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Pradeep K. Mitra

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TOWARDS AN AGENDA FOR TAX REFORM IN BANGLADESH */

by

Pradeep K. Mitra
Resource Mobilization Division
Country Policy Department
World Bank

September 1986

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I. INTRODUCTION

The Setting

1. The importance of the need to mobilize domestic resources may be gauged from the observation that domestic revenue from tax and nontax sources barely exceeds the contribution of foreign grants and loans to resource availability in Bangladesh. Of this, tax revenue is roughly four times as important as nontax revenue, where the latter is derived from public sector enterprises and government departments. These notes outline a framework for the economic analysis of tax and public sector pricing reform in Bangladesh. ^{1/} The objective of such a reform would be to move towards a system capable of (1) increasing the revenue-to-GDP ratio; (2) providing adequate but time-bound protection to selected industries in which the country is deemed to possess a comparative advantage; (3) promoting both static and dynamic efficiency in production; (4) ensuring some progressivity in incidence; and (5) emphasizing relative simplicity of administration.

2. The proposals put forward here lay down a general structure based on the application of economic principles to a low income country with a narrow industrial base and limited administrative capacity. They do not contain details of tax rates and public prices: a determination of those matters will emerge in the course of the proposed

^{1/} The analysis of public expenditure, though important, is outside the scope of this exercise, except for subsidies granted either directly or implicitly through the pricing of public sector goods.

resource mobilization exercise in Bangladesh. However, the approach taken here is relevant to tax and public sector pricing reform in other low income countries as well, so that the ideas proposed in these notes are of wider applicability. 1/

The Reformed System

3. These notes propose that a reformed system of taxes and public sector prices have the following characteristics in the long-run.
4. First, the present system of indirect taxation on domestic production and imports should be replaced by a value added tax (VAT) at a standard rate determined by revenue requirements. This would be levied on all transactions originating in the taxable sector -- defined as international trade, public sector enterprises and producers registered for excise tax. Exports would be zero-rated.
5. Second, a transaction entirely within the taxable sector would attract tax liability only on value added, i.e., taxpayers would receive credit under the VAT for taxes paid on intermediate inputs. However, a transaction originating in the taxable sector and effected with the untaxable sector, which comprises the rest of the economy -- typically small scale and unorganized manufacturing, much of wholesale and retail trade, peasant agriculture and final consumers -- would not qualify for such credit.

1/ These proposals share similarities (as well as differences) with Ahmad and Stern (1985), and Shalizi, Squire, Chamley, Conrad and Skinner (1985).

6. Third, the standard rate of VAT could be supplemented by a single higher rate on a few luxury items.
7. Fourth, protection to items produced solely in the taxable sector should be provided via selective production subsidies at a common rate. Protection to items which are also produced in the untaxable sector should be extended via selective import surcharges.
8. Fifth, prices of public sector goods and services should be set at their marginal costs of production, augmented by the standard rate of VAT. Deviations from this principle should only be considered in relatively few cases on income distributional grounds.
9. Sixth, presumptive income from agricultural land should be taxed at a relatively modest uniform rate with a high exemption limit which excludes all but the largest landowners. The tax should be administered by the local government which should also be allowed to retain part of the proceeds for approved local development projects.
10. Finally, the above long-term goals should be approached mostly by building on existing administrative instruments.

Plan of the Notes

11. Section II, following this introduction, provides a brief review of the existing tax system. Section III lays out the principles that should underline a desirable tax system and proposes a reformed tax structure capable of meeting those requirements, while Section IV indicates how these should be modified to protect selected sectors of the economy. Section V outlines the kinds of transitional arrangements that would be necessary in moving towards such a system. Section VI

evaluates and modifies existing proposals on taxing agriculture, by far the most important sector of the Bangladesh economy. Finally, Section VII outlines a program of work for the resource mobilization exercise which covers the reform of indirect taxation as well as of company taxation and public sector pricing.

II. REVIEW OF THE TAX SYSTEM

12. Table 1 presents tax effort in Bangladesh -- one of the world's poorest countries -- in comparative perspective. Some basic data on the composition of the tax system are presented in Table 2.

13. These figures and background work may be used to tell the following story. ^{1/} First, direct taxes account for less than a fifth of total revenue. Within this category, income taxes on individuals and companies are the most important. While three-quarters of this comes from company taxation, the latter is mainly borne by financial and insurance companies, most of which are in the public sector. This situation is due to tax holidays and exemptions granted to the industrial sector. Personal income taxes are levied only on the non-agricultural sector which makes up roughly 40% of GDP. Furthermore,

^{1/} O. H. Chowdhury and M. Hossain (1985) and S. H. J. Ali (1985) for descriptions of various parts of the tax system in Bangladesh.

Table 1. Tax Revenue as a Percent of GDP
in Selected Countries (late 1970s)

Country	GNP Per Capita (1981)	Tax Revenue
Bangladesh	140	8.07
India	260	15.93
Indonesia	530	20.85
Nepal	150	7.12
Pakistan	350	13.07
Philippines	790	11.21
Sri Lanka	300	19.60
Thailand	770	13.48
Countries in Per Capita Income Range Less than \$350		12.90
Countries in Per Capita Income Range between \$350 and \$850		17.50

Source: Tanzi (1985).

Table 2. Periodic Average of Different Taxes,
1972/73 to 1982/83
(percentage of total tax)

	1972/73-1974/75	1975/76-1979/80	1980/81-1982/83
DIRECT TAX	16.4	18.0	19.7
Income Tax	7.6	12.6	13.9
Other Direct Tax	8.8	5.4	4.8
INDIRECT TAX	83.6	82.0	80.3
Taxes on Foreign Trade	43.7	55.9	56.3
Import Duty	32.7	37.4	38.6
Export Duty	0.7	2.2	1.3
Sales (Import) Tax	9.6	15.9	15.8
Other Customs Tax	0.9	0.3	0.6
Taxes on Dom. Goods & Services	36.1	25.5	23.4
Taxes on Domestic Goods	32.9	24.2	23.0
Excise Tax	28.3	22.2	22.3
Sales (domestic) Tax	2.7	2.0	0.6
Taxes on Domestic Services	3.2	1.2	0.4

Source: Chowdhury and Hossain (1985).

exemption limits and concessions of various kinds ensure that less than 0.5% of the population is liable for personal income tax. Second, taxes on domestic goods and services make up slightly over a fifth of tax revenue. Virtually all of this comes from excise (rather than sales) taxes, an overwhelming bulk of it from very few commodities: cigarettes, biris and POL products. Third, sales taxes are levied on the tariff-inclusive value of imports and account for a sixth of total tax revenue. Fourth, import duties are used to collect over a third of tax revenue and together with sales taxes and (relatively unimportant) export duties, make up nearly 60% of all tax revenue. Table 3 reports absolute collections for the more important sources of tax revenue.

14. Existing work on the tax system in Bangladesh has typically been driven by revenue concerns. ^{1/} For this reason, it tends to focus on buoyancy and elasticity of total tax revenue, as well as of its individual components. Buoyancy reflects the overall growth in revenue taking into account both the automatic change in the base, due to changing income, as well as discretionary changes in tax rates and bases. Elasticity, on the other hand, measures the automatic growth in revenue due to changes in income only. Table 4 presents the results of a typical set of calculations. All taxes have a buoyancy greater than one, with the notable exception of indirect taxes on domestic goods. On the other hand, no tax, other than foreign trade and its components, has

^{1/} A more detailed summary of the tax system emerging from the papers cited above should be included as part of the resource mobilization exercise. The present notes therefore make no attempt at providing such coverage.

Table 3. Tax Revenue: Selected Sources 1979-80 to 1984-85
(in Crores of Takas: 1 Crore = 100 million)

	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85
Customs Duty	625.36	747.50	782.65	869.96	933.87	1180.33
Sales Tax (Imports)	283.70	351.72	325.02	297.71	350.36	444.16
Excise Duty	284.93	386.05	452.99	497.51	597.51	691.09
Income Tax	<u>181.82</u>	<u>226.78</u>	<u>280.37</u>	<u>325.66</u>	<u>338.87</u>	<u>387.01</u>
Total:	1375.81	1711.95	1841.03	1990.84	2220.67	2702.59

Source: National Board of Revenue, Government of Bangladesh.

Table 4. Estimated Buoyancies and Elasticities
for Bangladesh, 1975/76 to 1982/83

Tax Head	Average Buoyancy <u>a/</u>	Average Built-in Income Elasticity <u>b/</u>	Contribution of <u>c/</u> Discretionary Measure (percent)
Direct Tax	1.12	0.83	25.9
Income Tax	1.16	0.98	15.5
Other Direct Taxes	1.05	0.32	69.5
Indirect Tax	1.06	0.93	12.3
Tax on Foreign Trade	1.18	1.12	5.1
Import Duty	1.18	1.07	9.3
Sales Tax on Import	1.30	1.29	—
Tax on Domestic Goods	0.84	0.54	35.7
Excise Duty	0.93	0.60	35.5
Total Tax	1.07	0.90	15.9

Source: Chowdhury and Hossain (1985).

a/ Estimated from unadjusted revenue data.

b/ Estimated from revenue data that have been adjusted for the effects of discretionary changes employing the proportional adjustment method.

c/ Estimated as the difference from 100 percent of the ratio of built-in income elasticity to buoyancy.

an elasticity greater than one. These findings generally direct the discussion towards the need for broadening the tax base by doing away with various exemptions and for tighter administrative procedures.

15. Reference has been made in the introduction to the need to raise the revenue to GDP ratio from its current level. Elasticity calculations may be relevant here for purposes of forecasting revenue, although a switch to a reformed system of taxation may make calculations based on an earlier period less helpful. However, taxation for revenue-raising necessarily imposes efficiency costs on the economy, so that an elastic source of revenue (e.g., foreign trade taxes in Bangladesh), which is administratively convenient, need not be the most efficient. A recognition of these tradeoffs is central to tax reform and motivates discussion of a desirable tax structure in the next section.

III. A DESIRABLE TAX STRUCTURE

16. This section outlines a desirable tax structure which should be the long-run goal of tax reform in Bangladesh. In practice, administrative and political considerations will dictate the pace at which the system can move in this direction. But it is obviously important to articulate the long-term objectives, so as to be able to define directions of reform. The framework also directs attention to what data needs to be collected as part of a resource mobilization exercise. Given their overwhelming importance as a source of revenue, the emphasis on these notes is on indirect taxation. However, the resource mobilization exercise will also examine (1) the effect of the

company tax system on incentives to invest, and (2) the appropriate pricing of public sector goods and services.

A Tax-Based Partition ^{1/}

17. For this purpose, consider a partition of the economy into (1) a taxable sector, typically comprising (i) international trade, (ii) the public sector and (iii) those industries where current administrative capacity permits excise taxation on output; and (2) an untaxable sector comprising the rest of the economy, typically small scale and unorganized manufacturing, much of wholesale and retail trade, peasant agriculture, and final consumers. Such a partition allows us to lay down some basic principles of indirect taxation in Bangladesh.

18. First, only value added by transactions within the taxable sector should be taxed or subsidized. This ensures production efficiency within the taxable sector taken as a whole. Thus, to take one example, consider a transaction between "international trade" and "a producer registered for output tax", viz., an import of an intermediate good by the producer in question. Since this is a transaction between two parts of the taxable sector, the import should be free of duty. The above does not imply that intermediate goods are exempt from taxation in tax legislation; simply that the output tax liability of the registered producer would be reduced by that accruing on imported inputs. The difference is important because producers in the untaxable sector would not qualify for such a tax credit; more on this below.

^{1/} The analytical justification for this section is provided in Heady and Mitra (1986). These results do not rest on an assumption about the optimality of the tax system.

19. Second, no credits on intermediate inputs would apply to transactions between taxable and untaxable sectors of the economy. Thus, to consider an example similar to the one above, imported intermediate goods sold to agriculture would be subject to taxation. To take another important example, such sales as occur between the taxable sector and final consumers should also be subject to tax. Of course, in as much as many transactions involving consumers occur between them and retail outlets which are themselves in the untaxable sector, those transactions are by definition not subject to tax.

20. The above two principles draw attention to an important point, which is initially best appreciated via an example. A tax on diesel oil bought by a firm registered for output tax purposes would be credited against its output tax liability. By contrast, if agriculture is untaxable, it would pay tax on its diesel oil inputs. In other words, whether or not credits are applicable to transactions originating in the taxable sector would depend on their destination. ^{1/} Since the discrimination is effected through tax crediting, the system would have to build incrementally on existing administrative capacity.

Revenue Raising Tariffs

21. The example however clearly shows the role of tariffs in a desirable tax structure. Since tariffs on imports into the untaxable

^{1/} However, if agriculture can be subject to direct taxation, as discussed in Section VI, it loses the characteristics of an untaxable sector. In that case, inputs destined for predominantly agricultural use, for example, fertilizer may have to be exempted from duty. This would clearly not be desirable for items which have substantial nonagricultural uses as well.

sector are not credited, they become a revenue-raising source. In fact, given Bangladesh's limited administrative capacity and, therefore, the potentially large size of its untaxable sector, the role of tariffs in revenue raising will continue to be significant for a long time. By the same token, however, such tariffs, though not protective in intent, could encourage inefficient import substitution in the untaxable sector since, by definition, the authorities are unable to impose countervailing excise taxes on such domestic producers to nullify its protective effects. This is to be seen as the cost of a relatively undeveloped tax structure. However, if import substitution in those goods in the untaxable sector were to become significant, in effect converting the tariff from a revenue-raising to a protective one, it would need to be lowered or phased out. Notice though that such producers could not sell to the taxable sector since the latter have the option of importing the same good free of import duty.

A Reformed Tax System

22. The above principles could be implemented by replacing the present system of indirect taxation on domestic production and imports as well as all quantitative restrictions (QRs) by a value added tax (VAT). This would be levied on all transactions originating in the taxable sector. Recall that this sector covers international trade, the public sector and producers registered for excise taxation, so that the VAT would apply to all the above. A transaction whose destination is another part of the taxable sector would attract tax liability only on value added. As is the case with a VAT, this would be effected by crediting producers for taxes paid on inputs whether domestically

imported, thus preserving production efficiency in the taxable sector. There would also be full crediting of taxes paid on investment goods. Thus, the VAT would be of the "consumption" type. A transaction whose destination is the untaxable sector would be fully liable; this would be the "final stage" in the VAT. With economic development and increasing administrative capacity, the relative size of the taxable sector, especially domestic producers registered for taxation, can be expected to grow, and with it, the coverage of the value added tax, and hence revenue as a proportion of GDP.

23. It is to be emphasized that such a VAT would inter alia exempt the output of agriculture and services, since these belong to the untaxable sector. These sectors would however pay taxes on their purchases from the taxable sector. Exports on the other hand would be "zero rated", i.e., they would bear no tax liability in addition, by virtue of being in the taxable sector, of paying no tax on inputs. This provides an incentive to exporters. It should be recognized, however, that zero rating is administratively more burdensome than exemptions.

This arises because there is no output tax liability against which input tax payments can be credited.

24. Administrative capacity militates strongly against fine tuning, so that the VAT should be at a standard rate which would be set in accordance with revenue requirements. This could be supplemented, if necessary, by a "luxury" rate, once again on selected imports and equivalent domestic production of a few items, which are justifiable on equity grounds. 1/

1/ It is important to emphasize that imports and equivalent domestic production in the taxable sector are to be taxed at the same rate. This will not be possible for domestic production in the untaxable sector

25. It will be seen that the tax system outlined here makes no provision for taxing transactions originating in the untaxable sector and effected with the taxable sector of the economy. This would form part of a desirable tax scheme but administrative considerations preclude its implementation at this time. A partial exception to this is provided by a proposal, discussed in Section VI, to tax the marketed surplus of the agricultural sector; reference is also made there to the administrative difficulty of doing so.

IV. PROTECTION

26. The principles of the previous section are stated baldly in order to provide easily understood and implementable rules of thumb. They need modification in cases where protection is extended on infant industry grounds to certain sectors where the country is deemed to possess a comparative advantage. However, it is important that protection be granted to only a few sectors and on a pre-announced time-bound basis. If that is the case, the exceptions to the above general principles of taxation would be selective. They may be stated as follows. If the protected industry is located exclusively in the taxable sector, it should be assisted via explicit production subsidies. This imposes the burden of protection on the general taxpayer and not, as in the case of a tariff, entirely on the users of the product. An analogous argument underlines a recommendation of the kind: if the government wishes to maintain production at Chittagong Steel Mills (CSM) for "social" reasons, it should provide a direct

subsidy rather than a tariff on steel which raises costs for the engineering industry. ^{1/}

27. If the protected industry is at least partly located in the untaxable sector, it is not administratively possible by definition to extend a production subsidy directly. The only instrument is a tariff on the imports of competing goods. ^{2/} Since, as mentioned above, tariffs would exist as part of a desirable structure, without any protective intent, purely to raise revenue from the untaxable sector, there is a need to distinguish between tariffs imposed for reasons of protection and those for revenue-raising. The practical distinction between the two is that a user in the taxable sector who purchases an intermediate good (e.g., engineering products) enjoying a protective tariff would not be able to import it duty free, i. e., the tariff cannot be credited against the producer's output tax liability. Thus, protective tariffs necessarily violate production efficiency. This is not the case with a revenue-raising tariff which would be credited for taxable sector use on grounds of production efficiency.

^{1/} For estimates of the present tariff structure on steel and calculations of the required subsidy to CSM to keep it in operation following tariff reform, see Mitra and Singh (1986).

^{2/} In the case of goods which face competition from the very large number of officially procured items in Bangladesh, protection would take the form of a reduction of exemptions enjoyed by such imports.

28. Lest this distinction, which is unavoidable in a country like Bangladesh with a limited range of domestic tax instruments, be thought to be daunting, it should be emphasized that this need not in practice be the case. Recall that all revenue-raising tariffs will be set at either the standard or, in a limited number of cases, the "luxury" rate. Since protective tariffs are justified only for import-substituting production in the untaxable sector and should, in any case, be limited to a few items, this will take the form of a few temporary (i.e., time bound) import surcharges. 1/ The difficulty of this problem can be overstated: it is unlikely that major import substituting activities in the untaxable sector could continue for long without part of them becoming liable for excise taxation, i.e., without being brought into the taxable sector.

29. To sum up on policy instruments for protection, the production efficiency principle is necessarily violated whenever import-substituting intermediate goods are protected. Whether that protection is to be given via production subsidies or import surcharges depends on whether or not the activity is located in the untaxable sector of the economy.

30. Finally, despite their widespread use in Bangladesh, there is no argument for protection via quantitative restrictions (QRs). 2/ A

1/ These should be set bearing in mind the previously noted observation that revenue-raising tariffs already play a protective role in the untaxable sector.

2/ Cf. Mitra and Singh (1986). This takes the form of "negative" and "restricted" import lists. However, the latest Import Policy Order announced in conjunction with the FY1987 budget has deleted a number of items from the restricted import list.

desirable long-run structure would not use QRs as protective device, replacing them instead by production subsidies (for goods produced solely in the taxable sector) and by tariffs (for goods produced in the untaxable sector as well). This removes the scarcity premia enjoyed by import licences and, in the case of tariffs, allows the government to earn revenue.

V. THE TRANSITION

31. The pace of reform towards a desirable system of taxation will be conditioned by two factors: (1) administrative capacity and (2) willingness to change industrial-cum-trade policy.

32. Confining tax liability under the VAT to transactions destined for the untaxable sector ensures that no new policy instruments need to be introduced. However, the practice of crediting or exempting producers with regard to taxes paid or due on inputs currently prevails to some extent only for exporters. This is effected via the bonded warehouse and assorted duty drawback schemes for imported inputs and via purchases from "registered factories" for domestically produced inputs. No comparable scheme exists for manufacturers producing for the domestic market, so that new administrative procedures would be necessary to ensure that no transactions within the taxable sector are

taxed. 1/ The recommendations of the Industrial Sector Credit on export policy administration may be viewed as introducing a zero-rated VAT on exports. 2/ This would introduce machinery to verify not only the direct input content of exports but also their indirect content, viz., the inputs used by an "indirect" exporter (e.g., a domestic fabric manufacturer) who sells to a "direct" exporter (e.g., a garment manufacturer). Hence, it would be appropriate to regard this as a pilot VAT project within the exportable part of the taxable sector and, as administrative experience is obtained, to gradually extend it to the entire taxable sector. It should be noted that the introduction and extension of VAT should occur together with an adjustment in its standard rate. This is because exemption of taxes on inputs (both imported and domestically produced) leads to a loss of revenue which must be made up by raising the rate on outputs. Indeed, this is simply the consequence of a "non-cascading" tax system: taxes are imposed at

1/ A paper which was received after the draft of these notes was substantially completed mentions that exemptions from excise taxes are granted in a few cases for intermediate inputs used in the production of excisable products. These include woollen yarn and knitting wool used in fabrics, metal containers for packing kerosene, biscuits, vegetable products, trunks and utensils and certain raw materials used in the production of paper and paperboard. If those procedures for granting exemptions are indeed well functioning, they could serve as a basis on which to build crediting procedures required for a VAT. The paper is by Rab (1986).

2/ For details see, Rhee (1986).

only one stage, with the rate adjusted in the light of the government's revenue requirements. 1/

33. Exchange of information with other countries with comparable institutional structures is also necessary. Thus, India, whose experience with "self clearance" of excisable goods was paralleled by Bangladesh, has recently introduced a modified value added tax (MODVAT). This has required new and different administrative procedures, an examination of which could be useful in moving to such a system in Bangladesh.

34. Meanwhile, it is expected that the base of the current excise tax on domestic production will gradually be widened, thereby bringing more of the economy into the taxable sector. This is consistent with recent moves towards reducing the revenue-raising role of customs duties and sales taxes on imports in favor of domestic indirect taxation. 2/ As administrative machinery is developed towards registering more producers, they could be brought directly within the purview of the taxable sector VAT. However, given the narrow base of the formal sector in Bangladesh, an effective broad basing of domestic indirect taxation

1/ This should meet recently-voiced concerns to the effect that the extension of duty drawback schemes to progressively more numerous exporters results in a revenue loss to the government. This is particularly true when exports are zero rated since they pay taxes on neither output (i.e., exports) nor inputs.

2/ Thus, the number of staff assigned to excise tax administration has been increasing rapidly. Also, the "self clearance" system, which does not require the presence of tax inspectors to clear goods in factories, is operating for all goods except cigarettes, matches and biscuits and releases resources which can be devoted to auditing.

will inevitably be constrained by the pace of domestic industrialization. 1/

35. In as much as it is necessary to target a few sectors for protection on goods of long-run comparative advantage, it is clear that reform of industrial policy must accompany tax reform. Thus, QRs will need to be replaced by import surcharges for protective purposes on a few sectors targeted for efficient import substitution, over and above revenue-raising tariffs at the standard or luxury rate of VAT. This could, if necessary, be undertaken in two stages: first, by setting those tariffs at levels suggested by existing studies of scarcity premia enjoyed by banned items 2/ and second, by altering them to a level which confers the desired degree of protection on a few selected items.

VI. AGRICULTURAL TAXATION

Background

36. With a share of roughly 50% in GDP, agriculture is by far the dominant sector of the economy. It would be unrealistic to expect revenue to grow in line with GDP if the possibilities of taxing agriculture directly are not employed. This section is therefore

1/ Thus, less than one-third of urban employment is accounted for by the formal sector of the economy. See World Bank (1986).

2/ Cf. Bhuiyan et. al. (1985).

devoted to agricultural taxation. Since a number of proposals on this subject have been made in Bangladesh, we devote a section to it. A modification of an existing proposal for agricultural tax reform is suggested below.

37. Discussions on agricultural taxation in Bangladesh begin from evidence to the effect that agricultural households are undertaxed vis-a-vis their nonagricultural counterparts. 1/ It is argued (1) that, compared to nonagriculture, and using 1966-67 data, the burden of direct taxes as a proportion of income was about nine times lower in agriculture; (2) that the tax paid-to-income ratio was higher for the rural poor than for the rural rich and, (3) turning to indirect taxes, that the proportion of expenditure on taxable items in 1973-74 was 60% higher for urban as compared to rural households. Further evidence along these lines is provided by the observations (4) that procurement prices for rice in recent years have been higher than market prices, thus providing a subsidy to farmers, (5) that, in turn, domestic prices of rice are significantly higher than international prices even when the latter are converted, to allow for overvaluation, at a rate of exchange 25% higher than the official one, and (6) that the agriculture-industry terms of trade did not move against agriculture as a whole in the 1970s and, at a more disaggregated level, in fact moved in favor of larger farmers. While it is possible to question the details of some of the above arguments, the size of the disparities add up to a convincing

1/ This discussion is based on Hossain, Akash and Rahman (1985).

case that agricultural households are relatively lightly taxed. ^{1/} The conclusion applies particularly strongly to the larger farmers.

38. The most obvious taxable bases in agriculture are (1) income, (2) land (3) and marketed surplus to the rest of the economy. Of these, it is possible to reject the first on the grounds that measuring actual income from land is difficult, that most cultivators do not keep records and, therefore, that the administrative costs of collecting revenue would be prohibitive.

Land Taxation

39. Land in holdings over 2.5 acres comprises over half of total household wealth in Bangladesh (see Table 5). This explains its attraction as a potential source of revenue. Furthermore, as shown in Table 6, 80% of owners have holdings which are fewer than 3 acres in size; these account for a third of total land area. Almost 50% of all arable land is in holding above 5 acres, which are owned by only 10% of all landowning households. This implies that a significant proportion of land area can be brought into the tax base while continuing to exempt an overwhelming majority of households. This is a second, and administratively based reason which is advanced for land taxation.

^{1/} The qualifications are (1) that the observations on tax incidence take no account of possible differences in the composition of expenditure among rural and urban groups and (2) that comparisons involving procurement prices and terms of trade indicate that benefits have accrued to the relatively larger farmers who produce a positive net marketed surplus at the expense of small farmers, the landless and urban consumers.

Table 5: Distribution of Value of Urban and Rural Household Assets, by Size Category of Owned Land, 1977-78 (Million Taka)

<u>Own Land in Acres</u>	<u>Type of Asset</u>			<u>Total Assets</u>
	<u>Land</u>	<u>Residential Buildings</u>	<u>All Other ^{a/}</u>	
Landless	0	1.0	4.7	5.7
Under 0.5	18.3	41.5	9.0	68.8
0.5 - 0.99	21.8	6.2	1.5	29.5
1.0 - 2.49	107.5	18.0	4.1	129.6
2.50 - 7.49	198.8	27.5	6.1	232.4
Above 7.50	<u>126.1</u>	<u>16.1</u>	<u>3.8</u>	<u>146.0</u>
Total	<u>427.5</u>	<u>110.3</u>	<u>29.1</u>	<u>611.9</u>

^{a/} Includes non-residential buildings, furniture and fixtures, kitchen equipment, agricultural implements and financial assets.

Source: Booth (1985).

Table 6: Land Distribution

<u>Size of Owned Holding (acres)</u>	<u>Cumulative Percentage of Households Land</u>	
Under 1	52.4	8.3
1- 2	70.2	21.1
2- 3	80.4	33.4
3- 4	86.0	43.7
4- 5	90.1	51.6
5- 6	92.5	58.2
6- 7	94.2	63.6
7- 8	95.3	67.6
8- 9	96.2	71.5
9- 10	96.9	74.5
10-11	97.5	77.6
11-12	97.9	79.7
12-13	98.3	81.9
13-14	98.6	83.6
14-15	98.8	84.9
Over 15	100.0	100.0

Source: Booth (1985).

40. Third, the attractiveness of land taxation derives in part from the economic desirability of taxing a fixed factor. However, the form in which it is typically administered makes it deviate from this theoretical ideal. This is true, not only of the system as it currently exists in Bangladesh, but also of alternative proposals set out below.

Existing Situation

41. The land development tax proposed in the 1982-83 budget is a graduated land tax with a rate structure shown in Table 7.

42. An application of these rates to land ownership data generates between Tk 400 - 500 million on agricultural land. ^{1/} This is between 0.20 to 0.25% of agricultural value added in 1984-85. According to the existing rates, nearly 75% of households, who account for roughly 30% of land area, pay virtually no tax. Notwithstanding this administrative advantage, collection is unsatisfactory, with actual collections estimated at Tk 300 million, or less than 2% of total tax revenue in 1981-82 (see Table 3). There are two problems. First, since the land development tax is specific rather than ad valorem, its revenue yield cannot be expected to keep pace with inflation. Second, the collection costs of the land tax as a proportion of revenue is over 80% as opposed to under 2% for other taxes in Bangladesh. It must be

^{1/} This is a progressive structure. A household owning 33 acres of land (the legal maximum) would pay Tk 1481 plus 8 times 145 = Tk. 2641, i.e., a tax of Tk. 80.03 per acre. This is nearly 12 times the tax of Tk. 3 per acre paid by a household owning 2 acres of land. (The example is in Booth (1985), drawing on data in Alm and Schroeder (1984).

Table 7

<u>For Agricultural Land</u>	<u>The Rate of Land Development Tax</u>
Up to 2.0 acres	Minimum Tk. 1.00 per household or Tk. 3.00 per acre of land
2.01 - 5.0 acres	Tk 6.00 for the first two acres plus Tk 15.00 per acre of additional land
5.01 - 10.0 acres	Tk 51.00 for the first 5.0 acres and Tk 36 per acre of additional land
10.01 - 15.0 acres	Tk 231 for the first 10 acres of land and Tk 60 per acre of additional land
15.01 - 25.0 acres	Tk 531 for the first 15 acres and Tk 95 per acre of additional land
25.01 and above	Tk 1481 for the first 25 acres and Tk 145 per acre-of additional land.
<u>For Non-Agricultural Land</u>	
Land located within the police stations mentioned in Ordinance No. XV of 1982	TK 6000 per acre for land in commercial or industrial uses; Tk 1200 per acre for land in residential or other uses.
Land located within the municipal limits at District Headquarters	Tk 1000 per acre for land in commercial or industrial uses; Tk 400 per acre for land in residential or other uses.
Land located in any other area not specified	Tk 800 per acre for land in commercial or industrial uses; Tk 300 per acre for land in residential or other uses.

conceded that this includes the total costs of running the local unit which administers the tax and, to that extent, is an overestimate. Nevertheless, it is clear that revenue net of collection costs is extremely low. There is widespread dissatisfaction within the Bangladesh administration with the separate department entrusted with collection of the land development tax; some of these concerns were voiced by the Taxation Enquiry Commission of 1978. These factors will clearly bear on any proposals designed to raise revenue from land.

Proposals in the Literature

43. It has been suggested that income from land be taxed on a presumptive basis, with the rates being set so as to ensure horizontal equity vis-a-vis nonagricultural households. ^{1/} For non-agricultural incomes, the exemption limit for income tax is Tk 20,000. With a lower cost of living in rural areas, this could be reduced to Tk 15,000, so that a household owning two to three acres (which typically has this income) would be exempted. Such an exemption limit would exclude the bottom 83% of households and 33% of land area. The tax would apply to around 2 million households and, given the exemption limit of 3 acres, to 7.8 million acres, or 37.5% of total land area.

44. Application of the effective rate of income tax to presumptive taxable agricultural income is then estimated to yield over Tk 1800 million, i.e., six times the tax collected in 1981-82. As a proportion of total acreage, this averages Tk 90 per acre. In terms of progressivity, the rates range from Tk 70 per acre for owners of 3 to 5

^{1/} The proposal is due to Hossain et. al. (1985).

acres to Tk 300 per acre for those owning more than 15 acres. 1/ With a taxable acreage of 7.8 million acres, this amounts to a tax rate of Tk 230 per acre taxed. Assuming a gross output of Tk 4670 per acre and average value added of Tk 4015 per acre, the tax rates per output of acre taxed and per value added of acre taxed are respectively somewhat less than and greater than 5%. The total revenue yielded would be Tk. 1700 million i.e., about 1.4% of agricultural income or nearly five times the 1981-82 yield from the land development tax.

45. However, the proposal has a number of difficulties. First, the information required to implement it is not readily available, as cadastral surveys would be necessary to establish ownership. 2/ Second, a progressive tax encourages avoidance through divestment of larger landholdings in favor of relatives, friends and others, although it is claimed that cadastral surveys, if used to issue certificates of land ownership, would in part deter such activity. 3/ Third, reference has already been made to the overall dissatisfaction with land tax administration.

1/ These calculations are based on average quality land; it is clear that calculations of presumptive income must make allowances for land quality. Booth mentions that agricultural land has never been classified according to quality in Bangladesh.

2/ Land records have traditionally been kept by parcel of land rather than by landowner, so that it would require an examination of all the records in a locality in order to arrive at the tax liability of individual landowner.

3/ However, a legal cadastre used to establish ownership rights is more complicated than a fiscal cadastre used to calculate potential fertility of land.

A Modified Proposal for Agricultural Tax Reform

46. For these reasons, a modest initial start, with the capacity of making additions over time is to be preferred. First, it is clear that any proposal to tax land will require a comprehensive cadastral survey. This is not insuperable: thus, Chile, while admittedly starting from a well-run system of property registration, managed to complete an aerial survey in three years and recent developments in satellite imaging using Landsat should considerably aid the process.

47. Second, administration would be simplified if the tax were levied at a proportional rather than a progressive rate. Thus, for example, a tax of Tk 250 per acre on land holdings above 5 acres would be limited to 10% of the rural population, affect under 50% of total acreage and, with full implementation, yield some Tk 1,000 million or over three times the revenue generated by the land tax in 1981-82. 1/ This is 6% of value added per acre taxed. A landowner in the 5 to 10 acre category with an average holding of 6.8 acres would pay Tk 450 on a value added of Tk 27,300 or an effective tax rate of less than 2%. A landowner in the 15+ acre category, with an average holding of 22.4 acres, would pay Tk 4,350 on a value added of Tk 89,930 or an effective tax rate of nearly 5% of value added. 2/ Since these rates are modest,

1/ This would generate 5-6% of 1981-82 tax revenue, a modest amount compared to a figure of 15% for the (mainly urban-based) income tax. The Hossain et. al. (1985) proposal would generate around 10%.

2/ Alternatively, if viewed as a wealth tax, and assuming an average land value of Tk 25,000 per acre, the proposal exempts those with agricultural wealth less than Tk 1.25 lakhs.

they may discourage divestment of holdings into subplots of less than 5 acres each, especially if there is a risk that "owners" of subplots may establish claims to the land. ^{1/}

48. Third, it is suggested that the tax be initially operated on a pilot basis in selected areas where administrative constraints in local government offices are less pressing, prior to instituting countrywide coverage. ^{2/} Fourth, the problem of inflationary erosion of the tax yield could be met either by tying the base to an agricultural price index or by specifying it in kind. ^{3/} And, finally, once experience with administering the tax has accumulated, consideration should be given to reducing the exemption limit and adjusting rates, if necessary.

Efficiency and Equity Aspects of Land Taxation

49. A land tax with a high exemption limit contributes to intrarural equity and, given previously cited evidence on "undertaxation" of

^{1/} Booth suggests that in as much as a receipt for tax payment is in effect a certificate of ownership, it may be desirable to collect nominal payments from small landowners who are already on the books, once every few years. This might protect them from landgrabbers without incurring the prohibitive administrative costs that attend such a suggestion. It would be necessary to be guided by the experience of local tax administrators in deciding how cost-effective this proposal is likely to be.

^{2/} For a discussion of the local government structure as it pertains to land tax administration, see Booth, (1985).

^{3/} Hossain et. al. (1985) have calculated its rice equivalent: the total tax collection would be 255,000 tons of rice or about 1.6% of total foodgrains production in Bangladesh.

agricultural households, to rural-urban equity as well. ^{1/} The arguments for efficiency are, however, somewhat more problematic. It is not always possible to identify presumptive income with the rent from land. The latter corresponds to what should, on efficiency criteria, be taxed. Instead, what emerges in practice is a presumptive income tax. Typical calculations in Bangladesh use value added less costs of nonfamily labor. Evidently, this includes the return to family labor and distorts the choice of family labor among on- and off-farm activities unless these have equal returns at the margin. ^{2/} Thus, the land tax is, in practice, a distortionary tax. This may not be a serious problem if the rates are set at modest levels, as is indeed the case in the above proposals. ^{3/}

^{1/} However, if rents are fixed by convention and other "nonprofit maximizing" criteria, it is possible for part of a land tax to be shifted to tenants.

^{2/} This cannot for example be true of children in school as opposed to working on the farm, since the farm cannot borrow against the discounted present value of the extra earnings that the schooling will make possible.

^{3/} Hossain et. al. have also suggested an alternative tax based on land values. With an average land value of Tk. 25,000 per acre, an exemption on the first three acres of land per household, and a one percent tax on the values of the remaining land, can be shown to yield as much revenue as the graduated land tax based on presumptive income. Both this proposal and the earlier one share similar informational and administrative difficulties. In as much as the price of land is the discounted value of the stream of profit it makes possible, it differs from the earlier proposal in excluding the (discounted) value of family labour. They also differ in as much as the government- and private landholders do not face the same borrowing and lending opportunities on account of capital market imperfections. It is possible that land transactions would yield the necessary information about land values directly but this would be difficult if the market were thin and, as is likely to be the case, particular pieces of land infrequently traded.

Taxing Marketed Surplus

50. Hossain et.al. also propose a substitute for taxation of presumptive agricultural income. Thus, they suggest that a tax be imposed on commodities exported by large traders from the upazilas (a local administrative unit) to urban centers through secondary markets. It is estimated that a 5% ad valorem tax would raise about Tk 1617 million, i.e., about five times the return from the land development tax in 1981-82.

51. The incidence of such a tax is as follows. It would depress prices in the rural area where the tax was imposed, benefitting net purchasers and adversely affecting net suppliers. It would also raise prices to urban consumers. The disincentive effect on suppliers could be potentially serious, not just for the usual reason but also because reduced production and employment could adversely affect rural wages, hence offsetting the direct benefits of lower food prices to the rural poor. ^{1/} Furthermore, if urban wages are linked to rural wages via migration, this could have a depressing effect on urban wages, which coupled with an increase in urban food prices resulting from the proposed tax, would hit the urban poor.

^{1/} Figures for 0.12 and 0.19 for the short-run supply elasticities of paddy have been quoted. While the former is plausible, the latter are considerably lower than those normally cited, although these latter themselves are biased upward because public investment in infrastructure is not controlled for adequately.

52. The tax would have to be administered at the upazila level, using officials to go to points where the goods are shipped on market days. If only a few markets are covered in an upazila, this would set up incentives to use alternative marketing channels to avoid payment of tax. These are not necessarily decisive objections. The importance of the agricultural sector implies that the absence of land taxes requires its other transactions to be taxed indirectly. It is then necessary to examine what form of tax on marketed surplus is administratively feasible. ^{1/}

Decentralization

53. Tax compliance in rural areas will continue to be a problem unless local government is allowed both to administer as well as retain part of the proceeds from agricultural taxes. This has been confirmed by village level surveys in two upazilas conducted to ascertain people's views towards the tax-expenditure system in Bangladesh. ^{2/} For this reason, it would be desirable if a substantial part of revenues from agricultural-based taxes were retained by local government councils to be used for approved local development projects. Central government grants to such councils should also be matched to tax collections, thus providing incentives for the latter, with modifications of the formula for areas with low taxable capacity. ^{3/}

^{1/} This is an example of an indirect tax on a transaction originating in the untaxable sector.

^{2/} Cf. Hossain et. al., (1985).

^{3/} It will be recognized that resources raised through such taxation become less fungible under a revenue-sharing system only if upazilas do

VII. AGENDA OF WORK

54. The principles articulated in the previous sections help define an agenda of work for a resource mobilization exercise. They also direct attention to the data which need to be collected in that connection.

55. The first task is to arrive at a standard rate of VAT which can satisfy the government's revenue requirements.

56. This requires (1) estimates of the tax base in the taxable sector and (2) since, domestic and imported intermediates are exempt, a statement of interindustrial relationships. The former can be put together from trade data, the MIS for public sector enterprises and from the National Board of Revenue for selected items. These would need to be supplemented by "guesstimates" of production figures for other excisable items. Interindustrial relationships are somewhat dated, being based on the 1976-77 table prepared for the Second Five Year Plan. 1/ Although attempts have been made by the Trade and Industry Reform Program (TIP) to update the table, it is recognized that significant gaps exist and it needs to be used judiciously.

57. Production figures by sector will be partitioned between the taxable and untaxable sectors using a combination of sector-specific

1/ It is understood that the Planning Commission has begun work on preparing a new input-output table, but this is not expected to be available within a timeframe that would be useful for the resource mobilization exercise.

judgment and rough estimates of the informal sector. Also included in the untaxable sector will be consumption of households: totals and breakdown are available from the national accounts and the 1981-1982 Household Expenditure Survey (HES).

58. As mentioned before, some deviations from a uniform rate of tax of the kind discussed above may clearly be justified on grounds of equity. The tradeoff between administrative capacity and progressivity of incidence, although deserving further exploration, may be dominated at the present time by the former. Helping set a "luxury" rate over and above the standard rate of VAT is thus a second objective of the exercise.

59. A third task will be choosing a selected set of time-bound production subsidies and import surcharges for protective purposes in line with the objectives of industrial policy. Given the state of information in Bangladesh, these would have as simplified a structure as the requirement of positive effective protection to a few sectors will allow.

60. An important feature of a reformed tax system must be its capacity to encourage investment and growth. Nothing has been said about this above since it must await an examination of certain aspects of the company tax system. Specifically, dynamic efficiency may require moving towards a cash-flow based company tax system. This will entail looking at such items as the possibilities of allowing accelerated depreciation, the tax treatment of interest payments and dividends as well as problems involved in moving towards accounting procedures which operate on a cash-flow basis. Furthermore, a change in the company tax

system would have revenue implications which might need to be offset by a change in the rate of VAT. An exploration of these issues is a fourth objective of the work.

61. A fifth task is to discover how administrative procedures can be gradually modified to ensure no taxation of intermediates in the taxable sector of the economy. A longer term goal would involve examining what kind of administrative policy needs to be put into place eventually to bring parts of the untaxable sector into the tax net and to move ultimately towards taxes on final sales to consumers as the principal form of indirect taxation. Hence this part of the work will require the participation of an experienced tax administrator to complement ongoing work on customs administration done under UNDP auspices. The experience of other low income countries will be particularly relevant here.

Public Sector Pricing

62. The appropriate pricing of goods and services produced by the public sector will be a sixth task in the resource mobilization exercise. Pricing of electricity, gas and water and intermediate goods such as steel and fertilizers are issues that share many similarities with reform of the tax structure and therefore require parallel treatment. A few sectors are expected to be singled out for particular attention in the forthcoming economic work.

63. The long-term objective here is pricing at marginal cost of production plus the standard rate of VAT. Following earlier principles,

VAT would be credited for purchases by the taxable sector (usually for intermediate goods) but not for other transactions. This establishes consistency between taxation and public sector pricing for the economy. It is expected that much of the work will concentrate on the transitional problems associated with moving towards such a system. 1/

1/ To what extent distributional objectives are in practice furthered by deviating from those principles will be examined for particular sectors.

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