivating individuals, enjoying rents without themselves working on land.[24]

As land in relation to labour is scarce and rents, too, were unregulated until recently by law, the bargaining position of the landholders should naturally be strong enough to keep the level of rent unusually high. In fact, there is evidence showing some correspondence between density of population on land and the rate of rent. The proportion of rent to the yield varies, for instance, from two-thirds in one of the most densely populated regions in the Eastern Terai (Mahottari) to one-third in one of the most sparsely populated regions in the Western Terai (Kailali and Kanchanpur).[25] Over and above the customary rent, the tenants are often subject to extra impositions, including forced labour. It may further be noted that the landholders, who appropriate half (or even two thirds?) of total output need not generally share any costs of production. Thus the net quantity actually available to the tillers will be too small to leave any margin for investment.

24. For a more elaborate explanation of this point, see Chapter 4.
25. *Land Tenure and Taxation in Nepal*, Vol. I, p. 14.

Not only is rent fixed usually high, but the tenants are also ejected arbitrarily. It is rightly remarked that "The present generation in Nepal ... has inherited an agrarian system which fails in important respects to protect the rights and interests of those who work in the land."[26] While stressing the urgent need of land reforms, the Draft of Tenancy Rights Acquisition Act, 1952 noted: "The tenants who cultivate registered and *Raikar* land... have got no tenancy rights and because they do not possess these rights, the cultivating tenants can be confirmed, removed or turned away at the sweet will of the owner of land" and "Pajani (eviction) is done for those who are agreeable to pay higher rents."

A U. N. study[27] in land reforms has condemned the tenancy system primarily on the ground that first, it impairs the productive capacity of the tenants, because rent is generally fixed so high that a larger proportion of output accrues to the landholders, leaving thereby a bare subsistence with no margin for investment and secondly, it also affects adversely the incentive of tenants for permanent improvements in land, because they are always haunted by the fear that they may be ejected at any moment. The tenancy system in Nepal has long been associated with both these evils, namely, the exorbitant rent and insecurity of tenure. This is probably one of the most fundamental reasons which explains why the tenants, though responsible for undertaking investment works under the existing land tenure system, are not in a position to adopt any improved methods of production, which are now in use even in many other underdeveloped countries. The conditions differ but little even where there is no tenancy system, for the size of family holdings are not adequate in many cases even for earning a sufficient livelihood. The situation is deteriorated all the more by the fact that since employment opportunities outside agriculture are not growing at the same rate as the increase in labour force and since farm enterprises are also organised almost invariably on joint family basis, the man-land ratio which has already grown high, is getting worse, with the result that the accumulation of idle man-power on land is mounting with the passage of time. This is limiting all the more the investment capacity of the toiling masses on land. Obviously the agricultural investment under these conditions cannot proceed at the same rate as the growth in labour force and as such there would be huge cumulative arrears of investment in agriculture in relation to the growing labour force over a long period of time. These

26. *Draft Five Year Plan—A Synopsis op.cit.*, p. 33.

27. *Land Reform: Defects in Agrarian Structure as Obstacles to Economic Development*, New York, 1951, p. 18.

arrears will result in a continuous deterioration of factor-combination which will lead, in its turn, to a progressive decline in productivity both per man and acre. This represents in brief the hard core of the problem facing agricultural development in Nepal at present.

3. *Recent Land Reform Measures*

After the political change in 1951, the problem of land reforms came to the forefront. Between 1951 and 1964, the Government took, among other things, three major legislative measures for agrarian reforms in the country with practically three different objectives. The first measure, probably the most important measure, is the enforcement of Lands Act, 1957.[28] The Act is designed primarily for a comprehensive change in the land tenure conditions of the country. It fixed, for the first time, a maximum rate of rent at 50 per cent of the produce of land and maximum rate of interest at 10 per cent in cash loans. Every tenant cultivating land at the time of commencement of the Act was deemed to be a protected tenant (*Surakshit kisan*) in respect of the land he cultivated. A protected tenant would not be ejected from his land, unless he committed default in payment of rent at a specified rate or did anything detrimental to productivity and output of land for a long time or did not at all cultivate the land for one year or was proved to be utterly negligent of cultivating the land. But any act of eviction was prohibited, except through the court of law. The tenancy rights granted under the Act were inheritable and transferable by sale or grant and the person to whom the rights were transferred would also be deemed to be a protected tenant, provided such transfer or disposal was duly done. In fact, the entire problem of land reform in Nepal was conceived until 1959 almost exclusively in terms of regulation of rent and security of tenure and even after 1959, these two aspects of the problem have been the primary concern of the Government. But the actual progress so far made in this direction is probably most disappointing. None of the measures enforced under the Lands Act, 1957 has really been effective in practice.[29]

28. *Lands Act*. 1957 (*Bhumi Sambandhi Ain*, 2014, Nepal Gazette, Vol. VII No. 5 August 18, 1957); *Lands* (*Amendment*) *Act*, 1959 (*Bhumi Sambandhi* (*Samshodhan*) *Ain*, 2016, Nepal Gazette, Vol. IX, No. 19, Dec. 19, 1959) and *Lands* (*Third Amendment*) *Act*, 1962 *Bhumi Sambandhi* (*Tesro Samshodhan*) *Ain*, 2018, Nepal Gazette, *Vol. XI*, No. 40, *Feb.* 6, 1962). The Lands Act, 1957 was abrogated by new Lands Act, 1964.

29. *Some Aspects of Land Reform in Nepal, op.cit.*, p. 25. While explaining the causes of low yield in Jhapa district in Eastern Terai,

The most serious impediment to an effective implementation of the Lands Act, 1957 lies in the fact that the Government does not have even today any complete records of the actual tillers of land. The Government revenue office assessment records maintain only the names of those who are liable to pay tax to the Government and not of those who actually cultivate the land, since the purpose of such records is to enable the Government to collect taxes on land. As already pointed out, the process of sub-infeudation and transactions in tenancy rights in Raikar land over past decades have alredy passed on the land to non-cultivating intermediary class between the State and the actual tillers and the question of tenancy rights is thus concerned not with the intermediary class but with the actual tillers of the soil whose names have not so far been compiled by the Government.

In 1956, the Government enacted the Land and Cultivators' Records Compilation Act, 1956, which provided, among other things, the compilation of such records, but the Act was not fully implemented in practice.[30] The Lands Act, 1957 itself required the Patwaris in the Terai and Zimmawalas and Mukhiyas in the hills (revenue collecting agents) to compile the records of protected tenants and submit them to the Government revenue office within 35 days after the end of every fiscal year. But this, too remained for the most part, only on paper. In the absence of such records, defining clearly the conditions under which one is entitled to tenancy rights, all other legislative measures designed to grant security of tenure will obviously be ineffective in practice. In fact, the individual to whom security of tenure was granted or is intended to be granted, has been defined in many different ways,

> one recent official report has pointed out: "When the crops are divided at the end of the season, the portion going to the tenant is very small. To his customary 50 per cent of the yield, the landlord adds the seed, plus interest, together with an amount equivalent to the cash advances he has made for other production costs, food and clothing, plus interest. When these are all totalled and deducted from the year's production, that remaining for the tenant is almost negligible ..... The compensation received by the actual tiller of the soil is little more than the bare minimum of food, clothing and shelter ..... Interest rates are so high, repayment periods so short and security requirements so stringent, that to borrow to purchase fertiliser, improved seed, bullocks, implements or even land is almost foolhardy." *The Economic Affairs Report*, Vol. I, No. 2, May 1963, Ministry of Economic Planning, p. 10.

30. *Land and Cultivators' Record Compiling Act*, 1956 (*Jagga Ra Jagga Kamaune ko Lagat Khada Grana Baneko Ain*, 2013, *Nepal Gazette, Vol. VI, No.* 33 *Dec.* 24, 1956.)

indicating only the confusion of the Government in the very nature of the tenancy problem in the country.[31] In fact, the persons who were treated in the Lands Act, 1957 as owners of land are nothing more than mere tenants of the Government called *Mohis* in official records and the problem is not one of granting tenancy rights to these so-called owners whose occupancy rights have already been secured by the existing legislation, but one of granting security of tenure to those who actually cultivate the land as sub-tenants, having no direct relationship with the State.

The enforcement of the Birta Abolition Act, 1959 marked the beginning of the second major legislative measure for land reforms.[32] The objective of the Act, as stated in its preamble, is "to eliminate feudal system for fostering in the minds of people a feeling of equality and also for strengthening the economy of the country in the interests and for the benefits, of community at large." From the date the Act came into force, Birta land has been legally converted into Raikar land, realienating thereby the ownership of such land to the Government and abrogating all laws, regulations and written documents relating to ownership rights of private individuals to their Birta lands. Under the Act, B-class Birta land[33] is to be registered as Raikar land in the name of the erstwhile Birta owners, who are, thus, legally degraded

31. For example, the Tenancy Rights Acquisition Act, 1952 was intended to grant tenancy rights in Raikar land to only those who would be cultivating during the year 1950-51 land belonging to landowners. The Report of the Land Reform Commission, 1952 defined tenants as those who were allowed by the landowners to cultivate their land in cash or kind basis without any reference of time. The Royal Announcement of 1955 made provision for the grant of tenancy rights to those who were cultivating land continuously for two years. The Lands Act, 1957 secured tenancy rights to those who were cultivating land at the time of commencement of the Act and if any person, after the commencement of the Act, cultivated land for one year, he was also entitled to all tenancy rights.

32. Birta Abolition Act, 1959 (*Birta Unmulan Ain*, 2016), Nepal Gazette, Vol. IX, No. 19, Dec. 15, 1959) and Birta Abolition (Amendment) Act, 1962 (*Birta Unmulan Samshodhan Ain*, 2018), Nepal Gazette, Vol. XI, No. 40, Feb., 6, 1962.

33. The Act has classified Birta land into A-class and B-class for abolition purposes. The former includes the State land granted in the form of an assignment of certain fixed revenue with or without obligation of any payment to the Government and the latter includes all other Birta land not included in A-class (i.e., State land granted to private individuals with their ownership rights).

from the status of owners to a position of the Government tenants and A-class Birta land in the name of the former tenants. The B-class Birta land has also been taxed at the same rate as that on adjoining Raikar land.

The Birta Abolition Act, 1959 seems to have ended at a single stroke the private ownership of land associated with feudal privileges, of which the exemption from tax in the case of B-class Birta land and the assignment of State revenue to private individuals in the case of A-class Birta land, were most notable. However, the abolition of B-class Birta land and the nationalization of A-class Birta land under the Act have contributed practically nothing, so far as their economic aspects are concerned. The conversion of B-class Birta land into Raikar (State-owned) land has, no doubt, a far-reaching legal implication insofar as it has reduced the status of the erstwhile Birta owners to a position of tenants of the State and as such the State can now evict them as any other tenants of Raikar land once they default payment of taxes imposed on B-class Birta land under the Act. For all legal purposes, such a conversion does really amount to nothing less than nationalization of private property without compensation. But, since B-class Birta land so converted into Raikar land is to be registered under the Act in the name of the same former Birta owners, they are legally entitled to possess the land and claim rent in the same way as they could do before. Thus, insofar as the economic aspects are concerned, the B-class Birta owners are affected by the Act only to the extent that they are now required to pay tax to the Government at the same rate as that on adjoining Raikar land. All this amounts to saying that the economic significance of the Act in respect of B-class Birta land lies in taxation and not in abolition.

Even in respect of taxation, the Birta Abolition Act, 1959 does not deserve any credit, for it has made no new contribution in this direction as well. It was the Finance Act, 1957[34] which imposed tax, for the first time, on all forms of Birta land in the country, no matter how nominal the rates were.[35] This principle of universal taxation of Birta land was pursued further in 1959 when, under the Finance Act, 1959,[36] all forms of Birta land

34. *Finance Act*, 1957 (*Arthik Ain*, 2014, Nepal Gazette, Vol. VII, No. 5, April 11, 1958.)

35. The rates were as follows: Rs. 1.28 per bigha (0.13 ropanis), Rs. 0.50 per ropani, Rs. 0.12 per muri mato (0.25 ropani) and 25 per cent of cash revenue where the size of land was not specified.

36. *Finance Act*, 1959 (*Arthik Ain*, 2016, Nepal Gazette, Vol. IX No. 9, Dec. 15, 1959.)

were taxed at 50 per cent of the rate prevailing on adjoining Raikar land with effect from July 25, 1959. All that goes to the credit of the Birta Abolition Act, 1959 is that it has only raised the tax to the level of that on adjoining Raikar land. Thus, even if the Act were not enforced in December, 1959, the Finance Act, 1959 may be said to have substantially wiped away the privileges of Birta land, because the difference between Birta land and Raikar land lies primarily in the exemption from tax on the former.

In the case of A-class Birta land, too, there is nothing new in the Birta Abolition Act, 1959, save the provision for compensation at rates varying from 1,000 per cent of the net income of the first Rs. 500 to 25 per cent of such income exceeding Rs. 6,000.[37] But the maximum amount of compensation to any one A-class Birta owner is fixed at Rs. 12,000, irrespective of his total annual income from his Birta land before nationalization. Here it may be recalled that since A-class Birta land is defined in the Act as one from which the Birta owners were entitled to appropriate only the prescribed land revenue (or/and income based on the amount of land revenue), with or without any obligation to the State, the tax imposed under the Finance Act, 1959 with effect from August 8, 1959 on A-class Birta land at rates equal to what was being paid by tenants to the A-class Birta owners amounted in effect to actual expropriation of the entire income of such A-class Birta owners without any compensation. The so-called nationalization of A-class Birta land under the Birta Abolition Act 1959, which came into force four months later (i.e., Dec. 1959), does not, therefore, make in essence any difference, except what is provided as compensation to the A-class Birta owners for the same.

More recently the Government is pursuing a new policy towards the problems of agrarian reform in a different perspective. This new line of thinking was originally embodied in the "Agri-

37. *Compensation Rates for Nationalized A-class Birta land.*

Net annual income	*Rate of compensation As % of the income*
For the first Rs. 500	1000
„ next Rs. 500	500
„ „ Rs. 2000	100
„ „ Rs. 3000	50
„ „ Rs. 4000 and above	25

cultural Reorganization Act, 1963."[38] The Act has been replaced by a more comprehensive law called the Lands Act. 1964.[39] The overriding considerations of the Lands Act, 1964 are that first, labour and capital should be withdrawn from agriculture and invested in non-agricultural sector; second, the cultivable land should be distributed with social justice and third, the actual tillers of the soil should be provided with necessary knowledge and resources for increasing agricultural output and for raising the standards of living of the peasants and general well-being of the people.

In order to achieve these fundamental objectives, the Act has provided, among other things, ceiling on both individual and family land holdings and the land acquired by the Government in excess of the specified maximum limits—being 25 *bighas* in the Terai and Inner Terai, 50 *ropanies* in Kathmandu Valley and 80 *ropanies* in the Hills, will be distributed in a given order of priority—first priority being accorded to the existing tenants or their family members not in possession of any land or those tenants having less than the specified amount of land taken on lease. The land will be distributed at the price equal to the amount of compensation to be paid to the landholders for the land given up by them.[40] But only 10 per cent of the compensation will be paid in cash within a year after transfer of rights and 90 per cent in Government bonds bearing between 3 and 5 per cent rates of interest. Ten years within the date of issue, the bonds can also be converted into shares of capital stock in development projects under such terms as to be determined by the Government itself.

38. *Agricultural Reorganization Act*, 1963 (*Krishi Sambandhi Naya Byabastha Ain*, 2019), Nepal Gazette, Vol. XII, No. 44 (A), April 12, 1963.

39. *Lands Act*, 1964 (*Bhumi Sambandhi Ain*, 2021) Nepal Gazette, Vol. XIV, No. 18 (A) and *Lands Act Rules*, 1964 (*Bhumi Sambandhi Niyamharu*, 2021), Nepal Gazette, VOL. XIV, No. 21 (A).

40. Rates of compensation: The exact amount of compensation will be determined by the Government by notifying in the Nepal Gazette on the following basis:
    (a) For cultivated land: Not less than 10 times, but not exceeding 30 times the assessed amount of annual land revenue or land tax;
    (b) For bamboo and grass land other income-yielding land: Not less than 5 times, but not exceeding 10 times the assessed amount of annual land revenue or land tax, and
    (c) For fallow land: Equal to the assessed amount of annual land revenue or land tax.

The assumption underlying these arrangements appears to be twofold. The first assumption may be such that once the present landlords (defined as those in whose name the land is registered) are compelled to give away their surplus land (land above the ceiling,) the proceeds which they will receive from compensation will have to be used, sooner or later, somewhere outside agriculture. In other words, there will be a transfer of resources from land to the non-agricultural sector and with these additional resources, the non-agricultural sector may be able, in its turn, to absorb additional labour, reducing thereby the existing pressure of population on land. All this will, therefore, lead to diversion of both labour and capital from agricultural sector to non-agricultural sector. The second assumption may be such that since the surplus land acquired by the Government will be distributed to the tillers, they will acquire a new status of landlords, at least in respect of the new land which they will receive from the Government. Since rent is regulated and tenancy rights are also guaranteed under the Act, actual tillers of the land need not, therefore, be apprehensive of any arbitrary action of the landlords even in respect of that part of land which they are tilling on lease. All this will, therefore, provide greater incentive to the tillers to work hard for greater production and better living.

The Lands Act, 1964 can accomplish its objectives only when the Government can acquire surplus land in sufficient amount for its eventual distribution to the tenants. It is, however, doubtful whether the surplus land will amount to any substantial quantity when the Act will come into force all over the country. In the first place, the maximum limits fixed arbitrarily are high. The maximum limits fixed for the Terai and hills, for instance, are 10 to 12 times as large as the average size of arable land available per agricultural family in these regions.[41]

41. The provision, allowing landholders to retain, in excess of the specified ceiling, a maximum of 3 *bighas* in the Terai and Inner Terai, 8 *ropanies* in Kathmandu Valley and 16 *ropanies* in the Hills for the purpose of their dwelling houses, has virtually raised the ceiling on landholding and reduced further the scope for acquisition of surplus land. Besides, by defining a family as one comprising, until the death of parents, only sons below the age of 16 and unmarried daughters below the age of 35, the Act has provided another important escape-valve for the land holding class. Accordingly, a parent living and working together with four sons, for instance, above the age of 16 as a single family, will be treated as five families—each one being entitled to hold land up to the maximum limits specified. Thus, in effect, the ceiling on landholding

Secondly, when the Agricultural Reorganization Act, imposing ceiling on landholding, was enforced in limited areas of three districts on an experimental basis in 1963, it might have served only as a warning in good time to the landlords all over the country to make their own arrangements for safeguarding their landed properties. Since the Government offices were also kept open for registration of all land transactions, there is no reason why the landlords would refrain from transferring their surplus land to their heirs and other relatives, just to evade the impending difficulties. In Japan, the Government would not have probably acquired 1.933 million *chos* (1 *cho* = 2.45 acres) of land under "The Owner Farmer Establishment Special Measure Law", if it were not enforced in October, 1946 with retrospective effect from November 23, 1945 by declaring all subsequent transfers of ownership or cultivating rights null and void. One of the important reasons for the decline in tenancy in Japan during the post-war period may be attributed to the fact that as a result of "controlled rent", investment in land became probably the least paying job.[42] In Nepal, so long as the rate of rent is fixed at as high as 50 per cent and the level of tax assessment is maintained low, land may still continue to be one of the lucrative fields of investment, and the temptation on the part of the existing landlords to protect their interests will naturally be strong.

Even if the amount of surplus land acquired by the Government happens to be quite substantial, yet the assumption that there will be diversion of real resources from land to non-agricultural sector may not hold true, for the simple reason that

of this particular family will be five times the specified limits (i.e., 25 *bighas*, 50 *ropanies* and 80 *ropanies*). In the Agricultural Reorganization Act, 1963, a family was defined as one comprising the persons living and working together for a common livelihood, irrespective of their ages.

42. R. P. Dore, *Land Reform in Japan*, Oxford University Press, 1959, pp. 138 and 174. In Sept. 1955, the amount of controlled rent was 1100 yen per *tan* in the case of average rice land. The harvest of that year yielded crop approximately worth 25,000 yen per *tan*, so that the rent represented only 4.4 per cent of gross annual yield compared with a pre-war average between 40 and 50 per cent. From this rent the landowner had to pay in 1955 an average of nearly 500 yen per *tan* in taxes, leaving the balance of only 600 yen. The value of one *tan* rice land at that time was somewhere around 100,000 yen. The annual rent of 600 yen per *tan* means, therefore, a return of only 0.6 per cent on investment in land, *Ibid.* pp. 188-89.

once the surplus land acquired by the Government is distributed to the tenants, the real resources (as distinct from financial resources) accruing from the land to the landlords before acquisition, will pass to the hands of the tenants. Even if the landlords decide to use their proceeds from Government Compensation for their land in investment works in the non-agricultural sector, there will be an addition only of financial resources and not of real resources. Insofar as the additional income of the tenants on account of the new acquisition of land will be frittered away in consumption, which is very likely to happen in view of their present subsistence level, the total amount of real investible resources may even decline in the economy as a whole.

The Lands Act, 1964 has also imposed ceilings on the size of land taken on lease by an individual tenant or his family—the maximum limits being 4 *bighas* in the Terai and Inner Terai, 10 *ropanies* in Kathmandu Valley and 20 *ropanies* in the Hills. In other words, the maximum size of land which a tenant or his family is entitled to take on lease for actual cultivation will be just one-sixth to one-fourth of the maximum size of land which a so-called landholder or his family is allowed to possess. This may lead to small scale cultivation even where a fairly large-scale operation would have been possible. For instance, if a landholder in possession of maximum size of a compact holding in the Hills (i.e., 80 *ropanies*) is to lease out his entire holding, he has to rent out to not less than four tenants, for each tenant is not entitled to take on lease more than 20 *ropanies*. This will, therefore, lead to fragmentation of land as a unit of operation.

Besides, the Act, by allowing the landholders to withdraw part of their rented land from their tenants for construction of their dwelling houses, has not only introduced an element of insecurity but also made discrimination between tenants of different regions and also of the same region. Out of the maximum permissible land on lease of 4 *bighas*, 10 *ropanies* and 20 *ropanies* in the Terai, Kathmandu Valley and the Hills, respectively, a landholder is entitled to take away one-half *bigha*, 5 *ropanies* and 10 *ropanies* in the Terai (within a village Panchyat area), Kathmandu Valley and the Hills (within a village Panchayat area), respectively. Thus, while in the Hills and Kathmandu Valley, a tenant runs the risk of losing as much as half of the land taken on lease, his counterpart in the Terai does the same only to the extent of one-eighth of his land taken on lease. The tenants of the same region are also likely to run the risk of different degrees. For instance, tenant A in the Terai may be cultivating altogether 4 *bighas* of land on lease from four land-

holders—one *bigha* from each, while tenant B in the same area may be cultivating the same size of land on lease from only one landholder. If each one of the four landholders of the tenant A were to take away ½ *bigha* of land for construction of their dwelling houses, the tenant A would be left with only 2 *bighas* of land, while the tenant B would have 3½ *bighas* even after his landholder had taken away ½ *bigha* of land. In the case of the tenants in Kathmandu Valley, there is a risk of losing all their land. For instance, a tenant cultivating the maximum permissible land of 10 *ropanies*, 5 *ropanies* from each of the two landholders, might be left without any land, if both the landholders were to take away the maximum permissible land (i.e., 5 *ropanies* each) for their dwelling houses! All these unequal risks and uncertainties could have been minimized by allowing the landholders to withdraw only a certain uniform fraction of their rented land from a particular tenant in a specified period of time after the commencement of the Act.

In the scheme of development process as visualized in this study, the institutional change in the form of redistribution of land to the tiller, which means in Nepal an elimination of the existing intermediary class, may not be a pre-condition for economic development in the initial stages, provided security of tenure and rate of rent are guaranteed along with rigorous measures for mobilizing surplus resources now unproductively concentrated in the rentier and landholding classes.

It is only in the later stages of development when considerable volume of labour force dependent on land is permanently shifted away and rehabilitated in new industrial sector and also when new cultivable land is brought under plough, any programme of redistribution of land would be sensible, since sooner or later the uneconomic holdings must be consolidated into units of economic operation and at the same time, the existing intermediary class having no economic functions to perform might have to be eliminated, for the absentee landlords with their parasitic outlook might appear increasingly anomalous in a developing economy which stresses the virtues of economic efforts. Moreover, in the later stages of development, when the prospect for new profits from industrial investments will also loom large on the horizon, the Government may be successful in acquiring land with fair compensation, partly in cash and partly in Government bonds, which can be negotiated for industrial development loans to finance approved investment projects.

The immediate problem facing agricultural development in Nepal, as pointed out earlier, is one of correcting, wherever possible, the existing disproportionate factor-combination by increased

application of capital input, primarily in the form of new knowledge, better tools, manures, seeds and irrigational facilities. Under the existing conditions of the economy, one can visualize at least three ways in which capital formation within the agricultural sector can be speeded up.

One way of doing this is obviously to increase the saving capacity of peasants and induce them to make use of their incremental saving in investment works on land. Insofar as the rate of saving is conditioned by the level of income, increase in the existing level of income of the peasant population is absolutely necessary for speeding up capital formation within agriculture. The income of peasants can be augmented either by reducing the ratio of rent to total gross output of land, so that the peasants will have a larger share in output or by abolishing the tenancy system and transferring thereby the land to the tillers, while keeping the existing level of land taxation more or less intact. This may be described as a method of increasing capital in land by relying on the initiative of the peasants themselves.

The second possible method is to augment the income of the existing landlords either by increasing the ratio of rent to total gross output, so that the landlords can have a larger share in output or granting rebate in land tax for any act of investment in land by them. This would be rather a regressive method. The third method is one which relies heavily on the initiative and action of the Government rather than that of the landlords and tillers. For this, too, two alternatives are open to the Government. While keeping intact the existing tenancy system and rate of rent, the Government can progressively raise the level of land taxation, augmenting therefrom its resources for immediate use in public investment works within the agricultural sector. Alternatively, while abolishing the existing tenancy system and other intermediary interests and transferring thereby the land to the actual tillers, the Government can devise its fiscal measures in such a way as to keep the income of the peasants more or less intact at the present level. At this stage of development, the first alternative of the third method as suggested above appears to be the most feasible and appropriate method to be followed, for it needs no new legislation, institutional dislocation and administrative rearrangement. Nor does it require to cope with the problem of guarding against the dissipation of incremental income in higher consumption by the peasant population, when land is transferred to them or the ratio of rent is reduced in their favour. For rapid rates of capital formation and employment over time, there should not be any substantial increase in consumption of both the agricultural population and

rentier class once the process of development is initiated from a state of stagnancy. As stated elsewhere, one of the secrets of the Russian, Chinese and Japanese rates of development may be sought in limited improvement in the levels of living of farm population even in times of substantial increase in agricultural productivity.

3. *Estimate of Food Supply and Requirement* *

In the context of Nepalese economy where the primary sector is to provide a viable basis for an expansion of the industrial sector, the productive capacity of agriculture should be built up in such a way that the supply of agricultural products does not fall short of minimum needs for both domestic consumption and export over time. In poor countries, where income elasticity of demand for food is high and food prices thus have a strong influence on the costs of living and general price level, the rate of investment that an economy can sustain without running into inflation depends, among other things, on the supply conditions of food. The recent experience in several Asian countries shows how the lag in agricultural development has caused set-back in the rate of economic growth. India and Pakistan (depending on foreign aid for financing food imports), Philippines (through balance of payments difficulties) and Mainland China (although partly due to natural calamities) are the cases in point.[43] The formulation of targets for agricultural production should, therefore, be related to the increasing need of an expanding economy for agricultural products, so that one can minimize the chance of any imbalance emerging between demand and supply or between agriculture and other sectors of the economy. Here an attempt is made to examine the present position of Nepal in respect of food supply and estimate the needs over a period of the next decade on the basis of some assumed rates of economic growth.

The preliminary report of the "Sample Census of Agriculture" has estimated production of two major crops, namely, paddy and maize, for the year 1961.[44] The estimate is based on the sample results of crop-cutting experiments carried out in rectangular plots of 48 square metres of area cultivated by three

* With some minor changes this section was read at a symposium on *Food Problem in Nepal* sponsored by the Forum for Social Studies, Nepal.

43. *Economic Bulletin for Asia and the Far East.* Vol. XII, No. 3, Dec. 1961, p. 12.

44. *Sample Census of Agriculture,* Nepal, 1962, *op.cit.*

households selected from each sample village. The coverage of the crop-cutting experiments appears to be remarkably inadequate in terms of both total cultivated area and total number of agricultural households. Out of about 1.494 million agricultural households, only 7351 households (or 0.4%) were selected for crop-cutting experiments, whereas out of 2.734 million acres of land under paddy, crop-cutting experiments were carried altogether in only 83 acres of land—the overall sample size being, therefore, only 0.003 per cent. In the case of maize, only 0.5 per cent of agricultural households were selected for crop-cutting experiments which altogether covered an area of 70 acres, accounting for only 0.006 per cent of the total area under maize.[45] Based as it is on limited sample coverage, the estimate of production may be treated as highly tentative, indicating thus very roughly (or even probably wrongly) the position of Nepal in respect of food supply. On the basis of these tentative figures, Table 3:4 has been worked out to show the net quantities of rice, maize and wheat recoverable for human consumption.[46]

Thus the total quantity of cereals (rice, maize and wheat) available for human consumption in 1961 may roughly be estimated at 1.72 million metric tons, of which the share of rice, maize and wheat is 1.11, 0.53, and 0.75 million metric tons, respectively. This quantity of cereals, as shown in the above table, is enough for 20.75 oz. per equivalent adult per day. If exports and imports of cereals were taken into account, the quantity available for domestic consumption would be about 1.59 million metric tons, which would be enough to maintain a standard of consumption of cereals at 19.05 oz. per equivalent adult per day. (See Table 3:5).

The standard of consumption of cereals should be adequate not only for maintaining reasonable efficiency in work but also for some moderate comfort in life. The Nutrition Advisory Committee of Indian Council of Medical Research (ICMR) laid down the standard (Table 3:6) for a daily balanced diet of an average

45. Based on information provided upon request by the Central Bureau of Statistics, HMG Nepal.

46. The net quantities recoverable for human consumption have been calculated from the basic or original weight of grains immediately after harvest after deducting loss in weight on account of driage and in processing for human consumption. Allowance has also been made for seeds and wastes. Details are given in Tables I — III in the Appendix to this chapter.

Table 3:4

SUPPLY OF CEREALS, 1966

Region	Net Quantity Recoverable Equivalent for Human Consumption in Adults (B) '000 metric tons				Quantity Available per Adult Per Day, in oz.			
	Rice	Maize	Wheat(A)		Rice	Maize	Wheat	Total
Eastern Hills	53·78	158·12	9·839	1562828	3·32	9·77	0·62	13·71
Western Hills	89·29	222·77	54·275	3030205	2·84	7·10	1·73	11·67
Kathmandu Valley	35·77	10·24	7·734	279147	9·11	2·61	2·00	13·72
Hills Region	178·83	391·13	71·848	4972180	3·47	7·58	1·40	12·45
East Inner Terai	23·31	23·94	0·095	146005	15·43	15·87	0·06	31·36
Central Inner Terai	18·22	20·78	0·126	199884	8·81	10·01	0·05	18·88
West Inner Terai	28·17	20·65	3·325	81975	33·20	24·34	3·92	61·48
Inner Terai Region	69·70	65·33	3·546	427864	15·74	14·75	0·80	31·29
Eastern Terai	642·51	50·73	—	1834348	33·83	2·67	—	36·50
Mid-Western Terai	138·98	3·32	0·067	332014	40·45	0·96	0·20	41·61
Far-Western Terai	80·16	24·94	0·088	225373	34·37	10·69	0·03	45·09
Terai Region	861·65	73·99	0·155	2391715	34·81	3·19	0·06	38·06
Nepal	1110·18	535·45	75·549	7791759	13·76	6·64	0·35	20·75

(A) Based on information provided upon request by the Central Bureau of Statistics.

(B) The figures showing the age-structure of 1961 population have not yet been published. The adult population of 1961 is therefore worked out by assuming that it will be equal to 83 per cent of the total population. This was the proportion actually found in 1952-54 Census of Population, when "Equivalent Adults" were calculated by counting children under 10 as 0.5 each and women of 10 or over as 0.9 each. This was the method followed by the Indian Council of Medical Research for prescribing normal dietary standard for India.

adult weighing 120 lbs. and engaged is sedentary work. The net calories available from this diet would be about 2700.[47]

In a country like Nepal, where more than 93 per cent of the economically active population is engaged in agriculture, the above dietary standard, which was calculated according to nutritional requirements of a sedentary worker, may be rather inadequate. It is estimated that "a normal male weighing 11 stones would spend per day 2500 calories in sedentary occupations, 3000 calories in light muscular work (as that of office assistants, shop assistants, tailors, etc.), 3500 calories in medium muscular work (as that of carpenters, ordinary farm labourers, mechanics etc.) and 4000 calories for heavy muscular work (as that a black-

Table 3:5

EXPORTS AND IMPORTS OF CEREALS, 1960—61*
(In '000 Metric Tons)

	Rice	*Maize*	*Wheat*
Net Production	1110.182	535.452	75.549
Exports	−119.700†	−16.850	−0.381
Balance	990.482	518.602	75.168
Imports	+0.329	+ 0.154	+1.730
Total	990.811	518.756	76.898
Quantity Available per Adult per Day (in oz.)	12.28	6.400	0.370
Total 19.05			

* Figures provided upon request by the Central Bureau of Statistics.

† Paddy converted into rice by deducting 33.3% loss in processing.

smiths, soldiers in the field, porters in grain golas, etc.)"[48] Obviously if the daily intake of calories falls short of these standards, the body will burn its own stored fat and tissues to generate the necessary heat. The body needs fuel first to replace the heat which it gives away in the mere process of living, and secondly, to supply the additional heat which it loses in the process of

47. Quoted by Coale and Hoover, *Population Growth and Economic Development in Low-Income Countries*. 1957, p. 88.

48. G. N. Sinha, *An Introduction to Food Economics*, Allahabad, 1956, p. 69.

work. It is stated that the Nutrition Advisory Committee of ICMR prescribed the above standard in consideration of a tight economy of the country, ignoring even any margin for wastage in cooking. In India, "The Famine Commission of 1880 accepted the empirical generalisation of the famine relief camps in recommending an average ration of 1½ lb. per day of rice or of prepared meal or flour of coarse grains for the adult working male. For those doing light work it was to be 1¼ lb. and where

Table 3:6

DAILY BALANCED DIET

Items	*Quantity*	*Items*	*Quantity*
Cereals	14 oz.	Sugar	2 oz.
Pulses	3 oz.	Veg. Oil and Ghee	3 oz.
Vegetables and Fruit	13 oz.	Fish and Meat	3 oz.
Milk and Milk Products	10 oz.	Egg	1 (one)

no work was exacted, a ration of 1 lb. with the addition of some pulses was considered adequate."[49] In low-income countries, people tend to cover their basic needs from cheap sources of calories such as cereals and other starch foods, whereas in high-income countries, additional calories are supplied through increased consumption of more nutritious foods such as vegetables, fruit, fish, meat, etc. It has been estimated that cereals and starchy roots comprise about three-fourths of the average diet in the Far East as against one-third or even one-fourth in countries like the U.K. and the U.S.A. The contribution of milk, meat, eggs and fruit to Asian diets is less than 5 per cent as against 27 per cent or more in rich countries.[50] All this tends to suggest that the existing quantity of cereals available for human consumption in Nepal is not probably more than what is required for the daily intake of calories which are considered to be necessary for maintaining normal health and efficiency in work.

As already remarked, the total production of paddy, maize and wheat, as estimated by the Central Bureau of Statistics on the basis of the Sample Census of Agriculture, is to be treated

49. *Ibid.*, p. 68.
50. *Economic Survey of Asia and the Far East*, 1961, Bangkok, 1962, p. 12.

as highly provisional. In fact, the sample census appears to have considerably exaggerated the yield of these major crops in different parts of the country. In view of the existing conditions of the land tenure and primitive conditions of production, it is very doubtful whether an average productivity per unit of land in Nepal is comparable to, or even higher than, that in neighbouring countries or in the Indian States adjoining the Terai region which accounts for more than half of the total production of paddy, maize and wheat. For a comparative picture, the followinng table brings out together the figures showing the average productivity of these three major crops in Nepal and other parts of the world for the years, 1957-58—1959-60

Table 3:7

PRODUCTION IN TONS PER HECTARE

Country/Region	*Paddy*	*Maize*	*Wheat*
Nepal (A)	1.80	1.89	) 1.41 (B)) 0.94 (C)
India	1.31	0.82	0.72
Pakistan	1.40	1.03	0.78
Thailand	1.35	1.50	—
ECAFE Region	1.58	0.90	0.78
World (D)	1.85	1.83	1.18

(A) For 1961.

(B) For Western Hills having the highest productivity.

(C) For Kathmandu Valley, Far, Western-Terai and Central Inner Terai having the lowest yield.

(D) Excluding the USSR.

Source: For India, Pakistan, Thailand and ECAFE region, *Economic Survey of Asia and the Far East*. 1961, *op.cit.*, p. 14; for world, *The Eastern Economist, Annual Number* 1960, p. 85, and for Nepal, *Sample Census of Agriculture, op.cit.*

When compared with the average yield of those crops in the Indian States, one may be even more sceptical about the relatively more impressive picture brought out by the Sample Census of Agriculture. Though the figures are not strictly comparable, yet for illustration it may be noted that the yield of all the three crops in the adjoining region of the Terai is considerably higher than that of Bihar and Uttar Pradesh. The all

India average yield in rice was only 644 lbs. in 1950/51, and 831 lbs. in 1959/60, whereas the same in Nepal for 1961 was 168 lbs.[53] The average yield of Nepal in both maize and wheat is higher than those of Punjab having probably the highest yield in both these crops in India. All these comparative figures give rise to doubt or suspicion as to whether the inadequate sample observations, however scientific they were, might not have distorted the district or region-wise estimates of yield, resulting in a wide margin of error and leading to an overestimation of total production of cereals in the country.

Besides, nothing certain can be said about the exact volume of exports of food grains on the basis of figures recorded in customs office and compiled by the Central Bureau of Statistics. It is suspected that there is a large leakage in exports. The existing customs offices all along the virtually open border of many hundred miles, cannot effectively control the flow of commodities across the border. Smuggling is reported to be rampant, especially in the border areas. Since agricultural products, particularly food grains, constitute by far the bulk of exports, due adjustment on account of leakage should be made in estimating the net quantity of cereals available for domestic consumption.

All this tends to reinforce the contention that the available amount of cereals in Nepal is not probably sufficient for a standard of consumption which can ensure an adequate calories-intake per adult per day. In fact, the actual food situation in the country is worse than the foregoing analysis reveals. This is due to an uneven distribution of food supply between the Hills and the Terai which are virtually isolated from each other by the most formidable physical barriers. The Terai with a little more than one-third of population accounts for more than three-fourths of the arable land. The average size of land per agricultural household in the Hills is less than one-fourth of that in the Terai. In spite of a much higher level of productivity, largely due to intensive method of cultivation, the net quantity of cereals available for human consumption in the Hills is, therefore, quite inadequate even for a normal dietary standard, whereas the same in the Terai is much more than what is required for a reasonable standard of consumption (see Table 3:4). It is not, however, known to what extent the surplus of the Terai is being made available to meet the deficits of the Hills. The only known fact is that "the Terai does not sell all its surplus in India". Since the transportation of food from the surplus plain-region to the deficit parts of the Hills is difficult and indeed uneconomical with the existing transport facilities, it is doubtful whether the

53. *Cf.* Tables IV — VII in the Appendix.

Terai does supply any substantial quantity of food grains to the Hills, else the latter need not face frequent scarcities of food, sometimes showing even signs of semi-starvation.

The overall picture, as presented above, does not reflect in any way the actual level of consumption in the country. If any empirical study were conducted to examine the actual food-consumption level of the rural and urban population in Nepal, it would have been easy to ascertain the position of the country in respect of food supply in a somewhat more realistic manner. Yet the existing uneven distribution of landownership, exorbitant rate of rent and the low level of land tax assessment, particularly in the surplus Terai, are quite suggestive of a conspicuous gap between the consumption levels of the land owning class and the rest. It may also be noted that the existing exports of food grains in large quantities should not be misconstrued as indicating any overall surplus position of Nepal in food grains. The exports have been possible at the cost of domestic consumption, partly, due to concentration of land ownership and partly, due to transport difficulties in carrying surplus foodgrains from the Terai to the Hills.

In the absence of any relevant information, it is rather hazardous to make any estimate of future requirements of food grains in Nepal. The demand for food grains is primarily a function of population and income. As population changes, the demand for food undergoes quantitative changes, while changes in income and standard of living lead to changes in both quantitative and qualitative aspects of the demand for food. The environmental conditions of living as well as the nutritional considerations also affect the demand schedule for food. Apart from other changes in demand, the annual rate of increase in demand for food is given by $D = p + ng$, where p and g are the rates of growth of population and per capita income, respectively and n is the income-elasticity of demand for food. In underdeveloped countries both p and n are higher than in high income countries — n being probably not less than 0.6 as against 0.2 or 0.3 in Western Europe, the U.S., and Canada.[54]

The Food Grains Enquiry Committee of India estimated the total increase in demand for food during the Second Five Year Plan period in a somewhat elaborate manner by taking into consideration the differences in population growth and the income-elasticity of demand for food between the urban and the

54. B. F. Johnston and T. W. Mellor, *"The Role of Agriculture* in *Economic Development" The American Economic Review,* Vol. VI, Sept., 1961, p. 572.

rural areas. The elasticity of demand for food was calculated in terms of certain percentage of increase in expenditure on food as a result of given increase in the total expenditure on all items of consumption. The total consumers' expenditure was again estimated by deducting from the projected increase in national income the part which would go into saving and investment. Thus, on the basis of data collected in the tenth round of the National Sample Survey, the Committee observed that for each one per cent increase in the total per capita expenditure on all items of consumption, the expenditure on cereals would increase by half a per cent in rural areas and by less than a quarter per cent in urban areas.[55] An estimate of food requirements for Nepal along these lines involves, in the absence of any relevant information, too many assumptions which might reduce the very estimate to nothing less than a wild guess. The method followed in Japan is even more elaborate in that the total change in demand for food is worked out on the basis of assumed rates of changes in the various items of food, taking into consideration the numerous variables such as population growth, increase in national income, effect of the projected increase in per capita income on consumption of food, nutritional aspects, etc.[56]

Thus the simple method of $D = p + ng$, as suggested by Johnston and Mellor,[57] is applied for working out rather a very rough estimate of demand for food in Nepal over a period of 15 years from 1960 to 1975. Even this method needs two assumptions — one regarding the changes in per capita income and the other regarding income-elasticity of demand, for which no factual basis is available in any form. However, on observation of present trends in total economic activities in the country, it appears that the national income cannot probably be doubled from the present level in less than 20 years. Thus the cumulative average annual rate of growth in the national income during each of the three quinquinnia, as shown below, does not appear to be so high (rather low) as to magnify the problem of food requirements in the country during the period under review. As to the effect of increase in income on consumption of cereals, it is assumed that for each one per cent increase in per capita income, an increase of 0.6 per cent during the first two quinquinnia (1960/65 and 1965/70) and 0.5 per cent during the third (1970/75) could be expected in the per capita expenditure on

55. *Report of the Foodgrains Inquiry Committee*, Government of India, 1957, p.

56. *Cf. Economic Bulletin for for Asia and the Far East*, Vol. XI, No. 1, June 1960, Bangkok.

57. *Op.cit.*, p. 572

cereals.[58] The generally observed difference in the level of demand for food between the rural and the urban areas — the aspect which is ignored in the present estimate — may not make much difference in the total demand in a country like Nepal where urban population accounts for less than 3 per cent of the total population. Secondly, it is presumed that any over-estimate of demand on account of assuming probably a slightly high income-elasticity of demand may be offset by the possible under-estimate of demand on account of assuming the moderate rate of economic growth over the period under review. Finally, it may be cautioned that the present estimate, based as it is on incomplete and inadequate data, is bound to be rough and tentative. However, it is firmly believed that the estimate will not err on the side of overestimation, unnecessarily magnifying thereby the problem of food supply in the country. In all probability, the food requirements of the country may be even much greater than what is estimated here.

Subject to these limitations and qualifications, the average annual rates of increase in demand and hence, the additional amount of cereals required per annum during each quinquennium will be as indicated in table 3:8 on the following page.

Thus to maintain the 1961 standard of consumption and the 1961 volume of export of cereals, it is necessary for Nepal to increase the supply of cereals from the 1961 level at an average annual rate of 2.24 per cent during 1960/65 and at 3.76 per cent during 1970/75, if the population growth is as high as 1.84 per cent during 1960/65 and 2.62 per cent during 1970/75. The corresponding figures are 2.06 per cent and 3.34 per cent, if the population grows at as low a rate as 1.40 per cent during 1960/65 and 2.18 per cent during 1970/75. The additional quantities of cereals required to meet the additional demand will be roughly 34.3, 44.5 and 60.5 thousand tons per annum during the three periods, respectively, when the rate of increase in demand is high. The corresponding figures are roughly 31.5, 41.9 and 53.6 thousand tons per annum, when the rate of increase in demand is low. In other words, at the end of 1975, the quantity of cereals available for human consumption in 1961 should be increased roughly by 42 per cent, when the demand is high and by 38 per cent, when the demand is low. This will indicate the magnitude

58. Regarding the effect of income increments on cereal consumption in India, R. Dayal came to the conclusion that for each one per cent increase in per capita income, an increase between 0.4 and 0.65 per cent could be expected in the per capita expenditure on cereals. (*Cf. Demand for Food in the Second Five Year Plan in Agricultural Situation in India.* Oct. 1956)

Table 3:8

ESTIMATED FOOD REQUIREMENTS OF NEPAL, 1960-1975

Quinquennium	Estimated Rate of Population Growth		Average Annual Rate of Increase in National Income	Average Annual Increase in per capita income	
	High	Low		High	Low
	1	2	3	4	5
1960 — 1965	1.84	1.40	2.50	1.10	0.66
1965 — 1970	2.22	1.82	3.25	1.43	1.03
1970 — 1975	2.62	2.18	4.50	2.32	2.28

Quinquennium (Contd.)	Income Elasticity of Demand for Cereals	Average Annual Rate of Increase in Demand for Cereals		Amount of Additional Cereals Required per Annum in metric Tons.	
		High	Low	High	Low
	6	7	8	9	10
1960 — 1965	0.6	2.24	2.06	34293	31538
1965 — 1970	0.6	2.84	2.68	44452	41875
1970 — 1975	0.5	3.76	3.34	60524	53586

of efforts to be called for agricultural development over the period of next one decade. It may, however, be reiterated that the net quantity of cereals actually available for human consumption in 1961 might not have been enough for supplying adequate calories-intake to the hard-working masses on land, more so when the provisional nature of the sample census results, indicating a wide margin of error on the side of over-estimation, is also taken into consideration along with the large leakage unaccounted for in the compilation of export of cereals from the country.

If the supply of food fails to keep pace with the growing demand there is bound to be heavy pressure on available supplies resulting in substantial rise in prices of food. This will create social discontent and exert pressure on wage rates with consequent adverse effects on profit, investment and growth rates. Even in the absence of information on the price elasticity of demand for food in under-developed countries, it may be fairly contenc that "at least in the case of an increase in prices as a result of demand outstripping supply, there is a strong presumption that the price elasticity for all food is extremely low," because cheap starchy staple foods provide something like 60 to 85 per cent of the total calories-intake and as such there is but limited scope for a further substitution of less expensive food for expensive one. Since food accounts for a bulk of wage-good expenditures in the underdeveloped countries, the inflaionary impact of rise in food prices should necessarily be potent in the economy of these low-income countries. The rates of investment and employment in non-agricultural sector will, thus, be conditioned, among other things, by the supply of food and other wage goods. In a country like Nepal where the present level of agricultural output does not appear to be sufficient for maintaining an adequate dietary standard of the people, even at the existing low level of economic activities, an initial increase in agricultural output should necessarily be a pre-condition for successful expansion of employment and investment works in non-agricultural sector without any undue stress and strain on the economy.

5. STATISTICAL APPENDIX*

Table I

Estimated Production of Rice in '000 Kilograms, 1961

Region	Basic Weight	Deduct for Driage %	Balance	Deducting 12.5% for Seeds and Waste	Loss in Processing at 33.3%	Kg. Converted into '000 Metric Tons
1. Eastern Hills	102388	10	92149·2	80630·5	53780·6	53·78
2. Western Hills	173837	12	152976·5	122854·4	89240·8	89·29
3. Kathmandu Valley	68105	10	61294·5	53632·7	35773·0	35·77
Hills (1—3)	344370		306420·2	268117·6	178834·4	178·83
4. East Inner Terai	46441	14	39939·3	34946·9	23309·6	23·31
5. Central Inner Terai	35477	12	31219·8	27317·3	18220·6	18·22
6. West Inner Terai	54849	12	48267·1	42233·7	28169·9	28·17
Inner Terai (4—6)	136767		119426·2	104499·9	69700·1	69·70
7. Eastern Terai	1223201	10	1100880·9	963270·8	642511·6	642·51
8. Mid-Western Terai	250667	5	238133·7	208367·0	138980·8	138·98
9. Far Western Terai	152620	10	137358·0	120188·2	80165·6	80·16
Terai (7—9)	1626488		1476372·6	1291826·0	861648·0	861·65
Nepal	2107585		1902219·0	1664441·4	1110182·5	1110·18

*In Tables I-III the figures for basic weight of grains have been worked out from the Sample Census of Agriculture, 1962, while the deductions for loss in processing at different rates have been made on the basis of Food Survey Report, 1946 of Bihar in India, (*Cf. An Introduction to Food Economics, op cit.*, p. 63). The figures for driage in Tables I and II are taken from the Sample Survey; but in the absence of corresponding figures for wheat, a combined allowance for driage, waste and seeds at 20 per cent of the basic weight has been made in Table III. In the case of paddy and maize, deductions for seeds and waste have been made at the conventional rate of 12.5 per cent of the unprocessed grains. (*Cf. Food Economics, ibid*, p. 61 and *First Five Year Plan*, Planning Commission, Government of India, p. 157.

Table II

Estimated Production of Maize in '000 Kilograms, 1961

Region	*Basic Weight*	*Deduct for Driage %*	*Balance*	*Deducting 12.5% for Seeds and Waste*	*Loss in Processing at 20%*	*Kg. Converted into '000 Metric Tons*
1. Eastern Hills	253805	11	225886·4	197650·6	158120·5	158·12
2. Western Hills	345910	8	318237·2	278457·6	222766·1	222·77
3. Kathmandu Valley	15562	6	14628·3	12799·8	10339·8	10·24
Hills (1—3)	615277	—	558751·9	488908·0	391126·4	391·13
4. East Inner Terai	38917	12	34256·9	29974·8	23980·0	23·98
5. Central Inner Terai	34392	14	29577·1	25880·0	20704·0	20·70
6. West Inner Terai	32416	9	29498·5	25811·2	20649·0	20·65
Inner Terai (4—6)	105725	—	93332·5	81666·0	65330·0	65·33
7. Eastern Terai	77924	7	72469·3	63410·6	50728·5	50·75
8. Mid-Western Terai	5050	6	4747·0	4153·6	3322·9	3·32
9. Far Western Terai	38729	8	35630·7	31176·8	24941·4	24·98
Terai (7—9)	121703	—	112847·0	98741·0	78992·8	73·99
Nepal	842705	—	764931·4	669315·0	535452·2	535·45

Table III

ESTIMATED PRODUCTION OF WHEAT IN '000 KILOGRAMS, 1961

Region	*Basic Weigh*	*Deducting for Driage vaste Seeds at 20%*	*Deducting Loss in Processing at 20%*	*Kg. Converted into '000 Metric tons*
1. Eastern Hills	15374	12299	9839	9.839
2. Western Hills	84805	67844	54275	54.275
3. Kathmandu Valley	12083	9667	7734	7.734
Hills (1–3)	112262	89810	71848	71.848
4. East Inner Terai	149	119	95	0.095
5. Central Inner Terai	197	158	126	0.126
6. West Inner Terai	5194	4155	3325	3.325
Inner Terai (4–6)	5540	4432	3546	3.546
7. Eastern Terai	—	—	—	—
8. Mid-Western Terai	104	83	67	0.067
9. Far Western Terai	138	110	88	0.088
Terai (7—9)	242	193	155	0.155
	118044	100338	75549	75.549

Table IV

ESTIMATED RICE PRODUCTION IN INDIA, 1950/51 and 1959/60
(Yield per Acre in Lbs.)

State	1950/51	1959/60
Andhra Pradesh	897	1345
Madras	883	1375
Mysore	875	1206
Kerala	773	1100
Punjab	723	892
West Bengal	910	889
Assam	834	874
Orissa	505	489
Madhya Pradesh	501	725
Uttar Pradesh	453	604
Bihar	452	693
All India	644	831

Table V

ESTIMATED WHEAT PRODUCTION IN INDIA, 1950/51 and 1959/60

State	1950/51	1959/60
Punjab	848	941
Uttar Pradesh	732	712
Rajasthan	695	834
Bihar	454	501
Madhya Pradesh	408	579

Source: For Tables IV and V — T. Mitra and Bina Roy, *Regional Variation in Yield per Acre of Major Crops in India,* 1950/51 1959/60. Paper presented to 23rd All India Agricultural nomics Conference held in Bombay in December, 1963.

Table VI

ESTIMATED MAIZE PRODUCTION IN INDIA, 1949/50 and 1956/57
Yield per acre in Lbs.

	1949/50	1956/57
Uttar Pradesh	835	873
Punjab	1360	1445

Source: V. S. Menon, 'Agricultural Productivity in India, 1910/11 to 1956/57,' in *Agricultural Situation in India,* Vol. XII, July 1958, p. 308)

Table VII

ESTIMATED PRODUCTION OF MAJOR CROPS IN NEPAL, 1961
Yield per acre in Lbs.

Region	*Paddy*	*Maize*	*Wheat*
1. Eastern Hills	1894	1964	772
2. Western Hills	1964)	1964)	912
3. Far Western Hills	)	)	1263
4. Kathmandu Valley	3437	1613	842
5. East Inner Terai	1753	1613	631
6. Central Inner Terai	1333	1192	842
7. West Inner Terai	1333	1473	982
8. Eastern Terai	1753	1192	—
9. Mid-Western Terai	1543	1262	772
10. Far Western Terai	1122	1192	842
Nepal	1612*	1683	945

* If deducted 10% for driage and 33.3% loss in processing, 1912 lbs. of paddy will be equal to 968 lbs. of rice.

Chapter 4

SAVINGS AND RESOURCES MOBILIZATION

1. *Problem of Capital Formation*

Economic development of a country is primarily the function of investment. But any precise estimate of effects on national income as a result of a given level of investment is not so simple as it tends to suggest. "In dynamic economics of Western Europe and North America, the annual investment runs usually at the rate of 15 per cent or more of the national income and such rates of capital formation are associated with growth rates which allow consumption per person to rise by 1.5 to 2 per cent a year." [1] In some countries of Eastern Europe and the U.S.S.R., the rate of capital formation is still higher than that in the Western Europe and consequently the growth of production is also more rapid. [2]

In most of the underdeveloped countries, where population is growing annually by about 2 per cent or more, [3] the rate of investment representing just a small fraction of their national incomes is not probably enough to prevent their current rate of consupmtion from falling. [4] It is also likely that the proportion of national income invested in underdeveloped countries may not be associated with the same rates of growth in national product as in developed countries due to relative inefficiency in the operation of productive units. All these simple considerations lead to the familiar conclusion that even for maintaining

1. Eugene Stanley, *The Future of Underdeveloped Countries,* New York, 1955.
2. *Cf.* Nicolas Spulber, *The Economics of Communist Eastern Europe,* London, 1957.
3. In the underdeveloped countries of the ECAFE region, population growth between 1950 and 1959 ranged from 1.9 per cent per annum in India to 3.5 per cent in Taiwan China. (*Economic Survey of Asia And the Far East,* 1962, p. 52.)
4. The ECAFE Secretariat estimated the annual net investment at 5 per cent or less of national income in a number of underdeveloped countries of the region. (*Financial Aspects of Development Programmes in Asian Countries, ECAFE Bulletin,* Vol. III, Nov., 1952, p. 1.)

the existing standards of living in underdeveloped countries, the present rate of capital formation needs to be accelerated without any further delay.

Though the rate of saving is conditioned primarily by the level of living, underdeveloped countries have to start, in the absence of external resources, with their current levels of income, however low they are. The circular constellation of forces working around the so-called vicious circle of poverty in underdeveloped countries tend to suggest that a poor country is destined to remain always in a state of poverty. Should the poor countries break through the barriers of stagnation, there is probably no better way than to mobilize their own domestic resources with all vigour. This implies that some of the resources now used in consumption should be diverted to production of capital goods, so that there will be diminished flow of consumption goods or all the incremental output of the economy should be channelled into the production of capital goods, so that there will be no reduction in the present flow of consumption goods or a combination of both. In all these cases the value of the total output over a given period of time will exceed the value of consumption goods by the amount of capital formation that has occurred.

Such an austere process of capital formation appears to be practically infeasible in countries where per capita income of the people is already too low; yet the existing wide difference in the rates of domestic saving in underdeveloped countries cannot be explained entirely in terms of disparity in the levels of their per capita incomes alone. Japan and the Federation of Malaya having higher per capita incomes also account for higher rates of domestic saving; but Burma with a lower level of per capita income than that of South Korea maintained between 1950-59 a rate of domestic saving which was many times higher than that in Korea.[5] It is also difficult to relate precisely the private saving to the share of personal disposable income to national product. The range of variation in the saving propensity of households is so wide that it does not appear to be related either to the absolute income or to the share of household income in national product.[6]

However, the fact that income distribution in underdeveloped countries is conspicuous by marked inequalities, tends to indicate that there is paradoxically a tremendous scope for raising the rates of saving to national income without impinging

5. *Economic Survey of Asia and the Far East, op.cit.*, pp. 53-55.
6. *Ibid.*, p. 56.

on the subsistence of the poor. Where the basic economic structure is predominantly agrarian in character as in Nepal, agricultural sector accounts for more than half or even three-fourths of the national income, but a larger proportion of this agricultural income accrues to landowners and intermediaries who are interested in quick commercial investment and ostentatious consumption rather than in productive investment that can provide a basis for development of industries in the country. It is this rental income and wealth associated with landed property that constitutes probably the largest volume of mobilizable savings for financing investment works in the country.

Where mass disguised unemployment is a persisting phenomenon, agricultural sector may also be treated as a source of potential savings in a sizeable magnitude. However, given other conditions, a unit of labour force withdrawn from land for productive employment elsewhere in the economy will release but a fraction of the so-called potential saving corresponding to the unit of labour withdrawn. This will happen precisely because of high marginal propensity to consume on the part of the toiling peasant-population living approximately at subsistence level. Should the potential savings concealed in disguised unemployment be mobilized, the gap between the amount of resources required for employing a unit of labour force to be withdrawn from land and the amount of potential saving that is likely to be released as a result of the withdrawal, has to be bridged by forced saving from outside the peasant-population. This needs a rigorous measure for mobilizing the income above the average per capita income of the country or all unproductive resources now concentrated in the rentier and intermediary classes having no economic function to perform. In fact, the process of capital formation in many underdeveloped countries is virtually tantamount to a process of transformation of the mass disguised unemployment into productive employment; but this rate of transformation depends in the initial stages on the volume of forced saving from the non-peasant population. This calls for all the more rigorous measure for mobilizing the income and wealth associated with the landed properties in underdeveloped countries like Nepal.[7]

2. *Savings in the Economy*

Particularly in underdeveloped countries, private individual saving held in the form of liquid assets such as currency, bank deposits, gold, silver and precious stones, financial assets such as shares, securities and insurance policies and physical assets

7. For a more elaborate analysis of this point, see Chapter 7.

such as house-property, agricultural implements etc., account for the largest proportion of domestic saving. In India, for instance, it was estimated that the saving of household sector represented about 83 per cent of the total saving during 1950/51-1957/58, whereas the shares of government and corporate sectors in total saving were about 11 per cent and 6 per cent, respectively.[8] Such aggregate estimates are at present out of the question in Nepal.

Though the following Table 4:1 shows the volume of Nepali currency with the people and its periodic changes, yet it does not represent in any way the total currency held by the people, since the volume of Indian currency, which is also held by the people along with Nepali currency, is not known. The volume of Indian currency in circulation is roughly estimated at Rs. 150 million to Rs. 200 millions which, when converted into Nepali currency at the current official rate of exchange, amount to Rs. 240 millions and Rs. 320 millions, respectively.[9] As the following table 4:1 shows, the money supply with public increased by more than three-times between 1957 and April 1964. This precipitous increase in money supply is largely due o growing amount of the Nepali currency held by public during the period under review.

As there is only one commercial bank in operation, the fixed and saving deposits with the bank represent what may be called the institutional savings in the country.[10] Although the fixed and saving deposits recorded almost a persistent growth leading to seven-fold increase in their volume between 1950 and 1963, yet per capita deposit, even including that on current account, amounts to a little more than one U.S. dollar. This presents a striking contrast even with the Asian counterparts like India, Ceylon, Pakistan and Burma where the corresponding figures were 9,19,6 and 6, respectively.[11] Thus to reach even the Indian level, the present volume of banking deposits in Nepal is to be expanded by eight-times or more. The conspicuous absence of postal savings, cooperative deposits, life insurance policies and similar other devices, which are growing popular

8. *The Reserve Bank of India Bulletin*, March 1960, p. 297
9. Nepal Rastra Bank, *Report of the Board of Directors for the Fiscal Years* 1957/58 — 1960/61, p. 5
10. The foreign bank balances held by the Nepali nationals are not known. It is believed that such bank balances run into millions of rupees.
11. *Nepal Rastra Bank Report, op.cit.*, p. 24.

Table 4:1

MONEY SUPPLY WITH PUBLIC IN NEPAL (Rs. N. C. in million)

Approx. Date (Mid-July)	*Currency held by Public (A)*	*Demand deposits held by public (B)*	*Money Supply with Public*	*Periodic change in Money Supply*
1	2	3	4=(2+3)	5
1957	67.7	5.5	73.2	—
1958	76.9	5.5	82.4	+9.2
1959	81.2	6.5	87.7	+4.2
1960	109.5	30.1	139.6	+28.3
1961	142.1	33.3	175.4	+32.6
1962	156.2	50.4	206.6	+14.1
1963	162.3	52.9	215.2	+6.1
1964	241.8	101.3	343.1	+79.5

(A) = Currency held by public is equal to total notes and coins. issued less the cash balances of Mal Addas (Government Revenue Offices) and cash held by the Nepal Bank Ltd., and Issue and Banking Departments of the Nepal Rastra Bank.

(B) = Demand deposits held by public are equal to total demand deposits less the Government deposits with the Nepal Rastra Bank and deposits of the Nepal Bank Ltd.. with the Rastra Bank.

(C) = April 1964.

Source: *Nepal Rastra Bank*, Nepal.

in other parts of the Asian continent, indicates a virtual lack of any broad-based and diversified institutional network for mobilizing private indivudual savings in Nepal.

Table 4:2

TRENDS IN FIXED AND SAVING DEPOSITS WITH NEPAL BANK LTD.
(Rs. in Lakhs)

*Year**	*Fixed Deposit*	*Saving Deposit*	*Total*	*Annual Variation*
1950	48.9	5.7	54.6	—
1951	65.8	4.2	70.0	+15.4
1952	61.2	7.7	68.9	− 1.1
1953	68.8	13.8	82.6	+13.7
1954	51.7	17.4	69.1	−13.5
1955	65.2	22.9	88.1	+19.0
1956	83.7	21.7	105.4	+17.3
1957	80.2	22.6	102.8	− 2.6
1958	100.0	23.0	123.0	+17.6
1959	115.8	28.9	144.7	+21.7
1960	160.0	34.7	194.7	+50.0
1961	234.8	52.0	286.8	+92.1
1962	273.6	59.8	333.4	+46.6
1963	325.9	62.2	388.1	+54.7

* As on the last day of Chaitra, corresponding to 12th or 13th April.
Source: Balance Sheets of Nepal Bank Ltd., Nepal.

The private individual saving in the form of corporate shares and debentures can not also assume any significance in a country like Nepal where total investment in all the existing industrial enterprises does not represent more than a negligible fraction of investible resources. The shares and debentures of these corporate industrial enterprises amounted to only Rs. 20.18 million I.C. or about 32.3 million N.C. in 1961/62.[12] Thus the variation in the quantum of these corporate shares and debentures over the period of past few years might not have affected in any substantial manner the volume of private individual saving held in the form of financial assets. The scheme of compulsory

12. This includes only the shares and debentures of those industrial enterprises which were incorporated as joint stock public limited companies.

provident fund for the government employees is, however, contributing something to private industrial saving in recent years. In September 1963, such fund amounted to about Rs. 10.52 million as against Rs. 7.86 million a year before.

The composition of household saving in India shows that during 1950/51 — 1957/58 as much as 66 per cent of such saving was held only in the form of physical assets. It is on this form of saving, information is totally lacking in Nepal. However, the recent tempo in expensive building constructions in urban areas is indicative of growing physical assets of some people at upper income levels. It may also be presumed, even in the absence of information, that the private individual saving in the form of value retaining objects such as gold and silver may also be significant, first, because of the fast depreciation of Nepalese currency *vis-a-vis* Indian currency until 1960 and secondly, because of traditional prejudice of the people in favour of such primitive form of saving.

It is quite obvious that these fragmentary information and data as presented above, can give neither any precise idea of aggregate saving, nor anything about periodic changes in the rate of saving. Nevertheless they do reveal some interesting facts. First, the private individual saving held in the form of Nepalese currency and demand deposits with the bank is quite meagre and secondly, the institutional facilities for mobilizing such savings are absolutely inadequate or almost entirely lacking and corporate shares and debentures and claims on government[13] are extremely limited and account for a small proportion of the national income. The major volume of, and variation in, private individual savings in Nepal must, therefore, be in the form of physical assets, gold-hoarding, foreign-currency holding and foreign investments.

The experience of neighbouring Asian countries shows how efforts are being made for mobilizing small savings for national development. In recent years, much of the emphasis in the ECAFE region is being placed on increasing personal savings from disposable incomes of the people through development of institutional facilities. In Nepal, too, much may be achieved through institutional arrangements. But even in other ECAFE countries, where experience in small saving campaign has a long history, the result so far achieved is not very substantial in relation to their requirements.[14] Preliminary analysis indicates that

13. It was only in early 1964, that the Government floated its first "development loan" amounting to Rs. 13.1 million. This represents the claim on the Government of the private sector.
14. Cf. *Mobilization of Domestic Capital in Certain Countries of Asia*

the volume of such savings in recent years is probably not over 1.5 per cent of gross national product in most of the countries in the region, except in Japan where the corresponding proportion is around 8 per cent.[15] "Needless to say, 1 or 2 or 3 per cent of the national income is not to be despised; it is well worthwhile pursuing measures designed to push small savings up from 1 or 2 or 3 per cent." [16]

What may be stressed here is the fact that mere voluntary savings without taxation will contribute but little to the requirements of a country for speeding up the rate of capital formation as high as, say 15 or 20 per cent of the gross national income in a short time. Even "In the United Kingdom and the United States, personal savings from disposable income seldom exceed 4 per cent, even though gross investment may be as high as 18 to 20 per cent of the gross national income. All the difference is 'forced' saving, namely, either capital formation financed from taxation or undistributed profits of companies used to finance maintenance and new investment." [17] Taxation is all the more important in countries like Nepal where the Government has to play a major role in the initial stages of economic development.

The retained earnings of joint-stock organizations represent saving in corporate sectors. The growth of capital sector in the developed countries is primarily a function of growth of reinvestment of capitalists' profits. Such corporate saving tend to be more important than household savings in advanced industrial economies. The conditions are much different in underdeveloped countries where the corporate income "is usually so small a fraction of national income that, however high the corporate propensity to save may be, it can contribute little to aggregate saving." [18] In India, for instance, corporate income after tax represents less than 1 per cent of the national income, while corporate savings accounted for only 5.8 per cent of total private saving during 1950/51 — 1957/58. [19] In the context of a pre-industrial economy like that of Nepal, the existing volume of corporate saving and changes therein cannot obviously assume any significance. The net balance of profit of all the corporate industrial enterprises in Nepal amounted to less than 1.3 million

15. *Mobilization of Domestic Capital: Reports and Documents of the Second Working Party of Experts, ECAFE, Bangkok* 1953, *p.* 57 *and Economic Survey of Asia and the Far East*, 1960, Bangkok, 1961, p. 108.
16. W. A. Lewis, *Theory of Economic Growth*, London p. 229.
17. *ECAFE Bulletin, op. cit.*, p. 2.
18. *Economic Survey of Asia and the Far East, op. cit.*, p. 55.
19. *The Reserve Bank of India Bulletin, op. cit., p.* 297.

I.C. in 1961/62. It needs some time for some enterprises even to recoup their losses.

Though the Government has to play a major role in initiating a process of economic development in Nepal, resources at its disposal are extremely limited. In fact, total revenue of the Government was not enough until quite recently even to meet its current expenditures. As shown in Table 4:3, the revenue over the period of 10 years between 1952/53 and 1961/62 fell short of expenditures by Rs. 62.8 million which was made good partly from mint-proceeds and partly from subventions. It is only after 1961-62, the Government has been in a position to save something on current account for financing development works in the country.

In spite of erratic variations, the proportion of revenue from customs and excise duties recorded a fast increase in recent years. This may be attributed partly to increase in the volume of imports and customs duties and partly to excise-duty refund-arrangement with the Government of India in 1954. The contribution from land revenue increased substantially in absolute amount since 1961/62 as a result of land tax revision in 1960/61 and 1961/62. The proportion of land revenue, however, declined drastically since 1963/64. On the whole, these two sources, namely, customs-excise and land revenue, accounted, on an average, for more than two-thirds of total revenue. The sale of forest products is another potentially large source of income But "with half the forest area of Nepal the state of Uttar Pradesh in India produces ten-times its forest revenue."[20] The contribution from a host of trading departments of the Government has remained so far very poor. The public utility services, "which include the electricity department, the ropeway, the railways, telecommunications, drinking water supplies and the post office, have been and still are running at a loss. Some of them show a small excess of annual income over annual expenditure, but this before allowance has been made for depreciation, pensions and interest on capital invested. The net result is that instead of providing a substantial contribution to revenue, these particular departments have been a drain on the resources of the country."[21] The proceeds from tax, which included nothing but levies on entertainment until 1958/59, also represent just a negligible fraction of total revenue at present. Even a cursory glance at the existing revenue structure of the Government does not fail to indicate a primitive nature of public finance heavily contingent upon land revenue and commodity taxes.

20. *Economic Survey of Asia and the Far East*, Chp. 17, 1954.

21. *'The Budget Speech of* 1961/62.

Table 4:3

BUDGETARY POSITION OF THE GOVERNMENT

(Rs. N. C. in Lakh)

Fiscal Year (July-June)	*Revenue*			*Expenditure*			*Revenue Surplus (+) or Deficit (—) in N.C.*	*Proceeds from Mint N.C.*	*Subvention*	*Total of (8+9)*	*Budget Surplus or Deficit in N.C.*
	N.C.	I.C.	*Total in N.C. (A)*	*N.C.*	*I.C.*	*Total in N.C. (A)*					
	1	2	3	4	5	6	(3−6) = 7	8	9	10	(7+10) = 11
1952–53	105·77	209·89	374·53	346·32	178·46	574·75	−200·22	99·19	12·90	112·09	− 88·13
1953–54	109·39	207·15	374·55	215·21	154·20	412·58	− 38·03	36·47	12·80	49·27	+ 11·24
1954–55	106·17	197·47	358·94	231·71	122·66	388·62	− 29·68	52·64	12·80	65·44	+ 35·76
1955–56	187·75	246·54	503·33	267·46	187·81	507·86	− 4·53	37·30	12·80	50·10	+ 45·57
1956–57	236·74	233·38	535·47	310·33	109·07	449·94	+ 85·53	55·59	12·80	68·39	+153·92
1957–58(B)	321·59	177·61	548·93	531·12	163·08	739·86	−190·93	9·00	12·80	21·80	−169·13
1958-59	312·52	265·97	711·47	425·45	156·83	658·69	+ 52·78	3·83	15·00	18·83	+ 71·61

	1	2	3	4	5	6	7	8	9	10	11
1959–60	850·99	—	850·99	860·41	—	860·41	−9·42	—	15·00	15·00	+ 5·58
1960–61	920·13	—	920·13	1072·86	—	1072·86	−152·73	—	16.00	16·00	−136·73
1961–62	894·00	—	894·00	1035·00	—	1035·00	−141·00	—	16·00	16·00	−125·00
1962–63	1281·00	—	1281·00	1244·00	—	1244·00	+ 37·00	—	16·00	16·00	+ 53·00
1963–64	1563·28	—	1563·28	1143·16	—	1143·16	+420·12	—	16·00	16·00	+438·12
1964–65 (B)	1869·34	—	1869·34	1270·60	—	1270·60	+598·74	—	16·00	16·00	+614·74
1952–53 — 1964–65	8758·67	1538·01	10785·96	8951·63	1072·21	10358·33	+427·63	294·02	186·90	480·92	+908·55

(A) Figures in I.C. are converted into N.C. at the following Govt. rates of conversion:
Rs. 128 N.C. = 100 I.C. for 1952/53 — 1957/58
Rs. 150 N.C. = 100 I.C. for 1957-58 & 1958/59.
Rs. 160 N.C. = 100 I.C. Henceforth.

(B) Revised Estimates.

Source: For 1952/53 — 1956/57 and 1958/59, *Accountant General's Office*, Ministry of Finance, HMG, Nepal.
For 1957/58, *Ministry of Finance*, HMG, Nepal.
For 1959/60 and 1960/61, *Nepal Rastra Bank Reports, op.cit.*, p. 13.
For 1961/62 and 1962/63 *Ministry of Finance* (*The Gorkha Patra*, July 10, 1965.)
For 1963/64 and 1964/65, *Budget Speech of* 1965/66.

The meagre resources at the disposal of the Government explains precisely why the Five Year Plan, though launched on a very modest scale, had to be financed largely from external resources. Though the total outlay on the Plan amounted to Rs. 214.4 million as against the target of Rs. 330 million, yet the degree of dependence on foreign aid increased much more than what was originally planned. The Government contribution, which had accounted for 29 per cent of the total annual outlay in the third year of the Plan (1958/59) declined to the lowest level of 6 per cent in the final year (1960/61), indicating a corresponding increase in the proportion of foreign aid for implementation of the Plan. In fact, out of the total outlay of Rs. 214.4 million on the Plan, the Government expenditures amounted altogether to only Rs. 60 million as against its commitment for at least Rs. 95 million. These expenditures were also made largely by drawing down the Treasury balances of the Government.[22] While the foreign aid received by Nepal exclusively in the form of outright grants during the Plan period (1956/57—1960/61) amounted to Rs. 383.89 million, the total revenue collected by the Government during the same period added up to Rs. 356.69 million only. The Three Year Plan also is heavily contingent upon the foreign aid. Out of the estimated outlay of Rs. 600 million, the foreign aid alone would provide Rs. 500 million for financing the Plan. All this indicates only the inadequacy of efforts on domestic front.

While the economic rationale of external resources may be explained in terms of overriding shortages of capital, skill and foreign exchanges, which might impose severe constraints on both the nature and speed of development in underdeveloped countries like Nepal, usefulness of such resources for the development of these countries depends largely upon how effectively they are combined with domestic efforts and resources. If an inflow of external resources is accompanied by a corresponding relaxation or negligence of domestic saving efforts, it might lead more to consumption than to investment in underdeveloped countries. What Nurkse calls the "Action on the home front" should necessarily be strengthened by various fiscal measures. In Japan "people were indoctrinated in the virtues of thrift and austerity. business firms were urged to reinvest their profits and to hold down dividends; wages were kept low. Yet all this was not enough. Much had to be done through public finance: taxation

22. *Three Year Plan, National Planning Council, op. cit.*, p. 20.

Table 4:4

Sources of Revenue of the Government

(Rs. in Lakh)

Fiscal Year	*Excise and Customs*	*Land Revenue*	*Other Taxes*	*Forest*	*Trading Depts. (A)*	*Mint and Subventions*	*Others*	*Total*
1952–53	123·75 (25·44)	156·16 (32·09)	4·45 (0·92)	40·62 (8·35)	26·05 (5·35)	111·99 (23·02)	23·50 (4·83)	486·62 (100·00)
1953·54	107·24 (25·34)	158·63 (37·42)	6·26 (1·47)	47·75 (11·26)	33·75 (7·96)	49·27 (11·62)	20·92 (4·93)	423·82 (100·00)
1954–55	84·33 (19·87)	142·64 (33·62)	3·51 (0·83)	57·94 (13·65)	48·35 (11·39)	65·44 (15·42)	22·17 (5·22)	424·38 (100·00)
1955–56	141·28 (25·54)	167·38 (30·24)	4·00 (0·72)	62·90 (11·37)	96·21 (17·38)	50·10 (9·05)	31·56 (5·70)	553·43 (100·00)
1956–57	224·44 (37·17)	151·44 (25·08)	0·77 (0·12)	73·71 (12·21)	58·97 (9·77)	68·39 (11·32)	26·14 (4·33)	603·86 (100·00)
1957–58 (B)	225·99 (39·60)	175·54 (30·76)	3·69 (0·65)	64·97 (11·38)	47·49 (8·32)	21·80 (3·82)	31·25 (5·47)	570·73 (100·00)
1958–59	337·70 (46·24)	177·48 (24·30)	0·62 (0·08)	97·16 (13·31)	48·34 (6·62)	18·83 (2·58)	50·14 (6·87)	730·30 (100·00)
1959–60	324·46 (37·47)	162·16 (18·72)	6·81 (0·79)	116·36 (13·44)	164·45 (18·99)	15·00 (1·73)	76·75 (8·86)	865·99 (100·00)
1960–61	398·33 (42·55)	209·82 (22·41)	8·92 (0·95)	155·26 (16·58)	94·85 (10·13)	16·00 (1·71)	52·95 (5·67)	936·13 (100·00)
1961–62	391·00 (42·96)	282·00 (30·97)	21·30 (2·34)	87·00 (9·56)	— —	16·00 (1·76)	112·70 (C) (12·38)	910·00 (100·00)
1962–63	466·00 (35·94)	530·00 (40·86)	36·55 (2·82)	98·00 (7·55)	— —	16·00 (1·23)	150·45 (C) (13·60)	1297·00 (100·00)
1963–64	694·94 (44·00)	400·00 (25·33)	54·84 (3·47)	164·41 (10·41)	87·67 (5·56)	16·00 (1·01)	161·40 (10·22)	1579·28 (100·00)
1964–65	959·38 (50·89)	455·00 (24·14)	71·51 (3·79)	156·10 (8·28)	94·25 (4·99)	16·00 (0·85)	133·10 (7·06)	1885·34 (100·00)

(A)=Include rode, railways, ropeway, post, telephone, wireless, electricity, airways, and water.
(B)=Revised estimates. (C)=Include income from trading departments as well.
Source: *Cf. Table* 4:3

Table 4:5

FOREIGN AIDS TO NEPAL DURING THE FIVE YEAR PLAN PERIOD
(In Rs. '00000)

Aiding Country / Agency	1956–57	1957–58	1958–59	1959–60	1960–61	*Total*	*Percentage*
Australia	—	—	—	—	8.49	8.49	0.2
Canada	—	—	—	11.25	—	11.25	0.3
Ford Foundation	—	—	—	—	106.55	106.55	2.8
India (A)	145.70	96.05	171.02	184.50	223.55	820.82	21.4
New Zealand	—	—	—	11.30	10.00	21.30	0.6
People's Republic of China	—	—	—	321.35	—	321.35	8.4
Switzerland	—	—	—	19.72	4.09	23.81	0.6
U. K.	—	—	—	6.73	30.47	37.20	1.0
U. N.	—	—	—	136.30	33.31	169.61	4.4
U.S.A. (A)	127.53	484.73	179.51	562.25	869.97	2223.99	58.1
U.S.S.R.	—	—	—	—	84.56	84.56	2.2
Total	273.23	580.78	350.53	1253.40	1370.99	3838.93	100·0

A = The amount of aids received before the commencement of the Five Year Plan from India and the U.S.A. were Rs. 700.18 lakh and Rs. 249.51 lakh, respectively.

Source: *Five Years Plan Progress Report. op. cit.*, p. 6.

and forced loans."[23] Taxation, therefore, appears to be the only effective measure for mobilizing domestic resources in sizeable magnitude.

3. *Taxation: Land Revenue**

In Nepal as in other underdeveloped countries, a larger proportion of the national income, almost as much as two-thirds. originates in agricultural sector. In so far as the economic development of the country is to be financed from internal resources, that should therefore, be done largely out of the income from land, at least in the initial stages. However, one cannot adopt suitable measures for mobilizing this income unless the nature of its distribution is properly known. The distribution of agricultural income in Nepal depends not only upon the distribution of land but also upon the existing conditions of land tenure and land tax system.

The tax on *Raikar* land was originally assessed in each kind or in both; but the reasons for choosing one form to the exclusion of the other are not very clear and convincing. In Kathmandu Valley as well as in the Hill districts with the notable exception of Pokhara, Kunchha, Gorkha, Jajarkot and the so-called Thekka Thiti districts,[24] assessment on Khet land[25] was wholly or partly in kind, whereas in the Terai, it was and is exclusively in cash. Whichever is the form of revenue, the basis of assessment is conspicuous by the absence of uniformity, resulting in bewildering discrepancies and divergencies in the tax rates not only between regions but also within the same region. All this may be attributed largely to the fact that land settlements were not made at a time all over the country on some objective and uniform basis.

23. Ragnar Nurkse, *Problems of Capital Formation in Underdeveloped Countries*, Oxford, 1957, p. 143.

* The following part of this chapter dealing with land tax has been published in the Journal of Tribhuvan University, Kathmandu, Vol. I, No. 2, March, 1959.

24. The Hill districts where assessments were made exclusively in cash and took the form of contractual payment without any remissions, are popularly known as *Thekka Thiti* districts most of which are lying in the Far Western and Far Eastern regions of the country.

25. In the Hill districts and Kathmandu Valley, agricultural land is classified as *Khet* and *Pakho*. *Khet* is an irrigated high land where paddy and wheat are grown, whereas Pakho is an unirrigated high land where dry crops such as maize and millet are grown. Assessment on *Pakho* land in the Hill districts is mostly in cash.

In Kathmandu valley (excluding Bhaktapur) and the Hill-districts excluding Pokhara, Kunchha, Gorkha and Jajarkot where assessments were made in cash between 1933 and 1938 as well as the *Thekka Thiti* districts, assessments as made in 1934 on all the newly cultivated Khet land were designed to absorb something like 15 to 20 per cent or even more, of the gross output of land, while for Bhaktapur where the assessment of 1868 was revised after 1930, the corresponding figure is still much higher. As regards the old cultivated land in the Hill districts and Kathmandu Valley, where the last settlements were made either in 1868 or between 1869 and 1896,[26] the tax rates in kind exhibit many confusing diversities and discrepancies and they appear to be on the whole much lower than those levied on the newly cultivated land. This means that the proportion of gross output accruing to the State might also be much smaller than that accruing from the newly cultivated land.

Subsequently, presumably because of administrative, storage and transport difficulties or otherwise, the tax, though assessed in kind, has been realised for a long time mostly in cash. In order to convert kind into cash, the official prices of agricultural produce were fixed probably on the basis of the then prevailing local market prices. Such official prices used to be fixed once a year until 1910. Later on, the official price-schedules, which were determined on a long-term basis partly with reference to 1907/08 price levels, seemed to have been continued until 1934 when they were again revised for all the districts excluding Kathmandu and Kirtipur.[27]

From the time these assessments in kind on *Raikar* land and the subsequent conversion of kind into cash revenue at the official prices were made, the real value of money has been falling precipitously with the result that the cash revenue at present constitutes just a small fraction of the gross output as against the original proportions ranging roughly from 15 to 20 per cent or even more. While statistics on this point are yet incomplete, available information reveals that the land revenue sometimes does not represent more than 3 per cent of the gross output.[28] At Kathmandu, the cash revenue on the basis of the official conversion price-schedule amounted in 1960/61 to only Rs. 4.28 (inside valley) and Rs. 3.53 (outside valley) per *ropani*[29] of *Abal*

26. *Land Tenure and Taxation in Nepal*, Vol, I, *op.cit.*, pp. 181-2.

27. *Ibid.*, pp. 77-78.

28. *Cf. Taxation Committee Report*, Nepal, June 1957.

29. One *ropani* is equal to 0.13 acres.

land[30] which at the market price might not represent more than 3.5 per cent, even if the total yield were estimated at a low level of 80 *pathis* per *ropani*.[31] By assuming some modest yield capacity of land in some districts of the Western Nepal, it is found that in some cases, the cash revenue did not account for more than 1.5 per cent of the estimated gross output valued at Kathmandu market price.

This state of affairs has not only reduced the real revenue of the Government but also changed the nature of the tenancy system in the country, giving rise to some intermediary class between the State and the actual tillers of the land through what might be called a chain-process of sub-infeudation. With an appreciable margin between the gross output of land and the cash revenue payable to the Government, the *Mohi* (the original tenant of the Government) found that he could very well sublet his land to some sub-tenants, enjoying therefrom a substantial amount of proceeds without himself working on land.[32]

A parallel state of affairs may be observed in the case of those districts where land revenue has all along been assessed in cash on contractual basis or otherwise. As already noted above, assessments in the Terai districts and in Pokhara, Kunchha, Gorkha and Jajarkot and the *Thekka Thiti* districts in the Hill region, are made exclusively in cash. Available information, as brought out in the following table 4:6, indicates that wherever assessments were made in cash, the land tax rates, except in a few cases, are much lower than those in places where they were made in kind. Secondly, the level of land tax is much higher in the Hill districts than that in the Terai. The degree of disparity is also more pronounced between the Hill districts than that between the Terai districts. Ignoring all these disparities and discrepancies in the level of assessment and

30. Land is graded in Nepal for assessment according to quality as *Abal, Doyam, Sim* and *Chahar* on the basis of some rough physical, locational, irrigational and economic conditions of a region. *Abal* is treated as land of the highest grade, whereas *Chahar* as that of the lowest one.

31. One *pathi* of paddy is equal to 5.8 lbs.

32. This may be illustrated with a concrete case as follows:
A *mohi* in possession of one *ropani* of Abal land in Kathmandu Valley found that with the gross output of the main crop valuing at least Rs. 120.00 and the total cash revenue of Rs. 4.28, he could sub-let his land to the sub-tenants, since even if the latter appropriate as much as 50 per cent of the gross output (i.e. Rs. 60.00) the former would be still left with the margin of Rs. 55.72 without himself working on land and sharing any costs of production.

assuming that cash assessments in the Terai districts were also determined originally on the basis of the local market prices of agricultural produce prevailing at the time of assessments, the proportion of gross output accruing to the State in the form of revenue must have gone down to a considerable extent at present for the simple reason that the last assessments in the majority of cases were made more than 30 years ago. Similar conclusion holds good in the case of Thekka Thiti districts of the Hill where the last assessments were made in many cases between 1889 and 1899.

Table 4:6

LAND REVENUE IN VARIOUS REGIONS, 1960/61[33]

No	District	Year of Last Settlement	(Revenue in Rs. N.C. per Bigha) Grade of Khet Dhanahar or Abal Land			
			Abal	Doyam	Sim	Chahar
1		2	3	4	5	6
A. *Eastern Terai* (Cash Assessment)						
1.	Morang	1917	9·00	8·00	6·00	4·50
2.	Jhapa	1938	9·09	8·09	6·09	4·59
3.	Siraha	1949	11·44	10·26	9·51	6·00
4.	Hanumannagar	1949	11·81	11·44	10·28	6·47
5.	Mahottari	1927	15·00	14·25	13·50	—
6.	Saralahi	1927	12·00	10·87	9·75	—
7.	Parsa	1909	10·50	9·75	8·75	—
8.	Rauthat	1909	11·25	9·75	8·75	—
9.	Bara	1909	10·50	9·75	9·37	—
B. *Western Terai* (Cash Assessment)						
10.	Seoraj	1932	9·28	9·03	8·28	5·43
11.	Khajahani	1932	10·59	9·84	9·09	8·09
12.	Palhi-Majhkhand	1922	11·12	9·37	8·62	7·12
13.	Kailali	1956	8·25	7·12	5·25	3·75
14.	Kanchanpur	1958	7·50	6·37	4·50	3·00

33. 'Figures compiled and calculated from M. C. Regmi, *op. cit.*, (*Passing*).

1	2	3	4	5	6
C. *Thekka Thiti Districts*					
15. Dailekh	1889	13·25	12·74	11·99	10·72
16. Illam	1937	26·50	23·32	26·14	16·96
17. Baitadi	1938	7·95	6·89	6·36	5·30
18. Bajhang	1938	5·83	5·30	4·77	4·24
D. *Western Hill* (Cash Assessment)					
19. Pokhara and Kuchha	1933	21·20	12·72	7·42	4·24
20. Gorkha	1938	39·75	31·80	21·20	15·90
E. *Western Hill* (Kind Assessment)					
21. Bandipur	1868	16·56	13·25	8·74	6·62
22. Pyuthan	1868	19·60	15·63	10·33	7·68
23. Salyan	1868	19·60	15·63	10·33	7·68
24. Syangja	1868	19·56	13·25	8·74	6·62
F. *Eastern Hill* (Kind Assessment)					
25. Okhaldunga	1868	25·66	20·40	13·38	9·80
26. Nuwakot	1868	28·88	21·86	14·31	10·46
27. Ramechhap	1868	21·59	17·22	11·39	8·34
G. *Kathmandu Valley* (Kind Assessment)					
28. Kathmandu)					
29. Lalitpur)	1868	56·71	44·55	29·68	17·49
30. Kirtipur)		46·77	36·84	24·78	13·25
31. Bhaktapur	1930	86·71	61·61	41·07	23·05

It needs, therefore, no further elaboration to show that some revision or reassessment of the tax on *Raikar* land with reference to changes in price levels and yield capacities in different parts of the country has been long overdue. However, while the level of real revenue from *Raikar* land has already gone down to a considerable extent, the tax on *Birta* land after its conversion into *Raikar* land under the *Birta Abolition Act* of 1959 was assessed at the same rate as that on the adjoining

Raikar land, except in the case of B-class *Birta* land in Kathmandu Valley for which different rates were fixed.[34] Even if this was continued, *Birta* land would have remained on the same footing as any other adjoining *Raikar* land in respect of tax burden which, as already pointed above, has become in general less and less burdensome with the passage of time. But in January 1963, a new assessment on B-class *Birta* land excluding that of Kathmandu Valley, was made at the uniform rates of Rs. 2.44 and Rs. 0.94 per *ropani* of *Khet* and *Pakho* lands, respectively, all over the Hill districts, and Rs. 15.00 per bigha (13.25 *ropanis*) in the *Terai* districts, irrespective of the quality of land.[35] This created discrepancies and disparities not only between *Raikar* land and *Birta* land but also between *Birta* land of different grades, since the new assessment ignored altogether the system of assessment on the basis of land-gradation according to differences in physical, irrigational, locational and some other general economic conditions. On the whole, it appears that these new rates for *Birta* land were much lower than those for *Raikar* land. While the level of tax on *Raikar* land itself justifies its upward revision on the grounds of both equity and necessity of additional resources on public account for financing development works in the country, the enforcement of new rates for *Birta* land at the new level appears to be rather untenable.

Though less in the form of real revenue of the Government could be recovered quite substantially by a simple process of upward revision of the land tax assessment in general, yet the Government took an entirely different but clumsy measure for the same purpose by imposing what was called the surcharge on land tax from the fiscal year of 1959/60. The surcharge was based neither on the size of holdings, nor on output or on income from land in any direct manner. It was levied on the amount of land tax payable to the Government at the prevailing rates which, as already noted, were conspicuous by all bewildering diversities and disparities. The rates of surcharge which were in force during the fiscal years of 1959/60 and 1960/61 were

34. Tax rates for B-class Birta land in Kathmandu Valley, 1961/62.

Grade of Land	*Unit*	*Khet*		*Pakho*
Abal	Ropani	Rs. 3.00		Rs. 1.14
Doyam	,,	Rs. 2.44		Rs. 0.94
Sim	,,	Rs. 1.69	–	Rs. 0.56
Chahar	,,	Rs. 1.12		Rs. 0.37

Cf. Birta Abolition Act, 1959 (*Amendment*), *Nepal Gazette*, *Magh*, 24, 2018 (Feb. 1962)

35. *The Gorkha Patra*, Feb. 13, 1963.

much higher than those enforced in 1961/62.[36] Moreover, the exemption limit was also raised in 1961/62 from Rs. 250.00 to Rs. 500.00. The revised rates, therefore, sharply reduced not only the scope but also the degree of progression of the surcharge on land tax. The result is that there was a drastic and more than proportionate decline in the total burden of land tax. This is illustrated in the following Table 4:7.

If it is assumed for illustration that the land revenue accounts on an average for something like 4 per cent of the gross output of land, it may be seen that the total tax (land tax plus surcharge) still accounted for less than 20 per cent of the gross output even at the level where total gross output valued as much as Rs. 40 lakh. As a result of the revision of surcharge rates in 1961/62, the total tax went down drastically from about 20 per cent to less than 8 per cent of the gross output. At first sight, it appears that the surcharge on land tax was quite high and progressive for on each rupee of land tax paid to the Government, one had to pay, above a certain level, as much as Rs. 4 in 1960/61 and Re. 1 in 1961/62 as well; but in practice it failed to yield any substantial amount of additional revenue as expected by the Government when this device was employed.

The very fact that land distribution in Nepal is sharply skewed suggests that the majority of persons would not be holding such an extensive land in each individual's name as would yield an output valuing as much as Rs. 3 or 4 lakh or more. This means that there would be but a little change in the proportions of gross output accruing to the state as a result of the surcharges. Moreover, since the surcharge was levied on the basis of the amount of revenue payable to the Government which was roughly a function of the size of holdings and since the exemption rate was also fixed at a high level, the surcharge could be easily avoided, wholly or partly, if one holding registered in one

36. A. Rates of surcharge per rupee of land tax in 1959/60 and 1960/61.

i) For the first Rs. 250 or 25 *Bighas* of land whichever is less	Nil
ii) For the next Rs. 250.01—Rs. 500.00	Rs. 0.50
iii) For the next Rs. 500.01—Rs. 1000.00	Rs. 1.00
iv) For the next Rs. 1000.01—Rs. 2000.00	Rs. 2.00
v) For the next Rs. 2000.01—Rs. 3000.00	Rs. 3.00
vi) For any amount above Rs. 3000.00	Rs. 4.00

B. *Rate of Surcharge per Rupee of Land Tax in* 1961-62

i) For the first Rs. 500.00	Nil
ii) For the next Rs. 500.00	Rs. 0.25
iii) For the next Rs. 1000.00	Rs. 0.50
iv) For the next Rs. 1000.00	Rs. 1.00
v) For any amount above Rs. 3000.00	Rs. 1.00

Table 4:7

TOTAL LAND TAX BURDEN IN 1960/61 AND 1961/62

(Rs. in N. C.)

Gross Output of Land (Rs. in '000)	*Land Revenue at 4% of Gross Output* (Rs. in '000)	*Surcharge on Land tax at 1959/60 & 1960/61 Rates in Rs.*	*Surcharge on Land Tax at 1961/62 Rates in Rs.*	*Total Tax Payable* (2+3)	*Total Tax Payable* (2+4)	*Col. 5 As % of Col. 1*	*Col. 6 As % of Col. 1*
1	2	3	4	5	6	7	8
6.25	0.25	—	—	250	250	4.00	4.00
12.50	0.50	125		625	500	5.00	4.00
25	1.00	625	125	1625	1125	6.50	4.40
50	2.00	2625	2625	4625	2625	9.20	5.30
100	4.00	9625	2625	13625	6625	13.20	6.60
200	8.00	25625	6625	33625	14625	16.80	7.30
300	12.00	41625	10625	53625	22625	17.80	7.50
400	16.00	57625	14625	73625	30625	18.40	7.60
500	20.00	73625	18625	93625	38625	18.70	7.70
1000	40.00	153625	38625	193625	78625	19.36	7.80
2000	80.00	313625	78625	393625	158625	19.68	7.93
3000	120.000	473625	118625	593625	238625	19.78	7.95
4000	160.000	633625	158625	793625	318625	19.84	7.96

individual's name were split into smaller holdings, distributed among his heirs and got them registered in their respective names. All these facts should naturally give rise to the suspicion whether the surcharge affected in any way the total tax yield from land. This contention was confirmed by the Hon'ble Finance Minister when he revealed in his Budget Speech of 1962/63 that the total money collected from the surcharge on land tax during the two years (1959/60 and 1960/61) amounted to only Rs. 50,000.[37] The device could, therefore, serve neither the purpose of raising aditional resources on public account, nor the purpose of recovering the loss in the form of real revenue from land over the past years. As it outlived its usefulness, the surcharge system was thus abolished retrospectively in 1962/63 and the money collected during the fiscal years of 1959/60 and 1960/61 was also refunded.

Since 1961/62, the Government seems to have been pursuing a policy of general increase in the level of land tax, for it was in this year that the land tax was increased for the first time after the political change in 1951, by 25 per cent in the Terai and by 10 per cent in the Hill districts and Kathmandu Valley. This policy has been intensified all the more in 1962/63 by further increase in the land tax, on an average, by 40 per cent over that of 1960/61 in the Hill districts and Kathmandu Valley. In the case of the Terai districts, land tax has further been raised to Rs. 15.00 and Rs. 20.00 per *bigha* where it was in 1961/62 any amount below Rs. 10.00 and above Rs. 10.00 per *bigha*, respectively.

Though some judicious revision of land tax had already been long overdue, yet the Government policy of general increase in the level of assessment seems to have been motivated more by the need for increasing the public resources than by the desire for correcting the existing disparities and discrepancies in the tax rates. On the contrary, the recent measures have magnified the existing discrepancies, on the one hand, and created on the other, some new discrepancies in the level of land assessment. Since the increase so far made is at flat-rate irrespective of differences in the quality of land, obviously it should have affected different grades of land in different ways. In the Budget Speech of 1962/63, it was aptly pointed out that the same grade of land had been taxed in the past at different rates. However, if the different rates of tax on uniform grade of land is anomalous, a uniform rate for different grades of land is perhaps equally anomalous.

Moreover, for the fiscal year of 1962/63, the official price schedules for the conversion of revenue from kind into cash had

37. *The Gorkha Patra*, July 24, 1962.

also been revised and fixed at a uniform rate of 5 *pathis* of paddy per rupee for all districts where land assessments were made in kind. In view of the precipitous rise in the price level since the time the official conversion-price schedules were fixed some 30 years ago, such a thorough-going revision was, in fact, long overdue. But as these conversion price-schedules were fixed in the past at different rates for different places on the basis of the then prevailing local market prices and as the changes in the price levels over the period of past 30 years are not definitely uniform in all the districts, the uniform conversion price schedule of 1962/63 have affected different regions in quite different ways. This may be seen from the Table 4:8 below.

Table 4:8

DIFFERENT CHANGES IN CONVERSION PRICE
(Amount of Paddy in Pathis per Rupee)

No.	*District*	*Official Conversion Price of paddy till* 1961/62[38]	*Conversion price of paddy in* 1962/63	*Percentage of Increase* (+) or *Decrease* (−) *in* 1962/63
1.	Kathmandu Valley (Inside)	5	5	0
2.	Kathmandu Valley (Outside)	6	5	+20
3.	Bhaktapur	5	5	0
4.	Kabhrepalanchok area	7.5	5	+50
5.	Dolakha Town	20	5	+300
6.	Dolakha outlying area	9	5	+80
7.	Ramechhap	9	5	+80
8.	Okhaldhunga	7.5	5	+50
9.	Nuwakot	7	5	+40
10.	Gorkha	10	5	+100
11.	Bandipur	12	5	+140
12.	Syangja	12	5	+140
13.	Gulmi (Galkot)	11	5	+120
14.	Salyan	10	5	+100
15.	Pyuthan	10	5	+100
16.	Achham	16	5	+220

38. M. C. Regmi, *op.cit.*, pp.197-201.

Ignoring the possible discrepancies between different districts on account of increase in price level at different rates, the percentage of increase in 1962/63 over the original rate which continued until 1960/61, varied from 0.0 per cent in Kathmandu Valley (inside) and Bhaktapur to 300 per cent in Dolakha town. Where assessments in kind were largely or entirely in the form of paddy, this differential increase measured roughly the additional burden of land tax in cash at different places.

Since the percentage of increase varied from 0.0 per cent to 300.00 per cent, the level of land tax may also be said to have been increased by 0.0 per cent to 300.00 per cent in different places as shown in the Table 4:8 above. This, therefore, measures roughly the degree of disparity created in 1962/63 by the uniform conversion price schedule for all the districts where assessments were made in kind. Equality does not, therefore, ensure equity as well.

The revision of conversion price schedule in 1962/63 has another far reaching implication as well. Where assessments were made in cash, the level of land tax had been enhanced only to the extent of increase in tax rates made in 1961/63. But in the Hill districts and Kathmandu Valley where assessments were made in kind, the level of land tax had been increased not only by 40 per cent as made in 1962/63 but also by much greater, but disproportionate, rates varying from 0.0 per cent to 300.00 per cent as in the case of those regions which were shown in the Table 4:8 above.

In the past, as already stated above, the official conversion price-schedules were determined more or less on the basis of the then prevailing local market price. In fact, even the distance between *Mal Adda* (Revenue office) and the assessees had some bearing on such price schedules. For instance, the longer the distance, the more favourable was the conversion price.[39] But the determination of 1962/63 official conversion price schedule does not seem to have any bearing whatsoever on the variations either in distance or in the market prices. Besides, the new official price, when compared with the recent market prices, appeared to be nothing less than outdated. For instance, at Kathmandu, the market prices, which were already higher than the official prices by something like 23 to 42 per cent even as late as 1934/35, have gone up in recent years by more than seven-times to twelve-times. This may be seen from the following Table 4:9

39. *Cf. Report of the Land Tenure Conditions in Western Nepal.*

Table 4:9

KATHMANDU PRICE INDEX OF SELECTED AGRICULTURAL PRODUCTS

[1962/63 official conversion prices for Kathmandu Valley (inside) as base]

Commodity	*Official Price*	1934/35[40]	1962[41]
Tauli (Course) Rice	100	127	881
Wheat	100	125	NA
Maize	100	142	967
Wheat Flour	100	123	788
Maize Flour	100	130	774
Potato	100	133	1200

Even in those regions where assessments were made in cash, one can easily detect the growing disparities due to disproportionate increases in the land tax at the flat rates, being Rs. 15.00 and Rs. 20.00 per *bigha*, where it was in 1961/62 any amount below Rs. 10.00 and any amount above Rs. 10.00 per *bigha*, respectively. All this may be substantiated with some selected cases as brought out in the Table 4:10 below.

If such an all-round simplification is considered to be an imperative measure on the ground of administrative expediency, even at the cost of equity and justice, it is altogether a different question which obviously finds no answer in any economic analysis. Looking into the problem purely from the economic standpoint, it appears that an upward revision of land assessment should be considered both as a means of finding out additional resources on public account and as a measure for mitigating the existing discrepancies and disparities in the assessment of land tax and its collection.

It is gratifying that the Government has taken during the fiscal year, 1963/64 a major step for, at least, a partial rectification of the growing disparities in land tax. On both *Khet* and *Pakho* lands, an entirely new assessment has been made on

40. Calculated from the weekly market prices published in *Gorkha Patra*. For each month, the prices as in the last week, are taken into account.

41. Nine months' average, *Economic Data Papers*, Nepal USAID/Nepal, Vol. 4, No. 2, October, 1962.

Table 4:10

DIFFERENTIAL RATES OF INCREASE IN LAND TAX IN 1962/63
(Tax rate in Rs. N. C. per unit of *Dhanhar* or *Khet Land*)

No.	*District*	*Grade of Land*	*Unit*	*Up to* 1960/61	1961/62	1962/63	*Percentage of Increase in* 1962/63 *over* 1960/61
1		2	3	4	5	6	7
A. *Terai (Assessment in Cash)*							
1.	Morang	Abal	Bigha	9.00	11.25	20.00	122.2
		Doyam	,,	8.00	10.00	15.00	87.5
		Sim	,,	6.00	7.50	15.00	150.0
		Chahar	,,	4.00	5.62	15.00	233.3
2.	Mahottari	Abal	,,	15.00	18.75	20.00	35.3
		Doyam	,,	14.25	17.71	20.00	41.4
		Sim	,,	13.50	16.87	20.00	48.1
3.	Bara	Abal	,,	10.50	13.12	20.00	90.4
		Doyam	,,	9.75	12.19	20.00	105.1
		Sim	,,	9.37	11.71	20.00	112.3

1	2	3	4	5	6	7
4. Saralahi	Abal	Bigha	12.00	15.00	20.00	66.6
	Doyam	,,	10.87	13.59	20.00	84.0
	Sim	,,	9.75	12.39	20.00	105.9
5. Kailali	Abal	,,	8.25	10.31	20.00	66.6
	Doyam	,,	7.12	8.78	15.00	110.6
	Sim	,,	5.25	6.51	15.00	185.7
	Chahar	,,	3.75	4.69	15.00	300.0
6. Kanchanpur	Abal	,,	7.50	9.35	15.00	100.0
	Doyam	,,	6.37	7.96	15.00	135.4
	Sim	,,	4.50	5.62	15.00	233.3
	Chahar	,,	3.00	3.75	15.00	400.0
7. Seoraj	Abal	,,	9.28	11.60	20.00	115.3
	Doyam	,,	9.03	11.29	20.00	121.4
	Sim	,,	8.28	10.35	20.00	141.5
	Chahar	,,	5.43	6.79	15.00	176.3

1	2	3	4	5	6	7
B. *Hills (Assessment in Cash)*						
8. Illam	Abal	Ropani	2.00	2.20	2.80	40.0
	Doyam	,,	1.76	1.93	2.46	40.0
	Sim	,,	1.42	1.56	1.98	40.0
	Chahar	,,	1.28	1.41	1.79	40.0
9. Baitadi	Abal	,,	0.60	0.66	0.84	40.0
	Doyam	,,	0.52	0.57	0.72	40.0
	Sim	,,	0.48	0.53	0.67	40.0
	Chahar	,,	0.40	0.44	0.56	40.0
10. Pokhara	Abal	,,	1.60	1.76	2.24	40.0
	Doyam	,,	0.96	1.05	1.34	40.0
	Sim	,,	0.56	0.61	0.78	40.0
	Chahar	,,	0.32	0.34	0.44	40.0
C. *Hills and Valley (Assessment in kind)*						
11. Kathmandu Valley (Inside)	Abal	,,	4.28	4.71	5.35	40.0
	Doyam	,,	7.12	3.70	4.22	40.0
	Sim	,,	5.25	2.46	2.80	40.0
	Chahar	,,	3.75	1.45	1.65	40.0

1	2	3	4	5	6	7
12. Bandipur	Abal	Ropani	1.25	1.37	4.03	222.4
	Doyam	"	1.00	1.10	3.20	220.0
	Sim	"	0.66	0.73	2.07	198.8
	Chahar	"	0.50	0.55	1.51	202.0
13. Okhaldhunga	Abal	"	1.94	2.13	4.03	107.2
	Doyam	"	1.54	1.69	3.20	107.8
	Sim	"	1.01	1.11	2.07	104.9
	Chahar	"	0.74	0.81	1.51	104.0
14. Nuwakot	Abal	"	2.08	2.28	4.03	93.8
	Doyam	"	1.65	1.81	3.20	93.9
	Sim	"	1.08	1.18	2.07	91.7
	Chahar	"	0.79	0.89	1.51	91.1
15. Salyan	Abal	"	1.48	1.63	4.03	172.3
	Doyam	"	1.18	1.29	3.20	171.2
	Sim	"	0.78	0.86	2.07	165.4
	Chahar	"	0.58	0.64	1.51	160.3

the basis of land gradation in all the Hill districts, ending thereby, at a single stroke, the glaring disparities created, partly, by defective assessments in the past and partly, by the anomalously uniform rate of conversion of kind-revenue into cash in 1962/63. Yet in the Terai and Inner Terai as well as in Kathmandu Valley, no change has been made in the existing rates of land tax. This means that the discrepancies, which were intensified all the more in 1962/63 by the increase in land tax in the Terai at flat-rates, being Rs. 15.00 and Rs. 20.00 per *bigha*, where it was in 1961/62 any amount below Rs. 10.00 and above Rs. 10.00, respectively, will continue to remain intact. Thus a larger part of the arable land will remain still under inequitable tax burden, for the Terai, Inner Terai and Kathmandu Valley account for more than two-thirds of total arable land in the country.[42]

However, it is to be noted that even in the case of the Hill districts, the new assessment needs, at least, on equity ground, a thorough going revision at the earliest date possible, in so far as it is now based, in the case of *Pakho* land, on what are called *Hale*, *Pate*, *Kodale* and *Veejan* systems which never involved an actual measurement of land. Under the so-called *Hale* system, holdings are expressed in terms of *Hale*, and *kodale*. The size of land that a pair of bullocks (*Hale*) can plough in one day is treated as one *Hale* which is equal to 1.5 *Pate* or 2 *Kodale*.[43] The area of land that a man can dig in one day with a spade (*Kodale*) is considered to be one *Kodale*. The so-called *Veejan* (*seed*) system is one under *which land* tax on *Pakho* land is ascertained by some ratio to the quantity of seeds expected to be needed for sowing. Thus the area of land on which 3.5 *pathis* of seeds are needed for sowing is treated as equivalent to one *bigha* or 13.25 *ropanis*.[44] The assessment on *Pakho* land in terms of *Veejan* appears to have been made in almost all the Hill districts where settlements were made after 1868. Thus this system is followed in Kabhrepalanchok (1949), Sindhupalanchok (1948), Bajura (1896), Dedeldhura (1892), Majhkirat (1945), Bajhang (1938), Baitadi (1938), Kunchha (1933), Pokhara (1933), Gorkha (1938), Chhathum (1940),

42. In 1964/65 too, the flat rates of Rs. 15.00 and Rs. 20.00 have been retained intact for the Terai and Inner Terai except for their hilly parts where only dry crops such as maize and millet are generally grown. For these parts, tax burden is reduced to a flat rate of Rs. 10.00 per *bigha*.

43. *Notice of Ministry of Finance*, HMG, Nepal, *Nepal Gazette*, Vol. IX, No. 46 Falguna 24, 2016.

44. *Ibid*.

Okhaldhunga (1947) and Ramechhap (1947).[45] The *Hale* system is adopted in Dhading, Syangjya, Bandipur, Gulmi, Banglung, Salyan Dailekh and Jumla where the last settlements, except in the last two districts, were made in 1868.

Thus, under both *Hale* and *Veejan* systems, the assessment of land tax does not involve any actual size of land at all. It is, therefore, no wonder that the actual size of land varies greatly from *Hale* to *Hale* and the same quantities of *Veejan* (seed) represent different amounts of land. "A *Hale* pays a revenue of Rs. 1.04 only and actually possesses above 10 or 12 *bighas* of land, out of which he personally cultivates as much as he is capable of and gives away the rest on rent ....."[46] Land Tax on an equitable basis is raher inconceivable where the assessment has no reference whatsoever to the actual measurement of land on a scientific basis. Uniformity in land tax, as introduced this year cannot, therefore, ensure equity as well. It appears that a reassessment of land tax on *Pakho* land should not be delayed at least in those Hill districts where the cadastral survey has been completed. This will eliminate the disparities resulting from the existing discrepancies in the actual size of holdings. Yet some disparity in tax burden will continue to remain so long as the assessment is not accurately related to quality and productivity of land as well.

As regards the *Khet* land, the new assessment of 1963/64 seems to have reversed the land tax policy as pursued by the Government over the period of past few years. From the foregoing analysis, it is quite clear that the land tax policy of the Government has been one of general increase in the land tax rates. The new assessment, on the contrary, brings down the level of land tax to a considerable extent, nullifying thereby the continuous efforts of the Government to push up, in general, the land tax rates as high as possible. These efforts have been made in conformity with the fundamental policy of the Government to mobilize an increasing amount of domestic resources for financing development works in the country. The fact that the new assessment has reduced the tax rates to a considerable extent may be substantiated by comparing the amount of revenue payable to the Government per unit of land in 1962/63 with the amount assessed for 1963/64.[47] Table 4:11 below shows

45. Figures in brackets indicate the year of last settlement on *Pakho* land.

46. Quoted by M. C. Regmi, *op.cit.*, p. 45.

47. Land tax has been reduced again in 1964/65 by revising the rate for ungraded *Khet* land in the Hills. The rate is substantially reduced to Rs. 1.40 from Rs. 2.40 per *ropani* as fixed in 1963/64.

that the new tax rates are lower than that of 1962/63 for all grades of *Khet* land. This comparison applies to all the newly cultivated land in Kabrepalanchok, Sindhupalanchok, Ramechhap, Dolakha, Okhaldhunga, Nuwakot, Dhading, Syangja, Bandipur, Palpa, Gulmi, Banglung, Salyan and Pyuthan districts of the Hill region where the uniform assessment was made in 1934 in kind on all the newly cultivated land. It may further be noted that the percentages of decrease in tax on the poor grades of land (viz., *Sim* and *Chahar*) is quite lower than that on superior grades of land. To the extent that the land of superior grade is benefited more than that of inferior ones, the land tax rates may be said regressive in its effect.

Table 4:11

PERCENTAGE OF DECREASE IN LAND TAX IN THE HILL DISTRICTS, 1963/64

Grade of Land	*Unit*	1962/63 *Rate*	1963/64 *Rate*	*Percentage of Decrease in* 1963/64
Abal	Ropani	Rs. 4.03	Rs. 2.60	36.00
Doyam		Rs. 3.20	Rs. 2.20	31.25
Sim		Rs. 2.07	Rs. 1.80	14.05
Chahar		Rs. 1.51	Rs. 1.40	7.29

Even in the case of some districts where the land tax was assessed on contractual basis or otherwise, the new land tax rates are much lower than those of 1962/63. Illam in the Eastern Hill and Gorkha in the Western Hill are cases in point. Only in the case of about half a dozen of *Thekka Thiti* districts, which are lying in the Far Western Hills (viz., Dailekh, Doti, Dadeldhura, Baitadi and Jumla) and in a few other districts (Pokhara and Kunchha, for instance), where the assessment has been made wholly in cash, the new rates happen to be higher than those of 1962/63. In the case of the Far Western Hill districts, the percentage of increase in tax rates is somewhat progressive whereas in Pokhara and Kunchha, it is quite regressive in so far as the poor grades of land is taxed more heavily than the superior grades of land. But in all the cases, the percentage of increase or decrease at widely varying rates tend to suggest an inequitable distribution of land tax burden between different districts and, in fact, between different grades of land of the same district. This shows that the overall uniformity in land tax on all the

Hill districts fails to ensure at the same time the overall equity in tax burden as well. This happens to be so for one simple reason that the new uniformity of assessment is entirely based on old diversities. It is not therefore clear whether the new land tax policy is aiming at uniformity or equity or at in increasing proportion of revenue from land or at something else.

It, may, therefore, be recapitulated that since income from land constitutes the larger proportion of the national income, the initial investment works should be financed largely out of this income and unless this is done there is at present a very limited scope for mobilizing additional resources in a sizeable magnitude from other sources. It should, however, be noted that since a large part of the arable land is under tenancy, the ratio of agricultural population to total arable land is high and above all, since 50 per cent or more, of the gross output is appropriated by the land holders without contributing to costs of production, savings at the subsistence level of the peasants may not initially assume any significant magnitude, except perhaps the so-called potential savings concealed in disguised unemployment. It may further be noted that since land distribution is skewed and rent is usually high, the income from land may be getting accumulated in the hands of a small number of landholders, who are interested, probably more in commercial investment and until recently, in increasing their landed property rather than in long term industrial investment. This process, if continued, may lead to further concentration of income and more irrational allocation of resources in the country. From all these considerations, it appears that the mobilization of agricultural income should be carried largely at the cost of rent. Obviously this can be done at present by revising upward the existing level of land tax on some rational basis, ensuring equity and justice to the tax-payers, on the one hand, and aiming at increasing proportion of revenue to the Government, on the other.

All this should not, however, be misconstrued as indicating that the process of upward revision of land tax should not affect the land under owner-cultivation which is reported to be almost twice as much as that under tenancy.[48] It is intended only to suggest that there should be some discrimination in the land tax policy of the Government against those who live luxuriously on rent without themselves working on their land. Such a policy will, in fact, help even in achievinng one of the underlying objectives of the recent land reform measures of the Government.[49]

48. *Simple Census of Agriculture, op.cit.*, p. 4.

49. *Cf. Agricultural Reorganization Act*, 1963, and *Lands Act*, 1964.

Table 4:12

PERCENTAGES OF CHANGES IN LAND TAX IN SOME HILL DISTRICTS, 1963/64

No.	*District*	*Grade of Land*	*Unit*	1962/63	1963/64	*Percentage on Increase (+) or Decrease (−) in 1963/64*
1.	Illam	Abal	Ropani	Rs. 2.80	Rs. 2.60	−7.15
		Doyam	,,	Rs. 2.46	Rs. 2.20	−10.57
		Sim	,,	Rs. 1.98	Rs. 1.80	−9.09
		Chahar	,,	Rs. 1.79	Rs. 1.40	−21.79
2.	Gorkha	Abal	,,	Rs. 4.20	Rs. 2.60	−32.09
		Doyam	,,	Rs. 3.36	Rs. 2.20	−34.53
		Sim	,,	Rs. 2.24	Rs. 1.80	−19.65
		Chahar	,,	Rs. 1.68	Rs. 1.40	−16.67
3.	Baitadi	Abal	,,	Rs. 0.84	Rs. 2.60	+209.52
		Doyam	,,	Rs. 0.72	Rs. 2.20	+205.55
		Sim	,,	Rs. 0.67	Rs. 1.80	+168.65
		Chahar	,,	Rs. 0.56	Rs. 1.40	+150.00
4	Kailekh	Abal	,,	Rs. 1.40	Rs. 2.60	+85.71
		Doyam	,,	Rs. 1.34	Rs. 2.20	+64.18
		Sim	,,	Rs. 1.23	Rs. 1.80	+46.34
		Chahar	,,	Rs. 1.12	Rs. 1.40	+25.00
5.	Pokhara Kunchha	Abal	,,	Rs. 2.24	Rs. 2.60	+16.07
		Doyam	,,	Rs. 1.34	Rs. 2.20	+64.17
		Sim	,,	Rs. 0.78	Rs. 1.80	+130.77
		Chahar	,,	Rs. 0.44	Rs. 1.40	+218.18

Rostow has rightly remarked that in a predominantly agricultural economy, the nature of economic transition should be such that first, "The income above minimum levels of consumption, largely concentrated in the hands of those who own land, must be shifted into the hands of those who will spend it on roads and rail roads, schools and factories rather than on country houses and servants, personal ornaments and temples."[50]

W. Arthur Lewis is even more critical in this regard. In his words, "No nation is so poor that it could not save 12 per cent of its national income if it wanted to; poverty has never prevented nations from launching upon wars or from wasting their substance in other ways. Least of all can those nations plead poverty as an excuse for not saving in which 40 per cent or so, of the national income is squandered by the top 10 per cent income receivers, living luxuriously on rents."[51]

The discriminating land tax policy as suggested above should, however, take into consideration a set of complications originating from a series of transactions in the tenancy rights over the past decades with the result that the tenancy rights of a number of existing landholders involve the question of financial investments representing their individual properties. In fact, even to-day, many of them on this ground believe, rather wrongly, that they are the real owners of their land. Any measure which is designed to wipe away the incomes accruing from such landed properties without any fair and just deal may conflict with the usual concept of individual property.

The rationalization of land tax policy in Nepal, therefore, needs even today a more thoroughgoing analysis and understanding of the age-old diversities, discrepancies and disparities. Obviously it is something different from our usual process of all-round simplification for uniformity without equity.

4. *Other taxes*

As the largest volume of annual flow of income in Nepal is originating in the agricultural sector, an immediate scope for mobilizing additional resources from non-agricultural sector may be correspondingly small. It is not, however, intended to suggest that the non-agricultural sector should be left untouched in the process of mobilizing domestic resources for financing development works in the initial stages. In fact, the Government has already taken measures to mobilize resources from the

50. *The Stages of Economic Growth*, Cambridge, 1960, p. 19.

51. *The Theory of Economic Growth, op.cit.*, p. 236.

non-agricultural sector as well by introducing profits and remuneration tax and urban buildings and foreign investment taxes in 1958/59. The profits and remuneration tax was replaced by a so-called comprehensive income tax in 1962/63. In 1963/64, the coverage of income tax was expanded by bringing down the exemption limit from an annual individual income of Rs. 7,000 to Rs. 6,000 and the marginal rates were also revised upward. The exemption limit is reduced further to Rs. 5,000 and the tax rates are also substantially raised for 1965/66. Yet, the present average rates, as shown in Table 4:13 below, continue to remain low. The degree of progression is also less marked, more in the case of higher income slabs than that in the case of lower income groups. Income tax yielded Rs. 20 lakh in 1962/63 and Rs. 27 lakh in 1963/64.[52] Income tax thus accounts for only a negligible fraction of total budgetary rosources of the Government. This presents a striking contrast even with other underdeveloped Asian countries like Burma, Malaya, Ceylon and India where tax on income and wealth accounted for as high as 23, 16, 23 and 15 per cents, respectively, of total government revenues in 1958.[53]

Table 4:13

AVERAGE INCOME TAX RATES

Cumulative Net Income in Rs.	*Cumulative Tax As % of Cumulative Income*			
	1962/63	1963/64	1964/65	1965/66
5,000	Nil	Nil	Nil	Nil
6,000	Nil	Nil	Nil	1.00
7,000	Nil	0.57	0.71	1.71
10,000	Nil	1.90	2.00	3.00
15,000	2.93	2.93	2.53	4.33
20,000	3.95	3.95	4.20	5.25
25,000	4.76	4.76	4.96	6.20
30,000	5.53	5.63	5.08	7.16
35,000	5.97	6.54	6.68	8.14
40,000	6.47	7.60	7.72	9.00
45,000	Nil	8.97	9.08	10.44
50,000	7.18	10.08	10.68	12.10
100,000	10.76	19.04	23.09	25.65

Source: *Budget Speeches of* 1962/63—1965/66.

52. *The Gorkha Patra*, July 11, 1965.

53. *Economic Survey of Asia and the Far East*, 1960, p. 87.

Unless there is a further progression and also an increase in the existing rates, income tax will not yield any substantial revenue in Nepal. Even in India, where personal income tax rates are much higher than those in Nepal, yet it is estimated that in 1957/58, 99 per cent of the population and about 93 per cent of the potentially taxable income in the country remained outside the purview of the income tax system.[54] One of the obvious reasons for such a narrow coverage of the income tax system in underdeveloped countries is that the minimum exemption limits are fixed usually high excluding but a fringe at the top of the social pyramid. "A married couple with three children remains untouched by the income tax system in Ceylon, the Federation of Malaya and India until the family income is 9 to 12 times and in Burma and the Philippines over 15 times, the average national per capita income. The corresponding coverage begins at less than twice the national per capita income in Australia, Canada, Mexico, the United Kingdom and the United States."[55]

The disincentive argument against higher direct taxation is often presented rather in general form. Beyond a certain critical point, though highly progressive direct taxation may be harmful to capital formation, yet it is not safe to make any categorical assertion that "The group affected by high direct taxation would invest in the economy of the underdeveloped economy if taxation were reduced; they might instead consume or export their capital. Since taxation merely transfers funds from private into public hands, it does not reduce total investment unless it drives assets abroad, and thus makes them unavailable for both private and public investment."[56] In fact, a generally low level of taxation in the underdeveloped countries like Nepal may only result in lowering the national rate of saving and investment, in so far as such a low level of taxation increases consumption and speculation as much as saving and investment. A wiser policy may then be one which favours, in general, a high average level of taxation with discriminating rebate or relief in ample measure to those who channelise their savings in those investment projects which are in keeping with the order of priorities envisaged in national development plans.

54. *Ibid.*, p. 94.

55. *Ibid.*, p. 94.

56. *Domestic Financing of Economic Development*, New York, 1950, pp.36-37.

56. Nicholas Kaldor, *Indian Tax Reform*, New Delhi, 1957, p.

A mere upward revision of tax rates is not enough, unless tax collecting machinery works efficiently within a strong legal frame work free from obvious loopholes. This is indeed a problem which is no less formidable than the problem of widening the coverage of tax system in countries like Nepal where the administrative machinery has yet to be built-up for an effective tax collection. Even in India having long and rich experience in tax administration, the amount of revenue lost through evasion was of an order of Rs. 2.3 billion as compared with Rs. 1.8 billion collected from all classes of assessees in 1955/56. In Pakistan, too, the tax evaded every year exceeded half of the income tax collected.[57] The administrative difficulty should not, however, be an excuse for the narrow coverage and low level of income tax in Nepal at present, insofar as the nature and qualitative aspects of the problem remains essentially the same, whether the tax system has wider coverage or not and whether the level of taxation is high or low.

The foreign investment and urban building tax rates are only nominal at present. Even when the exemption limits remained very low at Rs. 25000 and tax rates were relatively high, average tax on foreign investment or urban building, accounted in 1959/60 and 1960/61 for only 1.2 per cent (Table 4:14 below) when cumulative value of foreign investment[58] or urban building, amounted to Rs. 100 million. The corresponding figure has gone down to 0.70 per cent since 1961-62 when the exemption limit was raised to the higher level of Rs. 50,000 and tax rates were also revised drastically downward. It was expected that the urban building tax would yield in 1963/64 only Rs. 5.25 lakh, an amount which was less than total proceeds from tax on entertainments. The revised budget estimates indicated that the foreign investment tax added nothing to the total revenue of the Government in 1962/63! If it is designed to augment resources of the Government and also to encourage the Nepalese nationals to invest at home or to repatriate their foreign investment to Nepal, such nominal rates on foreign investment will help little in achieving either of the objectives. So long as investment opportunities in other countries pay more (even after paying the nominal tax in Nepal) than in Nepal, there is probably no reason why one should be interested in withdrawing their

57. *Economic Survey, op.cit.*, p. 96.

58. Foreign investment includes investments in government securities, shares, debentures, land, building and cash balances except those on current account required for facilitating imports and exports.

Table 4:14

Foreign Investment and Building Taxes
1963/64

No.	Slab	Tax on Slab	Cumulative Foreign Investment or Value of Building	Tax payable on Slab	Cumulative Tax	Col. 3 as % of Col. 5	Col. 3 As % Of Col. 5 up to 1960/61
1		2	3	4	5	6	7
I	50000	Nil	50000	Nil	Nil	Nil	0.19
II	10000	0.1	60000	10	10	0.01	0.24
III	10000	0.2	70000	20	30	0.04	0.31
IV	10000	0.3	80000	30	60	0.07	0.35
V	10000	0.4	90000	40	100	0.11	0.41
VI	10000	0.5	100000	50	150	0.15	0.46
VII	10000	0.6	110000	60	210	0.19	0.53
Any Amount after VII		0.7	200000	630	840	0.42	0.83
			1000000	6230	6440	0.64	1.12
			5000000	34230	34440	0.68	1.18
			10000000	69230	69440	0.69	1.19
			100000000	699230	699440	0.69	1.20

investments abroad and reinvesting in the country. If it is decided that these resources should somehow be made available for immediate investment in Nepal, heavy taxation might then be the only potent instrument.

Indirect taxes have severe limitations in Nepal at present, because first, a major part of the economy is yet non-monetised and second, most of the consumer goods in trade are necessaries of life, which have already been subjected to Indian excise duty or customs duty in Nepal or both. On an average, customs and excise duties accounted for 36.61 per cent of total budgetary resources of the Government over the period of past twelve years from 1952/53 to 1963/64. In most of the newly developing countries of Asia, taxation on commodities is designed partly to raise additional revenue and partly to restrict consumption, especially the conspicuous consumption. These two objectives are rather mutually inconsistent insofar as they cannot be achieved simultaneously with equal effectiveness. The commodities, which can raise substantial amount of revenue, are not the ones which are likely to restrict consumption effectively. An effective restriction of consumption needs those commodities whose price-elasticity of demand is very high, whereas the revenue yielding commodities are those whose price-elasticity of demand is very low. Thus, the commodities which are effective for one purpose may even be totally ineffective for the other. If the underlying objective of commodity taxation in Nepal is one of raising revenue, it is then necessary that the taxes be levied on those commodities which have low price-elasticity and high income- elasticity of demand, so that when price level or income goes up, there will be corresponding increase in revenue of the Government. But such commodities happen to be mostly the basic necessaries of life, particularly so in a country like Nepal where average income of the people is very low and consumption level of the masses approximates to a bare subsistence. This tends to suggest that commodity taxation should not be relied for additional revenue in substantial amount, although it may be pressed further on selective basis to discourage ostentatious consumption or to encourage diversion of resources from consumption to some useful purposes.

Chapter 5

GROWTH OF CRAFTS AND SMALL INDUSTRIES

1. *Ancient and Mediaeval Crafts and Industries*

The evolution of crafts and small industries in Nepal is perhaps as old as the growth of *Kiratee* civilization whose origin may be traced back to many centuries before the Christian era. It is recorded that crafts and commerce were in a more flourishing stage than agriculture during the *Kiratee* period[1]. Writing in the fourth century B.C. Kautilya had also referred to various goods exported from Nepal and appreciated, in particular, the quality of the Nepalese wool.[2] Such a historic temple as *Changu Narayan* of the 5th century and fabulous palace as *Kausal Kut Bhavan* of the 6th century provide sufficient evidence of the glorious achievement of the Lichhavi art and architecture whose amazing beauty had long been appreciated by ancient Chinese travellers. Even as late as 637 A. D. the famous Chinese traveller Hiuen Tsang had made a remark that the Nepalese artisans were "gifted with considerable skill".[3]

One of the striking features in the evolution of ancient crafts and small industries in Nepal from the earliest time down to the dawn of the 19th century is that their sphere of activities was not confined to a few ordinary fields. In fact, their sphere of operation ranged from simple works such as milling, grinding and spinning to weaving, mining, smelting and casting of hard metals along with the production of complicated goods which required considerable skill and talent.

An English author, who had visited the country in 1793 A.D., described not only spinning and weaving of cotton and woollen textiles but also manufacturing of iron, copper, brass, bronze and other metal goods.[4] "Two kinds of coarse cotton called *khadi* and *changa* are woven by the Newar women of all castes and by the man of the Parbatiya caste called Magar."[5] Gurungs and Limbus used to maintain numerous flocks of sheep of special variety called *Burwal*, whose wool was described to be very fine

1. B. C. Sharma, *Nepal ko Aitihasik Rupa Rekha*, Banaras, 2008, p. 76.
2. *Ibid.*, *p.* 76.
3. R. N. Bishop, *op. cit.*, 1952. p. 24.
4. Kirkpatrick, *op.cit.*, p p. 209-210.
5. Hamilton, *op.cit.*, p.232.

and woollen cloth woven out of this wool was claimed to be "finer than that of Bhota".[6] Though the quality of these textile goods were invariably rough and coarse, the people of "lower orders indefinitely prefer those home-made cloth—both cotton and woollen—which is far more lasting than that which is imported."[7]

Small rice mills which one finds working today in villages differ but little from water mills run 150 years ago by village folks for corn grinding.[8] Paper production from various grasses and barks was also a notable industry of the past. A typical hand-made paper from bark of "*seid burrooa*" or "*kaghazi-pat*" was also described by Kirkpatrick. Such paper made from the bark of another shrub called "*Daphue papyrifera*" at Bhadgaon was "a very strong one and remarkably well-fitted for packages".[9]

Evidences of copper and iron ore mining activities may be found in many accounts of Nepal. The Nepalese copper, which Kirkpatrick described as superior in quality to that of Europe, had markets even in the Western countries and it "has been known to bear so high a price as a rupee and a half the seer, at the same time that European copper was procurable in Calcutta for a rupee the seer."[10] This indicates that the Nepalese copper was commanding higher values in foreign markets than the European one. However, the methods of mining were quite primitive.

Metal works were not limited to mere extraction of ores and their simple refinement. More remarkable is the actual manufacturing of various metal goods such as agricultural implements, namely, *Koo* (digging hoe), *Tikho kuto* (small weeding hoe), *Khurpi* (spade) etc., household utensils, decorative-wares and temple materials, especially statues and bells. These goods represented the finest examples of artistic skill and inborn capacities of the Nepalese artisans. A high order of perfection attained by the Nepalese craftsmen is more conspicuous in metal statues of gods in temples and of Newar kings in public squares. History is full of overwhelming appreciation of these

6. Hamilton, *Ibid.*, p. 76.
7. D. Wright, *History of Nepal*. London, 1877, p.69
8. Hamilton's vivid description of such corn-grinding water mills may be cited as evidence. *Cf. An Account of the Kingdom of Nepal* p. 221.
9. Hamilton, *Ibid.*, p.232.
10. *op. cit.*, p. 232.

ancient monuments.[11] The influence of these artistic metal works can be traced even in Tibet with which Nepal was having cultural and commercial intercourse from time immemorial. Perceval Landon, for instance, admitted that "the excellence of the Nepali copper and bronze craftsmen...has led to a permanent colony in Lhasa where much of the best Tibetan work is made by them."[12]

Nepal's architectural beauty of the past is equally revealing in numerous temples, palaces and buildings. The Nepalese style in these works seemed to have influenced not only Tibet but even Burma and China. M. Francois Benoit, who is said to have dealt with the problems presented by the Nepalese architecture, recorded that the cathedral in Lhasa built by Srong-Tsang Gambo to shelter the holy images brought from Nepal and China bore certain similarity to Patan stupas.[13] He also found the influence of Nepal in Burma and China. The remarkable design over an arch in the Nan Kan Pass near Peking "is said to be obviously of Nepalese origin."[14]

More remarkable art and architectural works in the buildings of Nepal are those in wooden windows, whose elaborate embellishments seem to have borne all the artistic energies of the carver. Even in stone-carving, the Nepalese artisan had shown wonderful progress. The outstanding example is the Krishna Mandir at Patan. A complete epitome of the Hindu epic, the *Mahabharat*, was engraved in lithic pictures on the walls of the temple. People had also made by hand many simple arms such as rifles even as late as 1873. More interesting is the

11. "The sculptured portrait of its nobles, the life-size statues of its Kings, the dignified bronze reliefs of its saints and the noble conception of Gods, executed in hammered brass or caste copper, show, besides a profound knowledge of artistic principles, an earnest use of purpose, and intensity of feeling, which must impress all who see their work at its best." Being wonderstruck by the imposing copper gilded statue of Newar Kings, particularly that of King Bhupatindra Malla at Bhadgaon, the author remarked, "It is doubtful whether any country in the world has conceived a more artistic memorial statue than that to be observed in the public squares of the cities of Nepal." (P. Brown, *Picturesque Nepal*, London 1912, p.156.) Even a casual visitor like H. Davis could not fail to describe the Nepalese art and architectural beauties as amazing' and unparalleled elsewhere.' (*Nepal—Land of Mystery*, London, 1942).
12. *Nepal*, Vol.I, London, 1928, p.271.
13. *Nepal*, Vol.II, pp.261-62.
14. Bishop, *op.cit.*, p.95.

fact that Nepal was independent in her requirements of arms and ammunition, since "in the valley of Kathmandu there are arsenals and magazines."[15]

The foregoing accounts amply demonstrate the fact that the ancient artisans and craftsmen were interested in a wide range of art, architecture and industrial activities varying from simple processing of foodgrains to most complicated works.

The products of ancient crafts and small industries were not all consumed at home. In fact, many specialised goods were exported to foreign countries, particularly to Tibet and India. Kathmandu Valley, being a main route to Tibet, was for a long time an important centre of trade not only in goods of Nepalese origin but also in goods of Tibetan and Indian origin. This favourable geographic situation enabled Nepal to export her products to India and Tibet. She used to export mostly metal goods such as domestic utensils, bells, statues, and some simple tools in which the Nepalese artisans had acquired special skill. Export of indigenous cotton goods was rather negligible, probably due to the fact that Tibet had but little demand for them. It is because of the strategic role of Kathmandu Valley as the main centre of business, administration and culture that most of the crafts of high artistic and architectural value as well as the production of superior goods for exports were localised here. In rural areas, crafts and industries developed only to a processing stage. It may also be noted that trade, manufacturing and construction works in the valley were the virtual monopoly of the Newar community throughout the mediaeval period. It is said that out of about 3,000 Nepalese established at Lhasa to carry on trade between the two countries—Nepal and Tibet—Majority were Newars.[16]

2. *Causes of Their Growth and Decay*

One of the main reasons for the growth of crafts and industries during the ancient and mediaeval periods should be sought in the isolated socio-economic organizations of the country. Nepal may better be called a land of far-flung tiny villages isolated from one another by physical barriers. The so-called cities with five thousand urban inhabitants or more can be counted even today on fingers. This physical isolation made each village or a group of villages, a separate economic unit dependent upon itself for all its requirements. Such forced isolation and self-reliance made people industrious and content with whatever they had or whatever they could produce to meet all their few simple needs

15. R. Temples, *Journal Kept in Hyderabad and Nepal*, 1887, p. 256.
16. Wright, *op.cit.*, p.46.

of daily life. Spinning, weaving, grinding and making of simple implements for cultivation were all an outcome of basic necessities of life. This situation of self-contained subsistent rural economy is the conspicuous feature of Nepalese economy even to-day, though dependence upon outside agencies is gradually growing in recent years. This typical nature of social organization explains why almost all the cottage and village industries that sprang up in the hills and Terai regions were confined to mere processing and production of simple goods of daily requirements of the villages themselves.

The advanced stage of industrial development in the valley of Kathmandu, as explained above, can be attributed largely to the flourishing trade with Tibet. Until the dawn of the 20th century, Kathmandu was the main route of commerce not only between Nepal and Tibet and China but also between India and these countries. This favourable geographic position contributed to the prosperity of the valley through growing trade between Nepal and Tibet, in particular, not only in goods of Nepali and Tibetan origin, but also in goods of Indian origin. Nepal, for instance, used to export in large quantities copper, brass, bronze and other metal goods and also iron to Tibet from where it used to import in return, coarse woollen cloth, raw wool, musk, salt, *chauri* cattle (yaks), borax, quicksilver, bullion etc., of which greater part of musk, borax and bullion used to be re-exported to India.[17] Nepal used to import from India spices, pearls, betelnuts, leaves, camphor, tobacco and some European goods in which she was deficient. The artistic skill, talent and inborn capacities of the artisans were no less important than any other factors contributing to the remarkable growth of art, architecture and industry in the valley. But the flourishing trade and taste of the time for refined art provided an outlet for a free and full expression of their inner qualities in various ways.

The deliberate policy of the Government should also be reckoned as an important factor in the advancement of art, industry and commerce. History abounds in such instances. From the ancient time down to the middle of the 19th century, the rulers of the country had shown, on the whole, a great foresight and wisdom, even by resorting to force, in safeguarding and promoting trade and industry in the country. During the mediaeval period, the Malla rulers had adopted suitable rules for safeguarding the interests and properties of the Nepalese traders settling at Lhasa (Tibet) for carrying on trade between the two countries. The commercial laws framed by Kaji Bhim Malla are cited as evidence of the fact.[18]

17. Hamilton, *op. cit.*, pp. 212-13.

18. D. Bhandari, *Nepal ko Aitihashik Vibechana*, Banaras, 2015, p.148.

On the ground of discriminatory increment in customs duties in Bhota (Tibet) on imports of Nepali merchandise, as well as for some political reasons, Nepal had made an attempt in 1791 to carry out an assault upon Bhota. It was followed by a Treaty which guaranteed facilities for every Nepalese citizen to establish factory and carry on trade in Bhota and China.[19] The Treaty of Peace between Nepal and Tibet of 1856, concluded after the Second War between the two countries also granting similar facilities to Nepal.[20]

Secondly, the home industries were granted some sort of protection by restricting imports to only those goods which the country could not produce or were not locally available. Nepal used to import mostly such raw materials as gold, silver and wool from Tibet and cotton, scrap metals, and precious stones from India, in all of which Nepal was deficient. In consumer goods, tea and silks from China, salt from Lhasa, and spices, tobacco, glassware, goats and finer cotton cloth from India were the main items of imports. It is, however, to be noted that even towards the end of the 18th century, Nepal used to import some luxury goods like *do-patta, Malmal* and European goods. The import of such goods might be very limited, since even in 1877, Wright found the use of such goods only among members of the nobility classes. This protective policy might have been pursued until the close of the 18th century, for "We find Prithvi Narayan Shah (the first King of the Shah Dynasty in Nepal) counselling prohibition of the entry of foreign merchants north of the fort of Parsa in the Western Terai, as well as a ban on the use of foreign clothes."[21]

The factors that contributed to the growth of ancient crafts and small industries in Nepal seemed to have gradually lost their effects after the opening of the 19th century. It is true that some superior variety of clothes used to be imported even before 1844,[22] and according to Oldfield some chiefs of the nobility class in Nepal had shown inclination for the British luxuries

19. B. C. Sharma, *op.cit.*, p.240.

20. This may be seen from the following Articles of the Treaty: "Tibet shall not levy any taxes, (en route) duties (on merchandise) and rates (of any other kind) leviable by Tibet on the merchants and subjects of the country of Gorkha (Nepal) (Article III). "The Gorkha Government will establish its own trade factory at Lhasa, which will be allowed to trade freely in all kinds of merchandise from gems, ornaments to articles of clothing and food." (Article VI).

21. Prithvi Narayan Shah: *Divine Counsel*, pp. 18-19.

22. Kirkpatrick, *op. cit.*, pp. 207-08.

and comforts even in early 19th century.[23] But from the latter half of the 19th century, the Western habits permeated into daily life of the people in Nepal. This encouraged large inflow of cheap and superior goods which hit hard, for the first time, the traditional crafts of the country.

Since Nepal was the main route to Tibet, the East India Company wanted somehow to expand its trade with Tibet and China through Nepal without any interference, so that it could dispose of, on the one hand, the British woollen goods in large quantities for which Tibet was a good market and import, on the other, such goods as musk and herb, for which Europe had good demand.[24] This might be one of the reasons why the East India Company was watching the political development in Nepal even from the latter half of the 18th century. In fact, the opening of trade with China through Nepal was one of the primary considerations which prompted the British authorities in India to decide in favour of rendering military assistance to Jaya Prakash Malls (1738—1768) and subsequent expedition of Capt. Kinloch in 1767.[25] Early in 1768 the British authorities tried to obtain all relevant information to ascertain "whether cloth and other European commodities may not find way from thence (Nepal) to Tibet, (Lhasa) and the Western part of China.[26] "This was one of the major objectives underlying the James Logan Mission to Nepal. In 1795. Maulvi Abdul Quadir Khan's Mission found that for the East India Company the Tibetan trade could be more than twice as much profitable as the Nepalese trade.[27] In fact, this was probably the presumption which motivated the company to make all possible efforts for linking up the Tibetan-Chinese trade through Nepal. During the war of 1791 between Nepal and Tibet, when China had taken the side of the latter, the Shah ruler of Nepal requested assistance from Lord Cornwallis, the then Governor General of India. This was probably the first opportunity for carrying out new experiment in British diplomacy in Nepal. Before committing any aid to Nepal, the Company had proposed a seven-clause Trade Treaty under which only 2.25 per cent customs duties were to be realised reciprocally from imports from either country.[28] Probably under the impression

23. H. H. Oldfield, *Sketches from Nepal*. Vol. II, London, 1880, p.303
24. B. C. Sharma, *op.cit.*, p.242.
25. K. C. Chaudhari, *Anglo-Nepalese Relations*, Calcutta, 1960, p. 15.
26. Quoted from Public Letter from Court, March 16, 1768 by Chaudhari. *Ibid*, p.34 (words in brackets inserted.)
27. *Ibid.*, p.91.
28. C. V. Atchison, *Treaties, Engagements and Sannads*, Vol. II, No. XXIII, p.103.

that any amicable conclusion of the proposed Treaty with the Company would be reciprocated with prompt assistance to Nepal, the rulers of the country signed the Treaty on March 1, 1791. However, the company prolonged the negotiation for help rather unnecessarily, probably because it was not prepared to displease Tibet. Nepal, in its turn, overlooked the Treaty which, otherwise, was to come into force immediately and even be binding on the successors of the then rulers of the two countries. This quick action on the part of Nepal necessitated the Company to work out its plan in a different way. Accordingly a mission was sent to Nepal under the leadership of Col. Kirkpatrick in 1793 under the pretext of making available the good offices of the Company for mediation between Nepal and Tibet for peace. However, Nepal had concluded the Peace Treaty with China before the Kirkpatrick Mission reached Kathmandu. Kirkpatrick tried to negotiate trade relation with Nepal, for "He was commissioned to induce the Nepal Government to pay stricter attention to the commercial treaty signed on March 1, 1791." But his efforts were turned down.

Similar efforts in the subsequent period also failed to bear the desired fruits and at last, the violent use of force and military actions were demonstrated in Anglo-Nepalese War of 1814. Nepal was forced to sign the Treaty of 1815 under which not only a significant portion of Nepal was annexed to British India but also placed the country in a subordinate position with the British regarding foreign affairs. As the English author, Oldfield, admitted, all, "this especially affected the importation of English and European articles to the exclusion of those from China and Tibet." In the subsequent period, when the country was consumed by internal dissensions and political manoeuvering, Jung Bahadur emerged as all powerful figure and rose himself to the position of Prime Minister, thus founding Rana Dynasty in 1846. "Thereafter they (the Britishers) had nothing to be apprehensive about development in Nepal. Henceforth the Nepal Government became not only the faithful ally of the British Imperialists, but began to function as a collaborator in the act of subjugating the Indian sub-continent."[29]

The opening of Chumbi Valley routes between India and Tibet after the peace Treaty of Tibet with the Britishers in September, 1904 also affected the Nepalese trade and industry to a considerable extent, because the volume of trade that had hitherto ebbed and flowed along the Kyerong and Kuti roads through Tatapani-Rasua of Nepal diminished to a great extent.[30]

29. D. R. Regmi, *A Century of Family Autocracy in Nepal.* Banaras, 1958, p.76.
30. Landon, *op.cit.*, p.112.

The Treaty also made provision, among other things, "for the opening of three trade marts—one at Gyantse, one at Yatung and the third at Garkot." All this ravaged the Tibetan market for the Nepalese goods and the role which Nepal played in Younghusband's expedition to Lhasa led ultimately to her own injury.[31]

The Anglo-Nepali Treaty of 1923 and the subsequent policy of free trade adoptod by Nepal dealt another blow to the indigenous crafts. The Treaty seems to have been designed more for dumping of the British goods in Nepal by eliminating customs duties at British Indian ports on goods imported into Nepal. A recent Government publication, analysing the impact of the Treaty on the Nepalese economy, concluded: "Though in India the post-world war period saw the adoption of a policy of discriminating protection, yet British diplomacy succeeded in salvaging the Nepalese markets for free trade through the Anglo-Nepal Treaty of 1923, with the result that the cottage industries of the country faced a virtual collapse."[32] It may, however, be noted that the Treaty would have been of great advantage to the country, had the imports been regulated in such a way as to protect the home-made goods against the cheap foreign goods. But the free trade policy and "unrestricted imports of mill-made products sounded the death-knell of the ancient crafts and industries of Nepal."[33]

Further explanation for the decay of indigenous crafts and, in fact, the stagnation of the Nepalese economy as a whole, should, however, be sought in the political system which spread well over a century from 1846 to 1951. While the outside world had undergone in various ways the kaleidoscopic changes during these decades, Nepal remained virtually in a state of isolation and obscurity like a silkworm in its cocoon.[34] This also explains precisely why the country is at present far behind the time and has yet to start almost from scratch.

31. Charles Bell quoted by Landon, *op.cit.*, p.113.
    It may be noted that when the Britishers had undertaken the expedition to Lhasa (Tibet) under the leadership of Younghusband in 1903, the Rana Government of Nepal, instead of rendering help to Lhasa as required under the Article II of Treaty of Peace signed between Nepal and Tibet in 1856, placed at the disposal of the former 4000 yaks and a gang of porters for their assistance (*Cf.* B.C. Sharma, *op.cit.*, p.347.)
32. Department of Cottage Industries, HMG, Nepal—*Our Centre*, p. 2.
33. *Ibid.* p.2.
34. *Cf.* D. R. Regmi, *op. cit.*

Subsequently, mass awakening, on the one hand, and heavy damage caused by an unprecedented quake of 1934 necessitated some reconstruction and development works in Nepal. Development of some home industries was also felt necessary on the eve of the Second World War to save the country from possible shortage of essential commodities of daily life. All these factors are responsible in varying degrees for a gradual reorientation of the traditional economic policy and subsequent adoption of what may be called a regeneration programme in Nepal.

3. *Regeneration Programme after* 1935

The programme for regeneration of crafts and small industries in Nepal was inaugurated with the formation of an all-powerful "Development Board" called"*Udyog Parishad*" under the special Charter known as *Khadganishana* in 1935. The Development Board was entrusted, among other things,with the task of promoting agricultural, industrial and commercial development of the country. In order to carry out its specific functions the Board constituted a number of specialised agencies of which the *Nepal Kapada Ra Gharelu Ilam Prachar Adda* (Office for the Propagation of the Nepali Cloth and Cottage Industries) was one concerned exclusively with propagation of crafts and small industrial enterprises in the country.

The *Nepali Kapada Ra Gharelu Ilam Prachar Adda* (hereafter referred to as the Department of Cottage Industries) was set up in 1939, thus synchronising with the outbreak of the World War II with an object of reviving indigeneous crafts of the country. In order to materialise this primray objective the Department of Cottage Industries was entrusted with the task of providing handlooms and other suitable implements to artisans and craftsmen on instalment payment basis, advancing loans for starting new crafts and setting up sales emporia for quick and easy disposal of goods produced by cottage industries. The sphere of activities, in the beginning, was, however, restricted to propagation of new handlooms which are popularly known as *deshi tan* having fly-shuttle. Prior to these the most primitive types of looms called *Bhote Tan, Newar Tan* and *Lekh Tan*—all having only throw-shuttle, were in universal use. This was a commendable step which benefitted, in varying degrees, the different parts of the country such as Banglung, Bandipur, Palpa and Pokhara in the Western Hills, Dhankuta and Banepa in the Eastern Hills and a few places like Janakpur in the Terai.

The next step under the programme was the opening of training-cum-production centres at Kathmandu and other places in the Hills and Terai, which, besides their normal functions of imparting training, provided raw cotton and yarn to the artisans

for working at their homes on piece-wage basis. The initial success justified intensification of the programme and accordingly, a separate training-cum-production unit, popularly known as *Jail Karkhana* for the convicts in jails of Kathmandu was also established. Another institute, known as Manohara School near Kathmandu was also established for training exclusively the females in various crafts. In the later years, selected students were also sent for further training in various crafts including weaving, hosiery, sericulture and woollen goods to such important centres in India as Ludhiana, Bhagalpur, Wardha, Madhubani and Shanti Niketan.

Besides the training and production activities, a sales emporium called *Gharelu Bikri Bhandar* was opened at Kathmandu city and cotton cultivation in some parts of the Eastern Nepal was also undertaken on an experimental basis. A remarkable step undertaken during the period was the organisation of three industrial exhibitions in 1938, 1940 and 1945.

The success achieved as a result of these measures was significant insofar as they alleviated to some extent, the difficulties associated with war-shortages, especially of cotton textile goods. In view of the war shortages, the emphasis placed upon weaving by introducing the new looms and the intensified training, mostly in spinning and weaving, is quite justifiable. However, in a chronic situation of deterioration, these humble efforts were not adequate by any standard. In fact, they could have hardly touched the fringe of the problem. This is sufficiently evidenced by the preliminary studies in the general economic conditions of some districts undertaken by *Sankhya Vibhag* (Department of Statistics) after the world War II. Except in a few places mentioned earlier, the so-called *Deshi Tans* were not at all seen by the people and even where they were used, the traditional looms outnumbered the new ones.[35]

The so-called programme for the propagation and regeneration of cottage and village industries did not affect in any way the decaying, but very promising crafts such as paper making, leather works, metal works, honey and wax collection, ghee purifying, bamboo works, and oil expelling. The general complaints of the various regions, as revealed by those preliminary studies related, among other things, to shortages of raw materials, finance and market. It was observed that in the case of cotton spinning

35. At Banepa, for instance, it was found in 1948-49, that the number of Newari loom (Primitive) was six times greater than that of the new looms which were used only by a few rich people. In other places of the East No. 1, namely Panauti, Dhadikhel, Timal and Pangu, use of the new looms was virtually insignificant.

and weaving, the shortage of raw cotton faced by a few surviving units was largely due to extinction of indigenous cultivation of cotton owing to the flood of cheap mill-made textile goods, even in the remote parts of rural areas and the consequent decay of the hand spinning and handloom weaving, while in the case of other crafts, the shortage was attributed to exports of indigenous raw materials on contract basis, as in the case of hides and skins, or otherwise, in case of other materials like oil seeds, *sabai grass,* bamboos, and canes.

In the absence of any credit facilities from the Government agencies or from co-operative organizations and when the poor artisans had to fall back upon professional money lenders, the problem of finance became very acute. The problem was aggravated all the more by the difficulties facing the artisans in disposing of their goods against a formidable competition from cheap mill-made goods imported almost indiscriminately in large quantities. This is how the cheap foreign goods had gradually exterminated many indigenous crafts, which were at one time the source of supply to all local needs in manufactured goods.

As pointed out earlier, the continuous decline in hand spinning and handloom weaving had already discouraged cotton cultivation in the country. As soon as the programme was launched with an increasing emphasis on production of home made cloth without simultaneous efforts for growing cotton at home in adequate quantity, the whole programme remained contingent upon imports of raw cotton and yarn. This resulted in irregularities and uncertainties in the supply of basic raw material during the war, which not only hampered the progress but also limited the scale of operation. Before the attention to a sort of "grow-more cotton campaign" was rewarded with any results, the war abnormalities came to an end and things continued as usual. Whatever little success was achieved in the initial stages, despite the difficulties in the supply of yarn and cotton, that should obviously be attributed to natural advantages afforded by the war shortages in cotton goods and their high prices in the country. Soon after the conditions became normal, unrestricted imports of cotton textiles were resumed as usual and the condition of traditional crafts thus remained virtually the same as it was before the programme.

4. *Conditions After the Political Change in* 1951

The change in the political set-up in 1951 was followed by immediate administrative dislocation affecting, among other things, the functions of the Department of Cottage Industries with the result that "a large number of centres came to a standstill." It was officially acknowledged that the "strait-jacket imposed

by financial and administrative bottlenecks in the interim period, coupled with the failure of the successive Governments that came in power to agree on the fundamentals of a new policy, proved an effective bar to progress."[36] A new hope, however, loomed large on the horizon in the first quarter of 1954 when technical advice and financial aids were made available to Nepal by the Ford Foundation.[37]

While the preliminary works on the lines suggested by the Ford Foundation experts were going on within the old organizational structure in its modified form, a new landmark in the economic history of the country appeared when the First Five Year Plan of Nepal was launched in 1956. In the sphere of cottage industries, the "General objective (of the Plan) will include a revival and expansion of cottage industries selected on the basis of their quality and capacity to survive, and it is proposed that training-cum-production centres will be created in different parts of the country, at least one each year, to develop and improve designs, quality, production and skills." "Small loans will be made to trainees to start their own operations on an individual or cooperative basis, and tools and machines will also be provided on instalment payment terms. They will be helped in processing raw material economically and in marketing their finished products."[38] In order to implement the general policy of the Plan, a new body was constituted by the name of "Cottage, Village and Small Industries Training-cum-Extension Board" which was entrusted with the following tasks:

(i) To train new trainees and artisans in improved techniques of production, better use of improved equipment and better designs.

36. *Our Centre, op.cit.*, p.3.

37. On April 28, 1954, His Majesty's Government of Nepal signed a Memorandum of Agreement with the Representatives of the Ford Foundation for "establishing an organised technical assistance services to village and small industries, including, among such services, analysis of consumer demands, research and technical training, credit, co-operatives and marketing of products." Accordingly, in the second hâlf of May 1954, the Ford Foundation Consultant and one of His Majesty's Government Officials as his counterpart, conducted a survey of Kathmandu Valley. It was merely a preliminary survey based mostly on personal visits to various localities and interviews with the concerned person. The Surveyors could not, therefore, collect any factual information.

38. *Five Year Plan, Nepal — A Synopsis, op.cit.*, p.55-56.

(ii) To help the newly trained persons as well as the artisans in establishing themselves at their own places in the arts and crafts learnt in the institution.

(iii) To help artisans in the supply of raw materials and equipment through the collateral institution, namely, the sales emporium.

(iv) To carry out extension works in the fields of cottage industries initially in the Valley of Kathmandu and, in due course, in the rest of Nepal.

(v) Lastly, to open new subsidiary centres (training-cum-production centres) on a small scale in the rural areas.

A training-cum-production centre at Kathmandu, known as *Upatya-kanchal Gharelu Ilam Kendra* is the nucleus of the whole programme under the Five Year Plan. Its training programme includes, at present as many as 18 crafts.[39] During the Plan period 1425 persons underwent training at the centre.[40] The Three Year Plan had the target of training another 800 persons more or less on the same lines.[41] The training programme is not confined to Kathmandu alone. So far 20 rural training centres have also been opened in different parts of the country. Each of these rural centres conducts a simple course for a group of 30 students a year in four crafts selected on the basis of local conditions. During the Three Year Plan, 14 of these rural centres were scheduled for conversion into zonal training centres, while the remaining six would remain as district training centres, It was proposed that these 20 centres should train altogether 750 persons by 1965.

An Orphanage Training Centre, known as *Asahaya Kalyan Kendra* has also been set up at Purneswar in Kathmandu, where training in knitting, hosiery and cotton weaving is being given to orphans of Pasupati, Panchadeval and Purneshwar temples and charitable society. This programme contemplated training of 200 orphans during the Five Year Plan period. So far 135 orphans have received training. By the end of the Three Year Plan another 175 orphans would be enrolled for similar training. At Kathmandu Central Jail, training is given to the convicts in

39. Carpentry, Leather, Woollen spinning and weaving, Dyeing and printing, Handloom weaving, Curio, Hosiery, Pottery, Sericulture Carpet making, Designing, Paper making, Blacksmithy, Machinery Wood carving, Bamboo and cane works, Electric wiring, Tailoring.

40. *Five Year Plan Progress Report, op.cit.*, p.88.

41. *Three Year Plan, op. cit.*, p. 200.

hosiery, tailoring, upholstery and handloom weaving. An organised centre for selling the products of small-scale industries was a long felt necessity. An emporium has, therefore been opened at Kathmandu. Its annual sale varies from Rs. 5 to Rs. 7 lakh at present. It is also supposed to give expert advice to local artisans on the availability of new tools and implements.

The Centre is also planning to conduct some market surveys in the handloom weaving, carpentry, black-smithy and leather works in the Valley of Kathmandu in order to assess properly the needs and taste of the people. It is said that as part of research programme, a number of improved tools have been designed from local materials in collaboration with a Japanese expert in agricultural field.[42] During the Three Year Plan period, the Government has launched some pilot projects at the newly established Balaju and Patan industrial estates for encouraging private capital in small scale industries. Provision has also been made for supplying new tools and machines on hire-purchase basis to about 80 artisans. Though planned on modest scale, these new experiments, if carried out consistently, will enable the skilled artisans to establish themselves in their professions.

It may be noted that the motive force behind the operation of the new programme for the development of cottage, village and small scale industries in Nepal owes its origin to the generous assistance—financial as well as technical—provided by the Ford Foundation. In spite of a substantial proportion of foreign aid in the programme, the total outlay during the Five Year Plan was so meagre that the average annual expenditure amounted to less than Rs. 1.5 million. But these meagre resources were not allocated intelligently to bring about some perceptible change in the economy. It should have been clear from the foregoing discussion that the Board has initiated so many works at a time that it may hardly be able to do justice to any one of them. At the Kathmandu Centre, which is the nucleus of the whole programme, efforts have been diffused over training of and production from, as many as 18 crafts, besides its research, survey, loans, sales and raw materials supply programme. The programme adopted during the period from 1939 to 1951 could

42. Special mention should be made of "Mahendra Charkha" named after His Majesty King Mahendra, which is designed for cotton and woollen spinning in one single process from carding to spinning resulting therefrom an increased output per man hour. Inaugurating this "Charkha" King Mahendra remarked: "the innovation of this Charkha is of little significance before the scientific progress of the day; nevertheless, we take immense pride in the fact that this is the first hand-driven Charkha of its kind ever made in our country."

generate certain impact on the economy, because it concentrated almost all the efforts in cotton spinning and weaving.

The reason why the whole programme is suffering from a lack of encouraging response from the traditional artisans and craftsmen outside the Centre is that they have been fully impressed by the fact that the programme can help them but little. In fact, even the training facilities have not yet been fully used for the development of small industries in the country. In the words of the National Planning Council itself, "The Five Year Plan was limited largely to training workers, but the training programme could not be made use of in the absence of any proper plan for employing the trained hands. The trained persons are remaining idle, partly, because they cannot establish themselves in new industries and partly, because no suitable industries, which can employ these persons, have so far been established in the country. Nor is there any plan even from the side of Government for making use of these persons in some work."[43] If the whole programme was confined in the initial stages to a few select crafts, closely following the directive principles of the Five Year Plan itself and also keeping in view the limited organizational capacity, it could have fostered a great enthusiasm and cooperation, at least from a section of the craftsmen, so that a larger and larger number of them could be absorbed in these crafts and production thereby would naturally be significant to influence the market and the taste of the consumers. The success in a few crafts will surely inspire the confidence of those who are working in other crafts, which can be taken subsequently within the programme. It may, therefore, be emphasized that either the funds should be increased sufficiently or the work-programme should be adjusted to the funds available, if the whole programme is to bear its due results in time.

The programme has also inherited some weakness similar to one pointed out earlier while discussing the regeneration programme during the Rana regime from 1939 to 1951, namely, the inadequate attention to the supply of raw materials. Most of the crafts that are being undertaken at the Centre are now being fed on the imported raw materials in varying degrees. The leather works, hand spinning and handloom weaving, dyeing and printing, carpet making and hosiery are some of the cases in point. The observation which is made earlier holds good in this case as well.

43. *Three Year Plan, op.cit.*, p.119.

Another weakness of the programme lies in its concentration in the valley of Kathmandu rather than in the Hills which deserve the topmost priority on many economic grounds. It is these hilly regions comprising the major proportion of population which are in the grip of poverty due to inadequate land for cultivation, on the one hand, and annihilation of traditional crafts, on the other. Forced idleness is now ruling these hilly people who are more industrious than the rest. The hilly regions grow various raw materials suitable for the growth of many crafts. These raw materials are now being exported, sometimes even at the cost of indigenous industries. The simple demands of the villages are quite suitable for simple products of various crafts. Moreover, since these demands are also limited by their poor purchasing power, production even on small scale does not present any serious problems. It would have been better if the beginning were made from the place where raw materials were locally available, marked difficulties, less formidable and finally, where people have tradition and interest in small crafts. It is because of the comparative disadvantage of Kathmandu in these respects that the response and results so far below the expectation. A shift of emphasis in favour of villages will not only make the rural economy better and self-sustaining but also insulate them against the undesirable effects under which the Valley of Kathmandu is suffering at present. The decision on the concentration of efforts at Kathmandu seems to have been influenced more by the administrative conveniences than by the economic reasons.

5. *Growth of Private Firms from* 1944-1963

Parallel to the measures undertaken since 1939 by the *Nepal Kapada Ra Gharelu Ilam Prachar Adda* for encouraging the development of Cottage and Village industries, the *Udyog Parishad* (Development Board) itself took some preliminary measures for the organization of small industries run as proprietory or partnership firms under new names. Prior to 1944-45 organization of small industries on proprietory or partnership basis under new names was not subject to any regulations of the State and the information on their working in the past, is therefore non-existent. It was the *Khadganlshana* of 1944, which legally prohibited for the first time the organization of small industries in the form of a private firm under some new name without official registration with the *Udyog Parishad*. The following table* summarises the growth of these private industrial firms from June, 1944 to March, 1963. Over this period of about two decades, as many as 1686 firms were licensed by or

*Table on page 149.

Table 5:1

Growth of Private Industrial Firms, 1944-1963

No.	Industry	1944/45	1945/46	1946/47	1947/48	1948/49	1949/50	1950/51	1951/52	1952/53	1953/54	1954/55	1955/56	1956/57	1957/58	1958/59	1959/60	1960/61	1961/62	1962/63	*Total*
1.	Rice, Oil, Flour and Dal Mills	—	2	3	17	12	23	10	39	50	50	52	62	52	108	61	90	93	48	144	916
2.	Cigarette, Bidi and Tobacco Mfg.	—	—	—	—	2	—	—	4	19	30	2	8	1	4	1	33	42	22	8	176
3.	Bricks and Tiles Works	—	—	1	—	—	—	—	2	1	1	—	1	1	—	—	2	3	4	75	91
4.	Ayurvedic Drugs Mfg	8	4	5	4	2	1	2	2	2	1	9	12	7	2	1	6	3	—	5	76
5.	Soap and Perfumery Works	7	2	1	2	—	1	—	3	5	4	2	3	3	4	1	11	3	7	12	71
6.	Curio Works	—	4	—	—	—	2	—	1	—	1	3	3	—	3	1	6	3	1	4	32
7.	Confectionary	—	—	—	1	—	1	—	—	—	1	—	1	3	1	—	—	5	2	5	20
8.	Furniture Making	—	1	—	1	—	2	1	—	—	—	—	2	—	1	1	3	5	2	5	24
9.	Utensil Making	—	—	—	1	—	—	—	—	2	—	—	3	1	1	—	4	5	3	2	22
10.	Cotton Weaving	1	14	3	—	2	—	—	2	2	—	—	—	—	—	—	—	2	—	—	26
11.	Dyeing and Printing	—	3	—	1	—	—	—	—	1	—	—	—	—	—	1	—	18	—	—	24
12.	Workshops	1	—	2	—	1	1	5	—	3	2	1	2	2	3	2	10	2	—	5	42
13.	Misc. Group*	16	2	5	3	—	5	4	4	15	12	11	10	5	11	4	15	19	13	15	166
	All Industries	33	32	20	30	19	36	19	57	100	102	80	107	75	138	73	180	203	102	280	1686

*Includes Hosiery works (13), Stationery work (12) Tailoring (19), Laundries (13), Umbrella manufacturing (7), Mining and mineral works (9), Nurseries (18), Poultry and fishing works (7), Distillery (12), Paper manufacturing (4), Saw mill (6), Cement works (6), Match works (6), Paint etc. (7), Food preservation (2), Construction works (9), Shoe making (3), Limestone works (1), Thread ball manufacturing (3), Sugar (1), Button mfg. (1), Electric switch and dry battery (2), Soda water (2), Tea packing (3), and Camphor (1). Total: 166.

Figures in brackets indicate the number of units in each line of production.

Source: Compiled from the available records of the *Department of Industry*, His Majesty's Government

registered with the Department of Industry.[43] But rice and oil mills industry alone accounts for more than half of the total, while Bidi, Ayurvedic drugs, bricks and tiles and soap manufacturing industries together account for about another quarter. The remaining 326 firms are engaged in as many as 31 types of industrial activities largely concerned with simple processing and manufacturing works such as dyeing and printing, saw milling, confectionery and stationery works, hosiery and cotton weaving etc. It may be noted that none of these industries recorded a regular and persistent growth. This may be seen from the erratic variation in the number of firms registered in each industry from year to year.

The mushroom growth of rice and oil mills may be attributed to the fact that first they are fed on the most abundant raw material of the country and second, they are oriented largely to export markets in India. This explains precisely why more than 94 per cent rice mills are located in a narrow belt of Terai which, being a food-surplus region, accounts for the entire exports of food grains and oilseeds from the country. Bidi industry was intentionally discouraged during the Rana regime for fear of losing revenue from imports of cigarettes. This might be the reason for the growth of this industry only after the political change in 1951 when some measures were also taken by the new Government to encourage the industry. The bricks and tiles industry was lagging until quite recently when it registered a remarkable growth, obviously because it received an impetus from residential building constructions now going on an unprecedented scale in some urban centres. But drugs manufacturing

43. Irrespective of the size of an enterprise in terms of investment, employment or output, any industrial unit organised on proprietory or partnership basis is treated even today as "Private Firm", as distinct from "Private Limited Company," which is subject to the Nepali Companies Act of 1951. Except some rice mills, such firms are clustering around urban centres. The application for the registration according to the regulations should contain nothing more than the name of the firm, its address, its work, capital invested and the nature of its ownership whether proprietory or partnership. But the records maintained since 1944-45 do not reveal information on the amount of investment in majority of the firms. Once a firm got registered, it had nothing to do later on with the Government, for the regulations required nothing but its formal registration. Under these conditions, it is practically difficult to ascertain even the exact number of such firms which are actually in operation at present. This has been complicated all the more by the fact that there are still many firms working without having been registered with the Government Office.

on Ayurvedic lines remained very stagnant all the while, despite the fact that there is tremendous scope for development of pharmaceutical industry based on indigenous herbs in which the country abounds by virtue of its varying altitudes and climates. The precipitous decline of this industry may be attributed, partly, to a growing popularity of allopathic treatment and partly, to a loss of confidence in the effectiveness of Ayurvedic drugs. The position of this industry is deteriorating all the more, because it consists of only tiny producing units where advanced research and laboratory works are unthinkable. The miscellaneous group of industry engaged mostly in simple manufacturing activities are confined largely to Kathmandu Valley. None but a few of them has made so far any significant progress, since each industry in the group comprises only a limited number of small units catering largely to narrow local markets. Most of these units are probably no longer in operation at present.

The available information on the organizational structure of these small scale industries reveals some interesting facts. One conspicuous feature is the preponderance of proprietory form of organization whose scale of operation and range of activities are, therefore, circumscribed by the limited knowledge, ability, experience and resources of individual proprietors. The following Table 5:2 shows that 86.3 per cent of these industrial units were organised as proprietory firms.

Table 5:2

TYPE OF ORGANIZATION BY OWNERSHIP

No.	Industry	Proprietory	Partnership	Total
1.	Rice, Oil, Flour and Dal Mills	181(80.8)	43(19.2)	224*(100.0)
2.	Cigarette, Bidi and Tobacco Mfg.	158(89.8)	18(10.2)	174 (100.0)
3.	Bricks and Tiles Works	85(93.4)	6(6.6)	91 (100.0)
4.	Ayurvedic Drugs Mfg.	74(97.4)	2(2.6)	76 (100.0)
5.	Soap and Perfumery Works	64(90.1)	7(9.9)	71 (100.0)
6.	Curio Works	28(87.5)	4(12.5)	32 (100.0)
7.	Confectionary	19(95.0)	1(5.0)	20 (100.0)

Continued

8. Furniture Making	16(66.7)	8(33.3)	24 (100.0)
9. Utensil Making	17(77.3)	5(22.7)	22 (100.0)
10. Cotton Weaving	24(92.3)	2(7.7)	26 (100.0)
11. Dyeing and Printing	22(91.7)	2(8.3)	24 (100.0)
12. Workshop	37(88.1)	5(11.9)	42 (100.0)
13. Miscellaneous Group	133(80.1)	33(19.9)	166 (100.0)
All Industries	858(86.3)	136(13.7)	994 (100.0)

*Regstered only

(Figures in brackets indicate percentages).

With the exception of rice and oil mills industry, the amount of investment appears to be very meagre in all these industries.[44] Even in the case of rice and oil mills, more than 87 per cent of them had a total investment of Rs. One lakh or less in each, whereas bricks and tiles, confectionary, dyeing and printing works had investment of Rs. 20,000 or less in more than 80 per cent of the units. The bidi industry comprised such tiny units that more than 82 per cent of them had been running with the initial capital not exceeding Rs. 5000 in each. The other industrial units were also organised more or less on tiny scales.

Table 5:3

SCALE OF BUSINESS BY AMOUNT OF INITIAL CAPITAL

(Amount of Initial Capital Investment in Rs. '000)

No.	*Industry*	up to 5	5-10	10-20	20-30	30-40	40-50	50-100	100-150	150-200	over 200
1.	Rice and Oil Mills	19	29	47	20	9	12	15	4	4	13
2.	Cigarette and Bidi	88	7	5	3	2	1	1	—	—	—

Continued

44. The investment figures relate only to those amounts shown by the firms at the time of their registration with the Department of Industry and hence, in their actual working at present, the magnitude of investment in the usual sense must be different from what these figures indicate. Even such investment figures are not available for all the firms. Nevertheless they do give some rough idea of scales of operation of these firms.

3. Ayurvedic Drugs	5	1	2	1	—	1	—	—	—	—
4. Bricks and Tiles	55	6	11	—	2	4	5	—	—	—
5. Soap and Perfumery	8	9	12	4	2	4	1	—	—	—
6. Curio Works	—	4	2	1	—	—	1	—	—	—
7. Confectionary	6	1	3	1	—	—	1	—	—	—
8. Furniture	4	—	4	—	—	5	—	—	1	—
9. Utensils	3	1	2	2	1	1	4	2	—	—
10. Cotton Weaving	1	—	2	—	—	—	—	—	—	—
11. Dyeing and Printing	13	1	3	1	1	1	—	—	—	—
12. Workshop	4	2	4	2	1	3	2	1	—	—
13. Miscellaneous Group	19	10	9	8	1	13	8	1	6	4
All Industries	225	71	106	43	19	45	38	8	11	17

As stated earlier, in terms of investment and employment, rice and oil mills industry appears to be by far the most important among all these small industries. The following two tables reveal the same.[45] The Table 5 : 4 shows that out of 60 units, 70 per cent of them had an investment of Rs. 50,000 or less. In terms of employment the size appears to be still smaller, since out of 73 units which supplied the information, 70 per cent of them employed 5 or less than 5 persons, while only 13.6 per cent employed 20 persons or more.

45. Figures in Table 5:4 & 5:5 are based on the information collected by the Department of Industry. The Department distributed questionnaires in 1957, seeking information, among other things, on investment and employment in organised and small scale industries. About 82 replies were received of which 78 were from the small rice and oil mills. These 78 replies were received not only from the mills of various sizes established in different years but also from the mills of various region.

Table 5:4

INVESTMENT IN RICE, FLOUR, DAL AND OIL MILLS, 1957

Amount of Capital Rs. '000	*No. of Units*	*Percentage*
Up to 5	8	13.3
5—10	10	16.7
10—20	11	18.3
20—30	7	11.7
30—50	6	10.0
50—100	7	11.7
100—150	5	8.3
150—200	5	8.3
200 and above	1	1.7
	60	100.0

Table 5:5

EMPLOYMENT IN RICE, FLOUR, DAL AND OIL MILLS, 1957

No. of persons Employed	*No of firms*	*Percentage*
1— 5	51	70.0
6—10	10	13.7
11—20	2	2.7
20 and above	10	13.6
Total	73	100.0

The regional disparity is another conspicuous feature in the growth of these small scale industries. It may be seen that, on the whole, more than 70 per cent of these firms were located in the Terai region. The hilly region, which is by far the most important in both area and population, seems to be hardly attractive to the small scale industries. It may be seen from the table below that none of the small scale industries have had any significant growth in this region. Most of the crafts of the hills are organised on family basis, more for family consumption than for exchange purposes. This conspicuous absence of industries organised on somewhat modern lines in the hilly region deserves serious consideration in the context of a planned industrial development in Nepal.

Table 5:6

REGIONAL DISTRIBUTION OF PRIVATE INDUSTRIAL FIRMS

No.	Industry	Terai	Hills	Kathmandu Valley	Total
1.	Rice and Oil Mills	867(94.7)	36(3.9)	13(1.4)	916(100.0)
2.	Cigarette and Bidi	153(86.9)	3(1.7)	20(11.4)	176(100.0)
3.	Bricks and Tiles	58(63.7)	25(27.5)	8(8.8)	91(100.0)
4.	Ayurvedic Drugs	7(9.2)	4(5.3)	65(85.5)	76(100.0)
5.	Soap and Perfumery	30(42.3)	3(4.2)	38(53.5)	71(100.0)
6.	Curio Works	1(3.1)	—	31(96.9)	32(100.0)
7.	Confectionary	9(45.0)	—	11(55.0)	20(100.0)
8.	Furniture Works	8(33.3)	3(12.5)	13(54.2)	24(100.0)
9.	Utensil Making	11(50.0)	2(9.1)	9(40.9)	22(100.0)
10.	Cotton Weaving	2(7.7)	4(15.4)	20(76.9)	26(100.0)
11.	Dyeing and Printing	18(75.0)	—	6(25.0)	24(100.0)
12.	Workshops	11(26.2)	—	31(73.8)	42(100.0)
13.	Miscellaneous Group	36(21.7	6(3.6)	124(74.7)	166(100.0)
All Industries		121(71.8)	86(5.1)	389(23.1)	1686(100.0)

(Figures in brackets indicate percentages.)

6. *Concluding Remarks*

The growth of ancient crafts and small industries under the various conditions such as the flourishing trade with Tibet, encouraging attitude of the Government, inborn capacity of the artisans and above all, the existence of isolated and self-contained-subsistent village economic units, seems to have received serious set-back from the latter half of the 19th century. The opening of the Chumbi Valley routes, the Anglo-Nepal Treaty of 1923, unregulated inflow of cheap mill-made goods and above all, the political institution of the time, contributed, in varying degrees, to a fast decay of indigenous crafts and industries in the country

The natural calamity—the unprecedented quake of 1934—and mass awakening at home and the war-like situation abroad necessitated some reconstruction and development works which subsequently led to the formation of a development agency by the name of *Udyog Parishad*. In the sphere of cottage, village and small industries, the Parishad undertook some measures through its specialised agency called the *Nepali Kapada Ra Gharelu Ilam Prachar Adda* (Department of Cottage Industry). The activities of the Department were, however, concentrated in propagating cotton spinning and weaving which helped to some extent in alleviating difficulties in the supply of cotton goods during the World War II. But a host of other decaying but prospective crafts were left virtually unaffected by these measures. Even in cotton weaving, no notable change was recorded after the War.

This state of affairs persisted for some time even after 1961 until the Ford Foundation came forward with a generous help—financial as well as technical. The Foundation contributed a bulk of resources required for financing the various projects under the Five Year Plan in the sphere of cottage and small industries. But the total outlay on these projects during the Plan amounted to only Rs. 7.33 million. These meagre resources were also spread over so numerous activities that there was hardly any tangible result from any single sphere of activity The Three Year Plan made some effort to rectify the earlier mistakes. Yet, it appears that the attempts so far made for the development of small scale industries are very inadequate or inappropriate and the country has yet to start almost from scratch. With the exception of rice and oil mills industry, the present position of small scale industries does not seem to have assumed any significance in terms of both investment and employment. Most of these industries organised as proprietory and partnership firms are only subsistent units of production.

Chapter 6

GROWTH OF ORGANISED INDUSTRIES

1. *Growth in Different Periods*

(*a*) *Per-War Period* (1936-1939)[1]

The year 1935 is a great landmark in the economic history of Nepal. It was in this year that a powerful development agency was constituted by the name of *Udyog Parishad* or "Development Board" under the special charter known as *Khadganishana*. The *Parishad* was entrusted, among other things, with the tasks of "Promoting crafts and industries, improving agriculture and commerce and developing mining and other works that can be done with indigenous raw materials such as vegetables, wood, herbs etc."[2] This was followed by an enactment of the "Nepali Companies Act" in 1936, which made for the first time the provision for incorporation of industrial enterprises on joint stock principles. In the same year, the first joint stock public limited company, namely, "The Biratnagar Jute Mills" was inaugurated. It was essentially a bold experiment carried by some Indian entrepreneurs in collaboration with their local counterparts, being inspired partly by success of jute industry in India and partly, by the unusual privileges, concessions and security granted by the Government. Since jute industry was one of the most profitable industries in India from the time of the World War I, the Biratnagar Jute Mills, though started on a modest scale with an initial capital of Rs. 15 lakh, did not have to face any difficulties to run in profit right from the very beginning.

In 1939, when the World War II broke out, the demand for jute goods, particularly for jute bags, soared so high that the Indian jute mills had sometimes worked even 60 hours a week and accumulated huge fortunes and the rate of dividend doubled, trebled and in some cases, was even higher[3]. Even after 1945, the demand for jute goods far exceeded production. During this war boom, when the Indian jute mills failed to cope with the

1. The growth of organised industries in Nepal is phased for analysis into four periods, each having some distinct characteristics of its own. These periods are designated for convenience as (i) Per-war period, (ii) War period (iii) Post-War period and (iv) Period of new political set-up.
2. *Khadganishana* of 8-9-1992 (Dec.23,1935), *Udyog Parishad*.
3. *Investors' Encyclopaedia* 1956/57, Madras (India), p.852.

growing demand, the newly established jute mill of Nepal, which, unlike in India, was not subject to any taxes or export duties, found itself quite capable of disposing of its products at competitive prices in Indian markets. The mill worked at its fullest capacity and bagged so large profits that it could distriute even as high as 111 per cent dividend in 1943/44, as against 11.5 per cent in 1939. The continuation of the boom even after the close of the war and partition of India in 1947, which hit the Indian jute mills hard, particularly due to acute shortage of raw materials, also contributed to the success of the Nepalese jute mill even after the war.

The immediate success of the jute mill inspired the confidence of the people in joint stock enterprises, so much so that within a couple of years or so, as many as five new joint stock companies were floated. Out of the five, it was only the Joodha Match Factory, owned and managed by the Nepalese, which saw an amazing success in spite of its modest scale of operation in the beginning. It was, of course, the out-break of the World War II and subsequent shortage of supply due to stoppage of imports, particularly the cheap Swedish matches, which accounted for an immediate success of the match factory. The four others, though organised on large scale, went into liquidation before their actual operation.

The success of the two ventures may therefore be attributed largely to the abnormal situation created by the war and the liberal concessions made by the Government. The Biratnagar Jute Mills, for instance, enjoyed total exemption from customs duty on imports of plant, machinery and equipment and other construction materials for a period of seven years after its incorporation. It was also exempted from import duties on fuels and other essential materials.[4] The match factory was also granted all the facilities available to the jute mill in addition to an absolute monopoly of production for five years.[5]

(*b*) *War-period* (1939-1945)

The war-period between 1939 and 1945 recorded an incorporation of 14 new joint stock companies engaged in diverse fields ranging from mining and hydro-power supply to paper, soap and furniture making with an initial capital varying in each case from a modest amount of Rs. 20,000 to about Rs. 1,00,000. Soon after the outbreak of the World War II, usual supplies of consumer goods imported largely from India and Japan were

4. *Charter of the Biratnagar Jute Mills*, Department of Industry.
5. *Charter of the Joodha Match Factory 'Birganj'*, Department of Industry.

seriously hampered, causing acute shortage of many essential commodities of daily life. The price of cotton textiles in black market soared fantastically high, despite rigorous price control measures of the Government, which included, among other things, the fixation of official prices of many essential goods such as kerosene, cloth, spices, etc.[6]

Out of these scarcity conditions of war, there came into existence simultaneously two cotton mills in 1942, one at Morang in the Eastern Terai, floated jointly by the foreign and local entrepreneurs with an initial capital of more than Rs. 13 lakh and the other at Birganj in the central Terai, incorporated purely with local capital and under local management. The Morang cotton mill turned out to be a profitable venture in the chaotic conditions of the war when prices of cotton goods were soaring high in India. Most of its products, consisting of wholly rough and unbleached cloth, were sold even in India with great profits which reached the peak in 1945/46 when it earned net profit of Rs. 8.5 lakh and dividend was distributed at 25 per cent. As soon as the market situation became normal after the close of the war, the mill faced recurrent losses. However, the Birganj cotton mill was fraught with disappointing results. It stopped its working shortly after it had gone into actual operation. It was wound up in 1947 on the ground that it was running at recurrent losses owing to fall in price of cotton goods and consequent stock-piling in the mill.

Two more significant local ventures during this period were carried in unknown and unexplored fields, namely mining and hydro-power supply. The incorporation of Morang Hydro-electric Supply Co. in 1939 was a promising success of local genius, but the Himalaya Mining Syndicate established in 1944 to exploit copper and zinc deposits in the country turned out to be an ill-calculated proposition, even when it was provided with many privileges.[7] It was officially wound up in 1951.

One promising industry in which the Nepalese entrepreneurs were interested during this period was wood works. Three joint stock enterprises were floated entirely with Nepalese capital. In spite of the fact that Nepal has bright prospect for this industry, because of her abundant supply of raw materials and markets for processed goods within and outside the country, no enterprise came up in the field until 1943 when a plywood and

6 *The Gorkhapatra* (Local Newspaper), Bhadra, 1946.

7. The syndicate was permitted to carry out mining explorations and exploitation works in vast area on nominal surface rent of Re. 1 per annum. It was also exempted from import duties on machinery, tools and fuel.

bobbin factory was set up. Of course, a tiny unit for making wooden frames and furniture was working even before the plywood factory which was hastily put up to take advantage of shortage in tea-chests for the Indian tea manufacturers on account of war and consequent stoppage of imports from Finland and Japan. The factory could, however, put only the bobbin section into operation in 1946 until it was closed down in 1952 for want of raw materials and funds for operating capital.

Another interesting feature of this period was the growth of five industries producing Ayurvedic drugs, paper, soap, ceramics and glass, and chemicals. Of these five, three were already under liquidation, while the remaining two are on the verge of liquidation. It is so unfortunate that ceramics, glass and chemical industries were closed down on account of inadequacy or irregular supplies of basic raw materials within economically accessible distance.

(c) *Post-War Period* (1946-1951)

The immediate post-war years were a period of boom in the evolution of organised industries in Nepal. It was during these years a large number of joint-stock industrial enterprises sprang up one after another in close succession in multifarious fields. Most of these were merely the buttle-companies in the sense that they had disappeared soon after they made their first appearance. Majority of them were essentially the war-stimulated enterprises based on faulty judgement and wrong calculation. Somd of these opportunistic ventures would have been launchd even during the war-period if it were not difficult for their promoters to import machinery and equipment from abroad.

Only in the year 1946/47, as many as 19 companies were floated. In terms of capital investment, rice and oil, jute, sugar, matches, wood and miscellaneous group of industries dominated the scene. Fifteen rice and oil mills with the largest equity capital of about Rs. 21.5 lakh were set-up, but more than half of them were wound up within a short period of eight or nine years under various conditions. The primary reason for this mushroom growth of rice and oil mills was that their promoters were inspired by a successful operation of many similar mills located on the Indian frontier adjoining to Nepal's food surplus Terai and also fed on paddy and oil seeds exported from Nepal.[8] Almost all these mills were, therefore, concentrated in food-exporting Terai, bordering on food-deficit States of India, namely, Bihar and Uttar Pradesh. Though the prospects were

8. *Prospectus of Gaur Rice and Oil Mills.*

so bright, the history of most of these mills was not encouraging. In some cases, the business was closed down before actual production.

The success of the Biratnagar Jute Mills, on the one hand, and the post-war boom in jute market of India, on the other, encouraged an establishment of two jute mills in 1946; but one was wound up officially simply because it could not start working for years at end after its formal incorporation, while the other went into operation only in 1954 after having passed through a long period of mismanagement. Equally disappointing were the results of three ambitious ventures launched simultaneously in cotton textile industry with the combined total authorised capital of Rs. 2.7 crore. These ventures were inspired largely by a speculative ambition for exploiting the war-created scarcity situation. They had gone into liquidation before they actually started the work.[9] A host of other unsuccessful companies organised during this period were officially wound up after 1951.[10] Unsuccessful attempts were also made in the field of quarrying. The Dang Coal Co. incorporated in 1948 to exploit coal deposits of Dang district in the Western Terai could not turn out to be a profitable proposition, because it was later on found that the quality of coal deposits was not suitable for commercial exploitation. The Mica Co. established in 1949 to exploit mica deposits of the country ceased to function long ago. The Godavari Marble Co. also stopped working after its brief active time.

More positive measures undertaken during this period were, in fact, the expansion of some successful enterprises. For instance, the Biratnagar Jute Mills increased its productive investment from Rs. 43 lakh to over Rs. 132 lakh between 1945/46 and 1950/51. It also put 200 additional looms into operation. The Morang Cotton Mills raised its equity capital from Rs. 9 lakh to well over Rs. 28 lakh between 1945 and 1951 and also purchased

9. The Nepal Textiles incorporated under foreign management at Janakpur with an authorised capital of Rs. One crore could not raise more than 5 per cent of the issued capital, whereas the Pasupati Textiles, incorporated in the same year at Nepalganj with the same amount of authorised capital failed to raise more than 3 per cent of the issued capital. The third venture, namely, Shri Rama Janaki Textiles of Butawal, though successful in raising 10 per cent of its issued capital, could not materialise the plan for want of adequate funds and was wound up after a year in 1947.
10. For instance, Himalaya Woollen Co., Nepal Timber Supply Co., Biratnagar Iron Works and Prabhat Dyeing Co. were wound up by the Government on the ground that these companies actually did nothing after their registration.

a steam plant of about Rs. 10 lakh for power-generation of its own. The Guheswari Rice Mills also doubled its investment from 1944/45 to 1950/51. Similar progress was recorded in match factories as well.

(*d*) *Period of New Political Set-up* (1951/61)

The period following the political upheaval in 1951 was marked with signs of frustration and disappointment. Cases of fraud and deceit were exposed Instances of mismanagement multiplied. Out of the remaining 46 joint stock enterprises, 21 were wound up voluntarily or officially and in almost all the cases, it was the ordinary shareholders who bore the brunt of heavy losses. In many cases, the liquidation process continued so long that the value of assets had shrunk to the scrap value before their sale. The liquidation process of some companies is still under way.

This period recorded the highest percentage of company failures. The largest number of such failures occurred in rice and oil mill industry, entailing the heaviest wastage of capital. Out of 19 companies floated in this field, only six are surviving at present and majority of them were liquidated during this period. Equally disappointing results were recorded in the case of miscellaneous group of industries in which out of remaining nine companies, seven were wound up during this period. However, it should be noted that the highest percentage of mortality rate during this period was largely due to the action of the new Government in winding-up business. If similar steps were taken by the Rana Government, the number of liquidations would be probably higher than what was actually recorded in the post-war period, since most of the companies officially wound up after the political change in 1951 were almost the defunct bodies, in the sense that they had either not started working in violation of the Nepali Companies Act after their formal incorporation or already stopped working before 1951. It would, therefore, be a mistake to presume that the highest number of liquidations during this period was wholly due to adverse conditions and policies of the new Government. It is rather a consequence of gradual decay caused by the evaporation of all unwarranted hectic spirit of war and boom compounded with faulty judgements of the so-called business promoters.

The second notable feature of this period is that not a single joint stock public limited company was incorporated in industrial field until 1960 when one wholly Government owned enterprise was put up. The reason for this disappointing feature is simple. The potential investors became wise enough to protect themselves from frequent losses in industrial investment

by diverting their resources in some other lucrative fields. This wave of pessimism and distrust is more disastrous than the material loss for the country's industrial development, insofar as human psychology is not susceptible to so quick changes as the time may demand. Even among the so-called surviving companies, some had stopped working and some were standing on the verge of liquidation. Nepal Plywood and Bobbin Co. had closed down its business in 1952 for want of raw materials. The Morang Cotton Mills also went out of operation under heavy burden of borrowed capital, while all the three companies engaged in mining and quarrying activities had been defunct long ago.

The beginning of the new political set-up roughly synchronised with the appearance of losses in company accounts. The Biratnagar Jute Mills, which was running continuously in profit since its inception in 1936, showed in its balance sheets for the years of 1951/52 and 1952/53, net loss of Rs 34.9 lakh and Rs. 6.0 lakh respectively. The Ragupati Jute Mills accumulated the loss of Rs. 9.5 lakh by 1953/54. The Morang Hydro-Electric Supply Co. started running at loss since 1951/52. The Morang Cotton Mills was facing recurrent losses since 1953 until it closed the business in 1958. In brief, the general trend is clearly towards loss.

In the absence of any labour legislation and factory acts, this period also saw a number of strikes and lock-outs. Immediately after the institution of the new political system, the Government should have enforced, at least, a minimum code of conduct both upon labour and management, learning from what happened in labour disturbance of 1947. The Biratnagar Jute Mills labour strike and consequent lock-out by the management in 1953, cotton mill workers' strikes in 1955/56 are enough to demonstrate how lack of harmony and understanding between labour and management on the basis of mutual respect and tolerance, could lead to undesirable consequences.

The following table summarises the rate of growth and decay of joint stock industrial enterprises in Nepal from their origin in 1936 to the middle of 1963. The rate of growth was so slow that during as long a period of three decades, only 56 public limited companies were incorporated. While the growth was so slow, the mortality rate was moving in so long strides that by 1963 as many as 34 of them went out of existence. The growth rate was faster than the mortality rate during the first three periods, while in the fourth period, the latter outran the former leaving only 22 companies in existence.

2. *Major Development After Political Change in* 1951

The period following the political change in 1951 was not totally devoid of any salutory features. Soon after the institution

Table 6:1

GROWTH OF JOINT STOCK PUBLIC LIMITED COMPANIES
(1936–1963)

No.	Industry	Pre-war Period 1936/37-1938/39		War Period 1939/40-1944/45		Post-war Period 1945/46-1950/51		Period after Political Change 1950/51-1963		Total (1936-1963)		Existing No
		Incorporated	Wound-up	Incorporated	Wound-up	Incorporated	Wound-up	Incorporated	Wound-up	Incorporated	Wound-up	
1.	Jute Mills	1	0	0	0	2	0	0	1	3	1	2
2.	Cotton Mills	0	0	2	0	3	4	0	0	5	4	1
3.	Sugar Mills	1	0	0	1	1	0	0	0	2	1	1
4.	Rice and Oil Mills	2	1	2	0	15	0	10	10	19	11	8
5.	Cigarette Factory	0	0	0	0	1	0	0	0	1	0	1
6.	Match Factories	1	0	0	0	2	0	0	0	3	0	3
7.	Mining and Quarrying Works	0	0	1	0	3	0	0	4	4	4	0
8.	Wood Works	0	0	3	0	1	0	1	2	5	2	3
9.	Power Supply Cos.	0	0	1	0	1	0	0	0	2	0	2
10.	Miscellaneous Group	1	0	5	1	6	2	0	8	12	11	1
All Industries		6	1	14	2	35	6	1	25	56	34	22
Incorporation As % of the Total		10.7		25.0		62.5		1.8		100.0		
Liquidation As % of the Total		3.0		5.9		17.6		73.5		100.0		

Source: *Compiled from the Records of Department of Industry, HMG, Nepal.*

of the new political set-up in February 1951, the new Government convened an industrial conference at Kathmandu, in which the Minister for Industry and Commerce outlined the measures for industrial development in the country, but nothing substantial came out of the conference. The Government, however, brought into force in April 1951 a new Company Act, known as the Nepali Companies Act, 1951. Since it is only an amended and enlarged version of the old Company Act, 1936, framed while the Rana regime was yet in power and adopted hastily without due consideration by the new Government, it failed to serve some of the main purposes for which it was put into effect.[11] Subsequently, it was amended twice.

It was during this period that a number of joint stock private limited companies came into existence for the first time in the country. Under the old Companies Act of 1936, there was no provision for such enterprises. The available information indicates a fast-growing popularity of this type of business organisation in recent years as against the alternative form of joint stock public limited companies. This may be attributed largely to the fact that the potential investors and entrepreneurs have been quite apprehensive about the efficacy of the joint stock public limited companies; for, the working records of this form of business organisation in the past present many sad and shocking stories of fraud and deceitful manipulation on the part of some unscrupulous managers and directors. As the following Table 6:2 shows, over the period of 12 years from 1952/53 to 1962/63, as many as 92 joint stock private limited companies were registered with the Department of Industry of His Majesty's Government. Most of these enterprises are engaged in simple processing and manufacturing works such as rice milling, saw milling, paper, soap and camphor making, etc.

11. To cite only one instance here, among the few restrictions imposed on management for discouraging malpractices in the affairs of a company, Section 90 (a) of the new Act required the managing director or managing agent to subscribe 25 per cent of the authorised capital (later on made 25 per cent of paid-up capital) to equity stock of the company concerned. Accordingly, the Government started taking serious measures to implement this provision. But it was found that Section 90 (a) of the Act was applicable to none of the then existing companies against which the action was taken by the Government as soon as the High Court ruled that such retrospective actions with which the Government tried to implement the provision, were *ultra vires*.

Table 6:2

GROWTH OF JOINT STOCK PRIVATE LIMITED COMPANIES
(1952-1963)

No.	Industries	1952/53	'53/54	'54/55	'55/56	'56/57	'57/58	'58/59	'59/60	'60/61	'61/62	'62/63	'63/64	Total
1.	Rice and Oil Mills	5	1	—	1	—	5	—	6	4	1	1	—	24
2.	Sugar Mills	—	—	—	—	—	—	—	—	1	2	1	—	4
3.	Match Factories	—	—	—	1	—	—	—	2	—	—	—	—	3
4.	Iron and Steel Works	—	—	—	1	—	—	+	2	1	2	—	—	6
5.	Cream and Dairy Products	—	—	—	2	1	—	—	2	2	—	1	1	0
6.	Saw Mills	—	—	—	—	—	1	1	1	1	3	1	1	8
7.	Construction Works	—	—	—	—	—	—	—	1	1	1	—	1	5
8.	Workshops	—	—	—	—	—	—	—	1	1	1	1	—	4
9.	Miscellaneous Group*	—	—	—	—	—	1	—	6	3	8	6	5	27
	All Industries	5	1	—	5	1	7	1	21	14	18	11	8	92

* Includes Khair factories (3), tea gardens (3), woollen mills (2), mining works (4), shoe making (1), comphor making (1), electric works (1), cotton textiles (1), syrup and squash (1), handicrafts and hosiery (1), fertilizer (1), jute press (2), and dyeing (1). The figures in brackets indicate the number of companies in each line of production.

Source: Compiled from the records of *Department of Industry*, HMG, Nepal.

The amount of actual investment in these enterprises is not known.[12] However, it is known that their combined authorised capital amounted to Rs. 4.3 crore in 1963. But the actual amount of their equity capital must be much smaller than their total authorised capital, probably not exceeding half of the latter. All the more, the informed sources believe that quite a good number of these registered limited companies are not now in actual operation. All this tends to suggest that the progress made in terms of productive investment during the past decade is not quite heartening even in this sphere of organised industries. The classification of these companies by size measured in terms of their amount of authorised capital indicates that majority of them were organised rather on a very modest scale with the authorised capital of each not exceeding Rs. 2 lakh.

The implementation of the Five Year Plan of Nepal is another historic event during this period. In the sphere of industry, the Plan avoided altogether the determination of any specific objects and targets by stating that such "specific objects and targets will be set only after surveys and research provide the data essential for making such determination in regard to specific industrial plants." Although it was realised that Nepal's industrial experience had been characterised by difficulties and ineptitudes with numerous failures and many existing industries now in difficulties, the Plan was devoid of any specific measures for arresting this fast deterioration of the existing industries. The Plan enunciated only a series of non-commital objectives. As aptly remarked, "Without proper qualifications, all these terms are just like sermons."

The declaration of Industrial Policy of Nepal in 1957 and the Factory and Factory Workers' Welfare Act of 1959 are other encouraging measures undertaken by the Government during this period. The Industrial Policy of 1957 formally recognised for the first time the responsibility of the Government in "promoting, assisting and regulating" industrial development so as to ensure a balanced growth between the village and small industries, on the one hand, and the medium and large-scale industries, on the other, between different regions of the country and between industry and agriculture. The Industrial Policy of 1957

12. The Department of Industry of His Majesty's Government does not keep any useful information and maintain records of the working of these private limited companies. Under the Nepali Companies Act 1951, even the balance sheets and statements of profit and loss accounts need not be submitted to the Department of Industry or to any other Government Office, by these companies. They have therefore, been excluded from the analysis of investment, employment and output of existing organised industries in Nepal.

Table 6:3

SIZE OF JOINT STOCK PRIVATE LIMITED COMPANIES BY THEIR AMOUNT OF AUTHORISED CAPITAL IN RS. '000

No.	Industry	up to 20	20-30	30-40	40-50	50-100	100-150	150-200	over 200	Total
1.	Rice and Oil Mills	1	0	2	4	8	1	1	7	24
2.	Sugar Mills	—	—	—	—	1	—	—	3	4
3.	Match Factories	—	—	—	—	1	—	2	2	3
4.	Iron and Steel Works	—	—	—	—	—	—	1	5	6
5.	Cream and Dairy Products	1	—	—	2	1	1	1	3	9
6.	Saw Mills	—	—	—	1	2	—	1	4	8
7.	Construction Works	—	—	—	—	1	—	1	3	5
8.	Workshops	—	—	—	—	—	—	1	3	4
9.	Miscellaneous	1	3	—	3	8	1	3	10	29
	All Industries	3	3	2	10	22	3	11	38	92

was replaced by the Industrial Enterprises Act of 1961. The Act embodies the new industrial policy of the Government, which in essence, differs but little from the earlier one.[13]

Until the middle of 1959, laws, rules and regulations governing labour-management relationships and the working conditions in factories were conspicuous by their absence, despite their urgency being felt on many occasions. The Factory and Factory Workers' Welfare Act of 1959 is a highly commendable measure in this direction. It has recognised for the first time the fundamental right of labourers to organise themselves into unions and created a machinery for settling labour disputes through a tribunal on compulsory adjudication. It has also laid down, in specific terms, health, safety and welfare measures in factories.

Under the Agreement signed in October 1956, Nepal received from the People's Republic of China a free grant of Rs. 6 crore—one third of which was in cash and two-thirds in machinery and equipment.[14] With the latter Chinese aid in the form of capital goods, His Majesty's Government of Nepal decided, probably after long deliberation with the Chinese authorities, to set-up a paper mill at Nepalganj with a capacity of 20 tons of paper per day at an estimated cost of Rs. 5.8 crore and also a cement factory at Hitaura with a capacity of 50,000 tons of cement per annum at an estimated cost of Rs. 3.8 crore.[15] The preliminary survey works on both of these projects were completed during the Five Year Plan period itself. It was envisaged that major parts of construction works would also be completed under the Three Year Plan.[16] While the Three Year Plan was in progress, both the projects were abandoned and for this no explanation was made available from either side of the contracting parties. His Majesty's Government was, however, fully convinced that "The establishment of these factories shall mark the beginning of the large scale industry in Nepal. The cement factory will constitute the first basic industry which will help in completing quite expeditiously other development works in the country, whereas the paper mill, by stopping imports, will save something like Rs. 20 lakh worth of foreign exchange and create employment to 800 persons."[17]

13. An elaborate comment on the industrial policy of the Government is made in Chapter 9.
14. *Ministry of Industry and Commerce*, HMG of Nepal.
15. *Five Year Plan Progress Report. op.cit.* p.85
16. *Three Year Plan, op. cit.* p.193.
17. *Ibid.* p.193.

Under the Russian 30 million roubles aid-programme for Nepal announced in April 1959, a sugar factory at Birganj having a capacity of 12,000 tons of sugar per annum and a cigarette factory at Janakpur with a capacity of turning out 2,000 million sticks per annum, have already gone into operation at an estimated cost of block capital of more than Rs. 53.9 million and Rs. 54.9 million, respectively. It is reported that both the factories will soon go into full capacity operation.

3. *Present Position of Organised Industries*

In 1963 only 18 public limited companies were in actual operation. The total investment in these enterprises, as worked out in the following Table 6:4 for the year 1962, amounted

Table 6:4

INVESTMENT IN ORGANISED INDUSTRIES, 1962

No.	*Industry*	*No. of Companies*	*Investment in Rs. I.C. (A)*	*Percentage of Total Investment*
1.	Jute Mills	2	1,66,15,147	46.9
2.	Cotton Mill	1	41,78,727	11.8
3.	Sugar Mill	1	40,27,285	11.4
4.	Rice and Oil Mills	6	21,09,397	6.0
5.	Match Factories	2	22,14,922	6.2
6.	Cigarette Factory	1	14,64,799	4 1
7.	Power Supply Co.	1	13,18,114	3.7
8.	Wood Works	3	34,37,202	9.7
9.	Drugs Mfg. Co.	1	63,599	0.2
All	Industries	18	3,54,29,192	100.0

A=Most of the companies maintained their accounts in Indian Currency (I.C.) and as such the accounts in Nepalese Currency in the case of some companies have been converted into I.C. at the current official rate of Rs. 100 I.C.=160 N.C.

Source: Balance Sheets of the Companies

to Rs. 35.4 million I.C.[18] This means that the per capita investment in organised industries of Nepal was less than Rs. 4 in 1962. Even if the total investment in joint-stock private limited companies is taken into account, the per capita investment is not likely to increase significantly.

Supply and drugs manufacturing industries stand in order of importance. Almost this order of importance holds good in terms of employment as well. Out of the total employment of about seven thousand labourers, jute industry alone absorbs about four and a half thousand persons, accounting, therefore, for more than 65 per cent. Cotton, sugar, match and rice mills employ more than 11, 8, 5 and 3 per cents, respectively. The so-called organised industries in Nepal, thus, provide employment to only an insignificant proportion of labour force, not exceeding 0.15 per cent!

Table 6:5

NET VALUE ADDED BY ORGANISED INDUSTRIES, 1962.

No.	*Industry*	*Net Value Added* (Rs. I. C.)	*Percentage of Total Net value Added*
1.	Jute Mills	70,40,916	59.8
2.	Cotton Mill	2,36,930	2.0
3.	Sugar Mill	11,77,385	10.0
4.	Rice and Oil Mills	2,06,241	1.8
5.	Match Fartories	12,58,310	10.7
6.	Cigarette Factory	11,16,556	9.5
7.	Power Supply Co.	84,648	0.7
8.	Wood Works	6,38,973	5.4
9.	Drugs Mfg. Co.	6,012	0.1
	All Industries	1,17,65,971	100.0

18. The figures in Tables 6:4 and 6:5 relate to the accounting year of the companies ended at any time during the calendar year 1962. The figures for 3 companies relate to 1959, while for 3 others, figures are available for only 1957, 1960 and 1961, respectively; out of these 6 companies, the two accounting for 11.5 per cent of the total investment are not now in operation, while the remaining four account altogether for 7.7 per cent of the total investment. The overall picture as revealed by these two tables is not therefore likely to be affected in any significant manner even when the 1962 figures for these 6 companies were substituted when available.

While the total investment and employment in these organised industries form but a negligible fraction of total resources of the country, the net return from them cannot be expected to assume any significant proportion of the national income of the country. The net value added[19] by these industries during a year ending in 1962 amounted altogether to Rs.11.7 million I.C. In terms of net value added, jute industry accounts for 59.8 per cent of the total value added. Match and sugar industries come next to jute, contributing 10.7 per cent and 10.0 per cent, respectively.

Jute, sugar and rice milling industries are primarily export-oriented. The jute industry exported more than 60 per cent of its products to India and overseas countries during the past decade. The overseas exports have not, however, assumed a significant proportion. The industry has now two mills working with more than 9,000 spindles and with about 500 looms. Its average annual output during the period of past 12 years was little more than 11,000 tons. The sugar industry also exports about one-third of its output to India. Its average annual output over the period of the past 12 years was well over 40,000 maunds. When the Russian-aided sugar mill will go into full capacity-operation, the total annual output of sugar in Nepal will be more than 13,000 tons, which will be enough to meet the existing demand for sugar in the country.

The rice and oil milling industry is also heavily export-oriented, but smaller units operate mostly for the domestic market. The cigarette and match industries, which were exporting some of their output in the past, are now totally oriented to the domestic market. The existing output of matches is very inadequate, while that of cigarettes can meet probably a small fraction of the total demand. When the Russian aided cigarette factory will come into its full capacity-operation, there will be an increase in the annual production by 2000 million cigarettes, which together with the present production of more than 240 million sticks, can cope with total demand of the country at present. The cotton textile industry consisting of only one mill, produced in 1957 about 3.8 million yards of cloth and 0.37 million lbs. of yarn. The mill is not in operation since 1958. About a couple of years ago, the Government granted permission to Birlas, the well-known Indian industrialists, for setting-up of a

19. This represents the net value of the product created in the factory and is computed by deducting from gross value of the product, the costs of raw materials, fuel, repair and maintenance of plants and machinery and depreciation of fixed assets. The gross value is derived by deducting the value of opening stock from the total value of sales closing stock and other incomes of the companies.

Table 6:6

PRODUCTION OF MAJOR MANUFACTURED GOODS

Year	Jute Goods in Ton	Sugar in Maund	Match Boxes in Gross (A)	Cotton				
				Cloth			Yarn in lbs.	
1950/51	4,821	17,564	18,015	953	Bales	(B)	6,88,276	(B)
1951/52	7,851	29,015	25,771	794	,,		4,91,203	
1952/53	9,966	39,756	45,406	1,242	,,		4,69,476	
1953/54	6,180	22,576	74,738	1,626	,,		4,13,121	
1954/55	9,554	34,771	90,001	31,63,893	Yards		3,24,430	
1955/56	10,032	61,245	1,42,768	4,16,640	,,	(C)	94,503	(C)
1956/57	13,348	42,245	1,19,848	37,60,969	,,		3,71,325	
1957/58	13,951	30,808	1,82,764	—			—	
1958/59	13,205	58,228	1,36,813	—			—	
1960/61	13,744	66,008	2,67,275	—			—	
1961/62	15,034	70,000	2,95,609	—			—	
1962/63	14,956	46,317	3,31,737	—			—	
Total	1,32,642	5,18,536	17,30,745					

A=Excludes output of Birganj match factory for 1950/51-1954/55 and 1958/59.

B=For 19 months from Jan. 1, 1950 to July 31, 1951.

C=Only 5 months' production.

Source: *Department of Industry and Respective Industries.*

cotton mill at an estimated cost of Rs. 2.67 crores. The mill, which will have 15000 spindles and 400 automatic looms, is expected to produce annually 20 million yards of cloth. When both these cotton mills will run in full swing, their combined annual output of cloth will be somewhere between 23 and 24 million yards. This may meet probably one-third of the existing demand for cloth in the country.

4. *General Reappraisal and Conclusion*

The foregoing account brings out the fact that the entire evolution of organised industries in Nepal since 1936 was geared largely by a few artificial stimulants, namely, the unusual concessions and privileges granted by the Government, the scarcity conditions created by the war and the inadequate laws and regulations governing the organization and administration such industries in the country.

Most of the companies incorporated before the political change in 1951 enjoyed numerous privileges and facilities of which exemption from customs duty on imports of plant, machinery and equipment, raw materials, chemicals, power-fuels and other construction materials and on exports of finished goods as well as the concession for acquisition of land and local raw materials were notable. Above all, none of the industries was then subject to any excise duty, while income tax, profit tax or other taxes are the innovation of the recent years. All that they had to pay to the Government for all these privileges, was the royalty at varying rates, depending roughly on the size and age of the enterprises.

The laws and regulations were so inadequate that a joint-stock company could be incorporated without any prior scrutiny and investigation into the economic soundness or technical feasibility of a proposition when a group of four persons could combine themselves with some plans. A joint-stock public limited company could be registered as soon as there were people to subscribe only to 10 per cent of the authorised capital and shares could be allotted without any proper consideration as to the adequacy of the funds raised, since the old Companies Act of 1936 provided the discretionary power to the board of directors of fixing their own minimum amount that should be raised before shares were allotted. Even if the managing director or agent could not commence the business for want of funds even after the allotment of shares, they were required to refund the shares-money to the members with 7 per cent interest thereon from the date following the expiry of 6 months after the registration of the Company, but not from the date the money was raised (as it is today). Above all, the old Companies Act was

totally silent regarding the responsibilities and the financial commitments of the managing directors or agents of the Company. This had made possible all sorts of persons to become the managing directors or agents.

Since the privileges and concessions were made available to almost all major industrial ventures, without any thorough scrutiny of their soundness, many rash or ill-considered ventures were also encouraged, resulting in an enormous loss or, at least, the mis-direction of scarce resources. Even among the few successful companies, the tendency to neglect the manufacturing, organizational and technical efficiencies was developed. The facilities granted to the industrial enterprises served not only an ideal purpose of offsetting the deficiencies inherent in uneconomic size of the firm, low technical skill and unskilled labour and some environmental diseconomies such as transport difficulties, but also an undesirable motive of concealing the weaknesses and defects of management. Thus, the indiscriminately granted facilities, being free from any effective checks and control, provided ample scope to some unscrupulous entrepreneurs and directors for taking undue advantages, sometimes even at the cost of the enterprises of which they were directors or managers. The net result of all these imperfect measures led to a high mortality of companies and a long persistence of inefficiency in the few surviving ones.

The scarcity conditions of the war and boom stirred all the more the wave of over-optimism, leading to a host of company promotions in multifarious fields. In the absence of any agency to check and judge the soundness of indutsrial propositions, most of these opportunistic ventures not only mis-directed the resources but also developed some sort of aversion to industrial investment in the country. The opportunistic and ill-considered ventures under the hypnotic influence of the war conditions is evidenced by the fact that 84 per cent of the unsuccessful companies were incorporated during the war and the post-war periods. This high percentage of failures among these enterprises established during the war and the post-war periods indicates nothing but a gross miscalculation on the part of the so-called entrepreneurs and the lenient policy of the Government which failed to discourage the artificial growth and curb the mis-direction of resources.

This contention is reinforced by another fact as well. For example 43 per cent of the unsuccessful companies had been wound up voluntarily or otherwise, before they went into actual operation on account of the shortage of funds, mis-management or negligence of the promoters and directors, while 46 per cent of the companies under liquidation had a span of life of five

or less than five years only, and that too, were whiled away in many cases, under the pretext of assembling and constructing the factories, rather than in actual operation and production.

Another equally convincing reason for the failure of many earlier ventures, one after another in close succession, is the most inadequate supply of managerial ability and integrity. The cadre of entrepreneurs and managers was composed largely of persons having virtually no experience in business-promotion and administration. In fact, most of the business leaders had hardly possessed the requisite virtues such as power of judgement and foresight which were essential for an intelligent and successful leadership in business organization and management. In more than one case liquidation of business was the result of sheer incompetence and dishonesty of persons responsible for management.

Some of the positive measures which have been undertaken by the Government after the political change in the country are still in their initial stages and have not, therefore, made any significant impact on the economy. In the sphere of industry proper, the fast deterioration of a few surviving industries, on the one hand, and a few isolated attempts for establishing some new factories, on the other, indicate only the absence of an integrated programme and the lack of concerted approach to the problems of industrial development in the country. The total investment, employment and output figures of the organised industries suggest that the country has yet to start from scratch.

One of the fundamental reasons for the failure in sustaining these early efforts for the development of organised industries in Nepal is, however, deep-rooted in the unsuitable social, political and economic environment of the country itself. The history of other countries also shows that the process of industrial development was never quick and sudden. It always hinged on certain basic economic conditions of the country concerned. In a situation like that of Nepal where modern transport system, even to-day, is virtually non-existent, technical know-how is almost wholly lacking, banking and credit institutions are still in their embryonic stage, basic resources of the country such as minerals, power, industrial raw materials and labour resources, have still to be explored and assessed and, above all, where the real income of the people is extremely low owing to low productivity in agriculture, it is not surprising that the artificial stimulants like those provided in the past had encouraged speculation, mis-calculation or mis-direction of resources by a handful of so-called risk-bearing entrepreneurs. Such stimulants would have been helpful in boosting up the economy if other complementary factors in the process of development like those

mentioned above had already been developed well. In other words, such stimulus would have initiated a process of take-off, if the pre-conditions for such transformation had already been established well. The success of a jute mill or a match factory, organised on a modest scale and confined to a particular area can hardly change the environmental conditions, so rigid and almost inherent in the country.

Success of a particular sector or an industry can often generate forces for economic transformation of a country as happened, for instance due to cotton textiles industry in Great Britain, wood and pulp industry in Sweden, meat and dairy products in Denmark, silk industry in Japan and the introduction of railroads in the U.S.A., Germany and Russia.[20] But such leading sector or industry, in order to produce chain-reactions in the economy by way of expansion in other sectors, must be of a significant scale catering to the enlarged effective demand for its products, using new production techniques and ploughing back whatever additional output has been generated into new investment.

The fundamental weakness in the industrial policy of the Rana Regime during the 1940's lies in the gross misunderstanding of the fact that an industrial development of a country can be initiated and sustained merely by some isolated concessions and privileges without creating, at the same time, a suitable environment required for a proper use of these facilities. It is against this traditional background and experience with so many gaps and lapses that a country has to evolve a suitable approach to the problems and processes of industrial development, not in isolation as before, but within an integrated scheme of overall economic transformation of the country in the years to come.

20. W. W. Rostow, *The Take-off into Self-Sustained Growth*, Vol. LXVI. *The Economic Journal.*

Chapter 7

PROCESS OF INDUSTRIAL DEVELOPMENT

1. *Case for an Integrated Approach*

The case for industrialization in most of the underdeveloped countries was not conceived very seriously in the past within an integrated scheme of overall economic development in the sense of higher levels of income and employment. During the 19th and the early 20th centuries, industrial development of these countries was essentially a process of exploitation of profit opportunities in some primary products such as food and raw materials.[1] In some cases, it was geared up with a desire for bringing the country at par with other countries under the influence of the nationalistic theory of industrialization. Many countries of Latin America and Asia, particularly those under the colonial subjugation may be taken to illustrate the first case, whereas countries like Japan may provide an instance of the second. "The official industrial policy of Japan had never been an employment policy or even a welfare policy, but one of getting on with the powerful countries of the world."[2] The case for a rapid development in Japan was judged by men "much less concerned with popular welfare than with military power,"[3] because the starting point of the Japanese industrialization was conditioned by military necessity.[4] The world events after the opening of this century affected in varying degrees the outlook of these countries on the problems of economic development in general and industrialization in particular. The unhappy experience resulting from economic dislocation caused by the First World War marked the beginning of a notable change in the outlook. The case for industrialization was then pushed forward as a measure for economic stability. The Montague-Chelmsford Report of 1917 recommended, for instance, a "forward policy" of industrialization to give India

1. Norman S. Buchanan: *Deliberate Industrialization for Higher Incomes,* The Economic Journal, Dec. 1946, p. 533.
2. B. Dutta: *The Economics of Industrialization, Calcutta,* 1957, p.2.
3. Eugene Staley: *The Future of Underdeveloped Countries,* New York, 1954, p.22.
4. E. Herbert Norman: *Japan's Emergence as a Modern State,* New York, 1940, p.125.

economic stability."[5] The world depression of 1930's intensified this approach all the more. The exchange of raw materials and manufactured goods between the underdeveloped and the industrialised countries no longer remained mutually profitable, as the prices of food and raw materials fell more drastically than those of the manufactured goods. Consequently the poor countries suffered worsened terms of trade. This unfavourable world situation led many primary producing countries to reappraise their economic position once more and much attention was subsequently directed towards economic stability, diversification and self-sufficiency. Hence the 19th century theory of international specialisation became inappropriate in the world crisis of 1930. Moreover, the changes in economic policy of the industrialised countries towards "re-agrarisation" and tariff protection compelled underdeveloped countries to diversify their economies through industrialization.

The termination of the World War II brought fresh impetus to industrial development programme in many underdeveloped countries. The war shortage of many manufactured goods imported from the developed countries was a bitter experience which culminated in the organization of many industries in these poor countries.[6] This was possible because these countries, in general, had adequate foreign exchange in contrast to a situation they faced during depression years.[7]

The termination of the World War II synchronised with the reorientation of their economic policy in favour of broad social objectives, namely, the higher levels of income and employment. This policy of reorientation was influenced, first, by the shift of emphasis in industrialised countries towards the maintenance of full employment. However, the basic reason leading to the adoption of such an employment approach in these two sets of countries is entirely different. In developed countries, employment policy is devised as a counter-cyclical measure, whereas in underdeveloped countries, it is meant essentially for the elimination of mass under-employment in agriculture and for the structural change in rigid employment pattern causing low productivity in the economy.

Secondly, the policy of reorientation has also been inspired by the successful experiment of a planned industrialization in some countries, particularly in Russia. The formulation of perspective development plans with long range objectives in a number

5. *Montague-Chemsford Report* 1918, p. 267, quoted by Dutta, *op. cit.*
6. Alfred Bonne: *Studies in Economic Development*, London, 1957, p.105.
7. Buchanan: *Op.cit.*, p.535.

of underdeveloped countries in recent years is an evidence to the fact. Thirdly, the political liberation of colonial countries and the consequent emergence of new nationalism coupled with the "revolution of rising expectations," on the one hand, and the establishment of a host of international organizations with their avowed policy of helping in many ways the development of poor and backward regions of the world, on the other, affected substantially the new economic policy of these countries.

In Nepal, too, as already discussed at length in the preceding chapters, the problems of economic development and industrialization had hardly received any serious attention well over a century from 1846 to 1951. Some of the palliative measures undertaken after 1935 could not arrest the fast deterioration of original crafts and industries of the country. A few organised industries that came up after the outbreak of the World War II were the result, partly, of feverish war-boom and temporary situation of shortage of some essential commodities such as cotton textiles, for instance, and partly, of half-hearted economic policy adopted by the Government against the background of a rising tide of resentment of the people against the political system of the time. Since the programme of industrial development was never conceived as an integral part of the overall economic development of the country, the spoon-feeding measures undertaken in some spasmodic manner failed to transform the economy from a state of overall backwardness and most of the earlier ventures in industrial field were fraught with disappointing results. Even the First Five Year Plan of the country (1956/57-1960/61) did not contain any overall income and employment objectives. As already remarked, it was merely a collection of isolated projects having, therefore, no functional relationships and industrialization was conceived more as a matter of running a few factories than as a process of economic development affecting overall change in income and employment levels of the country. It is, therefore, urgent that the case for industrialization be considered in its proper perspective. It is on the basis of such a perspective view that a suitable economic policy could be formulated for industrial development on a viable base. The very fact that industrialization has hardly begun means that the existing trends offer little guidance to the path of future development.

2. *A Rigid Employment Structure*

In Nepal as in other underdeveloped countries, agriculture continues to hold first place both as a source of income and employment in contrast to a situation in developed countries where the so-called industrial revolution has already transformed the basic economic structure to an expanded division of labour

characterised by a system of distribution and exchange of goods and services in a developing "money economy" as a result of which the growth of commerce, transport, communications and a host of specialised services are absorbing a larger proportion of labour force. The role, which agriculture plays in Nepal may be explained by the fact that more than 90 per cent of the working population is eking out a precarious living from primitive agriculture—the percentage rising even up to 97.6 in the East Inner Terai. The role which manufacturing industry plays as the means of livelihood or as the source of employment is only marginal. The situation varies but little between regions. In the same way, the role that other industries like mining, quarrying and construction play in the economic life of the country is virtually insignificant. It is in this context that the problem of industrial development and structural change in Nepalese economy should be studied.

In the absence of decennial population census reports and other relevant data, it is not possible to trace the historical trends in employment structure in Nepal. The broadening of employment in non-agricultural sectors in advanced countries accounted not only for absorption of all the fresh addition to labour force, but also for transfer of labour force from agriculture to other sectors. In the newly developing countries, the proportion of labour force engaged in agricultural sector has not shown any marked decline. In India, for instance, though the statistics of 1931 relate to the pre-partition period and are not, therefore, strictly comparable with those of 1951, yet they suggest that the share of agriculture in the labour force moved up between 1931 and 1951, a phenomenal contrast to the experience of many western countries.[8] "Even during the period of two decades from 1911 and 1931 when war and fiscal protection stimulated the speed of industrial growth in India, the percentage dependent on primary occupations did not change much."[9]

In Nepal, even in the absence of any relevant data, it may be presumed that the proportion of working population in agriculture might have been increasing rather than declining in both absolute and proportionate terms over the past few decades owing to natural growth in population, on the one hand, and decay of village industries and handicrafts, on the other. The employment potential of both the Five Year Plan and the Three Year Plan is not known, since they had no employment targets at all. However, in view of the magnitude of investment, selection of projects and delay in execution, it may be fairly presumed that the Plans

8. *International Labour Review, May* 1956, p. 506.
9. Dutta *op. cit.*, p. 63.

might not have created new employment for any significant volume of labour force outside agriculture. In a situation like that of Nepal where employment outside agriculture has not been growing faster than labour force, the volume of labour on land must be growing absolutely as well as proportionately over time.

Now the question arises as to whether the existing pattern of employment in Nepal as revealed by the census of population is optimal. The industrial classification of labour force in the census report does not by itself provide an all convincing answer, since it does not measure in any way the degree of underemployment in agriculture where more than 90 per cent of labour force is engaged. Nor does it correctly indicate the volume of unemployed persons in labour force of the country. The population census of 1952-54 included in labour force not only those persons who had a job but also those who were temporarily absent from their works or were looking for works at the time of census. Those who were temporarily employed at the time of enumeration as well as those who were actually unemployed for a long period of time might have, therefore, been reported as having jobs or looking for jobs. This must be the reason for a surprising census report showing not even a single person unemployed in the whole of Western Hills, Central Inner Terai, Far Western Terai, Mid-Western Terai and West Inner Terai. Only 1627 persons in the total labour force of the country were reported unemployed. In a predominantly agricultural country like Nepal where seasonal variations in employment is a notable feature, the data relating to a particular point of time are likely to be distorted by temporary conditions and as such they might tend to reflect on a typical situation existing only at the time of census enumeration.

Census statistics taken alone, do not, therefore, offer any convincing measurement of unemployment or underemployment of latent potentialities of labour force and hence, the degree of non-optimal nature of the existing employment structure. They will be, however, meaningful if studied in relation to other economic facts.

3. *Dynamic Factors in Structural Change*

It has been observed that the low levels of income are associated with high proportion of employment in primary industries and the high levels of income, with high proportion of employment in secondary and tertiary industries. It has also been found that in a developing economy there was a shift of employment through time away from primary to secondary and in the later stages, to tertiary industries. From these empirical evidences, the

conclusion is usually drawn that one of the conditions of economic development is a shift of population from primary to other industries. This shift in employment is explained primarily in terms of operation of two dynamic factors. The first is the relative changes in demand of consumers for different types of goods and services, more specifically, the shift in their demand schedule in favour of the products of secondary rather than of primary industry and of the consumption of services rather than of commodities, as a result of rising average real income per head. The second is the different rates of changes in efficiency of production in different industries. In the first case, where average real income per head is rising, Engel's law will come into operation and the proportion of income that will be spent on primary products will be falling through time. "Under these circumstances without calling for any other explanation, we may expect the proportion of labour force devoted to primary production to fall." In the second case, while consumers' demand schedule is not changing, it is possible that the output per worker may be increasing more rapidly in some forms of production than in others. "Under these circumstances, there will be a transfer of labour away from those industries where output per head is increasing more rapidly (or decreasing less rapidly)" to those industries where output per head is increasing more slowly.[10] In a developing economy, where per capita real income is rising and output per head is also growing at various rates in different industries depending upon the factor-combination and technological perfection, the two dynamic factors will lead to a continuous shift in employment.

The situation in a backward economy like that of Nepal is entirely different. In such an economy, the agricultural sector accounts for not only employment of almost all the labour force but also for larger proportion of national income. Since an average agricultural productivity per man is either already low or is declining due to the various reasons to be discussed subsequently, it is most unlikely that there will be any notable shift in the demand schedule in favour of industrial products and thus, leads to a stage where shift in employment away from land becomes a normal process. Even assuming that the productivity per man on land is increasing at a faster rate than that of population growth, the high income elasticity of demand for food will not allow, for a long time, any significant shift of demand schedule in favour of other goods. In fact, the income elasticity of demand for food is reported to be around unity in a number of underdeveloped

10. Colin Clark, *The Conditions of Economic Progress*, London, 1951, p.431.

countries at present.[11] Even under the conditions of rising rate of agricultural productivity leading to a rising demand for secondary products, shift in employment may be a difficult process, because, the rising demand is likely to be matched by supply of imported goods rather than by supply from home industries which might fail to come up due to other environmental disadvantages and lack of minimum pre-conditions for their growth. Viewed either way, the shift in employment should not be taken as a simple process. In such a situation, a deliberate and systematic action is necessary to make a beginning by increasing the average agricultural productivity per man and acre, on the one hand, and on the other, by initiating a process of growth in other sectors where the excess labour can be rehabilitated. How this can be done is a problem that constitutes by itself the hard core of economic development and industrialization.

4. *Surplus Labour and Low Productivity in Agriculture*

From the fact that the high level of economic development measured in terms of high level of per capita real income is associated with a small proportion of employment in primary sector, the conclusion is usually drawn that productivity per worker in agriculture, in general, is lower than that in other industries. A recent study has actually worked out percentage index-numbers showing approximately the net output per worker in industry and services relative to that in agriculture. As compared to the net output per worker in agriculture as 100, the corresponding figures for industry and services in some countries are shown below.

Table 7:1

NET OUTPUT INDEX NUMBERS

Sector	Country and Year								
	India	*Japan*	*Pakistan*	*Thailand*	*U.S.A.*	*Canada*	*U.K.*	*Newzealand*	*Mexico*
	1951	1954	1951	1947	1950	1951	1951	1951	1950
Industry	260	280	110	620	190	130	90	60	450
Services	300	300	330	350	180	130	100	65	770

Source: International Labour Review, May 1956, p. 518.

11. *Economic Bulletin for Asia and the Far East*, Dec. 1958, p.34.

In all the countries, with the exception of the U.K. and New Zealand, the net output per worker is significantly higher in industry and services than in agriculture. The observed statistical relationship between levels of income and employment structure or between levels of productivity in agriculture and other sectors of the economy, is not however, so straightforward as it often tends to suggest. For instance, "The United States, Canada, New Zealand and Sweden all have an appreciably larger proportion of their population in agriculture than the U.K. and yet their real income per head is larger."[12] At the same time, as the figures in Table 7:1 show, the net productivity per worker in agriculture is equal or higher than in other sectors in the U.K. and New Zealand. The fact of statistical relationship alone does not, therefore, explain the whole phenomenon unless the underlying technical conditions of production are sought out.

The inter-sectoral disparities in net product per worker are not really due to inherent inferiority of labour in agriculture. In the ultimate analysis they are attributable largely to differences in qualitative and quantitative inputs of factors of production and in the rates of return on these factors. Such differences in inputs of factors between industries are generally greater in underdeveloped countries than in the developed ones. The amount of capital employed per person in industry and services, in general, substantially exceeds that is available to agriculture where it covers only little more than the value of land. Besides, the annual average working hours per person are also definitely greater in industry and services than in agriculture. This is so because of the seasonal nature of agricultural workers and a large volume of part-time family workers. Moreover, the actual rates of return on capital employed in industry and services outweigh by far the return on capital operative in agriculture. What is required for an underdeveloped country to raise its levels of income is, therefore, to correct the existing disproportionate factor-combination in agricultural sector.

The classical example of the factor in fixed supply that causes diminishing returns on other factors is land. However, changes in capital coefficient can shift the point of diminishing returns on labour with the fixed supply of land. But, since factors of production are not perfect substitutes or in other words, since the elasticity of substitution is not infinite, the point of diminishing returns on labour and capital with a given supply of land cannot be shifted indefinitely, even on the assumption that the required capital for the purpose is initially available, which does not, however, hold true in a backward economy like that of Nepal where low level of productivity in agriculture is causing a low

12. Bauer and Yamey, *Op. cit.*, p.239.

rate of capital formation in the country. Hence, sooner or later, depending upon the rate of population growth, availability of capital and existing factor-combination, the law of diminishing returns on labour and capital will operate, unless labour coefficient itself is changed in relation to a given supply of land and available capital.

The question that logically follows the discussion is as to what is the volume of surplus labour that is causing unfavorable man-land ratio in Nepal at present. The surplus labour which is often termed as "disguised unemployement" represents those persons who work on their own account and who are so numerous, relatively to the resources with which they work, that if a number of them were withdrawn for work in other sectors of the economy, the total output of the sector from which they were drawn would not be diminished even though no significant reorganization occurred in the sector and no significant substitution of capital."[13] In a country like Nepal where more than 90 per cent of the working population is engaged in agriculture and where more than 80 per cent of the working population is employed on own account, the phenomenon of mass "disguised unemployment" is essentially a problem of agricultural sector.

One of the conditions for the existence of disguised unemployment is that there should not be any reduction in output under the given conditions of production, if certain volume of labour force is removed away from land. In other words, the marginal productivity of labour in agriculture is zero. Since marginal loss to agriculture is zero, any diversion of such surplus labour from land to elsewhere for productive employment will add to national income. But a precise measurement of surplus labour is often difficult. No scientific measurement is yet readily available even for countries where intensive research works have been done on the subject.[14] Most of the estimates suffer from elements of conjecture in varying degrees. The problem is more formidable in the case of Nepal where even the total acreage under cultivation is not accurately known.

13. U.N., *Measures for the Economic Development of Underdeveloped Countries*, 1951, p.7.

14. The study conducted by P. N. Rosenstein-Rodan under the auspices of the Royal Institute of International Affairs, London, during the years 1943-1945, employed the four methods for estimating the actual surplus agricultural population in Eastern and South-Eastern Europe which are given below in their own words:

    (i) Empirical Enquiry by means of questionnaires addressed to owners and inquiring about the number of surplus people on each holding;

Contd.....

It has been shown in Chapter 3 that the net cultivated land per head of agricultural population is just 0.47 acre in Nepal. It has also been pointed out that any favourable relationship between man and land is severely limited by the mountainous topography of the country, on the one hand, and the rapid rate of population growth, on the other. Judged by any standard, the cultivated land per head of agricultural population is too small to utilise fully the potentiality of the existing labour force on land and hence, the average per capita output ought to be too small, even if the land is highly productive, to ensure a high standard of living. Poverty of the rural population is accentuated all the more by the feudalistic land tenure system. In a situation like that of Nepal where the margin of production over consumption is thin, it is practically impossible on the part of the poor tenants to adopt any efficient methods of cultivation by investing more in improved tools and implements.

The existence of landless agricultural labourers also tends to indicate a state of overcrowding on land in Nepal. No reliable information is however, available to make any precise estimate of such landless labourers. The Five Year Plan Draft Paper on Land Reform Policy assumed that there would be on an average something like seven landless families in a village. The socio-economic survey of 212 households in four villages of of Pokhara Valley in the Western Nepal has revealed that out of 208 agricultural households, as many as 68 had no *Pakho* land, whereas 30 had no *Khet* land. Neither *Khet* nor *Pakho* land was possessed by 14 households.[15] Rough estimates are available for some other regions as well. In the West No.1, for instance, 40 per cent of agricultural labourers were reported to have been cultivating other people's land on wage basis. The situation was worse in the West No. 2 and No. 3.[16] In Saptari

(ii) Computation on the basis of the census of the average number of man-hours' work by the active agricultural population, and then estimation of the number of man hours required to achieve the same amount of output, the difference converted into persons representing the surplus.

(iii) Calculation of the existing density of the agricultural population as compared to a reasonable density on the assumption of reasonable method of production.

(iv) Calculation of the number of persons who could be supported on the land, assuming the existing conditions of production, at a given minimum standard of living that is reasonable. (Nicolas Spulber, *Op. cit.*, p.276.)

15. *Report on Village Development in Pokhara, op. cit.* pp. 10-11.

16. *Cf. Report of the Land Tenure Conditions in Western Nepal.*

(Hanumanager) in the Terai region, 37.73 per cent of total households were landless,[17] whereas in Lamjung, out of 23,236 families, 7,053 families were reported landless.[18] Some preliminary sample studies also revealed that in East No. 4, comprising Dhankuta, Illam, Bhojpur and Bijayapur, among those who wanted employment outside agriculture, 38.19 per cent desired employment for 12 months, 46.15 per cent for 6 months and the rest for a period ranging from 3 to 9 months.[19] The corresponding figures for Dadeldhura district in the Western Nepal were 38.8 per cent, 36.4 per cent and 11.7 per cent respectively.[20] Similar surveys of Kaski, Tanhau and Lamjung districts of the Western Nepal recorded still higher proportion of people desirous of getting employment outside agriculture for longer periods.[21] The motivation of the people to seek alternative employment outside agriculture may be attributed, among other things, to the fact that their agricultural occupation might have failed either to keep them busy all through the year or provide adequate means of livelihood. Although these scattered information and data are illustrative rather than conclusive, yet they do give some rough idea of overcrowding on land in Nepal.

In a situation where tenant cultivators cannot adopt any improved methods of production due to the thin margin, if at all, of production over consumption, agricultural investment cannot proceed at the same rate as the increase in labour force and as such there must be cumulative arrears of investment in agriculture in relation to the growing labour force over a long period of time. These arrears will result in a continuous deterioration of factor combination which, in its turn, leads to a progressive decline in productivity and a large accumulation of idle labour on land. Nepal has already reached this stage where not only land but also capital have been scarce as a result of dwindling rate of capital formation consequent upon the diminishing rate of productivity in agriculture.[22] This cumulative process of deterioration cannot be reversed unless the excess

17. *Industrial Survey Report of Saptari and Biratnagar,* Sankhya Bibhag, 1948.
18. *Industrial Survey Report of West No.* 2 *and* 3, Sankhya Bibhag, 1946
19. *Survey Report of Dhankuta, Illam, Bhojpur and Bijayapur,* Nepal Industrial Development Corporation, 1956.
20. *Report of the Industrial and Marketing Survey in Dadeldhura District,* NIDC, 1957.
21. *Report of the Industrial and Market Survey in West,* No. 3, NIDC, 1957.
22. *Vide* Chapter 3.

labour is provided with productive employment elsewhere outside land. At the same time, agricultural sector is pushed ahead with all possible improvements. How this can be done is the problem that constitutes the hard core of economic development in Nepal or elsewhere under similar conditions. It is in this wider context that the process of industrial development is to be visualized as an integral part of the whole process of economic development, particularly so, in those countries where the relationship between factors of production is causing underemployment and low productivity.

5. *Rationalization of Agriculture as an Initial Process of Industrial Development*

Now the problem is as to how an industrial sector could be expanded so as to absorb the surplus labour on land. Assuming that the export market for industrial products is limited or negligible in the initial stages—the assumption which is not an unrealistic one—the industrial development on a scale that can substantially change the existing structural disequilibrium is fundamentally dependent upon the level of real income at which a sufficient demand for industrial products could be forthcoming. To put it in Nurkse's words, "The trouble is this: there is not a sufficient market for manufactured goods in a country where peasants, farm labourers and their families, comprising typically two-fifths of the population, are too poor to buy any factory products or anything in addition to the little they already buy. There is a lack of real purchasing power, reflecting the low productivity in agriculture."[23] This means that the rate of industrial development in a predominantly agricultural country like Nepal depends essentially upon the rate of increase in the average agricultural productivity per man and per acre. But the rate of increase in the average agricultural productivity per man depends largely upon how fast the surplus labour can be withdrawn from land, partly, because as there will be less pressure on subsistence fund, the margin of production over consumption will leave something for investment and partly, because the total produce itself will be shared by less number of people on land. The capacity to draw away the surplus labour from land is again conditioned by the capacity to create new employment potential outside agriculture. One way of doing this is obviously to expand the industrial sector. It is this complete chain of causation called the "vicious circle" that explains why the economy is stagnant. It appears that any way-out of the vicious circle is impossible, since one thing cannot be done without the other.

23. *Pattern of Trade and Development*, Stockholm, 1959, pp.41-42.

While industrialization on a viable base is practically difficult without substantial increase in the real level of living, diversion of excess labour from land can, however, be made possible to a considerable extent without simultaneous expansion of secondary industries over a wide range of fields in the initial stages of development. This can be done by a concurrent adoption of twin-measures, namely, the rationalization of agriculture in the sense of maximizing productivity per man and acre by steadily introducing new production functions in agriculture and secondly, the diversion of surplus labour from land to new investment projects which can directly help improvement in agriculture, create minimum quantum of basic economic and social overheads and at the same time, absorb maximum labour.

As will be clear from the subsequent discussion, any shift of surplus labour from land to elsewhere in non-agricultural sector for productive employment will lead to a substantial increase in demand for food, in particular. The rates of investment and employment in non-agricultural sector will, therefore, be conditioned, among other things, by the supply of food and other wage goods, particularly so, in a country like Nepal where the present level of agricultural output is not sufficient to maintain adequate dietary standard of the people even at the existing level of economic activities in the country. An initial increase in agricultural productivity is, therefore, a pre-condition for the success of any programme which is designed to speed up investment and employment in non-agricultural sector at desired rates.

Looking at the problem from the demand side, it should have been clear from what has already been stated above that unless there is an increase in average agricultural productivity per man on land, partly through diversion of unproductive labour from land and partly, through additional investment in agriculture, the demand schedule of the agricultural population will not shift in favour of manufactured goods. In other words, the demand for the manufactured goods is conditioned by the marketable surplus of agricultural produce which again depends, in its turn, on an average agricultural productivity per man.

An early development of basic economic and social overheads is emphasized for the simple reason that the growth of secondary industries and other economic activities have so far been hampered not only by the low purchasing power of the people but also by the absence of minimum facilities such as transport, communications and power. Given the existing structural disequilibrium at factor level, a programme of simultaneous actions for diversion of surplus labour and its employment in investment projects, which contribute more to an increase in agricultural productivity than to anything else, therefore, appears

to be the only feasible way of initiating a process of development in Nepal on a viable base from both the demand and the supply conditions.[24]

6. *Mobilization of Potential and Actual Resources*

When a beginning is to be made with a given level of income and productivity to transform a primitive agricultural society into an industrial economy, where the process of development gains momentum from its own force and growth becomes a normal condition, the only alternative available is to start with the most effective mobilization of the existing domestic resources for productive purposes.

While dealing with the problems of savings and capital formation in Nepal elsewhere in this study, it has been explained that even at the existing low level of productivity, there exists certain volume of "potential savings" concealed in underemployment of labour on land as well as a considerable amount of "actual savings" associated with the existing land tenure system in the country. These actual savings are so far being wasted partly, in conspicuous consumption, giving rise to small market islands for fashionable goods or in hoarding and building-up of landed property and partly, in foreign investment, residential constructions and commercial activities, which are essentially a consumption industry rather than an investment one, as its capacity of raising incomes of the masses is negligible. Some of these actual savings would have, however, flowed into investment projects and other simple consumer goods industries for which the imported goods have already created a limited market; but prospective investors are discouraged by enormous environmental disadvantages.

The concept of "potential savings" concealed in the surplus labour disguisedly unemployed in land has been too familiar to

24. By this however, it is not intended to suggest in any way that there is no scope for any industry to grow in Nepal with comparative advantage at present. It is intended merely to emphasize a logical way of developing the economy on a viable base, so that the process of development will be more or less self-sustaining without being hampered by bottlenecks. Even at the transitional phase of development through agricultural revolution, it may be necessary to develop on the basis of a given factor-endowment, a few select industries either for substituting the imports or for expanding exports, either of which can augment foreign exchage resources of the country to pay for imports of the most essential capital goods which the country cannot produce herself. This aspect of the problem is taken up for discussion in the following chapter.

need any repetition here; yet the practical difficulties associated with their effective mobilization cannot be overlooked. Theoretically, the process of capital formation through mobilization of the so-called potential savings would be more or less a self-financing process if the marginal propensities to consume on the part of those who would be relieved of the burden of supporting the surplus labour as well as on the part of the disguisedly unemployed persons, when employed in the productive fields, were zero. In view of the fact that the existing level of living of the rural population is almost coincident with a minimum subsistence level and shift of peasants away from land is most unlikely without providing adequate incentive and prospect for a better standard of living elsewhere, it is quite realistic to presume that the marginal propensity to consume of both the parties is positive.

To the extent that there is bound to develop some "leakages" in the form of higher consumption of the potential savings, the process of capital formation is not self-financing. Should the process be initiated sucessfully, some complementary savings must be secured from outside the peasant population. To put it in real terms, the volume of expected potential savings in the form of consumption goods will be significantly less than the amount required for providing employment to all the surplus labour in the productive sector at the "incentive real wage" commanding greater amount of consumption goods than what it is consuming when working on land. It is this shortage of "real liquid capital" in the form of consumption goods which sets one of the serious limits to any attempt for a more productive utilization of the underemployed labour in the economy.

As stated earlier, the existing land tenure system of Nepal conspicuous by the intermediary class of rentiers, provides ample scope for mobilising a significant proportion of what may be called "forced saving" which can be used to make good, to a considerable extent, the shortage of real resources. In Chapter 4, it has been amply demonstrated that substantial resources can be mobilised, if the existing land revenue system is revised and reoriented on the lines suggested there. If the Government could mobilise, in its maximum, the agricultural income now unproductively concentrated in land-holding groups, it can definitely carry out a rationalization programme in agriculture. It may, however, be added that this primary measure should be supplemented by other measures for mobilising domestic resources from outside the agricultural sector as discussed in Chapter 4.

The experience of Japan during the last quarter of the 19th century and the early 20th century has a very striking relevance

to the transitional phase of development in Nepal. Expanded agricultural productivity and its proper use had played a crucial role in the Japanese industrialization. The agricultural production[25] increased from 1880 to 1920 by 77 per cent, which outstripped the population growth by over 20 per cent. The deflated income from agriculture and fishing increased by 75 per cent between 1887 and 1914 and this alone accounted for about 40 per cent of the growth in the national income during the same period.[26] The significance of this in relation to capital formation is that a considerable share of increase in national income originating in agriculture was siphoned off by heavy taxes and these resources were channelled directly into investment projects by the government action. At the beginning of Japan's industrialization, the land tax accounted for nearly all the revenue of the government. For instance, out of 58 million yen of tax revenues in 1875/76 land tax alone accounted for 50 million yen.[27]

Once the actual savings concealed in the existing intermediary class are mobilised, yet there remains practical difficulties in effectively mobilising the so-called "potential saving" that is expected to be released along with the shift of labour from land. Here the prospect is very bleak. On the one hand, the average size of holding is extremely small and on the other, 50 per cent or more of the gross output of land goes to the landlords who usually contribute nothing to production. The residue, thus available to the tillers is not enough for life at a minimum subsistence level. In such a situation of abysmal poverty of the toiling masses on land, one cannot expect the release of anything more than a fraction of total resources corresponding to each unit of labour withdrawn unless ruthless measures were enforced. The marginal propensity to consume on the part of the population left on land may, therefore, be very high. Compulsory procurement of foodgrains or heavy levies for squeezing out the real resources from the peasants are the ruthless measures which have their own limitations.

Given the level of real wage that is required to employ a unit of labour in non-agricultural sector, which is assumed to be higher than that of the disguisedly unemployed, each unit of

25. This includes six major crops, namely, rice, wheat, barley, naked barley and sweet and white potatoes. These six crops accounted for nearly 80 per cent of Japan's domestic food production in terms of calories.
26. B. F. Johnston, *Agricultural Productivity and Economic Development in Japan, The Journal of Political Economy*, Vol. LIX, Feb-Dec. 1951, pp.499-501.
27. *Ibid.* p. 502.

investment from the forced savings will, on the previous assumptions, release but a fraction of potential savings corresponding to a unit of labour withdrawn and hence, the process of capital formation and employment must be slow in the initial stage. If the level of real wage is not much higher than the consumption level of disguisedly unemployed labour on land, much of the adverse effects of the high marginal propensity to consume can be offset. If organizational efficiency and leadership can foster new enthusiasm and create new motivation on the part of the rural population, much of the potential savings would be forthcoming in the form of voluntary labour or in the form of nominally paid labour. Some of the light levies like benefit levies may, of course, be feasible. Moreover, since much of the labour and resources will be spent on agriculture and rural reconstruction, before their own eyes, the rural folks will not be so unwilling to contribute their share to the development plans as one often thinks. The very fact that substantial amount of resources have been mobilised from their rentiers may itself create a new enthusiasm among the rural people who have remained so long exploited in varying degrees.

Assuming that mobilization of the potential as well as the forced savings in the economy is carried as effectively as practicable, yet the process of development cannot get underway smoothly and efficiently, unless some fixed equipment is also made available to labour. Mobilization of domestic resources in the beginning will provide only real liquid capital in the form of wage goods, that too, wholly agricultural commodities. The nature and magnitude of such equipment vary, no doubt, with the type of projects undertaken and the methods used. Irrigation dams, power projects or fertilizer plants cannot be built unless some fixed equipment is available. The economy of Nepal is so backward that it has to depend as yet wholly upon others even for minor construction materials like cement and iron, for instance, and what to speak of equipment! Fixed equipment can be imported, but such imports must be paid out of export proceeds. The difficulty is that one of the major export items of the country is foodgrains which the country cannot afford to export on the present scale once the process of development gets underway. As pointed out elsewhere, export of foodgrains from Nepal does not represent the overall surplus of the country. Consequently, the total value of export is bound to decline substantially.

Moreover, though the largest proportion of wage-goods consists of food items, yet certain proportion of them must be manufactured goods such as cotton textiles, for example. Most of these manufactured consumer goods are now being imported. It is most

likely that there may be a heavy pressure on balance of payments position of the country in the early stages of development when exports cannot pay for the imports. The available data on the merchandise trade of Nepal with India reveal an increasing deficit of more than Rs. 79.85 million in 1957/58 to Rs. 156.89 million in 1960/61. It may be noted that cereals (rice, wheat and maize) and oil seeds alone accounted for more than half of the total exports to India with which Nepal had more than 95 per cent of the commodity trade over the past years.

In a situation like this, where the total output of cereals is not sufficient for maintaining adequate dietary standard of the people, but their export accounts for about one-half of the total export value the rate of development or industrialization is bound to be limited, rather, handicapped by the shortages of both foodgrains and foreign exchanges, unless there is, from the very initial stages, a substantial increase in agricultural output or an availability of external resources in suitable forms. In fact, most of the underdeveloped countries of the ECAFE region depend heavily even to-day on export of one or two agricultural products for earning foreign exchange to pay for imports of capital goods. Tea in Ceylon, rubber in Malaya and rice in Burma account for more than 60 per cent of the total export value. Japan provides an all the more interesting case. During the economic transition in Japan, exports of primary products played a very strategic role. Between 1870 and 1930, for instance, raw silk trade alone financed probably 40 per cent of Japan's entire import of foreign machinery and raw materials.

In order to increase foreign exchange earnings, it might also be necessary to export, even at the cost of domestic consumption, some of the goods such as ghee, for instance, which alone accounts at present for a substantial part of total export value. This is considered to be one of the essential pre-requisites for a well articulated foreign trade policy of an underdeveloped country embarking upon developmental plans in the face of foreign exchange difficulties.[28] While the exports of some raw materials such as tobacco, wood, oil seeds, jute and hides, which together comprise a bulk of total exports of the country, will diminish in volume once the process of development gets under way in the country, yet their export value can be increased quite considerably, even in a short run, by means of further processing, improvement in quality, standardization, packing and better sales organization. Finally, some of the import items having very little bearing on efficiency of the people should be dispensed with. According to Nurkse, "Import substitution can mean not only

28. *Report of the Export Promotion Committee* (1957), Government of India, 1957, p. 21.

(a) the substitution of home produced goods for imported goods but also the substitution of capital goods imports for consumer goods imports." Thus, he recommends that, "If a country cannot increase its export earnings sufficiently, it can still increase its capital equipment by cutting down its import of consumer goods."[29] The total impact of all these measures will not, however, invalidate the conclusion that the initial increase in agricultural productivity and output is a pre-condition for a successful implementation of any programme which seeks to speed up the rates of investment and employment in the country.

Subsequently, as the development process gets into gear, agricultural products will increase at a fast rate and some consumer goods industries will come up and the balance of payments position will, therefore, undergo changes, depending upon export potentialities of the country, and also upon import requirements for development purposes. If the initial rates of capital formation, investment and employment should not move slowly, some external resources are indispensable for procuring capital equipment from outside. External resources are inevitable even to fill up the existing gap in the technical "know-how" in the country. This is where the friendly nations and international agencies can help Nepal at their best. The nature and magnitude of external resources in the past few years and their recent trends suggest that lack of external resources is not likely to pose any serious problem if Nepal can only show her own utmost efforts and competence in planning and execution of development projects in the country.

7. *Allocation of Resources*

The scheme of development process as outlined above needs that the available resources should intially be invested in those projects which are likely to contribute most to increase in agricultural production and to the creation of minimum quantum of economic and social overheads. Such projects include land reclamation, irrigation works, flood control, soil conservation, pest control, distribution of better seeds, introduction of improved methods of cultivation, training and extension services, fertilizer plant, roads and bridge constructions, power generation, malaria control and so on. The entire complex of these measures should relate to one another. In some cases, a single multipurpose project can combine more efficiently and more economically a number of objectives such as flood control, irrigation, power generation, land reclamation, drinking water supply, etc. As repeatedly pointed out, such co-ordination is often a missing link in development planning in Nepal.

29. R. Nurkse, *op. cit.*, pp. 45-46.

Unlike in Russia or in England, the phenomenal increase in agricultural productivity during the early stages of development in Japan may be attributed mostly to intensive use of fertilizers, better seeds, irrigation facilities and pest control and plant breeding methods. One interesting feature of the Japanese agricultural development is that most of the innovations were land-saving. For instance, crop area increased by about one-fifth from 1881 to 1920 while acre-yield during the same period increased by nearly 50 per cent.[30] Secondly, the nature of the innovations was such that they could be used effectively even in very small farms. Finally, the capital outlay required to bring about the increase in productivity was very small in relation to increase in output. Mechanical powers or, labour saving devices were of minor importance.[31] These Japanese innovations can be fruitfully transplanted without substantial modification in a country like Nepal where labour is abundant, capital scarce and average holding is small and bench-terrace-cultivation, common.

Secondly, in addition to those projects that have a very direct bearing on agricultural development, a number of well-thought out projects in the fields of transportation, power-generation and training should receive the most serious consideration. It is this infra-structure which creates suitable conditions for building-up of a super-structure in the economy. Unless the source of raw matrials, production centres and consuming points coincide, production is unthinkable without transportation. Even agricultural development is likely to be handicapped in the absence of transport facilities for establishing a two-way traffic—first as a channel for a regular flow of labour and primary products from rural areas to urban centres and second, as an outlet for transmission of new ideas and knowledge to the rural masses from the urban centres. Given size of a country, transport plays a tremendous role in expanding the physical extent of the market as well. This aspect is more important for a small country like Nepal where the extent of market is limited not only by the level of income but also by physical barriers. Equally urgent is the power-generation for which hydro-power potentiality is practically unlimited. The earliest exploitation of this hydro-power potentiality appears all the more urgent when one takes into account that Nepal is so far devoid of other resources of energy such as mineral oils, coal, gas etc. Finally, training and skill development of labour is no less urgent. As already seen, Nepal has, perhaps, the lowest percentage of literacy and the lowest level of education. The implementation of the development plans

30. B. F. Johnston, *op. cit.*, p. 500.

31. *Ibid.*, p. 500.

of the country, even on modest scales, were handicapped, among other things, by the critical shortage of skilled labour and trained personnel at various strategic levels. The minimum skill of labour and normal supply of trained personnel are required not only for the industrial expansion but also for carrying out successfully the rationalization programme in agriculture. So long as there is a gap between what is known to the experts and what is actually being done by the masses on land, the results of the projects designed for changes and improvements upon the existing modes of productive activities in agriculture or elsewhere, will be disappointing. It needs no explanation that a country cannot develop more rapidly than its people.

8. *Effects of the Rationalization Process*

Once the process of development gets under way, a substantial diversion of rural population from land to capital construction projects will follow. Land itself will be capable of carrying more productive labour than ever before, partly, because new land is brought under cultivation and partly, because intensive cultivation is made possible by sufficient supply of water, seeds, fertilizers etc. The combined effects of irrigation, fertilizers, better seeds and improved methods of cultivation will result in a phenomenal increase in agricultural output. The achievements of the Indian cultivators under the crop competition indicate the extent to which production can be raised by using sufficient water, fertilizers and better seeds and better methods. The production of irrigated crops per acre is said to be on an average 50 to 100 per cent higher than that of non-irrigated crops in the same locality.[32] The Ministry of Food and Agriculture in India customarily calculates the incremental yields as a result of irrigation in terms of foodgrains at 0.2 ton per irrigated acre.[33] The effect of ammonium sulphate on yield capacity of foodgrain crops has been generally calculated in the ratio of 2:1—i.e., one ton of ammonium sulphate per acre can lead to an incremental output by two tons of foodgrains.[34] The FAO expert Mr. E. Rauch has held the view that only with improved manuring, improved seed, scientific rotation of crops and proper soil management, it is quite possible in Nepal to double the present acreage yield of grain including rice crop.[35]

The substantial increase in agricultural productivity will bring about significant changes in supply and demand conditions

32. D. Ghose, *Pressure of Population and Economic Efficiency in India*, p. 78.
33. Coale and Hoover, *Population Growth and Economic Development in Low-Income Countries*, Oxford, 1959, p. 99.
34. *Ibid.*, p. 100.
35. E. Rauch, *Agriculture of Nepal: Suggestions for Its Development*, *op. cit.*, p. 13.

in the economy. On the supply side, agriculture will provide not only an increasing amount of food for the growing population but also an increasing supply of raw materials to feed the home industries on an expanded scale. This supply of real resources will enable to speed up capital formation and employment at higher rates than before. If the phenomenal increase in agricultural productivity can be brought about within a short period of a decade or two, it is most likely that even at the face of the high rate of population growth, Nepal may be in a position to build up some exportable surplus for financing import of necessary equipment. The increased agricultural output may, therefore, minimize the degree of dependence upon outside resources in the form of outright grants. Moreover, if the country can sufficiently provide the real liquid capital in the form of basic consumption goods, its capacity to absorb external resources will be correspondingly great. Thus the transitional phase of development in Nepal is tantamount to a revolution in agriculture. In other words, "The rate of increase in output in agriculture may set the limit within which the transition to modernization proceeds." [36]

On the demand side, the average increase in agricultural productivity per man and acre partly, due to less number of persons on land and partly, due to the operation of new production function, will provide an expanded market for a number of consumer goods industries which could not grow hitherto for reason of mass poverty in agricultural sector. Besides, the increased demand for manufactured goods from those employed in non-agricultural sectors will also stimulate the industrial activities in the country. It is the environment of rising level of real income in agricultural sector that should create an initial impetus to industrial expansion in the country. Mere creation of islands of a few factories here and there will not lead to a self-sustained growth unless the basis is first built on a safe and sound ground.

Once the stage of expanding agricultural output is reached, capital formation can also be speeded up at a faster rate than before by mobilising the "incremental output" generated by all the initial improvement measures. One more problem at this stage will, therefore, be one of guarding against the dissipation of this incremental output in higher consumption. If the consumption level of agricultaural population is allowed to go up at the same rate as that of increase in output, the rates of capital formation and employment are bound to remain slow. This means that for rapid rates of capital formation and employment, there should not be any substantial increase in consumption of the agricultural population and the rentier-class, as the process of development starts from a state of stagnancy.

36. W. W. Rostow. *Op. cit.*, p. 23.

One of the secrets of the Russian and Japanese and very recently, of the Chinese rates of development may be sought in the limited improvement in the levels of living of the farm population in the time of rising of agricultural productivity. The heavy burden borne by the peasant population in financing the Japanese industrialization has been recognized by many scholars. According to Johnston, "No quantitative estimate of the change in per capita real income of the farm population between 1880 and 1920 can be safely made. Nevertheless there is no doubt that the improvement in rural levels of living fell substantially short of 100 per cent increase in the productivity of agricultural labour."[37] Consequently, the gains in agricultural productivity were drawn away by heavy taxation in order to finance a large scale government programme for fostering industrial development in the country. Rostow has made it clear that "the Japanese take-off was made possible by a series of prior and concurrent development in agriculture that did the three essential things" mentioned above, namely, the supply of food and fibres and foreign exchange earnings from the side of supply, expanded market for domestic industry from the side of demand and finally "from the side of capital supply the commutation of the feudal rents, and the diversion of this income stream to the government gave the Japanese modern sectors an essential infusion of capital, until plough back could take over a good part of industrial financing."[38] In the case of Russia, it is held that the farm population probably experienced a deterioration rather than improvement in its living standard. "Even for the total population, per capita food supplies may have declined between 1928 and 1940 and evidence of a deterioration in quality of diet is strong."[39] The collection of grains at artificially low prices was one of the potent devices employed in Soviet Russia to siphon off the increment in output originating in agriculture and to facilitate the forward development of industries on long strides. The transformation of the Chinese rural economy into the people's commune is another device aimed at not only extracting the maximum possible surplus of capital from the country-side but also the maximum labour efforts for sustaining the high tempo of industrialization.

The operation of the process of development as outlined above will naturally create productive employment to a substantial volume of labour force outside agriculture. The very fact that new land is reclaimed, old land is irrigated, better seeds and fertilizers are made available and new production techniques

37. B. F. Johnston, *op. cit.*, p. 502.
38. W. W. Rostow, *op. cit.*, p. 64.
39. Johnston, *op. cit.*, p. 510.

are introduced, indicates that land itself will be capable of providing productive employment to more persons than before. But the volume of total employment that will be created outside agriculture depends, among other things, upon the total volume of resources, potential and forced, that can be mobilised for investment and the level of real wage that would be required to absorb a unit of surplus labour in investment works. In the initial stages, when productivity of agriculture is yet to show a substantial increase, the prospect for the exploitation of the potential savings will not appear to be encouraging as marginal propensity to consume on the part of the agricultural population remains very high. Given the volume of the potential and forced savings and the equipment, the total employment outside agriculture depends upon the level of real wage. If the real wage is not significantly higher than the consumption level of the agricultural population, the adverse effect of high propensity to consume will be partly offset.

In order that the initial investment and employment could be speeded up at sufficient rates, the organizational efficiency and leadership must be capable of enlisting the voluntary labour or labour at nominal wage rates in construction works and at the same time, resources from outside peasant population should be mobilised to their maximum. Once the initial efforts will bear fruit in the form of increase in agricultural output, the effective mobilization of the incremental output will, however, help speed up investment and employment at higher rates.

Secondly, though some of the investment projects will have longer gestation periods, many of them may last only for a short period. Unless a series of such projects lasting for short periods are undertaken in succession to one another, the labour cannot be kept continuously employed. Given resources, it would not be difficult to find out such projects all over the country to keep the labour in continuous employment for a long period, since Nepal has yet to start from scratch and practically all the basic elements of infra-structure like roads, bridges, dams, etc., have yet to be built. What is required is planning and organization. This is where the ingenuity of the people is to be taxed hard.

Finally, the overall effect of initial efforts leading to higher rates of investment, employment and productivity will create at the same time an environment which is conducive to industrial expansion, the earliest shape of which will generally be marked by growth of a number of industries, processing agricultural products and producing simple consumer goods of mass consumption like cotton textiles and construction materials like bricks, cement etc. It is this environment of rising real income resulting from the increase in agricultural output that should provide an

all-important initial stimulus to the growth of new industrial sector which will gradually absorb larger and larger volume of labour force. What is required at first is the minimum conditions for "the preparation of a viable base for a modern industrial structure."[40]

It may, however, be noted that in the early stages of development, when much of the incremental output in agriculture will be mobilised and used in investment projects, the consumption level of agricultural population will increase only at a slower rate than output. The initial impact of output expansion in agriculture on industrial sector through market expansion will not, therefore, be so strong as it will be in the later stages. Much of this impact will no doubt make itself felt in the production of those industrial goods for which the income elasticity of demand is relatively high.

The intimate relationship between agricultural development and industrial growth is described in various ways by different authors. "One might consider industrialization," says Rosenstein-Rodan, "as one chapter of agrarian reconstruction or one might treat the improvement in agrarian production as one chapter of industrialization. What matters is to remember that the two are interconnected parts of one problem."[41] In the ultimate analysis, "The choice between improvement in agriculture and industrialization is merely one of time-sequence."[42] Mandelbaum is right when he asserts that "The problem of economic growth could be described just as well by reversing the order and taking agricultural improvement as the point of departure."[43] Here the starting point is the "reserve of manpower" on land which is relatively scarce and as a consequence, the average agricultural productivity is already at its lowest level. "Rarely if ever has any country achieved substantial industrial development without an earlier, or a parallel, expansion of its agricultural and other primary industries."[44]

40. Rostow, *op.cit.*, pp.25-26.
41. Rosenstein-Rodan: *Problems of Industrialization of Eastern and South-Eastern Europe*, The Economic Journal, June-Sept., 1943.
42. H. W. Singer: *Problems of Industrialization of Underdeveloped Countries*, International Social Science Bulletin, UNESCO, Vol. VI, No. 2, 1954, p.220.
43. K. Mandelbaum: *The Industrialization of Backward Areas*, 1957, Preface, p. vii.
44. William W. Lockwood, *The Economic Development of Japan*, New Jersey, 1954, p. 96.

Chapter 8

PROBLEMS OF CHOICE

The present chapter makes an attempt to discuss some major problems which often confront a country in the course of its industrial development on a planned basis. The problems, which are taken up here for discussion, cover a fairly wide range of questions having important bearing on making judicious choice of industries and their scale of operation and technique of production. They have been isolated from a complex set of problems, partly, because they are closely related to one another and partly, because they are often clouded with confusion.

I. CHOICE OF INDUSTRIES

1. *Interdependence between Industries: Doctrine of Balanced Growth*

As there is an intimate relationship between agriculture and industry from the sides of both supply and demand, so is there the same between industries themselves. A judicious choice of industries over a wide range of fields can, therefore, reinforce the growth of one by the other from both sides. The relation from the demand side is due to interdependence in consumption while that from the supply side is due to interdependence in production.

One of the inhibiting factors in the process of industrial development is the limitation of internal market. This can be obviated by a wide range of industries which, if simultaneously established, would provide market for each other through expenditures of income generated in one industry on the products of another. In other words "Production generates income, which gives rise to consumers' demand for an entire range of goods. Hence an increase in output increases demand in a given pattern for a whole range of goods and the profitability of output expansion will be maximized if the pattern of output expansion conforms to the pattern of demand expansion created by the additional income paid out in producing the additional output."[1] Nurkse's theory of balanced growth is based on this interdependence in consumption. In his words, "An increase in production over a wide range

1. Tiber Scitovsky, *Growth—Balanced or Unbalanced?* in The Allocation of Resources, Stanford, 1959, p.211.

of consumables, so proportioned as to correspond with the pattern of consumer's preferences, does create its own demand."[2] He, therefore, recommends the wave of capital investments and their synchronised application to a wide range of different industries.

The "interdependence in production" between industries arises when profits of one industry are increased as a result of increase in investment in another industry and *vice versa* and the effects of such interdependence on the profitability of investment are usually called "pecuniary external economies". As there is such interdependence between industries, "it is generally desirable and profitable to expand simultaneously and in the proportions determined by technological production coefficients, the production and productive capacity of all goods whose relation to each other is that of factor to product or common factor to the same product."[3]

The general objection against such analysis is based on the fact that since the supply of essential resources such as capital, skilled labour or entrepreneurship is not elastic, particularly so, in underdeveloped countries, a simultaneous expansion over a wide range of industries with reference to their interdependence will soon cease to be complementary and begin to be competitive over a greater range of productive processes. Fleming thus makes the remark, "Whereas the balanced growth doctrine assumes that the relationship between industries is for the most part complementary, the limitation of factor supply ensures that that relationship is for the most part competitive."[4]

It is true that a country's endowment of resources and the elasticities of supply of these resources are fundamental in determining the ability to grow. If a simultaneous expansion of many industries runs up against an inelastic supply of resources and raises their prices as a consequence, balanced development would be retarded. Lorento M. Dominguez and Harold Pilvin have also raised the same doubt. They hold the view that "Unless the supply elasticities of the resources essential to satisfy the growing demands are relatively high, a high rate of growth will be difficult to achieve. The conditions required by the seemingly appalling problem of balance described above could be fulfilled if the supply schedules of every commodity and productive service

2. *Problems of Capital Formation in Underdeveloped Countries*, Oxford 1957, p.12.
3. Tiber Scitovsky, *op. cit.*, p.211.
4. J. M. Fleming — *External Economies and Doctrine of Balanced Growth. 'The Economic Journal'*, June 1955. Reprinted in Agarwala and Singh (Ed.) *Op. cit.*, p.279.

might be assumed to be indefinitely elastic. Unhappily this is not so." [5]

The advocates of the balanced growth doctrine have also been criticized as being inspired by "a variant" of the Keynesian analysis of the slump. The argument in favour of this view is that in a situation of under-employment equilibrium in developed economies, "An isolated act of increasing production by a single firm is not likely to be validated by the market since the demand that is generated by the increase in production and its multiplier effect is not going to converge on the output of the firm." What is required is, therefore, a simultaneous stepping up of production by many firms and such simultaneous action can be engineered only if a substantial increase in consumers' spending induced by government intervention through its fiscal measures provides 'guideposts to manufacturers' and 'leads to a generalised recovery of output." Recovery along this line is indeed possible, for, "The industries, machines, managers and works, as well as the consumption habits, are all there, only waiting to resume their temporarily suspended functions and roles." The situation of underdevelopment in backward economies is not obviously the same and a simultaneous growth is, therefore, impracticable and out of reach. It is, thus, remarked that "The balanced growth doctrine is now seen to be essentially the application of underdevelopment of a therapy originally devised for an underemployment situation."[6]

While accepting the general contention that the existence of sufficient resources, mobilised internally or externally, is a prerequisite for a process of balanced growth, it may also be added that the doctrine of balanced growth seeks to place a special emphasis on the fact that a profitable application of available resources can be enhanced, if invested in mutually reinforcing industries. The upper limit to the rate of growth is, no doubt, set by the degree of inelasticity of the resource-supplies.

Secondly, in a situation where underdeveloped countries cannot initiate development through an expansion of trade and promotion of their exports of primary products because of an absence of a "vigorously upward shifting world demand" for these products, balanced growth may be an alternative solution insofar as it seeks to bring about upward shifts in domestic demand schedules by a pattern of mutually supporting investments in different lines of production and thus, help fill the vacuum in the

5. Lorento M. Dominguez and Harold Pilvin—*The Process of Balanced Economic Growth*, Social Research, Vol. 21, 1954, p.403.
6. All quotations from Albert O. Hirschman — *The Strategy of Economic Development*. New Haven, 1959 p.54.

domestic economy of these low-income countries. According to Nurkse, "This is what lies behind the notion of balanced growth."[7]

2. *Application of the Doctrine in the Context of the Nepalese Economy*

The principle of balanced growth has a great practical validity in a country like Nepal, where industrial development on a scale that can eventually correct the existing structural disequilibrium, is likely to be handicapped by the limited domestic market due to low level of living, on the one hand and small size of the country and its small population, on the other. The external conditions are also such that a late comer and small nation like Nepal starting almost from scratch, can hardly rely heavily upon export markets in neighbouring and other underdeveloped countries for a number of goods which she can produce in the initial stages. This is so because of the fact that, first, she may not be able, in the begining, to withstand the competition and second, the neighbouring and other countries may also tend to restrict import of such goods in the interest of their own industries. In fact, most of these countries have already reached a stage of self-sufficiency in a number of consumer goods and need not, therefore, depend upon any imports at all. The growth of early industries in most of the underdeveloped countries was sustained largely by their own domestic markets. In a situation like this, where a country has to develop its industries over a wide range of fields on domestic market, at least initially, the pattern of investment in industries should be consistent, wherever possible, with income elasticities and complementaries of consumer demands. The domestic market can be enlarged more in this way than otherwise.

It may further be noted that in a small country like Nepal, where a single investment can make a significant addition to total marketable output as well as to total money incomes, the consideration of income elasticities and interdependence between industries should serve as a guiding factor in allocating resources in industrial field. In the initial stages of development, it would not be difficult to make any fair estimate of consumers' preferences in Nepal or elsewhere under similar conditions. Rosenstein-Rodan has rightly said, "It is not as difficult to foresee on what the formerly unemployed workers would spend their wages in regions where a low standard of living obtains."[8]

7. *Patterns of Trade and Development, op. cit.* p.245 and see *Balanced and Unbalanced Growth in Equilibrium and Growth in the World Economy*, Cambridge, 1961, p. 247.

8. *Op. cit.*, p.250

Secondly, as already noted, most of the development measures so far undertaken in Nepal were handicapped, among other things, by piecemeal project approach. Insofar as the doctrine of balanced growth is concerned with co-ordination of investment decisions and expectations, it enables the country to take a broader view of inter-industry relations rather than to concentrate attention on the merits of a single project. Such broader view of interdependence in economic planning or in industrial development programme, will help avoid bottlenecks of special shortages and special excess-capacities. In small countries, the chance of emerging such problems is relatively great, for a minor mis-calculation or maladjustment may often give rise to major bottlenecks.[9]

It may, however, be noted that as enlargement of domestic market requires import substitution, restriction, in the beginning, on imports of goods which now capture the domestic market, though limited as it is may help in stimulating domestic investment. From the point of view of balance of payments position, which is bound to show deficits at lesat in the initial stages for reasons already explained in the last chapter, import substitute-production even by resorting to import-restriction measures, may become all the more necessary in the context of Nepalese economy. It is quite probable that the import substitute-production might initially be more expensive and less efficient. Import restriction measures, in spite of these possible adverse effects, may, however, be defended on the ground of "infant industry argument" for protection. But these adverse effects should always be kept in mind.

3. *Structure of Domestic-Market-oriented Industries*

As already pointed out, there are some limitations to the application of the principle of balanced growth. These limitations arise from inelasticity of supply of some essential resources. While taking a final decision on choice as between industries, one should, therefore, take into account the fact of interdependence between industries, on the one hand, and the factor-endowment of the country, on the other. The investment pattern for a balanced growth can be carried only within the range circumscribed by the supply conditions of resources available

9. "If 'balance' is by my approach to be nothing more than an attempt to make plans consistent with one another and consistent with the 'real' opportunities implicit in a situation which require several simultaneous co-ordinated decisions, then what can one say about the doctrine of imbalance?" (H. B. Malmgren,) *Balance, Imbalance And External Economies, Oxford Economic Papers, Vol.* 15, March 1963, No. 1, p.78.

within and outside the country. Taking both these facts into consideration, it might not be difficult for one to visualize broadly a tentative array of industries that should characterise the growth of domestic-market-oriented industries in future.

In the initial stages, what A. J. Brown calls, "low skilled and light"[10] industries such as cotton and jute textiles, tobacco products, leather goods, rice milling, oil-extraction, sugar production etc., can be developed more advantageously and successfully than others, for most of these industries will be favoured not only by a relatively large market because of high income elasticity of demand for these products, but also by the factor endowment of the country conspicuous by shortage of skilled labour and capital.[11] At the same time, some of the "low skilled and heavy" industries such as cement and fertilizer also have a better chance of success from the initial stages. Their early growth is desirable not only on the consideration that cement is a basic raw material for all construction works and fertilizer, a basic nutritive manure of the soil for increasing yield capacity, but also by the fact that the essential raw materials and power are available within the country.

Since most of the industries classified in two categories above are "import-substituting" in nature, their effect is always to ease the strain on balance of payments position as well. Such import-substituting industries have the same effect as those of export promoting ones on balance of payments position of a country. The former (import-substituting) has, however, a better chance of success than the latter (export-promoting) to the extent that there is already market for them at home.

The general engineering and foundry works, which are often classified as "high skilled and light" industries, would be characterised in the initial stages by the products of a few, but widely used, simple goods such as agricultural implements,

10. *Industrialization and Trade*, London, 1943.

11. Some of these industries like cotton textiles, for example, can be developed profitably even if raw materials are not available at home for the simple reason that their basic raw materials are light and non-weight losing. The industries which are warranted by other factors but handicapped by the shortage of raw materials need not, therefore, be postponed, provided such raw materials are light and non-weight losing in character or they are worked upon so intensively with high skill that their cost constitutes just a negligible fraction of total value of the product. This is the reason why Japan could develop her cotton textile industry, even for export markets, on imported cotton and Switzerland, her watches and precision instruments on imported metals.

domestic materials, and repair works. Gradually, as domestic market for them will expand with the expansion of industrial sector in general, and trained hands will also be available in large number, the structre of these industries will undergo a substantiaal change. Some countries have already developed these industries successfully on imported metals. In such cases, the products are generally bulkier than the processed metal ingots, sheets or bars which lose but little weight in production and at the same time they are usually typical in designs, shapes and sizes. Singapore's metal box industry is being fed largely on imported metal, whereas Thailand has developed quite recently a number of workshops, producing window frames, doors and staircases according to the Thai designs on imported metals.[12] Given other conditions, if productivity is not too low, fuel and power is readily available at cheaper rate and wages are also low, it is quite possible to develop a number of foundries producing goods such as agricultural implements, furniture and fixtures on imported metal bars and ingots. Unless cooking coal is discovered in the proximity of ore deposits or a new technique of smelting ores without coal is developed, the prospect of iron and steel plants in Nepal is likely to remain a doubtful proposition for reasons already explained elsewhere.

4. *Selection of Export Industries and Their Structure*

The decision on the choice of industries that are to be oriented to export markets should, however, be treated in a different way. Here the extent of market is no longer a limitation. However, the question of comparative cost advantages, demand conditions in export markets as well as economic collaboration with the neighbouring countries, as discussed below, should be properly considered. The common market programme as visualized in the Treaty of Trade and Transit between India and Nepal may considerably influence the future structure of export industries in Nepal, provided the Treaty is extended to cover a sufficiently long period. It may be reiterated that a country like Nepal, which is bound to face balance of payments difficulties, in the absence of adequate external resources, should explore all possibilities of developing some of the prospective export industries which can earn foreign exchange to pay for imports of capital goods that cannot be produced at home.

From the factor endowment of the country, it appears that the industries associated with forest resources and agricultural products have a better chance of thriving in competitive export markets. Timber, pulp, paper, plywood, veneer, cardboards, pharmaceutical products from indigenous herbs, oil, fruit-canning,

12. *Economic Bulletin for Asia and the Far East*, Dec. 1958, p.45

jute, etc., are some of the industries whose prospects should be thoroughly studied. Leaving Japan, practically all other countries of ECAFE region are deficient in most of the forest product industries mentioned above.[13] Since mineral base of the country so far known is weak and uncertain, it is difficult to foresee whether any export industry, on a wider scale, could be built on it.

As power potentiality is very large, it is quite possible that in future some power intensive industries may be attracted to Nepal in the absence of raw materials, provided foreign investment could be encouraged. Japan, Taiwan and China are, for instance producing aluminium from imported bauxite, because the cost of shipping raw material from abroad is more than offset by the low cost of hydro-electric power.[14]

It is not too much to hope that, if an immeasurable hydro-power potentiality is exploited, even electricity may figure out as an important export from Nepal, provided economic collaboration with neighbouring countries could be developed on a closer and wider scale. There is already such economic collaboration between India and Nepal in taming the most unruly Kosi river flowing from Nepal into India.[15] The more recent agreement between the two countries for harnessing another major river of Nepal, namely, the Gandak, is another instance of such collaboration.[16] The proposed "Karnali Project", when it comes into existence, may be one of "Asia's largest River Schemes" with breath-taking potentiality of 1.5 million KW of hydro-electricity. The feasibility of the project, which is now being studied under an agreement between His Majesty's Government and U.N. Special Fund, is supposed to depend, first upon the availability of resources and second, upon the prior agreement with India to buy the enormous amount of power which Nepal would not be able to consume immediately. It is also to be noted that if a suitable agreement between India and Nepal could be signed, the Karnali Project which is, at present,

13. *Yearbook of Forest Products Statistics*, 1957, Rome (Table 21, 31-37.)
14. *ECAFE Bulletin. Op. cit.*, p.39.
15. The Kosi is regarded as "sorrow of Bihar" in India. The Kosi Project, when completed, will control floods, command 18.25 lakh acres of gross area in Bihar and 25 thousand acres in Nepal and generate 20,000 KW of hydro electricity which will be shared equally by the two countries.
16. The Gandak Project, when completed, will irrigate 31 lakh acres in Bihar and 8 lakh acres in U.P. Under the scheme, a power project with an installed capacity of 1,000 KW will be built for eventual use of Nepal.

a purely hydro-electric scheme, could also be made to irrigate 5 lakhs acres of land in U.P. These are some of the instances which show how a close economic collaboration between India and Nepal can help in harnessing the most immense potentialities of Nepal for mutual benefits.

It is not, therefore, too much to hope that the exploitation of this indigenous resource may not only foster the growth of power intensive industries using locally available raw materials, but also attract some power using heavy industries using imported raw materials. Since hydro-power projects may be combined profitably with irrigation and flood control measures, which contribute much to increase in agricultural productivity and at the same time, the cheap supply of power will give a new lease of life to small and decentralised industries that are likely to characterise the domestic oriented industries over a wide range of fields, a major emphasis on the exploitation of hydro-power potentiality, even from the early phases of development, will exert a far reaching favourable impact on the economy in general.

On many considerations such as the growing prospects of tourism, the size and topography of the country, transport difficulties, shortage of critical minerals and late beginning of development, the Swiss pattern of industrial development characterised by concentration on specialities and artistic goods appears to be a suitable model for moulding some Nepalese industries oriented to export markets. Such pattern of development, however, demands tremendous skill, ingenuity and experience. The high craftsmanship of Nepal manifests even today in a number of artistic and curio goods produced by a few talented artisans tends to suggest that Nepal can very well develop the skill required for developing some industries on the Swiss model. There is every chance for Nepal to earn substantial foreign exchange from such small industries which require human skill more than anything else.

Finally, from the point of view of foreign exchange earnings, tourist industry also deserves special consideration. Nepal is often described as "Peerless Nepal—a Naturalist's Paradise" and a "Tourist's Heaven". It has already been a centre of international mountaineering and expeditions. Since 1951 Nepal has been well known to the outside world. She has now been the member of the most of the important international organizations and her diplomatic relations with other countries are growing everyday. All this will definitely help her in getting a large number of tourists into the country from various parts of the world. In fact, between 1957 and 1962, the number of tourists visiting Nepal increased by more than three times!

One of the striking features of tourist industry is that competition among geographically proximate countries helps its growth rather than hinders it. A tourist from a distant country does not generally travel all the way at a considerable expense just to see one particular country. He covers in his itinerary as many countries as possible in a single trip. A small landlocked country like Nepal with meagre financial resources but having a unique variety of tourist attractions, can take the best advantage, if her tourist promotional activities are integrated with the geographically proximate countries like India, Pakistan, Ceylon, Burma and Afghanistan.

II. CHOICE OF SCALE

1. *Scale of Operation Limited by External Situation*

In most of the underdeveloped countries, the growth of early industries was sustained largely by their own domestic markets. With a notable exception of Japan there are not in ECAFE region many instances of successful industrial development primarily based on export markets. Even in the case of Japan, it is contended that her first stage of industrialization in the latter half of the 19th century was mainly based on production for domestic consumption. "The idea that the drive for foreign markets was the motor force of Japanese industrilization is nothing but a literary invention. It has little relationship to the facts....."[17] In fact, "The home demand for Japanese manufacturers...absorbed continuously most of the output of industry as well as primary products and services."[18]

For a late comer like Nepal having virtually no strategic raw materials of international market such as oil in the Middle East or rubber, tea, coconut or jute in some countries of the South East Asia, it is by no means easy to get into the world market. Most of the underdeveloped countries now have their own industries producing most of the consumer goods of mass consumption such as textiles, leather goods, tobacco products and simple producer goods. The output of simple consumer goods such as sugar, soap, vegetable-oil and matches is reported to be on the whole sufficient for the existing level of demand in many ECAFE countries.[19] India, the next door neighbour of Nepal, has been not only self-sufficient but also a large exporter of many consumer and light producer goods. The factor-endowment of Nepal is such that she has, at present, a very limited

17. Lockwood, W. W. — *op. cit.*, pp. 309 & 369.
18. *Ibid*, p. 369.
19. *ECAFE Bulletin, Op. cit.* p.12.

range of choice in export industries. Like many other countries, she has still to begin largely with light consumer goods industries for which the market beyond the national frontier is not likely to be very wide, unless they are from the very beginning efficient and can produce at lower costs. In this situation most of the industries that stand a fair chance of success in the initial stages will have to be developed largely on internal market.[20]

2. *Internal Conditions Favouring Small Scale Operation*

The internal market is, however, limited not only by the low level of purchasing power but also by the small size of the country in terms of both area and population. With equal levels of income, a large country can sustain industries on a larger scale than a small country can do. Nepal is typically small to sustain more than a few firms in one particular industry of normal technical capacity as commonly found elsewhere in large countries. In small market large firms would be possible only with the highly concentrated production that would probably change the character of competition.[21] If monopoly elements were not given chance to rise, the size of firms over a wide range of industries oriented to domestic markets are most likely to be small as compared to a usual standard in other countries having extensive home markets.

The mountainous topography of the country has also presented a typical problem in Nepal. The physical barriers have segmented an already small market in many parts that are difficult to be linked up by proper transport system. In such a situation, one large production unit at one particular place may be less economical than a number of small production units at a number of places selected on the basis of cost considerations. This problem has already loomed large even in the case of some medium-sized consumer goods factories located at plain-region of the Terai. These factories cannot supply their products to the surrounding hilly markets because of high transport cost. Development of transport system can, no doubt, minimize this disadvantage; yet the topography of the country is such that the difficulty will persist and the disadvantage of transport cost in distribution may even heavily outweigh the advantages that will be available from large scale operation.

20. R. Nurkse — *Paper of Trade & Development*, pp. 36-41, for difficulties encountered by underdeveloped countries in export markets.
21. C. D. Edwards — *Size of Markets, Scale of Firms, and the Character of Competition in Economic Consequences of the Size of Nations.* (Ed.) E. A. G. Robinson, London. 1960, pp. 120-21.

It may be recalled that in Nepal the Hills region accounts for more than four-fifths of the total area and about two-thirds of the total population; but the cultivated land per head of agricultural population is here less than one-fourth of that in the Terai.

Even under the conditions, where the nature and extent of market are not the limitations to a large scale operation, it is likely that, at least in the early stages of development the managerial optimum may be quite smaller than the technical optimum scale of operation. In fact, the lack of manegerial talent is more often than not a limiting factor in industrial expansion in Nepal. When one takes into cosideration the past industrial history of the country marked by unhappy gaps and lapses, resulting from incompetence of management, one tends to be rather sceptical about the success of large scale operation over a wide range of of fields in Nepal. In such a situation, production units on small scale may turn out to be more efficient and less expensive.

Decentralised small production units may be favoured on other grounds as well. Large scale operation and concentration of production at a few places often entail extra costs of social overheads on housing, sanitation and other public utilities which for a small country like Nepal may be superfluous. Besides the problem of adaptation and assimilation it would be quite difficult to divert an almost immobile population from land to industries if such industries demand altogether different environment. The high rate of labour turnover and a floating character of Industrial labour is one of the symptoms of an imperfect assimilation of peasant labour to industrial career and discontent with the urban ways of life. In contrast to this situation, the decentralised small production units conveniently located at and around the rural centres may be more attractive and less expensive than urban concentration of industries on large scale. Such industrial pattern may have less disrupting effect upon the rural economy, as it can be adjusted and dovetailed with the rural industries and crafts. Considerations such as regional balance, equal opportunities or equal benefits may also strongly favour decentralised small production units within the limits permissible by regional resources and talents.

It is, thus, quite evident that there are many genuine factors limiting the scale of operation in a wide range of industries, especially those that are to be oriented largely to domestic markets. On both social and economic grounds, decentralised pattern of industrial organization appears to be more appropriate to the typical conditions of Nepal.

It is often suggested that a small country like Nepal can mitigate all the inhibiting effects of limited market by way of

economic integration or collaboration with larger neighbouring countries. Since the scope of embarking upon an export oriented industrialization for a late comer and small nation like Nepal is extremely limited by the world economic environment, any scheme of mutual co-operation with the neighbouring countries may help her in taking long strides in the process of development.

The common market programme is one such scheme which is often advocated for the expansion of market by eliminating all trade barriers between member countries. Those who suggest such a scheme as solutions to the problems of market facing the small nations in reaping economies of scale, "have in their mind" a return to the true competitive spirit and such as "the most efficient firms should, then prevail at the expense of the less efficient, whatever their nationality." In order that the firms of small nations should be in a position to defend themselves and withstand competition, they "must produce at less cost, if aggregate demand remains unchanged or at the same cost, if aggregate demand increases," so that they can expand market within free trade area or the common market zone.[22] Thus the gains that are theoretically available will not be exploitable in practice, unless a small country is at least equally efficient and therefore, produces at favourable costs. If the firms of the small nations are not technologically efficient, it is most likely that such common market programme with its fundamental feature of eliminating all trade barriers, may allow the technologically more efficient member to make heavy inroad in the internal markets of the less efficient and weaker members. In such a case, the situation for the small nations, which are almost invariably less efficient, will be worse than before, as it eliminates altogether even their chance of shutting out the foreign products from domestic markets and thus, the chance of providing protection to "infant industries" at home.

It is also suggested that the small nations can gain much from such market arrangements if they specialize in quality products. Swiss watch is often cited as the case in point. Even if it is so, the small nations are not likely to gain much, insofar as economies of scale are concerned, because the very Swiss experience has amply demonstrated that such specialities do not necessarily require large scale production units and at the same time, can penetrate in the world market against the barrier of high tariffs. Therefore, the economic integration of the small

22. G. Marcy — *How Far Can Foreign Trade and Customs Agreements Confer upon Small Nations the Advantages of Large Nations?* in *Economic Consequences of the Size of Nations* (Ed.) E. A. G. Robinson, London, 1960 *Op. cit.*, p.272.

nations with large nations, implicitly at higher stages of development and on more efficient technological base, merely by way of customs union or common market programme with its inherent feature of eliminating all trade barriers between them, is not likely to be the panacea of overcoming the difficulties in enjoying the economies of large scale on the part of the small nations.

However, if two or more member countries at different stages of development are not treated as equal and some concessional or escape-clauses in favour of less efficient members are provided, most of the defects of common market programme as enumerated above may disappear. The Treaty of Trade and Transit concluded between Nepal and India in 1960 is one which provides such escape-clauses in favour of Nepal. In pursuance of the policy of the "Common Market", Article II of the Treaty provides that "Subject to such exceptions as may be mutually agreed upon, goods originating in either country and intended for consumption in the territory of the other, shall be exempt from customs duties and other equivalent changes as well as quantitative restrictions." This Article by itself would have been subject to all criticisms levelled against the common market programme. However, in the note exchanged between the two governments after the signing of the Treaty, it is specified that "His Majesty's Government of Nepal, having regard to their requirements of raising resources for the economic development of Nepal, may continue to levy existing import and export duties on goods imported from or exported to India." It is further provided that, "In order to assist Nepal's industrial development the Government of India agree that His Majesty's Government may impose protective duties or quantitative restrictions on such goods as may be produced by newly established industries in the country."

This economic collaboration with India will have a far-reaching significance to Nepal in her industrial development in more than one way. Nepal need not now fear competition from Indian goods; she can very well develop her industries behind protective tariff wall. The whole of Indian market is thrown open to Nepalese goods without any restrictions and duties. Its repercussions on private foreign investment in Nepal will also be more favourable than ever before. It may, therefore, be emphasized that the Treaty will favourably change the structure and the scale of Nepalese industries, particularly those that will be oriented to export markets. These export oriented industries can now avail themselves of all the economies of large scale, since market is no longer the limitation.

But these advantages will be readily exploitable only when Nepalese industries will be technologically efficient and capable of producing goods, at least, at the same costs as those prevailing

in the corresponding industries in India. If transport cost is also taken into account, it will be necessary on the part of Nepalese industries to produce even at lower costs. At the early stages of development, a number of factors such as skill, managerial talent and experience will, however, limit the capacity of Nepal to attain a high level of efficiency. At the same time, unless the rate of capital formation is also speeded up, the scarcity of investible resources will develop itself into a serious bottleneck in organizing large, efficient and implicitly more capital intensive industries.

Secondly, the Treaty was signed for a period of five years only and five years will be too short a time to bear any fruitful results at all, particularly in a situation where Nepal has yet to start almost from scratch. It is, however, gratifying that Article XIV of the Treaty has made provision under which "It shall continue in future for a further period of five years thereafter, subject to such modification as may be agreed upon, unless terminated by either party by giving notice of not less than one year in writing."

Since the Treaty is "animated by the desire to strengthen economic co-operation between the two countries," there is little ground for any apprehension that the possible changes in future will be harmful to either party. However, what appears to be more urgent for Nepal at her present stage of development is a comprehensive scheme of economic collaboration with India which contemplates measures more for bridging some of the major gaps such as shortage of capital and technical know-how and also for harnessing some of her potential resources like rivers, for example, which can benefit both the countries than for eliminating trade barriers, which alone would change but little the position, in either countries at present. Looking from the view point of India, too, the measures for market expansion merely by eliminating trade barriers will be of little use unless there is a progressive expansion of real purchasing power in Nepal. Any scheme of this nature should necessarily cover a sufficiently long period and may, of course, be phased as conditions in either countries may require.

The 17th session of the ECAFE held in New Delhi has also shown a tremendous concern of the Asian leaders about the great need for regional co-operation which might even lead to the creation of an Asian Common Market on lines similar to European Economic Community or Latin American Economic Groups (Latin America Free Trade and Association and Multilateral Treaty of Free Trade and Central American Economic Integration). If this happens, Nepal can also reap the benefits in various ways, particularly by expanding her trade with countries

like Burma, Thailand and Ceylon which are more or less at similar stages of development. But any scheme of such regional co-operation or economic integration should make adequate concessions in favour of weaker members, particularly with regard to their over-riding difficulties of shortage of capital and skill.

III. CHOICE OF TECHNIQUE

1. *Essence of the Problem of Choice Between Alternative Techniques*

The typical situation in Nepal, as described above, is such that the industrial pattern in future should be characterised largely by decentralized small scale industries rather than by large ones. Given the size and nature of market and the scale of operation, there emerges, particularly in the scheme of planned industrial development, the problem of choosing technique that combines in appropriate proportions the available factors of production. This problem often resolves itself into confusion in an underdeveloped country like Nepal starting from a given disproportionate factor-endowment conspicuous by the abundant labour and the scarce capital, because any simultaneous achievement of equally urgent and apparently competitive objectives such as maximum employment and output per unit of capital, and maximum rate of growth of output and employment appears to be almost impossible.

If employment is the only consideration regardless of the standard of living, the most suitable technique would be to equip each worker with the most primitive tools and thus spread the scarce capital most thinly over the largest number of persons. But the output per worker will be extremely low and such a scheme will be just "an unemployment relief scheme", "a make-work process" and in essence, a process of shifting the locus of disguised unemployment from agriculture to industry. If output, on the other hand, is the only guiding policy, the technique, in the extreme case, should involve the highest output-capital ratio and the conflict in objectives will be particularly striking if it so happened that the method with the highest output-capital ratio embodies the latest techniques of automation requiring the largest amount of capital per worker with the least employment potential. If the rate of growth through time is the basic target, the technique that contributes to accelerate the process of growth through time should obviously be preferred. As the rates of growth of output and employment depend largely upon the rate of investment, the technique that helps maximize the rate of

savings may be more favourable. The question as to which of the two techniques—labour intensive and capital intensive—is preferable for a self-sustained growth of economy, therefore, depends upon their respective effects on the rate of savings in the economy.

The labour intensive method is advocated on the ground of a large volume of unemployment and under-employment with scarce capital resources in the country. In such a situation any technique that absorbs more labour than capital will be advantageous insofar as it creates with given capital resources, employment opportunities to the largest volume of labour which otherwise would have remained unproductive. To the extent that capital is saved by use of labour, the capital so saved can be used for other productive purposes and for employment of still more labour. Hence the total output and income will be higher than what would be possible if the capital intensive method was followed, since, with the given capital resources, output will vary with the amount of labour employed. It is also implicitly recognized that the process of rise in production resulting from increased employment brought about by the labour intensive method must also be accompanied by such devices as will contribute to high labour productivity. On this ground, the most appropriate technique should permit the maximum absorption of labour and at the same time, the use of efficient technology. Such a combination, wherever possible, will undoubtedly increase both output per worker and output per unit of capital much higher than before.

The capital intensive method is based on the assumption that production at high efficiency level with higher productivity per worker is the highway to higher rate of saving, leading to higher rate of investment and hence, higher and higher rates of employment and output in a cumulative way through time. It is also assumed that high efficiency level can be attained only with capital intensive methods. In a given period of time, the capital intensive methods will yield, therefore, a smaller net product per unit of capital but a larger net product per worker than the labour intensive method. Consequently, as the margin of production over consumption is larger because of difference between the product and wage per worker, the saving will be available for reinvestment in a larger proportion with capital intensive method than with the labour intensive one. This will hold true even if the wage rate is higher in the former than in the latter, so long as the difference in wage is less than the difference in productivity. The volume of saving will be largest when, according to Galenson and Leibenstein, the "marginal per capita reinvestment

quotient" of capital is equal in its various alternative uses.[23] If this reinvestible saving is continuously reinvested, the output generated by it, with the capital intensive method, will grow at a faster rate than with the labour intensive method and the employment which it generates, though lower in the early years, will soon equal the levels attainable with the labour intensive method and thereafter expand faster. Therefore, if the rate of investment is to be high, the productivity per worker is to be maintained at a high level, which is possible only when the amount of capital per worker is also maximum. In the long run, the ratio of capital to labour will grow higher only when the rate of investment is continuously higher than the rate of labour force. But such rate of investment depends not only upon the initial rate of investment but also upon the rates of subsequent reinvestment, stemming from the initial investment.

From the foregoing discussion, one thing is, however, clear. Both the techniques have certain common economic objectives. In both the cases, rising level of output and income is desired; the problem of employment is recognized; and the importance of labour productivity is agreed. Divergence arises when one looks into the problem of economic growth over a long period of time. The labour intensive method provides no doubt, maximum employment in the short run; but as the capital per unit of labour is minimum, the labour productivity should correspondingly be low. In such a situation, it is often doubted that, since the wage rate cannot be reduced below a certain minimum and population growth cannot be checked and brought under control in a short time, the rate of consumption may move at the same rate as that of output over time. If this is the case, the economy will revert to the original position of stagnation, lacking within itself sufficient force for a cumulative growth. In the absence of external financing in real terms, creation of surplus and investment at high rate are essentially the basic requisites for a rapid and cumulative process of growth of output and employment over a long period of time. Hence, whatever initial efforts could be made, they should aim at increasing productivity per worker at higher rate, so that the resulting savings will keep on the process of investment at a growing rate, else population growth will frustrate the initial attempt for overcoming the critical minimum effort hurdle by reducing the ratio of capital to labour and per capita reinvestment quotient. As a consequence, the rates of investment, output and employment will be low in the future date.

23. W. Galenson and H. Leibenstein—*Investment Criteria, Productivity and Economic Development, Quarterly Journal of Economics,* Vol. LXIX, p. 350.

It should not, however, be pressed further that productivity of labour is the function of capital alone. Labour productivity is affected not only by the amount of capital per worker, "but also by the nature and quality of the equipment and its appropriateness in underdeveloped countries and by such factors as a better rate of utilization of plant capacity, proficiency of management and workers' efficiency in terms of skill and effort."[24] In the initial stages, there are problems of adaptation and assimilation on the part of peasant labour to industrial technique, mechanical process, industrial career and urban ways of life and of getting suitable persons at high levels of industrial hierarchy.

Secondly, the technical variations involving different capital and labour coefficients are possible only within a given scale of production that is already determined by the extent and nature of market. Mere consideration of relative efficiencies of the two techniques, regardless of their efficacy and appropriateness to the given scale of operation, is of little use. In other words, it is only within the given scale of production, the problem of judicious choice between the two techniques should be considered. The problem of Nepal is not only one of choosing this technique and discarding that technique, but also one of fitting the technique so chosen into the given scale of operation with all due regard to factor-endowment of the country and efficiency in production.

Finally, a mere consideration of the fact that higher labour productivity resulting implicitly from the capital intensive technique of production will lead to higher rates of saving and investment in the industrial sector, should not mislead to the conclusion that the overall rates of saving and investment in the economy as a whole will also be equally higher. In an underdeveloped country like Nepal, where agricultural sector is likely to remain for a long time more dominant and more decisive by virtue of its size being exceedingly large in relation to other sectors of the economy, it is quite possible that the high rate of saving resulting from the high labour productivity due to capital intensive technique in the newly growing industrial sector, may be heavily offset by dissaving due to heavy encroachment upon "subsistence fund" of the agricultural sector by the existing large surplus labour, whose contribution to production is virtually nothing. This problem should assume considerable significance, particularly during the period of transition, when the rate of capital formation will remain more or less a function of the rate of increase in agricultural productivity and rate of employment of surplus labour outside agriculture, where they will be more productive than they were when on land. If the surplus labour, when

24. *U. N. Industrialization & Productivity, Bulletin* No. 1., New York April 1958, p.21

employed outside agriculture produces something more than what it consumes, this will not only be a positive contribution by itself to capital formation, but will also help in accelerating the process of capital formation in agricultural sector, insofar as the pressure of surplus labour on the subsistence fund would be reduced considerably. The mere fact that higher labour productivity with the capital intensive method of production in the industrial sector results into the higher rate of saving, should not, therefore, alone determine the choice of technique, regardless of its effect on the capacity of the economy to withdraw unproductive labour from land with the available resources.

2. *Choice of Technique in Export Oriented Industries*

So far as Nepal is concerned, the range of choice between the capital intensive and labour intensive techniques is severely restricted by her own typical conditions. First, the factor-endowment is such that she cannot develop profitably the industries producing capital equipment for a long time to come and as such almost all the required capital equipment must come from outside. In the absence of external resources, the volume of such equipment depends upon import capacity which, in its turn, depends upon the export capacity of the country. As already seen, there is bright prospect for some export industries such as power, paper, plywood, pharmaceutical products, etc. In order that these industries should survive in the competitive export markets, their cost of production must be correspondingly favourable. Since market is not the limitation to their scale of operation, they can also be organised on large scale. In the case of these industries even the "blueprints" of the advanced countries will have to be applied regardless of their capital intensity or labour absorptive capacity. These prospective export industries must be pressed ahead with all possible efforts, else the entire process of industrial development may break down for want of foreign exchange and hence, for want of capital equipment which cannot be substituted by labour on technical grounds. These export industries must work at high level of efficiency corresponding to advanced methods of production of other countries, which are generally characterised by both large capital requirement and high output per worker. For these industries, if there is any choice between the labour intensive and capital intensive techniques, this may largely be the choice between 'hit' or 'miss' in the competitive market. The choice between alternative techniques of production in export industries seems to have been conditioned by the techniques employed by the similar industries in other countries, where the products of these export industries are to be sold, inasmuch

as such techniques alone can ensure a competitive cost structure in the export industries of Nepal as well.

In most of the industries such as chemicals, paper, sugar, cement, fertilizers, electric power etc., the differential in productivity between the modern method of production called "the continuous flow process" and the alternative of production by what is called 'a batch process' or 'by hand' are considered to be so substantial that the modern methods involving high capital coefficient per worker are clearly to be preferred. It is said that there "is little possibility of tampering with the production flow proper with a view to substituting labour for capital".[25] Even in these industries, most of which happened to be the prospective export industries of Nepal, the technical possibilities of expanding the labour absorptive capacity without, at the same time, impairing efficiency are, however, to be explored. It is believed that in the peripheral activities such as internal transport, materials handling, packaging and so on, considerable opportunities for the employment of labour intensive methods are available.

There is another set of export industries producing specialities, where ingenuity, skill and craftmanship of workers will play a more dominant role than capital intensity. These goods generally have imperfect market and as such their prices will not be fully reflective of their costs. These industries can, therefore, be efficient without being, at the same time, capital intensive.

3. *Choice of Technique in Domestic Market Oriented Industries*

There are, however, some genuine difficulties in choosing techniques for a wide range of industries that have to be oriented to domestic market, which, as already seen, is not only limited in extent but also segmented in many parts, As the scale of operation of these industries is circumscribed by the market and other factors noted above, the range of choice between alternative techniques may be said to have been limited to the extent that the modern cost-reducing capital intensive techniques as such are inapplicable to the given scale of operation.

It may not be out of place in this context to note that the relation between size and efficiency is not always so clear and straightforward as it often tends to suggest. A consensus of opinion on the subject is yet lacking. On the contrary, some studies in the problem reveal even conflicting viewpoints. For instance, the basic conclusion of a report published by Federal Trade

25. *ECAFE Bulletin, op. cit.*, p. 53.

Commission[26] is that "large plants and companies are generally less efficient in terms of unit costs and rates of return than medium sized or even, in some cases, small sized organizations."[27] But J. M. Blair derived opposing results from some of the same data used in the report. In his own words, "A re-examination of the original data used by the Commission relating to costs and size of plants indicates that the relationship between costs and size is quite different from that described by the Commission; large plants generally tend to be more, rather than less, efficient than medium-sized and small plants."[28] A number of cases quoted by S. Jewkes from the published reports on a number of British Industries between 1946 and 1948 also tend to suggest that there is no rigid and universal correlation between size and efficiency of the firms.[29] M. M. Mehta has, however, traced the existence of some degree of negative correlation between size and efficiency in seven Indian industries, namely, cotton, jute, sugar, paper, iron and steel, cement and coal. "As size increases, the cost of production shows a tendency to decline and this relationship holds with surprising constancy and universality in all the individual industries" examined.[30]

What appears to be a relevant fact in this connection is that efficiency is not a function of only one variable, namely, the size. Efficiency always depends, in varying degree, on a number of other variables including, among other things, organizational and managerial competence, geographical location, quality of labour, conditions of market and so on. Besides, the calculation of costs should be on the basis of a unit of comparable product; but this is difficult because of the variation in competing products. This, however, complicates the relative cost studies. Richards C. Osborn has rightly remarked that, "No published cost studies have made the adjustments necessary to eliminate variables other than size and the results are open to this same objection whether they show one size or another to be more

26. *Relative Efficiency of Large, Medium-sized and Small Business, Temporary National Economic Committee Monograph* No. 13, Washington D.C. 1941.

27. Summarised by J. M. Blair in *The Relation Between Size and Efficiency of Business, The Review of Economic Statistics. Vol.* XXIV, August 1942, No 3, p. 125.

28. *Ibid,* p. 125.

29. *Cf.* S. Jewkes, — *Are the Economies of Scale Unlimited? In Economic Consequences of Size of Small Nations, op. cit.*

30. M. M. Mehta, *Structure of Indian Industries,* Bombay 1955, p.146.

profitable."[31] It is further stated that "Studies of costs have been partial and piecemeal. They have not covered comparable situations, nor have they been extended for a sufficient period of time."[32]

In a situation like that of Nepal, it is quite probable, at least in some industries, particularly those that are oriented to domestic market, that the total effect on efficiency of these numerous variables other than size as enumerated above may even tend to offset some of the highly acclaimed advantages attributed to large-sized units. Secondly, under the conditions where the market for the output of each line of different activities is limited, more efficient technique of production associated with the higher rate of output may even turn out to be uneconomical. "An obvious case in which this might happen is that where the market is too small to provide an outlet for the full-time operation of the more efficient type of equipment."[33] It might not be too much to say that a country like Nepal might face this sort of situation, at least in the case of some industries, particularly when a number of firms involve in competitive struggle to cater to the same limited market.

4. *Possibilities of Alternative Methods Within Technical Limits*

It is generally acknowledged that there are usually technical limits within which a production process can be altered. The range of these limits vary obviously from industry to industry. There lies in between large scale mechanized mass-production and small scale primitive handicrafts production, a considerable range of techniques superior in efficiency, but may be inferior to the latest technology of the most highly industrialized countries. The range of such technical limits are usually wider in case of simple consumer goods industries which, as already seen, might characterise the structure of domestic market oriented industries in Nepal. The problem of underdeveloped countries like Nepal is, therefore, essentially one of choosing, within these technical limits, such techniques as are consistent with the given conditions of market and factor-endowment, on the one hand, and with the technically possible maximum efficiency-level of production, on the other.

31. *Efficiency and Profitability in Relation to Size, Harvard Business Review,* Vol. XXIX, No. 2, March, 1951, p. 92.
32. *Ibid.,* p.84.
33. Tiber Scitovsky — *Economies of Scale, Competition and European Integration.* The American Economic Review, March 1960, No. 1 p.73

The following factual data from India may throw considerable light on the problem of choice between the labour intensive and capital intensive techniques of production, and also on the possibility of technical limits within which alternative methods can be adopted or within which labour may be substituted for capital without impairing efficiency in any significant degree.

Table 8:1 below shows that the throw-shuttle method of production generates maximum employment as well as maximum output per unit of capital. But its efficiency in terms of unit-cost is lowest. The fly-shuttle technique provides neither maximum employment, nor maximum output per unit of capital; but its efficiency is fairly higher than that of the throw-shuttle. The automatic power loom, on the other hand, works at the highest efficiency level since its unit-cost is lowest; but capital requirements per unit of output and labour are fantastically large in comparison with other alternative techniques. For a country like Nepal with surplus labour but scarce capital, the use of such technique has a severe limitation. The non-automatic power loom can work at a slightly lower efficiency level with a considerable reduction in the requirements of capital per unit of output and labour in comparison with automatic power loom. The semi-automatic pedal loom appears most suitable than any other alternative methods, because with only a small increase in capital requirement, it can bring down the costs of production to level comparable with the power looms on a single shift basis. Its capital requirement per unit of output is just the same as that of the fly-shuttle method, whereas its labour absorptive capacity per unit of capital as compared to power loom is considerably higher.

A U. N. expert in a Far Eastern country, helping to implement a partial mechanization of industries, recommended installation of several slicing and mixing machines in a factory producing shrimp biscuit to replace hand operations; but shelling the shrimp is still to be done by hand. When the machines recommended were installed, their higher output required twenty-four more workers for a shelling operation. Introduction of mechanised operations in this case increased employment and the overall capital labour ratio might have thus remained constant or even declined as a result.[34] The same expert recommended, on several occasions, introduction of second shift as a further measure of increasing production which would result in a proportionate reduction in capital intensity. The mechanization of small industries along some well conceived lines need not necessarily displace labour and accentuate the problem of unemployment or

34. U. N. *Industrialization and Productivity, Bulletin,* No.1, p.17

Table 8 : 1

ALTERNATIVE METHODS OF PRODUCTION IN COTTON WEAVING

Characteristics	*Handloom*		*Semi*	*Powerloom*	
	Throw *Shuttle*	Fly *Shuttle*	*Automatic Pedal Loom*	*Non— Automatic*	*Automatic*
Cost per Loom (Rs)	5	50	250	1500	5000
Workers per Loom	1.25	1.25	1.25	0.5	1/16
Capital per Worker (Rs)	4	40	200	3000	80000
Output per Loom (Yds. per Shift)	3.5	6	30	30	30
Annual Output per Loom (Yds.; Working 312 days)	1092	1872	9360	9360	9360
Annual Output per Unit of Capital (Yds. per Rupee)	218.4	37.4	37.4	6.24	1.87
Life Span of Loom (years)	5	10	10	30	30
Annual Interest Rate (Per cent)	8	8	8	8	8
Annual Wage Rate (Rupees per Worker)	600	600	600	1200	1800
Cost per Yard (Rupees)					
Depreciation	0.0009	0.0027	0.0027	0.0054	0.0178
Interest	0.0004	0.0021	0.0021	0.0021	0.0427
Capital Cost	0.0013	0.0048	0.0048	0.0182	0.0605
Labour Cost	0.6868	0.4113	0.0801	0.0641	0.0120
Total Cost	0.6881	0.4161	0.0849	0.0823	0.0725

Source : *Production Techniques and Employment Creation in Underdeveloped Countries, International Labour Review,* Vol. LXXXIII, July-Dec. 1958, p. 129

underemployment. On the contrary, the recent experience of some Asian countries has shown how the small industries have increased the number of their employees shortly after the adoption of improved equipment and methods of production. In India for example. "A recent evaluation of the impact of the machine hire purchase scheme on production and employment shows that the provision of some Rs. 2,40,000 worth of machines to 113 small enterprises enabled them within a period of approximately one year to increase the value of their average monthly output by Rs. 4,46,000 and the number of workers employed by 770. A similar assessment in Indonesia concluded that the operation of such a programme has not reduced employment opportunities."[35] All these illustrations show how the production process can be altered within technological limits to suit the local conditions of market and factor-endowment.

One of the basic problems facing underdeveloped countries like Nepal with limited domestic market, surplus labour and scarce capital resources is, therefore, one of exploring into the possibilities of such alternative methods of production within the limits set by technological process, so that a small plant may also be able to work at a high efficiency level. Success of many domestic market oriented industries depends largely upon innovations of new techniques which are consistent with technical efficiency as well as with factor-endowment. The central feature of these new innovations should obviously be such that they should be capable of combining, as far as possible, low capital requirement per worker with high output per worker and high output with a unit of capital employed. While it may be too much to hope that any technolgy can combine all these advantages, it should, however, be clear that neither the traditional techniques, nor the capital intensive techniques developed in advanced countries are appropriate to the typical conditions of underdeveloped countries aiming at a simultaneous achievement of raising the living standards of the people, on the one hand, and providing maximum employment to under-utilized labour, on the other. This is where "innovation" appears as the 'nucleus' of industrial development in underdeveloped countries.[36]

In this neo-technic phase, there is definitely wider scope for innovation of new techniques suitable for an efficient organization of small and decentralised industries in underdeveloped countries. There was a time when the so-called "Industrial Revolution"

35. *Economic Bulletin For Asia and the Far East*, Vol. XI, No.1. June 1960, p.26.

36. "If Japan's experience teaches any single lesson regarding the process of economic development in Asia, it is the cumulative

had developed a typical "coal and iron complex civilization" that favoured much the large-scale production and concentration of activities in a few places, clustering around iron and coal zones. The only important energy, viz., steam power from coal was inflexible, as it could not be carried economically over long distance. Its tendency was thus centripetal rather than centrifugal. Iron, the only important raw material of the time, reinforced the tendency of centralization, because its weight losing character and power intensive nature favoured iron and steel industries at and around coal or iron ore zones.

In contrast to the "iron and coal complex civilization", the neo-technic phase is conspicuous by new forms of energy from hydro-power and mineral oils and new raw materials like alloys, synthetics, light metals, chemicals, etc. All these forms of power and raw materials have sufficient flexibility. Electricity alone can play a remarkable role in decentralization of industrial activities. Light and varied raw materials also help small scale production in decentralised pattern.[37] It may, therfore, be seen that the modern trends of technological progress are re-addressing to balance in favour of certain types of small scale industries. To take the case of electricity alone, its supply has really given a new lease of life to small industries. Its use has brought about fundamental changes in economic character of these industries. Its centrifugal effect has a vital bearing on their organization in a decentralised pattern. Success of small and decentralised industries in Japan may be attributed, among other things, to availability of cheap power all over the country.[38] In Japan at present about 97.4 per cent of all the villages and towns have been supplied with electricity. A recent study on the small scale industries of Delhi urban areas in India has

importance of myriads of relatively simple improvements in technology which do not depart radically from tradition or require large units of new investment. The big, modern establishment with its concentration of capital in advanced forms of technology was essential in many fields, of course—Much of the real substance of Japanese economic growth, however, is found in the more modest types of improvements which were more easily and often more productive of immediate returns in income. For any poor country beginning to industrialize, one of the crucial problems is to introduce and spread such innovations as widely as possible." (Lockwood, *op. cit.*, pp. 198-199).

37. J. M. Blair: *Does Large Scale Enterprise Result in Lower Costs, Technology and Size? American Economic Review*, Vol. XXXVIII. No.2. May 1948, p. 129.

38. F. Hayashi—*"Japan's Small Scale Industries"* in *Indian Agricultural, Industrial and Trade Review Annual*, 1955-56, p. 327.

Table 8:2

COMPARISON OF SOME ECONOMIC CHARACTERISTICS BETWEEN POWER USING AND NON-POWER USING SMALL INDUSTRIAL ESTABLISHMENTS IN DELHI (INDIA)

Industry	*Capital Output Ratio**			*Capital Employed per Worker (Rs.)*		
	Industry		*B Minus A as % of A*			
	Non-Power Using (A)	*Power Using (B)*		*Non-Power Using (A)*	*Power Using (B)*	*B Minus A as % of A*
Printing Press	1·76	1·71	−3·0	2,314	2,894	25
Light Engineering	0·88	0·85	−3·0	713	1,473	107
Electrical Goods	0·89	0·90	+1·0	1,527	1,898	24
Central Engineering	0·54	0·72	+33·0	651	1,380	112
Hosiery	0·65	0·66	+1·5	678	1,969	190
Foundries	0·72	0·65	−10·0	220	839	281
Drugs Mfg.	1·16	1·50	+29·0	1,554	2,491	60

Table II Contd.

Industry	*Net Value Added per Worker (Rs.)*						*Surplus per Workers (Rs.)†*	
	Industry Employing 2-9 Workers		*B minus A as % of A*	*Industry Employing 10-19 Workers*		*B minus A as % of B*	*Industry*	
	Non-Power using (A)	*Power using (B)*		*Non-Power using (A)*	*Power using (B)*		*Non Power using*	*Power-using*
Printing Press	1356·8	1533·0	+12·9	1095·2	1392·0	+27·1	393	774
Light Engineering	546·3	1749·2	+222·1	963·7	1437·6	+49·1	50	962
Electric Goods	649·6	1106·6	+70·1	3786·6	2362·3	−37·7	417	705
General Engineering	1059·0	1793·6	+69·3	2027·7	1876·0	−7·5	−95	811
Hosiery	1144·2	2836·2	+147·8	769·4	3142·5	+308·4	224	2180
Foundries	n. a.	n. a.	n. a.	156·7	1299·7	+729·2	−296@	596
Drugs Mfg.	1469·2	1318·2	−10·7	n. a.	n. a.	n. a.	791	1109

* Capital is defined as the replacement costs of the fixed assets plus the technologically necessary working capital. The value of land and buildings is excluded from the fixed assets.

† Surplus per worker is measured by deducting the wage per worker from the net value added per worker.

@ Information incomplete and not reliable. n.a. = not available.

Source: P. N. Dhar, *Small-Scale Industries in Delhi*, 1958. (Based on Tables 9.2, 10.2, 11.1 and 11.2)

brought out some valuable findings regarding the effect of the electricity on technical and economic characteristis of these industries such as (a) capital-output ratio, (b) capital employed per worker, (c) net value added per worker and (d) net surplus per worker. This may be seen from Table 8:2[39].

It is seen from the above Table 8:2 that there was no clear tendency for capital-output ratio to rise with the shift to more advanced techniques as reflected in the use of power of the seven industries. Capital-output ratios were actually lower for the power using units in the case of printing presses, light engineering, and foundries, while in the case of electrical goods and hosiery, they remained practically unchanged. There was, however, noticeable increase in capital-output ratios for the power using units in general engineering and drugs manufacturing. But in these two industries, the percentage of unutilized capacity (according to the author) was also proportionately much higher in the power using units. The use of power, however, increased the capital requirements per worker uniformly and much more significantly in all the seven industries. These results indicate that the use of power has tendency to increase the amount of capital per worker quite appreciably without changing, however, the capital-output ratios in the same manner. While productivity of labour will be affected by more than one factor like power, the figures roughly indicate the degree of difference in labour productivity as measured in terms of net value added per worker between the power using and non-power using units. Productivity of labour in the power using units was definitely higher in both size-groups of printing presses, light engineering and hosiery. In general engineering and electrical goods, small size-groups showed a marked increase in labour productivity in the power using units, while the use of power in large-size groups of these industries reduced the productivity of labour in varying degrees. On the other hand, the productivity of labour with the use of power was substantially higher in large size-groups of foundry and hosiery. One interesting feature is that where labour productivity increased with the use of power, it increased quite remarkably and substantially and where it decreased with the use of power, it decreased but not in the same significant proportions, except in the small size-group of drugs manufacturing, where decline was substantial. On the whole, it appears that the favourable impact of power on small-size groups was more uniform and consistent than that on large-size groups. Finally, in all the seven industries, the amount of surplus per worker was far greater in the power using units than in non-power using ones.

39. A small scale industrial establishment is defined in the study as one working with not more than 19 persons and not less than two and having a minimum block capital of Rs. 250.

In a country like Nepal where most of the domestic market-oriented industries should be organised largely on small scale and decentralised pattern, cheap supply of power should play a vital role. While the use of power may increase the amount of capital required per worker, the increased efficiency of labour and increased amount of surplus may offset any unfavourable impact on labour absorptive capacity of the given capital resources. If the power supply is made cheap and easily accessible, most of the small production units need not, then install their own power-generating plants as it is happening to-day in the case of all small and medium-sized rice and oil mills in Nepal. If the supply of electricity was available or made available either from a single local power generating unit or from large high-tension grid, most of these units can be run with small electric motors. Such rural electrification programme can, therefore, reduce the capital requirement quite considerably.

5. *Some Policy Implications*

In an economy where private enterprises play an important role in a wider range of industrial activities, the Government will have to intervene sometimes in the matter of choice between alternative techniques from larger economic considerations.

In choosing techniques of production, the private enterprises will be guided naturally by the criterion of "maximum" rate of profits. Such criterion may come in conflict with maximum output and employment criteria, particularly when the techniques selected on the basis of such a criterion require large amount of capital per unit of labour and output. Their decision on the choice of techniques will be governed by the relative efficiency of alternative methods and the relative prices of factors of production. It is often taken for granted that in underdeveloped countries like Nepal where labour is redundant and capital, scarce, the low wages and high interest rates provide incentive for private enterprises to use labour intensive methods rather than alternative ones. It should, however, be borne in mind that the market prices of the factors may not always reflect their relative endowment and such divergence of market prices may often lead to an adoption of such techniques as are unwarranted by the relative factor supply of the country.

The structural and other rigidities in the economy often diverge the market prices of factors from the levels they would reach under competitive conditions. The price of labour, for instance, may be above and that of capital below their equilibrium price levels. Several U.N. experts "mention instances where lack of mobility of labour, trade union activities or wage

and social security legislation exert a pressure on wages which raises the factor price ratio in favour of labour and constitutes an incentive to private enterprises to substitute capital for labour; some experts justify proposal for full mechanization on such grounds."[40] A similar situation may develop when the price of capital as reflected in the rate of interest is manipulated and kept below the equilibrium level by government credit, fairer-exchange or preference-rates policies. It is reported that in ECAFE countries rising wage costs in some industries are already causing private enterprises to prefer capital intensive methods, though such methods may not necessarily bring about the most rational allocation of resources.[41] One of the secrets of survival of small scale industries, even in the face of competition from large scale industries, in Japan is lower wage-rates in their small labour intensive industries.[42] It should, therefore, be a conscious policy of the government to do away with all such market imperfections as will lead to irrational and unwarranted allocation of resources. Since employment, productivity and rate of growth are all equally pressing needs, the government policy should be formulated in such a way as to enable the private enterprises to make a judicious choice of techniques which combine all these objectives. For this, the first prerequisite is the provision for extensive research and technological information on the possibilities of choosing various alternative techniques requiring various proportions of capital and labour.[43] In this direction, a country like Nepal can heavily draw upon the experience of countries like Italy and Japan, where small scale industries are relatively more significant or of countries like Sweden and Switzerland, where small industries are very efficient. Even the government "model plants" or 'model plant design-schemes' in various branches of industries showing how the labour-intensive methods can be used with minimum loss of efficiency in production, will be effective in this direction. The "Hire Purchase Plan" as adopted in Burma, India, Indonesia and other countries in recent years may also be followed to popularise the appropriate techniques in various industries by suppyling on hire-purchase basis suitable equipment for the purpose.

40. *U. N. Industrialization and Productivity, Bulletin, No.* 1. p. 22.
41. *ECAFE Bulletin,* Dec. 1958. *op. cit.,* p.53.
42. *Economic Commission for Asia and the Far East, Anual Report,* 1957. pp. 54-55.
43. At present a number of institutions have been established in ECAFE countries to conduct a specialized research on technology of small industries. To facilitate exchange of technical information between these institutions ECAFE secretariat is reported to have recently compiled a directory of technological institutions, giving a summary of the research undertaken by each.

IV Choice of Location

1. *Local Pattern of Existing Industries*

The modern industries exhibit a strong tendency to converge at a few uncleus-centres. The agglomerative factors reinforce this tendency still more until the excess concentration raises its own problems of reallocation and readjustment. The social and economic consequences of industrial congestion have already called for state intervention in the matter of individual choice of location in many advanced countries. The spatial structure of a developing economy should, therefore, be shaped out, in advance, on the basis of a well thought out plan by providing an intelligent guidance to distribution of industrial activities between regions, so that the emerging pattern will be consistent not only with the geographical distribution of population and resources but also with the social and cultural values of life.

Such a measure in advance is more opportune and important for a country like Nepal where industrial development has yet to be given a definite course and more so, where a typical topographical conditions and an uneven distribution of resources are likely to encourage a lop-sided development, which if left to itself, may result eventually in an emergence of congestion and overgrowth in some places and persistence of backwardness and underdevelopment in the remaining part of the country.

Though Nepal is yet in a pre-industrial stage of development, the locational pattern of some of the early enterprises and the existing few ones is quite indicative of the trend towards convergence at some places when many more industries will come up in future. Out of 56 industrial enterprises incorporated in Nepal as joint stock public limited companies between 1936 and 1963, as many as 45 selected their location on a narrow strip of plain-land called the Terai, bordering on India all along the entire length of the country. The 11 enterprises that grew at Kathmandu were invariably small and of these, only three had their head-offices at Kathmandu. Even out of 45 enterprises of the Terai, 35 were concentrated in the Eastern Terai alone. At present, almost all the existing joint stock public limited companies engaged in industrial field are located in the Terai.

The same trend towards clustering at and around the Terai region is observed in the case of small scale industries as well. Out of 1686 industrial firms registered or licensed between 1944/45 and 1962/63, 71.8 per cent is concentrated in the Terai and the rest is scattered all over the country. The degree of concentration is more pronounced in the case of two major small scale industries, namely, rice, dal and oil mills and bidi manufacturing. Out of 1211 rice and oil mills, the Terai region

alone accounts for 94.7 per cent of them, whereas out of 153 bidi and tobacco firms, 86.9 per cent concentrated in the Terai.

It is, therefore, quite evident that almost all the important industrial activities of the country are concentrated in the Terai region, particularly in the Eastern Terai. Leaving Kathmandu valley, which has but a very minor share in the total industrial activities of the country, the entire hilly region accounting for about two-thirds of the total population does not have even today more than a handful of enterprises organised on modern lines and even the small power-driven rice and oil mills are few and far between in the region. Those who were reported as having engaged in manufacturing activities in the population census of the country might have, therefore, been working largely in cottage and village industries on their own account.

The present concentration of industries in the Terai is, as pointed out at the outset, merely indicative of the trend towards congestion in future. It should not cause any alarm at present, since the country is yet in a pre-industrial stage and the proportion of labour force engaged in manufacturing activities is yet insignificant and the role which industrial sector plays in different regions of the country is only marginal. It should be, however, clear that if the present trend towards clustering around the Terai is allowed to continue in future in the same proportion when the volume of industrial activities will be quite significant, the emerging spatial structure, which will be conspicuous by the congestion and overgrowth in some parts of the Terai and persisting backwardness in most parts of the hills, will create very vexing problems of social, economic and political consequences.

A close examination of locational factors reveals that transport facilities and raw materials supply are the two decisive factors in the locational pattern of the existing organized as well as some important small industries in Nepal. In those cases where raw materials were not locally available, transport facilities played all the more dominant role. Most of the major industries which are oriented to export markets were attracted to places nearer to Indian railheads. Even those industries, which had to depend on internal markets, also clustered at places having favourable transport links for the import of raw materials, equipment, and fuels, irrespective of the fact that their location elsewhere nearer to the markets would have been probably more advantageous. As most of the industries—small and big—are oriented to the agricultural raw materials and forest products, it is, of course, no wonder to find that the agriculturally most prosperous Terai region is preferred most.

Since labour situation is fairly uniform all over the country, it did not seem to have exerted any influence on the locational pattern dictated largely by the sources of raw materials and transport facilities. As power supply and other facilities are virtually lacking all over the country, their influence is also obviously negligible. Finally, as the early enterprises were pioneered and nurtured largely by the Indian financiers, they found the Terai region as a convenient place for all their activities. This subjective factor played an important role not only in the selection of sites but also in the selection of industries.

2. *Future Pattern of Location: Problems of Regional Development*

As industrialization has hardly begun in Nepal, there is naturally considerable scope for structuring, any desired pattern of industrial location in future. Regional disparity in levels of employment and income unwarranted by distribution of resources, on the one hand, and social hardships and economic wastes of specialization, and concentration, on the other, are all familiar consequences of unguided location and distribution of industrial activities motivated only by profit considerations. While shaping out the locational pattern for future, the first objective should, therefore, be one of securing, wherever feasible, a reasonable balance between employment and population. This prevents communities from being left stranded with insufficient employment in some regions and industries from being hampered by labour shortages and congestion in others. The locational pattern, which tends away from this norm, may eventually create problems either of a continuous redistribution of population according to the apparent needs of industries, or of continuous shifting of industries, particularly those having high labour coefficient, to places where employment is needed for the population. If neither of these is feasible and successful, unemployed population should either be allowed to starve or be subsidised to remain where it is. This last alternative may be ruled out for the reason that it is socially unreasonable and economically wasteful.

If it is assumed that migration takes place under economic pressure, it will first take away the best among the people who are most productive, enterprising and capable of adjusting themselves to the changed environment, leaving behind, therefore, only those who are not so able. This will naturally impair still more the earning capacity and reduce further the purchasing power of the people of the affected region. As the proportion of population diminishes, the social and other utility-services may also appear more and more superfluous. The combined

effect of the process will be that the region becomes less and less attractive to new industrial activities and its "locational leverage" thus becomes all the more feeble, so that more and more migration may ultimately be needed than what would appear at first. "It cannot, therefore, be assumed that migration under economic pressure from regions of dwindling opportunity will necessarily ever lead to greater opportunity for those left behind."[44] Wholesale evacuation from certain regions and overgrowth in others may eventually result in congestion with all its inherent evils. Such a process may also lead to exhaustion of resources in some regions and under-utilization of the same elsewhere. Perhaps the more significant and useful sense of the concept of locational balance is the minimization of the need for migration by a planned adjustment of employment to population distribution between regions.

This line of reasoning does not, however, rule out planned migration which becomes rather inevitable in certain cases. For instance, there may be certain regions whose geographical conditions and resources are such that there is hardly any chance of fostering new industrial activities sufficient to employ the population of these regions, unless they are subsidised perpetually. There may again be some regions the exploitation of whose rich resources might require greater proportion of labour force than regionally available. The regional balance should not, therefore, be considered exclusively in relation to given distribution of population alone. Often, population itself will have to be adjusted to occupational opportunity created by the natural conditions of resources or some other economic advantages.

Once an industry has been established at a place, it is rather unrealistic to assume that it will be shifted to another place merely for the reason that the latter needs employment opportunities for its unemployed labour. Unless the industry finds the alternative location more advantageous, the question of locational adjustment does not at all arise. Shifting of industry is not so simple as shifting of pawns on a chess board. It involves huge transfer costs, new installation charges and heavy additional costs for adjusting itself to the new environment. Forced location of industries at uneconomical places will discourage rather than encourage industrial development. Creation of minimum conditions and facilities in each region is the *sine qua non* of regional balance, for, in their absence, industries can neither grow nor spread over regions.

The second objective or norm of the future locational pattern is regional stability of employment and income. Its underlying significance is to minimize the risks of unemployment

44. *PEP Report on the location of Industry, London,* 1939, p. 198.

through excessive specialisation in one or two industries or through exhaustion of resources. It also aims to minimize the seasonal fluctuations in income and employment in various regions. This objective may be realized through diversification of industry in each region. Diversification of industry may provide opportunity for seasonal interchange of labour between occupations as industries in diverse fields reach their seasonal peaks at different times. Secondly excessive dependence on a particular industry may result in long-standing unemployment in case the industry collapses under adverse conditions such as total exhaustion of raw materials, slump in the market, secular change in the demand conditions, technical changes, etc. The greater the diversity of industry in a region, the greater is the insurance against total collapse of the economic life in the region, since all the industries are not likely to be affected at the same time unless there is a great depression. Morever, "diversified communities seem to provide favourable setting for the development of new industry and for the transference of displaced labour and capital into new types of enterprises."[45] Diversity also provides a better scope for the employment of diverse groups of labour force such as children, adults, females, trained and untrained hands.

Finally, the social and cultural values of life should not be marred by the pursuit of mere material gains. The growth of nucleus towns and excessive urbanization leading to an emergence of slums, diseases, accidents and deterioration of physical and mental health is the characteristic feature of unplanned industrialization in many countries. The evidence before the Barlow Commission showed a definite relation between smoky atmosphere and the growth of respiratory and allied diseases in congested towns. "If an estimate could be made of the total cost to society of the waste of time resulting from traffic congestion and of the damage to public health and loss of efficiency caused by overcrowding, smoke and noise, it would run into crores of rupees per year."[46] Concentration of industry has, no doubt, certain definite economic advantages, but against these advantages that might accrue to private individual entrepreneurs, should be set the social costs involved. Viewed in this way, industrial location would appear to be a matter of great social significance as well. In order to preserve the local amenities from destruction or deterioration by industrial development, the locational policy

45. Hoover, E. M. *Location of Economic Activity,* New York, 1948, p.288.

46. *Office of Economic Adviser, Government of India—The Location of Industry in India,* 1945, p.12.

should also aim to minimise the social costs and inconveniences by proper planning of towns, prevention of overcrowding, control of smoke and noise. This problem may, however, loom large in Nepal only at an advanced stage of industrial development. In the initial stages, the problem would be rather one of urbanizing the country which is almost entirely rural in character at present.

In order that the future pattern of location should tend towards these norms, the problem of industrial development should be approached from both the national and regional angles. The national policy may achieve the pre-determined volume of output and employment, but a regional balance as warranted by the distribution of resources and population, may not be well within the reach. Superimposed on the national plan and becoming part of it, there should be regional plan in each area and such regional plans "ought to function as correctives of the national plan wherever it results in differences of economic development not fully justified by differences in national resources."[47] Certain conflicts are bound to occur in this scheme of arrangement, but they have to be resolved and harmonised on wider considerations of national progress. Regional planning in essence is just the means of securing balance and stability of income and employment in each region through conscious direction and promotion of industrial activities in relation to regional distribution of resources and population. It thus avoids wastes and hardships that may result from unplanned growth of industries and ensures that the latent potentialities of each region are given their due consideration.

The regional plans can be worked out only on the basis of well determined regions and such plans can secure even distribution of income and employment between regions only when the regions themselves are fairly uniform with respect to economic resources and environmental conditions, though much may be changed in the course of development itself. The existing political division of Nepal into administrative districts is of little use for this purpose. The present political districts are very small for a workable economic plan and their economic resources and other conditions are most diverse and uneven. Most of the districts, which are within the Terai region, are rich in economic resources and stand, therefore, a better chance of securing relatively higher levels of income and employment, whereas a number of districts in the hills are so deficient in resources that there is practically very little chance of achieving a comparable level of income and employment, even if the levels of efforts are uniform in all the districts. If the regional plans are to be worked out on the basis of separate economic regions while maintaining the

47. R. Balakrishna, *Regional Planning in India*, Bangalore, 1948, p.73.

present political districts as they are, there would be lot of administrative difficulties and duplications which may hamper the smooth execution of the plans. From the administrative consideration alone, the present political districts are not considered to be expedient by the experts. The first pre-requisite for the regional planning is, therefore, a recasting of the present political districts into fairly large economic regions, each having as far as possible fairly uniform share of economic resources and other natural benefits. The recent division of the country into 14 Zones (Anchal) is indeed an appreciable step in this direction. The district administration should now be reorganised entirely on Zonal basis, so that implementation of regional plans may become administratively feasible and expeditious.

3. *Importance of State Regulations and Control of Location*

The delimitation of economic regions is just a beginning. The success of regional approach as an effective device for influencing the future locational pattern depends much on how the locational factors are given consideration in different regions under the plans. Transportation is one of them, having the most important regional importance. Alfred Weber[48] has given so much importance to transportation that according to him distribution of industry between regions is largely the resultant of two factors, namely, transport cost and labour cost, while all other factors are explained only in terms of agglomeration or deglomeration of industries within the regional distribution. Even labour cost is treated only as a deviating factor of an industry oriented according to minimum transport cost.

So long as source of raw materials, production centre and consumption point do not coincide, an industry has to incur transport costs in respect of both materials and markets. The relative attraction of materials and markets depends upon the nature of the materials. The localized materials being available only at certain places, exert greater influence on location, whereas ubiquities have but little influence on location. The degree of influence of localized materials on location depends, however, upon the nature of their transformation in the process of production. Some of them impart total weight to the product (pure materials) while others, only part of them (gross or weight losing materials). Whether an industry will be pulled to material-deposits or to places of consumption depends ultimately upon "the material index" which Weber defines as the "proportion of weight

48. A. Weber, *Theory of the Location of Industries*, Chicago, 1957

of localized material to weight of product". Thus, industries with a high material index are attracted towards the sources of materials. This simplified version of Weberian theory of minimum transport cost orientation of industries explains the importance of transport cost in locational choice.

Transport cost depends not only on the weight to be carried and the distance to be covered but also upon alternative modes of transportation, their differential rates for different materials, hauls etc. Given the resources and markets, the future pattern of industrial location in Nepal depends much upon the development of means of transportation and their rates in different regions. Expansion of transport facilities always have the centrifugal influence on the distribution of industries. In a mountainous country like Nepal, transport facilities influence not only the locational pattern but also the rate of industrial development in general. Regional approach will be of little use if this factor is not given due consideration in regional planning for structuring out the future locational pattern in the country.

The second important factor which can exert considerable influence on the distribution of industries between regions in Nepal is cheap supply of power. Since the underground sources of power such as coal, oil and gas are either non-existent or have not so far been discovered, hydro-electricity appears to be the only potential power in Nepal. Electricity unlike steam power has a great centrifugal influence on the location of industries. Some of the environmental drawbacks of certain regions may be offset by the cheap and readily accessible power supply. The factors which facilitate dispersion and decentralization of industries will definitely help the optimum distribution of industries between regions. Deviational policies lead to only minor spatial shifts, but for a regional shift in location, strong centrifugal forces have to be created in different regions, so that industrial activities become technically feasible.

Thirdly, though the volume of labour force is fairly proportionate to the volume of population and its distribution between various economic activities is also fairly uniform all over the country, yet the greater pressure on land in the Hills-region is quite indicative of the fact that these regions have relatively larger volume of labour force potentially available for alternative employment outside agriculture and this requires correspondingly more employment opportunities in industry. Insofar as the cost of labour has bearing on the absolute volume of potentially available labour force, the industries having higher labour coefficient would be attracted to the hilly regions. But such advantage of labour cost is likely to be more than offset by other

disadvantages, particularly the transport cost. Besides, labour cost is related to labour productivity which, in its turn, varies with labour efficiency. But lack of education, training and skill is obvious deficiency of labour force, besides poor nutrition affecting its physical fitness. Insofar as the problem of industrial development in Nepal is one of productive employment of the vast underemployed labour force in agriculture, means must be found to increase the general efficiency level of labour, which by itself, may be a great inducement for the growth of industries in different regions.

Much could also be done towards guiding the growth of industries along pre-determined courses by dissemination of information on growth-prospects of various regions in respect of different industries and on other relevant aspects. This measure is of paramount importance, particularly in a country like Nepal where paucity of information, even on simple economic facts, and inadequacy of experience on the part of the early entrepreneurs are likely to discourage developmental efforts and encourage fortuitous locations. Regular information and advisory services of this nature in an organised manner will relieve individual entrepreneurs of their laborious task of conducting much preliminary investigations and provide a wider scope for making choice between alternative locations more intelligently.

Besides these positive measures, which can influence and regulate individual choice of locations in general, there are a number of other special measures which may be adopted for encouraging location of certain industries at select places or regions. This includes financial measures such as grant of subsidies and loans, adjustment in tax rates and local levies, guarantee of loans, etc., and social measures such as provision of improved social services like health centres, schools, water supplies etc. More positively, as the Government have to play a prominent role of an entrepreneur in the process of industrial development in Nepal, the device of Trading Estates as adopted on a large scale for the development of special areas in the U.K.[49] may be a very effective method not only for the growth of industries in select regions but also for speeding up the rate of development in general. Heavy capital requirement for purchase of land, construction of buildings, installation of power plants, arrangement of other services such as transport and drainage and long delays and difficulties in selecting suitable sites, are all well known factors discouraging the enterprising individuals to launch new ventures. Trading Estates can considerably simplify the problems and reduce the difficulties by providing on rental basis factory sites, buildings, power, transport and other utility services to the tenant

49. *Cf. PEP Report on Location of Industry, op. cit.*, pp. 90-120.

undertaking more economically than what the individuals can get otherwise. If such Trading Estates could be sponsored either by the Government or with the Government help in select places where they are required for economic regions, their success would contribute not only to the development of select regions but also to the industrial development in general.

Unless the wholesale programme of industrialization is carried by the Government, the decision on locational choice over a wide range of industries will always be at the discretion of private individuals. While various positive measures like those discussed above will considerably influence their choice, yet the private individuals are free to make their own decision on the basis of their own judgement. It is held that the "individual choice has on the whole placed industry where the individual employer has found it economically most advantageous to place it."[50] The validity of this contention is, however, questionable. What is economic to the individual need not necessarily be so to the nation, else the problem of divergence between the private cost and social cost would not at all arise. Even assuming that the private individuals are credited with ability and actuated by their financial commitments to make judgements in the best possible manner, their locational choice may sometimes turn out to be fortuitous. This may happen either because their judgement is based on incomplete facts or because the dynamic nature of economic conditions upsets their calculations based on existing facts. In these respects, the Government may be more competent because it can anticipate more correctly the future changes as some of them will be more or less the outcome of its own policies and measures. There are, of course, certain factors such as natural phenomena, technical progress or international forces, which are not under the government control but can affect the conditions of industry quite considerably. Some sort of control measures including licensing and approval of sites would be necessary on permanent basis for aiding the private individuals in making a better choice of location.

50. *U. K. Board of Trade*, quoted by R. Balakrishna, *op. cit.*, p.289.

Chapter 9

ROLE OF GOVERNMENT AND FOREIGN INVESTMENT

1. *Economic Rationale of Government Role*

In the preceding chapter, it has been spelled out that a planned process of industrialization in Nepal is to be initiated with the rationalization of agriculture and creation of minimum quantum of social and economic over-heads which together will generate additional income and employment in the economy. This approach is based on the conviction that the low level of real income of the masses and non-existence of minimum overhead capital are the two major over-riding difficulties inhibiting economic growth or industrialization on a viable basis. But the implicit assumption underlying the whole analysis should now be clear. It has so far been taken for granted that the rising level of real income and creation of overhead capital by themselves will lead to an automatic process of industrial development in the country. This assumption shall hold good only when the investment opportunities created by increasing effective demand and overhead facilities will be taken up by private investment. It is, however, doubtful whether in a country like Nepal, such an induced investment will at all take place in an automatic way and on an expected scale for reasons to be discussed subsequently.

If increasing investment opportunities do not lead to a corresponding induced investment in the economy for reasons other than those of inadequate demand and over-head capital and the government-efforts, too, are confined strictly to the rationalization of agriculture and creation of overhead capital, it is quite probable that the economy may eventually degenerate itself to the original state of stagnation. The initial planning for the rationalization and creation of over-head capital is merely what Rosenstein-Rodan calls a "conception" of industrialization and the "infant industry" may not be born without a series of measures of "post-natal control."[1] Such measures include, among other things, the wide-ranging initiative and direct participation of the Government in industrial field and the provisions of indirect economic incentives for private investment—local as well as foreign —in industrial field. However, the intensity of such measures,

1. Paul N. Rosenstein-Rodan—*'How to Industrialise the Underdeveloped Area', The Economic Weekly,* Jan., 1960 p.182

depends upon the rate of development desired, the ability and willingness of private entrepreneurs to assume responsibilities and above all, upon resources at the disposal of the Government.

Since 1951 there has been a continuous wavering and change in the fundamentals of the industrial policy in Nepal, partly, due to frequent changes in Government and partly, due to inadequate understanding of the major factors underlying the economy. The public utilities, which were considered to be the exclusive monopoly of the Government in the First Five Year Plan, had been treated as semi-monopolies in the Industrial Policy of 1957, while in recent years the Government is thinking to convert into public corporation even some of the departmentally operated public utilities and the current Industrial Policy statement of the Government is silent on this point. However, it has been made clear that "In the establishment of basic industries, permission shall be given to run such industries only in the public or semi-public sector and industries relating to the defence shall be run only by His Majesty's Government."

What is notable is the fact that these policies are only a matter of theoretical interest in the sense that the Government actions hardly conformed to what these formal policies required. From the time of the Rana regime, defence industries, public utilities such as railways, communications, water and electricity supplies have been the exclusive monopoly of the Government. The Government have been holding from the time of the Rana regime debentures and ordinary shares of some enterprises. Airways were nationalised some years ago and one private enterprise is also now being managed by the Government. The private enterprise is still allowed to generate and supply power outside Kathmandu Valley. Recently, the Government has set up a cigarette factory and a sugar mill with the Russian aid. It is also thinking to put-up a brick and tile factory as well in the public sector. There is thus a glaring inconsistency between the formal policies and the actual practices. Such inconsistency occurs more often than not when the Government action is based on *ad hoc* decisions rather than guided by a well thought out policy. The scope and importance of public sector in a growing economy have yet to be considered in Nepal on some rational and objective basis as against an emotional or doctrinarian basis. It is here where the experience of neighbouring Asian countries passing through a similar process of industrialization may be drawn upon with great profit.

A cursory glance at the trends of industrial policies in Asian countries reveals that the scope of public enterprise has been considerably widened for a rapid economic transition, particularly after the World War II. However, the degree of such state

intervention regarded as necessary differed from country to country according to the rate of development desired and the readiness or otherwise, of the private entrepreneurs to assume responsibilities. Historically public ownership and management in these countries was limited to a few activities relating mainly to transport and communications, public utilities, arms and ammunition, irrigation and water works. During and after the World War II additional activities were undertaken by many Governments.

In Ceylon, where the Government participation in industry before the World War II was confined to a few activities like sail-transport, electric supply, and management of port-facilities, the Government built during or just before the war, a number of small and medium sized factories for the production of plywood, glass and ceramics, coir, acetic acid, quinine, rubber, steel rolling and lumber.[2] It was officially acknowledged that "in an underdeveloped country like Ceylon, the state must play an important part, in fact the more important part, in industrial development ...Certain basic industries such as power and heavy industries, for example, steel and cement, and industries which provide the necessities of life should be state-owned "and in case of non-basic industries" Government intends...to establish pilot factories and provide whatever help is necessary for private capital to increase the national wealth."[3] In the early days of independence, the Ceylonese Minister of Industries made it clear that "Government has acted as a pioneer in starting the factories. There is a *prima facie* assumption that the ventures were risky and private enterprise was, therefore, unwilling to embark on them. Otherwise there was no need for Government to start these factories. These factories are elements in a plan for industrializing the country... These factories are intended to create an industrial consciousness and an industrial environment providing all the stimulants to private endeavour in the field of industry."[4]

In Burma, too, war shortages and dislocation of trade and industry put the Government under obligation to take initiative in establishing even such industries as sugar, textiles, and tiles. Its initial development plans included state ownership of hydro-electric supply and production of paper, chemicals and iron and steel.[5] The Statement of Industrial Policy, 1948 of Pakistan states

2 *Economic Commission for Asia and The Far East Bulletin*, Vol.II, No. 3, 1952.

3. *U.N.—Foreign Investment Laws and Regulations of the Countries of Asia and the Far East*, New York p. 9.

4. T. E. Chester—*Public Enterprise in South-East Asia, The Political Quarterly*, Jan.-March, 1955.

5. *ECAFE Bulletin, op. cit.*

that "The Government might find it necessary, in the national interest, in the event of private capital not forthcoming in adequate measure for the development of any particular industry of national importance, to set up a limited number of standard units more as a means of attracting private enterprise than any other objective."[6] Accordingly, the Government of Pakistan have already sponsored through Pakistan Industrial Development Corporation a few jute, cotton, cement, paper and sugar mills.[7] In Thailand, distillery, sugar, mining, transport, water-works, paper, pharmaceuticals and power station at Bangkok were owned and operated by the Government even before the World War II. War difficulties in supplies induced the Government to establish several other industries such as tanneries, coir goods, spinning and weaving, and forest products. This tendency gained momentum after the war and the Government reorganised factories for gunny bags and promoted the formation of semi-private organizations for rice, rubber shipping and navigation.

Japan provides a classical example of state participation in industrial development. The rapid transition of Japan from a feudal era of isolation to a full-fledged industrial society would not have been possible if the state did not undertake the task of overcoming an almost complete lack of knowledge, skill, capital and entrepreneuship in the later half of the 19th and the early 20th centuries. The state started a number of industries in diverse fields and operated them until they could be safely transferred to private entrepreneurs; but in certain spheres, notably those of mining and heavy industries, it has retained important direct interest up to the present day. "Between 1870 and 1900, the Government started one industry after another and there is hardly a major industry in Japan to-day which was not initiated under Government ownership. There was, however, no intention of the permanent ownership; once the factory had become a going concern, the Government sold out, and turned its attention elsewhere."[8] It is rightly remarked that "In Japan...modern industrialization had the state for its God father, if not its progenitor..."[9]

India provides another stimulating example in recent times. In spite of the fact that in India the private sector had developed

6. *Foreign Investment Laws, op. cit., p.* 59.
7. M. Uzair — *Industrial Finance and State Initiative in Pakistan. The Indian Journal of Economics,* Vol.XXXVI, July 1955.
8. W. Arthur Lewis — *Report on Industrialization and the Gold Coast, Accra,* Gold Coast, 1953, p. 11.
9. G. E. Hubbard—*Eastern Industrialization and its Effect on the West,* London, 1938, p. 53.

comparatively on a larger scale than that in other South-Asian countries, the aspiration for a rapid rate of development required state intervention over a wide range of fields. All the qualifying clauses in the Industrial Policy Resolution of 1948 indicate nothing but the predilection for a progressive expansion of the public sector in the economy, which found its expression in the new Industrial Policy Resolution of 1956. It is rightly remarked that "Even if socialism were not the proclaimed aim of the Indian Republic, public enterprise in the Second Plan would probably loom just as large and basically, the extent of the Public Sector is determined not by the formal rules embodied in the Industrial Policy Statement of 1948, as amended by the more socialistic Industrial Policy Statement of 1956, but by the comparative lack of private capital and private initiative for the industry on which the Indian Government—rightly or wrongly—has chosen to concentrate during the current planning period."[10]

In recent years, the public sector in India is, therefore, growing fast, because the Government is building not only infrastructure, which is essential for creating conditions of rapid development in industry and agriculture, but also industries of basic and strategic importance, partly, because the private sector is either unable or unwilling to operate in these fields and partly, because these industries should be in the public sector so that the Government can influence the nature and speed of economic development in the country.

The experience of all the underdeveloped countries as illustrated above amply dmonstrates a steadily expanding participation and intervention of state in industrial sphere of the economy. It appears that the progressive expansion of the public sector is largely influenced by the broad socio-economic reasons and/or the exigencies of circumstances which these countries faced during and after the World War II. After the World War II when these countries attained independence, there devolved upon the new governments the rsponsibility of raising the living standards of the masses from the abysmal level of poverty. The experience of depression and war had made them painfully aware that diversification of their economic structure through rapid industrial development was imperative. But the overriding difficulties associated with shortage of capital, of technical skill, of industrial tradition, of organization and enterprise and above all, of inadequacy of infra-structure, made it necessary for the governments to come forward and break through the barriers of stagnation with various measures including direct participation in industrial activities. In all these countries the governments assumed

10. A. H. Hansen — *Public Enterprise and Economic Development*, London, 1959 pp. 174 & 176.

in varying degrees the task of building infra-structure and establishing basic and strategic industries and other manufacturing industries where private interest or ability was either lacking or inadequate to meet the needs of development. The industrial policy statements of these countries indicate that the government participation in non-basic industries was merely a temporary measure designed to fill up the vacuum created by the lack of initiative and entrepreneurial ability of private individuals. But the state ownership and operation of public utilities and basic industries were deemed essential, partly on ideology, but to a greater extent, on broad socio-economic considerations.

In Nepal, too, before the formulation of any policy relating to the scope of public enterprise, it is necessary that first, the basic socio-economic reasons should be clear; secondly, the desired rate and nature of industrial development should be borne in mind; thirdly, the over-riding difficulties inhibiting development should be fully ascertained, and finally, the interest and ability of the private entrepreneurs, should be rationally assessed. In other words, the scope and pattern of public enterprise should not be drawn arbitrarily on the basis of ideological considerations alone.

As already analysed, the Nepalese economy is conspicuous by the absence of any industrial tradition and enterprising spirit in the modern sense of the term. The masses brought up in the primitive agricultural economy are neither accustomed to, nor capable of, playing the role of industrial pioneers and entrepreneurs. It takes quite a long time for these masses even to adapt themselves to changes in socio-economic structure consequent upon initial industrial development in the country, while the groups of land owning aristocracy may even be hostile and resistant to change itself, since they can thrive more by batting upon the economic weakness of the poverty-stricken agrarian society. Theoretically it may be possible for these land-owning classes to play a dominant role in economic development and become the first beneficiaries by virtue of having adequate resources at their disposal. "But although this happened in Japan, it is not likely to happen elsewhere, for the outlook of the absentee land-owner usually unfits him for the role of entrepreneur, while his parasitism appears increasingly anomalous in a society which is stressing the virtues of economic effort."[11] At most, such social groups, in the initial stages, may be interested in short-term commercial operations and speculative activities rather than in long term industrial investment where risks are heavy and returns,

11. A. H. Hansen, *Ibid.*, p. 183.

uncertain. Actually there are the fields in which the so-called land-owning groups and other middle class people are showing their interest in Nepal at present.

There are, however, certain genuine economic reasons as well to justify their reluctance or disinterestedness in industrial ventures and long term investments. Even assuming that some of the basic elements of infra-structure such as transport and power are available, yet the age-old pre-industrial attitude, unfamiliarity with the modern industrial organization and production techniques, heavy risks on account of many uncertain factors and unreliable information on many economic variables, may militate against entrepreneurial activities. Moreover, in the initial stages the entrepreneurial function is a very complex affair which demands ability in diverse fields, ranging from investigational, promotional, financial and technical matters to managerial activities. Even in developed countries, these various functions are carried by separate and specialised groups. In an underdeveloped country, it would be too much to expect that an individual or a group can grapple with all these problems. Hansen has aptly remarked that the task of the initial entrepreneur in an underdeveloped country is like "venturing forth on an unchartered sea". Of course, these are the difficulties which might have been encountered by the pioneers of industrial revolution in England or elsewhere. But a country like Britain, which had assured international market and sufficient capital from commercial revolution, could afford to pay the price of numerous early failures as well.

It, therefore, appears that the problem of entrepreneurship is a very complex one. On the one hand, there is the shortage of entrepreneurial ability or aptitude, while, on the other, there are heavy odds discouraging the potential entrepreneurs. These two factors may, therefore, mutually reinforce and intensify the problem all the more. While economic development, experience and environmental change can alone minimise these difficulties, such change or development, in its turn, presupposes an emergence of pioneering and enterprising class. This is a vicious circle which demands state intervention and deliberate action as an entrepreneur to release the private initiative and enterprising spirit in the economy. However, what may be called "the entrepreneurial take-off" is not an easy job, since the state itself cannot perform miracles; yet the initial role of the Government as an entrepreneur, bearing teething troubles and initial risks, can contribute much to initiation of industrial activities in the country. History is full of evidences to attest this contention. The degree and extent of such government role differed according to the required speed of progress and in many cases the private

enterprise was able to take over after the critical period of varying lengths.[12]

The problem facing Nepal is still more complicated. The numerous failures of early industrial ventures have created a sort of aversion to industrial investment and damaged the confidence of potential investors in joint stock enterprises. Looking at the past history and the present state of affairs as a whole, one tends to be rather sceptical about the success of large industrial promotions, no matter how sound the propositions are, unless the Government itself comes forward and participates actively in early enterprises, which should create a sense of security of investment and fair return. Such action is very urgent in Nepal to over-come the difficulty in speeding up capital formation by restoring confidence of the people in long term industrial investment. Once the confidence is restored, various regulatory measures can control the misdirection and mismanagement of resources, when business is left largely or entirely in the hands of private enterprises.

Under these conditions the rationalization of agriculture and provision of basic elements of infra-structure may be considered only as an initial step towards the process of industrial development. Unless the Government is prepared to take further steps by its direct participation in some industrial undertakings, the overall progress may be either slow or the economy may revert to the original position of stagnation. Eventually, as private initiative and ability will be forthcoming, the Government can restrict its own activities to a few key points which might be considered essential for directing and influencing the pace and nature of overall development of the economy. After all, the private and public sectors are two integral parts of a single organism. The state is called upon only to play a critical role when the initial difficulties that beset the path of development appear insurmountable without its initiative and assistance.

In consideration of all these economic reasons against the background of other underdeveloped countries facing more or less a comparable situation either at present or sometime in the past, there is sufficient justification for a progressive expansion of public sector that can fully meet the requirements of the country for initiating the industrial development at a desired rate. It appears that the policy as visualised in the Five Year Plan is quite realistic and pragmatic so far as the role of public sector in the context of developing economy is concerned. As rightly claimed, "The question of public versus private enterprise is

12. Henry G. Aubrey — *The Role of State in Economic Development, American Economic Review* (Papers and Proceedings) 1951, p. 267.

approached from a practical rather than a theoretical or doctrinaire standpoint." One serious weakness in the Plan policy lies in its narrow connotation of "mixed enterprise", implying merely a co-existence of the public and private sectors as two separate entities, having no connection with each other. It should be extended to imply inter-sectoral combinations between the two sectors involving joint participation in capital and direction of an industrial enterprise. In the initial stages of development in a country like Nepal, this wider connotation of the term mixed enterprise, is more useful, insofar as it widens the area of joint efforts between the two sectors. Even in India, the concept of mixed enterprise in its broad connotation is gaining wide appreciation in recent times.

2. *Need for an Appropriate Machinery for the Purpose*

From the foregoing discussion it follows that first, the Government will have to assume responsibility of pioneering not only those industries that would remain permanently under state ownership and control but also those industries that would subsequently be transferred to private ownership or would remain as mixed enterprises. Secondly, it will also have to provide various incentives and facilities which can alleviate some of the initial difficulties facing private enterprises. In order that the Government can effectively play the role of an industrial pioneer, an entrepreneur, a technical adviser and a financier for stimulating private investment in the industrial field, a separate machinery suitably designed for the purpose is, indeed, necessary.

While in India and other countries, where industrial development has been getting into long strides, there are many financial intermediaries and specialised agencies to help the private entrepreneurs in their promotional works by underwriting of shares, directing of private investments, subscribing to shares and debentures. Such specialised institutions would grow only when the volume of business is sufficient to keep them busy all the while. They are part and parcel of the process of industrial development itself. But until industrial development reaches a certain stage, an automatic growth of such agencies cannot be expected. Secondly, not only the entrepreneurial ability is scarce but even the few potential entrepreneurs are handicapped by lack of information on many simple economic variables such as conditions of market, supply of funds, raw materials, skill, equipment and so on. Many investment opportunities, therefore, pass unnoticed. Once an enterprise is brought into existence the whole problem would not be solved. A smooth working of such enterprise requires readily available funds to tide over temporary financial stringencies. There is, in Nepal, neither capital market nor any organised money market worth the name.

A single commercial bank represented until 1956 the entire system of institutional financing in the country.

In India, Pakistan and some other countries, the Governments have instituted separate agencies to perform these functions. In India, for instance, the National Industrial Development Corporation (NIDC) is designed primarily for the promotion and establishment of new industries in both the public and private sectors. It is essentially a "gap-filler" arrangement in the industrial structure of India. It, however, undertakes financing of industries insofar as it is incidental to such development. But the Industrial Finance Corporation and State Finance Corporations are concerned exclusively with providing medium and long term credit to private industries, particularly in circumstances where accommodation from normal financial sources is inappropriate or recourse to the capital market is impracticable. Pakistan, too, has two separate agencies: Pakistan Industrial Development Corporation and Pakistan Industrial Finance Corporation; the former is a development agency and the latter a financing one. There are, however, a number of countries where a single agency combines the functions of pioneering new industries (Development Activities) with those of offering financial assistance such as loans or share-participation, to industries pioneered by private entrepreneurs (Financing Activities).[13] The Sumerbank and the Etibank of Turkey, Gold Coast Industrial Development Corporation, Industrial Credit Bank of Argentina, Agricultural and Industrial Credit Corporation of Ceylon, Indonesian Industrial Development Corporation and Iraq Industrial Bank are some of the instances of combined agencies.

The question of combination or seperation, depends essentially upon their relative advantages and disadvantages under particular conditions of a country concerned. The process of experimentation in this regard may often be unavoidable. "Sometimes...the body starts its life with both responsibilities. Sometimes it begins as a financial agency and develops operational responsibilities later. In many cases what is in theory a financial agency, operates, in fact as a development agency, insofar as it finds itself compelled or impelled to participate in the capitalisation and management of so-called private enterprise

13. According to A. H. Hansen, 'Development Activities include promotion and operation of new industries, whereas provision of capital (i.e., participation in equity capital) and other forms of financial assistance to privately owned underakings come under 'Financing Activities'. *The Report of the Second Working Party of the ECAFE on Mobilisation of Domestic Capital* includes participation in equity capital also as development activity. (*Public Enterprise and Economic Development, London,* 1959.)

to a much greater extent than was originally envisaged."[14] So far as Nepal is concerned, a single combined agency would appear to be more appropriate and desirable than having two separate agencies, at least in the initial stages of development.

The first problem in Nepal is one of developing new industries rather than one of financing the industries which are yet to be brought into existence. In such a situation, a separate financial agency would be superfluous—more so when the volume of work is as inadequate as it is at present in Nepal. However, as some existing industries are in need of long term financial assistance for their reorganization and the promotion of new industries on private initiative also require some agencies to underwrite the issue of their shares or to subscribe to their common stock and debentures for inspiring confidence of individual investors, the financing aspect cannot be relegated into the background. But combination is desirable on other grounds as well.

A financial agency requires more or less the same knowledge of an industry for its financing purposes as a development agency needs it for promoting the same. If the two agencies are combined, the same cadre of technical persons, who are so scarce in Nepal, can serve both the purposes. Such combination, therefore, avoids duplication of works and makes a more effective use of the scarce resources and talent of the country. In this sense, the development and finance functions are inseparable. Moreover, if a single agency is empowered to perform both the functions, it can decide for the best result, whether a particular industry is to be developed through its own promotion and operation, through its collaboration with private entrepreneurs or merely through its loans and advances to private enterprises. The overall considerations of this nature may probably be very profitable in the initial stages of development.

3. *Establishment of Nepal Industrial Development Corporation*

His Majesty's Government has already set up in 1959 a combined agency by the name of Nepal Industrial Development Corporation (NIDC) under NIDC Act, 1959. The basic objective of the Corporation, as stated in the preamble to the Act, is to encourage private enterprises by providing them financial and technical assistance. The Corporation is empowered to provide financial assistance (a) by granting loans to, subscribing to debentures and ordinary shares of private enterprises, (b) by underwriting the issue of shares, bonds and debentures by industrial enterprises and (c) by guaranteeing on terms and conditions

14. A. H. Hansen, *Ibid.*, p. 245

as may be mutually agreed upon the loans raised by the enterprises from commercial banks. The technical assistance of the Corporation includes the provision of industrial and commercial information including market survey and laboratory analysis of raw materials for private enterprises. The Corporation is also authorised to promote and operate new industries which, however, are to be sold out to private enterprisers as early as possible. The promotional activities are, therefore, limited more or less to those of a midwife for private enterprises.

The shares of the Corporation bearing only limited liability are open to public subscription, but at present the entire equity capital amounting to Rs. 10 million has been subscribed and fully paid-up by the Government. The Corporation is also authorised to issue bonds or raise loans according to the decision of its shareholders. It cannot, however, raise loans or accept aids, from foreign Governments, institutions and international agencies without the consent of the Government. It received in 1960 a loan of $400,000 from the Development Loan Fund of the U.S. Government and in 1961 another loan of Rs. 47,35,000 in Indian currency from the Export-Import Bank of Washington. The Nepal Rastra Bank has also advanced a short term credit of Rs. 10,00,000 to the Corporation in the fiscal year of 1962/63. Besides, the Corporation has facilities for extending short-term credits to private industries through Nepal Bank Limited to the extent of Rs. 30,00,000 under its guarantee. Negotiations are now in progress for substantial new lines of credit.[15] Over the period of past four years (1959/60-1962/63), the Corporation approved loans exceeding Rs. 24 million. However, the amount actually disbursed was in the order of about Rs. 8.425 million, accounting for only 35 per cent, in spite of the fact that the rate of disbursement rose in 1962/63 by more than 40 per cent over 1961/62.[16] It is reported that the early processing and completion of some loan applications were delayed partly due to non-availability of foreign exchange. In fact, some of the loan approvals were made on condition of future availability of funds. Since the loan applications received during the past two years were primarily for capital goods and equipment involving various

15. These include $ 1 million from the U.S. Agency for International Development, $ 1 million equivalent to Indian currency out of the U.S. Government PL 480 funds, DM 2 million from Kreditanstalt fur Wiederaufbau and £ 0.275 million from the British loan offer of 0.8 million to His Majesty's Government of Nepal (*Fourth Annual Report*, 1962/63, *NIDC*, Kathmandu, p. 9)

16. *Fourth Annual Report*, 1962/63, *op. cit.*, p. 3.

foreign currencies,[17] the urgent need of the Corporation to have additional resources in hard currencies is indeed very pressing and the efforts made in getting new lines of credit from different sources are appreciable. Since the Corporation is only four years old and its loans are usually for long periods, the amount that can be used for new loans from repayment of old loans will be small. In the fiscal year 1962/63, the amount received under principal repayment from short-term loans was only Rs. 0.78 million.

The Corporation has been engaged since its very inception largely in lending operations rather than in promotional activities. The amount of resources which have been used by it in advancing loans is about five times greater than that in equity-capital participation of new enterprises. It is, however, difficult to say whether the bulk of Corporation's loan assistance has gone to those enterprises which otherwise would have found it extremely difficult to raise funds. Among other things, it should be the basic policy of the Corporation to see that the borrowers have come for its assistance only after having exhausted all possibilities of borrowing from elsewhere. In fact, the high gearing of capital (i.e., the proportion of equity capital to total capital being small) is a notable feature of industrial finance in Nepal. While in India, the joint-stock companies finance not only their fixed capital but even part of their working capital from their own resources.[18] Jute, cotton and wood works industries, which together accounted for about 70 per cent of total investment in joint-stock public limited companies in Nepal in 1962, relied upon borrowed capital even for financing their fixed assets. At this stage, when the earning capacity of most of the existing industrial enterprises has not yet attained a fair degree of stability, it is not advisable to have such a high gearing of capital with undue burden of debentures and borrowed capital. Before a loan-application is approved, it is, therefore, necessary to examine the capital structure of the applicant-enterprise for ascertaining whether the possible efforts have already been made to augment its own internal resources either by having adequate equity-capital or by following a prudent policy of reinvesting its own profits. Finally, the distribution of loan also does not appear to have been based strictly on the order of priorities which a country like Nepal should have in its industrial development programme.

17. The composition of loan requests made up to July 16, 1963 reveals that out of Rs. 83 million requested, about Rs. 12 million was in the form of the U.S. Dollar, the U.K. Pound Sterling and the Japanese Yen.

18. Reserve Bank of India Bulletin, 1957 (Reprint), p. 14.

The Corporation can be operated probably more effectively in future if some changes could be made in its organizational and administrative matters. Apparently, it is a public corporation having most of the qualities which are often enumerated as the basic characteristics of a public corporation.[19] For instance, it is now wholly owned by the Government and created by a special Act defining its power, duties and immunities and prescribing the form of management. As a body corporate, it is a separate entity for all legal purposes and can, therefore, sue and be sued in courts of law, enter into contracts, acquire property in its own name and operate with its own fund. It is not subject to any budgetary, accounting and auditing procedures of the Government. Its employees are not civil servants and are recruited under its own terms and conditions.

One of the basic reasons for creating a separate organization outside the usual administrative machinery of the Government is to keep it away from the political influences of the executive and to ensure for it a sufficient autonomy in its day-to-day operation. The entire management of the Corporation is entrusted to a Board of Directors elected by the shareholders in their annual meeting. Since the Corporation is now wholly owned by the Government, the Government is entitled according to the provision of the Act to appoint all the Directors to the Board. Actually at present, the Board consists of the Minister for Industry and Commerce as Chairman, and other five nominated members of whom three are senior civil servants of the Government. Besides, the General Manager, who is responsible for the day-to-day working of the Corporation, is also a senior civil servant. Under such conditions, the Corporation may show even all the disadvantages of a departmental form of organization without having at the same time some of the best advantages of the departmental form like public accountability, for instance. The business autonomy which is legally guaranteed to the Corporation may, therefare, have very little sense in practice.

While the management is left entirely in the hands of civil servants of the Government, there is, however, no legal provision which authorises the Government to direct the Corporation in policy matters. Article 29 of the Act states that the Corporation shall work in accordance with the provisions of the Act and the industrial policy of the Government. This is too general and does not indicate in any way the authority of the Government to issue any instruction on major policies and decisions of the Corporation. This short-coming will be felt, especially when

19. U.N., *Some Problems in the Organization and Administration of Public Enterprises in the Industrial Field*, New York. 1954, p. 9.

the private interests and other financial institutions such as Nepal Bank and Rastra Bank, as permissible under the Act are also associated with the Corporation or when there is difference between the Government and the Board consisting of non-civil servants. Obviously this sort of difficulty will not arise so long as the management is controlled by the Minister or the Government nominated civil servants. But for ensuring real business autonomy and flexibility in the actual working of the Corporation purely on objective considerations, it is desirable to have in the Board of Directors persons from outside the civil service exclusively on the basis of their merits.

Moreover, the Corporation under the Act need not submit any reports and accounts to the legislature or Government as such. As in ordinary joint stock companies, the Corporation accounts will be audited by an authorised auditor and his report will be placed before the shareholders. The Government have control over the corporation finance and policy only to the extent that an ordinary shareholder has control over the finance and policy of his joint stock company. In a democratic country, where Constitution provides a representative form of government, such government-owned corporation or enterprise should be accountable to parliament and there is legal provision under which the executive, the parliament or the appropriate minister, is authorised to instruct the corporation in policy matters and the corporation must abide by such instructions. A public corporation is generally under legal obligation to submit annual reports to the legislature or to the executive. Such reports form the basis of discussion on the corporate affairs in parliament. In U.K., for instance, public corporations are accountable to Parliament through the minister on matters for which the minister is usually responsible and Parliament can appoint Select Committee to investigate into the affairs of the corporation and report to that effect.[20] In ECAFE countries there is a strong tendency to bring public corporations under close parliamentary scrutiny. In the case of Damodar Valley Corporation in India, the Board of Directors is required to submit an Annual Report to Parliament containing "true and faithful" account of not only income and expenditures, but also of how it has discharged functions entrusted to its care. In respect of questions of policy, the Corporation is required to abide by instructions of the Central Government and in case of differences, the Central Government's decisions hold good.[21] The Rangoon

20. *Some Problems in the Organization and Administration of Public Enterprises*, op. cit., p. 28.
21. P. Prasad — *Some Economic Problems of Public Enterprises in India*, Holland, 1957, p. 198.

seminar has stressed that "Means must exist by which public corporations may be held accountable for their acts to those who bear political responsibility, the Chief Executive, the Cabinet and the Legislature."[22]

The NIDC, as it operates to-day under the NIDC Act, therefore, needs some changes in both theory and practice so far as the questions of business autonomy, and public accountability and consistency with public policies are concerned. In brief, so long as the Corporation remains wholly under the Government ownership and its management, in the hands of civil servants nominated by the minister or the cabinet, its day-to-day administration may be run more or less on the lines of usual departments of the Government and since it is made legally a separate entity without having been made subject to any Government Department laws relating to budgeting, accounting and auditing procedures, it may encourage evasion of constitutional responsibilities which the Government-owned enterprises have, in a democratic society, to the Government and to Parliament or Legislature. For all these reasons, it appears to be the unanimous opinion of the Consultants at the Rangoon Seminar that "Where an enterprise is totally government-owned, it should be set-up in the form of public corporation or in some cases administered as a department of the Government".[23] But how can the operating and financial flexibility required for a successful conduct of a public corporation be reconciled with the need of controls to ensure public accountability and consistency with public policy? This is the question which could not be answered precisely even in the Rangoon Seminar and "The whole subject still occupies an area where controversies assume a polemical tone." Even in India, the working of the public corporation is not free from severe criticism.[24] In case of Nepal where this form of organisation is quite novel, the experiment might have in the beginning what Hansen calls, "Infantile disorders of the public corporation; yet it is worth trying, since the departmental form of organization has already proved inappropriate and

22. *Some Problems in the Organization and Administration of Public Enterprises, op. cit.* p. 11.

23. *Ibid.*, p. 17.

24. Speaking on the Government control over Damodar Valley Corporation, T. E. Chester, remarked that the *de facto* 'control exercised by Government has been so extensive as to make the legal independence a mere facade.' (*Public Enterprise in South East Asia*, The Political Quarterly, Jan-March, 1955). Similar opinions are found in the various reports of the Estimate Committees (P. Prasad, *op. cit.*, pp. 201-203).

inadequate for running the Government enterprises in industrial and commercial fields.

4. *Importance and Advantages of Private Foreign Investment*

One may rarely find any underdeveloped country which would not welcome private foreign investment at present. The underdeveloped country needs not only capital but also entrepreneurial, managerial and technical skills for its industrial development. The direct foreign investment usually brings with it the required technical knowledge, personnel, plant and equipment which are usually scarce in underdeveloped countries. Since such direct foreign investment involves the establishment of new enterprises as branch or subsidiary companies and pioneering of entirely new enterprises, it supplies its own entrepreneurship, which is rarely found in underdeveloped countries. The direct investment also helps in many cases to induce local investment, either in partnership with foreign capital or in local ancillery industries which the foreign enterprise brings indirectly into existence. If private foreign investments could be encouraged in Nepal some of the initial difficulties associated with shortage of skill, capital and entrepreneurship could be alleviated.

Prior to 1936 foreign industrial enterprise in Nepal was virtually non-existent. After 1936 when the economic policy of the Government underwent change for reasons already discussed elsewhere, a number of joint-stock companies were pioneered and managed by the Indian merchants in collaboration with local initiative and capital. Promotion and management of such enterprises were, however, based, on special agreements between the Government and the Indian entrepreneurs. Though these agreements, still in force, are not strictly uniform, the common feature is, however, to restrict the participation of the foreign capital up to 50 per cent of the equity and debenture capital. But the effective management of such enterprises is invariably in the hands of the foreigners, though the Board of Directors consists of the Nepalese and Indians in proportion to their share holdings. There is also the condition of compulsory employment of local persons. But no resctriction was imposed on remittances of profits or repatriation of capital. It is also provided that in case of nationalisation, compensation at the rate specified in the agreement would be paid.

It was the First Five Year Plan in which the new Government made it clear for the first time that the conditions for participation of foreign capital in the development of Nepalese economy "will safeguard the independence and integrity of the Nepalese economy, on the one hand, and on the other, will give adequate assurance to the investors that their legitimate interests

including a fair return upon their investments will be protected against any arbitrary Government actions." Subject to these qualifications, "foreign capital will be welcomed, especially in connection with large scale industries."[25]

A comprehensive policy was awaited until the Industrial Policy of 1957 was announced. It appears from its first Article that all industries other than those manufacturing arms, ammunition and explosives were open not only to domestic private enterprises but also to foreign private enterprises. Though nothing was specifically stated in regard to the employment of local people and participation of local capital and control, it was, however, mentioned that both the local and foreign enterprises were required to work on terms and conditions that would be mutually agreed upon between the Government and the enterprise concerned. Such agreements would also specify the terms under which the foreign investors would be allowed to repatriate their profits and capital. It was, however, made clear that "Foreign investment will not be subject to double taxation. If the Government imposes any tax, it will be at the maximum, impose only to the extent of the relief granted by the country of the investor; thus, in no case, the total tax will exceed the taxation level of the respective countries."[26] It was also fully assured that, while providing the Government facilities and concessions, no discrimination between the local and foreign enterprises would be made.

The present industrial policy of the Government has also invited foreign private investment and technical know-how and also provided security and facilities required to attract them.[27] The sphere of industries open to the foreign capital is, however, restricted virtually to what are called large-scale industries.[28] Nothing is stated as to the participation of local capital or employment of local people. The foreign investors are also entitled to remit up to 10 per cent of their investment in the form of profit but remittance above 10 per cent may be allowed "after considering the desirability, circumstances and adequate availability of foreign exchange." This means that the foreign investors are legitimately entitled to remit up to 10 per cent of their investments,

25. *Five Year Plan, op. cit.*, pp. 56-57.
26. *Industrial Policy of Nepal*, 1957, Ministry of Industry and Commerce.
27. As embodied in a talk over Radio Nepal on *"Industrial and Commercial Policy of His Majesty's Government* by Minister for Industry and Commerce on Sept. 25, 1962 and *Industrial Enterprises Act*, 1961 (*Nepal Gazette*, May, 28, 1961) and its two amendments (*Nepal Gazette* Nov. 16, 1961 and April 12, 1963).
28. Defined as one having capital investment of more than Rs. 500,000.

irrespective of the foreign exchange position of the country and it also implies the obligation of the Government to provide the required foreign exchange for the same. The provision for the repatriation of capital is also made similarly rigid. It is stated that the foreign industrialists shall be provided with foreign currency amounting to a maximum of 25 per cent of the capital invested by them in the industry for repatriation every year.

The Industrial Enterprises Act, 1961 has also guaranteed equality of treatment by providing that "There shall be no discrimination between foreign nationals or organizations and Nepalese nationals or organizations establishing industries within the Kingdom of Nepal." Thus the facilities which are permissible to the private industries under the Act, shall be available to all industrial enterprises irrespective of their ownership and management. These facilities include, among other things, exemption from income tax for a period of ten years on industries established after the enforcement of the Act and thereafter, the exemption may be granted wholly or partially, with or without any period specified, at the discretion of the Government.

The foregoing account clearly shows that the policy of the Government in recent years towards the private foreign investment in the country has been liberal in many ways but restrictive in some important respects. The restrictive part of the policy tends to indicate that the role of private foreign investment in the context of industrial development in Nepal is yet to be examined more objectively on the basis of peculiar circumstances of the country. In the first place it should be quite clear that if the foreign capital is considered as complementary to the domestic resources, there is probably no economic reason why it should not be allowed to enter into any field which is normally open to the domestic private capital, provided that the domestic capital in the field is either inadequate or not forthcoming and the required technical know-how is either insufficient or unavailable in the country. Given a desired rate of development, what appears to be more appropriate to an underdeveloped country like Nepal is not a rigid demarcation of fields where the foreign capital and enterprises are allowed to enter but a correct assessment of required resources, knowledge and entrepreneurship as against the available local resources and know-how in the country. Within a given framework of overall control and direction, there may be no harm, if the foreign capital and enterprises are permitted to function in any field, where the domestic resources and ability fall short of the requirements. The only consideration that should normally guide a decision on admission of foreign capital is that such capital should be complementary rather than competitive with the local resources and should be, at the same time, fitting

with the overall development programme of the country. All this amounts to saying that the Government policy in this regard should be sufficiently flexible, so that it can suit any conditions within the broad principle stated above. The policy of "scrutiny and judgement of each foreign enterprise on its own merits", as generally followed in India, may also be appropriate to the conditions of Nepal.

Secondly, the stringent conditions often imposed on the operation of foreign enterprises in most of the under-developed countries today are often the result of the past association of foreign capital and control with exploitation or domination of the national economy. The effective control and regulation of the foreign capital are usually sought through compulsory participation of local capital and control over management. In India, the Industrial Policy Resolution of 1948 stated that "As a rule, the major interest in ownership and effective control should always be in Indian hands; but power will be taken to deal with exceptional cases in a manner calculated to serve the national interest." This policy remained unaffected in the 1956 Resolution. The Ceylonese policy was also attuned in the same way. The Finance Minister of Ceylon made it clear that "The major interests in owner-ship and effective control of an undertaking should be in Ceylonese hands."[29] Pakistan's policy in this regard is more stringent and rigid. Such instances can be multiplied.

The figures[30] for the distribution of ordinary shares owned abroad as percentage of the total value of ordinary shares of joint enterprises in India (having private foreign capital combined with local capital), show that in 1948, while more than half of the value of the foreign assets was concentrated in companies with foreigners owning 60 to 99 per cent of the ordinary voting shares, the number of such companies accounted for only 30.2 per cent of the total joint companies. While more than half of such joint companies were dominated by the interests in India (foreigners holding 39 per cent or less of the total value of the ordinary shares), the value of foreign assets in such companies accounted for only 22 per cent of the total value of foreign assets. This position might be possible only when many small joint enterprises had much Indian capital participation and many big ones had much foreign capital participation. To the extent that value is the more important criterion, it is clear

29. *Foreign Investment Laws, op. cit.*, p. 56.

30. Daniel L. Spencer, *India, Mixed Enterprise and Western Business*, Hague, 1959, pp. 144-46. (Original figures used by Spencer are from *Census of India's Foreign Liabilities and Assets* published by the Reserve Bank of India).

that big joint enterprises in India were dominated by the foreign interests, leaving for the local interests to manage only small ones. This position was further intensified in 1955, when only 19.2 per cent of the joint enterprises accounting for 27.2 per cent of the total value of foreign assets, exhibited a tendency towards the balance of interests (foreigners holding between 40-59 per cent of the shares).

If the experience of India does mean anything of a possible pattern of the private foreign investments in underdeveloped countries, it tends to suggest that the foreign interests in a country like Nepal having relatively more discouraging investment climate may not like to associate with local capital or may insist on larger share in both ownership and control. This is very likely to happen when one takes into account that the foreign investors may be interested mostly in export industries which can be organised on large scale, since the narrow domestic market may not attract any substantial foreign investment in domestic market-oriented small industries. If the foreign capital is attracted or interested in such small enterprises, that will come probably in the form of branch companies or in similar other forms simply to avoid customs and enjoy other Government facilities and concessions.

While it should be the basic policy of the Government to encourage participation of local capital in the foreign enterprises, there is, however, no economic reason for imposing any rigid restriction on the foreign capital to associate compulsorily with local capital which is not available or forthcoming, particularly when the foreign capital is interested in such industries whose early growth is essential for rapid development. In Pakistan, for instance, the Government allowed 34 foreign companies to invite local capital between August, 1947 and June 1949; but no Pakistani capital associated with as many as 23 of those companies. Since the new industrial policy of Nepal is silent on this matter, it is advisable that the Government should make its position clear.

Secondly, the hard fact of the economy should not be overlooked. For a country like Nepal, the problem of attracting foreign capital and skill is no less important than that of local capital participation or local control. The country almost unknown to the outside world until 1951, has yet to convince the foreign investors that there are still many virgin fields and unexplored possibilities for profitable investment. If a foreign enterprise works in approved fields on terms and conditions laid down by the Government for mutual benefits and security and is also subject to all laws and regulations, there is no reason why

one should insist on local capital participation, when local capital is not readily available. In the initial stages of development in Nepal, the domestic private capital may be either inadequate or uninterested in industrial investment, while the private foreign investors may be unwilling to associate with their inexperienced local counterparts. In such a situation, it should be a deliberate policy of the Government to induce the private foreign capital and skill to associate with domestic public interests.

Such composite enterprises (private foreign interests combined with domestic public interests with or without domestic private interests) are gaining popularity in a number of underdeveloped countries of Asia and Latin America. The steel plant at Rourkela, which has now been taken over by the Government, was a composite enterprise in which the Government of India and two German private steel companies, Krupp and Demag, contributed to its share capital in the proportion of 41 : 1. Durgapur steel plant in West Bengal, though fully owned by the Government of India, was promoted with the technical assistance provided by a consortium of British steel making firms. The Machine Tools Factory of India was also established with 10 per cent capital cost contributed by Oerlikon Machine Tools Works, a private firm of Switzerland, in the form of know-how, technical personnel and equipment. The Sui Gas Transmission Company is an instance of composite enterprise from Pakistan. Its equity capital was contributed by Burmah Oil, Commonwealth Development Finance Corporation, Pakistan Government Industrial Development Corporation and private investors of Pakistan.[31] In Argentina, the Government entered into partnership with local interests and a U. S. Company, Henry J. Kaiser, to establish an automatic equipment factory[32].

This form of composite enterprise may provide precedents for developing channels of private foreign capital to flow into an underdeveloped country like Nepal, which is yet known but little to the outside world. Such combination may, probably be more agreeable to both the parties concerned. The foreign interests under such arrangements can reduce the risks of any discrimination that an entirely foreign enterprise might run and at the same time, can enjoy the benefits of having some local counterparts who are familiar with local conditions. The domestic public interests will also be amply rewarded by having additional capital, technical knowledge and skill and by retaining, at the same time, a reasonable control over the management. Moreover, in the case of Nepal where the Government will have to

31. Daniel L. Spencer, *Ibid*, p. 135.

32. U.N. *Processes and Problems of Industrialization, op. cit.*, p. 85.

assume the role of an entrepreneur either directly or through the Industrial Development Corporation over a wide range of fields, such form of arangement may be even more effective. In course of time, when the foreign investors will be acquainted with the local conditions and also feel secured of their interests, such composite enterprises may be converted into joint enterprises by transferring domestic public ownership to domestic private interests.

A serious indictment that may be levied against the foreign capitalists is not that they are unwilling to welcome local participation in capital, but they are reluctant to train up local people in the secrets of their craft. The more useful contribution that a foreign enterprise can make to an underdeveloped country like Nepal is not the physical capital addition as such, but the new techniques and know-how which it brings in. Business management is one such technique which needs actual practice to understand its essence. As W. A. Lewis says, "Science and technology are taught in schools and the local people can learn them in their own or foreign universities, but craft of business management can, however, be learnt only in managing business." If the foreign enterprises are not prepared to receive the local people for other than manual and clerical works, there will be very little chance for a country to be benefited by such enterprises in respect of its most critical need, namely, the managerial experience and skill. The exclusion of local hands will only perpetuate the foreign domination at the critical levels of business enterprises. It is for fear of such domination the colonial countries, soon after they become independent, pass legislation to compel foreign enterprises to open up managerial positions to the local people. Even England had taken such measures. "When foreigners brought new trades to England in the sixteenth and seventeenth centuries, the patents of monopoly which they were granted usually included the condition that the foreigner must train a number of Englishmen in his craft within a stipulated period."[33] Neither the Industrial Policy of 1957, nor of the present one has made any provision for compulsory association of the local hands with foreign enterprises in Nepal. However, an independent development of home industries on a viable basis in future needs training in large number of the local hands in business organization and management and one of the more effective and less expensive way of doing this is to make provision for such training within industry, preferably within the private foreign enterprises. Such provision

33. W. A. Lewis, *Report on Industrialization and the Gold Coast*, Accra, 1953, p. 9.

should be strictly enforced, else it would remain merely on paper as is happening for the last two decades in the case of one or two joint enterprises in the country.

Finally, a word of caution about the rigid policy of the Government towards remittance facilities. The capital importing countries generally impose certain conditions on remittance of profits and capital by the foreign investors in order to adjust foreign exchange resources, restrict capital flight and encourage reinvestment of profits. It is obvious that if remittance facilities are not readily available, no foreigner would like to invest his capital in other countries. The capital importing countries, therefore, never miss to assure the foreign investors of such facilities. But very few countries commit themselves to any rigid guarantee of such facilities without any consideration of their foreign exchange resources. While elucidating the Industrial Policy Resolution of 1948, the Indian Prime Minister, in his statement in Parliament in 1949, made it clear that "Government have no intention to place any restrictions on the withdrawal of foreign capital investments, but remittance facilities would naturally depend on foreign exchange considerations." The Government of Pakistan Supplementary Statement of Industrial Policy (1948) also reiterated the same thing. But the present industrial policy of Nepal explicitly guarantees remittance of profit up to 10 per cent of the investment and repatriation of capital up to 25 per cent of total investment. Such guarantee is important evidence of goodwill, but in the event of foreign exchange shortage, even the best goodwill might have to give way to shortage of foreign exchange. For a country like Nepal at this stage of development, such commitment appears to be inadvisable. It will be possible for the Government to live up to its words only when either the foreign enterprise for which the remittance facility is required, can by itself, earn suitable foreign exchange amounting to not less than 10 per cent of its investment or the foreign country to which the profits are to be remitted, provides, as and when demanded, the required amounts of its currency for such purposes or guarantees the convertibility of local currency profits into its currency to the extent necessary for the purpose. No country, even the U.S., has shown any enthusiasm for such arrangements. In the early stages of development when, as pointed out elsewhere, the balance of payments position will be unfavourable in all probability, foreign exchange reserves from normal sources would be inadequate. Inconvertibility of local currency or foreign exchange shortage might be one of the strong reasons for the foreign investors to invest in Nepal only in those export industries which would earn at least minimum foreign exchange required for their profit-remittances.

Having said all about the private foreign investment in Nepal, yet one may be sceptical about the prospect of any substantial inflow of such investment into the country over a wide range of fields, at least in the early years of industrial development, when there is critical need for such external capital and skill to supplement the domestically available talent and resources. The factors, which are likely to discourage the private foreign investment, in spite of all legal provisions in its favour, are the present low level of economic development and typically narrow domestic market, coupled with political instability and frequent changes in Government in the recent past. The foreign investors, apprehensive by nature, may feel that these environmental disadvantages can heavily offset even all other advantages on their side. Motivated as they are usually by economic considerations, they may be attracted, at the most, only to those fields where local resources could be easily exploited with high rate of returns sufficient to compensate for all other risks. But such readily lucrative and highly promising fields are limited and may not even entirely be open to them. Thus in the early years, heavy efforts on the domestic front, however hard they may be, should constitute the main strategy of industrial development and keynote of the Government policy.

INDEX

M

N

O

P

R

S

T