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LAND TAX AND LAND USE

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Land tax is a levy imposed by the State or its agent on the ownership or use of land. Conceived and instituted as a device for raising revenue for the State, land tax continues to function primarily as a revenue earner. Nevertheless, our endeavour is to emphasise the non-fiscal purpose of applying tax measure on land towards its more and maximum use. If in the days of "functional finance" the original revenue purpose of taxation declines in importance, it is just in the shape of things to come. Truly, tax policy has to be evolved closely reflecting the changing needs and justice of the situation, namely: (1) due contribution by every tax base to the State revenue, (2) to promote rationality and justice in the distribution of tax burden and tax revenues, (3) the needs of developmental planning, and (4) the optimum use of all productive resources. It means the need to explore the tax potential of land as a double-edged weapon of raising the contribution of agriculture to the State fiscal and to the national product at the same time. It is maintained that the non-fiscal use of land tax has a fiscal bearing eventually raising the limit of taxable capacity arising from increased productivity of land itself. It is suggested, therefore, to design a "carrot and stick approach" in framing a tax policy as an instrument for optimum land use. The concept of optimum land use means not merely to increase the productivity of land but also to put in, the right proportion of the "input" factors in agriculture. Eventually it means : (1) maximum productivity on land, and (2) marginal transfer of resources so as to secure the best use of factors engaged in agriculture.

Nature of Land Tax Calls for a Comprehensive Measure

Land tax as an instrument for better land use depends on its property as a direct tax and its incidence as to whether it falls on the fixed element in the soil or not. As an incentive measure the incidence of land tax should fall on the inelastic elements like acreage rather than on production which must be allowed to vary and the results or fruits of such variation should accrue to the landlord. If this is feasible, the tax burden is being lightened as the increased productivity can bear the additional burden without pain even though the landlord himself has to pay it. But the incidence is not always clearly located. Strictly speaking a direct tax is charged on a base with zero elasticity of supply.[1] Though land is inelastic in supply from the social point of view, supply is extremely elastic from the individual standpoint. Hence shifting of the burden is probable through land sales or transfers. Generally the shifting is of a backward nature and results in capitalisation of taxes. Usually treated as direct tax, it is rather difficult to consider it exclusively so. Hence a system of incentive taxation on land has to be comprehensive enough with a scheme of rewards and penalties which are supplementary to direct incidence of land tax itself.

Before discussing the measures to be adopted, the attitude towards land as a tax base, the secular trend in Indian land revenue and the incidence of the land

1. I.M.D. Little, "Direct Versus Indirect Taxes", *E. J.* Sept., 1951.

tax may be evaluated as a basis for outlining a policy of incentive taxation in the interests of agricultural productivity and developmental finance.

Land as a Tax Base

Land tax is one of the oldest taxes and every country in the world levies it in some form or other. The tax base might be different in various countries or even regions within a country, such as area, productivity, rental or capital value or unimproved social value and income. It is not without logic that land is universally chosen as a tax base from very early times. Land was probably the only steady source of revenue for the State. Easy to assess the value of land produce in the field and being fixed and impossible to conceal, and the fact that its owners or occupants always identifiable, all this facilitated the administration of land tax even by primitive governments. The declining importance of land in industrial society might discount the value of land as a source of revenue. But land tax has very little irritation compared to wealth tax or expenditure tax as the former is well understood and well established. Further, the neutrality of taxation on agriculture has to be radically transformed in favour of more productivity on land and to transfer more productive resources in favour of industry. The Indian land tax needs reform in these two directions.

Land Tax in India

Land tax constituted the chief tributary to the pool of State revenues for a long period. But the historical trend is that land revenue as a proportion of total revenue is steadily declining and continues to be an inelastic source of revenue. Land revenue does not now occupy a prominent place in the tax structure and accounts for only 7 per cent of the total revenue in 1956-57 as against 16 per cent in 1938-39 and 70 per cent in 1839-40.

RECEIPTS OF LAND REVENUE AS PROPORTION OF TOTAL REVENUE[2]

Year	p.c.	Year	p.c.
1839-40	70.6	1948-49	6.0
1850-51	66.5	1949-50	6.5
1871-72	42.8	1950-51	6.5
1881-82	35.5	1951-52	5.5
1891-92	36.5	1952-53	7.2
1901-02	33.9	1953-54	8.4
1911-12	31.3	1954-55	7.8
1938-39	16.1	1955-56	7.7
		1956-57	7.0

2. Report of the Taxation Enquiry Commission, Vol. III, 1953-54 p. 216, and Estimates of National Income 1948-49 to 1956-57, April 1959, Central Statistical Organisation.

Except for a small rise in 1953-54 as a direct outcome of land reforms and improved collections in zamindari areas, as a proportion of total revenue, land revenue was steadily declining relatively. Rapid and remarkable changes in agricultural economy including the secular trend in price movements of agricultural produce, growing importance of other and new forms of taxation, such as income-tax, customs and excise at the Centre and sales-tax in the States are some of the reasons.

Land revenue being a State tax, if one compares it to the revenue resources of States only, the ratio does appear better, but yet not rising. In 1951-52, total land revenue collection was 12 per cent of total revenue of all States and increased to 16 per cent in 1956-57 but declined again to 12 per cent in 1957-58.[3] In the tax structure, land revenue is an inelastic source of income to the State and does not respond to rising prices and incomes.

Incidence

The average burden of land revenue on agriculture is indicated by the ratio of total land revenue collected to the total (gross or net) value of agricultural output. According to National Income Report 1950-51, land revenue then works out to be at one per cent of the gross value of agricultural output (1.2 per cent of net value). Data relating to the value of agricultural output are not available on a comparable basis for earlier years.[4] It is estimated, however, that land revenue formed less than 4 per cent of the gross value of agricultural output in 1938-39 (4.5 per cent of net value). The increased collection of land revenue since 1951-52 did not increase the burden substantially. The Taxation Enquiry Committee (1953-54) is of the view that "they do not result in any addition to the burden of land revenue and only indicate a wider coverage for land revenue which replaces the rent formerly paid to zamindars in many areas."[5]

An analysis of the figures for the period 1948-49 to 1956-57, comparing the land revenue collections with national income from the agricultural sector (at current prices) show that the tax burden has not really increased.

LAND REVENUE AS PERCENTAGE OF NATIONAL INCOME FROM AGRICULTURE (INCLUDING FISHING AND FORESTRY)

Years	1948-49	49-50	50-51	51-52	52-53	53-54	54-55	55-56	56-57
1. Land revenue (in Rs. 100 crores)	0.42	0.47	0.52	0.50	0.60	0.70	0.70	0.75	0.79
2. Agricultural income (at current prices) (in Rs. 100 crores) ..	42.5	44.9	48.9	50.2	48.1	53.1	43.5	45.2	45.2
Percentage of 1 to 2 (approximately)	1.0	1.1	1.1	1.0	1.3	1.3	1.6	1.7	1.4

3. Derived from figures given in *R. B. I. Bulletin*, June, 1959, p. 6.
4. Findlay Shirras, Science of Public Finance, p. 216-217;
Proportion of land tax in the gross value of agricultural produce for British India: 1881—6.2 per cent; 1898—5.9 per cent; 1902—5.9 per cent; 1911—2.6 per cent; 1921—2.0 per cent; 1922—1.9 per cent.
5. Report, Vol. 1, p. 73.

Since 1952-53 there is an upward rise in ratio but when the fall in prices of agricultural products is taken into account, the tax burden remains more or less static and has not increased during the period. At constant prices (agricultural income at 48-49 prices) the ratio of land revenue to agricultural income would be 1.4 per cent and 1.5 per cent during 1954-55, 1955-56 respectively. Further, there is an element of taxation inherent in the government's practice of requisitioning foodgrains during the food control period (*i.e.*, before 1954) and if an imported value is added to the pre-1954 period real tax burden does not show remarkable change after 1954.[6] In the above analysis, land tax is treated as an impersonal or in *rem* category as a burden on agriculture or land as such. In the final analysis all taxes are paid out of personal income or wealth. But generally land tax is apportioned according to some impersonal magnitude such as value of property, income, production or transaction. In a functional scheme of taxation aimed at increasing the productivity of land and transferring resources from agriculture to other sectors of the economy the impersonal approach is preferred.

Productivity

The problem in Indian agriculture is low productivity and low per capita returns.[7] Among others, inadequate and inefficient land utilisation and high man-land ratio, explain the sorry state of Indian farming. Though 75 per cent of the gross cropped area is under foodgrains in 1954-55, food deficit is still a staggering problem. The level of productivity has to go up so as to raise a large product per unit of input so as to attain self-sufficiency in foodgrains. Secondly, a probable substitution between food crops and commercial crops to the extent feasible and desirable, and thirdly, submarginal or new land hitherto kept idle[8] or not available for cultivation may be brought under efficient cultivation.

Land tax may be raised in order to provide the necessary incentive to achieve these objectives. But by how much? How do we estimate the effective incidence (indirect effects) of such a tax? These are all difficult issues to be settled satisfactorily Further, even the formal incidence of land tax tends to be small to have a salutary effect on production of big producers as the small producers have to be exempted in an incentive scheme unless it is agreed to tax the marginal producers out of existence. The nature of agricultural enterprise too restrains the operative effects of a land tax. The farm constitutes a self-contained economic unit in which production and consumption are interlinked and no clear distinction is made between household and enterprise or cost and producer's surplus. Hence the incidence of a land tax is not sufficiently pointed so as to evoke response in a productive way and is not keenly felt by large producers. However, the

6. "Progressive monetisation, the development of internal transport, the growing commercialisation of agriculture and the general evolution of an all-India market with the steady support thus provided to local prices, all these seemed to lighten the burden of land revenue as the decade passed", Report of the Taxation Enquiry Commission, Vol. III, p. 215.

7. National Income Committee Report, 1950-51—Final Report, 1954, p. 109.

The net output per economically active person was only Rs. 500 in agriculture, Rs. 1700 in mining and factory establishment, Rs. 1600 in railways and communications, and Rs. 1500 in banking, insurance, commerce and transport.

8. "Large landowners are liable to make uneconomic use of their land or even keep it completely idle, holding it for prestige reasons or for purposes of speculation. As economic development requires the full productive use of land, such practices were to be discouraged by appropriate tax measures." Fiscal Policy in Under-developed Countries, U.N., 1954, p. 37.

necessary data are lacking so as to prove that the incidence of land tax has an incentive effect for the better utilisation of land except as a negative weapon, in order to eliminate the marginal producer from the field or to penalise for not using land or using it improperly. Hence the following comprehensive measures may be implemented on an experimental basis, confined to a particular State. This is constitutionally convenient as land tax is a matter for State jurisdiction.

(1) A higher proportional basic tax on landholding (area tax) with exemption for small holdings. The economic merit of proportional taxation consists in maximising production as the ownership exercises the full right of appropriating the total surplus over cost. Politically it excludes all possibility of favouritism on behalf of persons or classes. The scope for corruption in administration is practically nil. Proportional tax is an objective and non-personal tax and respects the desire for the utmost production of wealth and its accumulation. The Taxation Enquiry Commission seems to reject the basic land tax idea as introduced in Travancore in 1946 due to the heterogeneous nature of the land base.

But a proportional tax is not meant to be imposed on a uniform rate all over the country. It means in actual practice a discriminatory type of tax policy which presupposes the existence of essential data for delineating economic land classes, types of farming areas and agricultural regions. Farm management data will supply the necessary cost and production functions in each representative area as a standard of reference and reckoning. The availability of such data is a prerequisite of an incentive taxation policy.

(2) It might be argued that a proportionate tax is biased in favour of large producers and hence sacrifices the principle of equity. The principle of equity and progression may be ensured through a general and single income tax without worrying much as to whether the income is generated from the rural or urban sectors of the economy. Income being a net concept, equal treatment of people in similar economic circumstances is but just and reasonable.

(3) Discriminating tax policy : (a) Special levies on unimproved land values or a surcharge on uneconomic use of land ; or subsidies for specific purposes (negative tax); (b) Discriminating tax rates. Uncultivated land is assessed at a higher rate than cultivated land as it is done in some Latin American countries ; (c) Penalty tax in order to effect proper inputs, crop rotation or substitution.[9] (d) Revival of the "Cowle" system[10] with regard to sub-marginal and "waste" lands. A "Cowle" is a grant of land free of assessment for a certain period or subject to favourable assessment rising to full assessment. The "Cowle" is generally granted to induce ryots to bring under cultivation unpromising waste lands or to plant trees or shrubs for green manure. The terms of a "Cowle" tenure reserves to government the power of re-entry on the breach of conditions.

Even granting the doubtful effects of these measures on land use and productivity there is no harm in experimenting, as land should contribute more to the State fisc, on other and familiar grounds, in the interests of developmental planning.

9. In Chile a penalty tax is imposed on land devoted to growing grapes with the expressed purpose of persuading farmers in the central valley to shift from grapes in favour of other crops.
10. S. C. Ray: Land Revenue and Administration in India (1915).

The choice between tax, loans or deficit financing as a method of financing development may not be finally settled. But Agriculture has to contribute more. The high level of capital formation achieved by Soviet Union and Japan has been made possible partly by squeezing resources from the agricultural sector. The forced collection of grains between 1928-1940 played the role in U.S.S.R. that land taxation played in Japan.[11]

(i) Tax revenue must go up. As a percentage of net national income, tax revenue is about 7.6 in 1957-58 which was also the average for the years 1953-54 to 1957-58. Per capita income being very low, in our country, an aggregate relationship does not complete the argument. But the character and direction of public expenditure justify a higher contribution to the national exchequer. As government's share in national expenditure is rising, government draft on private income may also rise proportionately. The existing gap therefore may be bridged.

GOVERNMENT'S SHARE IN NATIONAL EXPENDITURE AND GOVERNMENT'S DRAFT ON PRIVATE INCOME

(in Rs. 100 crores)

Years	1950-51	51-52	52-53	53-54	54-55	55-56
Govt. share in national expenditure p.c. ..	8.3	8.8	9.0	9.8	11.0	12.8
Govt. draft on private income p.c. ..	7.7	8.7	8.1	8.2	8.7	9.6

Source: Estimates of National Income 1948-49 to 1956-57.

Further, though about 50 per cent of the national income originates in agriculture, land revenue is about one per cent of the gross value of agricultural output. Higher proportion of contribution from agriculture is desirable.

(ii) The existence of a large non-monetary sector limits the effectiveness of inflationary finance to function as a hidden tax collector. A higher burden of indirect taxes is borne by the urban sector of the economy. In respect of all indirect taxes, the per capita tax for urban India works out to 2¾ times the rural estimate.[12] The rural contribution in indirect taxes is lower at all expenditure levels. The capacity of large landowners to bear a higher rate of taxes is unaffected by rising prices through inflationary finance.

(iii) To be equitable, land tax has to be elastic and respond to price and income changes and hence a higher rate is warranted.

Finally, land tax is to be biased in favour of optimum distribution of productive resources of the economy. For the optimum conditions prescribe that for

11. B. F. Johnstone, Agricultural Productivity and Economic Development in Japan, *J.P.E.*, Vol. 54, 1951. The urgent necessity of protecting and fostering one's industries compelled the government to impose a heavy land tax on the agricultural population to obtain the wherewithal to carry out industrial development programme, has been the conscious policy of the Meiji leaders in Japan on the eve of her great industrialisation.

12. Report of the Taxation Enquiry Commission, Vol. I, 1953-54, p. 66.

any pair of production factors (including future factors and non-market factors) the marginal rate of substitution should be equal in every type of land use or non-use or crop pattern. It may be difficult in practice to discover the optimum in absence of perfect knowledge about all alternatives available. Yet necessary productivity in agriculture, transfer of marginal resources elsewhere in the economy, in order to raise national net product and larger revenue for the State, are regarded as laudable objectives worthy of an aggressive pursuit in the interests of economic development and well-being of the nation.

To conclude, the incentive effect of land tax on optimum land utilisation is uncertain and difficult to measure as the formal incidence of land tax is rather small. Hence comprehensive measures may be adopted including rewards and penalties and negative taxes like subsidies. However, on an experimental basis in an agricultural state, a higher basic tax may be imposed or (an acreage tax) so that the landlord might benefit from the fruits of his own toil. Further, agriculture can and should contribute more to the state revenue in the interests of overall economic development even if one is not sure of the direct link between land tax and land use.

EFFECT OF AGRICULTURAL TAX ON LAND UTILISATION

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The main objects of an agricultural tax may be expressed as:—

(1) Revenue collection for meeting Government expenditure,

(2) Reduction of inequality in the distribution of wealth; and

(3) Bringing about desired effects on land-use pattern.

The purpose of a tax may be to satisfy one, two or all the objectives mentioned above. But it may very often happen that a proposed tax may help fulfilment of one objective at the cost of another. So, adequate care and forethought are necessary to select our objective for a proposed tax, fulfilment of which becomes the sole criterion for judging the success or failure of a proposed tax.

It is also necessary to remind ourselves that we are concerned with India in the context of her Five-Year Plans with primary emphasis on economic development. Thus the success or failure of a proposed land tax will be judged against the criterion of whether it brings about economic development in general by providing incentive through more equality and social justice and whether it helps in

bringing about a desired land-use pattern that fits into the national plan of economic development.

In considering the effect of an agricultural tax on land utilisation, two basic questions need to be settled first. The answers to the questions given below are by no means exhaustive or final—they are just sketches of possibilities that need to be debated in meetings and conferences.

(*a*) First, if there is an agricultural tax on land who bears the ultimate burden of it? Can the cultivator pass it on to others?

The answer to this question largely depends on relative supply and demand for agricultural product and their prices coupled with relative strength of producers and distributors, on the one hand, and on the form of the tax, on the other. With rapid increase in population, fast industrialisation of the country, steady rise in national income envisaged in India's Plans, it is normal to expect that the demand for agricultural products will rise very sharply. Whether supply increases to the extent of increase in demand in the short run is a matter of conjecture and of some amount of speculation, because increased agricultural production is dependent on so many 'ifs' and 'buts,' some of which are beyond the control of man, such as weather. Past experience indicates that supply tends to lag behind demand and, under normal course, producers should be able to pass on the whole or a part of the burden of tax on the shoulders of the consumers. The degree upto which the tax can be passed on will depend upon the relative supply and demand position of agricultural products and the manner in which the marketing is done. But under the existing order in which agricultural products are marketed the distributor is in a much stronger position, vis-a-vis either the producer of the primary agricultural products or the consumer. In such circumstances, it is very likely that any tax levied directly on the cultivator of the soil will not be passed on to either the intermediate distributors or the consumers; the incidence of the tax will fall upon the primary producer.

(*b*) Now, if a land tax falls on the cultivator, then is it likely to affect his production decisions in general, and his land utilisation programme in particular? The answer would very largely depend on the structure of cost of cultivation of crops. It may be noted that land revenue and taxes form an almost insignificant proportion of total cost in all the States for which detailed cost of production figures are available. Hence, the present rate of land revenue does not seem to affect production decision or land utilisation pattern. It is very likely that even a doubling of land revenue taxes for smaller holdings and a trebling of land revenue taxes in the case of larger holdings would not affect land use pattern.

In connection with discussion on the effect of agricultural tax on land utilisation, we need to examine the proposal for a progressive system of land and agricultural income-tax. According to the Taxation Enquiry Commission, rural households earning Rs. 600 per annum and less paid by way of indirect taxes 2.2 per cent of their total expenditure in 1952-53; the share of such taxes in the income groups Rs. 600-1200, Rs. 1200-1800, and Rs. 1800-3000 per annum was only 2.3, 2.7 and 2.8 per cent respectively of their total expenditure. The structure of cost as revealed from the Farm Management Studies sponsored by the Directorate of Economics and Statistics in the Ministry of Food and Agriculture suggests that land

tax may very well become much more progressive without affecting land-use pattern, because land revenue and taxes form a very small proportion of total cost of cultivation. Thus, some economists suggest a progressive land tax to finance economic development in India. The wiseness of such a course depends on studying the effects of a progressive land tax.

A progressive land tax on owned land, if extremely heavy, it is feared, may lead to further sub-division of holdings. To evade taxes, large landholders will be inclined to sub-divide holdings further and the cost involved is negligible as compared to the additional tax payable. But it is very unlikely that the present rate or its double or triple the rate would induce farmers to adopt such a course, for we have already seen that the incidence on land tax on bigger holdings is almost negligible at present.

A land tax on the basis of land-use, for example, a tax on commercial crops, may have the effect of switching over areas under commercial crops to those of food crops. Such a tax may be a very effective indirect instrument for bringing about the desired land-use pattern in a region. But one has to be careful about avoiding the clash between interests of the individual and the nation as much as possible, so far one crop is preferred to another. For example, more jute may be necessary to feed the industry from the nation's point of view of earning foreign exchange, but the farmer may find it more profitable to grow wheat. In this case, a heavy tax on the farmer for growing wheat has got the effect of bringing about a clash between interests of the individual and the nation, and this should be avoided as far as possible both for economic and political reasons. In this connection, farm management studies may be extremely helpful in fixing the basis of taxation and guessing the possible effects of a tax.

It is paradoxical that while non-agricultural income of a co-operative society is free of tax which is levied and collected by the Union Government of India, the State Governments levy and collect a tax on the incomes of a co-operative farm.[1] The main objectives of co-operative farming is to secure fuller utilisation of land resources not only by increasing the scale of operation but also by promoting productive investment in agriculture. A tax on the incomes of a co-operative farm is all the more unfortunate in India, because so much is said about co-operative farming as a step towards revitalization of the agricultural economy and higher level of efficiency in production.

Taxation of agricultural income suffers from the limitation of escaping real income with any reasonable amount of thoroughness. A progressive tax on farm-income might lead to a diversion from production for the market to production for home-consumption at the cost of specialisation. Moreover, it might lead to substitution of leisure for income. This may be interpreted as a form of tax-evasion.

A tax on income from land can be avoided by not earning the income and allowing the resources to be idle. But a wealth-tax on land cannot be avoided as it would be a lump sum tax and would be more or less based on the capitalized value of prospective income from the use of the land. Wealth-tax would be a

1. I am indebted to Dr. G. C. Mandal, Assistant Director, Agro-Economic Research Centre for East India, Santiniketan, for this point.

tax on the capital value of land and would naturally be linked to its potential output. As such it would promote more intensive use of human energies directed towards fuller utilisation of land. It would result in utilisation of the resources to yield some income out of which to pay the tax; otherwise the tax would force its transfer to more effective use in the hands of more enterprising farmers. In view of the abolition of the Zamindari system and ceiling on land holdings, the exemption limit applying to land would have to be considerably low.[2] The results of farm management studies conducted in Madras, Punjab and West Bengal reveal that the rent of leased-in land is too high in comparison with land revenue on owned land, and to bring about efficient land utilisation land reforms are necessary to eliminate exhortative rents realised from sub-tenants.

Wide fluctuations in agricultural prices have the effect of taxing the rural sector at intervals (through decline in agricultural prices), haphazardly, and at the wrong time and cause major and unplanned shifts in the distribution of income. The fluctuation in agricultural prices during 1952-53 to 1957-58 that took place had the effect of lowering rural incomes when output of foodgrains was increasing, and raising them when it was either stagnant or not increasing rapidly enough. It is very important to stabilise prices of agricultural commodities to bring about effective land utilisation.

To sum up: (*a*) The present rate of land-tax is an almost insignificant proportion of total cost of production in the majority of the cases and this leaves much scope for increasing rate of taxation, specially of higher land-owning groups, without any major adverse effect on land utilisation.

(*b*) A land tax on the basis of land-use may be an indirect, but a very effective way of bringing about a desired land-use pattern, if applied on the basis of detailed cost investigations and with discretion.

(*c*) Taxation of incomes of a co-operative farm levied and collected by the State Governments, should be discontinued.

(*d*) The wealth-tax on land is one of the most appropriate and effective form of agricultural taxation.

(*e*) An efficient land utilisation programme should be coupled with suitable land reforms, stabilisation of agricultural prices and efficient execution of agricultural taxes.

(*f*) Last, but not the least, agricultural tax policy should be based on intensive and representative farm management studies conducted in different parts of the country.

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2. I am again indebted to Dr. G. C. Mandal for this point.

EFFECT OF THE LAND TAX ON THE OPTIMUM OF THE SMALL HOLDING

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The aim of this paper is to examine the advisability of increasing the load of non-shiftable land tax on the small holding of the owner-cultivator in the context of his optimal allocation of resources within his enterprise. The approach is not aggregative but partial, limiting analysis to the performance of the individual holding.

The occasion for this examination is the series of proposals now being made in diverse quarters to substantially increase the taxation of the agricultural sector with a view to raising adequate resources for the Third Plan. Prof. Kaldor suggested that additional revenue of Rs.100 crores a year is to be raised from land taxation and excise duties even to finance the Second Plan.[1] He calculated that land revenue in 1956 amounted to only one per cent of the net product of agriculture. He was of the opinion that "even if the yield (of the tax) were doubled—it would clearly not represent an excessive burden."[2] Dr. K. N. Raj also recommends an increase in the share of the rural sector in the total tax revenues, but mindful of the regressive character of the land tax, proposes to exempt from it holdings below five acres.[3]

While no attempt is made here to sit in judgment over these and similar proposals, we utter nevertheless a note of caution that before the proposals are accepted and implemented, a detailed examination of their likely incidence and effects on the various types of holdings and on the cultivators is imperative if the very purpose of planned development is not to be defeated. The immediate purpose is of course to raise the farm output considerably, while the ultimate objective is spelt out as the raising of the levels of living. Indiscriminate taxation of the agricultural sector can jeopardise both the short and long term ends.

We attempt here an enquiry into the burden of the land revenue, and its responsibility, if any, for the shortfall of the typical holding in India from the standard of optimum. We proceed on the assumption that the area of the holding is given, the number of persons subsisting on it does not decrease, and that the arts of agriculture do not change, in the short run.

The All-India Agricultural Labour Enquiry of 1954 estimated the average size of cultivator's holding for the whole of India at 7.5 acres, and it was as low as 4.5 acres for South India. "In fact, taking the Indian Union as a whole, the holdings, one acre and below, formed 17 per cent; those between 1 and 2½ acres, about 21 per cent; and those between 2½ and 5 acres, another 21 per cent. At the other end of the scale, about 16 per cent are in the group 10 to 15 acres and account for 32.5 per cent of the area. Another 5.6 per cent holdings above 25 acres covered about 34 per cent of the area."[4] It is clear that the small holding

1. Nicholas Kaldor: Report on Indian Tax Reform, June, 1956, p. 4.
2. *Ibid.*
3. "*Yojna*", Vol. III, No. 1, January 26, 1959, p. 8 ; "Approach to the Third Plan " by Dr. K.N. Raj.
4. Agricultural Labour—How They Work and Live, Ministry of Labour, Government of India, pp. 4-5.

is typical of the scale of farming, since as much as 59 per cent of the holdings are below 5 acres in size. We focus our attention on the self-employed, owner-cultivators of these holdings not merely because of their vast numbers but mainly because they bear the brunt of the land tax.

From the point of view of the peasant farming in India it is not so much the individual cultivator as his family including himself that is regarded as a unit of labour. The Indian Delegation to mainland China in 1957 furnished data from which what is relevant to only three typically agricultural States is presented in Table I.[5]

TABLE I—ESTIMATES OF SURPLUS LAND AND ITS UTILISATION

	Andhra	Madras	Punjab
Size of holding which may be regarded as *minimum* for a family. (in acres)	2.5	2.5	5.0
Holdings below this limit (in lakhs)..	22.0	24.0	3.0
Actual area held by them (in lakh acres)	25.0	27.0	7.0
Additional area required to build up to minimum size (in lakh acres)	31.0	33.0	10.0

It is clear that an overwhelmingly large proportion of the holdings are in size below the minimum necessary for a family.

Economically productive activity tends towards the optimum; and optimal condition is understood to be synonymous with efficiency. The firm, for instance, is said to have attained its 'optimum or most efficient size' when its average cost equals its marginal cost.[6] This unique equation rarely obtains outside perfect competition. In the discussion of the optimal situation, analysis of inputs rather than of output is more relevant. So, it is said that the efficiency of the firm consists in minimising costs through a least-cost-combination of the factors employed. The optimum thus precludes excess capacity on the one hand, and on the other, requires the fullest utilisation of the inputs.

Two different criteria are applied to determine two different kinds of optima. Firstly, with regard to the optimal *distribution* of factors as between different uses or products, the criterion is the equation of factor price with the value of marginal product of the factor: (FP=VMP). Secondly,with regard to *allocation* of factors within the same production unit, the criterion is the equation of the price of product with the value of the marginal amount of factor needed to produce one more unit of the product.[7] (P=VMF). It is the second criterion that is germane to our study since we are concerned with the optimal allocation of factors within the individual holding.

5. Report of the Indian Delegation to China on Agrarian Co-operatives, May, 1957, p. 117.
6. Meade: An Introduction to Economic Policy, pp. 105-6.
7. Lerner: Economics of Control, pp. 121 and 128.

This analysis is applicable to farming on the assumption that agricultural industry approximates to the market behaviour of perfect competition; which is particularly true in India where holdings are both small and numerous and where the individual cultivator exercises relatively no control over his output and no control whatsoever over the price ruling in the market.

One basic difficulty confronting our study should be noticed now and borne in mind hereafter. If factor prices are to be minimised for purposes of attaining the optimum, they have to be first of all separately located and quantified. But factor divisibility is imperfect in the case of Indian farming, especially on the small holding; here, the owner-cultivator is the rentier, capitalist and entrepreneur—all rolled into one. Factor separation can therefore be largely notional; and consequently, estimation of factor costs, item by item, cannot be exact and convincing.

At this juncture, an examination of the structure and incidence of the land tax is necessary. The Indian Taxation Enquiry Committee of 1924-25 held the view that the canon of ability to pay has limited applicability in the case of land revenue and that it is not a tax to which the doctrine of progression can be applied.[8] The Final Report of the National Income Committee regard it as a direct tax;[9] but the fact remains that, levied at a flat rate, it exerts a regressive pressure. At one end of the scale, the larger landlords pay a comparatively small part of their surplus to the State, while at the other end, the mass of the cultivators of uneconomic holdings bear the brunt of the heavy impost. Moreover, as has been stated by the Taxation Enquiry Commission of 1953-54, the land tax suffers from the defects of (a) a pitch of assessment as high as 50 per cent of the net produce, and (b) a rate structure unrelated to the price level.[10] Above all, land revenue does not provide for any exemption, regardless of the ability of the cultivator to pay or not. Indeed, the Commission commended the Andhra Government for having taken a decision (in 1953) to exempt all landlords paying a land assessment of Rs.10 and below from paying any assessment to Government.[11]

Since the advent of planned development, the revenue from the land tax increased in absolute terms and also as a percentage of the total tax revenue, as is evident from Table II.[12]

TABLE II—COMBINED REVENUE RECEIPTS OF THE CENTRE AND THE STATES

(In lakhs of Rupees)

Year 1	Revenue from the land tax 2	Total tax revenue 3	Percentage of column (2) to (3) 4
1951-52	51,75	741,70	6.1
1952-53	57,85	674,02	8.6
1953-54	71,65	673,15	10.6
1954-55	73,04	720,61	10.1
1955-56	81,26	759,44	10.7
1956-57 R. E.	93,16	841,44	11.1

8. Report of the Indian Taxation Enquiry Committee, 1924-25, pp. 76-77.
9. Final Report of the National Income Committee, 1954, p. 111.
10. Report of the Taxation Enquiry Commission, Vol. III, pp. 268-69.
11. *Ibid.*, p. 269.
12. India 1958, Publications Division, Government of India, pp. 232-3.

This increase in the revenue significance of the land tax from over 6 per cent in 1951-52 to over 11 per cent in 1956-57 is more apparent than real. In the words of the Commission it represents "an entirely formal increase resulting from a larger body of cultivators having come into direct relationship with the Government, and does not signify any addition to the burden of land revenue."[13] Further the Commission finds that there has been a substantial decline in land revenue on two accounts: (1) As a per cent of the net value of agricultural output, land revenue worked out at 4.5 per cent in 1938-39 whereas it formed only 1.2 per cent in 1950-51.[14] (2) Secondly, the actual burden of land revenue in 1953-54 on agriculture was light because of the large increases in the prices of agricultural produce that have taken place since settlements were made and the basis of assessment was fixed.[15]

This view of under-taxation of the agricultural sector has been found unacceptable to the ECAFE Working Party on Economic Development and Planning on certain grounds. According to them, "The main question is whether the agricultural sector pays less or more when the combined burden of all taxes is considered."[16] If the incidence of the proportional land tax is added to the indirect taxes, the gap between the burden of indirect taxation borne by the urban and rural sectors, particularly in the subsistence economy areas, will be narrow indeed in the lower and middle income groups. As to the rise in agricultural prices, it would appear that it does not fully benefit the small-and-middle-income groups in the agricultural sectors. "The rise and decline in the farmer's income is dependent upon the parity relationship between the prices at which the surplus (of his output) is sold and prices paid for goods purchased. . . . In any case, it will not be easy to prove conclusively a substantial improvement in the terms of trade for small agricultural producers."[17]

The Law of Diminishing Returns comes into operation in farming much earlier than in manufacturing for the reason that the invariant factor of land is combined with the variable factor of labour; and incidentally, the principle of optimal allocation is violated. Excess capacity is bound to occur in the form of under-employment of labour. Moreover, in India the fixed supply of land coupled with the relatively abundant supply of labour makes economising on land a virtue of necessity; but obviously, there are definite limits to such economising in the absence of the improvement of the arts of agriculture; further, intensive cultivation is a matter of capitalisation which is beyond the means of the small-scale cultivator. Evidence in support of these observations is available from a study of the economics of farm management in the districts of Meerut and Muzaffarnagar in Uttar Pradesh, as is indicated in Table III.[18]

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13. Report of the Taxation Enquiry Commission Report, Vol. I, pp. 77-8.
14. *Ibid,* p. 73.
15. *Ibid,* p. 78
16. "Taxation and Development of Agriculture in Under-developed Countries with special Reference to Asia and the Far East," Vol. IX, No. 1, June, 1958, p. 15.
17. *Ibid.*
18. Studies in Economics of Farm Management in U.P., for 1954-55, Directorate of Economics and Statistics, pp. 37-40.

TABLE III—LAND-LABOUR RELATIONSHIP

(By size of holdings) (Cost Accounting Sample)

Size-group (in acres)	Percentage distribution of family labour	Utilisation of labour days per holding, on farm work
2.5-5	86.36	327
10-15	66.66	498
25 and above	43.75	838

LAND-CAPITAL RELATIONSHIP[19]

(Cost Accounting Sample)

Size-group (in acres)	Value of Implements per holding, (average)	Investment on fixed capital excluding land (per holding)
		Rs.
2.5-5	175.2	1,246
10-15	313.9	2,320
25 and above	610.2	5,510

Therefore, the search for efficiency has to be diverted from minimising costs to maximising receipts. In the short term this objective is realisable by means of a change-over of the crop pattern from the low-priced to the high-priced produce, in other words, from food crops to commercial crops. However, while opportunities of commercialised agriculture are open to the cultivators of large holdings, subsistence farming happens to be the lot of the small-scale farmer. The latter usually raises food crops mainly for domestic consumption; and largely lies outside the monetized sector of the economy. Besides, if at all his marketed surplus gets the advantage of increased prices, the rise in his income is more than off-set by post-war inflation. A study of the problems of small farmers in the Kodinar Taluk in the Bombay State undertaken in 1953 leads to the same inference.[20]

The taxable capacity of the agriculturist is to be measured by the differential between his income and his minimum consumption. By the application of some of the broad averages of data regarding these aggregates (though averages cannot be a reliable guide in a country of bewildering regional variation) we may estimate the taxable capacity of the farmer.

The annual per capita income in 1953-54 was estimated at Rs. 280.7 at current prices.[21] Per capita annual consumer expenditure in that year in the rural sector was estimated at Rs. 257.[22] The saving over and above consumption available for taxation thus amounted to Rs. 23.7. The incidence of indirect taxation applicable to the consumer expenditure mentioned here was calculated at Rs. 7.5 ; to which is to be added a sum of Rs. 1.87 by way of land revenue.[23]

19. Studies in Economics of Farm Management, 1954-55, pp. 32-34.
20. See C. H. Shah: Problems of Small Farmers, Indian Society of Agricultural Economics, Bombay, 1958, pp. 70 and 126.
21. India 1959, Publications Division, p. 187.
22. Report of the Taxation Enquiry Commission, Vol. I, p. 68,
23. *Ibid.*, pp. 68 and 75,

Thus, the tax burden worked out at approximately Rs. 10 in the aggregate, that is to say, in 1953-54, taxation amounted to nearly 42 per cent of per capita rural saving. If even the remainder of this saving is to be taxed away the modest volume of capital formation that might otherwise take place will be rendered impossible.

The second method of estimating the farmer's taxable capacity is to resolve his income into its four constituent elements—imputed factor prices—and separate the producer's surplus (sometimes called net profit) which is to absorb the proposed taxation. But such a desired type of breakdown of the farmer's income as distributed between the factors of production including himself and his family is hardly available. But enough information is forthcoming from the six "Studies in Economics of Farm Management" in U.P., Punjab, Bombay, West Bengal, Madhya Pradesh, and Madras, 1954-55, the first has already been cited as a typical Report—from which a rough idea of the small-scale cultivator's ability to pay can be gauged.

TABLE IV—INPUT-OUTPUT PATTERN[24]

(Cost Accounting Sample) (Value in Rupees)

Size-group (in acres)	Input	Output (Per holding)	Profit (+) or loss (—)
Below 5	1139	1037	—102
Below 5	344.14 (Per acre)[25]	313.51	— 30.63

For purposes of these Studies "farm receipts consist of the value of all the produce on the farm whether sold, consumed or stocked. Farm expenses include cost of human labour, both family as well as hired, cost of maintenance of draught cattle, seed, fertilizers, manures, maintenance charges of buildings and dead-stock, *land tax and cess*, irrigation charges, interest on working capital and depreciation."[26] It is found that after these costs are deducted from his income, the small-scale farmer is faced with a deficit ; and this in U.P.

This situation may be regarded as representative of the plight of small holdings elsewhere in the country. With very few exceptions, they hardly make any net profit ; so that, if any further load of non-shiftable land tax is to be imposed on them, it would surely corrode into the wages of management which are already at or near the subsistence level. The value of marginal product of the self-employed cultivator is depressed in farming below the factor price which must prevail elsewhere if factors are optimally distributed in the economy, as they are assumed to be under perfect competition. The farmer would change his occupation, if employment opportunities are available to him in the non-farm sectors ; but at the moment they are not. Thus, in the face of increasing taxation, the farmer's continued self-employment in agriculture would be largely involuntary and steadily deviating from his optimum.

24. Studies in the Economics of Farm Management in U.P., p. 49.
25. *Ibid*, p. 51.
26. *Ibid*, p. 49.

TAXATION AND OPTIMUM LAND UTILISATION

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The basic data for the study have been obtained from 401 typical holdings of different sizes distributed in sixteen villages in the Upper Ganges Doab in the districts of Meerut and Muzaffarnagar, for the year 1950-51. The studies relate to crops and cropping pattern, gross income obtained from farming and the expenses incurred in raising crops. An attempt has also been made to study the incidence of taxation in agriculture and its relationship with optimum land utilisation which reveals the extent of efficient farming from the point of intensive utilisation of land under different sizes of holdings. The taxation includes revenue and rent paid for the use of land for farming purposes.

CHARACTERISTICS OF THE REGION

The region to which this study refers is one of the best agricultural tracts in Uttar Pradesh and also in India. It is populated by most industrious farmers who are famous for many generations for their farming skill. They are considered to be both good managers and good workers. The noteworthy feature of farming in the region is that there are few tracts elsewhere with so much made soil by human efforts. The fields are well levelled and impress the visitor of the devotion with which the farmer cultivates them. The soil over a great part is light loam. The normal rainfall is about 29." Nearly two-thirds of the cultivated area is irrigated, canal being the major source. The double cropped area comes to about 33 per cent. The average size of sample holding was about 12 acres. As a result of the land reform measures adopted in the State all the tillers of the land, with very few exceptions, have been brought in direct relation with the Government and the majority of them own the land of their operational holdings. The land which is not owned is held under the *Sirdari* tenure which for all practical purposes, so far as it concerns farming practices and permanent improvement, is to be treated as owned land as it provides the landholder the same incentive and freedom to effect improvements as if he were a landowner. The only major distinguishing feature between ownership and *Sirdari* tenure is that the farmer cannot sell the land held by him under the latter tenure, no doubt he can get ownership rights on the land and thereafter the right of transfer if he pays to the Government a certain multiple of the rent to which his land is assessed. The agricultural population forms about 54 per cent of the total in the region. The cultivated area forms about 80 per cent of the total area. Wheat, sugarcane, gram, maize and rice are the major crops grown in the area. In addition an appreciable area is under fodder crops (largely Sorghum) commanding about 24 and 18 percentages to cultivated and gross cropped area respectively. Sugarcane is the most important cash crop, occupying 21 per cent of the total cultivated area. Ratoon accounted for about 30 per cent of the total area under sugarcane. The type of farming may be described as specialised sugarcane-grain.

It may be observed from Table I that the incidence of land tax to total income is lowest on holdings in the size group less than 2.5 acres which are also responsible for the highest income per acre. The holdings in the size group

TABLE I—INCIDENCE OF TAXATION TO TOTAL INCOME FROM FARMING BY SIZE OF HOLDINGS

Size group	No. of holdings	In Rupees			Percentage of land tax to total income
		Taxes paid	Total income	Income per acre	
Below 2.5 acres	14	10	1525	811	0.66
2.5—5 „	57	28	2291	606	1.22
5—7.5 „	58	41	3376	534	1.21
7.5—10 „	56	53	4710	537	1.13
10—15 „	87	75	5540	463	1.35
15—20 „	61	95	8320	485	1.14
20 acres and above	68	148	13848	479	1.07
Average	(401)	73	6341	493	1.15

10 to 15 acres having the lowest income per acre recorded the highest incidence of land tax to total income. It may also be noted that except the holdings in the size groups less than 2.5 acres, 10 to 15 acres and 15 to 20 acres, a decreased percentage of land tax to total income has been followed by a decrease in income per acre. The percentage of land tax to total income ranges between 0.66 per cent and 1.35 per cent. On average it works to 1.15 per cent.

TABLE II—INCIDENCE OF TAXATION TO TOTAL CULTIVATION EXPENSES BY SIZE OF HOLDINGS

Size group	No. of holdings	In Rupees			Percentage of land tax to cultivation expenses
		Taxes paid	Cultivation expenses	Expenses per acre	
Below 2·5 acres	14	10	824	438	1.21
2.5—5 „	57	28	1374	463	2.04
5—7.5 „	58	41	2088	330	1.96
7.5—10 „	56	53	2785	318	1.90
10—15 „	87	75	3593	300	2.09
15—20 „	61	95	5186	303	1.83
20 acres and above	68	148	7944	275	1.86
Average	(401)	73	3831	298	1.91

The holdings in the size group 10 to 15 acres recorded the highest percentage of land tax to total cultivation expenses ; while the holdings in size group less than 2.5 acres are responsible for the lowest percentage of land tax to cultivation expenses. With the exception of holdings in size groups less than 2.5 acres, 10

to 15 acres and 20 acres and above, an increase in size of holdings has been followed by a decrease in percentage of land tax to total cultivation expenses. The variation is between 1.21 per cent and 2.09 per cent with an average of 1.91 per cent to total cultivation expenses.

It also has been attempted to find out any feasible relationship between the percentage of land tax to total cultivation expenses and per acre expenses incurred in raising crops. The investigation reveals that a decline in per acre cultivation expenses tended to decrease percentage of land tax to cultivation expenses except on holdings in size groups less than 2.5 acres, 10 to 15 acres and 20 acres and above. The percentage of land tax to cultivation expenses tends to decrease with a decrease in per acre land tax except on holdings in the size groups less than 2.5 acres, 10 to 15 acres and 20 acres and above.

TABLE III—INCIDENCE OF TAXATION IN RELATION TO CULTIVATED AREA BY SIZE OF HOLDINGS

Size group	No. of holdings	Cultivated area in acres	Land tax paid in rupees	Land tax paid per acre of cultivated area
Below 2.5 acres	14	1.88	10	5.32
2.5—5 „	57	3.78	28	7.41
5—7.5 „	58	6.32	41	6.49
7.5—10 „	56	8.77	53	6.04
10—15 „	87	11.96	75	6.27
15—20 „	61	17.14	95	5.54
20 acres and above	68	28.92	[illegible]8	5.12
Average	(401)	12.85	75	5.68

Obviously with an increase in size of holdings the incidence of land tax per holding increases. The per-acre basis of calculation of incidence of land tax revealed that it is maximum on holdings in size group 2.5 to 5 acres. It tended to decrease with an increase in size of holding except on holdings in size group 10 to 15 acres. The holdings in size group 20 acres and above attributed for the lowest incidence of land tax per acre of cultivated area. The variation is between Rs. 5.12 and Rs. 7.41. On an average the incidence of land tax works out to Rs. 5.68 per acre.

The reason of lower land tax per acre in case of bigger holdings is that the land was owned by the farmers in upper size groups to a greater extent even before the Zamindari abolition. Further, they have acquired Bhumidhari rights relatively over a larger area of their holdings as compared with the small holders. Consequently, their land tax was reduced by 50 per cent to a greater extent than the small holders on acquiring Bhumidhari rights after paying to the Government a certain multiple of the rent to which their land was assessed.

TABLE IV— INCIDENCE OF TAXATION IN RELATION TO CROPPED AREA BY SIZE OF HOLDINGS

Size group	No. of holdings	Cropped area in acres	Land tax paid in rupees	Land tax paid per acre of cropped area
Below 2.5 acres	14	3.12	10	3.21
2.5—5 „	57	5.59	28	5.01
5—7.5 „	58	9.19	41	4.46
7.5—10 „	56	12.46	53	4.25
10—15 „	87	16.19	75	4.63
15—20 „	61	22.93	95	4.14
20 acres and above	68	37.61	148	3.95
Average	(401)	17.33	73	3.78

The land tax per acre of cropped area is maximum on holdings in the size group 2.5 to 5 acres. It exhibits a decreased tendency with a decrease in size of holding except holdings in size groups less than 2.5 acres and 10 to 15 acres. It ranges from 3.21 per cent on holdings in the size group less than 2.5 acres to 5.01 per cent on holdings in the size group 2.5 to 5 acres. On an average it works to Rs. 3.78 per acre of cropped area.

Briefly it may be summarised that percentage of land tax to total income ranges between 0.66 per cent and 1.35 per cent. On an average it comes to 1.15 per cent. The same in relation to cultivation expenses is 1.91 per cent varying from 1.21 per cent to 2.09 per cent. In both cases, *i.e.*, percentage of land tax to total income from farming as well as to total cultivation expenses, it tends to decline with a decrease in per-acre income as well as per-acre cultivation expenses except on holdings in the size groups less than 2.5 acres, 10 to 15 acres, and 15 to 20 acres in case of incomes and less than 2.5 acres, 10 to 15 acres and 20 acres and above in case of cultivation expenses. The incidence of land tax per acre of cultivated area works out to Rs. 5.68 on an average. The decrease in land tax per acre of cultivated area has been followed by an increase in size of holdings except on holdings in size groups less than 2.5 acres and 10 to 15 acres. The fact that the land was owned by the farmers in upper size groups to a greater extent even before the Zamindari abolition and they also have acquired Bhumidhari rights relatively over a larger area of their holdings as compared with the small holders, is responsible for a lower land tax per acre in case of bigger holdings than that of smaller ones. The land tax per acre of cropped area works out to Rs. 3.78 on an average and decreases with an increase in size of holdings except on holdings in the size groups less than 2.5 acres and 10 to 15 acres. The investigation also reveals that land tax per acre of cultivated area, except on the holdings in size group less than 2.5 acres where data have been obtained only from 14 holdings, is maximum on holdings having the highest intensity of cropping. It also decreases with a decrease in intensity of cropping except on the holdings in size group 10 to 15 acres.

TAXATION AND OPTIMUM LAND UTILISATION

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In a developing economy of an underdeveloped country like India, the taxation policy of the State should be to raise finance without damping productive incentive of the public at large. In order to have such a policy, it is necessary that the Government should tackle these vital problems, *viz.*, taxation and production in such a way that they co-operate with each other and result in maximum profit. This leads us to a study of the correlation between the tax system and the utilisation of the resources of the country.

Crop Pattern Trends

Before drawing up the First Five-Year Plan, the Planning Commission undertook a study of area under different crops in some of the principal States for a period of 40 years. It showed that over this period : (*i*) the net area sown had increased considerably except in Uttar Pradesh ; the area growing more than one crop had increased by 20 per cent and the total cropped area showed some increase, which, however, lagged far behind the rapidly increasing population ; (*ii*) the irrigated area had increased by 10 per cent mainly through the extension of canals ; (*iii*) the area under current fallows remained at the level of 1919-20, till the early forties and thereafter showed some increase, particularly in the cotton-growing tracts because of the sudden decrease in the cotton area which was left partly fallow.

A study in crop pattern trends undertaken by the Planning Commission reveals that : (*i*) the area under foodgrains showed a small increase in the forties when the area under cotton declined ; (*ii*) the acreage under cotton decreased during the period of the two world wars. This trend, however, was reversed in the post-war period ; (*iii*) the area under oilseeds, mostly groundnuts, had steadily increased by about four million acres ; (*iv*) the area under jute had decreased by about a million acres since partition, as a result of the efforts to fill the gap between supply and demand of jute and (*v*) the area under sugarcane had increased by about a million acres. The above study has led to the conclusion that although the gross cropped area had increased as a result of double cropping, little new area had come under cultivation during the last decade. Secondly, changes in the price structure had affected the pattern of crops even though a large part was cultivated in tiny holdings. Thirdly, the diversion in the area from food to commercial crops or vice versa did not follow a fixed pattern from year to year and was governed by various considerations such as seasonal factors, rotation of crops, changes in prices and the ability of growers to finance the operations.

After the commencement of the First Five-Year Plan, there was also some noticeable improvement in total cropped area, *viz.*, there were 352 million acres of total cropped area in 1954-55 as against 326 million acres before the commencement of the First Plan. Area under food crops was 272 million acres in 1954-55 (*i.e.*,78 per cent of the total cropped area) as against 257 million acres (*i.e.*, 77 per cent of the total cropped area) before 1951. Area under commercial crops was

60 million acres (17 per cent of the total cropped area) as against 49 million acres (*i.e.*, 15 per cent) in 1951.

Surplus Agricultural Incomes

As a result of development expenditure incurred under the two plans during the last eight years, national income has gone up appreciably. The share of the agricultural sector in the national income at current prices has gone up from Rs. 4890 crores in 1950-51 to Rs. 5690 crores in 1956-57. It is, therefore, essential that the increment in incomes in the agricultural sector associated with the implementation of a plan of development must be prevented from being consumed by the farm population, through taxation and should be siphoned off for financing further development. Per capita incidence of taxation is still five times higher in the urban sector than in the rural sector. A preliminary analysis of the available data, based inevitably on a great deal of guess work, suggests that the increase in tax revenue since 1952-53 has been realised more from the urban rather than the rural sector and that while government taxation has absorbed nearly 40 per cent of the increase in incomes in the urban sector, the share of Government in the increased income of the rural sector has been perhaps not more than 15 per cent.[1] That the State Governments have not, as yet, launched an energetic drive in the field of agricultural taxation would be evident from the following table :

AMOUNT AND SOURCES OF ADDITIONAL TAXATION RAISED BY THE STATES (1951-56)

(In crores of Rupees)

	Amount collected 1951-56	First Plan target
1. Taxation on Land including land revenues and agricultural income-tax	5.9	34.0
2. Irrigation rates including betterment levies ..	6.5	29.5

By the beginning of the Third Five-Year Plan, many of the projects now under way would be completed and the irrigation benefit accruing to the peasant community would increase considerably. Hence there is a case for stepping up taxation in the agricultural sector.

It may also be pointed out that as a result of land reform measures, introduction of state-trading in foodgrains and expansion of marketing and credit facilities surpluses in the agricultural sector which have hitherto been squeezed out from agriculture by way of rent, money-lenders' interest and the merchants' profits would now accrue in that sector. Hence it is obviously important not only to raise additional taxes from the rural sector but also to increase the progressive-

1. 'Resources for the Third Plan,' by K. N. Raj, *Economic Weekly* Annual, January, 1959.

ness of agricultural taxation. Such assessment methods should be devised as would provide incentives for higher production. It may be mentioned that when the land assessment is based on higher productivity standards, it could result in over-taxation of the inefficient producer, which may induce greater productive efforts. Similarly the taxation of capital value as against the annual value and exemptions or favourable treatment of improvements as compared with unimproved value of land may induce higher agricultural productivity.

In order to ensure each perfect equality in economic status, it is not sufficient if the Government has taken only measures to give relief to indebted agriculturists and to the under-privileged classes of the rural population, but it should take such a measure as to take a portion of the net income of the big landholders with a view to cover various welfare measures undertaken. In taking up such a measure to tax the farm income, the Government should see that there would be no tax for persons owning certain acres of land and this exemption limit should vary according to the locality.

Similarly the Government should also see that certain categories like the lands owned by co-operatives, temples, etc., and money spent on educational institutions, research activities to promote the cause of agriculture and contributions made to the National Extension Service and Community Projects Schemes would be exempted from this tax. In the matter of assessment on dry lands as well as on wet lands, the difficulties of agriculturists depending entirely on tank irrigation for agricultural operations should be considered by the authorities concerned, before levying a tax on farm income, and the tax so levied must be lighter and create sufficient incentive among the agriculturists to produce more.

In case of collection of tax from farm income, the collection agency should be one which has already dealings with the agriculturists and might be in a position to appreciate the difficulties of ordinary ryots. Such an agency should be the Revenue Department and not the Income-tax Department. It should also be remembered that the levy of a tax on farm income would not amount to double taxation because the levy of tax relates to the income derived from land and that income is subject to taxation just like income from any other source.

Once the Government wants to have a tax on farm income, then the land tax should be progressively replaced by tax on farm income because when there is a levy of tax on farm income, the land tax on the level at which it has been collected in all these years, may not be justifiable and hence, once the tax is levied on farm income, the tax on land as it exists today, should be modified so as to have a uniform basic tax in the country. Unless the Government knows definitely what amount it would get from the levy of a tax on farm income, it could not implement the levy of a uniform basic tax on farm income immediately. Even if the Government comes to understand by one method or other, the approximate amount that it can get from such a uniform basic tax on farm income, it should not implement the uniform basic tax on land in a hurried fashion because it would definitely land the Government in many difficulties—economic, political, social—and even make it incur a financial loss when the question of "ceiling on holdings" is taken up and put in force by the States.

Therefore, there are two alternatives before the Government. (*i*) The Government should fix ceiling on holdings first and then resort to fixing a uniform basic tax on land. (*ii*) The Government should treat the exemption limit of holdings provided in the levy of a uniform basic tax on land, as the "ceiling on holding." Therefore, it is clear that fixation of a levy of a uniform basic tax on land requires a detailed examination of the position of the holdings in India. Hence, the policy of levy of a uniform basic tax on land should only be a long range plan.

Now what has been explained so far, may be illustrated to convince the reader of the relation between the tax system and the optimum utilisation of land resources, with reference to the Madras State. On 30th September, 1958, the Madras Legislative Council passed the Madras Plantations Agricultural Income Tax Amendment Bill. The Bill now provides for a levy of income-tax on plantation and non-plantation acres. On the first Rs. 3,600 of total agricultural income, there would be no tax and in the same way 12½ standard acres would be exempted from the purview of the Bill. The Bill also provides exemption for certain categories like land owned by co-operatives. Under the Bill, the exemption limit has been fixed at 12½ standard acres because it is thought that the income from it would be Rs. 3,600 a year on an average. That means that any person getting an annual income of Rs. 3,600 in the agricultural sector, would be a sort of Gazetted Officer.

It is roughly computed that there are about 41 lakhs of holdings[2] in the State of which only about 4,000[2] can be taxed under the provisions of the Act, letting alone the compoundable cases. The compoundable cases could be put at 40,000.[2] That means that a large bulk of the agricultural population would not be affected at all. The land tax and the agricultural income-tax levied at the same time, would not create hardship to the minority of the agricultural population who has to pay both because it should be remembered that the land tax, as it exists now, was levied some 30 years ago and there was no resettlement.

Undoubtedly during this period, the prices of foodgrains and the cost of agricultural operations had gone up, but the cost of agricultural operations had not gone up to such a level as not to leave a margin for the agriculturists, as the increase in prices of foodgrains was far greater than that in the cost of agricultural operations. Therefore the attempt of the Government in passing Bill to get some portion of the net income, cannot be questioned. But on the other hand the Government should be congratulated because it has established economic equality among the agriculturists without killing the incentive for producing more and with the help of the income from such tax proceeds, however little it may be, together with its other financial resources, it is now in a position to improve agricultural production at home.

2. *The Hindu*, 29th September, 1958.

TAXATION AND OPTIMUM LAND UTILISATION IN INDIA

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The pattern of land utilisation in India reveals that the existing area under cultivation is miserably inadequate as far as the needs of the present population of the country are concerned. Secondly, there has been no rational land-use policy to bring about an optimum utilisation of land. And therefore the country has to face the evils arising from uneconomic use of land or under-utilisation of land. If India wants to maximise production from land, the problem of improper land utilisation must be tackled by laying down a number of criteria of optimum land use.

The concept of optimum land utilisation is a relative and flexible one. Difficulties in deciding upon the best or optimum use of any particular type of land arise out of the dilemma of producing maximum amount of food and other products with minimum adverse effects on the productivity of land. It is necessary to simplify this concept by stating that optimum utilisation of land may mean fullest use of land, most efficient or most productive use of land.

There have been attempts to explain the concept of optimum land utilisation either in terms of optimum intensity, or regional specialisation based on comparative cost advantages[1] or social cost and social output. Obviously there is agreement on one common point, *i.e.*, the maximisation of land productivity by eliminating misuse of land. This may be considered as an important indicator of optimum land utilisation. No doubt, "the amount of land and its quality, the intensity of its use....and the degree to which it is modified by man to increase its production are all essential in the consideration of land utilisation in any country."[2]

The above discussion implies that an optimum land-use planning must take into account two important things. Firstly, in a region, what is the pattern of land-use, *i.e.*, low land is distributed among its various uses ; and secondly what are the agricultural practices within each of the uses of land in the region concerned. After having known the degree of maladjustment in the pattern of land-use and defects in the agricultural practices within each use, it may be possible to work out a judicious land tax policy to bring about the best results from land-use. Various tax measures can be effectively used to effect conversion of land from one major use to another more productive use. Cultivation, grazing and forestry are the three main uses of land. Since land is limited in supply, a choice is to be made between the alternative major types of land uses, say, between any two competitive or complementary crops. After having made a choice about land-use, it becomes necessary to induce a process of shifting land from one major use to

1. Ronald R. Renne: Land Economics, 1958. See also "Economic Aspects of Land Conservation", by Siegfried Von Ciriacy Wantrup, *Journal of Farm Economics*, Vol. XX, No. 2 May, 1938.
2. J. L. Buck: Land Utilisation in China, 1956, Ch. IX, p. 162.

another. This objective cannot be entirely achieved with the help of the forces of a competitive economy. In agriculture, time-lag between the input and output may work as a retarding factor. Also, under economic planning, production and price incentives if backed by suitable tax measures can ensure better effects. It may also happen that in a competitive economy, growing of a particular crop may be more profitable to particular farmers. But, it might very well happen that growing that particular crop may not necessarily be of much profit to the nation. In the case of a farmer who wants to put all his land under cash crops in times of acute food shortage, some sort of State control or directive through penalty or incentive taxes on his cropping scheme becomes necessary.

Coming to the various tax measures, the important questions which arise are : Of the various tax measures, which taxes are feasible and more effective in achieving the goal of optimum land utilisation? What is the experience of other countries in this matter? To what extent can taxation alone bring about the desired adjustment in land-use? Will taxation alone or taxation in conjunction with some non-tax measures be able to ensure optimum land-use? What are the desirable tax-bases for the purpose?

In India, Turkey, South Korea and Ethiopia, agricultural income is exempt from the general income tax on the principle that the land taxes are in lieu of income taxes of the conventional type on the agricultural income. In Western countries, land is subject to four different taxes, namely, a flat rate on annual or capital value, a death duty, local cesses and a tax on incomes. Recently in India, the problems of resource mobilisation and land production have drawn the particular attention of the Planning Commission.

Generally, land taxes are imposed on the basis of area or land value or annual revenue or income from land. Also, there may be special purpose taxes which are generally designed to serve mostly the non-fiscal objectives of an economic, political or social nature. Their revenue yield may be only an accidental consideration. However, if land taxes are to be expected to ensure optimum land utilisation, a number of tax bases will have to be resorted to. Differentiation of land taxes may take place according to the type of crop, type of soil, location, type of farming, or size of the holdings. The major purpose of land tax differential may be to influence land-use rather than to increase revenue. For instance, putting a higher tax on land used for cash crops when it is more suitable for food crops tends to force it into food crops production. In Australia, and Newzealand where agriculture is extensive in character, differential tax rates have been enforced to discourage the growth of large estates, tenant farming and absentee landlordism. Absentee owners are taxed at a higher rate than owner cultivators. In Japan, rice fields enjoy a lower tax rate than farms devoted to other crops. Differential tax rates may also be used to promote land improvements such as reforestation, reclamation, forest clearing etc.

In India, if agricultural production is to be maximised, two types of problems will have to be tackled. These are the problems of (1) land improvement and (2) land redistribution between different uses and also among different users. In the light of these land problems, the future pattern of land taxation should be

chalked out so as to achieve the following goals : (*a*) to increase production ; (b) to redirect production; (*c*) to penalise uneconomic use of land.

As regards the first objective, substantial amounts of concessions and exemptions will have to be granted to all those who aim at increasing land production by reclamation of land and levelling of land. Exemptions should also be granted to certain types of enterprises such as co-operatives and foreign investments in agriculture. Of course, the efficacy of these measures would largely depend upon the period for which such incentives are granted, level of tax and administrative efficiency. If the tax incentives are granted at a low level, they may not have desirable effects on decisions to improve land or shift land from one use to another. Also, the stimulating effects of these measures may be offset if they are not granted for a reasonably short period, say, four to five years. Further, the tax incentives should necessarily be restricted to private investments only. "Increases in the productive capacity of land resulting from government investment should be included in the tax base"[3]

The second objective, namely, that of redirecting production can be achieved by imposing penalties or by granting subsidies to particular agricultural activities. Tax discrimination in these forms has been widely practised in the various parts of the world. In Cambodia, mulberry trees are exempted from the land tax as a stimulus to silk culture. In Chile, a penalty tax is imposed on newly planted vineyards.

In order to bring about substantial and direct effects of these measures, it would be desirable to fix the tax rates so as to correspond with net income differentials. Otherwise, the taxes will not be neutral in their relative impact on different types of agricultural output. Moreover, to ensure the desired changes in production, the tax discrimination must necessarily involve rather heavy tax penalties or concessions.

The last objective deserves greater attention in India where repeated complaints are made about the orthodox practice of keeping idle some large tracts of fertile land, holding it for prestige reasons or for purposes of speculation. It is necessary to have a system of taxation which would penalise under-utilisation of good land.

Coming to the problem whether taxation alone or taxation in conjunction with some non-tax measures would be able to realise the lofty goal of optimum land utilisation, it would be interesting to quote the views of Harold M. Groves who says, "mention should be made of the fact that taxation is only one among the many means of conservation. The police power can be used to prevent the wasteful exploitation of minerals, oil and forests....Of course, the taxation of land has as much to do with obtaining revenue as with preserving the resources".[4] No doubt, land taxes will have to play an important role in all those underdeveloped countries where agricultural reconstruction has been in progress. But, a proper implementation of tax measures calls for a scientific land classification, data of land productivity, details of crop pattern, type of farming, and such other

3. H. P. Wald: Taxation of Agricultural Land in Underdeveloped Economies, 1959, p. 213.
4. Harold M. Groves: Financing Government, 1939, p. 317.

information relevant for the purpose. Especially in India the main obstacles in implementing these tax measures are : lack of technical personnel ; the farmers may not give good response ; natural vagaries too will have to be confronted. Therefore, it would be wise to adopt side by side some non-tax measures too. As regards the non-tax measures, a number of things can be suggested ; such suggestions can be made in relation to the obvious tests of good husbandry of land resources. Having given careful consideration to the various possible tests of good husbandry, the efficiency and management of land or farm resources can be judged with regard to the factors such as levelling, bunding, terracing, removal of alkali or kallar, anti-erosion or soil conservation measures, removal of weeds, clearing of shrubs, etc. Also, the schemes of irrigation, crop rotation, better seeds, fertilisers and co-operative participation by the people may be very useful in expediting the realisation of the goal of optimum land utilisation. Of these measures, land conservation constitutes the most important factor in bringing about optimum utilisation of land. Land conservation means using land to the optimum extent so as not only to get the maximum benefit of the land resources but also to preserve it as far as possible in an unhampered efficiency for the posterity. Also, the economics of crop rotation forms an important aspect of a programme for optimum land utilisation. A choice of crop combinations on specific soils and farms becomes necessary from the standpoint of both the individual farmer and the national welfare. The optimum regional specialisation would be attained automatically, if, with the help of differential taxes and other related measures, an optimum cropping pattern could be established on each individual farm from the standpoint of national welfare. The ultimate goal should be to increase productivity. And, "the goal of increased productive efficiency need not be interpreted exclusively in terms of the input-output ratios for individual crops : it can also refer to the overall pattern of resources use within agriculture."[5]

5. H. P. Wald, *Op. Cit.*, p. 129.