AGRICULTURAL INCOME TAX; PROSPECTS AND PROBLEMS; THE CASE OF PAKISTAN

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IN THE MEMORY
OF ALL THOSE WHO
SACRIFIED THEIR LIVES
IN "JIHAD-E-KASHMIR"

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CONTENTS

INTRODUCTION

The tax on agricultural income has become one of the most controversial issue in recent years. It has been so extensively discussed, debated and agitated that very few aspects of the issue remain unexplored. The debate and discussion which was restricted to the research papers of economists, seminars of professional bodies, meetings of the trade associations and chambers; proceedings of the pre-budget meetings of the Tax Bars and Tax department, has over the years spread to practically every person who directly or indirectly is concerned or effected by the taxation system. It has, thus, lost it's objectivity and every type of argument is being used against one another by the vested interests. The problem has been approached from different angles and even the views of economists are diagonally opposite.

The problem has also remained the subject matter of various Committees and Commissions appointed from time to time. Unfortunately most of them have either not been able to make any definite recommendations or whereever such recommendations were made, these were not implemented.

The most interesting aspect of the issue is that those in favour of the tax are mostly impressed with the fact that the agriculture is the single largest contributor to the GDP, and tend to calculate the tax potential on the basis of PIU, acres or hectares; but rarely—take into account the cost of production of various crops, and that of the outputs as the proposition is to tax 'net income' and not the gross receipts. Similarly those who oppose the levy refer to inter sectoral transfers from agriculture to industry; lower agricultural prices as compared to international prices, various exchange rate differences' but ignore the fact that the proposition is to levy tax on "individuals" and not on sector. The result is that even in scholarly analysis subjectivity has dominated, thereby reducing the scope of objective appraisal of the issues involved.

The main objective of this study is to estimate the tax potential of the agricultural income. The study uses a new methodology to estimate the tax potential based on the actual data. All previous studies used indirect method to estimate tax potential. But this study uses direct method to do so.

This paper is divided into five sections. The section following this introduction reviews historical picture of the agricultural income tax in Pakistan. The second section reviews the literature on the topic of the study. This section consists of four sub-sections. The section (a) reviews the literature on agricultural income tax. The section (b) presents a consolidated pciture of the terms of trade of the agricultural sector. The section (c) presents a picture of net tax burden of agricultural sector. The section (d) reviews the studies on the estimation of potential income tax. The third section presents data descriptions. Section four discuss the methodology used in the study. Analyses and results of the study are discussed in section five. The paper ends with a conclusion.

HISTORICAL BACKGROUND OF AGRICULTURAL INCOME TAX IN PAKISTAN

The issue of taxability (or other-wise) of the 'agricultural income' in our country is as old as the history of Income Tax in British India. Income Tax was levied for the first time in England by Pitt, the Younger in 1798 only as a war time emergency measure. However with the advent of the concept of welfare state and assumption of greater responsibility by the state, Prime Minister Peel levied income tax in 1842. After the establishment of 'Direct Rule by the British Sovereign' in 1858, income tax was first imposed in India in 1860. It may be noted with interest that the income tax was first imposed in U.S.A. in 1864[1] and Canada in 1917[2]. Indo-Pakistan Subcontinent has thus the distinction of being the second country in the world where the income tax which is commonly known as cost of 'civilized societies' was first introduced. It's coverage was wide and applied to all sources of income including agriculture. It, however, remained inforce only for five year. Income tax was reimposed in 1869 which remained operative till 1873 and was applicable to all sources of income including agriculture. The tax was once again reimposed in 1886 and income from agriculture was excluded. The reasons given for abandoning the principle of taxation of agricultural incomes were.

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[1]. Shahid Jamal — Agricultural Income Tax-To be or Not to be NIPA Karachi (47th ACAD).

[2]. Azhar, B.A. — Taxation of Agricultural Income-PIDE-Islamabad. Seventh Annual General Meeting January 8-10, 1991.

(i) Backwardness and illiteracy of the land owners.

(ii) Inefficient administrative structure.

(iii) Economic infeasibility because of low levels of agricultural income.

Agricultural income has remained out of purview of tax since 1886. It would, thus, be seen that the tax was enforce for initial nine years only. Although, the commonly cited reasons for exclusion of agricultural incomes are attributed to dependence of the British on landlords; unholy alliance between the landed aristocracy and the bureaucracy; and the assumption of power by the feudals after gaining freedom; yet the most important reason for the exemption in the earlier years was that agriculture was already subject to tax in the form of land revenue which was considered a counter-part of income tax. It may be noticed that the land revenue contributed 29% of the combined central and provincial revenue in India in 1881-82[3] and agriculture was also subject to cess on land which was levied in lieu of income tax in 1977-78.

The controversy over exemption started as soon as the agriculture income was excluded from income tax. The agitation gained momentum on abolition of cess on land in 1905-06. The exemption also was misused by the income tax assesses who showed a part of their non agricultural income as agricultural income to evade the levy of income tax. In this background a proposal was made in 1918 to take into account the agricultural income in determining the tax

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[3]. Shirras; G. Faudly (1924) The Science of Public Finance Macmillan London pp635.

rate applicable to "Income from other sources".[4] The proposal was rejected by the Government (it may, however, be of interest to note that this proposal was implemented in India in 1973-74 and in Pakistan in 1989-90). In 1925, the Indian Taxation Inquiry Committee observed that "there was no historical or theoretical justification for the continued exemption from income tax of income derived from agriculture.[5] The Committee also endorsed the earlier proposal made in 1918 of clubbing the agricultural income with other income for rate purpose. The recommendations were however not implemented. Government of India Act 1935 conferred jurisdiction to impose tax on agricultural incomes to Provincial Governments and, thus, a new dimension "as to whether Central/Federal Government can impose tax on agricultural income" has been added and continues to be debated till today as the constitutional position remains the same. The issue, however, continued to be debated and in 1936 the Income Tax Inquiry Committee found itself unable to recommend the removal of tax exemption enjoyed by the agricultural income in view of the provision of the 1935 Act but did repeat the recommendation of the Indian Taxation Inquiry Committee that agricultural and other incomes should be clubbed for rate purpose. The recommendation was however not been accepted.

In 1938, Bihar was the first province to levy income tax on Agriculture in pursuance of the provisions of the Government of India Act 1935. Assam and Bengal followed in 1940 and

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[4]. Good, Richard — "Reconstruction of Foreign Tax Systems" in Bird and Oldman eds. 1972 Readings on Taxation pp.122-124.

[5]. ---------(1928) — Report of the Income Tax Enquiry Committee, Calcutta, India p.7.

1944 respectively. Orissa imposed it in 1947 and the Government of U.P. passed the Bill in 1948-49. None of the provinces now constituting Pakistan introduced Provincial income tax. Only the former East Pakistan had a provincial agricultural income tax. Agricultural income tax levied in NWFP in 1948, Punjab in 1951 and Sind in 1965 was not infact an agricultural income tax but only a multiple of land revenue. The part of the recommendation of Land Revenue Committee[6] set up by the Punjab Government (the other reform of sliding scale was not introduced) was implemented in the name of "agricultural income tax".

The above stated sequence of events suggest that imposition of agricultural tax was always suggested by various committees which, however, was not accepted by the successive governments. There is however an interesting development. Land Revenue Committee set up in 1937 by the Government of Punjab received a memorandum from the Institute of Agrarian Reforms in Lahore demanding on behalf of the peasants of Lahore "the abolition of land revenue and the taxation of agricultural incomes according to a graduated scale as an income tax".[7] The Committee did not agree to the abolition of land revenue and it's replacement by agricultural income tax mainly because in 1938-39 land revenue yielded as much as Rs. 25 crore (Rs.250

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[6]. Government of Punjab(1938) The Report of Land Revenue Committee; Government Printing Press, Lahore pp1-93.

[7]. Narain, Brij. (1939) The Agriculture Worker and the Punjab Land Revenue Committee, The Institute of Agrarian Reforms Lahore p.67.

million) for the country whereas collections from income tax were only to the tune of Rs. 15 crores (Rs.150 million).[8]

The issue of taxing agricultural incomes has received the same attention during the post independence period. The first major endorsement for a tax on agricultural incomes in Pakistan was made by the Tax Enquiry Committee of 1959.[9] It recommended that the principle of tax on income should be universal, irrespective of the source of income and recommended abolition of graduated surcharge on land revenue and urged the Federal Government to impose tax on agricultural income at progressively rising rates of tax. The recommendation was based on the principle of horizontal equity. The recommendation was not accepted.

The Taxation and Tarrifs Commission of 1964 in it's report published in 1967[10] recommended the merger of land revenue and the provincial income tax with the general income tax levied by the Federal Government. The recommendation was, however, not accepted.

Agricultural Enquiry Commission (1970-74) examined the issue and recommended imposition of agricultural tax on persumptive basis at the rate of Rs.2 per Produce Index Unit

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[8].Reserve Bank of India(1948) Report of on Currency and Finance for the year 1947-48 cleridge and Co. Bombay pp74.

[9]. Taxation Enquiry Committee Report, Volume-I, 1960 para 299.

[10]. Government of Pakistan Committee on Taxation and Tarrifs 64.

(PIU) and clubbing the agricultural income with non agricultural income for rate purposes. This recommendation was not accepted.

The issue was clinched in 1977 when with the enactment of the Finance (Supplementary) Act of 1977, income tax was imposed on agricultural incomes and Land revenue was abolished. This was done under Article 232 of the Constitution under the Emergency Proclamation, repealing the exemption allowed to agricultural income. The law exempted the income from 25 acres of irrigated and 50 acres of un-irrigated land. The income was to be computed on actual receipt/expenditure basis but subsequently option to be assessed on persumptive basis was allowed. However, the law was suspended on imposition of Martial Law and subsequently the implementation was cancelled.

The matter was once again examined in detail by the National Tax Reform Commission in 1986[11] not only from the "desirability" point of view but from the feasibility angle also. The Commission after extensive deliberations could not make unanimous recommendations. Some members opposed the levy and others recommended alternate methods for imposition of agricultural tax although at lower rates.

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11. Government of Pakistan - (1986) Report of the National Tax Reform Commission Islamabad.

Another Committee of Experts on Taxation of Agricultural Incomes was constituted in 1989[12] to examine the issue of introducing taxation of agricultural income; and to examine the implication of enforcement of Act of 1977 on taxation of agricultural incomes; and to recommend appropriate measures for the taxation of income from agriculture in the light of analysis on-the-ground situation. This Committee also could not present a unanimous report. The Committee was of the view that it would not be possible to levy tax on agriculture without the constitutional amendment and, thus, recommended that "instead of a direct tax under the Federal Law; the land revenue system be revitalized and the procedure of assessment and collection of Ushr be strengthened and improved."

M/S Cooper and Lybrand[13] a firm of British experts, which was engaged by the Government of Pakistan to study and propose recommendations for improving the tax system in Pakistan also did not favour complete exemption from taxation of agricultural income.

The matter was again examined by the Committee on Tax Reforms constituted in 1990[14] to review the existing taxation structure and recommended suggestion for increase in revenue and

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12. Government of Pakistan - Report of the Committee of Experts on Taxation of Agricultural Income Islamabad, 29.03.88.

13. Government of Pakistan- Study of Direct Taxation: Final Report. Coopers and Lybrand Islamabad December, 1989.

14. Government of Pakistan- Report of the Committee on Tax Reforms Islamabad February, 5, 1991.

minimize difficulties; examine the existing exemptions and make suitable recommendations. The Committee was of the view that in view of the constitutional position agricultural income could not be taxed and thus recommended that "the definition of agricultural income be amended to exclude any rent received from agricultural land and income derived from such activities as horticulture; silviculture; sericulture and other activities for production of fruits and flowers or livestock. In other words, income from crops was exempt but income from other activities as stated above were proposed to be taxed.

It would, thus, be seen that the issue is so complex that the opinions still differ even after debate of 100 years or so. Another significant fact is that the Constitutional ban inherited from the Government of India Act 1935 has stood in the way of imposition of tax on agricultural incomes. Opinions in favour of imposition of tax and against are so strong that not only the urban and rural population is clearly divided but also agricultural economists; Development Economists, Tax experts are equally divided. It is in this background that the Government has once again appointed a Committee, heeded by the former Federal Minister of Finance Yaseen Watto to give a fresh thought to the whole issue. This Committee is expected to finalise its recommendations during the next few weeks. We will examine the arguments in favour of imposition of tax and against in the next chapters.

REVIEW OF LITERATURE

This section consists of four sub-sections:

(a) This section reviews the literature on Agricultural Income Tax.

(b) This section presents a consolidated picture of the terms of trade of the Agricultural sector.

(c) This section presents a brief report on the net tax burden of the Agricultural sector.

(d) This section reviews studies on the estimation of potential income tax.

(A) REVIEW OF LITERATURE ON AGRICULTURAL INCOME TAX

Agricultural income tax has become one of the most controversial issue in recent years. The problem has been approached from different angles and even the views of Economists are diagonally opposite. One school of thought holds [Hamid (1970)[15] Khan (1985)[16] and Qureshi

[15]. Hamid, J (1970) "Suggested Approach to Agricultural Taxation policy in West Pakistan" Pakistan Development Review Vol. 10, No. 4.

(1987)[17] that agriculture's role in Capital formation has been dismal; others [Chaudhry (1973)[18] Chaudhry & Maan (1991)[19] Pakistan (1986)[20] Pakistan (1988)[21] have argued that agriculture in Pakistan was heavily taxed and suffered from excessive resource transfer.

The problem has remained the subject matter of various committees and commissions appointed from time to time but unfortunately most of them have not been able to make any definite recommendations. National Tax Reforms Commission (NTRC) was caught in the cross

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16. Khan, Mahmood Hassan(1985) Agrarian Transformation in Pakistan Islamabad. Pakistan Institute of Development. Economics (Lectures in Development Economics No. 4).

17. Qureshi Sarfraz K. (1987) Agricultural Pricing and Taxation in Pakistan Islamabad: Pakistan Institute of Development Economics.

18. Chaudhry. M. Ghaffar(1973) "The Problem of Agricultural Taxation in West Pakistan and An Alternative Solution" Pakistan Development Review Vol.12.No. 2.

19. Chaudhry. M. Ghaffar & Maan A.H. "Taxation of Agriculture in Pakistan Structure, Magnitude and Economic Implications" Pakistan Agri Research Council Islamabad Paksitan.

20. Pakistan (1986) National Taxation Reform Commission Final Report Islamabad, Ministry of Finance Islamabad.

21. Pakistan (1988) Report of National Commission Agriculture Islamabad, Ministry of Food Agriculture Cooperative.

fire of arguments and counter-arguments and had to rely on submission of different proposals. Feroze Qaiser's Report on Taxation of Agricultural incomes[22] also became victim of various notes of dissent and no definite finding could be presented. Senator Mazhar Ali's Report of the Committee on Tax Reforms[23] after narrating the need to tax agricultural income only recommended change in 'definition' of agricultural income so as to tax rent received from agricultural land and income from horticulture, silviculture, sericulture and other activities for production of fruits; flowers and live stock.

The most interesting aspect of the problem is that those in favour of tax are mostly impressed with the fact that Agriculture is the single largest contributor to GDP and calculate potential of tax on the basis of PIU, acres or hectares; but rarely take into account the cost of production of various crops, different inputs and the output as the proposition is to tax 'net income' and not the gross receipts. Similarly, those who oppose the levy refer to inter sectoral transfers from agriculture to industry; lower agricultural prices as compared to international prices, various exchange rate differences; but ignore the fact that the proposition is to levy tax on "Individuals" and not on sector.

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[22]. Pakistan (1989) Report of the Committee of Experts on Taxation of Agricultural Income, Islamabad.

[23]. Pakistan (1991) Report of the Committee on Tax Reforms Karachi.

The result is that even in scholarly analysis, subjectivity has dominated, thereby reducing the scope of objective appraisal of the issue.

Arguments advanced for imposing income tax on income from agriculture are numerous some of which are discussed as under:

(a) **Equity:**

The most important argument in favour of imposition of tax is "Equity" which is based on the "ability to pay principle". Most economists agree that equity demands that the agricultural income like any other income must be taxed if it exceeds a stipulated limit. According to NTRC report "it defies ones sense of fairness to see a person who himself claims that his agricultural income runs into hundreds of thousands of rupees every year not paying tax on that income"......(para 6.14)

B.A. Azhar[24] in his paper titled "Taxation of Agricultural Income" has concluded that there was no justification for the exemption of the agricultural income from income tax on the ground of horizontal equity (i.e. equals should be taxed equally) and vertical equity (i.e. unequal should be taxed unequally).

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[24]. Azhar, B.A. Taxation of Agricultural Income. A holistic view Pakistan Institute of Development Economics Islamabad. June 10, 1991.

(b) **Mobilization of Revenue:**

Pakistan needs additional revenues to finance development-projects and to meet current expenditure. Finance Minister in his budget speech for the Fiscal Year 1991-92 has explained.[25] "The domestic debt burden for the fiscal year 1990-1991 is estimated at Rs. 47 billions and external debt at Rs. 34 billions. The total debt servicing of Rs. 81 billion in the next year will consume 54% of the estimated revenue of Rs. 153 billion. If defence expenditure of Rs. 71 billion is added to the debt servicing; then the total revenue receipt in the next year will be spent only on these two items and for running the administration and development programmes additional borrowing will be required".

It would thus be seen that the revenue receipts are not sufficient even for current expenditure what to talk for development projects. As per budget estimates for fiscal year 1991-92 the net revenue receipts are Rs. 153.4 billions whereas current expenditure has been estimated at Rs. 185.6 billion. After accounting for capital receipts and external resources and self finance by autonomous bodies resource gap of Rs. 18.5 billion still remains.

[25]. Government of Pakistan — English Translation of Sartaj Aziz, Finance Minister in Budget Speech 1991-92, Finance Division, Islamabad.

In these circumstances and in view of the Government's policy on self reliance; availability of less economic assistance; it is imperative for the Government to find additional sources of revenue and income tax on agricultural incomes can be one of the main sources.

(c) **Practical Compulsions**

Apart from the equity and resource mobilization; the Tax Reform Committee[26] has listed several practical compulsions which necessiate this levy. These are

(1) A large number of affluent agriculturists are residing in urban centres who are not within the tax net thus creating inequity in the society.

(2) Tax payers in other sectors of economic activity tend to become either indifferent to tax compliance or attempt to find justification for tax evasion, because a very large sector i.e. agriculture, continues to remain exempt.

(3) A large number of agriculturists have entered commerce and industry. The tax exemption of agricultural income enables such agriculturist-cum-businessmen to evade proper taxation by disguising their business income as agricultural income.

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[26]. Report of the Committee on Tax Reforms- Feb 5, 1991 p.1814.

(4) The said exemption has encouraged a large number of businessmen to acquire agricultural lands and take similar advantages. Likewise a vast majority of persons enjoying illegal incomes have also acquired agricultural lands for the same purpose.

(5) The books of account of numerous businessmen reflect loans allegedly advanced by agriculturists. Even if these loans are genuine, there are no means to verify the sources and authenticity of such loans.

(6) Since agriculture is outside the regime of income tax, this exemption enables as large number of traders of agricultural products to evade taxes with impunity.

(d) It has been argued that with the rapid growth of personal incomes from agriculture; the potential for tax revenue has increased and its realisation can make a substantial contribution to national resources.[27]

(e) The revenue yield of direct taxes in Agriculture viz. land revenue and Usher has declined. Therefore there is very little incidence of direct tax in Agriculture, and hence agriculture can be subjected to further taxation.

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[27]. Paul Dorosh "Exchange rate & Trade Effects on relative prices in (1984) Pakistan". Draft working paper Islamabad September 1988.

(f) The claim that agriculture pays a much higher share of indirect taxes than the manufacturing sector is negated by the finding of NTRC that 70% of indirect taxes are being contributed by persons earning less that Rs. 1,500 P.M. amongst the rural population. This therefore leads to the conclusion that there should be a direct tax of farm income above a certain level.

(g) Studies conducted to examine the intersectoral tax burden in Pakistan have revealed that although agriculture sector as a whole was over taxed the higher income group in the farm sector was substantially undertaxed as compared to their urban counter parts.[28]

(h) Studies conducted by Hamid[29] reveal that the contribution of agriculture sector have remained stagnant whereas incomes have increased. It has been concluded by him that the agriculture sector is not bearing it's share of the burden of economic development.

(i) Studies conducted by Khan (1985)[30] and Qureshi (1987)[31] also conclude that agriculture

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[28]. Shahnaz Kazi — Intersectoral Tax Burden in Pakistan. A critical review of Existing Evidence and some New Estimates- Pakistan Development review Vol. XXIII, No. 4.

[29]. Hamid, Javed (1970) — Suggested Approach to Agriculture Taxation Policy in West Pakistan- Pakistan Development Review, Vol. 10 No.4.

[30]. Khan, Mahmood Hussain(1985) — Agrarian Transformation in Pakistan Islamabad - Pakistan Institute of Development Economics (Lahore in

contributed little to government exchequer by way of taxes and enjoyed huge subsidies on agricultural inputs.

Several arguments have been advanced against imposition of Tax on income from agriculture; the most important being "constitutional position". Under item 47 in Part-I of the Federal List contained in the Fourth Schedule read with Article 70(6) of the constitution; the National Assembly has the powers to make laws for "Taxes on income other than Agricultural income". Since Tax on agricultural income is neither in the Federal List, nor in the concurrent list of subjects in the constitution; provincial assembly has and Federal Parliament does not have the powers to make laws as per article 142c of the Constitution[32].

NTRC examined the issue in the light of constitutional position and passage of Finance (Supplementary) Act, 1977 and concluded that the Federal Government could not levy tax on income from agriculture and a bill similar to Finance (Supp) Act 1977 could only be passed under Emergency whereby the National Assembly was empowered to legislate on provincial subjects.

Development Economics Note).

[31]. Qureshi, Sarfaz Khan(1987) Agriculture pricing & Taxation in Pakistan Institute of Development Economics, Islamabad.

[32]. Constitution of Islamic Republic of Pakistan.

Feroze Qaiser Committee of Experts (1989)[33] obtained the view of Law Division which reported that "it would not be possible to levy tax on income from agriculture under the Income Tax ordinance, 1979 without a constitutional amendment".

Committee on Tax Reforms (1991)[34] although agreed to the constitutional position but has suggested to amend the definition of "agricultural income" in Income Tax Ordinance, 1979 so as to exclude any rent received from agricultural land and income derived from such activities as horticulture, silviculture, sericulture and other activities for production of fruits, flowers or Livestocks.

Constitutional Experts are, however, doubtful regarding the authority of the Federal Government to assign a different meaning to a very clear term so as to take away the power of the provincial Government.

2. Apart from the constitutional position the Committee of Experts on Taxation of Agricultural Income (1989) have cited the following reasons against the levy of tax:-

(a) Even provincial legislation aimed at taxing agricultural incomes would be inappropriate because incomes in agriculture are low and hard to determine,

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33. Government of Pakistan Committee of Experts on Taxation of Agricultural Incomes - Islamabad pp3.

34. Government of Pakistan (1991) Committee in Tax Reform Karachi.

records and accounts are not and cannot be kept, and the potential for harassment of small farmers by petty bureaucrats is very great.

(b) Even outside agriculture, the voluntary payment of income taxes is minimal: of the sum of Rs. 1150 crores (Rs.11,500 million) collected in income and corporate taxes in 1987-88 (equivalent to only 6.5 per cent of consolidated public expenditures), some 71 per cent was collected from corporations and some 6 per cent was deducted at source from salaried individuals, so that only around Rs. 265 crores was collected from self-employed persons.

(c) The gains from bringing the small class of high-income farmers within the direct tax net were therefore very small in comparison to the hardship that was likely to be caused to the large majority of farmers who would be exposed to the capaciousness of the income tax department.

3. National Tax Reforms Commission[35] apart from highlighting inter sectoral transfers has summarized the following arguments against the levy of Income tax on agricultural incomes.

(a) The agriculture sector is in really bad shape. It cannot bear the burden of extra taxation.

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[35]. Government of Pakistan 1986 National Tax Reforms Commission Report Standard para 6.16.

(b) Considering the high cost of production and low procurement or support prices fixed by the government the average agriculturist is either in deficit or just exists around subsistence level.

(c) Average per capita agricultural income is not only far less than the average per capita urban income but is also below the subsistence level. It cannot bear the burden of income taxation.

(d) There are already too many taxes, levies and cesses on agricultural sector . The sector cannot bear the burden of another tax.

(e) The yield from the levy of income tax will be too small.

4. Chaudhry and Kayani[36] have conducted various studies on the contribution of agriculture and have concluded that agriculture was already over taxed and there was no justification of any further levy. In a recent study published under the title of "Commodity Taxation and input Subsidies in Pakistan's Agriculture" it has been concluded that:

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[36]. Chaudhry M. Ghaffar and Kayani, Nighat Naheed (1991) Commodity Taxation and Input subsidies in Pakistan Agriculture. Pakistan Institute of Development Economics, Islamabad Seventh Annual General Meeting January 8-10, 1991.

"The abysmally low agricultural commodity prices and variation across commodities have tended to impair resource use efficiency in agriculture, lessen growth and employment and accentuate existing income inequalities. As these trends are inconsistent with desired goals of economic development, the policy of underpricing of agricultural commodities needs to be abandoned. In the presence of huge implicit taxes, desired progression in agricultural taxation can not be introduced with the extention of general income tax to agriculture. Likewise the discontinuation of underpricing of agricultural commodities in likely to release huge resources for investment tied currently to institutional credit for agriculture.

The finding is based on the nominal protection co-efficients which is generally expressed as a ratio of domestic and world prices. The study noted that:

(a) Most of the nominal protection co-efficients exhibited a mixed trend over the years but the domestic prices of most commodities were only half of those of international prices in the terminal year of 1989-90 with the lowest and highest rangs of 40% in case of Basmati rice and 58% in case of Sugarcane.

(b) Wheat and rice (Basmati) prices throughout the entire 20 years period were so fixed as to contain an element of taxation. This was also true of cotton seed prices with the exception of the single financial year 1970-71.

In this study total implict taxes in agriculture were also quantified and impacts to these taxes on agriculture was examined on the basis of "net of input subsidies.

The study concluded that implicit taxes, by no means, involved small amounts of resource transfers from agriculture. Gross implicit taxes were of the order of Rs. 0.5 billion in 1970-71 but had risen to 28.0 billion in 1989-90. A similar picture emerged from implicit taxes net of subsidies on fertilizers, tubewells installation, pesticides and seeds. Although net taxes amounted to Rs. 0.9 billion in 1972-73, they stood at Rs. 25.9 billion in 1989-90. These figures correspond with annual growth rates of 22.0 and 20.6 percent respectively for gross and net implicit taxes. It therefore seems naive to argue that taxes in agriculture failed to keep pace with the rise in agricultural productivity or for that matter in agricultural incomes. Net implicit taxes as percent of value added by agriculture, like the rate structure, exhibited considerable variation from time to time with lower and upper boundary of 3.1 and 23.6 percent respectively. These percentages compare favourably with the overall tax rates (total government revenue as a percent of GNP in Pakistan) of 12.4 to 17.5 percent over the twenty-year period under consideration.

The comparison of implicit taxes in agriculture with the overall tax rates in Pakistan suggests that tax burdens in agriculture by Pakistani standards were really heavy during some of the years if not for the entire period. It needs to be pointed out, however, that even the lowest rates of implicit taxes in agriculture compare favourably with the overall tax rates of Pakistan's economy.

It has further been stated that despite the immense resource transfers from agriculture, there is little recognition in Pakistan that agriculture may be over-burdened with taxes. The underlying reason for overlooking this fact has to do with exclusion of a major part of implicit taxes from government budgets. Only cotton export duties and profits of cotton and rice export corporations appear in government budgets. But a major proportion of these taxes that accrue to consumers in the form of food subsidies and to industrialists in the form of low raw material prices [Gotsch and Brown (1980)] is generally overlooked. It is this part of the implicit taxes that results in the misgiving of undertaxation of agriculture.

5. In another study of Chaudhry & Maan[37] titled as "Taxation of Agriculture in Pakistan" it has been concluded that "In terms of tax burdens, taxes were the heaviest in agriculture as an average tax payer was subjected to 5-6 times the tax rates in the non-agricultural sector". While discussing various direct, indirect and implicit taxes paid by agriculture, magnitude of taxes paid by agriculture has been worked out.

The study noted that there is no evidence that agriculture pays no taxes or that it's contribution to taxes has lagged behind the growth of farm incomes. Other conclusions drawn in the paper are:

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[37]. Chaudhry, Dr. M. Ghaffar & Maan. Dr. A.H.C. (1991) Taxation in Pakistan. Structure, Magnitude and Economic Implications. Pakistan Agri Research Council Islamabad. First International Conference on Agricultural Studies. Issues and Policies May 7-9, 1991.

(i) It was a myth that agriculture in Pakistan was under-taxed relative to other sectors of the economy. If local finance and indirect and hidden taxation were considered relevant data would suggest that an average farmer paid as much taxes to the society as an income tax payer earning more than Rs. 300,000: whereas net farm income of an average farms hardly exceeded Rs. 50.000.

(ii) Subsidies on agricultural inputs which were talk of the town formed only a small fraction of value added by agriculture. The magnitude of subsidies never exceeded Rs. 5 billion throughout the eighties against the gross proceeds of Rs. 37,100 billion from agriculture.

(iii) Implicit taxes as a result of low agricultural commodity prices and over valued exchange rate followed by indirect taxes were by far the largest part of total taxes imposed on agriculture.

6. Kazi[38] in a study entitled "Intersectoral Tax burdens in Pakistan" has concluded that "the agricultural sector bears a great burden than is required for inter sectoral equity. "It has been further observed that" while the question of an agricultural income tax has become a point of

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[38]. Kazi, Shahnaz (1984) International Tax Burdens in Pakistan-A Critical Review of Existing Evidence and Some New Estimates. Pakistan Development Review Vol. XXXIII, No. 4.

great contention; various governments have not hesitated to tax the agricultural sector through indirect taxation despite the negligible progressivity of the rural tax structure.

7. The farm lobby has invariably argued that apart from land revenue and Ushr; they indirectly contribute to the government revenue by way of much lower prices of their cotton and rice than the international price. Further, that as the infrastructure available in the agriculture sector is extremely inadequate, hence there was no justification to tax this sector.

The arguments in favour of imposition of income tax and against have been considered by various commissions and have been discussed and debated by leading economists in the country as well as abroad. Most of the commissions have given independent view points on the issue and thus the division remains intact. There is however general consensus that Pakistan needs additional resources for meeting the development and current expenditure and thus the potential for generation of revenue be explored from all sources. There is also agreement that contribution in some form has to be made by all individuals deriving higher incomes. There is however an immense difference of opinion on modus operandi.

Committee of Experts on Taxation of Agricutlrual incomes, although it did not propose to levy income tax on agriculture, yet observed that:

"It was the national duty of those enjoying the benefit of higher agricultural incomes to contribute to the national exchequer in some manner in accordance with the principle of ability to pay".

It was further stated that "there was a general agreement in the Committee that some means must be found to increase the contribution of high income farmers to government revenues."

National Commission on Agriculture[39] while heighlighting the "distortions caused by the government pricing policies "resulting from income transfers; and limit on land ownership and on self cultivation, inability to eject tenants; various direct and indirect taxes and levies, has stressed the need to tax higher income group in the following words:

"On the other hand, 3 percent farmers (a total of 129000 farmers) with holdings of over 20 hectare (above 3200 PIUs) own 20 percent of cultivated land and probably reap about one third of the total agricultural output. Some of them, despite all the constraints, have much larger incomes and are thus capable of making greater contribution to the development of agriculture and the rural infrastructure. A simple mechanism has to be found for such farmers, with holdings of 50 acres and above, to enable them to assume greater financial

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39. Government of Pakistan (1988) National Commission on Agriculture-Islamabad.

responsibility for the development of the rural areas in which they are located in their own interest and the interest of the rural community at large".

NTRC after consideration of all the relevant factors submitted various proposals except for one; all other view points contained an element of further additional taxation on higher income group farmers.

World Bank and IMF have also stressed upon the Government, from time to time, to opt for taxing agriculture to reduce the large provincial budget deficits and spend more on education and public health. According to Sultan Ahmed[40] when Prof. lester Tharow, famous U.S. Economist and author of "The Zero Sum Society", was asked by him as to what was the remedy for a country like Pakistan; he was insistent that we should begin with the agricultural income tax.

Moreover, with major adjustments in government policies since early 80's the agriculture sector in Pakistan has not been doing too badly.[41] In the words of Khan[42] "If indeed there was in the past systematic discrimination against agricultural procedures; it seems to have been largely corrected in recent years".

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[40]. Sultan Ahmed-Tax on Farm Lands now Daily Dawn 6-12-90.

[41]. Gary Guder "Government, Intervention in Pakistan's Agricultural Economy" Working Paper Islamabad March 1989.

[42]. Khan, Mahmood Hassan (1991) Resource Mobilization from Agricultural in Pakistan, Pakistan Institute of Development Economics, Islamabad January 8-10, 1991.

Azhar[43] has discussed the concept of equity, horizontal; vertical and intersectoral. According to him the intersectoral equity concept only leads to fruitless controversy. First, the estimates of aggregrate sectoral burden are based on several assumptions, the method of calculations are different, and thus sectoral estimates of burdens conceal more than what they reveal and are highly misleading. According to him it may be more realistic to make estimates of aggregate tax burden on individual tax payers in comparable income bracket by the case study method. Any economic policy eg. the pricing policy which institutes against a particular sector deserves to be rectified in it's own right and need not be mixed with income tax policy. It has been further stated that "it is one thing to make an academic estimate of the burden of indirect taxes on a sector and quite another to argue on that basis against the imposition of income tax. A person who buys Pajero and consequently has to pay a heavy amount of indirect taxes cannot use it as an argument against the payment of income tax.

It is, thus, clear that almost all the economists agree that higher income farmers should contribute in some form or another and that issue of tax burden on the agriculture sector may not be confused with the issue of tax on personal income and wealth.

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[43]. Azhar, B. A. Taxation in Agricultural Income Pakistan Institute of Development Economics, Islamabad.

(B) TERMS OF TRADE FOR AGRICULTURE IN PAKISTAN (1980-81 TO 1990-91)

Almost all sectors of economy are said to be mutually dependent. Agriculture supplies food and raw-materials, while the industrial sector and other sectors supply crucial inputs like fertilizers, pesticides, machinery, consumption goods, etc. A crucial factor in determining the quality of intersectoral linkages is the terms of trade governing the exchange of goods and services between them.

Numerous studies have been conducted in the area[44]. These studies basically attempt to estimate the price of agricultural goods relative to other goods. Thus, the terms of trade of agriculture relative to other sectors attempt to determine in a broad sense the profitability of agriculture or the purchasing power of agricultural income.

Since the terms of trade attempt to estimate the price of agricultural produce relative to other goods, the estimated terms of trade represent the joint effect of all factors that affect the domestic supply and demand of agricultural and other products. Thus macroeconomic and international trade policy as well as developments in international markets are all factors that determine the intersectoral terms of trade.

Table # 1 summarises findings of various studies on terms of trade.

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[44]. See Lewis and Hussain (1966), Lewis (1970), Cheong and D'Silva (1984), Kazi (1987) Qureshi (1985, 1987) and Salam (1992), Gotsch and Brown (1980) and FAO (1986), Shahid Zahid and Syed Sajjad Hyder (1986) and Z. A. Vance (1992).

Table 1
Inter-Sectoral Terms of Trade

	Lewis & Hussain	Lewis	Quarishi	Salam	Terms of Trade
1952	104.1	-	-	-	101.83
1953	102.3	-	-	-	100.07
1954	85.8	-	-	-	83.93
1955	85.3	-	-	-	83.44
1956	90.9	-	-	-	88.92
1957	98.0	-	-	-	95.86
1958	99.2	-	-	-	97.04
1959	99.1	-	-	-	96.94
1960	100.0	-	-	-	97.82
1961	110.3	-	-	-	107.89
1962	109.9	-	-	-	107.50
1963	105.7	-	-	-	103.40
1964	109.0	-	-	-	106.62
1965	-	114.8	-	-	112.30
1966	-	108.2	-	-	105.84
1967	-	113.3	-	-	110.83
1968	-	103.9	-	-	101.63
1969	-	102.5	-	-	100.27
1970	-	-	107.10	-	100.00
1971	-	-	107.30	-	107.10
1972	-	-	113.70	-	107.30
1973	-	-	134.70	-	113.70
1974	-	-	125.70	-	134.70
1875	-	-	135.80	-	125.70
1976	-	-	153.60	-	135.80
1977	-	-	149.20	-	153.60
1978	-	-	212.70	-	149.20
1979	-	-	206.90	-	212.70
1980	-	-	191.70	-	206.90
1981	-	-	181.20	100.00	191.70
1982	-	-	162.10	111.08	181.20
1983	-	-	181.20	108.05	162.10
1984	-	-	158.40	107.10	181.20
1985	-	-	153.60	108.18	158.40
1986	-	-	148.40	103.88	153.60
1987	-	-	-	100.45	148.40
1988	-	-	-	105.73	156.20
1989	-	-	-	107.63	159.01

1990	-	-	-	101.20	149.51
1991	-	-	-	102.73	151.77

Source: Issues in Agricultural Pricing Policy in Pakistan, Nadeem Ul Haque, Research Fellow at the International Food Policy Research Institute, Washington, D.C., September, 1992 (unpublished report).

Although the methodologies and the time periods of the various studies were different, yet the results have been combined in last column to show the complete historical picture.

The estimates show that in the early fifties, Pakistan's agriculture faced declining terms of trade perhaps because the disruption of traditional trade patterns as a result of partition caused a glut of agricultural products and a relative scarcity of manufactured products. In the second half of the fifties, terms of trade for agriculture improved largely as a result of the introduction of subsidies on certain inputs and support prices on some products. Although there is some oscillation in the sixties the data shows no clear trend and perhaps reflects only the political upheavals within the country given the system of trade controls that was insulating the domestic economy from the international economy for most of this period. For most of this period, an overvalued exchange rate and a system of quantitative controls in international trade were maintained, which served to depress the price of traded goods such as agricultural products.[45]

[45]. Although this is an issue that will be taken up later in the paper, for a good discussion on the issue of agriculture as a traded good, and the impact of exchange and trade policies on the agricultural sector, see Dorosh and Valdes (1990).

The seventies saw a sharp improvement in the relative prices of agriculture. A major reform of the exchange and trade system including a major devaluation that corrected for the overvaluation that had prevailed and improved the outlook for traded goods. Moreover, this was a period where commodity prices worldwide had enjoyed a boom. The more favourable international environment as well as more auspicious domestic policy stance, therefore, contributed to improving the terms of trade for agriculture over the seventies.

In the eighties we see a decline in the terms of trade for agriculture perhaps because (a) the international commodity boom had subsided and (b) forced by its own budgetary pressures, the government reduced the subsidy to agriculture, hence putting pressure on agricultural input and output prices.

While it is useful to know how intersectoral terms of trade are evolving especially with a view to identifying, and perhaps alleviating the hardship faced by, exceptionally hard-hit sectors. However, since the terms of trade are determined by a number of factors including several exogenous as well as endogenous factors, it is not always easy to determine the factors that caused changes in the terms of trade. Certainly, all declines in the term of trade cannot be attributed only to policy. Moreover, there are periods when the terms of trade decline purely because the relative price of agriculture in international markets is declining. However, the most recent study done by Z. A. Vainse shows that agriculture experienced favourable terms of trade for the period 1980-1990.

(C) NET FISCAL BUDERN

This section[46] presents a consolidated picture of net fiscal burden on agricultural sector. Table # 2 shows the complete picture of taxes and subsidies in agricultural sector. This table throws up a number of conclusions which are briefly listed. First, an unsatisfactory performance regarding resource mobilization from the agriculture is indicated. Net taxes on

[46]. Report of the sub-committee on Domestic and Foreign Resource Moblization 1990-91.

Table 2

TAXES AND SUBSIDIES ON AGRICULTURE SEC

	TAXES/SUBSIDIES	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-8
1985-86	1986-87 1987-88	1988-89	1989-90						
A.	**Taxes**								
A1.	Open Taxes on Agriculture	879.3	914.4	810.8	1258.0	508.0	596.0	538.0	118
	Direct Taxes	167.3	201.4	231.8	266.0	136.0	125.0	291.0	17
	Land Revenue	167.0	196.0	228.0	260.0	136.0	125.0	291.0	17
	Agriculture Income Tax	0.3	5.4	3.8	6.0	--	--	--	
	Ushar	--	--	--	--	--	--	--	
	Indirect Taxes	712	704	579	992	372	471	247	1
	Export Duty on Rice		128	464	333	241	58	--	
	Export Duty on Cotton	442	179	335	340	1	--	--	
	Profit of REC	--	--	--	353	57	402	1073	1
	Profit of CEC	--	-76	-228	-61	142	220	-152	
	Cotton Cess	120	110	115	90	80	101	85	
	Sugarcane Cess	22	27	24	29	34	36	25	
A2.	Concealed Taxes on								
	Agri. Producers:(SER)	1001	9127	7875	5192	2456	10162	140	1
A3.	Taxes Paid by Agri.								
	Producers (A1+A2)		1880.3	10041.4	8685.8	6450.0	2964.0	10758.0	67
34125.4									
B.	**Subsidies**	481	224	793	1271	956	1390	2380	
B1.	Open Subsidies	441	203	454	897	562	1026	1991	
	Fertilizer		288	118	326	607	87	617	
1278									
	Tubewells		22	10	16	43	48	37	
	Plant Protection		128	63	112	241	421	347	
	Seeds	3	12	--	--	6	25	8	
B2	Concealed Subsidies								
	Irrigation Water		-25	-75	150	189	169	113	
	Agriculture Credit		23	37	34	45	54	44	
640									
	Electricity.	42.47	58.81	155.40	139.85	171.36	206.73	66.97	-1
C.	**Net Taxes on Agricultural**								
	Producers (A3 - B)		1399.3	9817.4	78.92.8	5179.0	2008.0	9368.0	-16
29019.4									
	Per capita Net Taxes								
	on Agri. Producers (Rs.)	27	242	205	133	62	249	3	
	Net Taxes on Agri. Producers		4.57	32.50	23.48	13.54	5.59	20.10	
19.66									
	as %age of Value Added in Agriculture								

Note: REC = Rice Export Corporation
CEC = Cotton Export Corporation.

Source: Report of the sub-committee on Domestic and Foreign Resource Moblizati farmer-producers record negative values in four out of eighteen years. Net taxes as percent of value added from the crop sub-sector is generally low excepting few years when the levels of concealed taxation sharply increases due to increases in world prices of some crops. Second, although the yield from direct taxes on land and/or agricultural produce has not declined in absolute terms yet it shows a declining trend when measured as a proportion of agricultural value added. The expectations of some observers that *Usher* may in due course become a significant source of revenue for poverty alleviation projects in rural areas may not be realized in the light of experience of the past five years. The assessments of and collections from *Usher* have been much lower than the estimated potential of this tax. The inelasticity of the direct taxes on agriculture is a major structural weakness in the tax structure. Third, the revenue from taxes on agricultural commodities from export duties and/or from the profits of state trading corporations has been large in some years. However, this source of revenue exhibits a large measure of instability and cannot be relied on to finance development programmes on a continuing sustained basis. Fourth, concealed taxation on agricultural commodities due primarily to trade and exchange rate policies has been heavy. Like export duties, it is also an unstable source of revenue. In fact, is some years, the level of concealed taxation transorms itself into subsidies to farmers. At the disaggregated commodity levels, we find that this source of revenue has provided distorted incentives for farmers in the case of different crops. Nominal Protection Coefficients for different commodities imply widely divergent rates of taxation or subsidization for crops. These coefficients for given crops also change over time. Fifth, open subsidies on inputs have grown in magnitude over time. The government has eliminated subsidies on plant protection, seeds and some other minor items. There is also a stated government policy goal regarding the elimination of fertilizer subsidies. Despite this goal, subsidies on fertilizers in the terminal year are high. There was a restraint on the growth of fertilizer subsidies during 1981-82 to 1984-85 but this restraint seemed to have been realxed in the last two years of the study. Sixth, concealed subsidies on irrigation, credit and elecrified tubewells have increased significantly over the period of the study. WAPDA, through fuel adjustment charges, has been successful in eliminating the subsidy on electricity for the agricultural sector in some years. In the budget for 1988-89, some steps in restraining the credit subsidy on production loans were announced. In the new Agricultural Policy, this policy has again been partially reviewed and subsidy on wheat has been reintroduced. However, the singular policy failure has been in the area of the subsidy on irrigation. The sharp increase in operation and maintenance expenses for the upkeep of the vast canal system is warranted. The subsidies on account of irrigation sub-head can be restrained only if the water rates are gradually increased to cover at least O&M expenses.

(D) REVIEW OF LITERATURE ON POTENTIAL INCOME TAX

The studies on this topic can be divided into two groups (a) potential of tax from agricultural income tax (b) potential of tax on the basis of presumptive income tax, crop wise, at progressive rate.

(a) The total potential of tax that can be levied and collected from agricultural income tax varies widely depending on the perception of the problem by the proposer, the mode of levy; the basis and the rate. Many of the suggestions are without any basis and thus cannot be relied; some of the suggestions are with some basis; but the assumptions are doubtful yet some are based more on theory than on practical considerations. Let us have a look at some of the propositions.

(i) Mr. Arshad Zaman; Member of the Committee of Experts on Taxation of Agricultural Income has estimated the tax potential of Rs. 1 billion on the following basis.

   (a) Provinces to levy tax on agricultural incomes on actual basis at very moderate rates.

   (b) Until such time provinces may levy tax as a temporary measure at the following rates.

	Where the PIUs of land around	Tax rate
1.	Do not exceed 1000	Nil
2.	Exceed 1000 but do not exceed 2000	Rs.1.50 per PIU exceeding 1000 PIU
3.	Exceed 2000 but do not exceed 4000	Rs.1500+Rs.2 per PIU each 2000 PIU
4.	Exceed 4000 but do not exceed 6000	Rs.5500+Rs.2.50 per PIU each 4000 PIU
5.	Exceed 6000 but do not exceed	Rs.10,500+Rs.3.00 per PIU exceeding 6000

Where tax is less than the Ushr; the entire amount may be collected as Ushr; where the tax liability exceeds Ushr; amount equal to Ushr be transferred as Ushr and the remaining be credited as tax.

2. Dr. Altaf Hussain[47] has estimated the revenue at Rs. 5 Billion. He has opted in favour of land tax based on production potential of land in terms of PIU, at progressively increasing rates on following pattern.

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[47] Dr. M. Altaf Hussain "Land Tax is easier to implement viz a viz Farm Income Tax". Dawn 8.3.91.

Units around (P.I.U.)	Additional Tax Amount
0—1000	Nil
1001—2000	x+1x
2001-3000	x+2x
and so on	
7001—8000	x+17x

3. Dr. Akmal Hussain[48] has estimated the potential at Rs.7 billion.

4. Azhar[49] has estimated the revenue at Rs.2 billion. It has been worked out that the total income tax collection was at Rs.13 billion (now it is Rs.27 billion for 91-92) Agricultural sector accounted for 23% of total G.D.P. Thus agricultural contribution could be at the most at Rs.3 billion. Since 52% of the income tax comes from domestic public companies, 7% from foreign companies and 32% from domestic private companies the total yield from agriculture would be around 1.5 billion because of the absence of corporate bodies in the agriculture sector.

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48. Dr. Akmal Hussain-Editorial Pakistan Gulf Economist December 29-90 to 7.1.191 Taxing Agricultural Income.

49. Azhar, B.A. Taxation of Agricultural Income Pakistan Institute of Development of Economics, Islamabad, Seventh Annual General Meeting Jan 8-10 1991.

5. Mohammad Faiz[50] has estimated the revenue potential at Rs.4 billion.

6. Mr. Sultan[51] estimates collection of Rs.50 to 100 crore in first year; which would rise afterwards.

7. Mr. Shahid Jamal[52] in his term paper has estimated income tax from agriculture at Rs.10 billion.

8. Dr. Muhammad Uzair[53] estimates income tax potential at 4.4 billion.

9. Mr. Khan[54] in his paper titled as "Resource Mobilization from Agriculture in Pakistan" has estimated the revenue potential from agriculture on the basis of different alternatives.

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[50]. Mohammad Faiz (1987) ASwicultural Taxation in Pakistan–Revisited Pakistan Development Review No.XXVI pp.419–429.

[51]. Mr. Sultan Ahmad - Agricultural Taxation opposition to tax in farm incomes must end- Pakistan & Gulf Economist Dec. 29, 1990-Jan. 4, 1991.

[52]. Mr. Shahid Jamal "Agriculture Income Tax-To be or not to be 47th ACAD NIPA Karachi.

[53]. Referred in article by Shahid Jamal dated 12.3.91 Daily Business Recorder to be or not to be and where to be".

[54]. Khan, Mr. Mahmood Hassan–Resource Mobilization from Agriculture in Pakistan. Pakistan Institute of Development Economics Islamabad.

(a) Land revenue on holdings of more than 1000 PIU (90% owners in Punjab, 65% in Sindh + 95% in NWFP would be exempt) at progressive rate estimated revenue 7.65 billion.

(b) Same basis as above but at fixed rate; total revenue Rs.6.69 billion.

(c) Wealth tax on the basis of valuation of land at the rate of Rs.200 per PIU (for obtaining loans, land is valued at Rs.400 per PIU) yield Rs.491 million; at the rate of Rs.400, yield would be Rs.2.34 billion.

(d) Revenue from Ushr on the basis of crop sector out put yield Rs.1.64 billion.

(e) Income tax from 360,000 individuals with exemptions from holdings of less than 10 hectares yield Rs.5 billion.

(f) Income tax on presumptive basis with exemption of 1000 PIU; using differentiated slabs, yield Rs.7.65 billion.

(b) Potential of Tax on the Basis of Presumptive Income Tax Cropwise at Progressive Rates

Farm Sizes:-

*1. No of farms

3136540 pkxsothan to0bhectarempt

(b)	10-20 hectares	2,55647 proposed to be exempt
(c)	20-60 hectares	91,674
(d)	60+ hectares	13074
	Total Taxable	104748

2. Apart from above; 192 farms belonging to government are exempt.

*Source: National Accounts:

(i) Note:NCA reports a total of 129000 farmers with holdings of over 20 acres (para 29.45).

(ii) Mahmood Hassan Khan reports 127579 farms in Pakistan (except Baluchistan).

(iii) Number of tax payers is therefore estimated at around 100,000-125000.

Cooper & Laybrind on the basis of cropped area by farm size and crop adjusted by intensity of cultivation have determined the average income of farms in each category and has estimated total tax bill at Rs.5082 million. Out of this, Rs. 1372 million pertain to size 10-20 hect. If this is excluded as it is considered to be exempt the balance comes to Rs.3710 million. This is based on tax rates of 1986-87 when maximum rate was 45% and rate above Rs.100,000 was 30%. If an adjustment of rate is made for the total presumptive basis an allowance of about 30% will have to be given for working out a reasonable, justifiable and easily acceptable figure which would give a tax potential of about Rs.1500 million. Tax liability will be reduced by the amount of Ushr paid. (The assessed value is Rs.210 m during the year 1989-90). The potential adjusted on current prices; current rates and after adjustment of Ushr comes to around 1200-1500 millions. In case Ushr is levied effectively; collected efficiently the yield from income tax will decrease. it may also be noted that the main contribution will come from about 13000 farms of over 60 hectares because there will be marginal yield from farms of 20-60 hectares after adjustment of Ushr.

The above studies do have their own merits. it is, however, proposed to estimate potential income tax revenue by using an entirely new methodology which will be explained in the next chapter.

DESCRIPTION OF DATA

The major source of the date is the Household Income and Expenditure Survey (HIES) conducted by the Federal Bureau of Statistics, Statistics Division of the Government of Pakistan on irregular basis. The latest issue of the HIES for which data are available is for the year 1987-88. The designed survey provide data on household income and expenditure in order to estimate savings, consumption patterns and to estimate saving and liabilities and to provide data on household income groups and by provinces and rural/urban break down.

The survey includes all rural and urban areas of Pakistan defined as such in the 1981 Population Census, excluding Federally Administrative Tribal Areas, Military restricted areas, districts of Kohistan, Chitral and Malakand and protected areas of NWFP. Households that were living in institutions like hotels, hospitals, boarding house were included iant he survey. The survey covers a nationwide sample of 18144 households stratified over the rural and urban areas of the four province of Pakistan.

The HIES data were collected by direct interview method from the respondents. For this purpose a specifically designed questionnaire covering detailed ianformation of households income and expenditure were used. Data collected by this method are subject to types of statistical errors.

(i) Sampling error.

(ii) Non-sampling error.

Several efforts were made to control non-sampling errors which originate as a consequence of the prvelant local customs and conditions. But these errors are not controlled due to the following difficulties.

i) Illiteracy of the population in general and particularly in rural areas.

ii) Household income and expenditure accounts are not kept by the households.

iii) Wide variation in the mode of the purchase of consumption goods from area to area even from household to household.

iv) Wrong statement of expenditure on account of memory bias due to long reference period for certain items.

For the sample designing of the survey, according to Population Census 1981, the universe consists of all urban and rural areas of the four provinces of Pakistan. The population of excluded areas constitutes only 4% of the population.

To design a sampling frame, Federal Bureau of Statistics has developed its own sampling frame in urban areas. Each city/town has been divided into blocks of approximately 200 to 250 households. These blocks are known by the name of enumeration blocks. The village list published by Population Census Organisation in 1981 was used for drawing the sample from rural areas.

The sample consists of 18,144 households in both rural and urban which yield estimates at national and provincial levels with reliability within 5% CV. The entire sample of households (SSU) for the whole year is drawn from 1403 primary sampling units (PSU), out of which 648 are urban and 755 are rural. The PSUs are grouped into four euqal parts and one group of 351 PSUs is enumerated in each quarter except in one quarter, which has 350 PSUs. The sample households are allocated to the four provinces in proportion to their population according 1981 Population Census. The higher proportion of sample is allocated to the urban domain and to smaller provinces to get the provincial estimates with urban and rural breakdown of desired precision. The distribution of sample PSUs and SSUs in four provinces with urban and rural breakdown is as under:

As for as the stratification plan of the survey is concerned, the cities having population 15 lacs and above i.e., Karachi, lahore, Gujranwala, Faisalabad,a Rawalpindi, Multan, Hyderabad, Peshawar, Islamabad and Quetta were considered as self-explaining cities. Each of these constitutes a separate stratum and also further sub-stratified according to income group such as low, middle and high which are based on the information collected in respect of each enumeration block. Further, a division in Baluchistan and a district in other three provinces constitute a stratum for urban population excluding the

Table 3

Provinces	No. of Sample PSUs			No. of Sample SSUs		
	Total	Urban	Rural	Total	Urban	Rural
Punjab	756	316	440	9796	4100	5696
Sindh	348	196	152	4509	2546	1963
NWFP	200	92	108	2566	1180	1386
Baluchistan	99	44	55	1273	557	716
Total	1403	648	755	18144	8383	9761

Source:Household Income and Expenditure Survey, 1987-88.

population of self-explaining cities. For a stratum of rural population, rural population of each district in Punjab, Sindh and NWFP have been grouped together and for Baluchiatan province, Division has been treated as a stratum. Two stage stratified sampling scheme has been adopted for the survey. Moreover, sample households have been selected by the method of systematic sampling technique with a random start. Since the main objective of this study is to estimate potential revenue from the agricultural income tax that is why we have limited our analysis to rural household.

METHODOLOGY

The methodology used in the study is absolutely new one. All the previous studies have used indirect method to estimate potential tax because of the non availability of the data. This study uses direct method to estimate potential tax based on actual data. The study estimates potential tax by applying two methods:

i) on the per earner basis

ii) on per household basis (considering household as a taxable entity: "Association of Persons")

This study also raises survey data results to the national level so that the estimates of the potential tax become most accurate. Because of the nature of the data and the direct methodology, the results of this study are perhaps most dependable and accurate assessment of the potential of the tax otherwise available today.

Using survey data the distribution of rural households and their incomes has been determined. These were then classified into different categories of rural households' income. The existing tax schedule is then applied. Application of this tax schedule to the distribution of income and households yields the expected tax revenue from taxing agricultural incomes directly.

The HIES data gives us values of the total income of households from different sources. This enabled us to get total income per household, (earner). We are not able to apply the tax schedule directly to this income due to the following reasons:

i) We required per earner income not per household income.

ii) We required net income and not gross income.

iii) Total income includes remittances which are not taxable.

We solved problem (a) by dividing total income by average household earner. Thus we got per earner annual income.

(b) we then converted total income into total taxable income by excluding all the income groups below or equal to Rs.30,000 per annum i.e. the exemption threshold for income tax purposes. We have done so because the same exemption limit has been applied in the income tax schedule applicable to personal taxes. To solve problem (c) we have adjusted incomes by subtracting remittances from the total incomes.

The following tax schedule is applied in this study.

	Taxable Income	**Rates**
1.	Where the taxable income does exceed Rs.1,00,000.	10% of the taxable income.

2.	Where the taxable income exceeds Rs.10,000 but does not exceed Rs.2,00,000.	Rs.7,000 plus 20 per cent of the amount exceeding Rs.1,00,000.
3.	Where the taxable income exceeds Rs.2,00,000 but does not exceed Rs.3,00,000.	Rs.27,000 plus 30 per cent of the amount exceeding Rs.2,00,000.
4.	Where the taxable income exceeds Rs.3,00,000.	Rs.57,000 plus 35 per cent of the amount exceeding Rs.3,00,000.

Application of the above tax schedule gives us the estimates of potential tax for the survey data.

We raised survey data results to the national level to get most accurate results of the potential tax by using the following methods (a) we got total households number in Pakistan by using the following formula:

$$T_h = \frac{N}{Fs} \qquad (1)$$

where as T_h = Total Households

N = Total Population in Pakistan

Fs = Average family Size in Pakistan

(b) to get total rural households we used the following method

$$TRh = Th \times \frac{R}{U} \tag{2}$$

where as TR_h = total rural households in Pakistan

T_h = total households in Pakistan

$\frac{R}{U}$ = Rural, urban ratio of population

(c) to get total no of earners we used the following method:

$$TR_n = TR_h \times \bar{e} \tag{3}$$

where as TRn = Total rural earners

$\bar{e}$ = Average earner per household

(d) to get total tax potential we used the following method

$$P_t = T_p x TR_n \tag{4}$$

where as P_t = Total potential tax in agricultural sector

T_p = Total potential estimated from the survey data

RESULTS (A)

The study analyses the tax potential of agricultural income on the basis of rural households incomes. The study estimates tax potential using method (i) and method (ii) discussed in the previous chapter. The results of method (i) are discussed here in this section (Results A). The result of method (ii) will be discussed in section (Results B). The total sample of the analyses is 9761. The study shows that there are 378 potential tax payer out of this sample. The study estimates Rs.2052177.1 from 378 potential tax payers. The province vise contribution is given in table # 4 given below.

Table 4
Tax Descriptives of all Provinces

Provinces	Taxable Income (Rs.)	No. of Tax Payers	Total Tax (Rs.)	%age of Tax to Total Tax
Punjab	10343014.97	220	1240567.63	60.45
Sindh	159037.26	41	74088.98	3.61
NWFP	4290362.28	90	522109.04	25.44
Baluchistan	1392335.33	27	215410.42	10.50
Total	17616083.83	378	2052176.08	100

Table shows that Punjab contributes Rs.1240567.6 which is 60.45% of the total tax potential. The Sindh province contributes Rs.74088.98 as a potential revenue. It is 3.61% of the total tax potential. The NWFP contributes Rs.522109.04 which is 25.44% of the total tax potential. The Baluchistan contributes Rs.215410.42 which is 10.50% of the total tax potential. The study notes that major contribution comes from the Punjab province and least contribution is from the Sindh province (due to bad weather conditions agricultural income was very low during the period of study). The study also estimate 11.65% as tax to taxable income ratio.

The break down of the results is given in detail below:

Table 5
Over All Tax Descriptives

Income Categories	Tax					
	No of tax-payers	% of tax payer	Mean tax (Rs.)	Sum of tax (Rs.)	% of tax to tax-able income	% of tax to total income
50000-80,000	266	70.4	991.55	263752.04	2.73	1.62
80001-150000	92	24.3	8147.78	749596.02	13.52	7.97
150001-250000	16	4.2	41622.83	665965.27	39.51	1.46
250001-360996	4	1.1	93215.69	372862.75	51.44	30.65
	378	100.00		20521759		

Table 5 gives us over all tax descriptives. Column 1 shows income cateogires. This income cateogires is actually a break down of taxable income into four major categories. Column 1 gives us very interesting results. It shows that all the income groups below than the Rs.50,000 thousands have no tax payer. The income groups between Rs.50,000-80,000 includes 266 potential tax payers which is the 70.4% of the total potential tax payers. So the major contribution is made by this category. The Average tax of this category is Rs.991.55 and the total potential tax is Rs.263752.04. It is 2.7% of the tax to taxable income ratio and 1.62% of tax to total income ratio. Similarly the second group of the income (Rs.80,001-950,000) counts 92 tax payers which is 24.3% of the total tax payers. The total potential tax from this group is Rs.749596.02 thousand. It is 13.52% of the tax to taxable income ratio and 7.97% of tax to total income ratio. This shows that it is a major constribution. The final group of income Rs.250001-360996 counts only 4 potential tax payers which is 1.1% of tax payers. The mean income of this category is Rs.93215.69 and the total potential tax is Rs.372862.75 thousand. It is 51.44% of tax to taxable income ratio and 30.65% of tax to total income ratio.

The results of table # 5 show that there is a big scope for taxing higher income class in the agriculture sector. This will prove to be a good source of revenue for government.

Table 6
Over All Tax Descriptive of Punjab

Income Categories	Tax					
	No of tax-payers	% of tax payer	Mean tax (Rs.)	Sum of tax (Rs.)	% of tax to tax-able income	% of tax to total income
50000-80,000	155	75.5	1013.20	157046.41	2.78	1.65
80001-150000	52	23.6	7927.15	412211.89	13.28	7.89
150001-250000	10	4.5	38289.72	382897.25	37.11	22.22
250001-360996	3	1.4	96137.37	288412.10	51.67	30.94
	220	100.00		1240567.6		

Table # 6 shows the tax descriptives for the Punjab Province. In the income category Rs.50,000-80,000 thousand there are 155 potential tax payers which accounts 75.5% of total tax payers. The average tax of this group is Rs.1013.20 and total sum of tax is Rs.157046.41 this amount of tax is 2.78% in terms of the tax to taxable income ratio and 1.65% of tax to total income ratio.

Similarly in category # 2 there are 52 tax payers which is 23.6% of the tax payers. The total amount of potential tax of this category is Rs.912211.89. It is 13.28% of the tax to taxable income ratio and 3.89% of tax to total income ratio.

The major contribution comes from the third category that is Rs.382897.27. It is 37.11% of the tax to taxable income ratio and 22.22% of tax to total income ratio. Table 2 gives us interesting results in a sense that out of 378 tax payers, 220 tax payers are from Punjab province. So major share will be from Punjab province.

Table 7
Over All Tax Descriptive of Sindh

Income Categories	Tax					
	No of tax-payers	% of tax payer	Mean tax (Rs.)	Sum of tax (Rs.)	% of tax to tax-able income	% of tax to total income
50000-80,000	34	82.9	768.85	26140.96	2.19	1.31
80001-150000	7	17.1	6849.72	47948.02	12.01	7.14
	41	100.00		74088.98		

Table 7 shows tax dcescriptives of Sindh province. There are only two categories of income in this province.

In this province there are only 41 tax payers out of 378. The category 1 counts 34 and category 2 counts 9 tax payers which is 82.9% and 17.1% of the total tax payers in this province. The first category sum of tax is Rs.26140.96 which is 2.19% of tax to taxable income ratio and 1.31% of tax to total income ratio. In the 2nd category total amount of tax is Rs.47948.02 which is 12.01 of tax to taxable income ratio and 7.14% of tax to total income ratio.

Table 8
Over All Tax Descriptive of NWFP

Income Categories	Tax					
	No of tax-payers	% of tax payer	Mean tax (Rs.)	Sum of tax (Rs.)	% of tax to tax-able income	% of tax to total income
50000-80,000	60	66.7	1012.07	60724.37	2.77	1.64
80001-150000	25	27.8	8302.40	207560.12	13.62	7.95
150001-250000	4	4.4	42343.47	169373.89	41.05	23.57
250001-360996	1	1.1	84450.66	84450.66	50.69	29.71
	90	100.00		522109.04		

Table # 8 shows tax descriptives of NWFP province. It shows that total tax payers in this province are 90 out of 378 and contribute Rs.522109.04. In the first category there are 60 potential tax payers which is 66.7% of the tax payers. It contributes Rs.60724.37 that is 2.77% of tax to taxable income ratio and 1.64% of tax to total income ratio.

The second category counts 25 tax payers which is 27.8% of tax payers it contributes Rs.60724.37. It is 13.62% of tax to taxable income ratio and 7.95% of tax to total income ratio. The third category counts a tax payers which is 4.4% of tax payers. It contributes Rs.169373.89 which is 41.05% of tax to taxable income ratio and 23.57% of 23.57% tax to total income ratio.

Table 9
Over All Tax Descriptive of Baluchistan

Income Categories	Tax					
	No of tax-payers	% of tax payer	Mean tax (Rs.)	Sum of tax (Rs.)	% of tax to taxable income	% of tax to total income
50000-80,000	17	63.00	1167.08	19840.30	3.14	1.83
80001-150000	8	29.6	10234.50	81875.99	15.75	9.08
150001-250000	2	7.4	56847.07	113694.13	47.14	28.23
	27	100.00		215410.42		

Table # 9 shows the tax descriptives of Baluchistan province. It counts 27 tax payers that contribute Rs.215410.42. In the first category there are 17 tax payers which is 63% of the tax payers. It contributes Rs.19840.30 which is 3.14% of the tax to taxable income ratio and 1.83 of tax to total income ratio.

While the second category counts 8 tax payers which is 29.6% of total tax payers. It counts potential tax revenue Rs.81875.99 which is 15.75% of taxable income and 9.08% of the tax to total income. The third category counts 2 tax payers which is 7.4% of the tax payers and it contributes Rs.113694.13. It is 47.14% of tax to taxable income and 28.23% tax to total income.

Table 10
Quintile of Tax Payers (Over All)

Tax quintile

Income cateogires	1	2	3	4	5	Row Total
50000-80000	75 28.2 100	76 28.6 100	76 28.6 100	39 14.7 51.3		266 70.4
80001-150000				37 40.2 48.7	55 59.8 73.3	92 24
150001-250000					16 100 21.3	16 4.2
250001-360996					4 100 5.3	4 1.1
Column Total	75 19.8	76 20.1	76 20.1	76 20.1	75 19.8	378 100

The table # 10 shows quintile of tax payers for all categories. All income categories have been divided into five equal parts first row shows the descriptives of first category over the five equal parts.

Each row counts no of tax payers and their percentages in a given income category. It is clear from Ist row that the first category divided into three parts 1,2 and 3.

In the Ist tax quantile there are 75 potential tax payers who contribute 28.2% of the total tax potential of the first income category. In the 2nd and 3rd tax quantile the same category counts euqal number of tax payers who contribute equal % of the total tax potential of this category. It shows 76 potential tax payers who contribute 28.6% of the total tax potential of this category. In fourth tax quantile the same category counts 39 potential tax payers who contribute 14.7% of total tax potential of the first category. There is no tax payer in the fifth tax quintile.

The row total shows distribution of potential tax payers in all the four categories. First income category counts the maximum (266) number of potential tax payers while the fourth income category counts minimum (4) number of potential tax payers.

The column total shows the distribution of potential tax payers of all the income categories and their percentages over the different tax quintiles.

The results shows that all the categories are equally distributed over the first and the fifth tax quantile. Similarly in tax wuantile number 2, 3 and 4 equal distribution is the result. The table # 10 also shows the total number of potential tax payers.

Table 11
Quintile of Tax Payers of Punjab

Tax quintile

Income cateogires	1	2	3	4	5	Row Total
50000-80000	47 30.3 100	37 23.9 100	46 29.7 100	25 16.1 53.2		155 70.5
80001-150000				22 42.3 46.8	30 57.7 69.8	52 23.6
150001-250000					10 100 23.3	10 4.5
250001-360996					3 100 7	3 1.4
Column Total	47 21.4	37 16.8	46 20.9	47 21.4	43 19.5	220 100

The table 11 shows tax quintile of the Punjab province. The row total shows that the maximum number of tax payers are from the first income category and the minimum number of the tax payers are from the fourth category. The total number of potential tax payer from first category is 255 which is 70.5% of the total 220 potential tax payers. While the total number of potential tax payers from the fourth income category is 3 which is 1.4% of the 220, that is total number of potential tax payers of the Punjab province.

The column total shows the distribution of potential tlkax payers and their percentage for all income categories over the different tax quintiles. The result is same for the Ist and the fourth tax quintle. It is different for all other tax quintiles.

In the first quintile there are total 47 potential tax payers and all are from the first income category. Similarly in the 2nd and third quintile there are 37 and 46 potential tax payers and all are from the first income category. In the forurth quintile there are 47 potential tax payers who are distributed between Ist and 2nd income category. They are 25 in first category which is 53.2% of total 47 potential tax payers. Similarly there are 22 potential tax payers in the 2nd income category which is 46.8% of the total 47 potential tax payers of all the income categories for the fourth tax quintile. In the fifth quintile there are total 43 potential tax payers who are distributked over 2nd, 3rd and fourth income categories. The 2nd category counts 30 potential tax payers which is 69.8% of the total 43. The third income category counts 10 potential tax payers which is 23.3% of the total while the fourth counts 3 potential tax payers which is 7.00% of the total.

The results of this table shows that income in first category is evenly distributed over almost all tax quintile. While the income in all other categories is not at all distributed among different quintile rather it is concentrated in the last quintile.

Table 12
Quintile of Tax Payers of Sindh

Tax quintile

Income cateogires	1	2	3	4	5	Row Total
50000-80000	13 38.2 100	8 23.5 100	11 32.4 100	2 5.8 28.6		34 82.9
80001-150000				5 71.4 71.4	2 28.6 100	7 17.1
150001-250000						
250001-360996						
Column Total	13 31.7	8 19.5	11 26.8	7 17.1	2 4.95	41 100

The table # 12 shows tax quintile and the distribution of income of different categories over different quintile for Sindh province. The row total of this total shows that there are 34 potential tax payers in the first income category and there are 7 potential tax payers in the 2nd income category. The row total also shows that there is no contribution from 3rd and fourth income category. All the 41 potential tax payers of the province are distributed in the first and 2nd category and their percentage is 82.9% and 17.1% respectively.

The first row shows the distribution of the first income category over the first quintile. It shows that it is distributed over first four tax quintile. There are 13 potential tax payers in the first quintile, 21 in the 2nd 18 in the 3rd and 8 in the fourth quintile, there is no potential tax payer from Sindh province in the fifth quintile. The table also shows that in the first 2nd and third quintile all the potential tax payers are from the first income category. While in the fourth quintile they are distributed between Ist and 2nd income category.

In the fifth quintile only 2nd income category contribute. The column total shows that there are 13 potential tax payers in the first tax quintile which is 31.7% of the total potential tax payers.

There are 21 potential tax payers in the 2nd quintile which is 19.5% of the total. The maximum number of potential tax payers are in first quintile and minimum in the fifth quintile.

Table 13
Quintile of Tax Payers of NWFP

Tax quintile

Income cateogires	1	2	3	4	5	Row Total
50000-80000	13 21.7 100	21 35.0 100	18 30.0 100	8 13.3 53.3		60 66.7
80001-150000				7 28.0 46.7	17 72.0 78.3	25 27.8
150001-250000					4 100 17.4	4 4.4
250001-360996					1 100 4.3	1 1.1
Column Total	13 14.4	21 23.3	16 20.0	15 16.7	23 25.6	90 100

The table # 13 shows tax quintile of the NWFP. The table shows that there are total 90 ptoential tax payers in this provice.

The maximum number is from the first income category while the minimum come from the fourth income category. The maximum number is 60 and the minimum number is one.

The column total shows that there are 13 potential tax payers in the first quintile which is 14.4% of the total and all the contribution is from the Ist income category. The maximum number of potential tax payers are in the fifth quintile and minimum number is the Ist quintile.

The maximum number is 23 which is 25.6% of the total. It is distributed among 2nd, third and fourth income categories. There are 17 potential tax payers in the 2nd income category in the fifth tax quintile which is 78.3% of the total thus it is maximum. There is only one potential tax payer in 3rd income category in the fifth quintile which is 4.3$ of the total thus it is minimum.

Table 14
Quintile of Tax Payers of Baluchistan

Tax Quintile

Income Categories	1	2	3	4	5	Row Total
50000-80000	2 11.8 100	10 58.8 100	1 5.9 100	4 23.5 57.1		17 63.0
80001-150000				3 37.5 42.9	5 62.5 71.4	8 29.6
150001-250000					2 100 28.0	2 7.4
250001-360996						
Column Total	2 7.4	10 37.0	1 3.7	7 25.9	7 25.9	27 100

Table # 14 shows tax quintile of Baluchistan province. It shows that there are total 27 potential tax payers in the province. They are distributed among Ist three income categories. The maximum number is 17 and the minimum number is 2. The maximum number of potential tax payers are from the first income category and the minimum number of potential tax payers are from the 3rd income category. The column total shows that the maximum number of potential tax payers are in the 2nd tax quintile and the minimum number of potetnail tax payers are in the third tax quintile. The ma;ximum number is 10 which is 37 of the total while the minimum number is 1 which is 37% of the total.

Table also shows that for the first three quintile all the contribution is made by the first income category. The contribution for the fourth and fifth quintile is distributed between lst and 2nd and 2nd and the third income categories respectively.

Table 15
Taxable Income (Over All)

Income cateogires	Count	Count %	Mean (Rs.)	Sum (Rs.)
50000-80000	266	70.4	36318.21	9660643.1
80001-150000	92	24.3	60271.84	5545009.0
150001-250000	16	4.2	105353.76	1685660.5
250001-360996	4	1.1	181192.81	724771.26

Table # 15 shows the distribution of the over all taxable income over the different income categories. The first income category counts 266 earners which is 70.4% of total 378 tax payers. The mean taxable income of this category is Rs.36318.21 and total taxable income is Rs.9660643.1.

The 2nd income category counts 92 earners which is 24.3% of the total. The mean taxable income for the category is Rs.60271.84 and the total sum is Rs.5545009.0. There are 16 earner in 3rd category which is 4.2% of the total. The mean income of this category is Rs.105353.76 and the total mean is 1685660.5.

This table counts 378 earner and their total income is Rs.17616083.

Table 16
Total Monthly Income (Over All)

Income cateogires	Count	Count %	Mean (Rs.)	Sum (Rs.)
50000-80000	266	70.4	5108	1358635
80001-150000	92	24.3	8523	784104
150001-250000	16	4.2	14816	237053
250001-360996	4	1.1	25341	101364

The table # 16 shows distribution of total monthly (over all) over different income categories. All the category counts of the earners and their percentage is same as of that of table # 16. The maximum total monthly income is in the firkst category which is Rs.1358635 and the minimum is in the last category which is Rs.101364. The total monthly income is Rs.2481156.

Table 17
Taxable Income (Punjab)

Income cateogires	Count	Count %	Mean (Rs.)	Sum (Rs.)
50000-80000	155	70.5	36453.33	5650265.9
80001-150000	52	23.6	59666.59	3102662.9
150001-250000	10	4.5	103189.94	1031899.4
250001-360996	3	1.4	186062.28	558186.8
	220	100		10343015

The table # 17 shows the distribution of taxable income over the different income categories for the Punjab province. The table shows that there are 220 earner in the Punjab province which has total income Rs.10343015. The maximum number are in the first income category and the minimum number is in fourth income category.

The maximum amount is Rs.5650265.9 and the minimum amount is Rs.1031899.4 which is from 3rd category.

Table 18
Monthly Income (Punjab)

Income cateogires	Count	Count %	Mean (Rs.)	Sum (Rs.)
50000-80000	155	70.5	5118	793276
80001-150000	52	23.6	8371	435297
150001-250000	10	4.5	14361	143606
250001-360996	3	1.4	25894	77681
	220	100		1449860

The table # 18 shows the distribution of monthly income of Punjab province over the different income categories. The total monthly income from the Punjab province is Rs.1449860. The Ist income category counts maximum income Rs.793276 while the fourth category count 4 number of earners who counts 77681 monthly income.

Table 19
Taxable Income (Sindh)

Income cateogires	Count	Count %	Mean (Rs.)	Sum (Rs.)
50000-80000	34	82.9	35031.91	1191085.0
80001-150000	7	17.1	57040.89	399286.23
	41	100		1590371.2

The table # 19 shows the distribution of taxable income of Sindh province over different income categories. It shows that there are only 41 tax payers whose total taxable income is

Rs.159371.2. The maximum taxable income is associated with Ist income category which is Rs.1191085.0 and the minimum income is associated with 2nd income categories which is Rs.399286.23.

The most interesting result to note about Sindh is that there exist only two categories of taxable income.

Table 20
Total Monthly Income (Sindh)

Income cateogires	Count	Count %	Mean (Rs.)	Sum (Rs.)
50000-80000	34	82.9	4880	165926
80001-150000	7	17.1	7998	55984
	41	100		221910

The table # 20 shows the distribution of the total monthly income over the different income categories for the Sindh province. The total monthly income is Rs.221910.

The maximum income is associated with Ist income category that Rs.165926 and the minimum is associated with 2nd income category that is 55984.

Table 21
Taxable Income (NWFP)

Income cateogires	Count	Count %	Mean (Rs.)	Sum (Rs.)
50000-80000	60	66.7	36465.09	2187905.4
80001-150000	25	27.8	60930.73	1523268.3
150001-250000	4	4.4	103151.05	412604.19
250001-360996	1	1.1	166584.43	166584.43
	90	100		4290362.2

The table # 21 shows the distribution of taxable income over the different income categories for the NWFP province. The results show that total 90 number of earner counts Rs.4290362.2. The ma;ximum amount is associated with Ist category which is Rs.2187905.4. The minimum amount is associated with the fourth category which is Rs.166584.43.

Table 22
Monthly Income (NWFP)

Income cateogires	Count	Count %	Mean (Rs.)	Sum (Rs.)
50000-80000	60	66.7	5152	309140
80001-150000	25	27.8	8706	217652
150001-250000	4	4.4	14972	59886
250001-360996	1	1.1	23683	23683
	90	100		610361

The table # 18 shows the distribution of the monthly income over the different categories for the NWFP province. The results show that total monthly income is Rs.610361. The first income category shows the maximum monthly7 income which is Rs.309140 while the fourth income category shows the minimum monthly income which is Rs.23683.

Table 23
Taxable Income (Baluchistan)

Income cateogires	Count	Count %	Mean (Rs.)	Sum (Rs.)
50000-80000	17	63.0	37140.40	631386.83
80001-150000	8	29.6	64973.95	519791.62
150001-250000	2	7.4	120578.44	241156.89
	27	100		13923352

Table # 23 shows the distribution of taxable income over the different income categories for the Baluchistan province. The results show that total 27 tax payer sum Rs.13923352.

The maximum sum is associated with the Ist income category which is Rs.63136.83 and the minimum sum is associated with the third income category which is Rs.241156.89. It also shows that there are only three income categories in the Baluchistan province.

Table 24
Monthly Income (Baluchistan)

Income cateogires	Count	Count %	Mean (Rs.)	Sum (Rs.)
50000-80000	17	63.0	5311	90293
80001-150000	8	29.6	9396	75171
150001-250000	2	7.4	16781	33561
	27	100		199025

Table # 24 shows the distribution of monthly income of Baluchistan province over different income categories. The total sum is Rs. 199025 and the maximum is associated with the Ist category which is Rs.90293 and the minimum is associated with the third income category which is Rs.33561.

Table 25
Statistical Descriptives of Variables (Overall)

Variable	Mean (Rs.)	Std.Dev.	Minimum (Rs.)	Maximum (Rs.)	Sum (Rs.)	N
Taxable Income	46603.40	22665.06	30055.09	216165.3	17616083.83	378
Tax	5429.04	13011.32	8.26	114199.2	2052176.08	378

The table # 24 shows that over all statistics of taxable income and tax. It shows that the mean taxable income is Rs.46603.40. Its maximum value is Rs.216165.3 and the minimum value is Rs.30055.09. The standard deviation is Rs.22665.08 and the total sum is Rs.17616083.83.

Table 26
Statistical Descriptives of Variables (Punjab)

Variable	Mean (Rs.)	Std.Dev.	Minimum (rs.)	Maximum (Rs.)	Sum (Rs.)	N
Taxable Income	47013.70	24184.52	30055.09	216165.3	10343014.97	220
Tax	5638.94	13978.08	8.26	114199.2	1240567.63	220

Table # 26 shows the statics of taxable income and tax for the Punjab province. The table shows that total taxable income is Rs.10343014.97 and tax from this province is Rs.1240567.63. It also shows the maximum and the minimum amount of the tax which is Rs.114199.2 and Rs.8.26.

The standard deviation for the Punjab of taxable income is Rs.24184.52 and of tax is Rs.13978.08.

Table 27
Statistical Descriptives of Variables (Sindh)

Variable	Mean (Rs.)	Std.Dev.	Minimum (Rs.)	Maximum (Rs.)	Sum (Rs.)	N
Taxable Income	38789.54	10463.62	30057.49	84822.75	1590371.26	41
Tax	1807.05	3302.99	8.62	19911.36	74088.98	41

The table # 27 shows the same for the Sindh province. It shows that sum of taxable income is Rs.1590371.26 and standardard deviation is Rs.10463.62. While the total amount of tax is Rs.74088.98 and standard deviation is 1807.05.

Table 28
Statistical Descriptives of Variables (NWFP)

Variable	Mean (Rs.)	Std.Dev.	Minimum (Rs.)	Maximum (Rs.)	Sum (Rs.)	N
Taxable Income	47670.69	21584.75	30122.16	166584.4	4290362.28	90
Tax	5801.21	12493.41	18.32	84450.66	522109.04	90

Table # 28 shows the result of the same variables for the NWFP province. it shows the amount of taxable income Rs.4290362.28 while the amount of tax Rs.522109.04. The standard deviation for taxable income and tax is Rs.21584.75 and Rs.12493.41 respectively.

Table 29
Statistical Descriptives of Variables (Baluchistan)

Variable	Mean (Rs.)	Std.Dev.	Minimum (Rs.)	Maximum (Rs.)	Sum (Rs.)	N
Taxable Income	51567.98	25132.68	30179.64	131274.3	1392335.33	27
Tax	7978.16	15154.12	26.95	63264.55	215410.42	27

Table # 29 shows the results of the same variables for the Baluchistan province. it shows the amount of taxable income Rs.1392335.33 and the amount tax Rs.215410.42. It also shows standard deviation of taxable income and tax Rs.25132.18 and Rs.15154.12 respectively.

The study also raises the sampale results to the national level by using different methods given in the methodology section.

The total propulation of Pakistan acording to Economic Survey (1991-92) is 117.32 million. We got 18.16 million house hold from this population by using formula # 1. Then we get 13.02 million rural household using 71.70% as rural urban ratio.

The study estimates Rs.2735.31 million as potential agricultural income tax for Pakistan for 1991-92 using the results of first method.

RESULTS (B)

In this section we discuss the results of method (ii). The result of the study analyses the tax potential of agricultural income on the basis of rural households incomes (considering household as a taxable entity). The total sample of the analyses is 9761. The study shows that there are 1591 potential tax payer out of this sample. The study estimates Rs.2905182.15 from 1591 potential tax payers. The province vise contribution is given in table # 30 given below.

Table 30
Tax Descriptives of all Provinces

Provinces	Taxable Income (Rs.)	No. of Tax Payers	Total Tax (Rs.)	%age of Tax to Total Tax
Punjab	41869230.00	886	1680173.10	57.83
Sindh 1037	10375916.00	254	277339.70	9.55
NWFP	15320397.00	301	677826.45	23.33
Baluchistan	6955381.00	150	269842.90	9.29
Total	74529024.00	1591	2905182.15	100

Table shows that Punjab contributes Rs.1680173.10 which is 57.83% of the total tax potential. The Sindh province contributes Rs.277339.7 as a potential revenue. It is 9.55% of the total tax potential. The NWFP contributes Rs.677826.45 which is 23.33% of the total tax potential. The Baluchistan contributes Rs.269842.90 which is 9.29% of the total tax potential.

The study notes that major contribution comes from the Punjab province and least contribution is from the Baluchistan province. The study also estimate 3.90% as tax to taxable income ratio.

The break down of the the results is given in detail below:

Table 31
Over All Tax Descriptives

Income Categories	Tax					
	No of tax-payers	% of tax payer	Mean tax (Rs.)	Sum of tax (Rs.)	% of tax to tax-able income	% of tax to total income
30000-80,000	1479	93.0	1140.32	1686533.8	2.75	2.73
80001-150000	92	5.8	7198.84	662293.1	7.15	7.03
150001-250000	16	1.0	21485.20	343763.2	12.21	12.08
250001-360996	4	0.2	53148.00	212592.00	17.56	17.48
	1591	100.00		2905182.15		

Table 31 gives us over all tax descriptives. Column 1 shows income cateogires. These income cateogires are actually a break down of taxable income into four major categories. The income groups between Rs.30,000-80,000 includes 1479 potential tax payers which is the 93.00% of the total potential tax payers. So the major contribution is made by this category. The Average tax of this category is Rs.1140.32 and the total potential tax is Rs.1686533.8. It is 2.75% of the tax to taxable income ratio and 2.75% of tax to total income ratio. Similarly the second group of the income (Rs.80,001-950,000) counts 92 tax payers which is 5.8% of the total tax payers. The total potential tax from this group is Rs.662293.1. It is 7.15% of the tax to taxable income ratio and 7.03% of tax to total income ratio. The final group of income Rs.250001-360996 counts only 4 potential tax payers which is 0.2% of tax payers. The mean income of this category is Rs.53148.00 and the total potential tax is Rs.212592.00. It is 17.56% of tax to taxable income ratio and 17.48% of tax to total income ratio.

The results of table # 31 show that there is a big scope for taxing higher income class in the agriculture sector. This will prove to be a good source of revenue for government.

Table 32
Over All Tax Descriptive of Punjab

Income Categories	Tax					
	No of tax-payers	% of tax payer	Mean tax (Rs.)	Sum of tax (Rs.)	% of tax to tax-able income	% of tax to total income
30000-80,000	821	92.7	1145.23	940233.91	2.76	2.74
80001-150000	52	5.9	7088.04	368578.20	7.11	7.06
150001-250000	10	1.1	20581.80	205818.00	11.94	11.94
250001-360996	3	0.3	55181.00	165543.00	17.76	17.76
	886	100.00		1680173.10		

Table # 32 shows the tax descriptives for the Punjab Province. In the income category Rs.30,000-80,000 there are 821155 potential tax payers which accounts 92.775.5% of total tax payers. The average tax of this group is Rs.1145.23 and total sum of tax is Rs.940233.91. This amount of tax is 2.76% in terms of the tax to taxable income ratio and 2.75% of tax to total income ratio.

Similarly in category # 2 there are 52 tax payers which is 23.6% of the tax payers. The total tax potential of this category is Rs.368578.20. It is 7.11% of the tax to taxable income ratio and 7.06% of tax to total income ratio.

The major contribution comes from the first category that is Rs.940233.90. It is 2.76% of the tax to taxable income ratio and 2.74% of tax to total income ratio. Table 2 gives us interesting results in a sense that out of 1591 tax payers, 886 tax payers are from Punjab province. So major share will be from Punjab province.

Table 33
Over All Tax Descriptive of Sindh

Income Categories	Tax					
	No of tax-payers	% of tax payer	Mean tax (Rs.)	Sum of tax (Rs.)	% of tax to tax-able income	% of tax to total income
30000-80,000	247	97.2	930.81	229910.80	2.37	2.37
80001-150000	7	2.81	6775.56	47428.92	7.11	7.05
	254	100.00		277339.70		

Table 33 shows tax dcescriptives of Sindh province. There are only two categories of income in this province.

In this province there are 254 tax payers out of 1591. The first category counts 247 and the second category counts 7 tax payers which is 97.2% and 2.8% of the total tax payers in this province. In the first category sum of tax is Rs.229910.80 which is 2.37% of tax to taxable income ratio and 2.37% of tax to total income ratio. In the 2nd category total amount of tax is Rs.47428.9 which is 7.11 of tax to taxable income ratio and 7.05% of tax to total income ratio.

Table 34
Over All Tax Descriptive of NWFP

Income Categories	Tax					
	No of tax-payers	% of tax payer	Mean tax (Rs.)	Sum of tax (Rs.)	% of tax to tax-able income	% of tax to total income
30000-80,000	271	90.0	1357.67	67929.40	3.11	3.07
80001-150000	25	8.3	7223.43	180585.80	7.10	6.91
150001-250000	4	1.3	20565.56	82262.25	11.94	11.45
250001-360996	1	0.3	47049.00	47049.00	16.91	16.55
	301	100.00		677826.45		

Table # 34 shows tax descriptives of NWFP province. It shows that total tax payers in this province are 301 out of 1591 and contribute Rs.677826.45. In the first category there are

271 potential tax payers which is 90.0% of the tax payers. It contributes Rs.67929.40 that is 3.11% of tax to taxable income ratio and 3.07% of tax to total income ratio.

The second category counts 25 tax payers which is 8.3% of tax payers. It contributes Rs.180585.80 which is 7.10% of tax to taxable income ratio and 6.91% of tax to total income ratio. The third category counts 4 tax payers which is 1.3% of tax payers. It contributes Rs.82262.25 which is 11.94% of tax to taxable income ratio and 11.45% of tax to total income ratio.

Table 35
Over All Tax Descriptive of Baluchistan

Income Categories	Tax					
	No of tax-payers	% of tax payer	Mean tax (Rs.)	Sum of tax (Rs.)	% of tax to tax-able income	% of tax to total income
30000-80,000	140	93.3	1060.43	148459.7	2.61	2.56
80001-150000	8	5.3	8212.53	65700.20	7.57	7.28
150001-250000	2	1.3	27841.50	55683.00	13.83	13.83
	120	100.00		269842.90		

Table # 35 shows the tax descriptives of Baluchistan province. It counts 150 tax payers that contribute Rs.269842.90. In the first category there are 140 tax payers which is 93.3% of the tax payers. It contributes Rs.148459.7 which is 2.61% of the tax to taxable income ratio and 2.56 of tax to total income ratio.

While the second category counts 8 tax payers which is 5.3% of total tax payers. It counts potential tax revenue Rs.65700.20 which is 7.57% of taxable income and 7.28% of the tax to total income. The third category counts 2 tax payers which is 1.3% of the tax payers and it contributes Rs.55683.0. It is 13.83% of tax to taxable income and 13.83% tax to total income.

Table 36
Quintile of Tax Payers (Over All)

Tax quintile

Income cateogires	1000	1001-5000	5001-10,000	10001-25,000	25001-above	Row Total
30000-80000	853 57.7 100	626 42.3 100				14.79 93.0
80001-150000			83 90.2 100	9 9.8 40.9		92 5.8
150001-250000				13 81.3 59.1	3 18.8 42.9	16 1.00
250001-360996					4 100 57.1	4 .30
Column Total	853 53.6	626 39.3	83 5.2	22 1.4	7 0.4	1591 100

The table # 36 shows quintile of tax payers for all categories. All income categories have been divided into five brackets, first row shows the descriptives of first category over the five equal parts.

Each row and counts no of tax payers and their percentages in a income category. In the first category, the maximum tax is in between (1001-5000).

In the Ist tax quantile there are 853 potential tax payers who contribute 57.7% of the total tax potential of the first income category. In the 2nd quintile first category countrs 626 tax payers who contribute 42.3% of this category. There is no tax payer from the first income category. In the second income category there are 92 potential tax payers which is 5.8% of the total. These tax payers are associated with 3rd and 4th tax quintile.

There are 16 tax payers in the third cateogyr which is 1.00% of the total tax payers. These tax payers lie in the 4th and 5th quintile. Siomilarly there 9 tax payers in the fourth income category which is 0.30% of the total. These tax payers lie in the fifth tax quintile.

The column total shows the distribution of the tax payers over the different tax quintiles. The total of the first column counts 853 tax payers in the first tax quintile which is 53.6% of the total. All tax payers in this tax quintile are from the first income category. Similarly all 626 tax payers in 2nd quintile are from the first income category. There are 83 tax payers in the 3rd quintile and all are from the 2nd income category. All the 22 tax payers in the fourth quintile are from 2nd and third income category. The tax payers in 5th quintile are 7 in number and are from the third and fourth income category. Thus table # 36 shows that the maximum number of tax payers are in the first tax quintile and the minimum number is in the fifth tax quintile.

Table 37
Quintile of Tax Payers of Punjab

Tax quintile

Income cateogires	1	2	3	4	5	Row Total
30000-80000	488 59.4 100	333 40.6 100				821 92.7
80001-150000			47 90.4 100	5 9.6 38.5		52 5.9
150001-250000				8 80.0 61.00	2 20.0 40.0	10 1.1
250001-360996					3 100 60.00	3 0.3
Column Total	488 55.1	333 37.6	47 5.3	13 1.5	5 60.00	886 100

Table # 37 shows tax quintile of Punjab province. The row total shows that there are 821 potential tax payers in the first category. It is 92.7% of the total tax potential. These tax payers fall in the first and 2nd tax quintile. This implies that these tax payers are in the lowest tax brackets. In the 2nd category of income there are 52 potential tax payers. It is 5.9% of the total tax potential of this province. The tax payers of this category fall in the 3rd and fourth tax quintile. This shows that these tax payers are in upper tax brackets. Similarly there are 10 tax payers in 3rd income category. It is 1.1% of the potential of this province. All the tax payers are in the 4th and 5th tax quintile this shows that they are in the upper tax quintile. The least number of tax payers are in the fourth income category. They lie in 5th tax bracket. The column total shows the number of potential tax payer in each tax quintile. The maximum number of tax payers are 488 and in the minimum number is 5. The maximum number lie in first income bracket and the minimum lie in 5th income bracket.

Table 38
Quintile of Tax Payers of Sindh

Tax quintile

Income cateogires	1	2	3	4	5	Row Total
3000-80000	161 65.2 100	86 34.8 100				247 97.2
80001-150000			6 85.7 100	1 14.3 100		7 2.8
150001-250000						
250001-360996						
Column Total	161 63.4	86 33.9	6 2.4	1 0.4		254 100

The table # 38 shows the distribution of tax payers over the different tax quintiles.

The row total shows the maximum number of tax payers are in the first income category and the minimum in the 2nd. There is no tax payers in the 3rd and fourth income category. The first row shows that there are 161 tax payers in the first tax bracket and 86 in the 2nd tax bracket. There is no tax payers from the first income category in the 3rd, 4th and fifth tax brackets.

There are 7 tax payers in the 2nd income category. They lie in the 3rd and fourth income bracket. There is no tax payer from Sind province in the fifth tax bracket.

The column total shows that there are 161 potential tax payer in the first tax bracket. It is 63.4% of the total tax payers. There are 86 tax payers in the 2nd tax bracket and 6 and 7 in the 3rd and fourth income bracket respectively. Thus the majority of tax payer is in the first income bracket.

Table 39
Quintile of Tax Payers of NWFP

Tax quintile

Income cateogires	1	2	3	4	5	Row Total
30000-80000	120 44.3 100	151 55.7 100				271 90.0
80001-150000			24 96.00 100	1 4.00 20.0		25 8.3
150001-250000				4 100 80.00		4 1.3
250001-360996					1 100 100	1 0.3
Column Total	120 399	151 50.2	24 8.0	5 1.7	1 0.3	301 100

The table # 39 shows the distribution of tax payers over different tax brackets. There are 120 tax payer in the first tax bracket which is 39.9% of the total tax payers. All the tax payers in the first tax bracket belong to first income category. Similarly there are 151 potential tax payer in the 2nd tax bracket which is 50.2% of the total tax payer. Thus the maximum number of tax payer in NWFP province lie in the 2nd tax bracket. The minimum tax payers are in the 5th tax bracket. As compare to Sind province the tax payers in NWFP province are distributed over all the tax and income bracket.

Table 40
Quintile of Tax Payers of Baluchistan

Tax Quintile

Income Categories	1	2	3	4	5	Row Total
30000-80000	84 60.0 100	56 40.0 100				140 93.3
80001-150000			6 75.0 100	2 25.0 66.7		8 5.3
150001-250000					1 50.0 100	2 1.3
250001-360996						
Column Total	84 56.0	56 37.3	6 4.00	3 2.00	1 0.7	150 100

Table # 40 shows the distribution of tax payers of Baluchistan province over different tax brackets. It is clear from the table that the tax payers of this province are distributed over all the tax brackets. The maximum tax payers lie in the first tax bracket and the minimum lie in the fifth tax bracket. The maximum number is 84 and the minimum number is 1.

Table 41
Taxable Income (Over All)

Income cateogires	Count	Count %	Mean (Rs.)	Sum (Rs.)
30000-80000	1479	93.0	41403.20	61235338
80001-150000	92	5.8	100653.97	9260165
150001-250000	16	1.0	175940.81	2815053
250001-360996	4	0.3	302592.00	1210368
	1591	100		74520924

Table # 41 shows the distribution of the over all taxable income over the different income categories. The first income category counts 1479 earners which is 93.0% of total 1591 tax payers. The mean taxable income of this category is Rs.41403.20 and total taxable income is Rs.61235338.

The 2nd income category counts 92 earners which is 5.8% of the total. The mean taxable income for the category is Rs.100653.97 and the total sum is Rs.9260165. There are 16 earner in 3rd category which is 1% of the total. The mean income of this category is Rs.175940.81 and the total sum is Rs.2815053.

This table counts 1591 earner and their total income is Rs.74520924.

Table 42
Total Monthly Income (Over All)

Income cateogires	Count	Count %	Mean (Rs.)	Sum (Rs.)
30000-80000	1479	93	3479	5144703
80001-150000	92	5.8	8523	784104
150001-250000	16	1.0	14816	237053
250001-360996	4	0.3	25341	101364
	1591	100		6267224

The table # 42 shows distribution of total monthly income (over all) over different income categories. All the categories count of the earners and their percentage is same as that of table # 41. The maximum total monthly income is in the first category which is Rs.5144703 and the minimum is in the last category which is Rs.101364. The total monthly income is Rs.6267224.

Table 43
Taxable Income (Punjab)

Income cateogires	Count	Count %	Mean (Rs.)	Sum (Rs.)
30000-80000	821	92.7	41452.30	34032339
80001-150000	52	5.9	99643.21	5181447
150001-250000	10	1.1	172327.20	1723272
250001-360996	3	0.3	310724.00	932172
	886	100		41869230

The table # 43 shows the distribution of taxable income over the different income categories for the Punjab province. The table shows that there are 886 earners in the Punjab province which has total income Rs.41869230. The maximum numbers are in the first income category and the minimum number is in fourth income category.

The maximum amount is Rs.34032339 and the minimum amount is Rs.932172 which is from Ist and 4th income category respectively.

Table 44
Monthly Income (Punjab)

Income cateogires	Count	Count %	Mean (Rs.)	Sum (Rs.)
30000-80000	821	92.7	3480	2857240
80001-150000	52	5.9	8371	435297
150001-250000	10	1.1	14361	143606
250001-360996	3	0.3	25894	77681
	886	100		3513824

The table # 44 shows the distribution of monthly income of Punjab province over the different income categories. The total monthly income from the Punjab province is Rs.3513824. The Ist income category counts maximum income Rs.2837240 while the fourth category count 4 number of earners who counts 77681 monthly income.

Table 45
Taxable Income (Sindh)

Income cateogires	Count	Count %	Mean (Rs.)	Sum (Rs.)
30000-80000	247	97.2	39308.13	9709108
80001-150000	7	2.8	95258.29	666808
	251	100		10375916

The table # 45 shows the distribution of taxable income of Sindh province over different income categories. It shows that there are only 254 tax payers whose total taxable income is

Rs.10375916. The maximum taxable income is associated with Ist income category which is Rs.9709108 and the minimum income is associated with 2nd income categories which is Rs.666808.

The most interesting result to note about Sindh is that there exist only two categories of taxable income.

Table 46
Total Monthly Income (Sindh)

Income cateogires	Count	Count %	Mean (Rs.)	Sum (Rs.)
30000-80000	247	97.2	3276	809259
80001-150000	7	2.8	7998	55984
	254	100		865243

The table # 46 shows the distribution of the total monthly income over the different income categories for the Sindh province. The total monthly income is Rs.865243.

The maximum income is associated with Ist income category that Rs.809259 and the minimum is associated with 2nd income category that is Rs.55984.

Table 47
Taxable Income (NWFP)

Income cateogires	Count	Count %	Mean (Rs.)	Sum (Rs.)
30000-80000	271	90.0	43576.73	11809294
80001-150000	25	8.3	101754.32	2543858
150001-250000	4	1.3	172262.25	689049
250001-360996	1	0.3	278196.00	278196
	301	100		15320397

The table # 47 shows the distribution of taxable income over the different income categories for the NWFP province. The results show that total 301 number of earner counts Rs.15320397. The maximum amount is associated with Ist category which is Rs.11809294. The minimum amount is associated with the fourth category which is Rs.278196.

Table 48
Monthly Income (NWFP)

Income cateogires	Count	Count %	Mean (Rs.)	Sum (Rs.)
30000-80000	271	90.0	3683	998114
80001-150000	25	8.3	8706	217652
150001-250000	4	1.3	14972	59886
250001-360996	1	1.3	23683	23683
	301	100		1299335

The table # 48 shows the distribution of the monthly income over the different categories for the NWFP province. The results show that total monthly income is Rs.1299335. The first income category shows the maximum monthly income which is Rs.998114 while the fourth income category shows the minimum monthly income which is Rs.23683.

Table 49
Taxable Income (Baluchistan)

Income cateogires	Count	Count %	Mean (Rs.)	Sum (Rs.)
30000-80000	140	93.3	40604.26	5684597
80001-150000	8	5.3	108506.50	868052
150001-250000	2	1.3	201366.00	402732
	150	100		6955381

Table # 49 shows the distribution of taxable income over the different income categories for the Baluchistan province. The results show that total 150 tax payer sum Rs.6955381.

The maximum sum is associated with the Ist income category which is Rs.5684597 and the minimum sum is associated with the third income category which is Rs.402732. It also shows that there are only three income categories in the Baluchistan province.

Table 50
Monthly Income (Baluchistan)

Income cateogires	Count	Count %	Mean (Rs.)	Sum (Rs.)
30000-80000	140	93.3	3429	480090
80001-150000	8	5.3	9396	75171
150001-250000	2	1.3	16781	33561
	150	100		588822

The table # 50 shows the distribution of monthly income of Baluchistan province over different income categories. The total sum is Rs.588822 and the maximum is associated with the lst category which is Rs.480090 and the minimum is associated with the third income category which is Rs.33561.

Table 51
Statistical Descriptives of Variables (Overall)

Variable	Mean (Rs.)	Std.Dev.	Minimum (Rs.)	Maximum (Rs.)	Sum (Rs.)
Taxable Income	46830.05	25714.09	30012.00	360996.00	74520924
Tax	1826.04	3800.722	1.20	67749.00	2965182.15

The table # 51 shows that over all statistics of taxable income and tax. It shows that the mean taxable income is Rs.46839.05. Its maximum value is Rs.360996.00 and the minimum value is Rs.30012.00. The standard deviation is Rs.25714.09 and the total sum is Rs.74520924. The total amount of tax is Rs.2905182.15.

Table 52
Statistical Descriptives of Variables (Punjab)

Variable	Mean (Rs.)	Std.Dev.	Minimum (rs.)	Maximum (Rs.)	Sum (Rs.)
Taxable Income	47256.47	27336.52	30012.00	360996.0	41869230
Tax	1896.36	4208.248	1.20	67749.00	1680173

Table # 52 shows the statics of taxable income and tax for the Punjab province. The table shows that total taxable income is Rs.41869230 from this province is Rs.1680173. It also shows the maximum and the minimum amount of the tax which is Rs.67749.00 and Rs.1.20.

The standard deviation for the Punjab of taxable income is Rs.27336.5 and of tax is Rs.4208.24.

Table 53
Statistical Descriptives of Variables (Sindh)

Variable	Mean (Rs.)	Std.Dev.	Minimum (Rs.)	Maximum (Rs.)	Sum (Rs.)
Taxable Income	40850.06	13491.52	30120.00	141654.00	10375916.00
Tax	1091.89	1404.12	12.00	12913.50	277339.70

The table # 53 shows the same for the Sindh province. It shows that sum of taxable income is Rs.10375916.00 and standardard deviation is Rs.13491.52. While the total amount of tax is Rs.277339.70 and standard deviation is 1404.12.

Table 54
Statistical Descriptives of Variables (NWFP)

Variable	Mean (Rs.)	Std.Dev.	Minimum (Rs.)	Maximum (Rs.)	Sum (Rs.)
Taxable Income	50898.33	27601.13	30024.00	278196.0	15320397.00
Tax	2251.92	3916.00	2.40	47049.00	677826.45

Table # 54 shows the result of the same variables for the NWFP province. it shows the amount of taxable income Rs.15320397 while the amount of tax Rs.677826.45. The standard deviation for taxable income and tax is Rs.27601.13 and Rs.3916.00 respectively.

Table 55
Statistical Descriptives of Variables (Baluchistan)

Variable	Mean (Rs.)	Std.Dev.	Minimum (Rs.)	Maximum (Rs.)	Sum (Rs.)
Taxable Income	46369.21	26052.18	30300.00	219228.00	6955381.00
Tax	1798.93	3664.022	30.00	32307.00	269842.90

Table # 55 shows the results of the same variables for the Baluchistan province. it shows the amount of taxable income Rs.6955381 and the amount tax Rs.269842.90. It also shows standard deviation of taxable income and tax Rs.26052.18 and Rs.3664.02 respectively.

The study also raises the sampale results to the nation level by using different methods given in the methodology section.

The total propulation of Pakistan according to Economic Survey (1991-92) is 117.32 million. We got 18.16 million house hold from this population by using formula # 1. The we get 13.02 million rural household using 71.70% as rural urban ratio.

The study estimates Rs.2735.31 million as potential agricultural income tax for Pakistan for 1991-92 using estimates of Ist method and Rs.23732.24 million using 2nd method.

CONCLUSIONS

The proceeding chapters have, at length, examined the conventional wisdom on taxation of income from the agriculture sector, reviewed the historical evidence both for and against the agriculture tax and the work/recommendations of several tax reforms committees. The vital point which particularly emerges is that these Committees Reports were never publicly discussed - either in the parliament or outside. It was only the political, professional and bureaucratic elites who dominated these committees who for all practical purposes could represents the interests of the landed aristocracy rather than the "Small peasants/agriculturists" on whose behalf they always posed to represent.

The argument against the levy of tax on agriculture sector have centered around the concept of administrative constraints, agriculture sector already being over taxed and 'small' tax potential of the agriculture sector. All these arguments are based on the misconception that it is only for these reasons that income tax should or should not be levied. This concept is totally untrue and misleading for the following reasons:

i. The argument that agricultural sector is in a bad shape may not be correct. The rate of growth in the agricultural sector during 1991-92 was 6.1% in 1990-91 it was 5.1%. In fact the agricultural sector has been the main stay of our overall growth in GDP over the past few years.

A recent study by Naveed Hamid also acclaims the sustained growth of agriculture by value added at about 3.8% per year over 1960-1985, which is among the highest in developng countries in that period.

ii. The argument regarding high costs and low procurement/support prices and the consequential transfer of resources from agriculture to other sectors leaving average agriculturists in a deficit or at subsistence level has been considered in details. The lobby against tax on agricultural income has spent quite some time in exploring and highlighting this issue.

The National Commission of Agriculture has examined all aspects of this 'transfer of resources' in Chapter 29 of its report (1987) and has concluded that:

> "29.42. It has been shown in the Chapter that although the incidence of direct taxes on agriculture is small relative to other sectors, the total proportion of income transfers out of agriculture is quite high. There is no scope for further taxation of the sector without adverse impact on the sector's productive capacity. In the face of this situation the demand that agricultural incomes should be taxed as personal incomes in line with other income earners in the country must be rejected as counter productive. However, there are certain inadequacies in the present system which must be removed."

The National Taxation Reforms Commission's two members who opposed the imposition of tax were of the view that:

> "the agricultural sector is too hard pressed to bear the burden of any further taxation. The following conditions need to be met before a provincial agricultural income tax can even be contemplated:

1. The annual net transfer of Rs.30,000 million from agriculture has to be not just stopped but actually reversed.

All these arguments, however, are misplaced. Even taking these conclusion on their face value does not help the case against agricultural taxation as the tax is going to be on the income of an individual and not on the secotr as a whole. And even the National Commission of Agriculture admits in the same report that there are many very affluent landlords who have the capacity to pay:

> "29.45..... On the other hand, 3 per cent farmers (a total of 129,000 farmers) with holdings of over 20 hectare (above 3200 PIUs) own 20 percent of cultivated land and probably reap about one third of the total agricultural output. Some of them, despite all constraints, have much larger incomes and are thus capable of making greater contributions to the development of agriculture and the rural infrastructure. A simple

mechanism has to be found for such farmers, with holdings of 50 acres and above, to assume greater financial responsibility for the development of rural areas in which they are located in their own interest and the interest of the rural community at large."

It is precisely these affluent landlords whose agricultural incomes are intended to be taxed. The sectoral position only shows that (as per argument), had these policies not been adopted, the outflow from the sector would not have been there and incomes of these *farmers* would have been still more (than 1/3 of the total agricultural output).

Keeping in view the contribution of individual agriculturist to the revenue effort, the whole argument appears naive in its advocacy of the porposition that taxes on income be levied on tax payers of each sector based on periodic analysis of relative net tax burden on that sector.

iii. The argument regarding per capita income being low also suffers from the same inherent flaw of irrelevancy. We are not talking of those at the subsistence level in incomes. Average or per capita does not mean that every body is at that level. There are many above. If this was the argument it is equally applicable to non-agricultural sector also. Our annual per capita income of Rs.10358 would mean nobody should pay income tax, the minimum threshhold being Rs.30,000.

iv. Argument of there being too many levies is true for non-agricultural tax payers also. There are a host of taxes and levies on shops, industries, housing, professions, etc. All pay income tax as well.

v. The question of yield cannot be made a criterion for non-imposition since interest on bank deposits, or tax on salaries or on house properties also do not yield very large amounts. It may not be out of place to mention here that Cooper & Lybrand have estimated the yield from taxes on agricultural incomes at Rs.5 billion. Not a small sum by any standard.

vi. Agriculturist may be illiterate and poor. But we are not talking of such persons. It is only the rich and those with capacity to pay that are to be included in tax base. So are many shopkeepers and industrialists. Book-keeping is not essential for income tax purposes even otherwise in small cases with smaller incomes.

vii. Ushr and other land taxes have two distinguishing features. These are not on income. They represent a cost of non-intervention by the government in the produce of land - which is basically supposed to be a realm of state. Those are not taxes on income - but are a price paid by citizens for the rights and privileges that each citizen enjoys. The option of income tax is thus not merely as a fund raiser. It has its implications of equity and equality.

Even in terms of money alone, land revenue and ushr, as the experience shows, may not be able to generate much of funds.

viii. Agriculture is a high risk activity. Its assessment, however, is not difficult. Small land owners do not come in. Those with higher incomes are either themselves managing their farms. In that case they have employees who keep track of financial matters. Those landlords who give their lands on rent can obviously be assessed as share received is known. As for losses etc. all such eventualities are already taken care of in income tax law for the non-agricultural sectors.

ix. So far as the constitutional position is concerned, it is correct that as per item 47 in the Fourth Schedule to the Constitution all taxes on income OTHER THAN AGRICULTURAL INCOME are within the legislative competence of the Federation which means that legislation pertaining to tax on agricultural income is outside the Federal subjects of legislation. The definition of agricultural income as contained in the Income Tax Ordinance, 1979 has been adopted in the Constitution as per Article 260(I). Article 162 of the Constitution provides that no bill or amendment which varies the meaning of the expression "agricultural income" as defined for the purposes of the enactments relating to income tax shall be introduced or moved in the National Assembly except with the previous sanction of the President.

There are two schools of thought in this regard. It is pleaded on the one hand that change in the definition of agricultural income in the Income Tax Ordinance through an ordinary legal amendment can bring the agricultural income within the ambit of income tax chargability. Whereas on the other hand it is pleaded that the Constitutional position can not be changed in this manner and it can be done only through Constitutional amendment.

Since the taxation of agricultural income is an issue of vital national importance, Constitituional amendment is considered necessary.

This, however, cannot be given as a reason for not taxing agricultural income. The amending of constitution or adopting any other methodology for taxing agricultural income is a thing subsequent to the decision on the question of whether such incomes are to be taxed. If that decision is to be taken on merits, the legal method to be adopted for implementation is irrelevant so far as the discussion of the issue is concerned. We have to see whether taxing of agricultural incomes is just and good.

On theoretical frame, we observe that there are several convincing reasons for levy of tax on income arising/occurring from the agriculture sector. These cover both equity and neutrality aspects of income taxation. These reasons include the following:

a. It is a basic principle of income taxation that *income is income from whatever source derived*. It has been a very strange phenomenon that in Pakistan income has been bifurcated into two compartments agricultural and non-agricultural. 'This discrimination is indeed a unique feature of tax systems of India and Pakistan and is unknown to other tax systems including those prevailing in Commonwealth countries. It dates back to 1886 when agricultural income was excluded from the purview of general income tax. That probably was done becuase incidence of land revenue at that time was about equal or higher than the very low rates of income tax then prevailing. Moreover the separation did not matter as the rates of income tax were only nominally progressive. The inequality of treatment has, however, emerged prominently since the beginning of World War II when progressive rates of income tax were introduced. In any case the situation has to be viewed in the changed circumstances as now prevailing.

Indian Taxation Enquiry Committee observed, in 1925, that "there was no historical or theoretical justification for the continued exemption from income tax of incomes derived from agricutlure".

The Taxation Enquiry Committee of Pakistan (1959) also observed:

"298.... We do not see any valid reason for making a distinction between various sections of the community in matters of taxation except on the basis of ability to pay..."

A related phenomenon is the emergence of a class of agricultural landowners who reside in urban centres and have substnatial investments in real estate there. Since they pay no income tax, they create jealousies in all other classes of tax payers. For this there can hardly be any justification in principle.

The Report of the Committee of Experts on Taxation (1989) has two dissenting notes. Note B observes that taxing of agricultural incomes is a moral and politial question. It has discussed moral grounds in the following words:

"On moral grounds, there is seldom good reason to make laws which apply to one set of people and not to others, and never so when the law exempts those more fortunate from the burdens which it places on the less fortunate.... In the field of taxation it reveals itself in the widespread presumption that to tax is the attribute of those who govern (the *umara* and *shurafa*) and to pay taxes the duty of those who are governed (the *rayyat*)."

Regarding political grounds it oberves:

"The growing inequality of incomes in rural areas and the existence of a class of extremely rich agriculturists, may be a subject of debate among officials, lobbyists and scholars, but it is bitterly clear to the poor in rural (and increasingly in urban) areas. When representatives of the rural poor refuse to subject themselves to the same taxes, that are paid by the common people, they put enormous strains on the central fiction on which democracy is founded. On political grounds also, therefore, there is no justification of the rich to continue to be exempt from tax just because their income is from agriculture."

In Note C another member of the Committee observed:

"It is hard to understand that near the advent of the twenty-first century, Pakistan has a tax structure which does not bring within its ambit recipients of enormously high incomes from agriculture. And if and when (if at all) such incomes are charged to tax, agricultural and non-agricultural incomes will become taxable as separate blocks of income, at different rates of tax under different tax regimes, which is regressive. Under these circumstances, should this not be our policy goal, as a nation, to bring to tax total income earned by a person, from whatever source derived, at progressive rates of tax in order to achieve horizontal and vertical equity which would lay the foundations of a just economic order."

Obviously the demands from those paying income tax on their incomes including salaried persons for bringing agricultural incomes at par are not without force.

Ms. Cooper and Laybrand have also supported the Note B quoted earlier.

b. The government has been facing severe budget problems. The situation had temporarily eased during the periods in which aid was abundantly available. That too has later added to the gravity of situation because of its contribution to increased payments of interest and principal amounts in latter years. There are two ways of getting out of this pressure. Reduction in expenditure and increase in revenues. The first is practicable only up to a limited extent as the main heads of expenditure i.e. defence and repayments (interest & principal) have little room for flexibility. The only course left open is to increase revenues. Increasing of revenue is possible in three ways:

- enlarging the tax base.
- improving administration of tax laws; and
- imposing of additional taxes.

The government has consistently been pursuing all these options. However, tax experts, both local and foreign are nearly unanimous that enlarging of tax base to include agricultural incomes is essential, apart from other reasons, for increasing revenues considerably.

Increasing of revenues is now all the more essential because of the policy of self-reliance adopted by the Government.

c. The exemption available to agricultural incomes gives rise to a number of problems in the taxing of those persons/incomes which are liable to income tax. Thus contributing to tax evasion. Some of these are:

(i) The presence of the affluent non tax paying class discourages tax compliance and is an incentive for not paying taxes. It is argued that it is euqally the duty of a person deriving income from agriculture to pay for the rights and privileges of citizenship as it is of a person deriving income from salary.

(ii) A large number of agriculturists have entered into business. They show their business income as emanating from agriculture to evade tax. Similarly big industrialists purchase some agricultural land and show their business profits as its income. The practice is widespread.

(iii) Corrupt government or other functionaries also purchase agricultural lands for witening their graft money through this device.

(iv) Investments in business or property are usually explained as loans from big agriculturists, often fictitious.

(v) Commission agents and traders of agricultural commodities/fruit suppress their receipts as agriculturists do not maintain accounts/have no record for tax purposes.

(vi) The exclusion of agricultural income from the purview of income tax enables those agriculturists who would otherwise be liable to wealth tax to avoid this tax on their non-agricultural assets like jewelry, cash, and cars as the existing law exempts such persons from payment of wealth tax.

All these taken together have a substantial negative effect on the income tax revenues.

Our empirical analysis based on sample household survey of selected areas of all the four provinces, inspite of several constraints, particularly the extrapolation of results on a national basis is a fresh attempt to examine the issue in the new perspective.

To achieve comparative/comparable results, attempt has been made to use a multi-pronged approach. firstly, each household with income exceeding the minimum taxable threshold has been treated as a "taxable entity" i.e. an ' Association of Persons' engaged in business, profession or vocation -- a concept traditionally applied under the income tax law. The rational, as already provided in the body of the proceeding chapters is that except for the large farmers/land lords, it is the entire family or the 'household' which is engaged at the farm and the income arising, their farm is attributable to the effect of the family as " ". The national tax potential of the agriculture sector on this basis is estimated at Rs.23732.24 million. On the contrary, estimated amount of tax is Rs.117.32 million provided each earner of income rather than the 'household' as a whole is treated as a taxable unit.

It is believed that the conceptual and empirical evidence provides in the proceeding chapters, as summed up above, there is definite need to introduce income tax on agriculture income for improving the equity and minimizing the conceptual distortion and administrative efficiency. The tax benefits (in terms of additional tax revenues), which will occur through eliminating the 'exemption of agriculture income' presently serving as "tax shelter' will be enormous. Although, it is not possible to exactly quantify the 'additionability' due to the non-availibilty of relevant data. The discussion with the tax officials in the Central Board of Revenue are indicative of the fact that the tax yield from business sector (both in the form of income and wealth tax) will provide an immediate up-surges in the revenues the moment exemption on agriculture income is with drawn. As the tax exemption of agriculture income is directly effecting the taxation of business income by way of serving as "tax shelter" it is recommended that it is through the constitutional amendment that the Federal Government may be empowered to levy the proposed tax.

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