Agricultural Taxation in Pakistan

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ABBREVIATIONS AND ACRONYMS

PIU : Produce Index Unit
VAT : Value Added Tax
ARV : Annual Rental Values
GDP : Gross Domestic Product
FAO : Food and Agriculture Organization
NWFP : North West Frontier Province
FLC : Federal Land Commission
PPP : Pakistan People's Party
IJI : Islami Jamhuri Ittehad
MLR : Martial Law Regulation
LR : Land Rent
GST : General Sales Tax
LDT : Land Development Tax
GVP : Gross Value of Production
PTI : Presumed Taxable Income

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Executive Summary

This report reviews the current state of agricultural taxation in Pakistan (Chapter 1), presents a set of principles and practices from other countries that can guide reform of the system (Chapter 2), outlines the options for reform (Chapter 3), and recommends how reform should proceed (Chapter 4).

Chapter 1 shows that the current tax system for agriculture has two key flaws: revenue raised from the taxes is minuscule, and income from agriculture is treated differently from income from other sources. The latter problem results in widespread tax evasion, with non-agricultural income being declared as agricultural income.

This situation has evolved from the previous policy framework of heavy implicit taxation of agriculture through an over-valued exchange rate, export taxes, compulsory procurement at unfavorable prices, and industrial protection. However, implicit taxation has now greatly diminished, and the scope for agricultural taxation exists at the provincial level, moving the issue of the design of a new tax system for agriculture to the top of the agenda of political and economic discussion.

The longest standing direct tax on agriculture is the provincial land revenue. The general structure of this tax remains as in the days of British rule: a tax is levied on landowners on the basis of periodic “settlements” or assessments which are supposed to take account of local productive conditions.

The current system was put in place in 1967 but has been weakened to the point where virtually no revenue was being collected in recent years. A major problem is the presence of a fairly generous size-based exemption limit. Because of the highly localized nature of land records, these limits are easy to evade through holdings in different records areas. There is widespread inefficiency and corruption at the collection level which heightens the scope for evasion.

Frequent ad hoc revisions to the system have prevented the emergence of any settled structure, and the introduction of Ushr, a religious tax on Sunni Muslims which could be offset against land revenue, led to a serious decline in collection. Collection of Ushr has now also collapsed resulting in a large net revenue loss.

After several abortive attempts at agricultural income taxation, the provinces have now put in place land-based income taxes. This uses the land revenue collection machinery and rates are levied on a per acre basis, but this is envisaged as the beginning of a broader system of rural income taxation.

As the system currently stands, it suffers from the same problems as the old land revenue system: exemption limits are too high and easily evaded, rates are low, collection is haphazard,
and the disparity in tax treatment between agricultural and non-agricultural income remains. Sindh and Balochistan use tax rates based on the type of crop sown which offers additional scope for misreporting.

The only other tax on agriculture is a Federal Wealth tax which values land based on a land quality index from the 1940s, the Produce Index Unit (PIU). However agriculture had a de facto exemption from this tax until the early 1990s, and even now the Rs 1 million exemption limit coupled with the extremely low assessed value of agricultural land puts it outside the scope of the wealth tax.

Chapter 2 begins by discussing the basic principles of a good tax system. The key requirements are that the tax minimize distortions (the change in behavior caused by the tax), avoid disparities in the treatment of income by source, promote equity and any redistributional goals society might have, and be easy to administer and collect. The equity goal is especially important in the context of Pakistan because the lack of equity in the current system has created the scope for evasion and undercut the legitimacy of the system.

There are four broad classes of tax that can be considered on the agriculture sector: land tax, general income tax, taxes on outputs and inputs, and general expenditure tax. Since land is immobile, a pure land tax causes little distortion, is difficult to avoid, and can advance equity goals since land is unequally distributed. However the administrative difficulties are severe because land quality must be taken into account and reliable ownership records must be established. Furthermore a land tax only taxes one component of agricultural incomes.

A general income tax would cover all types of income and thus remove the disparity in the treatment of income by source. It can also be made progressive and for both reasons scores well on equity grounds. But there is a risk of distortion including disincentives to labor supply and investment. And the administrative costs can be considerable because of the difficulty of documenting agricultural incomes. A presumptive approach can be used to cope with this problem.

Taxes on inputs and outputs are a common practical tax instrument. A distortionary effect is almost inevitable but collection costs are fairly low since collection can be undertaken at point of sale. A more ambitious system with economy-wide applicability is a value-added tax (VAT) but then the record-keeping burden increases. It is also difficult to make a VAT progressive.

An expenditure tax can refer to a sales tax on final goods or a consumption tax. Both taxes are regressive and mitigating the regressiveness requires information on income which is difficult to obtain. However both taxes would in principle fully integrate the tax treatment of agriculture with other sectors, and some of the supply-side distortions of the income tax are lessened.

International experience with taxation of agriculture is very mixed. Most developing countries rely on land taxes and/or presumptive income taxes. However the administrative
aspects of land taxes have proved daunting while most agricultural incomes tend to fall below the exemption limits. Furthermore land taxes appear to encounter particularly severe and effective political opposition. Some successes with a slow transition from a narrow land-based tax to broader presumptive income tax has been achieved. Developed countries rely more on sales taxes and VAT in combination with a presumptive income tax.

Chapter 3 presents the options for Pakistan, with some estimates of revenue potential. These estimates do not take into account the potential for avoidance and evasion so implementation is a key issue. The traditional land revenue is incapable of yielding significant revenue without a new basis for assessment. A land tax based on PIUs could yield significant revenues if rates are raised and exemption limits lowered, but the outdated nature of PIUs is problematic.

An income tax could initially be directed towards income from land, estimated from Annual Rental Values (ARV). These would reflect the current earning potential of land but would need to be calculated and updated regularly. This would be challenging where active rental markets do not exist.

In evaluating different tax proposals, most analysts focus on crop income because the information base is strongest for crops. However this ignores the increasingly important livestock sector. In principle targeting crop income could produce sizable revenues but implementation is a serious problem. The crop-based per acre rates in Sindh and Balochistan can be seen as attempts to target crop income but the collection so far has been low and the scope for mis-reporting is considerable.

The broadest option is to introduce a general income tax on the agriculture sector based on presumptive income. In principle revenues and costs to all types of agricultural activity could be estimated to form presumed taxable income which could then be taxed like any other income but the informational requirements of such a task are considerable.

Finally efforts to implement a sales tax in Pakistan have been very halting so far and agricultural commodities are completely excluded. Ideally all input and output taxes would be consolidated in a VAT system but the administrative requirements here are even more demanding than a sales tax.

Chapter 4 recommends a three-phase approach to reform the agricultural tax system. In the first phase, the existing provincial agricultural income taxes will continue with a much lower exemption (5 acres) while the land revenue will be discontinued.

In the second phase, the income tax would switch to an Annual Rental Value or similar basis. However the provinces would be allowed to develop alternate measures of the income to land if this was thought necessary. In the final phase, the income tax system would switch to a general income tax on presumptive basis. In all phases, a beefed up federal wealth tax would remain on agricultural land to ensure equity in treatment across different types of wealth.
Chapter 1

Pakistan: Background, Current Situation and Major Issues

I: Introduction

The taxation of agricultural income has been a recurring issue in political and economic discussion in Pakistan. The issue has returned to the agenda with the decision of the Government to introduce a system of agricultural income taxation. The government plan includes a transition from the current system by first expanding the base of agricultural taxation and then putting in place a system of rural income taxation which would tax agricultural income in the same way as other income. The purpose of this report is to provide a recommendation as to how this transition should proceed and what the final system should look like.

There are two problems with the taxation of agriculture in Pakistan as it currently stands. First, the revenue from agriculture taxation is very low. Incomes from agricultural activities (which contribute about a quarter of GDP) have mostly been outside the income tax net. Other direct taxes collected from agricultural income are also negligible. In FY96, the actual collection of the main taxes on agriculture (charges on land and Ushr) was less than Rs 2 billion amounting to less than 0.5 percent of agricultural GDP in that year (Rs 510 billion). Thus the total tax collected in Pakistan from agriculture seem well below comparable countries. For instance, using FAO estimates of the explicit tax burden on agriculture sectors for the period 1981-87, the figures were 2.2 percent for Malaysia, 4.6 percent for Argentina, and 6.3 percent for Chile.

In the past, agricultural income taxation was argued against on the grounds that the sector faced heavy implicit taxation because Pakistan followed the policy of squeezing the agriculture sector to transfer resources to the industrial sector and urban consumers. However there is no reason to believe that this is currently the case. As these distortions have been corrected, and the government has moved to improve the provision of key agricultural inputs (notably water and electricity), the political scope for explicit taxation of agricultural incomes has risen.

The second major problem of the present system is that it treats agricultural income differently from other income, a loophole that creates significant opportunities for tax avoidance and evasion.

There are many sources of deficiencies in the current system. In general, the agriculture sector has many features that make devising an equitable and efficient income tax system a challenging task. These include dominance of small land-holdings, high illiteracy rate in rural areas, and the need to consider the unique characteristics of agricultural production. This covers a period when commodity taxes on agriculture were relatively high and the composition of taxes has changed since then, so the figures should be taken to indicate the potential for raising revenue from agriculture rather than the means by which this should be accomplished.

This was accomplished by overvalued exchange rates that tilted the terms of trade towards import substituting domestic industry and against agriculture, and price interventions in output markets (such as compulsory procurement at unfavorable prices for wheat, rice, and cotton). It has been estimated that as recently as the mid 1980s, the combined effect of these policies was to transfer almost 14 percent of agricultural GDP out of the sector. These policies and estimates are described in more detail in the World Bank Sector Study Pakistan: A Strategy for Sustainable Agricultural Growth. Of course, much of this transfer did not accrue to the government.
areas (thus hindering the maintenance of appropriate accounts of the transactions), difficulties in accurate assessment of net farm incomes (due to large differences in land productivity and variable input costs), dominance of family labor, and inadequate administrative capacity to collect the tax. In addition to these general issues, Pakistan has some special problems. One is Pakistan’s constitutional prohibition on Federal income taxation of agriculture. The constitution could be changed but such a move would be politically charged. The only Federal role in taxation of agriculture lies in a federal wealth tax. Remaining taxes on agriculture are levied by provincial and local governments. The major provincial taxes are variants of land taxes. Local taxes include district export taxes and the situation is complicated by the Ushr religious tax, payable by Sunni Muslims to the local Ushr committee but which can be credited against the provincial land revenue. Generally the pre-eminence of the rural elite in Pakistani politics, particularly in provincial governments, has resulted in inadequate efforts by the government to collect taxes from the agriculture sector. The remainder of this chapter describes how Pakistan arrived in its current situation, which is then evaluated.

II: History and Current Structure of Agricultural Taxation

Land Taxation

The oldest tax on agriculture is the land tax or land revenue as it is known. Despite the frequent revisions to the structure of the tax the underlying collection system has remained fairly stable and is described in Box 1.1. The system contains elements of pre-colonial land systems, colonial land settlement and revenue collection efforts, and further additions since 1947. Two key characteristics of the system are (a) revenue collection and land records maintenance are the responsibility of the same office, and (b) the land records system is highly decentralized.

In 1947, the land revenue systems in the provinces of Punjab, NWFP and Sindh had significant differences in the structure and methods of assessment. However, the West Pakistan Land Revenue Act of 1967 introduced a uniform basis for land revenue in the four provinces of today’s Pakistan. The land revenue rate, determined for each revenue “circle” at the time of “settlement” (see Box 1.2), is a maximum of 25 per cent of the “net assets”. The net assets were 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. The period of each revenue settlement was to be 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. In addition, the Act also removed the possibility of a tax lien on land on which land revenue was not paid.

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3 A detailed study of the land revenue system, with historical background and sources, has been done by Khan (1981, Chapter 8).
Box 1.1: System of Land Records and Revenue Collection

Both the federal and provincial governments deal with land matters. At federal level, there is a Federal Land commission (FLC) and at provincial level there are Boards of Revenues. The mandate of FLC is taking up work relating to land reforms and their implementation. BORs are actively involved in land record and land revenue collection.

The Boards of Revenue. Land records and land revenue are the purview of provincial governments. Board of Revenue is the apex body. The hierarchy for both land record and land revenue is as follows:

- Member Revenue (Board of Revenue) (Province Level)
- Director Land Record (Province Level)
- Deputy Commissioner/District Collector (District Level)
- Additional Deputy Commissioner (Revenue) (District Level)
- Assistant Commissioner (Sub-divisional)
- Tehsildar (Muqtiarak in Sindh) (Tahsil Level)
- Patwari (Tapedar in Sindh) (Patwar Circle)

What is a Land Record? The land record of an area is generally of three types: (i) the Standing Record; commonly known as Record-of-Rights, prepared at the time of a settlement operation, (ii) the Periodical Record; commonly known as Chaharsala (except in the province of Sindh), prepared after every four years, and (iii) Day-to-Day record; prepared as part of working of the revenue agency.

Standing Record: The Standing Record, also known as Record-of-Rights, is prepared for each “estate” assessed to land revenue at the time of Settlement of the estate.

Periodical Record: Periodical Record is prepared after every four years, under the Punjab system in the provinces of Baluchistan, NWFP, and Punjab. The District Collectors can ask for the preparation/revision of periodical record for an estate. This is basically the revision of register “haqdaraan zamin” included in the record-of-rights, by incorporating the changes in ownership and tenancies that have taken place in the last four years. No periodical record is prepared under the Sindh system.

Day to Day Record: The third type of record is prepared during the day-to-day working of revenue administration. It consists of register/statements prepared at the time of harvest inspection (Khasra Girdawari and Jinswar), entry and attestation of changes in ownership and tenancies (register Dakhil Kharij or mutation register), daily diaries maintained by the Patwari (Roznamcha waqiati and Roznamcha karguzari) etc.

How land records are maintained: The base record level is patwar circle. Each patwari, in charge of a patwar circle, maintains a set of temporary land record registers (Day to Day record) of his patwar circle. Any transfer of ownership in patwar circle is recorded through a temporary entry in the land mutation register. This temporary record is then updated and made periodical record after every four years, except in Sindh. This is done by patwari and then the information is passed on to district office - called Sadar Daftar.

Where land records are maintained: Land record is maintained at patwar circle, tahsil, and district level. No land record is available at divisional or provincial level.

How land tax is assessed: Assessing land tax - called malia -- is the purview of patwari. Before every harvest, patwari makes a survey - called Gardawari -- in his patwar circle. The purpose of gardawari is to collect information about the matured cropped area under different crops sown by farmers in the patwar circle. He collects this information from the field and then multiplies with pre-determined yields for different crops for three land classifications - canal irrigated, well-irrigated and unirrigated, to arrive at value of produce for each land owner/farmer. This calculation of produce value becomes the basis for Malia (land tax).

How land tax is collected: Malia is levied on the non-irrigated lands of more than 5 acres and irrigated lands of more than 2.5 acres. Patwari calculates malia due from every land owner and passes this information on to Lumbar Dar, who is not a government employee. Lumbar Dar collects malia from the landowners and in return he is paid five percent commission from provincial governments as a proportion of his malia collection.
Box 1.2: Settlement Operation and its Objectives

A revenue estate is the lowest unit of the land revenue administration. Revenue estate means any area for which a separate record-of-rights has been prepared, or which has been separately assessed for land revenue. Initial land record of an area is prepared through a Settlement Operation.

What is a Settlement Operation?
Under the Punjab system a settlement operation has three main objectives: (i) Survey and rectangulation of the area; (ii) preparation of new or fresh record of rights of land; and (iii) assessment of land revenue and its distribution over the land holdings. In Sindh detailed record of rights is prepared only at the time of first settlement of the district. All subsequent settlements are primarily for the re-assessment of land revenue. Under the law a minimum period of 25 years in Punjab and 10 years in Sindh should intervene between the two settlement operations in a district.

How is the Settlement Operation carried out?
Settlement Operation commences with the orders of the Board of Revenue. A settlement officer, along with necessary support staff, is appointed to carry out the operation within the defined limits. Under the Punjab system, Settlement Operation in a district lasts for about five years in which the following documents for each revenue estate are prepared; (i) a preliminary proceeding, (ii) Shajra Kishwar or field map, and a detailed plan of any property belonging to the State in the estate, (iii) Shajra Nasab or genealogical tree, (iv) Register Haqdaran Zamin or register of the holding of owners and tenants, (v) a list of revenue assignments and pensions, (vi) a statement of rights in wells, (vii) a statement of rights in irrigation (if any) from other sources, (viii) Wajib-ul-Arz or statement of customs respecting rights and liabilities in the estate, (ix) the order of the Settlement Officer determining the assessment, and (x) the order of the Settlement Officer distributing the assessment over landholdings.

The first change in the system was to 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 (Box 1.3). 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 revenue circle 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/12.5 acres (or double this size for unirrigated holdings) were exempted from the payment of land revenue, which was a major departure from the existing system in which all landowners had to pay land revenue to the state. This concession was part of the platform of the new Pakistan People’s Party (PPP) government. All larger size landholdings were required to pay increased rates per hectare.
**What is a PIU?**

A Produce Index Unit means an average produce value per acre of each class of land in an assessment circle. The Land Revenue Act, 1967 defines a PIU as “the measure in terms of which the comparative productivity of a particular land in a particular assessment circle or area is computed and expressed for the purpose of the scheme relating to the resettlement of displaced persons on land”.

**How were PIUs calculated?**

A formula for determining Produce Index Units of different classes of land was evolved in the year 1948, at the time of resettlement of refugees in various districts in the Punjab. The produce value per acre of each class of land in the various assessment circles of each district had been worked out on the basis of average matured acreage yield and prices adopted by Settlement Officers at the time of the last Settlement of each district. The total produce value, thus obtained for each class of land in each assessment circle, was divided by the average matured area in order to secure the average productive value for one matured acre of land.

Since the Settlement operations were carried out at different times in different districts, suitable multiples had to be applied to the figures of produce values for bringing them to a uniform level. For this purpose following steps were taken:

(i) A “basic period” of three years from 1941 to 1943, excluding famine years, was selected for all districts and the average value of the output per acre during this period was worked out;

(ii) Average value of output per acre during the last Settlement of the district, called “Settlement period”, was calculated;

(iii) The difference between the “basic period” and the “Settlement period” was determined as the district ratio; and

(iv) After dividing gross produce value by total matured area as estimated during the last Settlement in an assessment circle, produce value per matured acre was multiplied by the district ratio.

The formula used for the calculation of PIUs was as under:

\[
\frac{\text{Gross Produce Value}}{\text{Total matured area}} \times \text{Ratio for the district} = \text{Produce Index}
\]

The following example would illustrate the method of calculation:

<table>
<thead>
<tr>
<th>District</th>
<th>Tehsil</th>
<th>Assessment circle</th>
<th>Class of soil</th>
<th>Total matured area (acres)</th>
<th>Gross produce value (ruppes)</th>
<th>Produce value for matured acre</th>
<th>Ratio for Lahore district</th>
<th>Produce Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lahore</td>
<td>Lahore</td>
<td>Bet Ravi</td>
<td>Chahi</td>
<td>10,117</td>
<td>409,104</td>
<td>40</td>
<td>2.0</td>
<td>80</td>
</tr>
</tbody>
</table>

The Settlement operations in Sindh, which were the basis for calculation of PIUs, were generally carried out in early forties, i.e. 1941-42. In Punjab and NWFP the Settlements took place even earlier. The district ratio determined under the above formula were, therefore, only approximations.

**Revision of PIUs**

The revision of PIUs is a laborious and time consuming job. If the original method is to be followed, i.e. through Settlement operation, whole country would be put under the operation which may continue for a period of three to five years. Settlement operations would be required simultaneously in all districts to put assessment on an equally timely basis around the country. Considerable trained manpower would be required with sufficient resources for monitoring the total produce from each class of land. Transfers of land during the settlement period would cause complications.

**Information required for updating the PIUs**

In order to updated the PIUs, following information would be required at the district level:

(i) Division of land into various classes depending upon the type of irrigation facilities;

(ii) Gross produce for each class of land;

(iii) Prevalent market prices of the produce in the district;

(iv) Total matured area in each class of land; and

(v) Total area in each class of land.
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. This tax was short-lived and the history since then is one of back and forth on income tax proposals, within a general framework of worsening collection and administration of all taxes (Box 1.4).

After the coup d'état in July 1977, the military government suspended the income tax and reintroduced the land revenue with new (higher) rates starting from the 1976/77 crop season. The basic land revenue exemption was raised from 5 hectares (as existed in 1975/76) to 10 hectares irrigated (or from 10 to 20 hectares unirrigated) and the rates for larger landholdings were enhanced as multiples of the 1975/76 rates.

With the introduction of ushr in 1982/83 (see below), the land revenue rates were increased again, as multiples of the 1975/76 rates, and the exemption from land tax was restricted to the landowners of up to one hectare in Punjab, NWFP, and Balochistan. At the same time, the provincial government in Sindh replaced the 1972 flat rate system by the system it had followed before 1972 and was in use in other provinces, but maintained the land revenue exemption at 10 hectares/25 acres.

**Zakat and Ushr**

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. This excluded a huge number of landowners from the Land Revenue tax base. The ushr liability on landowners would be assessed and collected by the local Zakat and Ushr Committees, with no government representation on the committees. The revenue collected from ushr would be spent on the welfare activities generally within the district. The addition of another tax to an already weakened and frequently amended system did not prove to be a good change.

After winning the national elections in 1988, the new PPP government made two major changes in the Zakat and Ushr taxes. First, the autonomy of Zakat Councils was reduced and the zakat and ushr funds could be used for a variety of social purposes. Second, responsibility of assessment and collection of the ushr levy (like arrears of land revenue) was placed with the provincial Land Revenue Departments. These changes were intended to increase the government’s role and expand the ushr base. A dispute between the provincial and federal governments has led to a collapse of collection in recent years. Annual ushr collections have fallen from Rs. 260 million in 1983/84 to less than Rs. 70 million in 1996/97. This is considered to be the result of the fact that the administration of ushr has been grossly neglected.
A recurring question has been the issue of an agricultural income tax. The Finance Act of 1977 repealed that part of the Income Tax Act of 1922 which exempted 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. After the coup d'état in July 1977, the military government suspended the Finance Act of 1977 and restored the tax exemption on agricultural income in the Income Tax Ordinance of 1979.

Aside from the short-lived income tax of 1977, 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 in the 1980s. The majority view was against introducing a tax on agricultural income. At the end of 1990, the Islami Jamhuri Ittehad (IJI) government appointed a Taxation Committee, which was in favor of a tax on agricultural income, but in its view the Federal Government lacked the constitutional authority to introduce such a tax. Recent actions, described in the next section, are often confusingly described as agricultural income taxes. These can best be seen as a first step towards establishing “presumed” income from land as the basis of taxation.

Acting in response to rampant evasion, a minor policy reform with respect to agricultural income was introduced in the Finance Ordinance of 1988. It amended the Federal income tax to include agricultural income (if any) in the “chargeable income” for determining the tax rate for nonagricultural incomes. This so-called clubbing formula has had no major impact on tax evasion and the income tax revenue.

In addition to the provincial taxes, there is a patchwork of local taxes and charges. These include district export taxes (taxes on output taken out of a district), mosque fund, development cess, and octroi (a municipal output tax collected at point of sale). Some of these charges should be seen as attempts at cost recovery rather than true taxation of incomes. But to the extent that services are not being delivered or there are abuses in collection, these levies are an impediment to the functioning and reform of the overall tax system.

Federal Wealth Tax

Although the Wealth Tax Act (1963) included agricultural land in the wealth of a person, until 1994 its scope was restricted to only those land owners who were otherwise paying income tax or wealth tax. Since most of the landowners were not paying income or wealth taxes their landholdings were excluded from payment of wealth tax.

Some reforms were initiated by the caretaker government of 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].

The current wealth tax is levied on market values of non-agricultural assets, and on agricultural land converted into monetary terms using Produce Index Units (PIUs), a quality index (described in Box 1.3). Thus the wealth tax is based on valuations of land from more than 50 years ago. There are many determinants of the productivity of land that may have changed since then: soil quality because of salinity or waterlogging, better irrigation, and local infrastructure (affecting such things as proximity to markets, availability of inputs etc).

Thus the wealth tax is actually a hybrid of a current value tax on non-agricultural wealth and (in principle) a tax on the intrinsic quality of land. This is important for two reasons. First, other forms of wealth are being taxed on additions to wealth while agricultural land is only being taxed on its basic quality without taking account of improvements. For instance, a new extension to a house will result in a higher market value and thus a higher wealth tax liability, while improved fencing around a plot of land will raise its market value but not the wealth tax liability. Second, PIUs only measure the agricultural potential of land and are biased towards crops, so other possible uses of land -- such as intensive livestock and poultry or non-agricultural uses such as industrial development, real estate -- which affect its value and thus the wealth of the owner are being ignored.

Table 1.1: Existing wealth tax on a person who owns 8000 PIUs of land

| Maximum PIUs can be owned by a person under Land Reforms Act, 1977* | 8000 |
| Value of land per PIU | Rs. 400 |
| Total value of land having 8000 PIUs | Rs. 3.2 million |
| Basic exemption from tax | Rs. 1 million |
| Tax @ 0.5% on first 0.5 million | Rs. 2,500 |
| Tax @ 1.0% on next 0.5 million | Rs. 5,000 |
| Tax @ 1.5% on next 0.5 million | Rs. 7,500 |
| Tax @ 2.0% on next 0.5 million | Rs. 10,000 |
| Tax @ 2.5% on final 0.2 million | Rs. 4,000 |
| Total wealth tax paid per annum | Rs. 29,000 |

* Although the Supreme Court of Pakistan has now declared un-Islamic the provisions of MLR-115 and Land Reforms Act, 1977, relating to maximum/minimum ceiling on landholdings of a person, this will not affect the farm sizes. Presently, there are 15,354 farms with an area of 60 hectares or more (with total farm area of 1.935 million hectares i.e. 10 percent of total farm area) out of which 6730 (749198 ha.) are in Punjab, 3093 (378928 ha.) in Sindh, 1080 (117085 ha.) in NWFP, and 4451 (689890 ha.) are in Balochistan.

There is basic exemption of Rs. 1 million below which there is no tax (current rates of wealth tax may be seen in Table 1.1). In addition, even now that all landholdings have been brought within the purview of wealth tax, crops, trees, and one house or building on agricultural land are excluded from the valuation of land and as Table 1.1 shows, the potential liability of even the largest farm is relatively small.
Recent Developments

The persistently high fiscal deficit and the pressure of the international donor community moved up the issue of reforming the land revenue system on the government’s policy agenda in the early 1990s.

In addition to the wealth tax reforms, the 1993 caretaker government issued ordinances in all provinces to introduce a new land tax at a flat rate of Rs. 2 per PIU on all landholdings above 4,000 PIUs. Provincial legislatures were initially slow to enact the new land tax. Subsequently, three provincial legislatures, excluding Punjab, enacted the land tax legislation, introducing a tax at the rate of Rs. 2 per PIU. This tax was completely ineffective with the case of Sindh illustrating the pitfalls. Sindh allowed an exemption of 4000 PIUs, supposedly corresponding to the Rs 40,000 urban income tax exemption. However such an exemption included very large farms and in fact covered less than 2000 owners. Owners were able to exclude additional land from the tax by claiming that it was not under cultivation and not surprisingly, no significant revenue increase resulted.

Finally, in December 1996, at the initiative of the new Caretaker Government, each Provincial Government introduced an “Agricultural Income Tax Ordinance”, which have experienced some additional modifications since then. The taxes are structured as follows:

**Punjab** levies a tax on cultivated area with a basic exemption of 12.5 irrigated acres and graduated rates beginning at Rs 100 per acre above this limit. Barani (rain-fed) lands get a higher exemption and lower rates. On orchards, the rate is Rs 500 per acre for irrigated land, and Rs 250 per acre for unirrigated, with exemptions based on area under orchards and total area cultivated. The revenue target for FY98 was Rs 1.25 billion but collection fell far short of this. The land revenue (malia) is now abolished.

**Sindh** levies a tax based on cultivated area with an exemption of 12 irrigated acres and per acre rates that vary with the crop sown with cotton carrying the highest rate, and the rates are much lower across the board than in Punjab. In both cases, larger exemptions and/or lower rates apply to non-irrigated land. The revenue target was Rs 350 million but collection efforts fared badly.

**NWFP**, a flat rate of Rs 100 per acre is being charged for irrigated landholdings. Barani landholdings are charged at half the rate. Orchards are charged at Rs 300 per acre. The basic exemption in all cases is 5 acres. **Baluchistan** uses a crop based system similar to Sindh, although the system of assessment is more elaborate. Targets for NWFP and Balochistan were Rs 150 million and Rs 100 million respectively but almost no collection was reported. The pre-existing land revenue remains on the books in all provinces except Punjab.

**III: Evaluation**

As noted, the overall collection from the agriculture sector through existing taxes has been very low. The federal wealth tax has made little impact on tax receipts from agricultural
land because of a generous basic exemption and other deductions, the low assessed monetary
value of the PIU, and unchanged number of PIUs per hectare since the late 1940s in spite of
substantial increase in the productive capacity of land since then. Revenue from the agricultural
portion of the wealth tax were Rs. 110 million in 1996/97; while low this was a big increase over
previous years.

Total collection of the latest land-based income taxes is currently just over Rs 1 billion
which is below potential because collection efforts have been poor. If the current law was
properly enforced then expected revenues from the agricultural income tax would over Rs 2
billion. This matches a trend of declining collections of previous direct taxes on agriculture
such as the land revenue and Ushr (see Table 1.3 for figures since the early 1980s). Actual
collection of land revenue has been minuscule in recent years; for instance Punjab earns far more
revenue on mutation fees (stamp duty on land transfers) than it does on collection of land
revenue, while the 1996-97 total land revenue assessment in Sindh was merely Rs 6 million.\footnote{These mutation fees are reported under the heading of Land Revenue by the Government of Punjab. The actual revenues from collecting the land tax are reported under the “collection” sub-heading. The figure for Sindh is drawn from the background paper, page 6 (see references).}

Land Revenue and Ushr as a percentage of total share of provincial revenues decreased
from 12.8 percent in 1982-83 to 4.7 percent in 1991-92. This decline in tax revenue share is
much more pronounced than the drop in agriculture’s share of GDP which fell from 31 percent to
26 percent over the same period. Since then, the Land Revenue has been removed \textit{de facto} and
collection of ushr has collapsed.

The present system of agricultural taxation has created significant distortions and
inefficiency in the economy. Loopholes in the system, especially the exemptions of income tax
on agricultural income, have created opportunities for tax evasion on the incomes earned from
non-agricultural sources. For instance, residents in urban centers who earn income from
investments in real estate and businesses can avoid paying tax on such incomes by declaring the
income as earned from agricultural activities on rural land they own. Fictitious loans made by
agriculturists to industrialists and traders help them to evade tax on their commercial incomes.
Likewise, corrupt government employees and drug dealers have been able to launder money
earned illegally by buying agricultural wastelands. So far, attempts to close this loophole have
not been successful.

Significant parts of total agricultural income are not included in the tax net. First, the
systems only attempt to tax the income from the standard crops. However non-crop income
(such as livestock, forestry etc) accounts for an important portion of total income of rural
households. There is no provision to tax this segment of income. Second, the current taxes are
only levied on landowners. Thus income from cultivation by tenants is completely excluded.
For many tenants this omission is moot since most would be outside any reasonable tax system
anyway (e.g. small sharecroppers). But as cash crops become more lucrative with price
liberalization, leasing-in could be an important source of land for some farms. This could well
generate enough income to put them in the existing tax net were they earning the income from other sources.

The exemption limits and the graduated rates have been difficult to administer. These require knowledge of an individual's total land holdings, which is difficult to obtain because of the decentralization of land records. Where administered, the exemption limits and graduated rates have created some distortions. The size exemptions have encouraged the splitting up of large holdings amongst family members to stay under the thresholds. Also, farmers may avoid cultivating marginal land so they can stay under the threshold.

Another issue is that the system gives excessive power to the Patwari, the local official who collects information on the size of holdings, the area cultivated with crops, and land under orchards. This allocation of power is coupled with poor training and low pay, which creates difficulties especially in the presence of politically powerful local landowners who are reluctant to pay the tax. Similar abuses exist with the land records function of the Patwari, creating problems in the operation of the land market. Officials further up the revenue hierarchy (refer back to Box 1.1) have been unable to exercise sufficient supervision at the ground level.

To sum up, the current system of agricultural taxation in Pakistan is unsatisfactory. Failures can be summarized as follows. First, the wealth tax and provincial land taxes are only levied on landowners, and even then only income or wealth based on crop cultivation is targeted. All other forms of rural activity are excluded from the tax net. Second, revenues from the current taxes are abysmally low due to rampant avoidance and evasion as a result of the many loopholes in the system. The tax instruments used -- area based rates and limits -- are too crude to take account of any reasonable ability-to-pay criterion. Third, the system has become a vehicle of corruption at the hands of poorly paid, trained, and supervised local officials. Fourth, the current taxes are part of a patchwork of provincial and local taxes and charges with no thought apparently given to the overall goals of efficient taxation of, and cost-effective service delivery to, the agriculture sector.
<table>
<thead>
<tr>
<th>Year</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1935</td>
<td>Government of India Act makes land revenue a provincial matter; settlement/assessment undertaken as basis of rates.</td>
</tr>
<tr>
<td>1967</td>
<td>West Pakistan Land Revenue Act. Applied common land revenue system to all provinces based on “net assets” from last assessment, with no exemption; raised previously assessed revenue rates by 25 percent.</td>
</tr>
<tr>
<td>1970</td>
<td>Wealth tax exempts those not paying income tax; in practice all agricultural land exempt from wealth tax.</td>
</tr>
<tr>
<td>1972</td>
<td>Sindh adjusted revenue rates for PIUs and other factors, rates set for next 5 years</td>
</tr>
<tr>
<td>1975</td>
<td>Exemption of 12.5 acres for all provinces from land revenue; higher rates on larger holdings</td>
</tr>
<tr>
<td>1977</td>
<td>Finance Act introduced Federal Income tax based on PIUs; land revenue suspended.</td>
</tr>
<tr>
<td>1982/83</td>
<td>Zakat/Ushr introduced. Sunni Muslims can offset Ushr against Land revenue. Land revenue rates increased and exemption reduced to 2.5 acres in Punjab, NWFP and Balochistan. Sindh returns to 1967 system but with 25 acre exemption.</td>
</tr>
<tr>
<td>1980s</td>
<td>Several committees consider possibility of agricultural income taxation. No action taken.</td>
</tr>
<tr>
<td>1994</td>
<td>Federal govt instructs provinces to introduce a PIU based tax at Rs 2 per PIU with 4000 PIU exemption. All except Punjab comply.</td>
</tr>
<tr>
<td>1996/97</td>
<td>Land valued at Rs 400 per PIU for Wealth Tax purposes, exemptions curtailed.</td>
</tr>
<tr>
<td>1996/97</td>
<td>Provinces, following Federal government's instructions, introduce new “agricultural income” taxes.</td>
</tr>
<tr>
<td>Year</td>
<td>Ushr</td>
</tr>
<tr>
<td>----------</td>
<td>------</td>
</tr>
<tr>
<td>1981-82</td>
<td>0</td>
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<tr>
<td>1982-83</td>
<td>179</td>
</tr>
<tr>
<td>1983-84</td>
<td>260</td>
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<tr>
<td>1996-97</td>
<td>67</td>
</tr>
<tr>
<td>1997-98</td>
<td>NA</td>
</tr>
</tbody>
</table>

Note: Land revenue figures includes items other than the land tax, such as land transactions fees.
Chapter 2

General Principles and Practice of Taxing Agriculture

I: Requisites of a Good System of Taxation

Chapter 1 argued that the current state of agricultural taxation in Pakistan is unsatisfactory, judging from revenue raised, extent of evasion, and quality of administration. The goal of this chapter is to review general principles and lessons from other countries that should guide the design of a new tax system.

There are four basic principles that an effective system of taxation should satisfy. First, the tax should be one that is as close to non-distortionary as possible -- one that causes little or no change in economic behavior from when the tax was not there. Second, the tax should cause little or no change in accounting behavior from when the tax was not there -- one that creates little incentive to simply re-label income as a means of avoiding tax. Third, the tax should be equitable, both in the sense of treating taxpayers in the same financial position the same way, and advancing any redistributional goals the government might have. Fourth, the tax should be administratively efficient, in the sense that the revenue raised should not come with large collection costs by the government or onerous compliance costs by taxpayers. The remainder of this section discusses each principle in more detail.

Taxation and Distortions

It is virtually inevitable that any tax is going to cause some change in economic behavior. With most taxes, our tax liability is based on some action that we undertake in present or future, and the presence of a tax (or the expectation of a tax) will thus change our actions. An income tax liability is partly determined by how much we work and save, a sales tax liability by how much we spend, and knowing this, our spending and working decisions are altered. The goal of tax design is to ensure that the change in actions caused by the tax -- the distortion -- is as small as possible.\(^5\)

A second type of distortion arises where the underlying economic behavior does not change, but the tax system creates an incentive to alter how income is received. This is most likely to happen where there is a disparity in the tax treatment of income by source. If the same amount of income is treated differently by the tax system depending on its source, and if taxpayers have some control over how income is received, then taxpayers will seek to receive income in a manner that minimizes their tax liability -- a form of tax avoidance. For instance, if salary income is taxed more heavily than capital gains income (as in many countries), then

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\(^5\) The distortion caused by a tax is determined by the ability of the person being taxed to change his actions in response to it. This can be illustrated by considering productive activity. Productive economic activity requires the involvement of different factors of production -- labor, capital etc -- and these factors likely differ in their ability to respond to a tax. The key idea here is mobility: if a factor can move rapidly out of an activity after it is taxed, the tax will cause a distortion and inefficiency from sub-optimal use of the factor taxed.
taxpayers will attempt to receive income in the form of capital gains in order to avoid some tax liability. Such tax avoidance is perfectly legal but may raise equity concerns which are discussed below. In addition, differential tax treatment of different types of income may be justified by differences in risk, with capital gains often seen as more risky than salary income.

**Taxation and Equity**

As stated previously, there are two aspects to the equity principle. First, it is extremely important that the tax system treat taxpayers who are in similar financial positions in a similar manner. This is a basic requirement for the system to be perceived as fair, but it goes beyond this to cover the capacity of the tax to raise revenue in the first place. Second, a disparity in the tax treatment of different types of income increases the incentive for tax evasion -- false reporting of how income was received. If taxpayers differ in their ability or propensity to take advantage of loopholes, then equity can be adversely affected.

In the present case, the exemption of agriculture income from tax in Pakistan has created opportunities for tax evasion in incomes earned from non-agricultural activities. Also, perceived tax inequity leads to a low level of tax compliance. Similarly, if the tax authority tries to maintain the disparity in tax treatment, it is then forced to increase the complexity of the rules and the monitoring of taxpayers, thereby increasing the chance of corruption and costs of collection.

The second aspect of equity is that the government will almost certainly have some redistributional goals that the tax system can advance. This goals may be fairly minimal, such as protecting the very worst off in society, or more complex, such as redistribution from individuals with high income or large wealth to individuals with low income or low wealth. The tax system can be an instrument for achieving such goals and therefore progressive income taxation (tax rates that are higher for higher income brackets) is considered better than a sales tax which is only proportional to purchases. Loopholes in the tax system (such as differing treatment of different types of income) may make the system overly regressive; richer taxpayers who have more control over how income is received and are more able to hire tax specialists may reduce their tax liability.

**Tax Administration**

The idea that a tax should be easy to administer is a common-sense one, but an idea that is often violated in practice. There is clearly little value to a tax whose collection costs account for a significant portion of the revenue raised. However, such a calculation is often not obvious to governments, because the collection costs may not be explicitly paid and instead are borne by taxpayers in the form of compliance costs (accounting, record-keeping etc) or in interactions with the tax administration (rent-seeking at the level of tax collection). Administrative costs can be high in an environment of general public sector inefficiency (poorly trained and paid staff), or where the tax system has become very complex because of attempts to control tax avoidance and tax evasion.
II: Taxing Agriculture: Why and How?

General principles of taxation outlined above are relevant to the discussion of why and how agriculture income should be taxed. Reducing the fiscal deficit is a key policy goal of the government of Pakistan. Along with cutting government expenditure, raising government revenue will be critically important in achieving fiscal balance. And agriculture, which contributes 25 percent of GDP, holds out an opportunity for raising revenue because currently agricultural income is largely exempt from taxation. The equity principle is also violated if the agricultural incomes are a major source of inequality and the absence of a tax prevents these inequities from being addressed.

The general principles of taxation, therefore, give us every reason to believe that taxes on agricultural incomes should be similar to taxes on income from other sectors of the economy. If there is a departure from this ideal, then it should be provided with an explicit justification. It should be noted that there is a distinction between taxation at the sectoral level and at the individual level. Because we have little knowledge of the incidence of taxation (i.e. as taxation works its way through supply and demand decisions, who ultimately pays the tax), it could be that persons in the agriculture sector are already bearing a reasonable tax burden. It could also be that new taxes on agriculture would be mostly passed on to other sectors of the economy. Nevertheless our operating assumption will be that individuals in the agriculture sector are currently bearing too little of the tax burden and that there is scope for increasing their share of the burden without undue spillovers to other sectors.

Lower taxes on agricultural income than on income from other sectors could be justified in terms of equity goals if all the farmers were smallholders and earned below the taxable income threshold, which is not the case in Pakistan. However, as argued above, any disparity in tax treatment of income by source will give rise to avoidance and evasion efforts. It is more likely that an argument involving distortions or administrative costs would be relevant. A tax on agriculture is difficult to assess and collect because of the difficulties in verifying agricultural incomes. This however does not justify not taxing agriculture at all, but it does emphasize the need to choose an instrument to tax agricultural incomes than can be equitable and administratively cost efficient.

Choosing an Instrument to Tax Agriculture

In agriculture, as in any other sector, income is earned by several factors of production: land earns rental income, labor earns wage income, knowledge and organization earns managerial income, and capital earns profit. The equity principle suggests the presumption that all types of income should be taxed in a similar manner. However, the other principles can alter this presumption, mostly likely because people differ in their response to a tax or how income is received.
The literature on agricultural taxation identifies three broad options for direct taxation of agricultural incomes—land tax, agricultural income tax, and taxing agricultural output and input markets. Also considered is a general sales tax as an instrument, one that is not specific to the agriculture sector but could have application to the sector. Despite major differences in the apparent structure of these taxes, it is useful to see them all as operating on the agricultural income accounting identity (Box 2.1). This is also an essential basis for understanding the ultimate incidence of the tax i.e. the question of who, after the effect of the tax has worked its way through all markets, ends up paying the tax.

**Box 2.1: Linking the Tax Instruments**

The different types of agricultural income discussed in the text can be represented in the following accounting identity for land rent (LR):

\[ LR = P_Y Y - P_m M - wL - rK \]

Where:
- \( Y \) is the output quantity,
- \( P_Y \) is the price of output,
- \( M \) represents material inputs (seed, fertilizer etc) with prices \( P_m \),
- \( L \) represents labor input which includes labor of various skill levels with prices \( w \) (so that \( wL \) is labor income),
- \( K \) represents physical and human capital with user prices represented by \( r \) (so that \( rK \) is capital income).

With multiple outputs and inputs of various types, the quantities and prices will be vectors. Many different taxes can be discussed in terms of this equation. For instance, land rent can be taxed through an output tax and input subsidy at an equal rate, so that marginal production incentives are not affected. But note that this requires subsidies on all components of \( M, L, \) and \( K \). Besides difficulties of implementation, such subsidies will interact in complicated ways with other taxes on labor and capital income. However this scheme does have the virtue that it can implemented at point of sale, which can be feasible if transactions are relatively centralized. The value added tax targets \( P_Y Y - P_m M \), with some capital components possibly allowed as deductions. But implementation is even more complicated than the output tax-input subsidy combination since each producer must keep track of all transactions in \( Y \) and \( M \). The general income tax targets land rent and labor and capital income, with the difficulty of implementation varying with the complexity of economic transactions that lie behind the accounting identity.

A. Land Tax

The taxation of land is perhaps one major exception to the inevitability of tax distortions. Land is a completely fixed factor of production, and cannot move in response to the imposition of a tax, unlike labor and capital. The land will be cultivated as long as someone can earn the same wages or profits cultivating land that they can earn in other activities available to them. In other words, the rent to land can be completely taxed away without affecting the incentive to cultivate the land, and the tax must be borne by the landowner as long as potential tenants have an outside opportunity as remunerative as cultivating leased land.\(^6\) Furthermore, under

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\(^6\) There are some important subtleties to this argument, however. While a plot of land is fixed in place and has certain characteristics that are beyond the control of the landowner such as soil quality, and canal irrigation, land improvements by the farmer will require the application of capital, and the prospect of being taxed on such improvements will have a distortionary
appropriate circumstances, a land tax can sharpen the incentive of a landowner to improve his own cultivation of the land or to lease it to a more efficient cultivator.

Income to land is only one component of agricultural incomes. Ideally one would want to tax both the income to land ownership (rent) and the income to land cultivation (wages, managerial income, and profit). The taxation of the non-rent components of agricultural income poses greater problems than the taxation of rent because they represent the return to mobile factors of production. This of course is the problem with most types of income taxation. This point is especially important when considering agricultural activities where the return to land is a small part of overall value added in the activity. Examples here would include highly capital intensive farms. A land tax would have a small role to play in the taxation of such activities and the issue here is the general question of the relative efficiency of different types of tax system (e.g. choosing between income taxes, sales taxes, and consumption taxes); see also the discussion of sales taxes below.

In addition to its value on non-distortionary grounds, the land tax comes out favorably along the other criteria as well. Since land ownership is often distributed very unequally, land tax can be an important complement to a land reform program or to the promotion of land rental markets. In principle, the administrative costs of the land tax are low, if implemented as an in rem tax (also called a site tax). This tax simply targets a particular plot of land and levies the tax on whoever the owner or occupier of that land happens to be. As long as the owner has some advantage to establishing title to the plot, the tax liability should be easy to assign.

In practice however the administrative costs of the land tax can be high for two reasons. First, taking account of differences in land quality so that a higher tax can be levied on income to land of higher quality may prove to be costly administratively. Attempts to measure land quality involve costly cadastral surveys and Skinner (1993) argues that high administrative costs are a major reason why land taxes have declined in importance despite their apparent advantages.

Second, the ideal land tax does not take any account of the characteristics of the individual owning the land. But for distributional reasons (amongst others) tax authorities have found it necessary to use an in personam tax: a tax based on the characteristics of an individual owner or occupier, such as his total land holdings, income, or wealth. While this may be justifiable in terms of mitigating the onerous impact of the land tax on some individuals, it significantly raises administrative costs because characteristics of the individual now must be verified. In addition, the riskiness of income from land may make the pure land tax undesirable and some modification may be necessary. (Box 2.2).

effect. In this case the taxation of agriculture faces the same dilemma as any tax. But if the land tax can be based solely on the characteristics of the land, distortions are minimized. Since this argument is associated with the economist David Ricardo, the report will refer to this tax as the Ricardian land tax.
Box 2.2: The Land Tax and Risk

Recent literature has explored whether the Ricardian ideal is in fact appropriate for developing economies like Pakistan in the first place. Because the land tax is a lump sum tax, it takes no account of actual outcomes in determining tax liability. While this is not a problem in a world of perfect risk-sharing, the absence of perfect risk-sharing mechanisms -- surely the case in developing economies -- means that the burden of paying the land tax will be onerous for some people in at least some states of the world. In this regard, a land tax is similar to a debt payment or fixed-rent lease where payment must be made regardless of circumstances. This will result in more risk in after-tax income that a typical farmer would want to bear, and the optimality of the land tax then disappears. An output tax provides a risk-sharing mechanism, because the farmer is paying more in taxation when his marketable surplus is higher, and less when his marketable surplus is lower. This again is analogous to why share-cropping might be preferred to fixed rent lease. In this case however, Hoff (1993) shows that the preferred tax structure is a combination of an output tax and a land tax.

Land taxes can be assessed on following basis:

- **Tax based on total area** of land held by each owner. This may be easiest to administer with minimal administrative costs, provided owners are identified easily. On the other hand, if there are many joint owners of a piece of land, due to legal or social barriers, it may not be easy to administer. The major disadvantage is that land area bears little relation to agricultural potential, and none whatsoever in relation to the land value as real estate or wealth. This type of assessment may be regressive for poor farmers with less productive lands, and may excessively favor large landlords with highly productive lands, unless the rates imposed are graduated. The rate that can be levied is limited by the income potential of the least productive land. A variation of the area tax is to allow the rate per unit area to vary with the type of crop (known as a crop cess in India).

- **Tax based on yield** from a particular piece of land. The standard may be gross or net yield. In a wider sense it may resemble an income tax but the difference could be in terms of tax attached to land, considered as a separate economic entity so that the tax is levied specifically on the income to land.

- **Tax based on market value** of a parcel of land (i.e., the price at which land could be bought or sold in the market). Since the market value includes improvements on land, this may discourage further investments in land. Where market valuations are not available or improvements are to be excluded, a cadastral survey has to be undertaken but the assessment practices are quite often poor because of the lack of adequate land surveys and limited number of trained staff. Infrequent revisions have compounded the problem.

- **Tax based on the rent** (actual or imputed) from land. This tax is based on the idea that the rental income from land can be taxed away without causing any distortion. However, because of variations in land quality, tax officials have to estimate the income-producing capacity of each class of land, usually based on its physical features, and then separate out the part representing the pure rental value as against owner based improvements (which is what a value tax includes). The land revenue "settlements" developed by the British in colonial India represent this method. The annual rental value here is based on the concept of "net assets" -- value of gross output less the normal expenses to produce that output -- established
for different classes of land in a revenue "circle". India, Pakistan, and Bangladesh have continued with variants of this system since 1947. If the tax is based on current rents then it is potentially taxing several types of income, since current rents will reflect the potential of land with the application of capital and managerial services.

- Tax based on transfer of land. This could be imposed on transfer of land through sale, inheritance, or gift. This tax can appear attractive to governments because it can be collected at the time the transfer is recorded. However excessively high rates will impede the land market and this tax can have a negative impact when the quality of records administration is very poor.

B. Agricultural income tax

As emphasized earlier, income to land is only one type of agricultural income and in general all types of agricultural income should be considered for taxation. The tax on agricultural income can be based on the difference between the sale of outputs and the cost of inputs. Complications now arise because this difference represents the sum of rent, wages, managerial income, and profits but at least some of these components will not be separately observed. If all the components of income except rent are allowed as deductions, the income tax would be equivalent to a land tax. In principle, the taxation of agricultural income has advantages that stem from integrating the taxation of agriculture with the taxation of all other income -- reduction in distortions, removal of incentives for avoidance and evasion, and reduction of the administrative burden on the rest of the tax system.7

The administration of an agricultural income tax requires information on sales and expenditures and this information is difficult to collect, especially in developing countries in which informal sectors of the economy are large. Therefore, from a practical point of view, one has to fall back on presumptive taxation for agricultural income tax, estimating the net income from the land used in production, after making allowances for its characteristics. The presumptive income tax assumes that taxable income is related to some factor(s) that can be more easily verified than actual income itself. Presumptive income can be based on the land tax instruments discussed earlier. The difference is that a general income tax attempts to tax the income to all factors while a land tax is only attempting to tax land ownership. Costs of cultivation must be calculated to get net income, giving rise to several variations of the presumptive method, discussed in Section III (Box 2.4). It is important to bear in mind that a presumptive method more closely based on the actual characteristics of the farmer and farm will come closest to including all types of agricultural income in the tax base. On the other hand, a risk with presumptive income taxes is that they can be perceived as taxes on the indicators of income rather than on income itself, with the risk that a tax on an indicator of income will make

7 Taxes on personal income can be classified as schedular or global. In the schedular system, each of the major income flows -- salaries and wages, dividends, rent, profits, etc.--is subject to a different tax base and rate. The global income tax is imposed on income aggregated from all sources, after personal exemptions, deductions, etc., on the basis of a single rate or graduated rates. The advantage of a schedular system is that it allows separate treatment of different types of income if this was thought necessary for equity or efficiency (e.g. risk) reasons. The problem is that tax avoidance and evasion can quickly exploit such differential treatment.
it less useful as an indicator in the first place. Farmers may simply choose to engage in activities not reflected in the indicator.

**Box 2.3 Advantage of Presumptive Income As Base for Tax**

In the public finance literature, there is considerable debate about whether an income tax is best levied on actual realized income or presumed income. In theory, the criterion of ability to pay is best served when actual income of the individual is used as the basis for tax. However, policymakers and economists have become concerned about the effect of the income tax, particularly with high marginal tax rates, on work effort, saving, risk-taking. The theory of presumptive income tax is rooted in the idea that people should be taxed on their "average" and not actual income since it would preserve incentives for greater output and efficiency.

In addition, there are equity and administrative considerations in favoring the use of presumed income as the base for taxation. If taxpayers have different abilities to conceal earned income from taxation, a tax based on actual income imposes horizontal inequity in the tax system. However the administrative advantages are of particular importance for the taxation of agriculture given that most agricultural production is not organized or conducted on a commercial basis; income and expenses cannot be verified since records and accounts of cash flows are not kept; tenurial arrangements are complex and not well recorded; requirements for tax administration are too onerous and often beyond the existing institutional capacity; and individualized tax assessment and collection can increase graft and corruption. On the other hand, since exemptions under a presumptive system will not require documentation this may offer a potential loophole for evaders.

An important consideration is whether the tax administration determines the presumptive tax individually or collectively. Under the individual assessment system, there is active participation of the taxpayer and tax collector, which can provide opportunities for harassment, collusion and bribery. In the collective assessment approach, presumed income levels are established by groups engaged in different activities. Each taxpayer is assigned to a group for tax liability which can be contested or revised. In both assessment systems, records are updated only every few years to keeping the costs low. But infrequent revisions can cause problems when there are significant fluctuations in actual incomes, which is likely in agriculture.

A common type of system is based on an estimate of output using standard yields, such as the *forfait* system for farmers in France. Farmers below a certain level of net income can pay on this basis. In this system, standard yields are established in different well-defined agricultural regions; gross value of production is based on official (market) prices; and normal expenses are deducted to get net income for tax. Each year officials of the national tax authority estimate the average net income per hectare for each type of farm activity in each agricultural region. The estimated average is then multiplied by the area allocated by the individual farmer to estimate the net income for tax purpose.

The system works most effectively when it has available good farm output, input, and cost data for representative (average) farms in each region; cadastral information of each property based on soil quality, owner, area, and yield levels; market or official prices to determine the monetary values and costs; provision for adjustment in individual cases due to natural or personal hardships; technical resources available to know the profitability of the activity; adequate number of tax officials for verification of information provided by farmers; and face-to-face interaction between the official and taxpayer so that problems can be resolved.
Since this requirements are onerous for developing countries, where it has been implemented this has been through group assessment with relatively infrequent revisions of the basis for standard yields and costs.

C. Taxing Agricultural Outputs and Inputs

The government can raise revenues from the agricultural sector by affecting the prices at which sales and purchases are made. One possibility is simply to tax the sale of output and purchases of inputs. A distortion will of course result, but this distortion needs to be traded off against the distortions from other kinds of taxes. Such taxes may have advantages from an equity perspective to the extent to that smaller or poorer farmers have less marketed output or use fewer purchased inputs. Finally administrative costs can be low if the tax can be collected at point of purchase or sale, with the degree of enforcement required no greater than commodity taxes in general. Collection is easiest when produce must be taken to easily identified locations (e.g. for additional processing) but is more difficult when consumption or processing take place in small scale dispersed locations (e.g. rice mills).

Another scheme based on taxation of sales and purchases is a value added tax (VAT). As is well known, if a tax is levied on inputs and outputs along a chain of production, then care must be taken to ensure that the tax is only on value added, otherwise the tax will cascade through the chain of production with arbitrary effects on final goods prices. In practice this is implemented by allowing the producer at each stage of production to withhold from VAT paid by his buyer the amount of VAT that he paid his supplier. The remainder is then remitted to the government. This has the additional advantage of creating a double-invoicing trail, because to withhold from VAT paid by the buyer, the producer will need to show an invoice with VAT paid to the supplier which can be matched against the supplier’s invoices. There is no reason in principle why agriculture could not be taxed on this basis. But in practice this is extremely difficult in agriculture sectors in less developed countries, where documentation is minimal.

Taxation is also possible through price interventions in input and output markets. For example, the government can stipulate that a producer sells a given quantity of wheat to the government and is then free to sell any remainder on the open market. This acts like a lump-sum tax equal to the requisitioned quantity times the difference between the market price and requisitioning price. This method of taxation avoids incentive problems because marginal production incentives are not affected and can be made progressive, and could be put in place given Pakistan’s experience with procurement operations. However procurement by public sector agencies is prone to inefficiency and corruption, and can create a powerful producers’ lobby seeking insulation from market pressures.

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8 The Ricardian land tax can be implemented by an output tax and a negative tax at the same rate on inputs i.e. a subsidy. But this scheme is unworkable because all inputs, including family labor, must be subsidized (Burgess and Stern, 1993). Furthermore it ignores the problem of subsidy capture by interest groups.
D. Expenditure Taxes

It is worth asking why the taxation of agriculture should not be left to a sales tax given its recent popularity. The government could simply impose a tax on expenditure on final goods -- a general sales tax (GST). A related tax is the consumption tax which works more like an income tax system but the taxpayer is allowed to deduct savings from taxable income. An advantage of either tax is that consumption is a more appropriate indicator of wealth than current income because consumers will smooth out transitory fluctuations in income, basing consumption on their sustainable or permanent level of income, which is determined by wealth.

For developing countries, the sales tax option is more attractive since it is less reliant on having a functioning income tax system in place. Such a tax would avoid many of the problems associated with documenting actual income or estimating presumptive income. But there remains a burden of keeping track of transactions which could fall on traders and/or farmers depending on what type of system is implemented. Both taxes have supply side advantages in terms of encouraging labor supply and saving. While both taxes can be regressive, the impact on the poor can be mitigated by lower taxes on certain classes of goods (for the sales tax) or basic exemptions (for the consumption tax). However the presence of non-marketed consumption in the agriculture sector is an additional complication.

In addition, a major argument for the sales tax is the view that income taxes depress labor supply; but in Pakistan as in most developing countries at low levels of per capita income, it is unlikely that this effect is a major concern. A sales tax does not help address equity goals which are an important consideration in countries with a concentrated distribution of land. The precise incidence of a sales tax is difficult to determine but some of it would fall on the rural poor for whom food purchases would be the dominant part of their expenditure. Food can be exempted (as is often the case) to mitigate the impact on the poor but the question arises whether the remaining portion of the sales tax would achieve the purpose of taxing well-to-do farmers. As a business, a farm offers an opportunity for tax avoidance not available to salaried taxpayers. For instance, a sport-utility vehicle might be declared a farm vehicle and therefore subject to sales tax exemption as a purchased input.

A sales tax is hardly immune from enforcement problems at the collection level and current efforts at imposition of a sales tax in Pakistan are facing obstacles from smuggling and opposition from traders. However a sales tax could well be an important component of an overall tax package, especially as it pertains to the taxation of non-rent income in rural areas. Bearing in mind that an instant transition to a sales tax or a VAT from an income tax is unlikely to happen in most countries, integrating the taxation of agriculture with an already existing income tax system for other sectors is at least an important interim concern.

To sum up, the table below draws together the evaluation of the various taxes along the lines discussed.
<table>
<thead>
<tr>
<th></th>
<th>Land Tax</th>
<th>Agricultural Income Tax</th>
<th>Taxes on Outputs/Inputs</th>
<th>General Sales Tax</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Distortions</strong></td>
<td>Minimal when a pure rent tax – but then only taxes land ownership.</td>
<td>Supply-side concerns about labor supply and saving.</td>
<td>In practice inevitable but must be traded off against other distortions</td>
<td>Fewer supply side problems than income tax.</td>
</tr>
<tr>
<td><strong>Equity</strong></td>
<td>Highly likely to promote equity, can be made progressive.</td>
<td>Should reduce avoidance and evasion by other sectors.</td>
<td>Can target specific taxes to promote equity. Avoidance and evasion is difficult.</td>
<td>Commodity based exemptions can mitigate impact on worse off. But difficult to use for redistribution</td>
</tr>
<tr>
<td><strong>Administrative Cost and Revenue Potential</strong></td>
<td>Low when a pure site tax, but costs rise as quality or individual circumstances are taken into account. In practice has yielded low revenue at high cost.</td>
<td>High for actual income taxation. Lower for presumptive taxation but still can be a problem. Much broader tax base than land tax.</td>
<td>Collection at point of purchase or sale should be low cost. Can be used to target all income.</td>
<td>Enforcement, invoicing are major cost elements. Transition can be difficult. Can be used to target all income.</td>
</tr>
</tbody>
</table>

### III: International Experience

#### Introduction

This section will draw on the international experience with taxation of agriculture with a view to arriving at some lessons for Pakistan. It is useful to begin setting an overall context for international comparisons of taxation before moving to a specific discussion of the taxation of agriculture. A dominant fact looking across countries is that taxes as a proportion of GDP are higher in industrial than in developing economies, as is the share of direct taxes in total taxes. Developing countries obtain the bulk of their revenue from (a) sales taxes and excise taxes, (b) foreign trade taxes such as import duties, and (c) income taxes, mainly paid by corporations. Roughly equal proportions of tax revenue come from each source. By contrast in industrial countries income taxes on individuals and social security taxes (extremely low in developing countries) are a much more important source of tax revenue. A fact common to all countries is that wealth and property taxes account for a small portion of overall tax revenue, although local property taxes -- about which information is often lacking -- can be significant, especially in some industrial economies.
Within comparable countries, Pakistan’s tax structure is somewhat unusual because income taxes account for about 20 per cent of total tax revenue, against an average for countries of similar per capita income of closer to 30 per cent. But Pakistan is not out of line in its extremely low share of wealth and property taxes in total taxes.

A Review of Country Experiences

Administratively taxes on agriculture can take the form of (1) taxes on land area, (2) taxes on land rent (actual or imputed), (3) taxes on the value of land, and (4) taxes on income from land. In turn, taxes on income may attempt to tax actual income, a proxy for income such as output, or presumptive income. A tax based on land quality could be seen as a type of area tax or presumptive income tax but historically it evolved from rent taxes, as explained below.

Taxes on Land Area

The major source of land revenue in Bangladesh is an area tax called the Land Development Tax (LDT), introduced in 1976. No landowner was exempt from payment of LDT and there were two rates, one rate (Tk. 7.50/ha) for those with holdings of up to 3.5 hectares and a much higher rate (Tk. 37/ha) for the rest. In 1982, the tax rates were revised by levying Tk. 1.00 for holdings of up to 0.8 hectare and then five tax rates ranging from Tk. 7 to Tk. 360 per hectare. An administrative problem is that the total personal holdings of a landowner are not verified for determining the specific tax rate. It is estimated that, in the late 1980s, the LDT revenue was only 0.2 per cent of the value-added in agriculture and the administrative cost of the tax amounted to about two-thirds of the collected revenue [Skinner 1991].

In Malaysia all landowners must pay land taxes to the state governments. The land tax rate depends on the class of land and its use for different crops, but does not vary with the size of landowner’s holding. Although the average tax rate in relation to the value of crop output per hectare is quite low, the land tax revenue is a significant part of the states’ total revenue. Sri Lanka has a crude land area tax at nominal rates on all landholdings which is assessed and collected by the village councils to meet some of the expenditures at the local government level.

Rent Taxes

Rent is treated as taxable income in most income tax systems in developed countries. However the application of taxation on rent is much more difficult in developing economies because of the lack of documentation of rental payments and substantial in-kind payments and cost-sharing arrangements that make it difficult to calculate the true rental payment. In Egypt, the only tax paid by landowners and farmers is a land tax based on the annual rents received by landowners under the tenancy contracts. The rent tax is equal to one-seventh of the annual rent of all holdings above the size of 1.3 hectares [FAO 1993]. The problem is that the land rents established after the land reforms in the early 1950s were not changed until 1992 when a new law was passed to allow the renegotiation of tenancy contracts and determination of land rents under the new contracts. The land tax has so far been revised on an ad hoc basis every ten years. In
In the early 1990s, the estimated land tax revenue constituted around 0.35 per cent of the total tax revenue of the Central government.

In India, the land revenue, originally based on the idea of periodic settlements with landowners on their annual rental income, has changed into a crude land area tax since the State governments have not conducted new settlements since 1947. They have instead changed the tax rates on an ad hoc basis; introduced exemptions on the basis of the size of holdings; and imposed surcharges from time to time. Land revenue has become a very minor part of the total government (central and provincial) tax revenue.

Taxes on the Value of Land

The land tax based on the capital (market) value of land has been a major form of agriculture taxation in many Latin American countries, starting from Uruguay, since the early 1960s. Its purpose was not only to generate tax revenue but to reduce the concentration of land and encourage improvement in land use. The experiments have not been altogether successful.

Argentina introduced a land tax based on the cadastral value of agricultural land in the early 1960s. A flat tax rate of 1.6 per cent of the cadastral value of agricultural land (without improvements) was imposed on all landowners. This tax generated about one-quarter of the total agricultural taxes, including export taxes, or about 2 per cent of the total national tax revenue [FAO 1993]. In the early 1970s, the flat rate was replaced by progressive rates, ranging from 0.75 to 2.7 per cent of the land value, which were combined with an exemption for small landowners. However, in 1975, this tax was replaced, even before the cadastral assessment of land could be completed, by a tax on the so-called potential income of land. The potential income from land for each landowner was to be measured by taking into account the location, size of holding, soil type, altitude, output and input prices, etc. This tax law was repealed in 1976 in view of protests by farmers. Finally, a new land tax proposal was made in 1986 to replace the agricultural income tax. However, it has not been implemented because of the continuing resistance by the farm lobby and the costly cadastral requirements for land valuation. It is worth noting that high levels of export taxes formed the basis of farmers' objections to the land tax. Export taxes have now fallen.

In Chile, where the agriculture sector is not as large as in other Latin American economies, agricultural land as property has been taxed since 1927 on a fairly well-established assessment of land values every six years [Bird 1974]. By the mid-1960s, the land value was indexed to the increased money value of agricultural output and the base value was raised to 80 per cent of the cadastral value of land. More recently the cadastral survey has been used as the basis of a presumptive income tax which is discussed below.

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9 In Pakistan of course the PIU system developed in 1948 was based on land classifications from the British settlement operations.
10 Property tax is collected by the Municipal governments. The current base is 2 per cent of the assessed value of land with exemption to holdings of less than 1.2 hectares irrigated or 12 hectares unirrigated (Khán 1998, n31).
**Income Taxes**

The income tax laws in the vast majority of underdeveloped countries do not exempt agricultural income from taxation. The few exceptions include countries like India and Pakistan which do not allow federal income tax on agriculture. In countries that have adopted a largely global income tax system (including countries in East Asia, Latin American and Africa), farm incomes either fall below the limit of exemptions or deductions or the incidence of tax evasion is very high. Governments have, therefore, put most of their resources and personnel to assessing and taxing incomes from nonagricultural activities simply because of the high administrative cost involved in chasing a very small base of taxpayers. The one exception is for organized large-scale estates and plantations owned by individuals or business companies which are easier to target. In general, presumptive income systems need to arrive at figures for revenues and costs of cultivation. This gives rise to several variants of the presumptive income tax, discussed in Box 2.2.

In Latin American countries, presumptive income is usually linked to the market (capital) value of agricultural land. In Chile, the minimum presumed income is equivalent to 10 per cent of the cadastral value of agricultural land for owned land; leased land is presumed to yield a taxable income of 4 percent of the assessed value for the lessee and 12 percent for the lessor. Most individual land owners have the option to file on the basis of actual income if they comply with accounting regulations, and owners of the largest farms must file based on actual income. The tax rates on presumed income are the same as for the declared income. Real property tax is credited against the income tax. A detailed land valuation was done 1986 followed by another in 1994.

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**Box 2.4: Various presumptive assessment methods**

The presumed income is affected by whether the presumptive method is used in the determination of gross revenue as well as cost or only with respect to one or the other. This will result in four different cases as shown below:

<table>
<thead>
<tr>
<th>Case</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Revenue</td>
<td>Estimate</td>
<td>Estimate</td>
<td>Actual</td>
<td>Actual</td>
</tr>
<tr>
<td>Cost</td>
<td>Estimate</td>
<td>Actual</td>
<td>Actual</td>
<td>Estimate</td>
</tr>
<tr>
<td>Taxable Income</td>
<td>Estimate</td>
<td>Adjusted Estimate</td>
<td>Actual</td>
<td>Adjusted Actual</td>
</tr>
</tbody>
</table>

Case A is the most traditional one as both gross revenue and cost are estimated. Amongst the developed countries, France follows this pattern. In Switzerland, gross revenue is estimated but actual cost records are accepted (Case B). In the more advanced systems like USA, both gross revenue and cost are based on actual records (Case C) or tax payers are given the option of selecting actual income assessment under certain conditions. Case D is rather uncommon but even in many modern systems certain standard deductions are allowed against the gross actual income. In Turkey the gross income must be declared by the tax payer but the cost is standardized.
In Colombia, the Central government introduced a tax in 1973 on presumed agricultural income linked to the assessed value of agricultural land. The minimum net income for tax purposes was established at 10 per cent of the assessed cadastral value of land (net of structures) used for crops and 4 per cent of the value of land used for livestock. The taxable base value was established at less than the official cadastral valuation of land: 80 per cent for the annual crops, 75 per cent for the semi-annual crops, and 50 per cent for the cultivated pasture. In the face of protests from the agricultural lobby, the law was changed in 1974. Under the new law, the minimum net income, including the imputed rent for certain farm structures, was assumed to be 8 per cent of the net wealth at the end of the preceding year. Net wealth is defined as the assessed value of gross wealth less the outstanding debts. Many tax exemptions have been allowed as concessions for cattle ranching, slow-growing trees, etc. Initially there was significant increase in the tax revenue for one or two years, but soon it started to fall significantly. The valuation of net income from crops and livestock has varied between 6-8 per cent of net wealth for the former and 4-6 per cent for the latter.

The assumed rate of return (6-8 per cent) on net wealth has no relation to either the income-generating capacity of land or the opportunity cost of the implied capital in land. Second, the rate of return has not been changed for long periods. Finally, the cadastral assessment of agricultural land (wealth) was neither related to the market value nor a constant proportion of that value. The fall in the land tax revenue has been due to several factors: the reassessment of net wealth has been erratic; inflation has increased the value of outstanding debts; and several concessions have been made to different interest groups.

Several countries follow a modified forfait system, using a group assessment method by regions or areas. In Morocco, a tax on agricultural income was introduced in 1962 as a modified forfait system. The country was divided into distinct agricultural regions and in each region standard average (potential) yields per hectare (per tree and per livestock) were established on the ten-year average for the 1950s and converted into money by using the average prices during the same period. The tax was levied on annual production, taking into account fertility of land, area of unutilized and utilized land, crops, livestock, and trees. Once the representative average production had been established it was to be generally applied as the tax base for all agricultural producers in each region. The average (potential) yields were updated in late 1970s by which time the old basis was quite out of date. The tax rates are progressive (ranging from 0 to 20 per cent) with tax exemption for incomes below a minimum.

A presumed income tax, based on the potential productivity of land, was first introduced in Uruguay as part of the new income tax system in 1960. The tax was levied on the global income of taxpayers, but different rules applied to determine each category of income. The tax on farmers’ potential income was intended to weigh more heavily on lands producing below potential and favoring those producing above it: the tax rate fell as the output per hectare rose.

This account is based on studies by Tanzi (1991), McLure, Jr. and Zodrow (1991), and Munoz, Martinez and Carreno (1993). The tax reforms in the late 1980s and early 1990s have not really addressed the issue of tax revenue from presumed agricultural income. Colombia has abolished the net wealth tax since 1992. The argument is that there is improved calculation of presumptive income based on wealth due to the revaluation of the real estate and the inflation adjustment of assets in the net wealth tax base.
The tax was based on the notion of "standard yield" -- set at 4 kgs of wool and 20 kgs of beef at prevailing prices -- for lands valued at 80 pesos per hectare or less. The land values were determined at 80 per cent of the 1956 cadastral value. If the value exceeded 80 pesos the standard yield was to be increased proportionately.

The government revised the land tax in 1968 by introducing the concept of "minimum taxable production" based on a detailed cadastre of land by soil type and location. An average national land productivity index per hectare (100) was established at 7 kgs of wool and 60 kgs of beef. The gross income of farms was then determined in relation to the standard yield, taking into account the differences in soils and distance to markets. The potential income for farms of over 200 hectares was taxed at rates between 28 and 56 per cent and the taxpayer could claim 30 per cent of the tax for reinvestments. The government determined the standard yield or quantity of beef (B) and wool (W) that a hectare of "average" quality of land would produce. Farms were assigned productivity weights in relation to the average or standard yield and these were used to adjust the standard yields.

The taxpayer was allowed to make certain deductions: 50 per cent of the gross income for tenants using rented lands and 30 per cent for landowners; expenses for certain investments; and extraordinary losses. The tax rates ranged from 25 to 50 per cent of the taxable income. The potential income tax system in agriculture, however, did not produce much revenue for several reasons: the tax system affected only very large landholdings (200 hectares or more); the assessed value of land was only 80 per cent of the cadastral value in 1956; and the land values were not adjusted for the high level of inflation experienced in the 1960s.

In 1979, the government changed the tax formula from gross to net potential income. Costs were estimated on the basis of a national average for inputs, labor and debt repayments. The rates of taxes were set at 25 to 70 per cent for all holdings above 50 hectares and the claim for reinvestments was reduced to 20 per cent of taxes. In 1984, farmers were given the choice to pay their tax on either actual (declared) income or potential income and the option of actual income became irreversible. The declared income, net of production costs, is taxed at a single rate of 30 per cent. A majority of large farmers have shifted to the declared income tax basis. While the option has increased the income tax revenue from agriculture, it was still under 2 per cent of the total national tax revenue in the late 1980s. However it is notable that Uruguay's experience illustrates that with the appropriate administrative framework in place, it is possible to move from a basis of potential to declared income.

IV: Administrative Aspects of Agricultural Taxation

This section deals with three important issues that have arisen in international experiences. The first is the division of responsibility for taxes between national and sub-national levels of government. The second is a set of common administrative failures that have been observed in many tax systems and the diagnosis of these failures. The third issue concerns recent efforts at tax reform, especially the political difficulties that have accompanied attempts to introduce the land tax. Section V will draw together the description of experiences to arrive at lessons for Pakistan.
Levels of Government

An important issue relevant for Pakistan is to look at the international experience with the division of tax responsibilities between different levels of government. In the context of taxes on incomes of agricultural producers, tax authority generally rests with the Central government, except in India and Pakistan, no matter how the income of farmers is determined. A uniform tax base and tax rates at the national level are the norm in both the unitary and federal types of government structures. However, in some countries of Latin America, while the tax base is determined by the Central government, the tax rates differ between the states (provinces). The net wealth (or worth) tax where it exists -- as in some Asian countries and most Latin American countries -- is assessed and collected by the Central government.

The property taxes usually levied on agricultural land in most countries have a variety of tax assignments. In some countries like Bangladesh, Egypt, Indonesia, Morocco, Philippines, and Sri Lanka, the central government is responsible for both the tax base and rate but the local governments are assigned the revenue. In many other countries, land taxes are entirely the responsibility of the provincial government, e.g. India, Pakistan, Argentina, Chile, Colombia, and Uruguay. The tax is assessed and collected for the provincial revenue. In several Latin American countries, the local (municipal) governments also levy property taxes on urban and rural land. In other parts of the world, local governments usually have very limited tax authority, although their expenditure responsibility is far greater. They, therefore, depend largely on revenue transfers from the central or state governments, supplemented by local property taxes. Some of these local taxes are supposed to be assigned to specific services such as education.

Collection

Several factors contribute to the low level of tax compliance in many developing countries, notably lack of confidence in the government; poor or unreliable use of the tax revenue; real or perceived sense of horizontal and vertical inequity in taxation; high incidence of tax evasion by the well-to-do and influential taxpayers; proliferating and complicated taxes; poor quality of information about tax laws, tax base, taxpayers and tax liability; and inefficient and corrupt tax administration.

While all of these factors are important for the effectiveness of a country’s tax system, the last one has a direct bearing on the collection and enforcement of taxes. In fact, poor tax administration is perhaps the key constraint on the ability of governments to raise the tax revenue as has been documented for many countries where governments have undertaken tax reforms in the last decade or so [Gillis 1989; Thirsk 1991]. Generally, the major indicators of administrative constraint are (i) inadequate and poor quality equipment and (ii) tax officials who enjoy considerable discretionary powers but are insufficient in number, inexperienced, poorly motivated and poorly paid. These factors, combined with other constraints, have contributed greatly to pervasive rent-seeking and corruption. Merely inserting revenue targets into such a set-up leads to harassment of taxpayers without significantly increasing the tax revenue [Bird 1991].
There is great paucity of information on the administration of taxes affecting agricultural producers, except for countries in which the land-based taxes are administered separately. From the experience of countries in Asia and Latin America, several generalizations can be made. First, in most countries, the tax is assessed and collected by public servants who have questionable expertise or training and are poorly paid. In some Latin American countries, governments have assigned this function to the private sector (banks) with reasonably good results [de Jantscher and Bird 1992]. Second, the tax assessors and collectors work with incomplete and out-of-date cadastral information, including landownership and tenurial contracts. There are no incentives to improve the quality of information about the taxpayers and their tax liability. Administrative inertia seems to dominate the system.

Third, supervision, monitoring and auditing of tax assessment and collection are either completely absent or erratic, usually conducted by officials who are not highly paid professionals working independently of the system of tax assessment and collection. There is evidence that the tax revenue has responded favorably where the supervision and auditing processes have been improved. Fourth, a vast majority of the landowners and potential taxpayers depend almost exclusively on the information and data that the tax officials have or claim to maintain. There is also asymmetry of information between different groups of taxpayers. Finally, tax assessments are either nonrebuttable or, where rebuttable, the process of appeal is complex and long. The result often is that the taxpayer can negotiate the tax liability and payment with the tax official. Given that tax officials enjoy much discretionary power and are poorly paid, the opportunities for rent-seeking at this stage are considerable.

A general point about most underdeveloped countries is that the administrative capabilities at the sub-national (state and local) levels of government are quite limited relative to the requirements. In part this is a reflection of the centralized tax administration in which the Central government assesses and collects many of the taxes and transfers the revenue to sub-national governments. It is also part of the general problem of poor tax administration in underdeveloped countries. Persuasive arguments have been made, with supporting evidence, that proper investment of resources in (decentralized) administration of taxes can yield high return [Goode 1981 and 1984; Bird 1991].

Tax Reform

The tax systems in most underdeveloped countries started to change significantly since the 1980s in response to the problems of their fiscal deficits and debts and following the experience of tax reforms in developed countries. A key element of the reform has been the reduction of taxes of foreign trade, and efforts to bring more individuals and corporations into the tax net. In the context of taxes affecting agricultural producers, considerable relief has been provided to them as a result of significant reduction in export taxes and protection for the industrial sector. However, in most countries, the tax system has yet to mobilize significant revenues from agriculture.

Two reasons can be advanced for this problem. First, the farm lobby in many countries has successfully resisted the tax reform efforts, continuing to argue that the agriculture sector was
already transferring resources to the rest of the economy. Second, there is a genuine problem of
designing a cost-effective tax structure for receivers of agricultural income.

The tax on land area despite its administrative advantages has clearly failed in that it
produces little revenue. In the case of taxes based on either the value of land, the cadastral
requirements for the initial assessment of the tax base and its regular reassessment have not been
met in most countries. The result is that the tax revenue has remained small or grown by little.
Presumptive systems of *forfait* type fare somewhat better along the administrative line provided
the averages are representative of similar groups or area and the assessment is revised frequently.
However whether considering value taxes or presumptive taxes, two basic problems have to be
addressed. First, enough information has to be collected for establishing the value or potential
productivity of agricultural land parcels. Second, the individual income earners in agriculture
have to be identified in relation to the land parcels. The tax rolls have to include not only the
cadastral information about land but also the individuals with tax liability. In many countries,
land title and contractual records are extremely deficient for establishing property rights and tax
liability. Where these records do exist they are not complete and verifiable in terms of the total
landholdings of the landowner.

In addition to these problems, land taxes appear to arouse particularly strong opposition
from farmers even when carefully designed. This is especially puzzling since resistance of
similar effectiveness was not mounted against other taxes that extracted large resources from the
farm sector, such as the export taxes and industrial protection. It appears to be the case that a tax
that involves writing a check to a fiscal authority at the end of the tax year is more vehemently
opposed than a tax extracted in such a way that the money was never received by the taxpayer in
the first place. An implication of this is some type of withholding arrangement might be an
important ingredient of a politically palatable tax. But very little is known about the exact
determinant of preferences over different tax structures which extract an equivalent amount of
revenue.

V: Lessons from International Practices

The experience of other countries points to a variety of practical obstacles to taxation of
agriculture. First, a recurring theme across countries is the problem of administrative difficulties
on taxing agriculture. Outdated assessments (of land value, land quality, or rental income) which
generally fail to keep pace with the rising productivity of land, make it difficult to raise revenue
through a system of land-based taxes.

Second, where some success in taxing agriculture has been achieved, it has usually been
on the basis of a transition from land-based taxes to a more general agricultural income tax.
Uruguay's transition from a fairly narrowly targeted tax on large farmers, to a broader
presumptive tax and finally an option to be taxed on actual income is noteworthy. A likely
reason why this strategy is effective is that in the beginning the ongoing information
requirements are confined to small group of more commercial farmers. This puts a framework
in place which can be expanded as incomes grow and administrative abilities improve. Of
course, it is essential that the initial tax base is well-identified.
Third, there is a major difference between developed country experience where effective property taxes are usually local and linked to local service provision, and developing country experience where property taxes are usually centralized. Centralization of collection does not preclude revenue sharing and indeed it is quite sensible to assign collection to the level of government best able to do so and then share the revenue with other levels. In developing countries property tax revenue may be distributed to the provincial governments in the form of transfers. This is not the model in most developed federal systems, where significant powers to tax reside at the state and local level. The problem with the centralized system is that while actual collection of the tax is inevitably undertaken at the local level, the incentives of the local administration to improve collection are likely very weak since revenue “disappears” into a central pool and only returns to the provincial level in an ill-defined system of transfers.\textsuperscript{12}

The central government could of course centralize collection efforts as well, but then the organizational difficulties in taking account of local information become serious. While local information is not a dominant concern with taxation of salaried income, it is essential in taxation of agriculture where income is difficult to identify and local conditions are an important determinant of income. The overall lesson is that since information resides at the sub-national level, it is better if the revenue accrues at the sub-national level so as to sharpen collection incentives.

Fourth, reform at the level of tax collection and assessment is essential. Given the aforementioned difficulties of measuring agricultural income, interaction between the taxpayer and tax officials is inevitable and the potential for rent-seeking at this point must be minimized. Necessary measures would include (a) greater checks and balances on local officials including tighter supervision by superiors and an independent ombudsman-type system to handle complaints, (b) a separation of assessment and payment of tax bills, with tax payments remitted at local banks or post offices, and (c), building on these steps, an audit process triggered by a large discrepancy between an initial standard tax assessment and payment finally received. Relatedly, the local information base must be improved, so that land-holdings, land quality and local production conditions can be verified and updated regularly.

Fifth, appropriate sequencing of agricultural tax reforms is very important. A necessary pre-condition for taxation of agriculture is that implicit taxation of the sector (such as high export taxes and industrial protection) is removed. Reforms of tax administration must precede any changes and extension of existing taxes.

\textsuperscript{12} The other side of this problem is the presence of extremely loose budget constraints at the provincial level on the expenditure side.
Chapter 3
Options for Pakistan

I: Introduction

This chapter uses the diagnosis developed in the previous chapters to present the options for Pakistan. It begins by providing some indications of the potential revenue from a broad tax on agriculture, without specifying the specific form of the tax. Then it discusses the various ways that a tax on agriculture could be implemented. The next chapter makes recommendations.

It is worth pointing out that a complete analysis of the various options would require an economic model of the behavior of farmers when confronted with the various tax instruments under consideration, including the prospect of tax avoidance and tax evasion. However such an analysis would involve making many assumptions and any estimates of likely revenue would be subject to great uncertainty. For this reason, and to avoid complexity, such a model is not offered here. Estimates of revenue under the different taxes should therefore be taken as assuming that the implementation of the tax is successful in keeping avoidance and evasion to a minimum. Thus the evaluation along administrative lines will be an important component of the recommendations in the next chapter. In the absence of a full modeling exercise, it is also difficult to say anything about the ultimate incidence of higher taxes on agriculture.

While looking at the options it is useful to have in mind some general facts about the current system of taxation and overall income in the agriculture sector. In 1995/96, total provincial land revenue amounted to about Rs 1.3 billion. This was about 11 percent of total provincial tax revenue which in turn was less than 4 percent of Federal tax revenue. This is unusually low for a federal system of government. Turning to the composition of output within the agriculture sector, the major crops (mostly rice, wheat, cotton, and sugarcane) account for 38 percent of agricultural output, with minor crops making up another 16 percent. The livestock sector accounts for a very sizable 43 percent of output, while fishing and forestry make up the remaining three percent. So the traditional crop-based focus of agricultural taxation is omitting almost half of the agriculture sector from taxation.

To move from aggregate information to information about potential income in farming activities, Appendix 3.1 presents estimates of income per acre from the major crops in the four provinces. A number of factors stand out. First, income per acre has been increasing, indicating increased scope for taxation of agricultural incomes. Second, the income per acre figures are large relative to the tax rates that have been levied in the past. For at least some crops, it is possible that an average sized farm would be earning sufficient income to fall within the Federal income tax net if such income did not have the tax exemption. Furthermore, since the table does not include non-crop income, it is providing an understatement of rural household income-earning possibilities.

To discuss the options for Pakistan, a distinction emphasized in earlier chapters is used. Agricultural taxation systems can attempt to target (1) only the return to ownership of land
and/or (2) the income to all factors of production involved in the cultivation of land, including capital, managerial services, and labor. This distinction recognizes the special nature of land, namely the potential for non-distortionary taxation of land ownership and the fact that land can be a major source of inequality. In addition, land can be used to proxy the overall income from agricultural production. Land being the most important factor for rural income, land-based income taxation may be the first step and can form the foundation for extending the income tax to all agricultural incomes as it improves record-keeping and information about the sector.\textsuperscript{13}

This will form the basis of the classification of the options. Considered first are taxes on land such as area-based taxes, a tax based on productivity indices (such as PIUs), and taxes on the annual rental value of land. The wealth tax on agricultural land is also discussed at this point since it is also based on land. However a wealth tax could differ from a tax on the flow income from land if the value of land reflects such factors as prestige or its possible use for collateral or tax evasion purposes. The discussion then considers taxes on agricultural income including taxes on actual and presumed income which will typically involve broader-based tax instruments than taxes based on land alone. Sales taxes and VAT are included in this section since in an accounting sense they are also taxes on income.

While this distinction provides a useful organizing framework for our discussion of the options, the distinction between the various taxes may be eroded in practice. The key problem concerns the incidence of each type of tax -- who ends up bearing the burden of paying the tax. While administratively the tax liability may be attached to a particular person (usually the owner), the tax burden may be shifted on to someone else through supply and demand interactions.

It is also important to point out that some of the taxes are not mutually exclusive. For instance, a land tax would co-exist with a system of income taxation with the land tax acting as a spur to efficient use of land while an income tax would take more account of ability to pay. Similar mixtures of income taxes and sales taxes could be used, as in many other countries. At the same time, the risk of tax proliferation and double taxation must be borne in mind.

II: Land Based Taxes

The land tax option with the greatest administrative simplicity is the \textit{in rem} land tax levied on every plot regardless of the owner’s characteristics. This would completely avoid the problem of verifying the owner’s total landholdings or income, which would be necessary if the \textit{in personam} land tax was levied. The basis for a quality adjusted site tax already exists in the form of PIUs. However by definition the \textit{in rem} tax ignores ability to pay and this would likely pose serious practical problems. Furthermore the tax could not be used to advance redistributional goals. In practice the tax rate would have to be set with the ability to pay of the worst off landowner in mind, and this would result in a very low rate on large landowners. For

\textsuperscript{13} It is also desirable for a general income tax to have an estimate of the imputed rent to land which can be taxed; otherwise the system may contain a bias against tenancy. This is similar to the bias in many developed country tax systems which treat the income to renting out a home as taxable income but do not tax the imputed rent to living in a home which you own. This bias is compounded by making home mortgage interest tax deductible, but not rental payments.
this reason some type of *in personam* tax would have to be considered. However for the tax to be effective, exemption limits would have to be reasonably low and enforcement of collection and verification of exemption entitlements is essential.

The simplest option is simply to enforce collection of the current taxes. As noted in Chapter 1, there have been only two direct taxes on landowners: the land revenue in the Provinces except Punjab, and the federal tax on land as immovable wealth (recall that Ushr is levied on producers). The current provincial taxes are actually envisaged as agricultural income taxes but for administrative reasons work within the structure of the provincial land revenue systems. Even if the land revenue system as it existed just before the latest income tax measures was fully enforced, total collection would only amount to about Rs 300 million, and actual collection falls well below this.¹⁴

The option with most continuity with the past is to base the land tax on PIUs since they take quality of land into account, while considering lower exemptions than at present to expand the tax base. Some revenue projections from such a tax are shown in the first three rows of Table 3.1 but the key assumption of course is that implementation of the tax would be perfect.

### Table 3.1: Projections for Various PIU Taxes

<table>
<thead>
<tr>
<th>Area</th>
<th>Tax Base</th>
<th>Projected Revenue (Rs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pakistan</td>
<td>Rs 1 per PIU with 5 acre exemption</td>
<td>7.3 billion</td>
</tr>
<tr>
<td>Punjab</td>
<td>Rs 2 per PIU with 1000 PIU exemption, leaving 600,000 owners</td>
<td>2.6 billion</td>
</tr>
<tr>
<td>Sindh</td>
<td>Rs 5 per PIU, no exemption</td>
<td>Rs 1 billion</td>
</tr>
</tbody>
</table>


The PIU system has been criticized because of its outdated basis of assessment and the fact that PIUs have not been calculated for all areas. Revision of PIUs is discussed below. Furthermore, PIUs do not take into account the location of land and proximity to infrastructure which are important determinants of income potential. These flaws have been used to argue for acreage and crop based tax although it is not clear that either tax solves these problems. The acreage based tax suffers from the problem that it bears no relationship to the productivity of land, so the rate must be set on the basis of the least productive land.

**Revision of PIUs**

One option as a base for either land taxes or income taxes is to update PIUs because old PIUs no longer capture the substantial improvement particularly in irrigation which took place since the time PIUs were estimated. Revision of PIUs, however, seems to be a controversial subject. According to one school of thought (held by Land Commission, and most Board of

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¹⁴ Recall that reported land revenue figures for recent years are misleading because they include revenues from land transactions (mutation fees etc) as well as the traditional land tax.
Revenue officials) is that updating of PIUs would be a lengthy and difficult exercise. At the time of the original assessment, the relevant data was collected by the revenue officers of the district who collected data from each village at least twice during the settlement. With much more land under cultivation now, the exercise would take much longer. This school of thought also emphasizes that the maximum size of land holding (under 1964 land reform) is now determined by old PIUs, revising them will reopen the maximum land ceiling question. According to the second school of thought, revising the PIUs will not be that difficult if modern techniques of survey (including satellite imagery) are used instead of village by village survey used in old settlement work.

Revision of PIUs could be done by selecting a “standard” assessment circle in each province. Assuming that its original PIU was 90 per acre, estimate the average Gross Value of Production (GVP) per acre of three years (1955-57) as “base period”, using average matured area, yield and prices during this period. Years 1955-57 are taken as base period because this precedes the land reforms, substantial developments of surface and sub-surface irrigation, and introduction of modern inputs on wide scale. Using the same criteria, the GVP per acre would be estimated for a “current” three year period (1993-95). To get to the current PIU for the standard circle, multiply the original PIUs (90 per acre) by the ratio of GVP per acre of the current and base periods. The purpose of selecting the average GVP for three years in the base and current periods is to smooth out the fluctuations in area, yield and prices. The current PIUs for other circles could be revised in relation to the change in PIUs per acre of the standard circle. Select a “reference” assessment circle, calculate the current (1993-95) GVP per acre of this circle, multiply its original PIUs (say 50 per acre) by the ratio of its current GVP and the GVP of standard circle. The PIUs should be revised every five to seven years, based on changes in the average GVP per acre in each assessment circle.

For collection of the tax, district administration would be sufficient to implement and collect the tax without much additional resources. The tax would be assessed at the beginning of each financial year and could be collected in two installments, after each crop season. Remissions in the tax would be allowed only in cases of natural disasters, such as crop devastation over a wide area. However, the problem of assessment would arise in those areas where PIUs have yet to be determined (i.e., some areas of Punjab, NWFP, and whole of Balochistan). Pending revision of PIUs for whole of Pakistan, an agency such as the Agricultural Prices Commission could assign some PIUs to these areas on an ad hoc basis, depending upon the productivity of land in surrounding areas for which PIUs are assigned.

The first alternative would place a monetary value per PIU and presume income flow to farms accordingly. In the case considered, a value of Rs 400 would be assigned to each PIU, and the monetary value would then be taxed at 5 percent (i.e. Rs 20 per PIU) on all farms above 5 acres. The revenue from such a tax would be substantial: nearly Rs 37 billion in the big agricultural provinces. Provincial breakdowns are given in the last three rows of Table 3.2. A key issue is the monetary value of PIUs and it could be argued that the value of a PIU far exceeds Rs 400; one approach would be to update a previous monetary value that is believed to be reliable by the growth in agricultural value added since that period.
Table 3.2: Projections for Income-based PIU Taxes

<table>
<thead>
<tr>
<th>Area</th>
<th>Tax Base</th>
<th>Projected Revenue (Rs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Punjab</td>
<td>Value PIUs at Rs 400 and tax at 5% on farms above 5 acres</td>
<td>30.4 billion</td>
</tr>
<tr>
<td>Sindh</td>
<td>As above</td>
<td>4.1 billion</td>
</tr>
<tr>
<td>NWFP</td>
<td>As above</td>
<td>2.5 billion</td>
</tr>
</tbody>
</table>

Source: Desk Note from 1996; estimate based on average PIU per hectare, tax is levied on all holdings above 2 hectares (5 acres). The estimate for Punjab is much greater than for other provinces because the total taxable area is larger and average PIUs are higher.

Annual Rental Values

The advantage of rental values over PIUs is that rental values will more closely reflect the current earning potential of land, since factors making land more productive such as location and infrastructure will be reflected in rental values. A table of annual rental values (ARV) would be developed for each assessment circle and for each classification of land within the circle and owners would be taxed on this basis. The ARVs could reflect current market rents or be adjusted to be based more on the intrinsic quality of land. Where rental markets are extremely thin (as in Sindh for instance), the market information needed to construct ARVs could be scarce. The PIU system could be used in such cases so the tax would end up being similar to the PIU tax above. In Punjab where rental markets are active, this is a feasible approach. Rental values are already used in the urban property tax system. Some preliminary studies have been undertaken to determine annual rental values by district but it would take some time to have the approach up and running. Thus the question of what to do in the interim period remains important. An estimate of the revenue from a rental value tax which allows exemptions that vary by agro-climatic zone resulted in Rs 5.6 billion for Punjab, Rs 1.2 billion for Sindh, Rs 203 million for NWFP, and Rs 375 million for Balochistan.\(^\text{15}\)

Wealth Tax

The scope of federal wealth tax could be broadened through assessing and imposing the tax on all land holdings owned by a household by modifying the basis of assessment. Mere extension of existing wealth tax on revised values of PIUs would not generate sufficient revenues because of low rates of the tax. Any revision of rates of the tax would disturb the overall tax structure as wealth tax on the same rates is also applicable on non-agricultural assets of a person. The only course left would be to first revise the PIUs for each piece of land.

The available option, in this case, is to revise the method of assessment of the tax. The method of assessment to be selected will depend upon the objective for which it is to be imposed. If the main objective is to discourage tax evasion on income earned from other sources, wealth

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\(^{15}\) Source: Note on Agricultural Taxation in Pakistan (World Bank divisional policy paper), Annexure 1. Estimate uses 1990 Census figures and based on a 1996 land rent survey by AERC, Karachi.
tax should be imposed on the basis of total area owned by each household, irrespective of productivity of land. In this case, the rates should be progressive and increase with the size of land holdings. Using this approach would yield Rs. 4.5 billion (approximately), and if recovery/collection losses are assumed to be 30 percent, this tax would still yield revenues of about Rs. 3 billion.\(^\text{16}\)

The present basis of the wealth tax on non-agricultural properties is the market value of a property. If the goal is to treat all forms of wealth the same way, the wealth tax could be levied on the market value of land. However if there are distortions in the land market, market valuations could be viewed as an unfair basis for taxation. Another alternative is to impose the wealth tax on current or revised PIUs. Since PIUs only measure the agricultural potential of land, this would not be a true wealth tax since other possible uses of land (industrial development, real estate) which affect its value are being ignored.

Beefing up the wealth tax raises the issue of how revenue at different levels of government would be affected. If land revenue or Ushr could be offset against the federal wealth tax, revenue at the provincial and local level would fall. Some revenue sharing arrangement might then have to be made.

**III: General Income Taxes**

The current income tax efforts are focused on crop income, probably because it is the sub-sector about which most is known. Some idea of the potential revenue from a tax in crop income is provided in Table 3.3 for Pakistan, NWFP and Punjab. Estimates are easiest for crop income because such income is directly related to farm size and thus one can use land distribution data as a proxy for income distribution. The methodology used to construct the Pakistan estimate (row 1) is typical. Qureshi combines 1990 Census data on farm size with per acre income data constructed by the Agricultural Prices Commission. Within each size interval from the Census data, he calculated average farm size which was the basis for calculating average crop income (assuming that average income per acre is constant across all farm sizes, an assumption made necessary by data limitations). Income is calculated as gross revenue from crops and by-products minus all production related costs. These income figures understate the total agricultural income tax base because rent, wages, managerial costs, and an estimated return on capital are allowed as deductions.

The resulting income figures for each farm size were again combined a 12.5 acre exemption limit and rates for urban incomes were applied to the remainder. The estimate for the 1990/91 year shows that total revenue in Pakistan would have amounted to Rs 5.4 billion or 0.33 percent of GDP. However the 12.5 acre exemption is likely too generous when compared with the Rs 40,000 exemption on urban incomes and Agricultural Prices Commission estimates understate net farm income as noted above. The Punjab estimate is constructed along similar lines while the NWFP estimate simplifies things by allowing no exemptions.

Table 3.3: Revenue from Possible Crop Income Taxes

<table>
<thead>
<tr>
<th>Area</th>
<th>Rate and base of tax</th>
<th>Tax Base</th>
<th>Revenue (Rs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pakistan</td>
<td>Urban income tax rates applied to 1990 crop income and 12.5 acre exemption</td>
<td>Agricultural Prices Commission estimates of net crop income</td>
<td>5.4 billion</td>
</tr>
<tr>
<td>Punjab</td>
<td>10 percent of income above Rs 40,000 or on farms above 12.5 acres</td>
<td>About Rs. 17.5 billion</td>
<td>1.75 billion</td>
</tr>
<tr>
<td>NWFP</td>
<td>2 percent of income with no exemptions</td>
<td>Rs 21 billion</td>
<td>420 million</td>
</tr>
</tbody>
</table>

Source: For Pakistan, Qureshi; for provinces reports prepared for this study by consultants. The impact of exemption limits is calculated using data on the size distribution of farms and the share of each size class in total production.

However all estimates overlook the question of how much a tax would actually be implemented. The most recent system in Sindh tried to target crop income using acreage-based tax rates that vary with the type of crop sown (see Box 3.1). However this type of tax (which has since lapsed) is likely to pose serious problems under current circumstances. The system leaves significant discretion in the hands of local officials, who would record the area sown under various crops. The scope for under-reporting or mis-reporting (and for rent-seeking) is evident. Sindh's latest proposal (yet to be enacted) has moved away from the crop-based system.

Box 3.1: The Crop Income Tax in Sindh

The Sindh Agricultural Income Tax levied a per acre tax based on actual area sown under various crops. As of 1996, the rates were Rs 75 per acre for cotton and sugarcane, Rs 40 per acre for wheat, Rs 30 per acre for rice, and Rs 300 per acre for mature orchards. The rates are halved for non-irrigated areas. Notice that the rates do not vary with the quality of land, let alone actual yields, and so the tax is a very poor approximation to an income tax. In addition, the crop based formula gives many discretionary powers to local officials who carry out the crop survey and administer the 12 acre exemption limit. Field inspection staff must record the cropped area for each farm leaving much scope for under-reporting or mis-reporting of crops sown. Since the tax relies on the same collection machinery as the land revenue, it is bound to encounter the same problems.

A general income tax would target all types of agricultural income. To fully evaluate an income tax it is necessary to have data on the distribution of rural incomes which is an extremely demanding requirement. An example of what such an exercise would look like was undertaken by Qureshi. Using data from the Household Income and Expenditure Survey for 1992/93, he constructed the distribution of rural incomes by earners and then used it to calculate the tax liability using the income tax schedule and exemptions applicable to urban earners for the same year. The overall revenue estimate for Pakistan was Rs 7.3 billion, amounting to 0.62 percent of GDP. The breakdown by provinces is given in Table 3.4.
Table 3.4: Estimated Revenue from Rural Income Tax

<table>
<thead>
<tr>
<th>Region</th>
<th>Percent of earners under exemption limit</th>
<th>Total tax revenue (Rs million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Punjab</td>
<td>91</td>
<td>4158</td>
</tr>
<tr>
<td>Sindh</td>
<td>93</td>
<td>603</td>
</tr>
<tr>
<td>Balochistan</td>
<td>81</td>
<td>257</td>
</tr>
<tr>
<td>NWFP</td>
<td>94</td>
<td>563</td>
</tr>
</tbody>
</table>

Source: Qureshi, based on HIES.

While these calculations are useful in illustrating the methodology one would want to follow, they likely underestimate the potential revenue from an income tax. The household survey based estimates likely underestimate income and refer to a past year (1990-91) in which rural incomes were unusually low. As with other taxes, it also ignores the question of how a taxable income number would be arrived at. The most likely method is the use of presumed taxable income.

Presumed Taxable Income

Since actual income accounts are a demanding requirement for the rural sector, a necessary and common implementation of an agricultural income tax is a presumptive income tax. One variant of this would tax presumed agricultural income over some period of time, defined as the Gross Value of Production (GVP) less the cost of production. There are several ways to estimate GVP and the cost of production for the landholder or income receiver. For crop income, GVP can be calculated be either: (a) the actual annual output reported by the income receiver and verified by the provincial revenue officials by either direct observation or by crop cutting experiments in the village, or (b) the provincial revenue officials can verify the actual “matured” area of each crop of the income receiver and multiply the 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 period. For livestock income GVP could be based on headcounts of each type of animal coupled with market prices for the appropriate produce. It is not necessary to reassess PTI each year; once in place an assessment could be used for some time (e.g. 5 years) before being updated in another survey. The assessment procedure should involve consultation with taxpayers or their representatives, in order to minimize arbitrariness in the system.

For the estimation of cost of cultivation, again presumptive methods could be used. Several farm management studies in Pakistan support the assumption that the cost of cultivation per acre varies between 35 to 45 percent of GVP. Taking the average of two figures, one can assume that the cost of cultivation is 40 percent of GVP per acre. The Presumed Taxable Income (PTI) can then be estimated as follows:
- PTI of owner-cultivator \((0.6 \times GVP)\)
- PTI of landlord (leasing-out) \((0.6 \times GVP) - \text{(tenant's share)}\)
- PTI of leaseholder (leasing-in) \((0.6 \times GVP) - \text{(landlord’s share)}\)

A personal exemption up to the level of current tax exemption on income earned from other sources should be allowed in this case. The tax rate on agricultural income could be graduated slab rates as it is on other income, but to begin with, a flat rate (say 15%) could be tried. However, the administrative costs of this tax are of concern, especially given the reporting arrangements which call for the involvement of the same local officials who have undermined the current system. Nevertheless, administrative concerns could be lessened by not requiring a new PTI estimate every year; once in five years might be sufficient.

An estimate of the tax base for a presumed income tax can be obtained if it is assumed that the calculated GVP would be reasonably close to the current reported value of output; that only farmers with above 12.5 acres would be taxed, and that a 40 percent deduction for costs would be allowed. As usual it is assumed that the land distribution data can be used as a proxy for income distribution. This method would give rise to a tax base of Rs 84.7 billion in Punjab, Rs 28.7 billion in Sindh, Rs 23.7 billion in NWFP, and Rs 6.9 billion in Balochistan, or Rs 144 billion for all Pakistan. Potential tax revenues are then calculated accordingly.

Sales tax /VAT

As discussed in chapter 1, the sales tax can be implemented as a tax on final goods or as a value-added tax. Pakistan currently has elements of both. A sales tax is levied at the import and manufacturing stages, presumably because these sectors have reasonable documentation of transactions. Efforts to extend sales tax to the retail stage have been halting. For the 1997/98 year, the government had proposed a voluntary trade enrollment certificate scheme, whereby traders would voluntarily remit a certain percentage of revenues to the government with the percentage to be agreed with traders associations. This would be a turnover tax rather than a sales tax and not surprisingly given its voluntary nature, the scheme failed to yield significant revenue.

For the 1998/99 year, manufacturers, wholesalers, and importers are being required to sell goods to registered traders using a tax invoice. If the transaction is not invoiced, then an additional 1 percent on top of the sales tax must be charged. However there are considerable ambiguities on the retail side of these transactions. First, retail sales tax will only be imposed on traders whose annual turnover is above Rs 5 million. Traders below Rs 5 million can avoid the 1 percent surcharge by going to documented transactions. A major concern is that traders who have evaded income tax will shun the invoicing system because of the paper trail that it would create to concealed incomes.

It is unrealistic to expect a GST or VAT to be the major instrument of agricultural taxation soon. As the sales tax is currently structured, agricultural commodities including livestock are excluded and the Rs 5 million exemption would cover most farmers anyway.
Nevertheless it is useful to look at potential yield from a tax on the sale of agricultural commodities. Such a tax could form a building block of an economy wide GST or VAT. Table 3.5 provides an estimate of the revenue from a tax on the sales of the four main agricultural crops payable on the produce of farms above 12.5 acres. This clearly overlooks the question of how a tax with such an exemption limit would be implemented and is perhaps best interpreted as assuming that the tax will be more easily collected from more commercial farms. Ideally this tax would be structured as part of a value added tax since the crops are not solely consumed as final products. The estimates have been constructed using a methodology similar to the crop-income taxes: data on crop output by size of farm has been combined with the farm size distribution data to calculate a 12.5 percent tax rate (the current sales tax rate) on sales of output of farms over 12.5 acres; the resulting estimate is Rs 15 billion. However this tax would be very difficult to collect because of problems of implementation.

Table 3.5: Projected Revenue from an Output Tax on Agricultural Crops (Rs million)

<table>
<thead>
<tr>
<th>Province</th>
<th>Wheat</th>
<th>Rice</th>
<th>Sugarcane</th>
<th>Cotton</th>
<th>Prov. Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Punjab</td>
<td>5695</td>
<td>1641</td>
<td>842</td>
<td>2369</td>
<td>10548</td>
</tr>
<tr>
<td>Sindh</td>
<td>1077</td>
<td>798</td>
<td>536</td>
<td>565</td>
<td>2976</td>
</tr>
<tr>
<td>NWFP</td>
<td>428</td>
<td>33</td>
<td>106</td>
<td>1</td>
<td>568</td>
</tr>
<tr>
<td>Balochistan</td>
<td>905</td>
<td>135</td>
<td>4</td>
<td>0</td>
<td>1043</td>
</tr>
<tr>
<td>Crop Total</td>
<td>8105</td>
<td>2607</td>
<td>1488</td>
<td>2935</td>
<td>15,136</td>
</tr>
</tbody>
</table>


The risk with an output tax lies in the ease with which it could be avoided, though it is also of interest to know which farmers would avoid it. For instance it would not be a major concern if subsistence farmers were to avoid a tax on rice by milling rice at home, since we would not want to tax subsistence farmers anyway. It would be much more serious if large cotton or sugarcane farmers could easily circumvent the levy of an output tax. This would be closely related to the presence of scale economies in the processing of crops; for instance since sugarcane requires quick transportation of the crop to a few large scale locations, collection of an output tax would be relatively easy. The scope for evasion of a cotton tax is more uncertain.

Extension of an output tax to full scale VAT on agriculture would in principle work like VAT anywhere else. Farmers meeting certain characteristics (e.g. an income threshold) would be required to register for VAT. Farmers would pay VAT on all purchased inputs including fuel, fertilizer, seeds, and machinery. All sales of output would be subject to VAT and prices quoted would be inclusive of VAT. The VAT would be withheld at the point of sale, or paid to the farmer. The latter imposes a greater administrative burden on the farmer because he would be responsible for remitting the VAT net of his tax payment on inputs to the government. On the other hand, withholding of VAT might squeeze the farmer in terms of cash flow since he would have paid VAT on inputs while not receiving it on outputs. A flat rate rebate scheme could be used to compensate unregistered farmers for VAT paid on inputs.
The VAT is clearly a demanding requirement given the current level of documentation in the agriculture sector. However a basis for the VAT could be built through an output tax. This could be collected fairly simply through withholding at the point of sale of output. Output can a good measure of actual income, and those farmers with very little marketable output would pay very little in taxation. For acceptance by farmers, the output tax should replace one or more of the current output taxes, such as the Ushr or district export tax. It is administratively difficult to ensure that output taxes are collected from all outputs and all market transactions. Given the chances that the collection in practice would be selective, the output tax would be highly distortionary.

Summary

To draw together our discussion of the options, Table 3.6 summarizes the merits and demerits of the various proposals.

Table 3.6: Summary of Merits and Demerits of the Options

<table>
<thead>
<tr>
<th>Option</th>
<th>Merits</th>
<th>Demerits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land-based taxes</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>in rem</em> land tax</td>
<td>easy to administer</td>
<td>Can’t be based on individual characteristics</td>
</tr>
<tr>
<td><em>in personam</em> land tax</td>
<td>Can take factors such as income, wealth into account in setting rates/exemptions</td>
<td>Administration now requires verification of individual characteristics</td>
</tr>
<tr>
<td>Crop based tax</td>
<td>Adjusts for crop mix, information burden simple</td>
<td>Scope for misreporting of information</td>
</tr>
<tr>
<td>Area based tax</td>
<td>Simple to specify but problems verifying total area</td>
<td>Ignores land quality</td>
</tr>
<tr>
<td>PIU Tax</td>
<td>PIUs have already been determined; tax is familiar</td>
<td>PIUs outdated, may not measure current income potential of land</td>
</tr>
<tr>
<td>Annual Rental Values</td>
<td>Targets income from land; can be basis for broader income tax</td>
<td>Rental value tables will have to be developed &amp; updated and these may not exist for some areas.</td>
</tr>
<tr>
<td>Wealth tax</td>
<td>Structure already in place; would treat land like other assets; promotes efficient land use</td>
<td>Current rates very low and collection poor</td>
</tr>
<tr>
<td>Income Taxes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presumptive estimate of Output and Costs</td>
<td>Does not require knowledge of actual income. Can be used for equity goals.</td>
<td>Presumptive system must be put in place. Appeals process requires careful design.</td>
</tr>
<tr>
<td>Sales Tax</td>
<td>Collection can be kept simple; can be integrated with overall tax system of economy. Supply-side advantages.</td>
<td>May be burdensome on very poor farmers Risk of selective collection. Difficult to use for equity goals. The potential collection under the presently proposed system is meager.</td>
</tr>
</tbody>
</table>
VAT Provides framework for rationalizing current output and input taxes. Equivalent to income tax if coverage is comprehensive. Substantial record keeping burden on farmers.

Appendix 3.1: Net Income Earned From Major Crops, by Province (Rupees/Acre)

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Punjab</td>
<td>Rice</td>
<td>1990</td>
<td>2169</td>
<td>2734</td>
<td>3555</td>
<td>4043</td>
<td>4529</td>
</tr>
<tr>
<td></td>
<td>Wheat</td>
<td>1776</td>
<td>1824</td>
<td>2167</td>
<td>2862</td>
<td>2881</td>
<td>3263</td>
</tr>
<tr>
<td></td>
<td>Cotton</td>
<td>3855</td>
<td>4075</td>
<td>4511</td>
<td>4238</td>
<td>7180</td>
<td>7901</td>
</tr>
<tr>
<td></td>
<td>Sugarcane</td>
<td>8176</td>
<td>8699</td>
<td>10758</td>
<td>14243</td>
<td>13441</td>
<td>15533</td>
</tr>
<tr>
<td>Sindh</td>
<td>Rice</td>
<td>3923</td>
<td>4223</td>
<td>6228</td>
<td>6645</td>
<td>7867</td>
<td>9197</td>
</tr>
<tr>
<td></td>
<td>Wheat</td>
<td>1958</td>
<td>2028</td>
<td>2134</td>
<td>2899</td>
<td>2934</td>
<td>3402</td>
</tr>
<tr>
<td></td>
<td>Cotton</td>
<td>3951</td>
<td>3345</td>
<td>5285</td>
<td>7280</td>
<td>8675</td>
<td>10203</td>
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<tr>
<td></td>
<td>Sugarcane</td>
<td>9534</td>
<td>9873</td>
<td>12433</td>
<td>14629</td>
<td>14762</td>
<td>15763</td>
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<tr>
<td>NWFP</td>
<td>Rice</td>
<td>3559</td>
<td>3401</td>
<td>4228</td>
<td>5278</td>
<td>5524</td>
<td>6281</td>
</tr>
<tr>
<td></td>
<td>Cotton</td>
<td>3277</td>
<td>2282</td>
<td>3867</td>
<td>3071</td>
<td>3700</td>
<td>5452</td>
</tr>
<tr>
<td></td>
<td>Sugarcane</td>
<td>7509</td>
<td>8006</td>
<td>9551</td>
<td>11406</td>
<td>12223</td>
<td>13490</td>
</tr>
<tr>
<td></td>
<td>Tobacco</td>
<td>13883</td>
<td>13873</td>
<td>16568</td>
<td>19782</td>
<td>21729</td>
<td>23890</td>
</tr>
<tr>
<td>Balochistan</td>
<td>Rice</td>
<td>4820</td>
<td>5117</td>
<td>6171</td>
<td>5403</td>
<td>8096</td>
<td>9000</td>
</tr>
<tr>
<td></td>
<td>Wheat</td>
<td>1887</td>
<td>1952</td>
<td>2526</td>
<td>3084</td>
<td>2991</td>
<td>3717</td>
</tr>
<tr>
<td></td>
<td>Cotton</td>
<td>3855</td>
<td>4075</td>
<td>4511</td>
<td>4238</td>
<td>7180</td>
<td>7901</td>
</tr>
<tr>
<td></td>
<td>Sugarcane</td>
<td>8176</td>
<td>8699</td>
<td>10758</td>
<td>14243</td>
<td>13441</td>
<td>15533</td>
</tr>
<tr>
<td></td>
<td>Tobacco</td>
<td>11727</td>
<td>11777</td>
<td>14015</td>
<td>17420</td>
<td>18551</td>
<td>17817</td>
</tr>
</tbody>
</table>

Estimated values source: Calculated on the basis of total current value added of the crop sector from Economic Survey 1996-97 and Agricultural Statistics of Pakistan 1996-97, and attributed to each province and crop by the respective shares in total output. Calculations by the Agricultural Prices Commission give very similar results.
Chapter 4

Recommended Framework for Taxation of Agriculture

Overview of Strategy

Clearly, there is an urgent need to improve the system of agricultural taxation in Pakistan. The guiding principles of agricultural taxation will be, as elsewhere, to minimize the distortionary effects of the tax, avoid disparity in the treatment of income from agriculture and income from other activities, and to keep the tax equitable and administratively simple. The approach to introducing such a system draws on the international experiences discussed in Chapter 2. Specifically these experiences point to the need to avoid administrative overload and political difficulties by begining with a tax on a relatively small group of more commercial farmers and then gradually extending the base of the tax.

The tax would be collected by the provinces. This will require an upgrading and strengthening of the provincial machinery previously used to collect the land revenue. However when the full-fledged income tax is in place, coordination between the federal and provincial governments will be required to share information.

Given the difficulties in immediate imposition of a general agricultural income tax, the recommendation is to achieve a tax revenue goal of 3 percent of agricultural GDP, or about Rs 15 billion in current terms, over a period of 3 to 4 years. Because of administrative and institutional weaknesses, this goal may have to be reached in three phases, using a combination of the federal wealth tax and presumptive income tax by the provincial governments. The strategy is summarized in Table 4.1.

The advantage of developing the system in phases is to make use of existing institutions while restructuring them and reorienting them to implement the new system of taxation. It also serves to make the idea of agricultural income taxation more acceptable. The three phases correspond to a rising level of sophistication in the measurement of agricultural incomes. As the phases proceed, the classification of land will be refined and extended to better capture all sources of income to land. For example, in the first phase there will be a limited number of land classifications of land (such as irrigated and non-irrigated), while in the second phase there can be many more classifications on the basis of the value given by the rental market to the land. A broad measure of all income to land would be developed in the final phase.

Description of The Phased Strategy

Phase 1: The first stage will primarily replace the existing land revenue system by introducing a land-based income tax. During this phase, the current land revenue system will be abolished and in its place the new tax will be introduced. There will be a continuing system of taxes on landownership, which will be advantageous for equity and efficiency reasons (e.g. to impose high taxes on large holdings to spur efficient use of land). The reason for not having an agricultural income tax and the land revenue at the same time is to avoid the diffusion of political
effort that would otherwise take place. Confining the tax reform to a single tax is likely to increase the political feasibility of the program.\textsuperscript{17}

Second, there will be a presumptive income tax which will be levied on the landowner. This will be on a similar basis as the land revenue system with the purpose of getting people accustomed to the idea of agricultural income taxation. The exemption for cultivated landholdings will be lowered to five acres for irrigated areas throughout the country\textsuperscript{18}. Orchards will be taxed without exemption; these more closely correspond to the income tax exemptions for non-agricultural income. For non-irrigated landholdings the exemptions would depend upon the productivity of land and it would vary for each province. The rates would be harmonized upwards to the highest prevalent rates in any of the provinces\textsuperscript{19}. Classification of land would be refined by converting the irrigated land into perennial, non-perennial, and chahi. The first phase would continue for 2-3 years.

During this phase, the federal wealth tax will have to be revamped. A particular purpose of the wealth tax will be to tax the value of land where that value reflects non-agricultural uses of land – in other words, the basis of valuation will be moved closer to market value of land. While the land tax and land based income tax both target agricultural uses of land, the value of land will be affected by its potential use for development purposes. The assessed value of land would be much higher than in the current wealth tax, but the rates applied would be the rates applied to all wealth. The income tax and wealth tax liability will not be offset against each other. Both taxes will be quite modest so the burden imposed by non-deductibility is quite small.

\textbf{Phase 2:} In the second stage, agricultural income tax will be further developed by improving the basis of presumptive income. In this stage, the assessment of taxes on landowners may be made on the basis of the rental value of land, for which valuation tables would be prepared in each district. Initially the rental values would be determined on tehsil/taluka levels but thereafter these would be refined by bringing in more classifications within a tehsil. Rental value of orchards would be separately assessed. In case rental values are not available for some areas, rates on similar land of adjoining areas could be used. It is likely that a uniform basis for calculation or ARVs and continuous monitoring would have to be put in place. Otherwise, excessive discretion in the hands of local officials could undermine the system. To minimize potential grievances, ARV tables would be prepared in a transparent manner by publicizing its preparation. In provinces where annual rental values are not available, similar tables would be prepared on the basis of prevalent cropping and land tenure systems or land productivity. This could be obtained using a similar methodology that was used for land revenue purposes, or provinces may elect to jump more quickly to phase 3.

\textsuperscript{17} Retaining the land revenue is not simply a matter of continuing with a tax that is already there. It has been formally abolished in Punjab and has disappeared \textit{de facto} in the other provinces, so its proper implementation would require new legislation and/or an enormous increase in enforcement effort.

\textsuperscript{18} In the green cover discussion, Punjab officials emphasized the difficulty involved in lowering the exemption limit to 5 acres, and said that this decision would have to be taken by the political leadership.

\textsuperscript{19} At present the following highest rates per acre are prevalent in each irrigated category of landholdings: landholdings between 5 & 25 acres; Rs. 100 (NWFP), between 25 & 50 acres; Rs. 300 (Punjab), above 50 acres; Rs. 350 (Punjab). Orchards are taxed at a uniform rate of Rs. 500 per acre. Rates for non-irrigated landholdings are almost half of the corresponding rates for irrigated landholdings in each category.
The goal would be to make the tax base more reflective of the income potential of land, therefore making the tax system more equitable. The phase would be used as a link between basic and modern methods of taxing agricultural income, between land-based and income based taxation. To the extent that rates of area-based tax are low, the new method would impose higher rates of tax. Annual rental values are a good indicator of income because they provide a measure of what someone is willing to pay for the opportunity to cultivate the land and will reflect both the intrinsic quality of the land, proximity to markets and infrastructure, and input and output prices. At this stage, the Federal wealth tax would remain since that tax is already levied on urban income earners.

While the ultimate goal is harmonization across provinces, it is important that some scope be allowed for provincial variation in the various stages. Annual rental values may not be suitable for all provinces, especially where rental markets are not active. Provinces may elect to use an alternative indicator of income to land or even jump more quickly to the full presumptive system in Phase 3.

Phase 3: In the third and final stage, income tax would be assessed on the basis of total income from all rural activities. This would use a presumptive income measure like the PTI method described in Chapter 3, though to minimize overload, would not reassessed on an annual basis. This method should be extended to include livestock income. The second method discussed in Chapter 3, namely where the provincial revenue officials can verify the actual “matured” area of each crop of the income receiver and estimate average yields, is preferred. For non-crop income, an additional survey of all economic activities of rural households could be carried out, like head count for livestock and area for fisheries. Standard Presumed Taxable Income (PTI) tables so developed could take into account the ARV or similar tables already prepared under phase II. PTIs once developed could be revised after every five years. Maps prepared periodically by the Directorate of Survey of Pakistan could be helpful in updating PTIs.

Once the information on income potential becomes available, a tax schedule similar to the one used for non-agricultural incomes can be used for assessing tax on agricultural incomes. The basic exemption should be in terms of rupees rather than holding size to avoid the evasion that sized based limits have caused in the past. Farmers are not assessed individually, but would have the option of being taxed on actual income once appropriate documentation could be produced, and the tax treatment would be similar to that of a self-employed person in the non-agricultural sector. The “clubbing formula” -- that agricultural income is summed with non-agricultural income to determine the marginal rates of federal income tax -- should continue to apply. In this case, the presumed income based on landholdings would be used as the estimate of agricultural income for the purposes of the clubbing formula. Non-farm rural activities and enterprises should fall within the federal income tax net and if this is not properly enforced, avoidance and evasion activities will simply be redirected in this direction.

The presumed taxable income approach is preferred to an approach based on PIUs for three reasons. First, while the PIU is based on quality adjusted yields, the PTI system can be designed to take account of all sources of income and costs of production. Second, the PTI
system will be easier to integrate with the current non-agricultural income tax system and can form the building block for a fully-fledged system of agricultural income taxation in the future. Third, the PTI system avoids the negative political connotations associated with a revision of PIUs given that land size and land reform regulations are expressed in terms of PIUs. The alternative to revision is to use the current PIUs, now over 50 years old.

The issue of who will collect the agricultural tax is very important. Chapter 2 argued that for both incentive and informational reasons, it is better to leave collection at the provincial level. However when the full fledged income tax is in place, coordination between the federal and provincial governments will be necessary to implement the clubbing formula and to cross-check provincial and federal tax-payments.

At all stages it is essential that the capacity for misreporting of information is minimized. This will require improved land records and tighter supervision and checks and balances of local revenue officials. There is a strong case for centralization of land records information at the provincial level. Since this will take some time, there should be a move away from size-based exemption limits and towards more readily available information. For instance, anyone with an income level that would normally incur a federal income tax liability but who declares income arising from agricultural activities (and thus avoid federal income tax) should be taxed on the basis of this income as reported in their Federal return at the provincial level without the holding exemption. To combat underreporting by urban earners of agricultural income, this tax liability should not be less than would otherwise be calculated on the presumptive income basis. Implementation of these measures will require information sharing between the federal government and the provinces.

The audit and appeals process must be strengthened. While it is inevitable that an appeal of an assessment will take time, it must be the case that a taxpayer who embarks on a long appeals process and ultimately loses fares worse through interest and penalties on the outstanding liability than a taxpayer who pays on time. Otherwise there will be an incentive to drag out the payment of taxes for as long as possible. This step can be achieved by tying the interest rate on tax liabilities to representative market interest rates and assessing additional penalties. Anyone appealing an assessment should be required to deposit the assessed amount before the appeal, which would be returned with interest if the appeal is accepted. In addition, legal powers of collection can be enhanced by greater use and enforcement of tax liens, and the unpaid tax lien on land should be restored.

To move towards implementation of this framework, the following steps are to be taken:

- Mechanisms for collecting information from tehsils on rental value of land would be identified. Average rental values will have to be publicized, discussed, and agreed at the local level.
- The role of the wealth tax would need to be clarified, since it would now co-exist with a land-based income tax in the first phase, and with agricultural income tax in the remaining phases.
- The future of Ushr given the presence of the other taxes in the first phase will have to be decided.
• The necessary changes in legal framework will have to be specified.

It is expected that an action plan for each province will have to be worked out following the framework in this report.

### Table 4.1: Phased Plan for Taxation of Agriculture in Pakistan

<table>
<thead>
<tr>
<th>Phase I</th>
<th>Phase II</th>
<th>Phase III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural income tax would be imposed, levied on landowners and based on current arrangements. Income tax: exemption lowered to 5 acres, rates harmonized, classifications refined. Land revenue: replaced by the new tax (already the case in Punjab) Federal wealth tax: new basis of assessment (closer to market value).</td>
<td>Agricultural income tax will switch to ARV or similar basis, still levied on owners; Levied on owners for convenience but incidence may be different. Provinces will have option to omit this stage and prepare for presumptive income tax as in Phase 3.</td>
<td>Comprehensive presumptive income measure will be developed for all rural earners; PTI tables would be updated every five years. Option for assessment based on actual income. Federal wealth tax will continue.</td>
</tr>
</tbody>
</table>
References

1. General References


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Skinner, Jonathan, 1993. “If Agricultural Land Taxation is so Efficient, Why is it so Rarely Used?” in Hoff *et al*.


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Agricultural Income Tax in Sindh; Abdul Ghaffar Soomro

Agricultural Taxation In Underdeveloped Countries: Implications For Pakistan; Mahmood Hasan Khan