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Taxing Agriculture in Pakistan

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Abstract

Pakistan's economic performance has been marred by persistently high fiscal deficits which have resulted largely from the inability to raise sufficient revenues. Agriculture is a dominant sector of the economy, but generates very limited revenue from direct taxes on agricultural producers. The paper first reviews the history of attempts to tax agriculture in Pakistan, the purpose of which is to underscore the difficulty in adopting and implementing a sound agricultural tax policy. It then examines various alternatives with regard to the taxation of agricultural land and incomes. Finally, it presents the outlines of a full-fledged agricultural income tax that could be implemented within the Constitutional framework in the next three to five years.

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I. INTRODUCTION

One of the striking features of the Pakistan economy has been the inability of successive governments to maintain fiscal discipline on a sustained basis. Since 1971, the year of the breakaway of East Pakistan (now Bangladesh), the government budget has always been in deficit. Whenever this deficit has been large, the growth rate has faltered, inflation has climbed higher, and most importantly, the economy has faced a widening current account deficit that has culminated frequently in a balance of payments crisis.[2] In the 1990s, the fiscal problem once again became acute, with the budget deficit fluctuating around 6 percent of GDP (Chart 1). As expected, this was accompanied by poor economic performance, characterized by a slowing down of growth to an average of 4 percent per year, as compared to an average annual rate of 6 percent in the 1980s. Inflation also moved to double-digit levels, averaging 12 percent a year. Finally, there was a sharp deterioration in the current account balance, and foreign exchange reserves fell to only two weeks of imports at the end of 1996.

Eliminating the structural fiscal deficit has been the chief preoccupation of all governments in Pakistan, although the efforts to do so have been fairly unsuccessful. In the 1990s, total government revenues stagnated at around 17 percent of GDP, despite a number of revenue-enhancing measures contained in each annual budget (Chart 2). In 1996/97, the revenue ratio dropped to a little over 15 percent, one of the lowest levels in the past

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[2]See Khan (1992).

three decades.[3] While the ratio of total expenditure to GDP was cut in the 1990s to offset sluggish revenues, the scope for major reduction is limited. Two items of government expenditure--interest payments and military spending--together comprise about one-half of total expenditure and are generally inviolable to budgetary cutbacks. Thus, increasing revenues has to be the key in any meaningful fiscal adjustment.

The poor revenue picture is the result of a narrow and inelastic tax system that relies heavily on indirect taxes and import taxes (Chart 3). Taxes on income and profits account for only a quarter of total revenues. Furthermore, there are widespread tax exemptions and evasion, which together with poor tax administration ensure that actual revenues consistently run below budget projections. Finally, the income tax system is highly inequitable, with the burden falling mainly on the business sector and salaried workers.[4] In this context, it is notable that agriculture, which is the most important sector in the economy, is exempt from direct income taxes.[5]

Under the Constitution of Pakistan, farmers have been exempt from taxes on their incomes from agriculture and only the Provincial Governments are permitted to levy a land tax.[6] The Federal Government cannot directly impose taxes on agricultural incomes or land. The political power of large landowners has prevented the Federal Government from seeking

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[3]This was partly due to the lowering of income tax rates in the last quarter of the fiscal year (which starts July 1).

[4]It is estimated that income taxpayers number only one million (out of a population of 135 million).

[5]Agriculture accounts for around 25 percent of GDP, employs one-half of the labor force, and is the largest earner of foreign exchange.

[6]The four provinces of Pakistan are: Balochistan, North West Frontier Province (N.W.F.P.), Punjab, and Sindh.

such a change in the Constitution, as well as constrained the Provincial Governments from utilizing their legal authority to impose taxes on agricultural incomes. At present, the only direct tax on agricultural producers is the provincial land revenue (land tax) whose yield in 1996 was a paltry Rs. 1.3 billion, or 0.4 percent of total tax revenues. The Federal Government has also instituted a small wealth tax on agricultural land, but revenues from this tax are about one-tenth of the land revenue.

Given the tax exemption on income that it enjoys, the agriculture sector has become a legal, and sometimes illegal, tax shelter for other forms of income. To avoid income taxes, transfers from the other sectors of the economy to agriculture are commonplace. Thus, it is estimated that applying the same tax on agricultural incomes as in other sectors would yield substantial revenues over the medium term. Clearly, exempting agriculture from taxation imposes a heavy burden on the rest of the economy as well as a significant loss of revenues for the budget.

As part of the ESAF and EFF programs negotiated with the IMF in September 1997, the Government of Pakistan committed itself to a medium-term strategy to tax agricultural wealth and incomes. This policy is to be implemented in two stages. First, there would be a uniform land-based tax for all provinces by mid-1998, at the level prevailing in the largest province (Punjab).[7] In the second stage, the Federal Government and the provinces agreed to complete a study on moving from the land-based tax to an agricultural income tax in the medium term. By the terms of the agreement, an agricultural income tax is expected to be in

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[7]There is some confusion as to whether this new tax would be in addition to the existing land revenue or replace it. In the major province of Punjab, the land revenue has been abolished.

place some time in the early 21st century. In the meantime, however, little increase in revenues from agriculture is likely to be generated.

The purpose of this paper is to make the case for taxing agricultural producers directly in Pakistan. It first describes the history of failed attempts to underscore the difficulty in introducing what most economists and policymakers would regard as sound tax policy. The second part of the paper examines various alternatives in implementing direct agricultural taxation in Pakistan. Based on the analysis, the paper proposes an agricultural income tax system that could be implemented within the framework of the existing Constitution in the next three to five years.

II. Direct Taxes on Agriculture in Pakistan: Small Steps and Failed Attempts

A. General Aspects

There are two basic issues in agricultural taxation that need to be clearly identified and separated. First, there is the issue of the intersectoral transfer of resources from agriculture to other sectors brought about by explicit or implicit indirect taxes on the former. Most governments have resorted to a variety of indirect explicit taxes as well as implicit taxes (including price controls on output, overvalued exchange rate, etc.) on the agriculture sector, usually at the cost of distorting the allocation of resources and loss of efficiency [Krueger 1996]. Second, there is the issue of taxation of income and wealth of individuals irrespective of residence or which activities generate their income and wealth. In this context, it is

important that a distinction is clearly made between the issue of tax burden on the agriculture sector and the issue of taxes on personal incomes and wealth of landowners and farmers.[8]

Taxes on agricultural commodities have been a major source of government revenue in most developing countries. In spite of the efficiency losses, governments have given preference to this form of taxation for political and administrative reasons. Similarly, they have imposed implicit taxes on agricultural products, but with limited gain to government revenue and gross distortions in resource allocation. In recognition of these costs, since at least the mid-1980s, governments in most developing countries have been moving away from the high level of indirect explicit and implicit taxes on agricultural producers [UN, FAO 1993].

Traditionally, agricultural land has been taxed simply as a natural resource creating rent. In recent times, tax authorities have used three methods to assess the tax on agricultural land: (i) an in rem (property) tax based on land area; (ii) a tax based on the market value or net income of the land; and (iii) a tax based on objective measures which are proxies for land productivity or potential income of land [Skinner 1991]. The first approach has been by far the most common. Only in very few developing countries have governments introduced a tax on actual or presumed agricultural income. The experience is that the revenue yield is often very limited due mainly to problems in the assessment and collection of these taxes. In countries where attempts have been made to transform the in rem land tax (based on land area alone) into in personam land tax (based on land value) the results have been no more

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[8]A large number of studies on tax reform in developing countries, using both theoretical models and case studies, have emerged since the late 1980s. See, for example, Newbery and Stern (1987); Ahmad and Stern (1991); and World Bank (1991). While in the literature on agricultural taxation this distinction is clearly made, the discussions in Pakistan have almost always ignored it.

satisfactory. In some countries, taxation of agricultural land as property is left to local (state or municipal) governments, in which case the revenue from this tax has been a reasonably good source of the provincial (state) or municipal income. Land tax is, therefore, closely linked to the services provided in return by state and municipal governments [UN, FAO 1993].

In the context of direct taxes on agricultural producers, a distinction must be made between a tax on income irrespective of the source from which it is derived and a tax on wealth (property) whether mobile or immobile, including agricultural land. Ideally both of these taxes should be a personal liability of the individual and based on actual (earned) income and assessed (market) value of property. In practice, particularly for agricultural income and land, there are severe constraints on assessing actual income and the value of land [Skinner 1991]. As such, a second best approach is to estimate presumed income and value of agricultural land. However, the estimation of presumed income and value of property is also not without serious difficulties. An important aspect of tax policy is that the administration of tax has to be relatively effective--it minimizes tax evasion--and inexpensive--it minimizes rent-seeking.

There is considerable evidence that governments in Pakistan, through a combination of indirect and implicit taxes, have in the past taxed the agriculture sector quite heavily and transferred substantial resources to other sectors in the economy [Pakistan 1993]. These policies have generated some revenues for the government, but in the process have distorted the allocation of resources. Price subsidies on agricultural inputs, though substantial, did not compensate agricultural producers for the losses suffered through price discrimination and export taxes. However, in the last four to five years, considerable changes in the procurement

(support) prices of crops, adjustment in the exchange rate, and liberalization of trade in general have significantly reduced the resource transfer from the agriculture sector [Khan 1991; Khan 1994]. The measures taken in the 1990s have certainly weakened the arguments of the farm lobby in Pakistan that agriculture is already heavily taxed.

In Pakistan, there are only two forms in which the government taxes landowners directly and includes their revenue in its budget: (i) land revenue as a tax on land that generates incomes and (ii) wealth tax on agricultural land as immovable property. The former is assessed and collected by the Provincial Governments and the latter by the Federal Government. In 1982/83 the military government introduced, as part of its policy of Islamizing the economy, the "ushr" levy on Muslim landowners in lieu of land revenue, but the ushr revenue was not to be part of the government's budget.

B. Land Revenue as a Tax on Land

In 1947, the land revenue systems in the provinces of Punjab, N.W.F.P. and Sindh had significant differences in the structure and methods of assessment.[9] However, the West Pakistan Land Revenue Act of 1967--which was in fact a copy of the Punjab Land Revenue Act of 1887 enacted by the British colonial administration--introduced a uniform basis for land revenue in what was then West Pakistan, comprising all four provinces of today's Pakistan. The land revenue rate, determined for each revenue "circle" at the time of "settlement", is a maximum of 25 per cent of the "net assets". The net assets are calculated as the value of gross produce minus the "normal" cost of cultivation of crops in the case of owner-cultivators or the land rent received by landowners minus the charge of collecting the rent from tenants.

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[9]A detailed study of the land revenue system, with historical background and sources, has been done by Khan (1981, Chapter 8).

The period of each revenue settlement is a minimum of 10 years and maximum of 20 years. Land revenue is paid in cash and is determined on the basis of information about the average crop area matured, crop yield and prices. The revenue rates are classified by soil type for a village or group of villages in the revenue circle. Since the revenue settlements in most districts of West Pakistan were completed before 1947, the government raised the basic revenue rates by 25 percent on an ad hoc basis and adopted the new rates for all of West Pakistan in 1967. Even after the division of West Pakistan into four provinces in 1969, no change was made in the land revenue system until after the splitting of Pakistan into two separate countries in December 1971.

The first change was made in the land revenue system of Sindh after the promulgation of the Land Reform Act of 1972 in Pakistan. A flat rate of land tax was introduced, based on the predetermined value of the Produce Index Unit (PIU), first used in Punjab soon after 1947 to settle the claims of Muslim refugees from East (Indian) Punjab and then extended to all districts of West Pakistan for implementing the Land Reform Act of 1959.[10] The flat rate in Sindh was simply the revenue demand of the three previous years (1969-1972) divided by the PIUs per unit of land in each village (deh) according to the soil type and mode of irrigation. The flat rate was fixed for five years, 1972/73 to 1977/78, after which a new rate was to be established on the basis of revised PIUs per hectare.

Major changes in the land revenue system of all provinces were introduced in November 1975. All irrigated landholdings of up to 5 hectares (or double this size for unirrigated holdings) were exempted from the payment of land revenue, which was a major

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[10]The PIU is a measure of the productive capacity of agricultural land. It is used to establish the equivalence of parcels of land in different parts of the country.

departure from the existing system in which all landowners had to pay land revenue to the state. This concession was part of the promises made to the "peasants" by the Pakistan People's Party (PPP) government. All larger size landholdings were required to pay increased rates per hectare. The PPP government followed these changes by the most radical reform in the land revenue system in January 1977: in the Finance (Supplementary) Act of 1977, the Federal Government replaced the land revenue (tax) by a tax on agricultural income, except for owners of holdings of 10 hectares or less. The Finance Act of 1977 represented a breakthrough in that it removed the exemption of agricultural income from taxation. This change in the land revenue system was part of the agricultural reform package--including the Land Reform Act of 1977--offered by the PPP just before the national and provincial elections in March 1977. Under the new system presumed income from agriculture would be determined on the basis of the number of PIUs per hectare, which had not been changed in Pakistan since the late 1940s.

After the coup d'etat in July 1977, the military government suspended the Finance Act of 1977, restored the tax exemption on agricultural income in the Income Tax Ordinance of 1979, and reintroduced the land revenue with new (higher) rates starting from the 1976/77 crop season. Another major change affecting the land revenue system was introduced by the military government in 1982/83 as a result of the Zakat and Ushr Ordinance of 1980. The Sunni Muslim landowners would pay, in lieu of land revenue, the ushr levy at the rate of five per cent of the gross value of output in cash subject to a basic exemption, but the Shia Muslim and non-Muslim landowners would continue to pay the land revenue. The ushr liability on landowners would be assessed and collected by the Local Zakat and Ushr Committees.

After winning the national elections in 1988, the new PPP government made two major changes in the Zakat and Ushr Ordinance of 1980. First, in the Finance Act of 1989, the autonomy of Zakat Councils was reduced and the zakat and ushr funds could be used for a variety of social purposes. Second, the Finance Act of 1990 placed the responsibility of assessment and collection of the ushr levy with the provincial Land Revenue Departments. These changes were intended to increase the government's intervention and expand the ushr base (as a social safety net) for providing relief to the poor in rural and urban areas. In 1991, the Islami Jamhuri Ittehad (IJI) government appointed a committee to examine the means to improve the system and reverse the falling trend in the ushr revenues, but so far no measures to achieve this were implemented in the provinces. In the meantime, the annual ushr collections have fallen from Rs. 260 million in 1983/84 to less than Rs. 50 million in 1995/96. This is considered to be the result of the fact that the administration of ushr has been grossly neglected and that Sunni Muslims have made false declarations about their religious identity to avoid the (higher) ushr levy.

C. Wealth Tax on Agricultural Land

The wealth tax was introduced in Pakistan in 1963, following the recommendations of the Taxation Enquiry Committee of 1959. Under the Wealth Tax Act of 1963, all movable and immovable wealth is subject to tax, with a basic exemption of Rs. one million or a self-occupied house. However, in 1970 the Wealth Tax Act of 1963 was amended to exempt the owners of agricultural land whose income from agriculture was not liable to any tax. This would exclude everyone who owned agricultural land but did not have taxable income from nonagricultural sources, since agricultural income was exempt from taxation. The other problem was that the value of land for wealth tax was set at Rs. 10 per PIU and, since no

individual was allowed to own a land area with more than 8,000 PIUs under the Land Reform Act of 1977, the maximum value of land (Rs. 80,000) would be well under the allowable exemption of Rs. one million.

In 1990, the assessment value of agricultural land for wealth tax was raised from Rs. 10 to Rs. 200 per PIU in two stages by July 1994. However, these changes in the Wealth Tax Act of 1963 made little impact on tax receipts from agricultural land because of at least four factors: (i) the basic exemption of Rs. one million; (ii) the low rate of assessment of the PIU; (iii) the unchanged number of PIUs per hectare since the late 1940s despite the substantial increase in the productive capacity of land due to expanded irrigation, use of modern inputs, development of roads, and urbanization; and (iv) the generous deductions announced by the Federal Government in 1994 after removing the wealth tax exemption for those earning income from agriculture.

In the 1996/1997 budget, the Federal Government raised the assessment rate of land to Rs. 400 per PIU and removed some of the exemptions and loopholes which led to the revenue increase from Rs. 30 million in 1994/95 to Rs. 110 million in 1996/97. However, the problem is that the base of land valuation is still the outdated number of PIUs per hectare. It is obvious that, without the revaluation of land, either by revising the PIUs per hectare or using market value, wealth tax receipts from agricultural land will remain very modest.

D. Current Situation and Proposals

During the 1980s the question of changes in the direct taxes on agriculture, including land revenue, ushr and income tax, was examined by at least three expert committees.[11] The

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[11]The three committees were: the National Taxation Reform Commission (1986), National Commission on Agriculture (1988), and the Committee of Experts on Taxation of Agricultural Incomes (1989).

majority view was against introducing a tax on agricultural income. All the committees have emphasized the need to improve the assessment and collection of land revenue and ushr, but without specific recommendations on the methods of implementation. It is well known that the tax exemption for agricultural income has been misused by individuals who receive income from other sources, like industry, trade, etc. Also, taxes are avoided (and evaded) on nonagricultural incomes in several ways. For example, agricultural land would be purchased and then claimed as the source of other incomes; agriculturists would claim income generated from other businesses as agricultural income; and fictitious loans made by agriculturists to industrialists (and traders) help the latter class of taxpayers to avoid tax on their nonagricultural incomes. A minor policy reform with respect to agricultural income was introduced in the Finance Ordinance of 1988 (Ordinance II of 1988). It amended the Income Tax Ordinance of 1979 (Second Schedule in Part I Clause I) to include agricultural income (if any) in the "chargeable income" for determining the tax rate for nonagricultural incomes. This so-called clubbing formula, introduced with the Federal Budget of 1988-89, however, has had no major impact on tax evasion and the income tax revenue.

At the end of 1990, the IJI government appointed a Taxation Committee, which was in favor of a tax on agricultural income, but in its view the Federal Government did not have a clear constitutional authority to introduce a tax on agricultural income. Therefore, the Committee recommended that the Federal Government should redefine the concept of agricultural income by excluding the rental part received by landowners and incomes earned from orchards, livestock and poultry farms. However, no action was taken on this recommendation. The persistently high fiscal deficit and the pressure of the international donor community since the early 1990s have moved up the issue of reforming the land

revenue system on the government's policy agenda in Pakistan. The Caretaker Government, after the dismissal of the Pakistan Muslim League (PML) government in July 1993, took two measures in September-October 1993. First, it amended the Wealth Tax Act of 1963 and removed the exemption on agricultural land as immovable property for wealth tax purposes. In February 1994, the newly-elected PPP government enacted a somewhat watered-down version of the Wealth Tax (Amendment) Ordinance in line with the recommendations of the Prime Minister's Task Force on Agriculture to justify the changes in the original legislation [Pakistan 1993]. Second, it issued ordinances in all provinces to introduce a flat tax rate of Rs. 2 per PIU on all landholdings above 4,000 PIUs to replace the existing land revenue.

The elected provincial governments did not follow up on the provincial tax ordinances on presumed agricultural income (based on existing PIUs) issued by the Caretaker Government in September-October 1993. Subsequently, three provincial legislatures, excluding Punjab, enacted the land tax legislation which introduced a tax on presumptive income at the rate of Rs. 2 per PIU. The Provincial Government in Punjab--the most important agricultural area--took no concrete action to legislate and implement the new tax system based on even the unrevised PIUs.

Finally, in December 1996, at the initiative of the new Caretaker Government, each Provincial Government introduced an "Agricultural Income Tax Ordinance". However, the proposed tax was not on agricultural income, but on either land or crop area under different conditions of irrigation and adjusted for the size of landholding.[12] Since February 1997, the

[12]The Provincial Governments abolished the existing land revenue and replaced it by the so-called agricultural income tax. In other words, the new tax is not in addition to the land revenue. See, for example, the Punjab Land Revenue (Abolition) Ordinance 1997 issued on July 17, 1997.

elected Provincial Governments in Punjab and N.W.F.P. have included a modified form of the land tax in their respective Ordinances. The elected governments in Sindh and Balochistan have legislated a tax system based on the crop area and mode of irrigation. In the Sindh Agricultural Income Tax Ordinance there is stipulation that, starting in July 1998, the tax system will be based on the net income of landowners and leaseholders. However, no details have been provided so far about the proposed tax on net income.

The two legislated tax systems--one in Punjab and the N.W.F.P. based on land area and the other in Sindh and Balochistan based on crop area--are erroneously labeled as "agricultural income tax" and each is flawed. There are at least three problems with both systems. First, they do not take into account the differences between actual and presumed income generated from land. In fact, the 1994 agricultural tax legislation in the provinces included a far better tax regime since it was on presumed income (measured in PIUs per hectare) of the landowner, although the flat tax rate was based on the outdated PIUs. Second, in three provinces (Punjab, Sindh and Balochistan), the exemption for the owners of landholdings of up to 5 (and 6.5) hectares is far too generous, especially in the irrigated areas, considering multiple cropping and crop yields and prices. Finally, at least for the irrigated areas, the tax rates per unit of land/crop are far too low compared to the net value of crop output. It is interesting to note that the provincial governments have made no estimates, based on the enacted tax structures, of the expected agricultural tax revenue for fiscal 1997/98.

Since the passage of the provincial Agricultural Income Tax Ordinances, the farm lobby, particularly in Punjab and Sindh, has agitated a great deal against the new tax system and seems to have succeeded in frustrating the efforts of the Provincial Governments to meet

the revenue target (of around Rs. 1.5 billion) for the fiscal 1996/97.[13] Three Provincial Governments (in Punjab, Sindh and the N.W.F.P.) have reportedly collected only Rs. 337 million so far. In the meantime, the Federal Government has prepared a schedule of activities for the implementation of a three-year (1997/98 to 1999/2000) economic stabilization and reform program in collaboration with the IMF, the World Bank and other donors. In accordance with the schedule, the Federal and Provincial Governments have decided to appoint a "Technical Committee" to harmonize the agricultural tax regime between provinces and computerize land records for the "refinement" of the existing tax structure. In the short run, the Federal Government seems to accepted the graduated land tax of Punjab and N.W.F.P. as the model for the other two provinces.

III. Implementing Direct Agricultural Taxation in Pakistan

A. Agricultural Income Tax

At this stage, a second best method may have to be applied in restructuring the direct tax system for farmers and landowners in Pakistan. A global concept of tax on actual income of a person from agriculture cannot be administered efficiently or effectively for several reasons. First, most agricultural production is not organized or conducted on a commercial basis. Second, income and expenditure cannot be verified since records and accounts of cash flows are not kept. Third, tenurial arrangements are complex and not well recorded. Finally, the requirements of tax administration would be far too expensive and beyond the existing

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[13]It is well known that the leaders of "Save the Farmers Movement" (Kissan Bachao Tehrik) are political heavyweights and enjoy substantial support both inside and outside the government. It is because of their pressure that the provincial governments in three provinces have revised their Agricultural Income Tax Ordinances.

institutional capacity. Therefore, the idea of taxing verifiable actual personal income from farming may have to wait for some time. However, it would be quite appropriate and practical to apply the existing federal income tax law to incomes earned from commercial orchards and livestock farms, which are reasonably well organized and whose numbers have been increasing in recent years. The owners of these enterprises and their agricultural land should not then be liable for any other tax, except that their land should be subject to the Federal Wealth Tax Act.

There are two important issues with regard to a tax system based on presumed income of a person from agriculture. The first one has to do with the identification of the person whose presumed income has to be the basis of taxation. Agricultural producers (farmers) can earn income, individually or jointly, in four ways: (i) self-cultivation of owned landholding; (ii) cultivation of land leased or rented from someone else on a fixed rent or sharecropping basis; (iii) renting out land to others (sharecropping tenants or lessees); and (iv) nonagricultural professions, services, businesses.

The only verifiable records in Pakistan are on landownership. Even if these records are authentic, there is no way to verify the extent of landownership of an individual since he may own land in different revenue circles. Further, there are either incomplete records or none at all for rental (lease) contracts on agricultural land. While the landownership titles are recorded on an individual (personal) basis, the landholdings are often cultivated or managed jointly within the family. All of this means that the concept of presumed income will have to be applied to the landowners and leaseholders by linking the tax on presumed income to the individual (person) through the ownership and lease of land.

Presumed agricultural income for tax purposes can be defined simply as the annual gross value of output (GVO) minus the cost of production (COP). There are several ways in which the GVO and COP for the landholder (income receiver) can be estimated. The GVO can be calculated by either the actual annual crop output reported by the landowner and verified by the provincial revenue official--by either direct observation or by crop-cutting experiments in the village--or the land revenue official verifies the actual "matured" area of each crop of the landowner and multiplies this area by the average yield on the basis of crop-cutting experiments. The annual output of crops thus reported can then be multiplied by the average price of each crop in the village or in the proximate markets during the post-harvest season.

The next problem is to estimate the COP or the expense incurred in producing the crop output. Here the estimation and verification of the cost of cultivation for each landowner would be almost impossible. A concept of presumed expenses can be used instead. Several farm management studies in Pakistan support the assumption that, on a per hectare basis, COP varies between 35 and 45 per cent of GVO. So the presumed taxable income (PTI) can be estimated for the owner-cultivator as follows:[14]

$$PTI = (GVO - 0.40\ GVO)$$

There should be no tax liability for the landholders (income receivers) whose PTI is up to the level of tax exemption allowed by the federal income tax rules applied to other sources of income. It would be equivalent to the personal exemption allowed by the Federal Government under its income tax law. For all other persons there could be either one rate of

[14]For the landowners leasing out their land and others leasing in land, the tax formula will have to be adjusted to determine their net income.

taxation (say the average tax rate under the federal income tax law) or three graduated rates consistent with the existing tax rates for incomes from other sources. The tax rates, and the basic tax exemption, should be revised as conditions permit or when the rates on nonagricultural incomes change.

B. Agricultural Land Tax

An agricultural land tax in practice is not a pure site value tax on the implicit value of land excluding improvements. There are three options for the taxation of agricultural land: (i) impose a tax on land area alone such as it now exists in Pakistan and several other developing countries; or (ii) impose a tax based on the market value of land, as has been tried in some Latin American countries; or (iii) impose a tax based on some objective measures, such as the PIU, which can act as a proxy for the potential income or productive capacity of land.

Tax on Agricultural Land Area

The tax on land area (in rem tax) is the easiest to administer. However, it has several serious flaws. For one thing, its revenue potential is limited by the maximum acceptable burden on the least productive land. Also, if for administrative convenience and vertical equity the government exempts a high proportion of landowners with holdings of small size, the tax rate on the rest will have to be very high or steeply graduated. This will quickly lead to changes in land records or fake land transfers on a mass scale. Another disadvantage of the tax based on land area is that the tax burden as a fraction of land value is largest on the least productive land. If the poor farmers own mostly less productive land, then the in rem tax is regressive. Finally, this tax would tend to be inequitable horizontally as well. Productive capacity of agricultural land may vary a great deal between landowners and areas in which

their land is located, depending upon soil quality, availability of water, crop mix, distance to markets, and so on. How can two pieces of land of equal area (say one hectare) be regarded as equivalent for the tax purpose if their productive capacity or potential income differs significantly? In view of these considerations, the recently-legislated land tax (revenue) system in the provinces based entirely on area--with difference only between irrigated and unirrigated lands--has no sound basis for the generation of substantial revenue and horizontal equity in Pakistan.

Tax on the Market or Rental Value of Agricultural Land

In most countries, urban real estate is taxed on the basis of its market (or rental) value to generate revenue for the Local (Municipal) level governments. The same principle has been tried on agricultural land in some Latin American countries. There are several problems involved here. First, if self-assessment of the market value of agricultural land is permitted, without penalties for underassessment, it will generate very limited amount of revenue given the landowners' natural tendency to be modest in assessing the value of their land. Alternatively, a market-value land taxation could be imposed on each plot of agricultural land using a cadastral survey and reassessing the land value at regular intervals. This can, however, be a very costly exercise, as has been the experience in Brazil [Skinner 1991].

The agricultural land market in most areas of Pakistan is both limited and highly imperfect. The imperfection is directly related to the high concentration of landownership and its influence on the sharecropping tenancy. The market value, if verifiable, will thus reflect the market imperfection and not the income-generating (or productive) capacity of land. Also recorded transactions grossly under-report the market price or value of land and other property. In the rural areas, market transactions for agricultural land are still quite limited and

their records are either incomplete or involve fake transfers of land between relatives. It has also been suggested that the tax on agricultural land could be linked to its rental value, for which information on land rents may be collected through the household and farm surveys. Here again there would be similar conceptual and practical problems as encountered in assessing the market value of agricultural land. Further, rent payments are made in several ways, ranging from the crop shares in kind and cash to the fixed rents in kind and cash.

Tax on the Productive Capacity of Agricultural Land

A practical alternative to the tax on actual or presumed income would be to tax the landowners on the basis of productive capacity (or potential income) of their agricultural land. This option will accommodate changes in land productivity and the tax-paying capacity of the individual landowner or landholder, avoid the need for market assessments, and be adjusted for inflation by increasing the tax rate on the (constant) quality index of land. In the context of Pakistan, it would be appropriate to use the PIU as an (objective) measure of the productive capacity of agricultural land, since it takes into account the conditions of soils and water and the gross value of output. As stated earlier, the PIU was designed to establish the equivalence between agricultural land parcels located in different parts of the country. Since then the PIU has been used as the basis for: (i) the ceiling on landholdings and land titles under the Land Reform Acts of 1959, 1972 and 1977; (ii) agricultural loans from commercial banks and the Agricultural Development Bank of Pakistan; (iii) the federal wealth tax on agricultural land as immobile property; and (d) the flat rate of land tax (revenue) in Sindh in the 1970s.

The problem in using the PIU as a proxy for productive capacity of land or its potential income is that it has not been revised since the late 1940s and early 1950s when most

of the land claims of Muslim refugees were settled. Successive governments have made public pronouncements and promises after the land reform of 1972 to revise the PIU in accordance with changes in the soil and water conditions, crop mix, etc., but so far nothing has been done. No one has questioned seriously the notion of PIU as a reasonable proxy for the productive capacity or potential income of land. However, it has been argued that, given the data requirements, it would be very expensive and time consuming to revise the PIU in the provinces. The task is not as difficult as is sometimes argued, since the information and resource requirements are in fact within the capacity of (almost) all of the provincial Land Revenue Departments.

The revised number of PIUs per hectare in each revenue circle should form the basis of taxation of landowners or their landholdings. The basic tax exemption in terms of PIUs can be set at a level that excludes a vast majority of small landowners and landholdings with a small number of PIUs as in many unirrigated and waterlogged areas. A proportional rate of tax per PIU should be used for all landholdings or landowners above the exemption level. A graduated tax rate will create serious problems of tax evasion and may lead to much rent-seeking. The basic exemption for most landowners would give progressivity to the tax regime.

Using the data on ownership holdings and estimates of revised PIUs per hectare based on some restrictive assumptions,[15] three reasonably practical revenue scenarios show that the Provincial Governments of Punjab, Sindh and N.W.F.P. can receive significant additional income from the landowners by a tax system based on the productive capacity or potential income of agricultural land.

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[15]A simple yet practical method for updating the PUIs is given in Appendix I.

In the first scenario, the basic exemption could be set for the landholdings of up to two hectares with a tax rate of Rs. 1 per PIU for all other landholdings. This can generate Rs. 7.3 billion in tax revenue paid by owners of about two million landholdings at Rs. 443 per hectare or 11 percent of their net crop income of Rs. 4,000. The second scenario is that the basic exemption is raised to landholdings of up to five hectares, while keeping the tax rate at Rs. 1 per PIU. In this case, the revenue yield would be Rs. 5.3 billion paid by owners of nearly 800,000 landholdings with the average tax burden of Rs. 506 per hectare or 13 percent of their net crop income. The third option is to impose a tax rate of Rs. 2 per PIU for the landholdings of over five hectares, which can potentially generate Rs. 10.6 billion in provincial revenue. Here the tax burden would be Rs. 1,000 per hectare or 25 percent of the owners' net crop income.

It is important to point out that the collected revenue is likely to be smaller than the estimated potential revenue in each of the three scenarios because of leakages due to incomplete assessment, poor administration and rent-seeking. Even with the assumption of a shortfall of 25 percent, the collected revenue would represent a significant addition to the provincial income. For example, the ratios of the tax based on revised PIUs to the total provincial taxes and revenue would be in the range of 28 to 43 percent and 17 to 29 percent, respectively. At present, the ratios of land revenue to the provincial taxes and total revenue are only 11 and 6 percent. The contribution of the proposed tax to direct taxes collected by the Federal and Provincial Governments would be in the range of 5 to 10 percent, whereas it is now less than 2 percent. The overall tax burden on agricultural producers would still be reasonably low. The ratio of tax revenue to the crop value-added (national accounts) would be in the range of 1.4 and 2.7 percent, compared to the current ratio of 0.45 percent. The

revenue paid per hectare (of cultivated land) would be between Rs. 185 and Rs. 369 per hectare as compared to the current revenue of Rs. 60 per hectare.

IV. CONCLUSIONS

The debate on agricultural taxation in Pakistan has taken two related forms. For a long time the discussion centered on whether agricultural incomes and wealth should be taxed at all. When it became generally accepted that there was no compelling economic reason for exempting agricultural incomes, the issue turned to how should agricultural producers be taxed. In the Pakistan environment it is difficult to tax agriculture, and thus administrative constraints have become the new rationale for excluding agriculture from the tax net.

This paper suggests a way that the Government of Pakistan could implement a system of agricultural taxation within the existing Constitutional framework. In the short term, say over the next two to three years, the Provincial Governments should revise the number of PIUs per hectare, since they are completely out of date in terms of reflecting market values or productive capacity of farm lands. A simple method of making such revisions is outlined in the paper. An adjustment of PUIs alone would yield significant revenues in the short run. In the longer run, possibly from three to five years, the Provincial Governments could move to taxing net agricultural income, using the productive capacity of land or presumed income as the base.

At the technical level, there seem to be good arguments for the type of agricultural tax system suggested here. However, two important considerations apply. The first is a political economy issue, given the power of the landlord lobby. Even if the Federal Government was convinced of the need to tax agricultural producers, it would need to persuade provinces to

enact such a tax. In fact, there are levers that the Federal Government can use towards this end. The Provincial Governments depend on federal tax revenue transfers, grants-in-aid, and foreign aid. Linking such transfers to the capacity of Provincial Governments to generate tax revenues from agriculture may well offset the political pressures of the landowners.

Second, there is the practical issue of the administrative capacity of the provincial revenue administration.[16] According to recent studies of the land revenue system in Pakistan, it is clear that much work needs to be done to update the land title records. Also, digitized soil maps are required to establish land classification and values by soil, water, and crop conditions. These are necessary requirements to estimate land values and ownership, and thus presumed incomes for tax purposes, and it will take time before accurate estimates are available. Therefore, a period of three to five years may be needed to implement a full-fledged agricultural income tax.

In conclusion, it is now generally accepted in Pakistan, even by the landowning groups, that agricultural producers should pay their fair share of taxes. While equity arguments are important, the need to address the severe fiscal problems the country is facing has led to a fundamental rethinking on agricultural taxation. Revenues from a broad-based agricultural income and wealth tax would help considerably in achieving fiscal balance. How to design and implement the tax is a difficult question, but not an impossible one to resolve. As argued in this paper, technical solutions are possible, but ultimately taxing agriculture in Pakistan will require considerable political will, which unfortunately has been lacking except in a few isolated instances of the country's history.

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[16]The last major review of the provincial revenue administrations was undertaken by the military government in 1978. See Khan (1981).

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A Simple Method for Revising the Produce Index Units (PIUs) in Pakistan

The measurement of Produce Index Units (PIU) is based on the gross value of crop output (GVCO) of a unit of land by soil type. Any two hectares of land located in different revenue circles are assigned the same PIU if they are capable of producing an equal amount of GVCO in a year. The PIUs in Pakistan were calculated initially in 1947 and were adjusted as part of the Land Reform Act of 1959. The current values of the PIUs can be approximated by scaling up the original PIUs by the ratio of average GVCO in the current period (PIU_c) and base period (PIU_b) as follows:

$$PIU_c = PIU_b \times [\text{Ratio of Average GVCO in the Current and Base Periods}]$$

The specific steps involved in the calculation are:

Step 1. Select a "standard" revenue circle in each defined land area (Tehsil/Taluka). Assume the PIUs for this revenue circle were estimated at 64 per hectare in 1959/60 (used by the Land Reform Act of 1959).

Step 2. Estimate the GVCO per hectare for the base and current periods. These values could be based on the three-year average of the matured area, output and price of each crop. Say, for example, the estimated GVCOs per hectare for the two periods in the standard revenue circle are:

Base Period (1957-59)	Rs. 1,500
Current Period (1995-97)	Rs. 10,000

Step 3. In this case, the GVCO has increased by a multiple of 6.67. So the number of PIUs for the standard revenue circle in the current period are: $64 \times 6.7 = 427$ per hectare.

Step 4. Assume that in another revenue circle (within the same Tehsil/Taluka) the GVCO for the current period (1995-97) is estimated at Rs. 8,000 per hectare. The ratio of GVCO of this circle to the GVCO of the standard revenue circle is 0.80 in the current period. Multiply the updated number of PUIs for the standard circle (427) by this ratio to get the updated PIUs for the other circle: $427 \times 0.8 = 342$ PIUs per hectare.

Step 4 should be repeated for all revenue circles in each Tehsil/Taluka of each province.

An alternative method would be to repeat the steps used for the standard revenue circle in all other revenue circles in each Tehsil/Taluka. This method would be more accurate, but would require far more time, resources, and data.

Table 1. Changes in the Provincial Land Revenue Collections, 1948/49-1996/97

(In millions of Rupees)

Year	Land Revenue	Provincial Revenue	Provincial Taxes	Crop Value Added	Cultivated Area *(millions of hectares)*
1948/49	48	317	106	--	15.16
1950/51	47	383	145	--	15.15
1954/55	58	494	202	--	15.31
1960/61	135	844	248	5,011	18.12
1964/65	154	1,053	374	7,066	18.72
1969/70	172	1,325	539	11,102	19.23
1974/75	194	2,024	1,458	23,271	19.55
1979/80	257	2,368	1,809	43,993	20.23
1984/85	253	4,298	3,297	80,126	20.61
1989/90	693	6,619	5,431	115,065	20.94
1994/95	1,095	21,220	12,076	249,991	21.55
1995/96	1,266	20,794	11,665	291,706	21.54
1996/97	—	23,720	14,279	311,195	21.54

Note: These data are from the annual issues of four publications of Government of Pakistan: *Pakistan Economic Survey*, *Statistical Yearbook*, *Land and Crop Statistics*, and *Agricultural Statistics of Pakistan.*

Table 2. Impact of Alternative Tax Structures Based on Revised PIUs[1]

(In millions of Rupees)

Scenario	Land Tax Revenue	Provincial Taxes	Provincial Revenue	Provincial Land Tax Revenue: Percent of Crop Value	Provincial Land Tax Revenue: Per Hectare of Cultivated Land
Actual (1995/96)	1,300	11,665	20,794	0.45	Rs. 60.35
Scenario One	5,475	15,840	24,969	1.88	Rs. 254.18
Scenario Two	3,975	14,340	23,469	1.36	Rs. 184.54
Scenario Three	7,950	18,315	27,444	2.73	Rs. 369.08

[1]Figures in the first row are the reported official data for the 1995/96 fiscal year as shown in Table 1. The crop value for 1995/96 was Rs. 291,706 million and the cultivated area was 21.54 million hectares.

Chart 1

Pakistan

Fiscal Deficit, 1992-1996

(In percent of GDP)

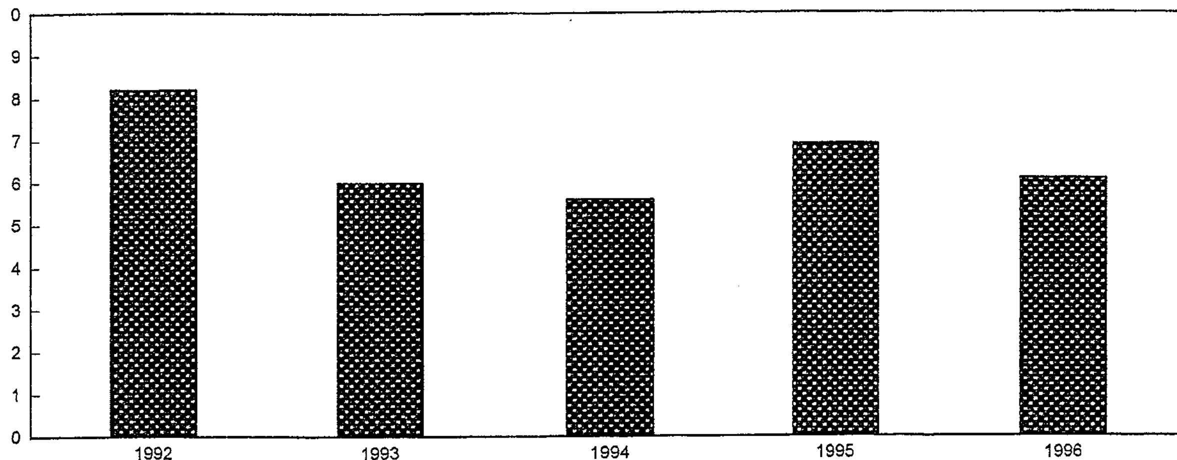

Chart 2

Fiscal Developments, 1992-1996

(In percent of GDP)

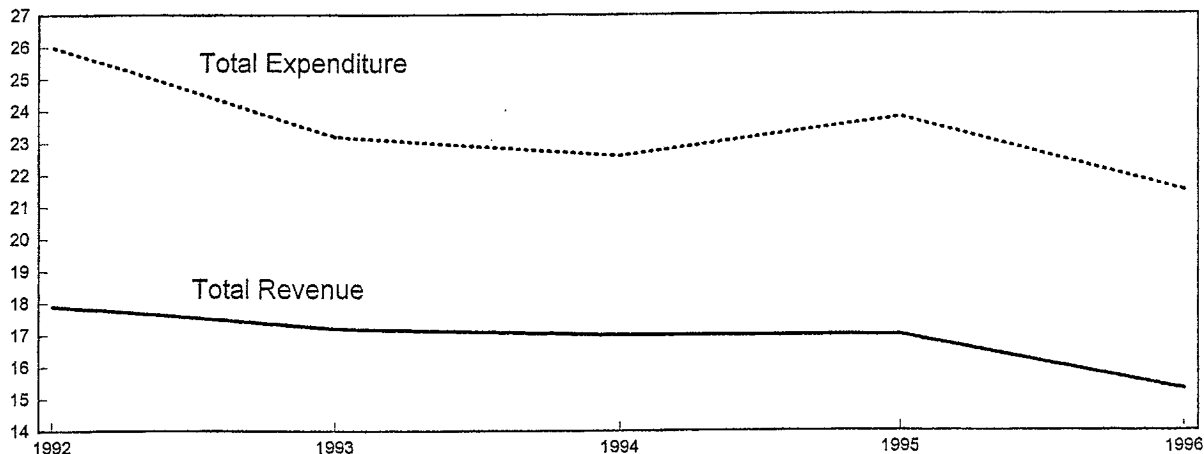

Chart 3

Composition of Tax Revenues, 1995-96

(In percent)