

**A STUDY ON INCOME TAX CONTRIBUTION TO
GOVERNMENT REVENUE IN NEPAL**

A THESIS

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CHAPTER - I

INTRODUCTION

1.1 Background of the Study

Income tax may be understood very easily if we first define the term “income”. Income is, generally regarded, as the best measure of the ability in the sense of economic well- being, for income is the primary determinant of level of living, which a family enjoys.

In development countries (DCs), the most important feature of the tax policy has been the rise of the personal income tax to a significant proportion in the revenue structure. The income tax was introduced to finance the war in most of these countries. But it remained in place after the war, primary as relatively modest tax on higher incomes and latter becomes a mass- tax during or soon after the Second World War. Since then, the personal income tax revenue has a trend of unparalleled increase in real and especially in nominal terms (Aryal and Paudel, 2004:25).

The problem, which is the greatest universal concern at present, is ‘development’. Development economics is a distinct yet very important extension of both traditional economics and political economy. Development simply implies the maximization of the welfare of the society and efficient allocation of resources. History reveals that the development of the industrialized countries concentrated their attention on economic growth. By the same token, the economic model at post wartime followed by underdeveloped countries (UDCs) was also growth dominated. But paying attention simply on growth of the economy led to the increment in the gap between haves and have-nots with the failure of “trickle down effect”. So, in 1960s, the concept of sustainable development was dominant and still, it is the main concern of economists, ecologist and sociologists, reflecting the increasing concern about environment.

After great depression of 1930's the function of government has been increased considerably for the economic development of an economy physical and economic infrastructure are essential. The World Bank emphasizes the need to broaden the forms of policy beyond increasing the quantity of infrastructure facilities to improve the quality and efficiency of infrastructure services. Due to the presences of externalities, long gestation period and low returns, automatic functioning of the market does not lead to the economic efficiency in the case of infrastructure which justifies government's intervention

Instruments of government to intervene the public economy are revenue and expenditure polices. These two aspects of the fiscal policy are guided by different philosophy. On the one hand, available budget margin is a hypothetical construct than determines the size of the permissible increase in government expenditure. In contrast to budgetary philosophy in most countries, it is the hypothetical growth of revenue at the trend level of output and not the actual anticipated growth of revenue that guides expenditure planning in a given period (Aryal and Paudel, 2004:42).

The principal components of fiscal policy to mobilize public resources have been government tax polices. The relation between taxation and economic development has long been a matter of concern to policy makers.

The source of government to revenue is a conditional source. Duty and fees, penalty, fines and forfeitures, receipt from scale and rent of government property and services, dividends, interests, royalty and sales of government property, principal repayment, donation and miscellaneous income etc are the sources of non tax revenue. Income tax, sales tax, custom duties, hotel tax, revenue from land registration etc are the sources of the tax revenue. Of them, tax revenue is major sources off the internal revenue as well as the macroeconomic fiscal instrument of the government.

A tax is a compulsory contribution to government made without reference to a particular benefit received by the taxpayer. It is a personal obligation to pay tax and there is no direct relationship among tax, benefit and taxpayers. The primary purpose of taxation is to direct control of economic resources from the payers to the state for its own use or transfer to others. Bringing about economic growth, elasticity in the tax structure, control of inflationary and reduction of inequality are the main objectives of a tax policy. For underdeveloped countries to achieve economic growth and equality at the same time is rarely possible task. The imperative of economic growth still overshadows other objectives in these countries (Aryal and Paudel, 2004:57).

Taxes are broadly classified into two groups:

- a. Direct tax
- b. Indirect tax.

a. Direct tax:

It is a personal tax. If the impact and incidence of tax is borne by the some person to whom the tax is legally imposed and there is no possibility of shifting then it is called direct tax. Examples include income tax; profit tax, property tax, expenditure tax, gift tax, interest tax, death tax, contract tax, vehicle tax etc.

b. Indirect tax:

It is a commodity tax. If any tax is legally imposed for one person but the incidence of the tax is borne by another person through backward and forward shifting process, then it is called indirect tax. Value added tax, entertainment tax, passenger tax, hotel tax, export and import duties, excise duty etc are some of the indirect taxes.

Concept of income tax:

Income tax may be understood very easily if we first define the term 'income tax'. Income is generally regarded as the best measure of ability the sense of economic well-being, for income is the primary determine of the level of living, which a family.

In a broad sense, income refers to the economic gain to a particular person during a particular period of time. It includes the person's consumption during a particular period of time as well as the same period.

Henry Simons defines income tax as the sum of two items, saying "income, as economic gains received by the person during the particular period" of

- I. Personal consumption during the period
- II. Net increase in individual personal wealth during the period.

Symbolically,

$$Y = C + W$$

Where, $Y =$ Income

$C =$ Value of consumption

$W =$ Change in wealth

Therefore, according to above definition income is the sum of consumption and change in wealth during the period. Income tax can consist of three broad items:

- a. The total amount of income received from one person less the expenses directly incurred in gaining this amount.
- b. The value of goods enjoyed by person which are owned by him such as the use value of home owned, hence produced goods such as vegetables, and
- c. The increase in the value of assets held during the period.

Generally, income tax is imposed on net income. Net income comes after deducting the cost of production from gross income. In practice the expense incurred in earning the income and appropriate exemptions are deducted to find out taxable income. Net income may be real income or money income. Real income is more comprehensive and includes not only money income but also other incidental advantages. Real income should, therefore, be the true index of ability to pay. So income tax should be charged on real net income of an individual and not on his net money income (Agrawal, 1980:104).

1.2 Statement of the Problem

Nepal is one of the least developed and agro-based countries. The agricultural sector provides employment to nearly about 91% of total population. The output per head in the agricultural sector is very low in comparison to that of developed countries. Thus, the role of taxation has increased as the government has promised to provide the infrastructure for the development process and to provide the social services to the poor people, whose volume is dominant in country's demographic structure.

Agriculture sector, which contributes 39% of GDP (WDR 2006), is still free from the income taxation. About 31.5% of the populations are below the absolute poverty line. Thus in the course of the fulfilling the development objectives, increase in government expenditure, has outpaced the growth in revenue collection. Nepal is thus facing a problem of scarcity of resources for development activities. Few rich capture major economic sources and they are under-taxed either because of tax evidence or evasion and most of the poor people suffer from commodity tax. There are some inherent problems in the Nepalese tax structure. They are:

A. Increasing the resource gap in each year:

Nepal is facing a serious and growing resource gap since first budget speech 1951/52. In the first budget, regular expenditure was 42 million and there was no development expenditure. A total of 30.35 million was collected as revenue

and the government did not take any foreign loan and grant in that year. Thus resource gap was 11.5 million.

The balance of payments is not favorable. In every year import of goods is higher than export of goods. It has also been commonly known that the gap between expenditure and revenue that is called “resource gap” is increasing in each year.

Therefore, the resource gap has been a serious bottleneck in process of economic development of developing countries like Nepal. Therefore, to raise government revenue it is necessary to raise its sources of revenue.

B. Dominant role of indirect tax:

In the modern era, taxation has been taken as the most effective tool for rising national revenue. The government by mobilizing adequate resources through taxation might invest them in various development programmes. In this way, in the UDCs the government might play an important role in promoting capital formation.

Most of the developing countries, the governments collect $\frac{3}{4}$ of the tax revenue from indirect taxes because of the several reasons such as administrative difficulty, lower level of public awareness about paying taxation, easiness of collection. But direct taxes are more progressive and justifiable on the ground of equity. The indirect tax creates extra burden to the people, especially for poor people by raising prices of commodity. It does not create public consciousness and it has little role to reduce income inequality. But, Nepalese tax structure is severely dominated by the indirect taxes. However its relative contribution is declining which is a positive development.

Therefore, this study has focused on income tax contribution of government revenue in Nepal. It also tries to solve the following research problems:

- What is the structure of revenue collection of income tax?

- What will the ratio of income tax revenue to GDP, total revenue and direct tax revenue?
- What is the composition and trend of income tax revenue in Nepal?

1.3 Objectives of the Study

The main objective of the study is to analyze the income tax contribution on government in Nepal. The specific objectives of the study are as follows:

- i. To analyze the structure of revenue collection of income tax in Nepal,
- ii. To examine the ratio of income tax revenue to GDP, total revenue and direct tax revenue,
- iii. To access the exemption limit of income tax in Nepal,
- iv. To make suggestion and recommendation for the improvement in income tax system in Nepal.

1.4 Importance of the Study

Income tax is one of the major potential sources for mobilizing a large amount of financial resources in Nepal. But income tax evasion decreases the government's revenue collection, which blocks the economic development of Nepal. Hence, the impact of income taxation for the utilization of resources of Nepal has been chosen as a relevant topic for the present study.

This study also concerned with appropriate suggestions for the estimation and correction of income tax evasion. This study would be helpful to the economists, planners, tax officers, tax administrators and government; so that income tax evasion can be controlled and sufficient resources could be mobilized from taxation.

1.5 Limitations of the Study

This study has the following limitations:

- i. Trend and data have been analyzed from 1997/98 to 2006/07.

- ii. The study has analysed only those data which are available.
- iii. The data are collected and analyzed which are provided by Inland Revenue Department (IRD) and Ministry of Finance (MOF).
- iv. Data, information and findings were based on primary and secondary data.
- v. Tax planning and tax evasion were taken into consideration in this study.

1.6 Organization of the Study

This study has been organized into five chapters, the title of each chapters are as follows:

Chapter-I: Introduction

Chapter-II: Review of literature

Chapter-III: Research methodology

Chapter-IV: Presentation and analysis of data

Chapter-V: Summary, conclusion and recommendation.

Chapter-I: Introduction

The first chapter is introduction which includes background of the study, statement of the problems, objectives of the study, importance of the study and limitation of the study along with chapter plan.

Chapter-II: Review of literature

The second chapter is review of literature is done to know what research had been done in the related topic in previous days and what is to be done at present or in future. In this chapter which gives the theoretical concept and review of related materials I.e. review of books, review of thesis, review of journals, newspapers, magazine etc.

Chapter-III: Research methodology

This chapter includes introducing research design, data collection, nature and source of data, data gathering procedure and statistical tools etc.

Chapter-IV: Presentation and analysis of data

Presentation and analysis of data have been made in the fourth chapter. The data collected from various years annual report of Inland Revenue Department, economy survey etc. have been tabulated in their sequential order and data have been described, analyzed and projected with statistical tool as well as general accounting and taxation principle.

Chapter-V: Summary, conclusion and recommendations

This chapter is the general idea of the study and it represents all the opinions of the research as far as possible. Summary, conclusion and recommendations are mentioned in the last chapter of the study.

Lastly, essential Bibliography and Appendices have been presented at the end of the study.

CHAPTER-II

REVIEW OF LITERATURE

2.1 Theoretical Concept

The history of taxation dates back to antiquity. In early days taxes were not collected in monetary terms but were collected by tribal rules, community heads etc. for communal services and at time of emergencies.

In Hindu tax system, tax was levied on the basis of welfare of the people and people were eager to pay tax because not to pay tax was taken as a great sin. According to Hindu's Holy Scripture and Vedas, the duty of king was to serve and secure people, maintain peace and carry out social works. In order to perform all those activities, the king used to collect crops and cattle from farmers: gold, silver, copper from traders. These ancient forms of taxation were expanded from time to time under the influence of various economic, political and ethical forces.

In developed countries (DCs), the most important feature of the tax policy has been the rise of the personal income tax to a significant proportion in the revenue structure. The income tax was introduced to finance the war in most of these countries. But it remained in place after the war, primary as a relatively modest tax on higher incomes and latter became a mass-tax during or soon after the second world war, since then, the personal income tax revenue has a trend of unparalleled increase in real and especially in nominal terms.

In Nepal the history of income tax is not so long. It started only on late fifties. The personal income tax was introduced as a trial in the business profit and the remuneration income of the government employees. The first elected government levied the first income tax and no specific act was made to define and to treat the income tax. The first income tax act was made only on 1962

since then three income tax acts has been implemented and the new income tax act is going to be passed in the next year. The present Income Tax Act defines, “Income means the income earned or derived in cash or kind from sources mentioned in section 5” (Income Tax Act, section 2:1). The different heads of income according to section 5 are as follows:

- a. Agriculture
- b. Industries, business, profession or vocation
- c. Remuneration
- d. House and Land rent
- e. Other sources.

Now let us define the term “income tax”. Income tax, as the word itself, refers to a tax on income. In a broad sense, income tax is a levy based upon the production or receipts or gain of the taxpayers within a define period of time (Encyclopedia Americana, 1966:749).

From the very beginning, income tax has been always regarded as a tax based on the canon of ability. The tax could be adjusted as to exempt the lowest income groups from the operation of the tax and make the richer groups bear the burden of the tax according to their income. A part from such considerations as revenue productivity, income tax has been regarded as the ideal tax from the point of view of equity (Andley, 1964:213)

Tax economists have a view that an income tax is a levy imposed upon the incomes of an individual after the exemption limit. Only the taxable income is subject to tax, otherwise the objectives and principles of taxation will not be fulfilled.

Different countries have different concepts on income tax. In Great Britain, the original concept of tax was that of a levy on recurrent income and the tax was applied to five schedules. In U.S.A., as a matter of practice, recurrence is not relevant to the tax status. In India, the personal income tax is levied on the net

income of all individuals, Hindu undivided family, unregistered firms and other associations of persons (Chhellich, 1959:111).

In Nepal, Income tax is defined as the tax levied on the net income derived after deduction all allowable deductions. Income tax is levied on the incomes derived from business, agriculture, remuneration professions, insurance, investments, agencies, and other sources derived in cash or kind (Singh, 1977:160). Tax on house rent was a part income tax before 1966 in Nepal but after that it was separated from this heading.

Although real income is a better basis of measuring ability, yet there are a large number of practical difficulties in finding out the real income of an individual. Therefore, tax authorities make money income basis of taxation and include in the taxable income, the monetary value of other incidental advantages, which the assesses might have gotten. Since it is a tax on the net income, so the capital, which has investment in the business or industry, is not included in taxable income.

Income tax may be regular or irregular. By irregular income it is meant that income which is of the nature of non-recurring or occasional profit and is not the source of likelihood. Chance gains are generally considered as the irregular incomes. These tend to increase the ability to pay of each individual. Therefore they should be subjected to tax. But in Nepal they are treated at par with regular incomes. The same tare of income tax is applied for the regular as well as irregular income.

2.1.1 Income tax in the international contest:

Great Britain was the first country in the world that introduced modern income tax in 1799 in order to collect revenue to finance Napoleonic War with France. Great Britain was adopted global principle of income tax system when it introduced income tax at first. In U.S.A. the first federal income tax was imposed in 1862 to finance civil war. The federal corporation income tax was

introduced in 1909. In India, modern income tax was adopted in 1860 and the systemic income tax legislation was enacted in 1886. In Nepal income tax was introduced in 1959.

2.1.2 Taxation in ancient Nepal:

In ancient Nepal, taxes were levied in the form of kind, cash and labour services. Special portions of agricultural produce were payable to the king as tax. There also existed tax payable in gold. Fixed taxes were levied in the villages. Compulsory manual work from all artisans and laborers were also a common way of paying taxes.

In the Lichhavi period the main source of revenue was tax. At that time taxes were known as “Trikar” which means three kinds of taxes. The three kinds of taxes were Bhaga, Bhoga and Kara. The Bhaga tax was levied on agriculture, the Bhoga tax was on animals and the Kara tax on business income. Irrigation tax and religious monuments preservation tax also existed at the time king Ansubarma of Nepal. Fixed portions of agricultural product were payable to the king as tax. Compulsory labour work from all artisans and laborers were also common way of paying taxes.

2.1.3 Taxation in unified Nepal (1768-1846)

During the Period 1768-1846, the following unified period, land tenure system was divided into five main forms: Raikar, Birta, Guthi, Sera and Kipat. The major sources of revenue were: Birta and Kipat taxes land; Royal palace levies like Darsan Bhet, Salami, Local levies in forests and water source: commercial taxes like customs, transit and market mines and mints; export of forest products like wild life, herbs, drugs, wax, birds, elephants and judicial fines. Maximization of revenue was the prime objective of the fiscal policy during the period. Taxes were collected at three levels:

- a. Royal Palace levies: to finance occasional and ceremonial and ceremonial needs. The taxes were broad based and progressive.
- b. Government levies: to finance administrative, military and other purposes assessed on official functionaries, occupational groups and other people.
- c. Local levies: Perquisites of local officials, functionaries and medicates (Mallik, 2003:15).

Collection of customs, transit, market, and excise duties was given on contracts. In some parts of Terai, taxes were collected at specific rates on jewellery, textiles, falcons, horses, elephants, homespun cloth, yarn, blankets, borax, wax copper, iron, paper, tobacco, herbs, drugs, cotton, salt, musk, sheep and goat, yak's tail etc are levying duties on timber exports derived revenue from forests,

The various taxes levied during that period were narrow in base and were imposed primarily on occupations and economic activities, not on income or property. "Walak" was collected from each family on a regular basis and in periods of national celebration or festivals or ceremonial occasion. "Gadimubarak" was collected to finance for coronation ceremony of a King. "Chuman and Giddhawa" was collected of finance the sacred thread investiture and marriage ceremonies of royal princes and princesses. "Godan" was levied to finance funeral expenses when a reigning King died. The system of direct taxation was confined to land tax and special levies like "Darshan-Bhet", "Salami" etc. Darshan-Bhet was collected from both civil and military employees at the time of their appointment and confirmation and Salami was collected from local revenue collection functionaries in the Tarai region as an annual payment. There was no taxation of income in the modern sense of income tax.

Taxes were imposed primarily on occupations and economic activities not on property. Tax base was very narrow. The Birta owner class had much influential role in political and administration. However, pota tax introduced by Prithivi Narayan Shah in 1772 was regarded as revolutionary measure in

Nepal's fiscal system. It was not based on progressive tax principal. It was limited on small Birta owners and privileged of the members of the nobility person did not pay Pota. Only common people who lived on Raikar lands paid the homestead taxes and other Pota levies. There was no taxation of income in the modern sense of income.

2.1.4 Taxation in Rana Regime in Nepal (1847-1951)

Imposition and collection of taxes during the 104 year oligarchic rule of the Rana family in Nepal prior to 1951 was the prerogative of the feudal rulers. Only those taxes, which suited the objectives, needs, and whims of the then ruling, prime minister, were imposed. There was no any hard and fast rule relation to taxation. However, the main aim of the rules was to earn as much as transparent. No budget was over framed at that time. There was no different between the income of the state and the income of the prime Minister.

The major sources of revenue in Nepal till 1951 were land tax, custom and excise duties in the form of lump contracts, royalties on felling of trees, royalty on supply of porters and soldiers, entertainment tax and a few other minor taxes. There was no direct tax in the country except land tax collected on a contractual basic and "Salami" which the government employees used to pay out of their salaries at a very small percentage. The Salami was abolished in 1951. The Rana rules did not think of developing an effective revenue administration system.

2.1.5 Income Tax in Modern Nepal:

Income tax in Nepal was first introduced in the fiscal year 1959-60. It was known as "Business Profit and Remuneration Tax". The imposition of the tax was later governed by the Business Profits and Remuneration Tax Act 1960 (2017) and the rules made there under. The main features of the act were as follows:

- a. The source of income for tax purpose was limited only to business profit and remuneration and thus, the coverage of income tax too narrow.
- b. Tax on remuneration was to be deducted at source but the specified deduction was not provided.
- c. Salary of any diplomatic representative, foreign citizen, dividend of shareholder, profits to be spend on religious or public welfare activity, profits of local autonomous organization, allowances granted by government to Ministers, Assistant Ministers, speakers, deputy speakers, chairman, government chief whip and leaders of opposition, crop form own land, money drawn form provident or saving fund were exempted from tax.
- d. The basis for calculation the tax liability for remuneration was the income of the current year whereas for business profits, it was the profit of the preceding fiscal year.
- e. There was a provision on official assessment based on best judgment estimation in case of false statement or in absence of income tax return.
- f. In case of defaults the fines ranged form Rs.500 to Rs.5000 and for informants, there was a provision of 20% of total tax realized if the information has been proven.
- g. The taxpayer had a right to appeal against the tax officer's assessment to the local "Bada Hakim" or "Magistrate". If he was not satisfied with the decision, he could appeal to the "revenue and Tax court" after depositing fixed amount.

After the independence of the country in 1951, the role of government has changed. Since then government was enforced to operate development activities, besides governing the regular functions of maintenance of the law and order and collection of revenue (Bhatta, 1981:3)

Profits from industries were granted a rebate of 25% and profits from small industries were granted a rebate of 50%. In the beginning, the government servants were the main taxpayers. The taxation laws were not enforced effectively (Agrawal, 1980:44).

Income Tax Act 1974 (2031)

The Income Tax Act 1974 was amended in 1977, in 1979, in 1980 and in 1984. It had 66 sections. Its basic framework had been derived from the Income Tax Act 1962. Some of the salient features of this Act, as amended, are as follows:

- a. It had clarified certain definitions specially relation to tax, tax payer, taxable income, gross income, net income, personal status of the taxpayers and non resident taxpayers, assessment of tax, philanthropic work, non-resident etc.
- b. Source of income were classified into five categories:
 - I. Agriculture,
 - II. Industry, trade, profession or occupation,
 - III. Remuneration,
 - IV. House rent and compound rents and
 - V. Others
- c. This Act had made provision for self- assessment of tax for the first time and if any mistake arose or lower tax was assessed, tax officer might make final assessment.
- d. There was additional provision of exemption form income tax than the format act as follows:
 - I. Income of Guthi,
 - II. Income of Village Development Committee / Municipalities
 - III. Compensation for life insurance of after the expiry of the life of the insurance policy.

- e. The punishment provisions were specified in different headings viz, failure to submit particulars of income, false particular's not maintaining the accounts, obstructions and others.
- f. The taxpayers had to register their industry, business, profession or vocation in tax office before starting the work.
- g. Carry forward of loss was allowed for subsequent three years.
- h. The process of assessment, reassessment, and advance payment of tax, deduction of tax at source and refund of tax had been specified.
- i. The government of Nepal might form an Income Assessment Committee consisting five members by publishing notice in the Nepal Rajpatra.
- j. The punishment limit to persons for violation laws and regulations was up to Rs.10,000.

Income Tax Act 2002 (2058)

Income Tax Act 2058 is implemented from 2058/12/19 B.S. This act replaces the Income Tax Act 2031, and other acts related to income tax. There are various additional provisions in the new Act:

- a. Income Tax Act 2031 had classified income tax into five groups whereas this act divides only into four groups are as follows:
 - I. Individual income tax
 - II. Corporate income tax
 - III. Interest tax and
 - IV. House and land tax.
- b. When Income Tax Act 2031 was in practice, there were several exemptions and deductions provided by the Act and other related acts. But now, there are no more exemptions and deductions except the ones provided for by the Act.
- c. Subject to this new Act, income is defined as “a person’s income from any employment, business or in accordance with this act”. It includes all

kind of income received for the provision for labour or capital or both in whatever form or nature in taxable income.

- d. The act has given the option for husband and wife as a separate nature individual until they do not accept as a couple.
- e. A resident person may claim a foreign tax credit for any income year for any foreign income tax paid by the person to the extent to which it is paid with respect to the person's assessable income for that year.
- f. There is a provision of functional division of work among tax officers. The division is to be made under the direction of government and Director General.
- g. This Act has guaranteed the rights and secrecy of taxpayers through the act and strict punishments for not maintaining the secrecy are provided.
- h. The penalties are divided into two parts. The tax officer can levy only finance and interest and the court can levy penalties and imprisonment.
- i. This Act has determined the rate of income tax itself for the first time, which used to be determined by the Finance Acts in the previous years.
- j. For the purpose of calculation a person's income from any business or investment, there are provisions of deduction related to overhead costs.
- k. The government allowances to widows, elder citizens or disabled individuals; gift; bequest; inheritance; scholarship; income of foreign officials, government bodies and non profit organizations have been exempted for the income tax net. Amounts of a person privileged under bilateral or multilateral treaty, an agricultural income, and income of co-operative societies based on agricultural products and dividend of such society etc. also exempted from income tax.
- l. A person has been defined as a resident whose place of abode is in Nepal and who presents in Nepal at any time or who presents Nepal for 183 days or more within the income year, who is an employee of government posted abroad during the income year.

- m. Under this Act, resident individuals and domestic companies are taxed on their worldwide income while non-resident individuals and offering companies are taxed only on their income sourced in Nepal.
- n. The income of an approved retirement fund is free from tax. But retirement payments in the hands of employees are taxable.
- o. According to this Act a company is liable to tax separately for its shareholders. The dividends, loans and advances to directors and shareholders, distribution made on liquidation etc. are also brought under the tax net in order to plug loopholes for avoidance.
- p. Capital gains are taxed explicitly under this Act after four decades of the introduction of income tax. In case of business capital gains, gains on the disposition of business property are taxed as an ordinary income and in case of non-business capital gains; only the gains from the casual sales of real property (land and building) and securities are subject to capital gains tax at a flat rate of 10 percent. There is also a clear provision for adjusting net loss during the fiscal year.
- q. The Act is based on global income tax principle and has brought all source of income into the net and has treated in an equal manner. This Act has abandoned the intermixed system of deduction and expenses are taken into account on a global manner not on a line by line basis.
- r. The act has adopted a pooled system of depreciation in which assets are broadly classified into five categories. The depreciation rates are 5%, 25%, 20% and 15% for class A, B, C and D respectively which is based on diminishing balance method of depreciation and for class E, the rate is based on straight line method.
- s. The Act has introduced the concept of medical tax credit under which resident individuals may claim a medical credit of 15% of the amount of approved medical costs.
- t. This Act focuses on the self-assessment system and every assessment is treated as a self –assessment. The tax officers can determine only the amended tax assessment within four years. The jeopardy assessment is

essential when a person becomes bankrupt, is wound-up or goes into liquidation; a person is about to leave Nepal forever or to close down activity in any Department or in Nepal. There is time limit in the case of jeopardy assessment.

- u. Presumptive tax is limited to the small taxpayers whose annual net income is up to Rs. 100,000 or annual turnover is up to Rs. 1 million and are subject to flat annual taxes.
- v. This Act has introduced the concept of administrative review to correct the administrative mistakes. The Inland Revenue Department should give its decision within 90 days of the submission of objection and if the department does not give its decision within the given time limit, the taxpayers can appeal to the Revenue Tribunal.
- w. According to this Act, the inland Revenue Department is responsible for the implementation and administration of this Act.

2.1.6 Nature of Income Tax:

Income tax is a personal tax imposed on the net incomes of individuals and corporations. By this method of taxation, such as in accord with the tax paying ability of the individual may be called for by blending various personal deductions with the progressive rates although not completely natural, it possesses a number of economic advantages. It is widely accepted that an income base represents the most appropriate single measure of taxable capacity. If appropriately constructed, it ensures equal taxation of persons with equal ability and increasing taxation of persons with higher income.

Where special encouragement or discouragements are desired, preferential or penalty income tax provisions are convenient and effective. The built in flexibility of this tax helps reduce cyclical fluctuations in employment and production. It encompasses a large and elastic revenue yield potential (Goode, 1964)

2.1.7 Income Tax in the Nepalese Contest:

More and more financial resources are needed to meet the increasing expenditure for growing development and regular activities; Emphasis has been given to the fulfillment of financial needs from internal resources specially the taxes. But it does not mean that there are no other sources to meet such needs. Because of some reasons, the tax revenue is emphasized. The objective of revenue collection is not only to finance growing expenditure, but achieve other goals also like: social justice, balance regional development and distributive motives etc. For this purpose, the direct tax basically income tax is assumed as a best weapon. Income tax also considers the 'ability to pay'. Hence, income tax is pushed up as the effective instrument for development, stability and equality in the developing countries.

People in developing nations tend to have greater propensity to evade taxes. This is so because the probability of being caught and the consequences of it are not very serious. Rich people resort to avoidance of taxes by recourse to legal loopholes and by making advantage of administrative deficiencies. Self-employed sector is more prone to evasion and avoidance. In Nepal, the evasion of income tax seems to be pronounced especially by people which enjoy better economic positions. Indeed, the income tax potential is much higher than that realize presently.

In Nepal, however, the coverage of this tax has remained very low. Taxpaying habit is undeveloped and there is general lack of tax consciousness in the people. There is no proper climate of voluntary compliance by the taxpayers. Tax authorities have been ineffective in enforcement. There are no integrated programmes for taxpayer's education, assistance guidance and counseling. Tax officers are looked upon as havens for inefficiency, delays, unfair dealings, and harassment and nonprofessional personnel.

The major problem in taxation is “who bears the tax”. Traditionally has been advocated that the incidence of an indirect tax is largely shift forward and that of a direct tax is on those on whom it is levied. The process of the transfer of tax is known as “shifting” of the tax, while settlement of the burden on the ultimate taxpayer is known as “incidence”. The incidence of the tax is generally measured by the reduction in real income that results from the imposition of that tax. This incidence of tax has far reaching implications for distributions of income and wealth.

2.1.8 Tax Evasion:

Tax evasion refers to the reduction or elimination of tax liability through means contrary to law. It means fraudulent, illegal, and deliberate acts of taxpayers culminating in the violation if the civil or criminal provisions of the tax laws. It implies maneuvers involving an element of concealment deceit, misrepresentation of facts, falsification of accounts, and downright fraud resulting from conscious efforts of the taxpayers to evade payment of tax legally due. Tax evasion is illegal.

The United Nation has defined, “Evasion is a term which is frequently used to describe deliberate not-compliance with the tax laws, by such means as failure to notify the tax administration of taxable assets or income activities giving rise to taxable income etc. or failure to pay tax legally due, or the use of fraud to conceal the existence of taxable income etc or to obtain allowances or repayment of tax” (United Nations 1984:11).

Methods of Tax Evasion:

The important methods used in evasion of taxes may be as follows:

1. Concealment of source of income.
2. Concealment income within a source of income (understatement of income)
3. Misrepresentation of facts and information.

4. Falsification of accounts and records (rigging of invoices, fictitious payments, payment of bills twice, etc.).
5. Incorrect claim for allowances and deductions.
6. Profit shifting, cost shifting or price transfer
7. Artificial contracts, (for commission, etc.)
8. Over and under invoicing
9. Overstatement of expenses
10. Fraudulent transactions
11. Fictitious transactions.
12. Non-reporting of income earned from illegal activities like smuggling, corrupt business practices, etc.
13. Maintenance of multiple sets of books of accounts and submitting the manipulated set for taxation purposes.
14. Deliberate failure to maintain accounts and records and get the assessment done on a “committee” or “best judgment” basis, etc. (Agrawal, 1980:124)

Reasons for Tax Evasion:

According to Govinda Ram Agrawal, the main reasons for widespread evasion of income tax in Nepal can be listed as follows:

1. Corruption by tax officials:
2. Widespread illegal business activities
3. Reluctance of taxpayers to maintain accounts
4. higher marginal rates of taxes
5. ineffective use of fines and penalties
6. Inadequate auditing and investigation
7. Difficulties in locating taxpayers
8. Lack of support from public
9. Poor development of corporate sector
10. Poor development of corporate sector

11. Unnecessary interference by influential persons
12. unlimited convertibility of Indian currency
13. Prevalence of scheduler taxes on income.

Income Tax Evasion in Nepal:

Income tax plays an important role for the economic development of a country. It can achieve the objective of growth, equity and stability. It checks the inequality between high and low-income people. It helps government in the movement of resources from the private to public sector.

Income tax can only achieve the above goals if its evasion is controlled. Income tax evasion has been paralyzed all over the world, whether it is developed or underdeveloped countries. But the people of the underdeveloped countries have high practice to evade taxes as compared to avoidance. The people in underdeveloped countries do not have greater propensity to avoid taxes as compared to advanced countries. It is only the actual evasion of taxes, which is larger in developed countries because the probability of being caught and the consequences of it are not the same in advanced countries (Tripathy, 1968:183).

Income tax evasion is in very high degree in undeveloped countries because no men keep their account of income and expenditure. If it is compulsory by law at that situation they keep two or more sets of accounts of a business operation. They use one for their internal purpose and other for the tax department. In this regard Mr. Tripathy mentions, “in the underdeveloped countries many business man keep no books at all and other maintain two or more sets to evade taxation”.

There is a large amount of income tax evasion in Nepal, which is in an unpredictable scale. According to Mr. C.L. shrestha, “in Nepal also the trend of income tax evasion is huge but the percentage of income tax actually evaded has not been calculated”. By the observation of different opinions of the

respondents Mr. Agrawal, concluded that “there is widespread evasion in income tax in Nepal, especially due to poor tax paying habit, administrative difficulties and defective laws. The evasion of income tax is more pronounced especially by the people of high-income business class.

According to Mr. Tripathy, “income tax law should be simplified so that assessment collection and tax compliance may be made easier and the administrative cost may also be reduced. This will also help in reducing the element avoidance and evasion”(Tripathy, 1968:188). He has given above suggestions to control income tax evasion.

So this study tries to find out the impact of income tax evasion on government revenue and those aspects which could attempt in minimizing income tax evasion in long run.

2.2 Review of Related Studies

2.2.1 Review of Research Reports & Articles

Govinda Ram Agrawal (1978) had conducted a research entitled, "Resource Mobilization for Development: The Reform of Income Tax in Nepal". The main objective of his study were to examine the problem of growing resource gap in Nepalese finance in the contest of the role of income tax, to examine the buoyancy and elasticity of income tax in Nepal including projection of income tax, to examine the ways and means for increasing tax consciousness in Nepalese people etc. He concluded that mobilization of additional resources from domestic sources to finance rising expenditure is the better options to fulfill resource gap. Domestic resource can be mobilized either through tax or through non-tax measures. Taxation contributes more than 80% of total government revenue in Nepal. He had recommended mobilizing additional domestic resources through taxation, tax structure should be redesigned in order to increase the role of direct tax, and income tax should be reformed in Nepal.

Rup Bajadur Khadka (1994) had describe the scenario of Nepalese tax system from origin of income tax, adoption of quasi-global or a limited scheduler system, segregation of corporate income tax from individual income tax, increasing dependence on the presumptive basis, basic allowance and progressive rate structure, move from joint taxation to individual taxation and shift from itemized to flat system of standard expenses, experiment with an advance tax on impacts and the existing structure, commodity taxes and poverty taxes. He had evaluated the Nepalese tax system base on conventional, theoretical concepts and suggested various measures for its improvement. He had also explains the whole Nepalese taxation system and structure for its reform.

Govinda Bahadur Thapa (2000) has described the various causes of poor resource mobilization in Nepal. The agricultural income which contributed about 40% income of GDP being tax free, about 50% of total population being below the poverty line, tax holiday for new industries, lack of political commitment were the major causes which he concerned in his writing. He identified that one of the main problems of revenue mobilization was the narrow base and decreasing tax rates. He suggested improving the whole economic situation and the political commitment to mobilize resource efficiently. Otherwise any tax reform measures would be worthless.

Revenue Consultation Committee's (2001) report had studied the overall taxation situation in depth. This report suggested to widen the income tax base by including all kinds of taxpayers and income and to find out the taxpayers of new sector. For this, the report suggested to make the Act more transparent and clear in order to attract foreign and domestic investors. This report recommended for written communication between taxpayers and tax administration rather than the informal relation. This report suggested to implement account based VAT more effectively. For small taxpayers having up to Rs. 2 million, tax collection should be based on sell and purchase description of their. For income taxation, self assessment was fully recommended. This

report suggested bringing all potential taxpayers into the tax net to widen the tax coverage including agriculture, electricity and other sectors. To increase voluntary compliance this report highly emphasized to simplify the tax policy. Income tax exemption limit was suggested to increase taking into consideration of purchasing power and inflation. The report also certified Rs. 55000. for individual and Rs. 75000 for couple and family as exemption limit. The report gave suggestion for government to expand the Permanent Account Number (PAN) outside the valley and reduce the land and house registration rate and to rationalize Tax Deduction at Source (TDS).

Bidhyadhar Mallik (2003) had written about the development of existing income tax and need and important of income tax system in Nepal. This new provision made by Income Tax Act, 2058 about tax base, computation of income, tax exempt amount, deduction allowable, accounting of tax, capital gain, retirement saving and tax, dividend tax, capital gain, international taxation and tax auditing have been clarified precisely in his book. Similarly, he had explained about tax administration, documentation, information collection payment of tax, installment tax, income statements, tax-assessment, tax collection, review and appeal, fees and interest, fine and penalties, tax rates and determination of provision of depreciation.

Damber Bahadur Pant (2004) had written an article entitled, "Problems in Tax Administration and their Remedies" published in Journal of Finance and development (Rajaswa). He had comprehensively explained about the problems and their remedies related with tax revenue. The major types of practical problems and challenges in tax administration, he had mentioned in his article were: showing limited amount of transaction, showing low selling price, lack of issuing and taking bills, lack of showing the real factory cost, commercial fraud, lack of co-operation in tax auditing, legal ambiguity and complexity in implementation and lack of co-ordination between IRD and Revenue Investigation Unit. He had recommended that statistical and information system should be properly managed, fixed norms and standards

should be used to assess selling price and factory cost, the billing system should be made compulsory, co-ordination between IRD with various entities of Nepal Government, Revenue Investigation Department and its related units should play the important role and auditing of tax should be widened.

K.P.Aryal and S.P. Paudel (2004) had explained about the income tax system in along with house and land tax and VAT. The book has been designed based on the curriculum of B.B.S. It has been divided into three parts. In the first part of the book: introduction and development of income tax, capital and revenue nature expenses and income items, entity and retirement saving, dividend tax, computation of income from business remuneration and investment have been explained with numerical and theoretical examples. House and land tax and CAT have been explained in the second and third part respectively. The book also included proper bibliography and adequate appendix where various income tax, house and land rent and Vat related forms, schedules and format had been described.

2.2.2 Review of Thesis

Ram Bahadur Thapa (1993) found in his study that the fiscal deficit from 1980/81 to 1990/91 increased by 7.66 times more. He identified that the failure to locate new taxpayers, non-maintaining proper records and defective personnel management were the main problem of income tax administration. According to his study, the tax administration was unable to enhance the taxpayer's compliance because of the complicated and procedure, delay in tax

assessment, and rough behave of our tax personnel and so on. He recommended six months time for assessment and favored self-assessment.

Hari Bahadur Shrestha (1994) gave emphasis to find the historical development and the role of income tax structure of tax. He noticed the weakness of income tax regime to reduce the gap between rich and poor. He suggested taxing on the income of agriculture and capital gain from higher

class. He found that Nepalese tax payers had positive attitude towards 10% of total house and rent deduction for repair in his study. He suggested for Management by Objective (MBO) technique to motivate the government personnel and for salary increment based on inflation.

Krishna Kumar Shakya (1995) has concentrated his study mainly on the contribution of direct tax and indirect tax and on causes of government inefficiency in income tax administration. He found the income tax to GDP, total revenue (TR), and direct tax revenue (DTR) was in increasing trend. He suggested for programme oriented fiscal policy and recommended that VAT be a major source of indirect tax in liberalized economy. For small taxpayers, he suggested for door-to-door services.

Shiva Narayan Shahu (1995) had found that only 0.35% of total population came under the categories of taxpayers during his study period. He also showed the contribution of income tax in the total tax revenue and total revenue was 9.95% and 7.94% respectively. Income tax had been gradually increasing except for 1990/91 and 1991/92 during his study period and income tax was in the fourth place in the tax structure. The individual taxpayers had higher contribution than the wage earners.

Puspa Kandel (2002) had criticized the Income Tax Act 2001 on several grounds. Exemption of agricultural income from income tax, export duties levied on export, inequality between different capital earned income (i.e. tax on interest, dividend and capital gain), and withdrawal of the provision of exemption suddenly and no adjustment for inflation are the major issues he raised in his article. He also said the tax regime creates more tax burden than the former one. He further criticized the Act for the provision of income tax from export as 0.5% of total export because it is not a good choice of income tax base.

Satyandra Timilsina (2001) had concentrated his study mainly on the analysis of exemption and deduction of income acts of Nepal. In his study he recommended to increase the exemption limit for an individual to a minimum of Rs 90000 and from family exemption based on the number of dependent children and parents. He further recommended levying income tax on agriculture, capital gains and other source to raise tax base He emphasized on higher contribution of corporate income tax compared to the individual income tax.

Rajendra Dulal (2004) found that the share of tax revenue of the TR was about 76 percent while that of NTR was about 24 Percent in 2002/03 which has been a major source of revenue mobilization. Out of the TR, the share of the indirect tax is 2/3 of the total tax while that of DT is nearly 1/3 only. Among the indirect taxes, custom and VAT are the two major sources while income tax is one of the major sources for DT. He also found that due to some problems like narrow coverage, unscientific tax assessment, deviation from the basic principle of income taxation, long time lag, defective system for the perspective of international taxation, weak tax administration etc. tax revenue collection has not been implemented to the optimum level.

Bharat Kumar Lamsal (2005) had mainly focused on the removing and controlling income tax evasion for better resource mobilization. As his main objective was to analyze the impact of income tax evasion in government revenue of Nepal, he set further objectives which were; to identify the ways and causes of income tax evasion, to estimate the volume and tendency of income tax evasion in small trade sectors and to examine the role of income tax utilizing the resources in Nepal.

He had conducted that research following analytical as well as descriptive research design. Most of the data were from secondary sources and some were form primary sources. Primary data were collected through opinion survey,

field visit and interviews. Simple statistical analysis such as average and percentage were used as for data analyzing, tools; graphs charts and tables were used to interpret visually the finding of the research.

Jayanti Paudel (2006) had found that within the direct tax, income tax was the largest source, which contributed more than 88% in 1999/00. The contribution of income tax to direct tax has increased significantly since its introduction. In terms of the composition of income tax, the share of corporate income tax was 59.8% and that of individual income tax was 31.2% in 1999/00. She had hope that the coverage of income tax would be widened after the implementation of Income Tax Act 2001.

She had added that the Nepalese tax administration has been attempting to modify itself to meet the pressing challenge brought about by change in technology and economic polices. However, still its wording is traditional and the cost of administration has not been brought to the satisfactory level.

All research studies mentioned above are concerned with study of structure of tax, role of income tax in economic development, laws, provisions, administration aspect. Most of them have indicated the inefficiency of tax administration, tax evasion. But, the researcher has not found the study done income tax contribution on government revenue in future. Or, what will contribution of income tax on government revenue in future? So, answer of above question has been taken analytically and intensively with income tax contribution on government revenue of IRD in Nepal. This study will be fruitful to those interested persons, students, teachers, scholars, Government and businessmen for academically as well as policy perspectives.

CHAPTER-III

RESEARCH METHODOLOGY

This study was undertaken to analyze the income tax evasion practice in Nepal. The main concentration of the study was on the sources, causes and methods of income tax evasion. The structural analysis of government revenue, income tax and estimation of income tax evasion were incorporated in this study. To achieve these objectives a research methodology has been designed in this study. This research methodology contained research design, nature and sources of data and procedure of data analysis.

3.1 Research Design

Most of the data and information of the study were concerned with past phenomena of the performance either they were numerical or opinions. So it can be regarded as historical research design too. After the collection of past data and experiences, this study analyzed and described its own procedure. Thus this study also followed an analytical as well as descriptive research design.

3.2 Nature and Sources of Data

In order to achieve the result out of this research, primary as well as secondary data were collected different sources.

3.2.1 Source of Primary Data

The primary sources of data are the opinion survey through questionnaire, field visit and information received from the fifty respondents. Forty questionnaires were distributed to the respondents. There were 10 tax experts, 10 tax administrators and 20 taxpayers as samples.

3.2.2 Sources of Secondary Data:

The secondary data for this research has been collected from the following different sources.

- a. Published documents of National Planning Commission and Nepal Rastra Bank.
- b. Published and unpublished reports articles and dissertation on the concerned subject.
- c. Published reports and seminar paper of CEDA.
- d. Published of Nepal Government, Ministry of Finance, budget speeches and economic survey of various fiscal years.
- e. Annual Report of IRD of different years.
- f. Reports submitted to government of Nepal and International experts and agencies.
- g. Different publications of Central Bureau of Statistics.

The collected data through primary and secondary sources were tabulated in different ways according to the requirement of the study. The data were presented in graphs, charts, diagrams, simple percentage and mean.

3.3 Procedure of Data Collection

A set of questionnaire was developed and distributed to the selected respondents in order to get accurate and actual information. The questionnaires were administered in personal meeting with the respondents and additional information was also collected from interview with the respondents.

3.4 Procedure of Data Analysis

Various numerical data and information are collected as per the objective of the study and research questions. Firstly, laws, rules, regulations and policies related to income tax and corporate tax are studied to get more information about corporate income tax. Secondly, library of NRB also consulted. Thirdly,

the numerical data are collected from the publication of annual reports of IRD, economic bulletin of NRB, economic survey of MOF, publication of CEDA TU, Budget speeches etc. Lastly, various journals, national newspapers are also reviewed.

Collected data from primary as well as secondary sources were firstly tabulated into separate format systematically. The data were tabulated into various tables according to the subject in order. Then simple statistical analysis such as average and percentage were calculated where necessary and they have been presented and analyzed in descriptive way. Graphs and charts are also presented to interpret visually the findings of the study.

3.5 Presentation and Analytical Tools

Various tools are applied while conducting this study, which are table, percentage, correlation, time series analysis.

- a. Table: Various tables are formulated to tabulate the data. A master table is also presented in the appendix 1.
- b. Chart and diagrams: These tools are used for visually description of the data. Trend lines, bar diagrams are used for this purpose.
- c. Correlation: Correlation may be defined, as the degree of linear relationship existing between two or more variables. Two variables are said to be correlated when the change in the value of one variables are accompanied by the change of another variable. Correlation analysis is defined as the statistical technique, which measure the degree and direction of relationship between the variables. In other words, it helps in studying the covariance of two or more variables, which lies between ± 1 . If the value of correlation (r) is nearer to +1, this relationship is said to be perfectly positively correlated and vice-versa. We can compute the correlation simply by using direct method:

$$r = \frac{[N \sum XY - \sum X \cdot \sum Y]}{\sqrt{N \sum X^2 - (\sum X)^2} \sqrt{N \sum Y^2 - (\sum Y)^2}}$$

Where,

n = No. of observations

X = variables

Y = variables

- d. Analysis of time series: A series formed from a set of statistical data arranged in accordance with their time of occurrence is said to be a time series. A time series shows the relation between two variables one being the time. The size of the population in every decade, the price level of the different in every month the volume of population in every year indicate the relation between the time changes and the changes in the value of other variable. Time series analysis is mostly used in Business and Economics, by which we can predict the value of variable for the future. Mathematically, a time series is defined as the function relationship $Y=f(t)$, where Y is the value of the variable consideration in time. The time 'T' may be yearly, quarterly, monthly, weekly etc. There are various methods of analyzing time series, least square method is chosen as the best method in showing trend and prediction in our research.

A widely and most commonly used method to describe the trend line and predication is the method of least square. Under this method, a trend line is fitted to data satisfying $\sum(Y - Y_c) = 0$, and $\sum(Y - Y_c)^2$ is least where, Y is the actual value and Y_c the computed value of Y.

From that line obtained by this method is the line of best fit.

Trend line $Y = a + bx$.

Where,

$$\therefore a = \frac{\sum X^2 \cdot \sum Y - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2}$$

$$\therefore b = \frac{N \sum XY - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2}$$

Where,

Y = Dependent variable

X = Independent variable

a = Y intercept or value of when X = 0

b = Slope of the trend line of amount change that comes in Y for a unit change in X.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

4.1 Structure of Government Revenue in Nepal

The structure of government revenue in Nepal is composed of income tax, customs, excise duty, sales tax/VAT, registration tax, land revenue, miscellaneous tax and non-tax revenue.

Here, the income tax is composed of tax on the profits or income of public enterprises, semipublic enterprises, private corporate bodies, individual and remuneration. The customs duties consist of export, import, Indian excise refund and miscellaneous. The excise duty is related with liquor production contract and industrial production. The registration tax denotes house and land registration, company registration, firm registration, agency registration, vehicle license arms registration and ammunition registration. The land revenue includes development and land tax. The nontaxable revenue consists of receipts from sales of commodities and services, dividend, royalty, sale of fixed assets, mint and principal and interest payment as well as miscellaneous incomes of government.

The composition of total revenue of government includes tax and non-tax revenue from FY 1998/99 to 2007/08. It seems that the share of tax revenue has always been greater than the share of non-tax revenue. In FY 2007/08, the share of tax revenue and non-tax revenue was 77.3% and 22.7% respectively as compared with 79.9% and 20.1% in the FY 1998/99. This indicates that the role of tax revenue is very much important in revenue mobilization of Nepal and to meet the increasing government expenditure. Tax revenue has been placed as a major source of government revenue in Nepal.

Table No. 4.1
Contribution of Total Revenue in GDP And
Contribution of Tax and Non -Tax Revenue in Total Revenue
Rs. In Million

Fiscal Year	GDP	Revenue	Revenue as % of GDP	Tax Revenue	TR as % of Revenue	Non Tax Revenue	NTR as % of Revenue
1998/99	289798	24605.1	11.7	19660.0	79.9	4945.1	20.1
1999/00	330018	27893.1	11.7	21668.0	77.7	6225.1	22.3
2000/01	366251	30373.5	11.3	24424.3	80.4	5949.2	19.6
2001/02	393566	32937.9	11.4	25939.8	78.8	6998.1	21.2
2002/03	404482	37247.3	11.3	28752.9	77.2	8494.4	22.8
2003/04	435531	42893.8	11.7	33152.2	77.3	9741.6	22.7
2004/05	496745	48893.9	12.4	38865.1	79.5	10028.8	20.5
2005/06	533538	50445.6	12.4	39330.6	78	11115.0	22.0
2006/07	654055	69955.4	12.3	56229.9	80.4	13725.5	19.6
2007/08	727089	62331.1	13.2	48173.3	77.3	14157.8	22.7

Forecasted Data (Base Year 2003/04)

2008/09	760999	68036.5	13.3	54161.6	79.6	14857.5	20.4
2009/10	791277	72811.5	13.5	57896.5	79.5	15897.4	20.5
2010/11	821555	77586.1	13.6	61631.4	79.4	16937.3	20.6
2011/12	841833	82360.1	13.7	65366.3	79.4	17977.2	20.6
2012/13	862111	87135.7	13.8	69101.2	79.3	19017.1	20.7

Source: Budget Speech of Various Fiscal Years

When the Government of Nepal presented first budget in 1951/52, the revenue structure was typically that of traditional economy and receipts from non-tax sources. In 2007/08, the share of non-tax source was 22.7% of total revenue compared to 20.1% in 1998/99. The contribution of total revenue in total GDP has been increasing continuously from 11.7% in 1998/99 to 13.2% of GDP in 2007/08. The contribution of tax revenue in total revenue has been increasing continuously from 79.9% in 1998/99 to 80.4% of total revenue in 2000/01 and 2006/07. But in 2007/08 the contribution of tax revenue in total revenue has been decreasing to 77.3% of total revenue.

The above table reflects that the tax revenue was gradually increasing in every year since 1998/99 amounting Rs.19660.million to Rs.48173.3 million in the year 2007/08. But the Percentage contribution of tax revenue on the total

government revenue was found fluctuating in different years. The contribution of tax revenue to total revenue was maximum 80.4% in 2000/01 and 2006/07 and minimum was 77.2% in 2002/2003 then after 77.3% in 2007/08. The non-tax revenue collection was also in the increasing trend in those 10 years i.e. Rs.4945.1million in 1997/98 to Rs.14157.8 million in 2007/08. The non-tax collection in the year 2000/01 was decreased to Rs.5949.2 million as compared with Rs.6225.1 million in the 1999/00. Then after, it was in the increasing trend.

The tax revenue collection was seen to be in the gradually increasing trend. The contribution portion of non-tax revenue to total revenue was fluctuating during the study period. It was decreased to 19.6% in 2000/01 and was increased up to 22.8% in 2002/03. Its contribution was 22.7% in 2003/04.

4.2. Composition of Tax Revenue

Tax revenue is composed of direct and indirect tax. The structure of Nepalese tax revenue can be presented in terms of consumption, income and capital based tax. Taxes on consumption are known as direct taxes. Custom duties, Excise duties, VAT, Internment tax, Hotel tax, Air flight tax, Road and bridge maintenance tax, Vehicle tax and Contract tax are included in indirect tax. Similarly, income tax, interest tax, wealth tax and other taxes are included in direct tax. There has been simultaneous increasing in direct and indirect tax and total tax revenue in absolute term. In 1998/99, their amount was Rs.3849.3 million. Rs.15865.0 million and Rs.19660.0 million respectively and during the period of 10 years, these amount became Rs.112122.3 million, Rs.36961.0 million and Rs.48173.3 million respectively.

Despite the absolute increment of direct tax during the study period, its share in total tax revenue was increasing continuously from 19.6% in 1998/99 to 27.0% in 2003/04. After then, it decreased to 22.3% in 2006/07 and again increased 1% in nest year 2007/08. Then contribution of indirect tax in 1998/99 was

about 80.4% and decreased to about 73.0% in 2003/04 and increased to 75.0% in 2004/05 and again decreased to 74.5% in 2005/06 and increased in 77.7% in 2006/07. In 2007/08 indirect tax was decreased to 76.7%. This implies the significant role in tax revenue. As indirect tax is considered regressive in nature, the tax structure of Nepal is not justifiable on equity ground and progressiveness.

Table No. 4.2
Contribution of Direct, Indirect Tax to Total Tax Revenue

Rs. In million

Year	Direct Tax	% Share in Total Tax	Indirect Tax	% Share in Total Tax	Total Tax
1998/99	3849.3	19.6	15865.0	80.4	19660.0
1999/00	4655.9	21.5	17083.0	78.5	21668.0
2000/01	5340.0	21.9	19191.0	78.1	24424.3
2001/02	6187.9	23.7	19927.0	76.3	26114.9
2002/03	7516.1	26.1	21456.0	73.9	28752.9
2003/04	8951.5	27.0	24597.0	73.0	33152.2
2004/05	9729.7	25.0	29135.3	75.0	38865.0
2005/06	10037.6	25.5	29292.8	74.5	39330.4
2006/07	9474.1	22.3	33030.2	77.7	42504.3
2007/08	11212.3	23.3	36961.0	76.7	48173.3

Forecasted Data (Base Year 2003/04)

2008/09	12213.7	24.6	37412.7	75.4	49626.4
2009/10	13035.2	24.7	39732.5	75.3	52767.7
2010/11	13856.7	24.8	42052.3	75.2	55909.0
2011/12	14678.2	24.9	44372.1	75.1	59050.3
2012/13	15499.7	24.9	46691.9	75.1	62191.6

Source: Budget Speech of Various fiscal Years

The projected data shows that the total direct tax revenue will increase in the future. The total amount of indirect tax will increase, but its percentage to total revenue will slightly decrease. The direct tax revenue will be Rs.12213.7 million, Rs.13035.2 million, Rs.13856.7, Rs.14678.2 million, and Rs.15499.7 million for the FY 2008/09, 2009/10, 2010/11, 2011/12 and 20012/13

respectively with the contribution percentage of 24.6, 24.7, 24.8, 24.9 and 24.9 in the respectively.

Likewise, the indirect tax revenue will also increase to Rs.37412.7 million, Rs.39732.5 million, Rs.42052.3 million, Rs.44372.1 million and Rs.46691.9 million for the FY 2008/09, 2009/10, 2010/11, 2011/12 and 2012/13 respectively with the contribution of 75.4%, 75.3%, 75.2% 75.1% and 75.1%.

Comparing direct and indirect tax, it reveals that the heavy reliance of economy is on indirect taxation. An indirect tax considered regressive in nature; the tax structure of Nepal is not justifiable on equity ground and progressiveness. So, it is necessary to increase the share of direct tax, ultimately decreasing the share of indirect tax. Therefore the attention should be paid on the sufficient resource mobilization through sources.

4.3 Contribution of Various Taxes as Percent to GDP

During the study period the contribution of total revenue has increased from 11.7% in 1998/99 to 13.2% in 2007/08, which is increasing at a slower pace. The contribution of tax revenue is increasing satisfactorily. The contribution of indirect tax is about three folds more than the direct tax during the study period. In 1998/99, the contribution of indirect tax and direct tax were 7.6% and 1.8% respectively which have increased to 7.8% and 2.4%. The contribution of sales tax/VAT was 2.9% in 1998/99 and has gradually increased to 3.1% in 2007/08.

Table No. 4.3
Contribution of Various Taxes as Percentage to GDP

Rs. In million

Year	R % of GDP	Tax Revenue	Direct Tax	Indirect Tax	Custom Duty	Sales Tax/VAT	Excise Duty	Contract Tax	Land Revenue	Income Tax
1998/99	11.7	9.4	1.8	7.6	3.3	2.9	0.9	0.2	0.0	1.3
1999/00	11.7	9.1	1.9	7.1	3.1	2.7	0.8	0.3	0.0	1.4
2000/01	11.3	9.1	1.9	7.1	3.1	2.6	0.8	0.2	0.0	1.5
2001/02	11.4	9.0	2.1	6.9	2.9	2.5	0.8	0.3	0.0	1.7
2002/03	11.3	8.7	2.2	6.5	2.9	2.4	0.9	0.2	0.0	1.9
2003/04	11.7	9.1	2.3	6.7	3.0	2.7	0.9	0.1	0.0	2.0
2004/05	12.4	1.0	2.5	7.4	3.2	3.1	1.0	0.1	0.0	2.3
2005/06	12.4	9.7	2.4	7.2	3.1	2.9	0.9	0.1	0.0	2.2
2006/07	12.3	12.0	2.0	7.4	3.3	2.7	1.0	0.0	0.3	1.7
2007/08	13.2	10.2	2.4	7.8	3.3	3.1	1.4	0.0	0.4	2.0

Forecasted Data (Base Year 2002/03)

2008/09	13.3	10.6	2.4	7.3	3.1	3.0	1.1	1.6	0.0	2.1
2009/10	13.5	10.7	2.4	7.3	3.1	3.0	1.1	0.0	0.0	2.1
2010/11	13.6	10.8	2.4	7.4	3.1	3.0	1.2	0.0	0.0	2.2
2011/12	13.7	10.9	2.4	7.4	3.1	3.0	1.2	0.0	0.0	2.2
2012/13	13.8	10.9	2.4	7.4	3.1	3.0	1.2	0.0	0.0	2.2

Source: Budget Speech of Various fiscal Years

The contribution of income tax has increased from 1.3% in 1998/99 to 2.0% in 2007/08. Even though the contribution of income tax has been relatively high, the share of tax is in increasing trend. But custom tax has not change within 10 years period. The custom duty was 3.3% of GDP in 1998/99 and also 3.3% in 2007/08 but it has remained more or less stable since then.

The projected data shows that the contribution of total revenue, tax revenue, direct tax, indirect tax, custom duty and excise duty, VAT and income tax to GDP will increase in the future except contract tax and house & land revenue tax. As the contribution of VAT to GDP will be increased 3% from FY 2008/09 to FY 2012/13, the target of government to increase the VAT at 3% of GDP will not be fulfilled unless the proper implementation of VAT. For that the government should stimulate the consumer's awareness programme for taking bill and control the VAT evasion properly.

4.4 Composition of Indirect Tax

The major components of indirect tax in Nepalese tax structure constitutes custom duty, excise duty, VAT, contract tax and others sources etc. Custom duty has been classified mainly into import duty and export. Other components of indirect tax like entertainment tax, hotel tax, air flight tax and their tax contribute normal share zero.

Nepalese tax revenue is dependent mainly on taxes on international trade and sales tax / VAT on goods and services supplemented by tax on income and property to some extent. Nepalese tax structure is heavily dependent on indirect taxes, which contributed 76.2% of total revenue 2008/09.

Table No. 4.4
Major Source of Indirect Tax and their relatively
Percentage to Indirect Tax

Rs. In million												
Year	Indirect Tax	Total %	Custom Duties	As % of IDT	Sales Tax	As % of IDT	Excise Duties	As % of IDT	Contract Tax	As % of IDT	Others	As % of IDT
1998/99	15865.0	100	7018.1	44.2	6031.7	38.0	1657.0	10.4	505.2	3.2	652.0	4.1
1999/00	17083.0	100	7327.4	42.9	6431.3	37.6	1944.0	11.4	613.4	3.6	766.0	4.5
2000/01	19191.0	100	8309.1	43.3	7126.5	37.1	2298.0	12.0	621.3	3.2	836.0	4.4
2001/02	19727.0	100	8502.2	43.8	7122.6	36.7	2886.0	14.9	761.6	3.9	655.0	3.4
2002/03	21456.0	100	9517.7	44.4	7882.2	36.7	2953.0	13.8	618.0	2.9	485.0	2.3
2003/04	24597.0	100	10813.3	44.0	9854.9	40.1	3128.0	12.7	374.5	1.5	427.0	1.7
2004/05	29135.3	100	12552.1	43.1	12047.8	41.4	3771.0	12.9	303.9	1.0	460.4	1.6
2005/06	29292.8	100	12658.7	43.2	11947.9	40.8	3807.7	13	301.7	0.5	866.2	2.9
2006/07	33037.0	100	14236.7	43.1	13449.1	40.7	4785.2	14.48	0.0	0.0	559.4	1.7
2007/08	36968.0	100	15554.8	40.1	14478.9	39.2	6226.7	16.8	0.0	0.0	700.6	1.9

Forecasted Data (Base Year 2002/03)

2008/09	3741 2.7	100	1599 5.5	42.7	15170. 8	40.5	5725 .5	15.3	8.4	2.2	590. 2	1.6
2009/10	3973 2.5	100	1697 0.6	42.7	16176. 9	40.7	6158 .2	15.5	0.0	0.0	581. 6	1.5
2010/11	4205 2.3	100	1794 3.2	42.7	17183. 0	40.9	6590 .2	15.7	0.0	0.0	572. 5	1.4
2011/12	4437 2.1	100	1891 5.8	42.7	18189	41.0	7023 .6	15.8	0.0	0.0	563. 4	1.3
2012/13	4669 1.9	100	1988 8.4	42.6	19195	41.1	7456 .3	15.9	0.0	0.0	554. 3	1.2

Source: Budget Speech of Various fiscal Years.

Note: IDT-denotes Indirect Tax.

The contribution of custom duties in indirect tax declined from 44.2% in 1998/99 to 40.1% in 2007/08. The share of custom duty has decreased mainly due to low tariff rate and increment of direct tax. The sales tax / VAT has become an important source of overall tax revenue with increasing trend, which contribution over or less 40% to the indirect tax as compared to 38.0% in 1998/99. Its average contribution was 39.1% during the study period, which is not satisfactory and it needs to increase in the future. The share of excise duty was 10.4% in 1998/99 and it was gradually increased to 16.8% in the 2007/08.

The total tax amount collected from excise duty was increased continuously during the study period, which was Rs.1657 million in 1998/99 was raised to Rs.6226.7million for the 2007/08. But its contribution percentage to total indirect revenue was fluctuated 10.4% to 16.8%.

Recently contract and consultancy has been included in VAT, excise duty is levied only in the domestically manufactured goods and the imported goods are kept outside the excise net in the recent year.

Likewise, the share of contract was 3.2% in 1998/99, which was increased up to 3.9% in 2002/03, but it was gradually decreased to 0.5% in the 2005/06 and there was collection thereafter. The forecasted data shows that it will Rs.8.4 million for FY 2007/08 and no tax will be collected there after.

Vehicle tax has included in other tax. It had contribution 4.1% in the FY 1998/99, which had decreased to 1.9 % in FY 2007/08.

4.5 Contribution of Direct Tax

Table No. 4.5
Contribution of Direct Tax

Year	Direct Tax	Rs. In million		
		Direct Tax As % Of Total Tax	Direct Tax As % Of GDP	Direct Tax As % Of Total Revenue
1998/99	3849.3	19.6	1.8	15.6
1999/00	4655.9	21.5	1.9	16.7
2000/01	5340.0	21.9	2.0	17.6
2001/02	6187.9	23.9	2.1	18.8
2002/03	7516.1	26.1	2.3	20.2
2003/04	8951.5	27.0	2.4	20.9
2004/05	9729.7	20.4	2.0	16.2
2005/06	10037.6	25.5	2.5	19.9
2006/07	9474.0	22.3	2.0	16.4
2007/08	11212.2	23.3	2.4	18.0

Forecasted Data (Base Year 2002/03)

2008/09	12213.7	24.6	2.4	17.9
2009/10	13035.2	24.7	2.4	17.9
2010/11	13856.7	24.8	2.4	17.9
2011/12	14678.2	24.9	2.4	17.8
2012/13	15499.7	24.9	2.4	17.8

Source: Budget Speech of Various fiscal Years

The most serious gap, which the tax structure exhibits, was in the share of direct tax. Its share in GDP has significantly risen from 1.8% in 1998/99 to 2.4% in 2004/05 while its share to total tax and total revenue has increased from 19.6% and 15.6% in 1998/99 to 27.0% and 20.9% in 2003/04 respectively. In 2004/05 total tax and total revenue has decreased to 20.4% and 16.2% respectively. Again total tax and total revenue has increased to 25.5% and 19.9% in 2005/06 and decreased in 2006/07 and increased from 2006/07 to 23.3% and 18.0% in 2007/08 respectively.

4.6 Composition of Direct Tax

In Nepalese tax structure; the major components of direct taxes are income tax, land tax and house and land registration tax. Until fiscal year 1998/99 vehicle

tax was considered as direct tax and since 1998/99 budget speech, it has been classified under the indirect tax. On the other hand, interest tax and urban house and land rent tax were included under the income tax since 1998/99. Thus the contribution of income tax has become larger than the other direct taxes.

Land revenue, which comprised 0.9% of direct tax even in 1998/99, contribution only 0.0% in 2004/05 and then also. The relative importance of land revenue however began to decline sharply from 1998/99 due to mainly to the rise in the relative importance of indirect taxes and income tax at constant rates and large exemptions granted under the land revenue system. Since 2000/01, land revenue collection authority has been transferred to local government and has ceased to become revenue source of central government.

Table No. 4.6
Composition of Direct Taxes and their Percentage Share
Rs. In million

Year	Direct Tax	% of DT	Income Tax	as % of DT	Land Revenue	as % of DT	House and Land Rev.	as % of DT	Other Rs	as % of DT
1998/99	3795.3	100	2823.5	74.4	34.9	0.9	902.8	23.8	34.1	0.9
1999/00	4585.2	100	3431.4	74.8	18.2	0.4	1048.4	22.9	87.2	1.9
2000/01	5233.7	100	4123.3	78.8	5.9	0.1	1009.5	19.3	95.0	1.8
2001/02	6013.0	100	4898.1	81.5	3.6	0.1	1000.6	16.6	110.7	1.8
2002/03	7296.7	100	6170.3	84.6	1.4	0.0	1001.8	13.7	123.2	1.7
2003/04	8555.0	100	7420.6	86.7	46.0	0.5	1001.3	11.7	77.1	0.9
2004/05	9729.7	100	9113.9	93.7	4.7	0.0	607.8	6.2	3.3	0.0
2005/06	10037.8	100	8919.7	88.7	0.7	0.0	1131.0	11.3	2.4	0.0
2006/07	9474.0	100	8059.6	85.1	0.0	0.0	1414.4	14.9	**	0.0
2007/08	11212.2	100	9514.8	84.7	0.0	0.0	1697.4	15.1	**	0.0

Forecasted Data (Base Year 2003/04)

2008/09	12213.7	100	10797.5	88.4	0.0	0.0	1386. 2	11.3	*	0.0
2009/10	13035.2	100	11588.4	88.9	0.0	0.0	1441. 6	11.1	*	0.0
2010/11	13856.7	100	12379.3	89.3	0.0	0.0	1497. 0	10.8	*	0.0
2011/12	14678.2	100	13170.2	89.7	0.0	0.0	1552. 4	10.6	*	0.0
2012/13	15499.7	100	13961.1	90.1	0.0	0.0	1607. 8	10.4	*	0.0

Source: Budget Speech of Various fiscal Years

Note: DT-Denotes Direct Tax.

** -Others included in Income Tax

The share of income tax, which is the most important source of direct tax, jumped from 74.4% in 1998/99 to 93.7% in 2004/05. But it has decreased to 88.7% in 2005/06 and then also further decreased to 84.7% in 2007/08.

During the study period, direct tax revenue had increased at annual rate of 17 in 2004/05, which shows a slower pace. But taxes on income, profit and property decreased by 0.9% compared to 2004/05. The trend of increasing role of indirect taxes also means that the revenue from the direct taxes has grown at a slow rate.

The share of house and Land revenue tax in the 1998/99 was 23.8% amounting Rs. 902.8 million which gradually decreased to 6.2% amounting Rs 607.8 million in the 2004/05. And then its contribution began to increase and reached to 15.1% amounting Rs. 1697.5 million in the 2007/08. House and land rent contribution was 0.9% in 1998/99 which was fluctuated over the eight years and decreased to zero % since 2007/08.

The projections have been made taking the FY 2003/04 as base year. It predicts that composition of direct tax will be dominated by income tax. The total income tax and its contribution to direct tax will also increase in the future. Income tax will be Rs.10797.5 million, Rs.11588.4 million, Rs.12379.3 million, Rs.13170.2 million and Rs.13961.1 million with contribution of

88.4%, 88.9%, 89.3%, 88.7% and 90.1% for the 2008/09, 2009/10, 2010/11, 2011/12 and 2012/13 respectively. But house and land revenue tax collection will be increased in the future.

4.7 Contribution of Income Tax

Table No. 4.7
Contribution of Income Tax as Percentage in Different Heads

Rs. In million					
Year	Income Tax	% of Income Tax to Direct Tax	% of Income Tax to Tax Revenue	% of Income Tax to Total Revenue	% of Income Tax to GDP
1998/99	2823.5	74.4	14.4	11.5	1.3
1999/00	3431.4	74.8	15.8	12.3	1.4
2000/01	4123.3	78.8	16.9	13.6	1.5
2001/02	4898.1	81.5	18.9	14.9	1.7
2002/03	6170.3	84.6	21.5	16.6	1.9
2003/04	7420.6	86.7	22.4	17.3	2.0
2004/05	9113.9	93.7	23.5	18.6	2.3
2005/06	8919.7	88.9	22.7	17.7	2.2
2006/07	8059.6	85.0	14.33	14.0	1.1
2007/08	9514.78	84.86	19.75	15.26	2.0

Forecasted Data (Base Year 2003/04)

2008/09	10797.5	88.4	19.9	15.9	2.1
2009/10	11588.4	88.9	20.0	15.9	2.1
2010/11	12379.3	89.3	20.0	15.9	2.2
2011/12	13170.2	89.7	20.1	16.0	2.2
2012/13	13961.1	90.1	20.2	16.0	2.2

Source: Budget Speech of Various fiscal Years

Income tax was introduced in 1959/60 for the first time when it generated revenue of Rs.203 thousand. In 1962/63, income tax revenue increased to Rs.2 million. Income tax was initially levied on business income and salary. In 1959/60 business tax provided about 80% of total income tax revenue.

Income tax was the largest source of revenue in 1998/99 when it generated it generated total of Rs.2823.5 million. Income tax exceeded excise duties in

1998/99 and since then this source has been the third largest source of tax revenue in Nepal.

Income tax is most likely to surpass the custom duties in future and will be the second largest source of revenue and the first largest source will be VAT. The share of income tax to the total tax revenue was 14.3% in 2006/07. It was the lowest contributor during the study period. The share of income tax to total tax revenue increased considerably after 1998/99 from 14.4% and reached 23.5% in 2004/05 and decreased from 2005/06 to 2006/07. Income tax GDP ratio was 1.3% in 1998/99. However, it increased sharply in the 2004's consequently, income tax to GDP ratio increased from 1.3% in 1998/99 to 2.0% in 2007/08.

The contribution of income tax to total revenue was 11.5% in 1998/99 and in 2004/05 it was 18.6% which shows the growing importance of income tax on revenue as a whole. The contribution of income tax to direct tax was much lower in the initial period of the study when it was 74.4%. It has been continuously and rapidly increasing since then. As a result, it reached to 84.9% in 2007/08. In 2004/05 the share of income tax to direct tax was 93.7% while in 2005/06 it was 88.7%. This decreased in the share of income tax for the period from 2006/07 is due to the application of Voluntary Disclosure of Income Scheme (VIDS) programme in 2001. It had caused sharp increased in the income tax in 2001 and not in that extent after the withdrawal of the VDIS in 2002. Also the land tax and house rent tax has been excluded recently form income tax. Recently, the income tax has been divided into corporate income tax, remuneration tax, income tax on investment, tax on windfall gain.

The projected data shows that the income tax will increase in the low proportionate with five fiscal years. The contribution to GDP will be 2.1%, 2.1%, 2.2% 2.2% and 2.2% for the FY 2008/09, 2009/10, 2010/11, 2011/12 and 2012/13 respectively which will not meet the target of government to increase the income tax at the 3% of GDP. Similarly, the contribution of

income tax to total revenue, total tax revenue and direct tax revenue will also increase in the future.

4.8 Composition and Trend of Income tax Revenue

Until 1993/94, income tax revenue was divided into corporate income tax, individual income tax and remuneration. But up to 2001 income tax revenue was divided into main four groups are individual income tax, corporate income tax, interest tax and house and land rent tax. Of these taxes, corporate tax is collected from government corporations, public and private limited companies and partnership firms. Individual tax is collected from individuals and proprietorship firms. Interest tax is collected from banks or finance companies that pay interest on all types of deposits and the house rent tax is levied on income obtained from the renting out the house and land in urbane areas. In the following table 8 composition of income tax is shown. Here for the shake of simplicity of analysis we have take the period from 1998/99 to 2007/08.

Table No. 4.8
Composition of Income Tax

Rs. In million

Fiscal Year	Source of income Tax							
	Corporate Income Tax				Individual Income Tax	House and Land Rent Tax	Interest Tax	Total Income Tax
	Govt. Corporation	Public Ltd. Company	Private Ltd. Company	Total Corporate Income Tax				
1998/99	860.2	440.0	465.5	1765.8 (62.5%)	873.2 (31%)	72.8 (2.5%)	111.6 (4%)	2823.5 (100%)
1999/00	1144.4	563.9	564.2	2272.7 (66.2%)	933 (27.5%)	106.0 (3.1%)	119.8 (3.5%)	3431.4 (100%)
2000/01	1231.1	856.4	602.8	2693.3 (65.3%)	1135.6 (27.5%)	140.1 (3.4%)	154.4 (3.8%)	4123.4 (100%)
2001/02	1337.8	925.1	693.8	2936.7	1562.	187.1	212.1	4898.

2				(60%)	0 (32%)	(4%)	(4%)	1 (100%)
2002/03	1526.5	1155.0	780.7	3462.2 (56%)	2184.3 (35.4%)	204.2 (3.3%)	319.5 (5.3%)	6170.3 (100%)
2003/04	2198.8	1339.5	900.1	4438.4 (59.8%)	2316.5 (31.2%)	251.2 (3.4%)	414.5 (5.6%)	7420.6 (100%)
2004/05	2928.0	1924.3	1134.2	5986.5 (65.7%)	2402.1 (26.4%)	261.5 (2.9%)	463.9 (5.1%)	9113.9 (100%)
2005/06	1770.6	1429.9	1170.6	4371.2 (49.0%)	3731.6 (41.8%)	348.5 (3.9%)	468.3 (5.3%)	8919.6 (100%)
2006/07	1251.6	1236.3	1167.7	3655.5 (45.4%)	3177.1 (39.4%)	381.7 (4.7%)	845.2 (10.5%)	8059.5 (100%)
2007/08	2056.6	1531.3	1250.8	4838.7 (50.7%)	3539.4 (37.1%)	403.3 (4.3%)	733.4 (7.9%)	9514.8 (100%)

Forecasted Data (Base Year 2003/04)

2008/09	2283.1	1826.0	1392.2	5503.8 (50.9%)	4030. (37.3%)	442.5 (4.1%)	820.9 (7.6%)	10797.5 (100%)
2009/10	2405.3	1950.7	1486.6	5842.3 (50.4%)	4365.6 (37.7%)	480.2 (4.1%)	900.2 (7.8%)	11588.4 (100%)
2010/11	2524.5	2075.4	1581.0	6180.8 (49.9%)	4701.0 (37.9%)	517.9 (4.2%)	979.7 (7.9%)	12379.3 (100%)
2011/12	2643.7	2200.1	1392.2	6236.0 (48.4%)	5036.4 (39.1%)	555.6 (4.3%)	1059.1 (8.2%)	12887.1 (100%)
2012/13	2762.9	2324.8	1769.8	6857.5 (49.1%)	5371.8 (38.5%)	593.3 (4.2%)	1138.5 (9.1%)	13961.1 (100%)

Source: Budget Speech of Various fiscal Years

The corporate tax provided about 62.5% of total income tax revenue in 1998/99. The share of individual tax as about 31% and the house rent 2.4% and interest tax contributed about 4% of total income tax revenue in 1998/99. The share of corporate income tax decreased to about 66.2% of total income tax in

1998/99 and after then it decrease up to 56% in 2002/03. Again it has started to increase. In the fiscal year 2003/04 and 2004/05 the corporate income tax has increased to 59.8% and 65.7% respectively. But from 2005/06 it has started to decrease to last which has decreased to 11.7%.

From above table corporate tax has increased to 50.7% in 2007/08. The share of individual tax has about 37.1% and the house rent 4.3% and interest tax contributed about 7.9% of total income tax revenue in 2007/08. The individual income tax has increasing higher percent than other sources of income tax.

The projected data reflects that income tax revenue will increase to Rs.10797.5 million, Rs.11588.4 million Rs.12379.3 million, Rs.13170.2 million and Rs.13961.1 million for the FY 2008/09, 2009/10 2010/11, 2011/12 and 2012/13 respectively. The corporate income tax amount will also increase in the future but its contribution to income tax will gradually decrease to 50.9%, 50.4%, 49.9%, 48.4% and 49.1% for the FY 2008/09, 2009/10 2010/11, 2011/12 and 2012/13 respectively. This was due to the impact of volatile political economy on corporate sector since 2004/05.

Individual income tax will also increase to Rs.4030.2 million, Rs.4365.6 million, Rs.4701 million, Rs.5036.4 million and Rs.5371.8 million with the contribution of 37.3%, 37.7%, 37.9%, 39.1% and 38.5% of the FY 2008/09, 2009/10, 2010/11, 2011/12 and 2012/13 respectively. Similarly, house and land rent tax and interest tax will also increase and their contribution to income tax will also increase as per the projected data.

4.9 Exemption Limit in Nepal

Exemption limit is an important variable while managing the income tax. The purpose of keeping exemption limit is to exclude the poor from income taxation, to reduce administrative problem etc. For every year, Finance Act prescribes the exemption limit for individual, families, couples and

corporations. But exemption limit was not allowed to corporate taxpayers from 1965/66, non resident taxpayers from 1974/75 and partnership from 1975/76.

Table No. 4.9
Exemption Limit in Income Tax in Nepal

(Amount in Rs.)

Fiscal Year	Individual	Couple	Family
1995/96	25,000	35,000	35,000
1996/97	25,000	35,000	35,000
1997/98	25,000	35,000	35,000
1998/99	30,000	40,000	40,000
1999/00	40,000	50,000	50,000
2000/01	50,000	60,000	60,000
2001/02	55,000	75,000	75,000
2002/03	55,000	75,000	75,000
2003/04	65,000	85,000	85,000
2004/05	80,000	100,000	100,000
2005/06	80,000	100,000	100,000
2006/07	100,000	125,000	125,000
2007/08	115000	140000	-

Source: Budget Speech of Various fiscal Years

The Finance Act 1995 revised the tax rate to 10 Percent. The standard deduction was increased to Rs.7500 or 15% of the net income whichever is less. The investment limit was raised to 10 % on the investment in the citizen investment. Trust and interest earned from that amount was made tax-free. The exemption limits in different years are shown above the table 4.9.

In the year 1997 the income tax rate was again revised to two categories with the rate as 15% and 25%. The rate 15 percent was levied on the income of Rs.45000 above the exemption limit and the higher rate (25%) were subject to all the income above the income of the previous income level. The standard deduction on the income tax was raised to Rs.10,000 or as 15 percent of the net income whichever is less. The Finance Act had the surcharge of 20 percent to the foreigners on the above mentioned tax rate.

The income tax exemption limit was increased to Rs.50000 for an individual and Rs.60000 for the couple and family in the financial year 2002/03. The rate was 15 percent and 25 percent in two income categories.

In the year 2003/04 and 2004/05 the finance act increased the exemption limit of Rs.55000 for an individual and Rs.75000 for the couple and family. The

standard deduction of Rs.10000 or 15 percent of the taxable income whichever is less was omitted by the amendment. There were no specific changes except above mentioned, found in this act. The Finance Act had clearly stated that no deduction was permitted on the income other than the deductions allowed by the law and the Finance Act.

In the year 2005/06 the Finance Act increased the exemption limit of Rs.80,000 for an individual and Rs.100,000 for the couple and family. And in the year 2007/08 the Finance Act increased the exemption limit of Rs.115,000 for an individual and Rs.1,40,000 for the couple.

4.10 Income Tax Rate in Nepal

Income tax rate influence the amount that is collected as income tax to the revenue of the government. It also affects the taxpayers. The social justice also can be achieved through progressive tax rate. If the income tax rate is very high, the taxpayer cannot bear the burden. On the other hand, if income tax rate is low, the objective of income tax can be achieved. That is why the income tax rate has been changed frequently. It is practiced not only in Nepal, but in most of the countries of the world.

Table No. 4.10(a)
Income Tax Rate for Personal Income

Fiscal Year	1		2		3	
	Amount	Rate%	Amount	Rate%	Amount	Rate%
1997/98	25,000	15	40,000	25	-	-
1998/99	30,000	10	40,000	25	-	-
1999/00	40,000	10	65,000	25	-	-
2000/01	50,000	10	70,000	25	-	-
a) Remuneration	-	-	-	-	-	-
b) Others	-	-	-	-	-	35
2001/02	55,000	15	Balance	25	+11250	
2002/03	55,000	15	Balance	25	+11250	
2003/04	65,000	15	Balance	25	+11250	
2004/05	75,000	15	Balance	25	+11250	
2005/06	75,000	15	Balance	25	+11250	
2006/07	75,000	15	Balance	25	+11250	
2007/08	85,000	15	Balance	25	12750	

Source: Finance Acts of Various fiscal Years, Ministry of Finance Nepal Government

The structure of income tax rate in Nepal has never remained stable. Income tax rate was introduced in Nepal for the first time in 1959/60. In the beginning similar amount of exemption limit was designed to all types of taxpayers. Later on the exempted amount differed on the basis of different types of taxpayers such as individuals, couple and family.

The individual, couple and family could deduct Rs.3000, Rs.4500 and Rs.6000 respectively as exempted amount since the fiscal year 1967/68. This exempted limit was revised in the fiscal year 1974/75, 1975/76 and 1976/77 which remain unchanged till 1978/79. The revised amount were Rs.6500, Rs.7500 and Rs.8500 for individual, couple and a family respectively.

Table No. 4.10(b)
Income Tax Rate for Partnership Firms, Corporation and Non-residents
(Slabs over Exemption Limit)

Slabs	Amount	Rate %
1994/95-1995/96	Total	33
1996/97-1997/98	Total	33
1998/99-2005/06	-	-
a) For Bank, Finance Firms	Total	30
b) For Special industry	Total	20
c) Others (including partnership firms)	Total	25

Source: Finance Acts of Various fiscal Years, Ministry of Finance

Rate structure of income tax rate has been changing continuously since it's introduced in 1959/60. In 1959/60, net income was divided into 11 brackets. When income over Rs.7,000 a year was subject to graduated rates ranging from 5% to 25%. For the personal income, the slabs have varied from a minimum of two to maximum of eight from the fiscal year 1982/83 to 2002/03. From fiscal year 1998/99, the income tax was divided into two slabs. The rates have varied from 5% to 55%. For partnership firms, corporations and non resident, the income tax rate was same as the rate for personal income from 1984/85 to 1993/94 but exemption limit is not allowed for them. After fiscal year 1994/95,

they were taxed at flat rate. The tax rate was reduced from 35% in fiscal year 1995/96 to 30% for bank, finance companies and financial firms and 25% for others (including partnership firms) in fiscal year 1999/2000.

Under new Income Tax Act 2002, individual income tax is levied with two rates of 15% and 25%. For individuals, who have Rs.100,000 income or Rs.10,00,000 turnover from any kind of business in metropolitan or sub metropolitan cities, municipalities and other area in Nepal are subject to pay Rs.2000, Rs.1500 and Rs.1000 as an annual flat rates, respectively.

Under this act, the corporate income tax is levied with single rate of 25%. For bank and financial institution the rate is 30% of taxable income. Industrial enterprises are subject to a maximum rate of 20%. Table 4.10 (a) and 10 (b) shows that the income tax rate in Nepal in various years. Table 10(a) is the income tax rate for personal income and table 4.10(b) is the income tax rate for partnership firms, corporations and not-residents.

4.11 Analysis of Primary Data

An empirical investigation was carried on to conduct this study from the experience of the real world. The major tool used for this purpose is an opinion questionnaire, which was dispatched to 40 persons representing small taxpayer and small business owner, who were received. The questionnaire focused on the present income tax rules, tax structure and the opinion of the small taxpayers regarding income tax evasion, its causes. In the questionnaire altogether nine questions were asked. The result obtained from the opinion survey was analyzed separately according to these questions.

Table 4.11
Income Tax as a Suitable Mean for Raising Domestic Resources

Responses	Number of Respondents	Percentage
Yes	34	85
No	6	15
Total	40	100

Source: Field Survey, 2008

The respondents were asked that, in your opinion, is the income tax a suitable mean for raising domestic resources? In this opinion survey 34 (85%) persons responded in favor of the question and 6 (15%) persons responded in against of it. Majority of the respond think the income tax can be the major source of government revenue. They think their contribution on the tax revenue would be effective if the collection process are made properly and should be used in proper place.

Those who were against the question, they think that the income tax cannot be a suitable means for raising domestic resources because collecting Rs.1000-2000 from each small business owners will not contribute in the national economy.

Table 4.12
Effectiveness of Income Tax System of Nepal

Responses	Number of Respondents	Percentage
Yes	10	25
No	19	47.5
No idea	11	27.5
Total	40	100

Source: Field Survey, 2008

The respondents were asked that, is the income tax system efficient of Nepal? In this question, 10 (25%) persons showed their view in favor of the question. In their opinion the present system of taxation for the small taxpayers is good. Because of not maintain their proper account. Only they have to do is pay Rs. 1000-2000 per year.

19(47.5%) persons were not in favor of the question. They think the present tax system of Nepal is not efficient. Because the tax office does not impose same rule for all kinds of taxpayers and do not get new information about the rules of income tax in timely. In their opinion the department of taxation collects more tax from the small taxpayers and less from others.

Other 11(27.5%) persons have no idea about the income tax rules of Nepal. They only know to pay the income tax. Lack of training, seminar, workshop about tax and unlitrary is the reason of unknown about tax system in Nepal.

Table 4.13
Major Problems of Income Tax Management in Nepal

Responses	Points	Rank
Legal consideration	2	I
Less consciousness of Taxpayers	1	II
Lack of training facility to the employee	9	III
Lack of sufficient incentives to the employee	10	IV
Lack of identical accounting system	4	V
Increasing habit of tax deceit	3	VI
Misuse of power by Tax Administrator	6	VII
Lengthy process of income tax assessment	5	VIII
Lack of appropriate organization structure	8	IX
Inadequate experts income Tax Management	7	X
Total	55	

Source: Field Survey, 2008

The respondents were asked that, what are the major problems of Income Tax Management in Nepal? In this question 10 options were given, they ranked the choices according to their feelings.

- The major problem of tax management in Nepal is less consciousness of taxpayers. Because the tax payer becomes more conscious about taxation and tries to pay the actual amount. That helps also to manage tax structure properly.
- The second problem is legal consideration. In their opinion the law and act should be very clear and understandable to all the people. Most of the small taxpayers are not educated so they

cannot understand the rules and regulations properly thus they have to pay more tax than actual.

- The third problem is increasing habit of tax deceit. Because most of the taxpayer do not want to pay the actual tax amount to the tax office. In their opinion, they always try to deceit the tax amount which should be stopped.
- The fourth major problem is lack of identical accounting system. In their opinion, there is no single accounting system of maintaining records, which create the problems while assessing the taxpayers. There are also many form which should be submitted the required data of business to the tax office, difficult to entry non trainee person.
- The fifth problem is lengthy process of income tax assessment. The taxpayers do not want the lengthy and time consuming process of assessment. They always want to pay the tax amount in very distance of time.
- Another major problem of Income Tax Management in Nepal is misuse of power and authorities. The tax officers promote the illegal process of tax deceiving by getting personal benefit from the taxpayers. It makes to pay less tax amount than actual to the taxpayers, more benefit to tax officers and less contribution to the government.
- Another problem is lack of experts in tax management in Nepal. Due to which the management process is problematic to the taxpayers and it also cannot be effective.
- The eighth problem of this research is lack of appropriate organization structure. In the view of businessman, the structure of the Inland Revenue Department is not perfect because of power is centralized. Branch offices are not in all districts in Nepal. People have to go another district to pay tax amount. The tax staffs do not give more time to the taxpayers. They send

another staff to another to take more information about the tax. It creates the problem to the taxpayers. So, the organization structure should be flexible which enables to facilitate the taxpayers.

- Another problem is lack of training facilities to the employees. Due to the lack of proper training the employees of the tax department have to face the different kinds of problems in the tax matters. Due to which they also make difficulties for taxpayers as well.
- Lack of sufficient to the employees also creates serious problems to the management. If the employees do not get the proper facilities they start getting extra income from the illegal word. So they must get the sufficient benefits they require.

Table 4.14
Ways to Increase the Tax Paying Habit of Nepalese People

Responses	Number of Respondents	Percentage
Educating taxpayers	2	I
Timely assessment of taxes	3	II
Simplifying tax laws	5	III
Penalties and fines	1	IV
Incentive to regular taxpayers	4	V

Source: Field Survey, 2008

The respondents were asked that, how can we increase the tax paying habit of Nepalese people?

The first alternative of increasing the tax paying habit of taxpayer is penalties and fines. In respondents view, they want high fine and penalties to those who do not pay the income tax. And high penalty should be imposed on those who deceive tax amount.

The second option of increasing the tax paying habit of taxpayer is education of the taxpayers. If taxpayers will be educated, they will start paying taxes.

The third option of increasing the tax paying habit of taxpayer is timely assessment of taxes. Making assessment in regular time interval can increase taxpayers' tax paying habits.

The fourth option of increasing the tax paying habit of taxpayer is incentive to regular taxpayers. It helps to attract other taxpayers to pay the tax regularly.

The last alternative is simplifying tax laws. It should be very clear and understandable for all the people. But the present tax law is not so much understandable. When the tax laws are simple then automatically the potential taxpayers come to adjust in the net of tax.

Table 4.15
Existence of Income Tax Evasion

Responses	Number of Respondents	Percentage
Yes	35	87.5
No	5	12.5
Total	40	100

Source: Field Survey, 2008

The respondents were asked that, do you believe that income tax evasion is being practiced in Nepal? Above the question, most of respondents replied yes. In their opinion, they think there is widespread evasion in income tax in Nepal. Most of the taxpayers do not want to pay the actual tax amount. Only few of the people pay the actual tax. The tax officers also help taxpayers who want to deceive the government simply because they get extra benefit from the taxpayers. So the illegal activities should be stopped to generate more revenue for the economic development of Nepal.

Table 4.16
Suggestions for the Controlling Income Tax Evasion

Responses	Points	Rank
Controlling illegal business activities	1	I
Controlling border with India and China	5	II
Education taxpayers	7	III
Rewards to the tax evasion finders	10	IV
Penalties and fines to tax evaders	2	V
Simplifying tax laws	12	VI
Timely assessment of tax	9	VII
Simplifying assessment procedures	11	VIII
Incentives to regular taxpayers	8	IX
Property recording system of tax officer	6	X
Compulsory maintenance of accounts	3	XI
Heavy punishment to corrupt personnel	4	XII

Source: Field Survey, 2008

The respondents were asked that, what are your suggestions for the controlling income tax evasion? The respondents were given following suggestions for controlling income tax evasion which were to be ranked in the order of one for the most effective controlling factor and 12 for the least.

The above reference help to conclude that the suggestions made for controlling income tax evasion in order of priority are controlling illegal business, imposing high tax penalties and fines to income tax evaders, compulsory maintenance of accounts, heavy punishment to the personnel who try to manipulate tax, checking and controlling free movement in between Nepalese and Indian border as well as Nepalese and Chinese border and insisting property recording system of tax officers.

Other suggestions were simplifying tax laws, educating taxpayers, simplifying assessment procedure, incentives to regular taxpayers and incentives to the tax evasion finders.

Table 4.17
Complications in Paying Income Tax

Responses	Number of Respondents	Percentage
Yes	32	80
No	8	20
Total	40	100

Source: Field Survey, 2008

The respondents were asked that, do you have complications in paying income tax? Most of respondents point various reasons that create problems to the taxpayers. Among them, the major problems are lengthy procedure, behavior of tax personnel, unfair assessment of tax, unnecessary fines and penalties, excess power of tax officer and their undue influence. Rest eight persons they do not find any difficulty while they go to pay tax amount. They also point that they maintain the accounts properly. It makes to face the problems.

4.12 Major Findings of the Study

Every research work is done to find something new, based on the objective of the study. From analysis of various data collected by secondary and primary sources, the major findings of the study are as follows:

4.12.1 Major Findings of Secondary Data

1. The income tax revenue is increasing each year. It is a positive indication for further mobilization of internal resources. Taxpayers also are increasing each year that has widened the taxpayers' circle.
2. This study shows that the share of tax revenue of the total revenue was about 76 Percent while that of non-tax revenue was about 24 percent in 2003/004. This shows that the tax has been a major source of revenue mobilization.
3. Out of the total tax, the share of the indirect tax is 2/3 of the total tax while that of direct tax is nearly 1/3 only. Among the indirect taxes,

custom and VAT are the two major sources while income tax is one of the major sources for direct tax.

4. Due to some problems like narrow coverage, unscientific tax assessment, deviation from the basic principal in income taxation, long time lag, defective system for the perspective of international taxation, weak tax administration etc. tax revenue collection has not been implemented to the optimum level.
5. In Nepal the contribution to tax revenue to GDP was 13.2 Percent and while that of tax revenue was about 76% of total revenue. The trend of overall revenue in Nepal shows the continuous increase. It was 11.7% of GDP in 1998/99 and increased to 13.2% in 2007/08.
6. In 2007/08, the contribution of total revenue to GDP was 13.2% and while that of tax revenue was about 77.3% of TR. The trend of overall revenue in Nepal shows the continuous increase. It was 11.7% of GDP in 1998/99 and increased to 13.2% in 2007/08.
7. Within the tax revenue, the contribution of indirect tax has fluctuating share. Initially, it decreased from 80.4% in 1998/99 to 76.2% in 2007/08. While it was somewhat constant up to 1998/99 and it decreased to 77.3% in 2007/08. This about 2/3 share of the indirect tax is not justifiable on equity ground.
8. Out of the indirect tax a custom duty was 30.8%, VAT was 46.8%, excise duty was 20%, and other tax was 2.3% of indirect tax in 2006/07. Within tax revenue, direct tax decreased in its share from 19.6% in 1998/99 to 27% in 2003/04 then it decreased to 20.4% in 2004/05 and then it increased up to 27% in 2003/2004 and again decreased up to 23.3% in 2007/08.
9. The contribution of income tax to direct tax has increased significantly since its introduction. The contribution of income tax to total revenue was 11.5% in 1998/99 and in 2007/08 it was 15.3%. Thereafter it has increased somewhat fluctuating. Within income tax, the share of corporate tax was 50.7%, which of individual was 37.1%, house and

land tax was 4.3% and interest tax was 7.9%. The income tax rates and slabs have been changed radically in recent years. Rate structure of income tax has been changing continuously since its contribution in 1959/60. Under new income tax act 2002, individual income tax is levied with low rates of 15% and 25% under the new income tax act: the corporate income tax is levied with single rate of 25%. For bank and financial institutions the rate is 30% of taxable income.

4.12.2 Major Findings of Primary Data

10. From primary data the major problem of tax management in Nepal is less consciousness of taxpayers, because the tax payer becomes more conscious about taxation and tries to pay the actual amount. That helps also to manage tax structure properly. The second problem is legal consideration. In their opinion the law and act should be very clear and understandable to all the people. Most of the small taxpayers are not educated so they cannot understand the rules and regulations properly thus they have to pay more tax than actual. The third problem is increasing habit of tax deceit, because most of the taxpayers do not want to pay the actual tax amount to the tax office. In their opinion, they always try to deceit the tax amount which should be stopped. The fourth major problem is lack of identical accounting system. In their opinion, there is no single accounting system of maintaining records, which create the problems while assessing the taxpayers. There are also many form which should be submitted the required data of business to the tax office, difficult to entry non trainee person. The fifth problem is lengthy process of income tax assessment. The taxpayers do not want the lengthy and time consuming process of assessment. They always want to pay the tax amount in very distance of time.
11. Another major problem of Income Tax Management in Nepal is misuse of power and authorities. The tax officers promote the illegal process of tax deceiving by getting personal benefit from the taxpayers. It makes

to pay less tax amount than actual to the taxpayers, more benefit to tax officers and less contribution to the government. Another problem is lack of experts in tax management in Nepal. Due to which the management process is problematic to the taxpayers and it also cannot be effective. The eighth problem of this research is lack of appropriate organization structure. In the view of businessman, the structure of the Inland Revenue Department is not perfect because of power is centralized. Branch offices are not in all districts in Nepal. People have to go another district to pay tax amount. The tax staffs do not give more time to the taxpayers. They send another staff to another to take more information about the tax. It creates the problem to the taxpayers. So, the organization structure should be flexible which enables to facilitate the taxpayers. Another problem is lack of training facilities to the employees. Due to the lack of proper training the employees of the tax department have to face the different kinds of problems in the tax matters. Due to which they also make difficulties for taxpayers as well.

12. Lack of sufficient to the employees also creates serious problems to the management. If the employees do not get the proper facilities they start getting extra income from the illegal word. So they must get the sufficient benefits they require.
13. Regarding way of increase the tax paying habit of Nepalese people, the first alternative of increasing the tax paying habit of taxpayer is penalties and fines. In respondents view, they want high fine and penalties to those who do not pay the income tax. And high penalty should be imposed on those who deceive tax amount. The second option of increasing the tax paying habit of taxpayer is education of the taxpayers. If taxpayers will be educated, they will start paying taxes. The third option of increasing the tax paying habit of taxpayer is timely assessment of taxes. Making assessment in regular time interval can increase taxpayers' tax paying habits.

14. The fourth option of increasing the tax paying habit of taxpayer is incentive to regular taxpayers. It helps to attract other taxpayers to pay the tax regularly. The last alternative is simplifying tax laws. It should be very clear and understandable for all the people. But the present tax law is not so much understandable. When the tax laws are simple then automatically the potential taxpayers come to adjust in the net of tax.
15. There is widespread evasion in income tax in Nepal. Most of the taxpayers do not want to pay the actual tax amount. Only few of the people pay the actual tax. The tax officers also help taxpayers who want to deceive the government simply because they get extra benefit from the taxpayers. So the illegal activities should be stopped to generate more revenue for the economic development of Nepal.
16. The study help to conclude that the suggestions made for controlling income tax evasion in order of priority are controlling illegal business, imposing high tax penalties and fines to income tax evaders, compulsory maintenance of accounts, heavy punishment to the personnel who try to manipulate tax, checking and controlling free movement in between Nepalese and Indian border as well as Nepalese and Chinese border and insisting property recording system of tax officers. Other suggestions were simplifying tax laws, educating taxpayers, simplifying assessment procedure, incentives to regular taxpayers and incentives to the tax evasion finders.
17. Most of respondents point various reasons that create problems to the taxpayers. Among them, the major problems are lengthy procedure, behavior of tax personnel, unfair assessment of tax, unnecessary fines and penalties, excess power of tax officer and their undue influence. Rest eight persons they do not find any difficulty while they go to pay tax amount. They also point that they maintain the accounts properly. It makes to face the problems.

CHAPTER V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

In most of developing countries people are aggressive to pay tax because it takes people's money with no specific rewards in return. Like our country, there is no possibility of getting specific rewards and taxpayer cannot know where the tax is being properly used. The public dislikes taxation as a first principle for obvious reasons. The public's first wish for the tax system becomes "reduce my tax liability and raise others". No residents want to pay tax until government assures the proper utilization of the government revenue.

In the modern era, taxation has been taken as the most effective tool for rising national revenue. The government by mobilizing adequate resources through taxation might invest them in various development programmes. In this way in the underdeveloped countries the government might play an important role in promoting capital formation, breaking vicious circle of poverty and mobilizing adequate resources through taxation.

The income tax revenue is increasing each year. It is a positive indication for further mobilization of internal resources. Taxpayers also are increasing each year that has widened the taxpayers' circle.

In Nepal, income tax was introduced in 1960 for the first time. It was known as "Business Profit and Remuneration Tax". It was governed by the business profit and remuneration act 1960. it was replaced by the Nepal Income Tax Act 1962 after two years. Nepal Income Tax Act 1962, which was amended in 1972, remained till 1974 and was replaced by "income Tax Act 1974". It has been amended in 1977, 1981, 1985 and 1986.

This study shows that the share of tax revenue of the total revenue was about 76 Percent while that of non-tax revenue was about 24 percent in 2003/04. This shows that the tax has been a major source of revenue mobilization.

Out of the total tax, the share of the indirect tax is 2/3 of the total tax while that of direct tax is nearly 1/3 only. Among the indirect taxes, custom and VAT are the two major sources while income tax is one of the major sources for direct tax.

Due to some problems like narrow coverage, unscientific tax assessment, deviation from the basic principal in income taxation, long time lag, defective system for the perspective of international taxation, weak tax administration etc. tax revenue collection has not been implemented to the optimum level.

5.2 Conclusion

In Nepal the contribution to tax revenue to GDP was 13.2 Percent and while that of tax revenue was about 76% of total revenue. The trend of overall revenue in Nepal shows the continuous increase. It was 11.7% of GDP in 1998/99 and increased to 13.2% in 2007/08.

In 2007/08, the contribution of total revenue to GDP was 13.2% and while that of tax revenue was about 77.3% of TR. The trend of overall revenue in Nepal shows the continuous increase. It was 11.7% of GDP in 1998/99 and increased to 13.2% in 2007/08.

Within the tax revenue, the contribution of indirect tax has fluctuating share. Initially, it decreased from 80.4% in 1998/99 to 76.2% in 2007/08. While it was somewhat constant up to 1998/99 and it decreased to 77.3% in 2007/08. This about 2/3 share of the indirect tax is not justifiable on equity ground.

Out of the indirect tax a custom duty was 30.8%, VAT was 46.8%, excise duty was 20%, and other tax was 2.3% of indirect tax in 2007/08. Within tax revenue, direct tax decreased in its share from 19.6% in 1994/95 to 27% in 2003/04 then it decreased to 20.4% in 2004/05 and then it increased up to 27% in 2003/2004 and again decreased up to 23.3% in 2007/08.

The contribution of income tax to direct tax has increased significantly since its introduction. The contribution of income tax to total revenue was 11.5% in 1998/99 and in 2007/08 it was 15.3%. Thereafter it has increased somewhat fluctuating. Within income tax, the share of corporate tax was 50.7%, which of individual was 37.1%, house and land tax was 4.3% and interest tax was 7.9%.

The income tax rates and slabs have been changed radically in recent years. Rate structure of income tax has been changing continuously since its contribution in 1959/60. Under new income tax act 2002, individual income tax is levied with low rates of 15% and 25% under the new income tax act: the corporate income tax is levied with single rate of 25%. For bank and financial institutions the rate is 30% of taxable income.

From primary data the major problem of tax management in Nepal is less consciousness of taxpayers, because the tax payer becomes more conscious about taxation and tries to pay the actual amount. That helps also to manage tax structure properly. The second problem is legal consideration. In their opinion the law and act should be very clear and understandable to all the people. Most of the small taxpayers are not educated so they cannot understand the rules and regulations properly thus they have to pay more tax than actual. The third problem is increasing habit of tax deceit, because most of the taxpayers do not want to pay the actual tax amount to the tax office. In their opinion, they always try to deceit the tax amount which should be stopped. The fourth major problem is lack of identical accounting system. In their opinion, there is no single accounting system of maintaining records, which create the problems while assessing the taxpayers. There are also many form which should be submitted the required data of business to the tax office, difficult to entry non trainee person. The fifth problem is lengthy process of income tax assessment. The taxpayers do not want the lengthy and time-consuming process of assessment. They always want to pay the tax amount in very distance of time.

Another major problem of Income Tax Management in Nepal is misuse of power and authorities. The tax officers promote the illegal process of tax deceiving by getting personal benefit from the taxpayers. Another problem is lack of training facilities to the employees. Due to the lack of proper training the employees of the tax department have to face the different kinds of problems in the tax matters. Due to which they also make difficulties for taxpayers as well.

Lack of sufficient to the employees also creates serious problems to the management. If the employees do not get the proper facilities they start getting extra income from the illegal word. So they must get the sufficient benefits they require.

Regarding way of increase the tax paying habit of Nepalese people, the first alternative of increasing the tax paying habit of taxpayer is penalties and fines. In respondents view, they want high fine and penalties to those who do not pay the income tax. And high penalty should be imposed on those who deceive tax amount. The second option of increasing the tax paying habit of taxpayer is education of the taxpayers. If taxpayers will be educated, they will start paying taxes. The third option of increasing the tax paying habit of taxpayer is timely assessment of taxes. Making assessment in regular time interval can increase taxpayers' tax paying habits. The fourth option of increasing the tax paying habit of taxpayer is incentive to regular taxpayers. It helps to attract other taxpayers to pay the tax regularly. The last alternative is simplifying tax laws. It should be very clear and understandable for all the people. But the present tax law is not so much understandable. When the tax laws are simple then automatically the potential taxpayers come to adjust in the net of tax.

There is widespread evasion in income tax in Nepal. Most of the taxpayers do not want to pay the actual tax amount. Only few of the people pay the actual tax. The tax officers also help taxpayers who want to deceive the government simply because they get extra benefit from the taxpayers. So the illegal

activities should be stopped to generate more revenue for the economic development of Nepal.

The study concluded that the suggestions made for controlling income tax evasion in order of priority are controlling illegal business, imposing high tax penalties and fines to income tax evaders, compulsory maintenance of accounts, heavy punishment to the personnel who try to manipulate tax, checking and controlling free movement in between Nepalese and Indian border as well as Nepalese and Chinese border and insisting property recording system of tax officers. Other suggestions were simplifying tax laws, educating taxpayers, simplifying assessment procedure, incentives to regular taxpayers and incentives to the tax evasion finders.

Most of respondents point various reasons that create problems to the taxpayers. Among them, the major problems are lengthy procedure, behavior of tax personnel, unfair assessment of tax, unnecessary fines and penalties, excess power of tax officer and their undue influence. Rest eight persons they do not find any difficulty while they go to pay tax amount. They also point that they maintain the accounts properly. It makes to face the problems.

5.3 Recommendations

On the basis of the summary and conclusions of the present study, the following recommendations for the successful use of income taxation are:

1. The taxpayers should be highly literate by conducting seminar, workshop and interaction.
2. Accounting records should be maintained honestly and they should be reliable,

To collect more revenue from income tax, the following suggestion should be followed:

1. Tax administration should be honest and efficient,

2. The rate and time of tax payment should be clear among taxpayers by giving information,
3. Scientific method should be used in tax collection,
4. Tax department should be made free from any illegal pressure.

The other suggestions and recommendations are as follows:

1. The target of government to increased tax collection from income tax, value added tax, excise duty are positive progress. But unless and until the positive and economic situation is changed, it will be quite hard to achieve the target. So, government should encourage the entrepreneurs to join in VAT and to take PAN. And also systemized the customs and boarder etc.
2. The method of accounting, assessment and collection must be made scientific, mal-practices, which consist in the presentation of false and misleading accounts, should be sharply distinguished from the falsification of books from which the accounts are compiled.
3. The present level of income tax exemption limit is not appropriate. It must be raised to a minimum of Rs.1,50,000 for an individual and Rs.2,00,000 for couple and family.
4. Separate department for income tax should be established, so that the specialization could be achieved in the matter of income tax.
5. The income tax assessment procedure must be improved by reducing assessment delays, reducing the best judgment assessment as far as possible, providing sufficient in formations to taxpayers and creating the confidence between taxpayers and tax officers.

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Appendix I

QUESTIONNAIRE

I would like to introduce myself as the student of Tribhuvan University, M.B.S. (final year). In order to fulfill the partial requirement of Master's Degree in Management, I am conducting a research work entitled "**A Study on Income Tax Contribution to Government Revenue in Nepal**".

I would very much appreciate if you kindly spare few of your busy & valuable time for completing my research work. Your views are purely used for my academic purpose only. I anticipate your suggestions as soon as possible.

Sincerely yours

Shiv Shankar Yadav

1. In your opinion, is the income tax a suitable mean for raising domestic resources?

Yes:

No:

2. Is the income tax system efficient of Nepal?

Yes:

No:

No Idea:

3. What are the major problems of Income Tax Management in Nepal?

4. How can we increase the tax paying habit of Nepalese people?

5. Do you believe that income tax evasion is being practiced in Nepal?

Yes:

No:

6. What are your suggestions for the controlling income tax evasion?

7. Do you have complications in paying income tax?

Yes:

No:

8. If yes, please point out the reasons.

Appendix II

Fitting trend line by least Square Method

Let the trend line between the dependent variable Y and the independent variable X (i.e. time) be represented by $Y = a + bx$ (i) Since, the number of year is 10, i.e. even number. So, the deviations are taken from the fiscal year 2002/03. Amounts (Rs.) are in million

Fiscal Year	GDP (Y)	Mid-Value [X=x-2002/03]	X^2	XY
1998/99	289798	-5	25	-1049870
1999/00	330018	-4	16	-957552
2000/01	366251	-3	9	-808710
2001/02	393566	-2	4	-579596
2002/03	404482	-1	1	-329960
2003/04	435531	0	0	0
2004/05	496745	1	1	393566
2005/06	533538	2	4	811264
2006/07	654055	3	9	1406760
2007/08	727089	4	16	1889696
N = 10	$\sum Y = \mathbf{3444695}$	$\sum XY = \mathbf{-5}$	$\sum X^2 = \mathbf{85}$	$\sum XY = \mathbf{775598}$

$$\begin{aligned} \therefore a &= \frac{\sum X^2 \cdot \sum Y - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\ &= \frac{85 \times 3444695 - (-5) \times 775598}{10 \times 85 - (-5)^2} \\ &= \frac{292799245 - (-3877990)}{850 - 25} \\ &= \frac{296677235}{825} \\ &= 359609 \end{aligned}$$

$$\begin{aligned} \therefore b &= \frac{N \sum XY - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\ &= \frac{10 \times 775598 - (-5) \times 3444695}{10 \times 85 - (-5)^2} \\ &= \frac{7755980 - (-17223485)}{850 - 25} \\ &= \frac{24979465}{825} \\ &= 30278 \end{aligned}$$

$$\begin{aligned} \therefore Y &= a + bx \\ \text{For 2008/09} &= 359609 + 30278 \times 5 = \text{Rs. } 510999 \\ \text{For 2009/10} &= 359609 + 30278 \times 6 = \text{Rs. } 541277 \\ \text{For 2010/11} &= 359609 + 30278 \times 7 = \text{Rs. } 571555 \end{aligned}$$

For 2011/12 = 359609 + 30278 × 8 = Rs. 601833

For 2012/13 = 359609 + 30278 × 9 = Rs. 632111

2.

Fiscal Year	Total Revenue (Y)	Mid-Value [X=x-2002/03]	X ²	XY
1998/99	24605.1	-5	25	-123026
1999/00	27893.1	-4	16	-111572
2000/01	30373.5	-3	9	-91120.5
2001/02	32937.9	-2	4	-65875.8
2002/03	37247.3	-1	1	-37247.3
2003/04	42893.8	0	0	0
2004/05	48893.9	1	1	48893.9
2005/06	50445.6	2	4	100891.2
2006/07	69955.4	3	9	209866.2
2007/08	62331.1	4	16	249324.4
N = 10	∑ Y = 427576.7	∑ X = -5	∑ X² = 85	∑ XY = 180134.2

$$\begin{aligned} \therefore a &= \frac{\sum X^2 \cdot \sum Y - \sum X \cdot \sum XY}{N \sum X^2 - (\sum X)^2} \\ &= \frac{85 \times 427576.7 - (-5) \times 180134.2}{10 \times 85 - (-5)^2} \\ &= \frac{36344020 - (-900671)}{850 - 25} \\ &= \frac{36434087}{825} \\ &= 44162.5 \end{aligned}$$

$$\begin{aligned} \therefore b &= \frac{N \sum XY - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\ &= \frac{10 \times 180134.2 - (-5) \times 427576.7}{10 \times 85 - (-5)^2} \\ &= \frac{1801342 - (-2137884)}{850 - 25} \\ &= \frac{3939226}{825} \\ &= 4774.8 \end{aligned}$$

$$\therefore Y = a + bx$$

For 2008/09 = 44162.5 + 4774.8 × 5 = Rs. 68036.5

For 2009/10 = 44162.5 + 4774.8 × 6 = Rs. 72811.5

For 2010/11 = 44162.5 + 4774.8 × 7 = Rs. 77586.1

For 2011/12 = 44162.5 + 4774.8 × 8 = Rs. 82360.9

For 2012/13 = 44162.5 + 4774.8 × 9 = Rs. 87135.7

3.

Fiscal Year	Tax Revenue(Y)	Mid-Value [X=x-2002/03]	X ²	XY
1998/99	19660	-5	25	-98300
1999/00	21668	-4	16	-86672
2000/01	24424.3	-3	9	-73272.9
2001/02	25939.8	-2	4	-51879.6
2002/03	28752.9	-1	1	-28752.9
2003/04	33152.2	0	0	0
2004/05	38865.1	1	1	38865.1
2005/06	39330.6	2	4	78661.2
2006/07	56229.9	3	9	168689.7
2007/08	48173.3	4	16	192693.2
N = 10	∑ Y = 336196.1	∑ X = -5	∑ X² = 85	∑ XY = 140031.8

$$\begin{aligned}
 \therefore a &= \frac{\sum X^2 \cdot \sum Y - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\
 &= \frac{85 \times 336196.1 - (-5) \times 140031.8}{10 \times 85 - (-5)^2} \\
 &= \frac{28576669 - (-700159)}{850 - 25} \\
 &= \frac{29276828}{825} \\
 &= 35487.1
 \end{aligned}$$

$$\begin{aligned}
 \therefore b &= \frac{N \sum XY - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\
 &= \frac{10 \times 140031.8 - (-5) \times 336196.1}{10 \times 85 - (-5)^2} \\
 &= \frac{1400318 - (-1680981)}{850 - 25} \\
 &= \frac{3081299}{825} \\
 &= 3734.9
 \end{aligned}$$

$$\therefore Y = a + bx$$

For 2008/09 = $35487.1 + 3734.9 \times 5 = \text{Rs. } 54161.6$
For 2009/10 = $35487.1 + 3734.9 \times 6 = \text{Rs. } 57896.5$
For 2010/11 = $35487.1 + 3734.9 \times 7 = \text{Rs. } 61631.4$
For 2011/12 = $35487.1 + 3734.9 \times 8 = \text{Rs. } 65366.3$
For 2012/13 = $35487.1 + 3734.9 \times 9 = \text{Rs. } 69101.2$

4.

Fiscal Year	Non Tax Revenue (Y)	Mid-Value [X=x-2002/03]	X^2	XY
1998/99	4945.1	-5	25	-24725.5
1999/00	6225.1	-4	16	-24900.4
2000/01	5949.2	-3	9	-17847.6
2001/02	6998.1	-2	4	-13996.2
2002/03	8494.4	-1	1	-8494.4
2003/04	9741.6	0	0	0
2004/05	10028.8	1	1	10028.8
2005/06	11115	2	4	22230
2006/07	13725.5	3	9	41176.5
2007/08	14157.8	4	16	56631.2
N = 10	$\sum Y = \mathbf{91380.6}$	$\sum X = \mathbf{-5}$	$\sum X^2 = \mathbf{85}$	$\sum XY = \mathbf{40102.4}$

$$\begin{aligned} \therefore a &= \frac{\sum X^2 \cdot \sum Y - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\ &= \frac{85 \times 91380.6 - (-5) \times 40102.4}{10 \times 85 - (-5)^2} \\ &= \frac{7767351 - (-200512)}{850 - 25} \\ &= \frac{7667863}{825} \\ &= 9658 \end{aligned}$$

$$\begin{aligned} \therefore b &= \frac{N \sum XY - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\ &= \frac{10 \times 40102.4 - (-5) \times 91380.6}{10 \times 85 - (-5)^2} \\ &= \frac{401024 - (-456903)}{850 - 25} \\ &= \frac{857927}{825} \\ &= 1039.9 \end{aligned}$$

$\therefore Y = a + bx$
 For 2008/09 = $9658 + 1039.9 \times 5 = \text{Rs. } 14857.5$
 For 2009/10 = $9658 + 1039.9 \times 6 = \text{Rs. } 15897.4$
 For 2010/11 = $9658 + 1039.9 \times 7 = \text{Rs. } 16937.3$
 For 2011/12 = $9658 + 1039.9 \times 6 = \text{Rs. } 17977.2$
 For 2012/13 = $9658 + 1039.9 \times 7 = \text{Rs. } 19017.1$

5.

Fiscal Year	Direct Tax (Y)	Mid-Value [X=x-2002/03]	X^2	XY
1998/99	3849.3	-5	25	-19246.5
1999/00	4655.9	-4	16	-18623.6
2000/01	5340	-3	9	-16020
2001/02	6187.9	-2	4	-12375.8
2002/03	7516.1	-1	1	-7516.1
2003/04	8951.5	0	0	0
2004/05	9729.7	1	1	9729.7
2005/06	10037.6	2	4	20075.2
2006/07	9474.1	3	9	28422.3
2007/08	11212.3	4	16	44849.2
N = 10	$\sum Y = 76954.4$	$\sum X = -5$	$\sum X^2 = 85$	$\sum XY = 29294.4$

$$\begin{aligned}
\therefore a &= \frac{\sum X^2 \cdot \sum Y - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\
&= \frac{85 \times 76954.4 - (-5) \times 29294.4}{10 \times 85 - (-5)^2} \\
&= \frac{6541124 - (-146472)}{850 - 25} \\
&= \frac{6687596}{825} \\
&= 8106.2
\end{aligned}$$

$$\begin{aligned}
\therefore b &= \frac{N \sum XY - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\
&= \frac{10 \times 29294.4 - (-5) \times 76954.4}{10 \times 85 - (-5)^2} \\
&= \frac{292944 - (-384772)}{850 - 25} \\
&= \frac{677716}{825} \\
&= 821.5
\end{aligned}$$

$$\begin{aligned}
\therefore Y &= a + bx \\
\text{For 2008/09} &= 8106.2 + 821.5 \times 5 = \text{Rs. } 12213.7 \\
\text{For 2009/10} &= 8106.2 + 821.5 \times 6 = \text{Rs. } 13035.2 \\
\text{For 2010/11} &= 8106.2 + 821.5 \times 7 = \text{Rs. } 13856.7 \\
\text{For 2011/12} &= 8106.2 + 821.5 \times 6 = \text{Rs. } 14678.2 \\
\text{For 2012/13} &= 8106.2 + 821.5 \times 7 = \text{Rs. } 15499.7
\end{aligned}$$

6.

Fiscal Year	Indirect Tax (Y)	Mid-Value [X=x-2002/03]	X^2	XY
1998/99	15865	-5	25	-79325
1999/00	17083	-4	16	-68332
2000/01	19191	-3	9	-57573
2001/02	19927	-2	4	-39854
2002/03	21456	-1	1	-21456
2003/04	24597	0	0	0
2004/05	29135.3	1	1	29135.3
2005/06	29292.8	2	4	58585.6
2006/07	33030.2	3	9	99090.6

2007/08	36961	4	16	147844
N = 10	$\sum Y =$ 246538.3	$\sum X = -5$	$\sum X^2 = 85$	$\sum XY =$ 68115.5

$$\begin{aligned} \therefore a &= \frac{\sum X^2 \cdot \sum Y - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\ &= \frac{85 \times 246538.3 - (-5) \times 68115.5}{10 \times 85 - (-5)^2} \\ &= \frac{20955756 - (-340578)}{850 - 25} \\ &= \frac{21296334}{825} \\ &= 25813.7 \end{aligned}$$

$$\begin{aligned} \therefore b &= \frac{N \sum XY - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\ &= \frac{10 \times 68115.5 - (-5) \times 246538.3}{10 \times 85 - (-5)^2} \\ &= \frac{681155 - (-1232692)}{850 - 25} \\ &= \frac{1913847}{825} \\ &= 2319.8 \end{aligned}$$

$$\begin{aligned} \therefore Y &= a + bx \\ \text{For 2008/09} &= 25813.7 + 2319.8 \times 5 = \text{Rs. } 37412.7 \\ \text{For 2009/10} &= 25813.7 + 2319.8 \times 6 = \text{Rs. } 39732.5 \\ \text{For 2010/11} &= 25813.7 + 2319.8 \times 7 = \text{Rs. } 42052.3 \\ \text{For 2011/12} &= 25813.7 + 2319.8 \times 8 = \text{Rs. } 44372.1 \\ \text{For 2012/13} &= 25813.7 + 2319.8 \times 9 = \text{Rs. } 46691.9 \end{aligned}$$

7.

Fiscal Year	Custom Duty (Y)	Mid-Value [X=x-2002/03]	X^2	XY
1998/99	7018.1	-5	25	-35090.5
1999/00	7327.4	-4	16	-29309.6
2000/01	8309.1	-3	9	-24927.3
2001/02	8502.2	-2	4	-17004.4
2002/03	9517.7	-1	1	-9517.7
2003/04	10813.3	0	0	0
2004/05	12552.1	1	1	12552.1

2005/06	12658.7	2	4	25317.4
2006/07	14236.7	3	9	42710.1
2007/08	15554.8	4	16	62219.2
N = 10	$\sum Y = 106490.1$	$\sum X = -5$	$\sum X^2 = 85$	$\sum XY = 26949.3$

$$\begin{aligned} \therefore a &= \frac{\sum X^2 \cdot \sum Y - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\ &= \frac{85 \times 106490.1 - (-5) \times 26949.4}{10 \times 85 - (-5)^2} \\ &= \frac{9051638.5 - (-134747)}{850 - 25} \\ &= \frac{9186386}{825} \\ &= 11135 \end{aligned}$$

$$\begin{aligned} \therefore b &= \frac{N \sum XY - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\ &= \frac{10 \times 26949.4 - (-5) \times 106490.1}{10 \times 85 - (-5)^2} \\ &= \frac{269494 - (-532450.5)}{850 - 25} \\ &= \frac{801944}{825} \\ &= 972.1 \end{aligned}$$

$$\therefore Y = a + bx$$

$$\text{For 2008/09} = 11135 + 972.1 \times 5 = \text{Rs. } 15995.5$$

$$\text{For 2009/10} = 11135 + 972.1 \times 6 = \text{Rs. } 16970.6$$

$$\text{For 2010/11} = 11135 + 972.1 \times 7 = \text{Rs. } 17943.2$$

$$\text{For 2011/12} = 11135 + 972.1 \times 8 = \text{Rs. } 18915.8$$

$$\text{For 2012/13} = 11135 + 972.1 \times 9 = \text{Rs. } 19888.4$$

8.

Fiscal Year	VAT (Y)	Mid-Value [X=x-2002/03]	X^2	XY
1998/99	6031.7	-5	25	-30158.5
1999/00	6431.3	-4	16	-25725.2
2000/01	7126.5	-3	9	-21379.5
2001/02	7122.6	-2	4	-14245.2

2002/03	7882.2	-1	1	-7882.2
2003/04	9854.9	0	0	0
2004/05	12047.8	1	1	12047.8
2005/06	11947.9	2	4	23895.8
2006/07	13449.1	3	9	40347.3
2007/08	14478.9	4	16	57915.6
N = 10	$\sum Y = 96372.9$	$\sum X = -5$	$\sum X^2 = 85$	$\sum XY = 34815.9$

$$\begin{aligned} \therefore a &= \frac{\sum X^2 \cdot \sum Y - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\ &= \frac{85 \times 96372.9 - (-5) \times 34815.9}{10 \times 85 - (-5)^2} \\ &= \frac{8191696.5 - (-174080)}{850 - 25} \\ &= \frac{8365777}{825} \\ &= 10140.3 \end{aligned}$$

$$\begin{aligned} \therefore b &= \frac{N \sum XY - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\ &= \frac{10 \times 34815.9 - (-5) \times 96372.9}{10 \times 85 - (-5)^2} \\ &= \frac{348159 - (-481864.5)}{850 - 25} \\ &= \frac{830024}{825} \\ &= 1006.1 \end{aligned}$$

$$\begin{aligned} \therefore Y &= a + bx \\ \text{For 2008/09} &= 10140.3 + 1006.1 \times 5 = \text{Rs. } 15170.8 \\ \text{For 2009/10} &= 10140.3 + 1006.1 \times 6 = \text{Rs. } 16176.9 \\ \text{For 2010/11} &= 10140.3 + 1006.1 \times 7 = \text{Rs. } 17183.0 \\ \text{For 2011/12} &= 10140.3 + 1006.1 \times 8 = \text{Rs. } 18189.1 \\ \text{For 2012/13} &= 10140.3 + 1006.1 \times 9 = \text{Rs. } 19195.2 \end{aligned}$$

9.

Fiscal Year	Excise Duty (Y)	Mid-Value [X=x-2002/03]	X ²	XY
1998/99	1657	-5	25	-8285

1999/00	1944	-4	16	-7776
2000/01	2298	-3	9	-6894
2001/02	2886	-2	4	-5772
2002/03	2953	-1	1	-2953
2003/04	3128	0	0	0
2004/05	3771	1	1	3771
2005/06	3807.7	2	4	7615.4
2006/07	4785.2	3	9	14355.6
2007/08	6226.7	4	16	24906.8
N = 10	$\sum Y = 33456.6$	$\sum X = -5$	$\sum X^2 = 85$	$\sum XY = 18968.8$

$$\begin{aligned} \therefore a &= \frac{\sum X^2 \cdot \sum Y - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\ &= \frac{85 \times 33456.6 - (-5) \times 18968.8}{10 \times 85 - (-5)^2} \\ &= \frac{2843811 - (-94844)}{850 - 25} \\ &= \frac{938655}{825} \\ &= 3562 \end{aligned}$$

$$\begin{aligned} \therefore b &= \frac{N \sum XY - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\ &= \frac{10 \times 18968.8 - (-5) \times 33456.6}{10 \times 85 - (-5)^2} \\ &= \frac{189688 - (-167283)}{850 - 25} \\ &= \frac{356971}{825} \\ &= 432.7 \end{aligned}$$

$$\begin{aligned} \therefore Y &= a + bx \\ \text{For 2008/09} &= 3562 + 432.7 \times 5 = \text{Rs. } 5725.5 \\ \text{For 2009/10} &= 3562 + 432.7 \times 6 = \text{Rs. } 6158.2 \\ \text{For 2010/11} &= 3562 + 432.7 \times 7 = \text{Rs. } 6590.9 \\ \text{For 2011/12} &= 3562 + 432.7 \times 8 = \text{Rs. } 7023.6 \\ \text{For 2012/13} &= 3562 + 432.7 \times 9 = \text{Rs. } 7456.3 \end{aligned}$$

10.

Fiscal Year	Contract Tax (Y)	Mid-Value [X=x-2002/03]	X ²	XY
1998/99	505.2	-5	25	-2526
1999/00	613.4	-4	16	-2453.6
2000/01	621.3	-3	9	-1863.9
2001/02	761.6	-2	4	-1523.2
2002/03	618	-1	1	-618
2003/04	374.5	0	0	0
2004/05	303.9	1	1	303.9
2005/06	301.7	2	4	603.4
2006/07	0	3	9	0
2007/08	0	4	16	0
N = 10	∑ Y = 4099.6	∑ X = -5	∑ X² = 85	∑ XY = -8077.4

$$\begin{aligned}
 \therefore a &= \frac{\sum X^2 \cdot \sum Y - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\
 &= \frac{85 \times 4099.6 - (-5) \times (-8077.4)}{10 \times 85 - (-5)^2} \\
 &= \frac{348466 - 40387}{850 - 25} \\
 &= \frac{308079}{825} \\
 &= 373.4
 \end{aligned}$$

$$\begin{aligned}
 \therefore b &= \frac{N \sum XY - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\
 &= \frac{10 \times (-8077.4) - (-5) \times 4099.6}{10 \times 85 - (-5)^2} \\
 &= \frac{-80774 + 20498}{850 - 25} \\
 &= \frac{-60276}{825} \\
 &= -73.6
 \end{aligned}$$

$$\therefore Y = a + bx$$

$$\text{For 2008/09} = 373.4 + (-73) \times 5 = \text{Rs. } 8.4$$

$$\text{For 2009/10} = 373.4 + (-73) \times 6 = \text{Rs. } -64.6$$

$$\text{For 2010/11} = 373.4 + (-73) \times 7 = \text{Rs. } -137.6$$

$$\text{For 2011/12} = 373.4 + (-73) \times 8 = \text{Rs. } -210.6$$

$$\text{For 2012/13} = 373.4 + (-73) \times 9 = \text{Rs. } -283.6$$

11.

Fiscal Year	Other Tax (Y)	Mid-Value [X=x-2002/03]	X^2	XY
1998/99	652	-5	25	-3260
1999/00	766	-4	16	-3064
2000/01	836	-3	9	-2508
2001/02	655	-2	4	-1310
2002/03	485	-1	1	-485
2003/04	427	0	0	0
2004/05	460.4	1	1	460.4
2005/06	866.2	2	4	1732.4
2006/07	559.4	3	9	1678.2
2007/08	700.6	4	16	2802.4
N = 10	$\sum Y = 6407.6$	$\sum X = -5$	$\sum X^2 = 85$	$\sum XY = -3953.6$

$$\begin{aligned} \therefore a &= \frac{\sum X^2 \cdot \sum Y - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\ &= \frac{85 \times 6407.6 - (-5) \times (-3953.6)}{10 \times 85 - (-5)^2} \\ &= \frac{544646 - 19768}{850 - 25} \\ &= \frac{524878}{825} \\ &= 636.2 \end{aligned}$$

$$\begin{aligned} \therefore b &= \frac{N \sum XY - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\ &= \frac{10 \times (-3953.6) - (-5) \times 6407.6}{10 \times 85 - (-5)^2} \\ &= \frac{-39536 + 32038}{850 - 25} \\ &= \frac{-7498}{825} \\ &= -9.1 \end{aligned}$$

$$\begin{aligned} \therefore Y &= a + bx \\ \text{For 2008/09} &= 636.2 + (-9.1) \times 5 = \text{Rs. } -590.7 \end{aligned}$$

For 2009/10 = 636.2 + (-9.1) × 6 = Rs. -581.6
 For 2010/11 = 636.2 + (-9.1) × 7 = Rs. -572.5
 For 2011/12 = 636.2 + (-9.1) × 8 = Rs. -563.4
 For 2012/13 = 636.2 + (-9.1) × 9 = Rs. -554.3

12.

Fiscal Year	Income Tax (Y)	Mid-Value [X=x-2002/03]	X^2	XY
1998/99	2823.5	-5	25	-14117.5
1999/00	3431.4	-4	16	-13725.6
2000/01	4123.3	-3	9	-12369.9
2001/02	4898.1	-2	4	-9796.2
2002/03	6170.3	-1	1	-6170.3
2003/04	7420.6	0	0	0
2004/05	9113.9	1	1	9113.9
2005/06	8919.7	2	4	17839.4
2006/07	8059.6	3	9	24178.8
2007/08	9514.8	4	16	38059.2
N = 10	$\sum Y =$ 64475.2	-5	$\sum X^2 = 85$	$\sum XY =$ 33011.8

$$\begin{aligned} \therefore a &= \frac{\sum X^2 \cdot \sum Y - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\ &= \frac{85 \times 64475.2 - (-5) \times 33011.8}{10 \times 85 - (-5)^2} \\ &= \frac{5480392 - (-165059)}{850 - 25} \\ &= \frac{5645451}{825} \\ &= 6843 \end{aligned}$$

$$\begin{aligned} \therefore b &= \frac{N \sum XY - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\ &= \frac{10 \times 33011.8 - (-5) \times 64475.2}{10 \times 85 - (-5)^2} \\ &= \frac{330118 - (-322376)}{850 - 25} \\ &= \frac{652494}{825} \\ &= 790.9 \end{aligned}$$

$$\therefore Y = a + bx$$

For 2008/09 = $6843 + 790.9 \times 5 = \text{Rs. } 10797.5$
For 2009/10 = $6843 + 790.9 \times 6 = \text{Rs. } 11588.4$
For 2010/11 = $6843 + 790.9 \times 7 = \text{Rs. } 12379.3$
For 2011/12 = $6843 + 790.9 \times 8 = \text{Rs. } 13170.2$
For 2012/13 = $6843 + 790.9 \times 9 = \text{Rs. } 13961.1$

13

Fiscal Year	Land Revenue (Y)	Mid-Value [X=x-2002/03]	X^2	XY
1998/99	34.9	-5	25	-174.5
1999/00	18.2	-4	16	-72.8
2000/01	5.9	-3	9	-17.7
2001/02	3.6	-2	4	-7.2
2002/03	1.4	-1	1	-1.4
2003/04	4.6	0	0	0
2004/05	4.7	1	1	4.7
2005/06	0.7	2	4	1.4
2006/07	0	3	9	0
2007/08	0	4	16	0
N = 10	$\sum Y = 74$	$\sum X = -5$	$\sum X^2 = 85$	$\sum XY = -267.5$

$$\begin{aligned} \therefore a &= \frac{\sum X^2 \cdot \sum Y - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\ &= \frac{85 \times 74 - (-5) \times (-267.5)}{10 \times 85 - (-5)^2} \\ &= \frac{6290 - 1337.5}{850 - 25} \\ &= \frac{4952.5}{825} \\ &= 6 \end{aligned}$$

$$\begin{aligned} \therefore b &= \frac{N \sum XY - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\ &= \frac{10 \times (-267.5) - (-5) \times 74}{10 \times 85 - (-5)^2} \\ &= \frac{-2675 + 370}{850 - 25} \\ &= \frac{-2305}{825} \\ &= -2.8 \end{aligned}$$

$\therefore Y = a + bx$
 For 2008/09 = $6 + (-2.8) \times 5 = \text{Rs. } -8.$
 For 2009/10 = $6 + (-2.8) \times 6 = \text{Rs. } -10.8$
 For 2010/11 = $6 + (-2.8) \times 7 = \text{Rs. } -13.6$
 For 2011/12 = $6 + (-2.8) \times 8 = \text{Rs. } -16.4$
 For 2012/13 = $6 + (-2.8) \times 9 = \text{Rs. } -19.2$

14

Fiscal Year	House & Land Revenue (Y)	Mid-Value [X=x-2002/03]	X ²	XY
1998/99	902.8	-5	25	-4514
1999/00	1048.4	-4	16	-4193.6
2000/01	1009.5	-3	9	-3028.5
2001/02	1000.6	-2	4	-2001.2
2002/03	1001.8	-1	1	-1001.8
2003/04	1001.3	0	0	0
2004/05	607.8	1	1	607.8
2005/06	1131	2	4	2262
2006/07	1414.4	3	9	4243.2
2007/08	1697.4	4	16	6789.6
N = 10	$\sum Y = 10815$	$\sum X = -5$	$\sum X^2 = 85$	$\sum XY = -836.5$

$$\begin{aligned} \therefore a &= \frac{\sum X^2 \cdot \sum Y - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\ &= \frac{85 \times 10815 - (-5) \times (-836.5)}{10 \times 85 - (-5)^2} \\ &= \frac{919275 - 4182.5}{850 - 25} \\ &= \frac{915092.5}{825} \\ &= 1109.2 \end{aligned}$$

$$\begin{aligned} \therefore b &= \frac{N \sum XY - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\ &= \frac{10 \times (-836.5) - (-5) \times 10815}{10 \times 85 - (-5)^2} \\ &= \frac{-8365 + 54075}{850 - 25} \\ &= \frac{45710}{825} \\ &= 55.4 \end{aligned}$$

$$\begin{aligned} \therefore Y &= a + bx \\ \text{For 2008/09} &= 1190.2 + 55.4 \times 5 = \text{Rs. } 1386.2 \\ \text{For 2009/10} &= 1190.2 + 55.4 \times 6 = \text{Rs. } 1441.6 \\ \text{For 2010/11} &= 1190.2 + 55.4 \times 7 = \text{Rs. } 1497.0 \\ \text{For 2011/12} &= 1190.2 + 55.4 \times 8 = \text{Rs. } 1552.4 \\ \text{For 2012/13} &= 1190.2 + 55.4 \times 9 = \text{Rs. } 1607.8 \end{aligned}$$

15.

Fiscal Year	Urban house & Land Rent (Y)	Mid-Value [X=x-2000/03]	X^2	XY
1998/99	34.1	-5	25	-170.5
1999/00	87.2	-4	16	-348.8
2000/01	95	-3	9	-285
2001/02	110.7	-2	4	-221.4
2002/03	123.2	-1	1	-123.2
2003/04	77.1	0	0	0
2004/05	3.3	1	1	3.3
2005/06	2.4	2	4	4.8
2006/07	0	3	9	0
2007/08	0	4	16	0

N = 10	$\sum Y = 533$	$\sum X = -5$	$\sum X^2 = 85$	$\sum XY = -1140.8$
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$$\begin{aligned} \therefore a &= \frac{\sum X^2 \cdot \sum Y - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\ &= \frac{85 \times 533 - (-5) \times (-1140.8)}{10 \times 85 - (-5)^2} \\ &= \frac{45305 - 5704}{850 - 25} \\ &= \frac{39601}{825} \\ &= 48 \end{aligned}$$

$$\begin{aligned} \therefore b &= \frac{N \sum XY - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\ &= \frac{10 \times (-1140.8) - (-5) \times 533}{10 \times 85 - (-5)^2} \\ &= \frac{-11408 + 2665}{850 - 25} \\ &= \frac{-8743}{825} \\ &= -10.6 \end{aligned}$$

$$\begin{aligned} \therefore Y &= a + bx \\ \text{For 2008/09} &= 48 + (-10.6) \times 5 = \text{Rs. } -5 \\ \text{For 2009/10} &= 48 + (-10.6) \times 6 = \text{Rs. } -15.6 \\ \text{For 2010/11} &= 48 + (-10.6) \times 7 = \text{Rs. } -26.2 \\ \text{For 2011/12} &= 48 + (-10.6) \times 8 = \text{Rs. } -36.8 \\ \text{For 2012/13} &= 48 + (-10.6) \times 9 = \text{Rs. } -47.4 \end{aligned}$$

16.

Fiscal Year	Government Corporation (Y)	Mid-Value [X=x-2002/03]	X^2	XY
1998/99	860.2	-5	25	-4301
1999/00	1144.4	-4	16	-4577.6
2000/01	1231.1	-3	9	-3693.3
2001/02	1337.8	-2	4	-2675.6
2002/03	1526.5	-1	1	-1526.5
2003/04	2198.8	0	0	0
2004/05	2928	1	1	2928
2005/06	1770.6	2	4	3541.2

2006/07	1251.6	3	9	3754.8
2007/08	2056.6	4	16	8226.4
N = 10	$\sum Y = 16305.6$	$\sum X = -5$	$\sum X^2 = 85$	$\sum XY = 1676.4$

$$\begin{aligned} \therefore a &= \frac{\sum X^2 \cdot \sum Y - \sum X \cdot \sum XY}{N \sum X^2 - (\sum X)^2} \\ &= \frac{85 \times 16305.6 - (-5) \times 1676.4}{10 \times 85 - (-5)^2} \\ &= \frac{1385976 + 8382}{850 - 25} \\ &= \frac{1394358}{825} \\ &= 1690.1 \end{aligned}$$

$$\begin{aligned} \therefore b &= \frac{N \sum XY - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\ &= \frac{10 \times 1676.4 - (-5) \times 16305.6}{10 \times 85 - (-5)^2} \\ &= \frac{16764 + 81528}{850 - 25} \\ &= \frac{98322}{825} \\ &= 119.2 \end{aligned}$$

$$\begin{aligned} \therefore Y &= a + bx \\ \text{For 2008/09} &= 1690.1 + 119.2 \times 5 = \text{Rs. } 2286.1 \\ \text{For 2009/10} &= 1690.1 + 119.2 \times 6 = \text{Rs. } 2405.3 \\ \text{For 2010/11} &= 1690.1 + 119.2 \times 7 = \text{Rs. } 2524.5 \\ \text{For 2011/12} &= 1690.1 + 119.2 \times 8 = \text{Rs. } 2643.7 \\ \text{For 2012/13} &= 1690.1 + 119.2 \times 9 = \text{Rs. } 2762.9 \end{aligned}$$

17.

Fiscal Year	Public Ltd. Company (Y)	Mid-Value [X=x-2002/03]	X^2	XY
1998/99	440	-5	25	-2200
1999/00	563.9	-4	16	-2255.6
2000/01	856.4	-3	9	-2569.2
2001/02	925.1	-2	4	-1850.2
2002/03	1155	-1	1	-1155

2003/04	1339.5	0	0	0
2004/05	1924.3	1	1	1924.3
2005/06	1429.9	2	4	2859.8
2006/07	1236.3	3	9	3708.9
2007/08	1531.3	4	16	6125.2
N = 10	$\sum Y = 11401.7$	$\sum X = -5$	$\sum X^2 = 85$	$\sum XY = 4588.2$

$$\begin{aligned} \therefore a &= \frac{\sum X^2 \cdot \sum Y - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\ &= \frac{85 \times 11401.7 - (-5) \times 4588.2}{10 \times 85 - (-5)^2} \\ &= \frac{969144.5 + 22941}{850 - 25} \\ &= \frac{992085.5}{825} \\ &= 1202.5 \end{aligned}$$

$$\begin{aligned} \therefore b &= \frac{N \sum XY - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\ &= \frac{10 \times 4588.2 - (-5) \times 11401.7}{10 \times 85 - (-5)^2} \\ &= \frac{45882 + 57008.5}{850 - 25} \\ &= \frac{102890}{825} \\ &= 124.7 \end{aligned}$$

$$\begin{aligned} \therefore Y &= a + bx \\ \text{For 2008/09} &= 1202.5 + 124.7 \times 5 = \text{Rs. } 1826.0 \\ \text{For 2009/10} &= 1202.5 + 124.7 \times 6 = \text{Rs. } 1950.7 \\ \text{For 2010/11} &= 1202.5 + 124.7 \times 7 = \text{Rs. } 2075.4 \\ \text{For 2011/12} &= 1202.5 + 124.7 \times 8 = \text{Rs. } 2200.1 \\ \text{For 2012/13} &= 1202.5 + 124.7 \times 9 = \text{Rs. } 2324.8 \end{aligned}$$

18.

Fiscal Year	Private Company (Y)	Mid-Value [X=x-2002/03]	X^2	XY
1998/99	465.5	-5	25	-2327.5
1999/00	564.2	-4	16	-2256.8

2000/01	602.8	-3	9	-1808.4
2001/02	693.8	-2	4	-1387.6
2002/03	780.7	-1	1	-780.7
2003/04	900.1	0	0	0
2004/05	1134.2	1	1	1134.2
2005/06	1170.6	2	4	2341.2
2006/07	1167.7	3	9	3503.1
2007/08	1250.8	4	16	5003.2
N = 10	$\sum Y = 8730.4$	$\sum X = -5$	$\sum X^2 = 85$	$\sum XY = 3420.7$

$$\begin{aligned}
\therefore a &= \frac{\sum X^2 \cdot \sum Y - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\
&= \frac{85 \times 8730.4 - (-5) \times 3420.7}{10 \times 85 - (-5)^2} \\
&= \frac{742084 + 17103.5}{850 - 25} \\
&= \frac{759187.5}{825} \\
&= 920.2
\end{aligned}$$

$$\begin{aligned}
\therefore b &= \frac{N \sum XY - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\
&= \frac{10 \times 3420.7 - (-5) \times 8730.4}{10 \times 85 - (-5)^2} \\
&= \frac{34207 + 43652}{850 - 25} \\
&= \frac{77859}{825} \\
&= 94.4
\end{aligned}$$

$$\begin{aligned}
\therefore Y &= a + bx \\
\text{For 2008/09} &= 920.2 + 94.4 \times 5 = \text{Rs. } 1392.2 \\
\text{For 2009/10} &= 920.2 + 94.4 \times 6 = \text{Rs. } 1486.6 \\
\text{For 2010/11} &= 920.2 + 94.4 \times 7 = \text{Rs. } 1581.0 \\
\text{For 2011/12} &= 920.2 + 94.4 \times 8 = \text{Rs. } 1392.2 \\
\text{For 2012/13} &= 920.2 + 94.4 \times 9 = \text{Rs. } 1769.8
\end{aligned}$$

19.

Fiscal Year	Corporate Tax (Y)	Mid-Value [X=x-2002/03]	X ²	XY
1998/99	1765.8	-5	25	-8829
1999/00	2272.7	-4	16	-9090.8
2000/01	2693.3	-3	9	-8079.9
2001/02	2936.7	-2	4	-5873.4
2002/03	3462.2	-1	1	-3462.2
2003/04	4438.4	0	0	0
2004/05	5986.5	1	1	5986.5
2005/06	4371.2	2	4	8742.4
2006/07	3655.5	3	9	10966.5
2007/08	4838.7	4	16	19354.8
N = 10	∑ Y = 36421	∑ X = -5	∑ X² = 85	∑ XY = 9714.9

$$\begin{aligned} \therefore a &= \frac{\sum X^2 \cdot \sum Y - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\ &= \frac{85 \times 36421 - (-5) \times 9714.9}{10 \times 85 - (-5)^2} \\ &= \frac{3095785 - (-48574.5)}{850 - 25} \\ &= \frac{3144360}{825} \\ &= 3811.3 \end{aligned}$$

$$\begin{aligned} \therefore b &= \frac{N \sum XY - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\ &= \frac{10 \times 9714.9 - (-5) \times 36421}{10 \times 85 - (-5)^2} \\ &= \frac{97149 - (-182105)}{850 - 25} \\ &= \frac{279254}{825} \\ &= 338.5 \end{aligned}$$

$$\therefore Y = a + bx$$

$$\text{For 2008/09} = 3811.3 + 338.5 \times 5 = \text{Rs. } 5503.8$$

$$\text{For 2009/10} = 3811.3 + 338.5 \times 6 = \text{Rs. } 5842.3$$

$$\text{For 2010/11} = 3811.3 + 338.5 \times 7 = \text{Rs. } 6180.8$$

$$\text{For 2011/12} = 3811.3 + 338.5 \times 8 = \text{Rs. } 6519.3$$

For 2012/13 = 3811.3 + 338.5 × 9 = Rs. 6857.8

20.

Fiscal Year	Individual Income Tax (Y)	Mid-Value [X=x-2002/03]	X ²	XY
1998/99	873.2	-5	25	-4366
1999/00	933	-4	16	-3732
2000/01	1135.6	-3	9	-3406.8
2001/02	1562	-2	4	-3124
2002/03	2184.3	-1	1	-2184.3
2003/04	2316.5	0	0	0
2004/05	2402.1	1	1	2402.1
2005/06	3731.6	2	4	7463.2
2006/07	3177.1	3	9	9531.3
2007/08	3539.4	4	16	14157.6
N = 10	∑ Y = 21854.8	∑ X = -5	∑ X² = 85	∑ XY = 16741.1

$$\begin{aligned}
 \therefore a &= \frac{\sum X^2 \cdot \sum Y - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\
 &= \frac{85 \times 21854.8 - (-5) \times 16741.1}{10 \times 85 - (-5)^2} \\
 &= \frac{1857658 + 83705.5}{850 - 25} \\
 &= \frac{1941364}{825} \\
 &= 2353.2
 \end{aligned}$$

$$\begin{aligned}
 \therefore b &= \frac{N \sum XY - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\
 &= \frac{10 \times 16741.1 - (-5) \times 21854.8}{10 \times 85 - (-5)^2} \\
 &= \frac{16741 + 109274}{850 - 25} \\
 &= \frac{276685}{825} \\
 &= 335.4
 \end{aligned}$$

$$\begin{aligned} \therefore Y &= a + bx \\ \text{For 2008/09} &= 2353.2 + 335.4 \times 5 = \text{Rs. } 4030.2 \\ \text{For 2009/10} &= 2353.2 + 335.4 \times 6 = \text{Rs. } 4365.6 \\ \text{For 2010/11} &= 2353.2 + 335.4 \times 7 = \text{Rs. } 4701.0 \\ \text{For 2011/12} &= 2353.2 + 335.4 \times 8 = \text{Rs. } 5036.4 \\ \text{For 2012/13} &= 2353.2 + 335.4 \times 9 = \text{Rs. } 5371.8 \end{aligned}$$

21.

Fiscal Year	House & Land Rent Tax (Y)	Mid-Value [X=x-2002/03]	X^2	XY
1998/99	72.8	-5	25	-364
1999/00	106	-4	16	-424
2000/01	140.1	-3	9	-420.3
2001/02	187.1	-2	4	-374.2
2002/03	204.2	-1	1	-204.2
2003/04	251.2	0	0	0
2004/05	261.5	1	1	261.5
2005/06	348.5	2	4	697
2006/07	381.7	3	9	1145.1
2007/08	403.3	4	16	1613.2
N = 10	$\sum Y = 2356.4$	$\sum X = -5$	$\sum X^2 = 85$	$\sum XY = 1930.1$

$$\begin{aligned} \therefore a &= \frac{\sum X^2 \cdot \sum Y - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\ &= \frac{85 \times 2356.4 - (-5) \times 1930.1}{10 \times 85 - (-5)^2} \\ &= \frac{200294 + 9650.5}{850 - 25} \\ &= \frac{209944.5}{825} \\ &= 254.5 \end{aligned}$$

$$\begin{aligned} \therefore b &= \frac{N \sum XY - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\ &= \frac{10 \times 1930.1 - (-5) \times 2354.6}{10 \times 85 - (-5)^2} \\ &= \frac{19301 + 11782}{850 - 25} \\ &= \frac{31083}{825} \\ &= 37.7 \end{aligned}$$

$\therefore Y = a + bx$
 For 2008/09 = $254.5 + 37.7 \times 5 = \text{Rs. } 442.5$
 For 2009/10 = $254.5 + 37.7 \times 6 = \text{Rs. } 480.2$
 For 2010/11 = $254.5 + 37.7 \times 7 = \text{Rs. } 517.9$
 For 2011/12 = $254.5 + 37.7 \times 8 = \text{Rs. } 555.6$
 For 2012/13 = $254.5 + 37.7 \times 9 = \text{Rs. } 593.3$

22.

Fiscal Year	Interest Tax (Y)	Mid-Value [X=x-2002/03]	X ²	XY
1998/99	111.6	-5	25	-558
1999/00	119.8	-4	16	-479.2
2000/01	154.4	-3	9	-463.2
2001/02	212.1	-2	4	-424.2
2002/03	319.5	-1	1	-319.5
2003/04	414.5	0	0	0
2004/05	463.9	1	1	463.9
2005/06	468.3	2	4	936.6
2006/07	845.2	3	9	2535.6
2007/08	733.4	4	16	2933.6
N = 10	$\sum Y = 3842.7$	$\sum X = -5$	$\sum X^2 = 85$	$\sum XY = 4625.6$

$$\begin{aligned}
\therefore a &= \frac{\sum X^2 \cdot \sum Y - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\
&= \frac{85 \times 3842.7 - (-5) \times 4625.6}{10 \times 85 - (-5)^2} \\
&= \frac{326629.5 + 23128}{850 - 25} \\
&= \frac{349757.5}{825} \\
&= 423.9
\end{aligned}$$

$$\begin{aligned}
\therefore b &= \frac{N \sum XY - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} \\
&= \frac{10 \times 4625.6 - (-5) \times 3842.7}{10 \times 85 - (-5)^2} \\
&= \frac{46256 + 19213.5}{850 - 25} \\
&= \frac{65469.5}{825} \\
&= 79.4
\end{aligned}$$

$$\begin{aligned}
\therefore Y &= a + bx \\
\text{For 2008/09} &= 423.9 + 79.4 \times 5 = \text{Rs. } 820.9 \\
\text{For 2009/10} &= 423.9 + 79.4 \times 6 = \text{Rs. } 900.2 \\
\text{For 2010/11} &= 423.9 + 79.4 \times 7 = \text{Rs. } 979.7 \\
\text{For 2011/12} &= 423.9 + 79.4 \times 8 = \text{Rs. } 1059.1 \\
\text{For 2012/13} &= 423.9 + 79.4 \times 9 = \text{Rs. } 1135.5
\end{aligned}$$