# AGRICULTURAL TAXATION IN ORISSA (1970-1980)

By

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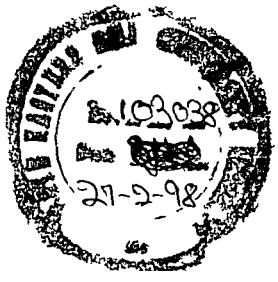

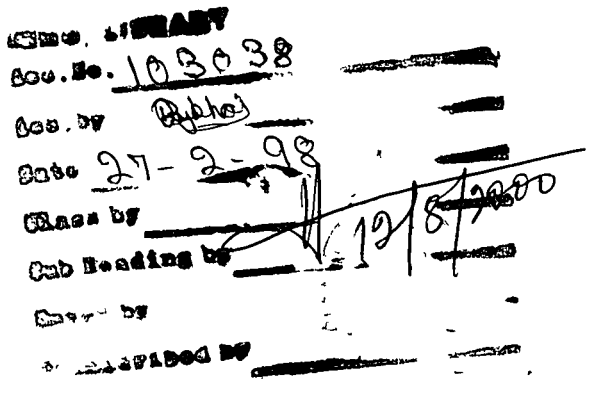

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Certified that the subject matter of this dissertation is the record of work done by Biswanbhara Mishra, that the contents of this dissertation did not form a basis of the award of any previous degree to him, or, to the best of my knowledge to anybody else, and the dissertation had not been submitted by him for research degree in any other university.

In habit and character, Biswanbhara Mishra is a fit and proper person for the degree of MASTER OF PHILOSOPHY (in Economics).

T. Mathew

( T. Mathew )
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CONTENTS

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# CHAPTER - I

# INTRODUCTION

# INTRODUCTION

One of the major problems facing the developing economies is that of mobilising adequate resources for accelerating their development. With the advent of planned efforts for economic development in India, Government has been exploring all possible areas for tapping additional resources. The problem of agricultural taxation has assumed considerable importance in recent years for various reasons, both political as economic. In this context, the need as well as the scope for imposing additional taxation on the agricultural sector has frequently been emphasised for a variety of reasons. It is now a widely held view that, if a rapid rate of development is to be attained, the agricultural sector will have to play a very crucial role in providing adequate amount of resources for investment. Considering the huge industrial-origin input requirements of the agricultural sector itself, and the high opportunity cost of the resources, available in the non-agricultural sector, it is often argued that the agricultural sector should also be made to shoulder a reasonable part of the burden of this effort. However, recent developments in India appear to be somewhat paradoxical, in the sense that while most economists have been emphasising the inadequacy of

agriculture's contribution to development resources, and the need for mobilising a larger amount from this sector, several state governments have totally scrapped the land revenue, thereby reducing even the little amount of direct tax revenues that were being contributed by this sector.

In order to evolve a rational policy of taxation, it is necessary to have an idea about the relative weights of the burden of taxation on the various sectors of the economy. Since the Taxation Enquiry Committee[1] made the first comprehensive efforts for measuring the burden of taxation, several studies have been made[2] at the all India level for measuring the burden of taxation on the agricultural and non-agricultural sectors. Further, there have also been studies on this subject at the states' level, particularly pertaining to Andhra Pradesh and Gujarat[3]. A study about the burden of taxation at the

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1. Government of India, "Report of the Taxation Enquiry Commission" 1953-54, Vol. 1, pp. 45-84.
2. Gandhi, Ved P. "Tax Burden on Indian Agriculture", Cambridge, 1966.
   Mathew, E.T. "Agricultural Taxation & Economic Development", Bombay, Asia Publishing House, (1968).
3. Rao, C.H. Hanumantha, "Taxation of Agricultural Lord in Andhra Pradesh", Bombay, Asia Publishing House, (1966).
   Pathak, Mahesh T., & Patel, Arun S., "Agricultural Taxation in Gujarat" Bombay, Asia Publishing House, (1968).

aggregate level is no doubt useful. However, wide variations in the levels of living as also in the tax efforts made by various states call for a more specific enquiry at the State level.

Taxation of agriculture falls within the purview of State Government; however, not many serious studies appear to have been done in this sphere at the state level. Our modest effort here is an attempt to study and understand some problems of agricultural taxation in Orissa.

In a State like Orissa, where agriculture is the mainstay of more than 80 percent of the population of the State and where, land revenue contributes no more than 2.7 percent of the total tax receipts of the State, it is worthwhile to study the overall effects of agricultural taxation on production and consumption in the agricultural sector vis-a-vis the non-agricultural sector. We have looked at some aspects of these problems in this dissertation.

The investigation seeks to study aspects of the following problems: (1) Estimation of the tax burden on the agricultural sector of the total and per capita taxes;

and of the per capita tax as a proportion of per capita income, (2) a comparison of the agricultural sector's contribution to government revenues with that of the non-agricultural sector, (3) the relative incidence of the tax system on the agricultural and non-agricultural sectors, and (4) an appraisal of the existing system of agricultural taxation from the point of view of the principle of Economy and 'Cost effectiveness'. We might also venture to indicate feasible measures for a modification of the nature and administration of the agricultural taxes.

The first chapter is a general inquiry into the agricultural economy of Orissa, where we discuss the physical features of the agricultural land, which to a certain extent determine the productivity of the agriculture, the land utilisation pattern, the income by the farmer and the revenues by the government derived from agriculture.

The second chapter briefly discusses the general features of the various taxes on the agricultural sector in Orissa. We preface this discussion with a brief analysis of agricultural taxes in India in a historical perspective.

An analysis of the principle of Economy in taxation and a detailed examination of 'Efficiency' of agricultural taxation in the State are attempted in the third chapter. Our analysis is based primarily on the principle of cost-effectiveness of agricultural taxes.

Chapter four is devoted to an analysis of the burden of land revenue between the different districts of the State. Our main thrust in this analysis is to understand whether the present distribution of the burden of land revenue is equitable as between the different districts of the State.

In chapter Five, the criterion of inter-sectoral equity has been used for finding out the scope for raising additional resources through a process of rationalisation of the present tax structure. It is, of course, recognised that the criterion of inter-sectoral equity by itself may not be sufficient for formulating a reasonably adequate tax policy. The equity criterion may be satisfied at different levels of taxation in association with different levels of expenditure. Hence, when one determines an 'optimum level' of taxation, one necessarily have to take into account the appropriate level and pattern of the allocation of resources consistent with

the requirements of rapid growth. However our study has not gone into these aspects of fiscal policy as its primary aim is specific to the agricultural sector.

The final chapter is devoted to a summary of our analysis and the conclusion following from it. We have attempted an evaluation of the existing pattern of agricultural taxation in the State and of its implications for tax policy in the light of the findings of our study.

# CHAPTER - II

# AGRICULTURAL SECTOR IN ORISSA

## AGRICULTURAL SECTOR IN ORISSA

We discuss here some salient features of the agricultural sector of Orissa's economy. Our discussion covers the physical features of agricultural land, which to a certain extent determines the productivity of agriculture, land utilisation, the income of agriculturists and government revenues derived from agriculture. The main purpose of this Chapter is to give an over-all view of the background and the base of agricultural taxation in the State.

### Physical Features

The physical features of a State largely influence the status and extent of its agriculture. They determine the limit of cultivable area, dictate the type of the crop which can economically be grown, provide the source of irrigation and power etc.

Orissa is situated in the eastern section of the Indian Peninsula and extends over an area of 155,782 square kilometres which is about 4.74 percent of the total area of the Indian Union. In extent of area, Orissa occupies the tenth position among all the states of the country. Within Orissa, the Koraput District has the largest geographical area (27 thousands square kilometres constituting 17 percent of the State's area) while Balasore District has the smallest (6 thousands square kilometres, that is, 4 percent of the area) of the total area of 155,782 square kilometres.

The total rural area of the State accounts for 153,473.9 kilometres, while the urban areas are of the extent of 2,308.1 square kilometres. The coast line of the State has a length of over 482 kilometres.

Orissa, has an extensive plateau gently sloping into the coastal plain along the Bay of Bengal. The river Mohanadi flowing west through the plateau divides the State into two well defined parts. The northern part is an extension of the Chhotanagpur Plateau and the southern is a mass of hills of the Eastern Ghats. Towards the west and south-west, there are erosional plains and river basin.

Thus, there are four well defined physical regions in the State, namely, the Northern Plateau, Eastern Ghats, the Coastal Plateau and the Central Table Lands.

Out of the total surface area of 96,217.6 square kilometres of the State, the alluvial soils which are generally fertile accounts for only 6,200 square kilometres while the Red (and laterite) and Black Cotton soils, which are not very suitable for agricultural operation account for 86,913 and 3,104 square kilometres respectively[1].

Population

According to the 1981 census, Orissa has a population of 263,70,271 (2.6 crores), which constitutes about 4.5

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[1] Government of Orissa, Agricultural Census of Orissa, (1977), pp.11-12.

percent of the total population of the Indian Union[2]. Of the total population, as many as 208,32,514 (2.0 crores) people, or nearly 79 percent of them depend on agriculture for their livelihood, as compared to the corresponding figure of about 70 percent for the country as a whole[3]. Out of the 2.6 crores of total population of the State only 1.2 crores constitute the working population, the rest being non-workers. Owner cultivators and agricultural labourers form 49.16 percent and 28.28 percent respectively of the total working force.

Soils

The soils of Orissa are broadly classified into the following eight groups[4]: i) Red loamy, ii) Red sandy, iii) Laterite, iv) Red and Yellow, v) Mixed Red and Black, vi) Coastal Alluvium, vii) Coastal sand, viii) Deltaic Alluvium.

i) The red sandy type of soils are found in the districts of Sambalpur, Sundargarh, Bolangir, Kalahandi, Koraput and Ganjam. The common form of red soil is a sandy

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[2] Government of India, Census of India (1981), Series 1 (Primary Census Abstract), Gen. Population, pp.14-15.

[3] Government of Orissa, Handbook of Orissa Statistics (1981), pp.4-5.

[4] Government of Orissa, Agricultural Census of Orissa (1977), pp.7-8.

clay coloured by iron oxide. These soils can be profitably managed for cultivation of fruits, vegetables and other cash crops. The main crop grown in the soil is paddy.

ii) The laterite type of soil can broadly be divided into high level laterite which is of pale colour gritty and shallow and it is poor in nutritive substances. The low level laterite is of fine texture and darker in colour, which is found in the districts of Koraput, Sambalpur, Ganjam, Puri, Cuttack, Balasore and Mayurbhanj.

iii) The red and yellow type of soils are seen in some of the areas of the districts of Koraput, Kalahandi, Bolangir, Sambalpur and Keonjhar. These soils are heterogeneous in texture. The texture, colour and characteristics of the soils varies according to topography.

iv) The mixed red and black soils are found in the districts of Sambalpur and Bolangir. Red soils occur in the higher elevation whereas the black soils are generally found in low-lying areas.

v) Coastal alluvium and sand are found all along the coast line starting from North Balasore and going upto south of Chilika. In Puri District, a narrow belt of saline soil with marshy patches exists. It consists of fine sand and soft clay with a saline admixture. It can hardly grow any crop other than coconut, because of its salinity. Coastal sand is only found in the District of Cuttack.

vi) The Deltaic alluvium soil with large content of clay is found in the coastal districts of the State, namely Balasore, Cuttack, Puri and Ganjam. The northern most districts have sandy loam in the alluvium while the rest of the zone have stiff clay. The zone has some of the richest agricultural lands in the State.

Rainfall

The average annual rainfall in the State during the decade 1969-79 was 122.89 cms. The highest range of annual rainfall (i.e. above 160.00 cms.) is found in the district of Boudhkhondmala. The next range 140.00 cms. covers the districts of Kalahandi, Bolangir, Ganjam and Puri. The lowest range of annual rainfall is observed in the district of Sambalpur.

The following table represents the normal and actual rainfall in the State of Orissa during 1970-1979.

The rainfall data for the period 1970-79 reveals that during the year 1971, the actual rainfall in the State was the highest, 179 cms., which was more than the normal rainfall i.e. 148 cms. But, it was lowest during the year 1979.

In a State like Orissa where irrigation facilities are very poor, the cropping pattern mostly depends on the vagaries of monsoon. Moreover, agriculture in the districts of Sundargarh, Mayurbhanj and Koraput which are mostly hilly regions of the state having hardly any irrigation facility depends mostly on seasonal rainfall.

TABLE - 1

NORMAL AND ACTURAL RAINFALL IN ORISSA

| Year | Normal Rainfall (cms.) | Actual Rainfall (cms.) | Departure of Actual from Normal (cms.) | Percentage |
|---|---|---|---|---|
| 1970 | 148.22 | 166.01 | (+) 17.79 | (+) 12.00 |
| 1971 | 148.22 | 179.16 | (+) 30.94 | (+) 20.87 |
| 1972 | 148.22 | 118.43 | (-) 29.79 | (-) 20.00 |
| 1973 | 148.22 | 135.34 | (-) 12.88 | (-) 8.69 |
| 1974 | 148.22 | 95.12 | (-) 53.10 | (-) 35.83 |
| 1975 | 148.22 | 132.34 | (-) 15.88 | (-) 10.71 |
| 1976 | 148.22 | 101.37 | (-) 46.85 | (-) 31.61 |
| 1977 | 148.22 | 132.75 | (-) 15.47 | (-) 10.44 |
| 1978 | 148.22 | 133.32 | (-) 14.90 | (-) 10.05 |
| 1979 | 148.22 | 95.12 | (-) 53.10 | (-) 35.82 |

Source: Bureau of Statistics and Economics, Bhubaneswar; Economic Survey of Orissa (1980-81), p.8.

## Irrigation

Assured and timely water supply to the crops is an essential factor for sustained agricultural operations and increasing production. But Orissa is poor in irrigation. During the year 1978-79, 15.7 lakhs hectares of cropped areas have been irrigated as against 14.3 lakh hectares in the previous years from all sources[5]. This constitutes about

[5]Government of Orissa, Statistical Abstract of Orissa (1979), pp. 18-19.

twentyone percent of the total cropped area in the State. During the year 1978-79, out of the 15.7 lakh hectares, 10.4 lakh hectares were irrigated through major and medium irrigation projects. The largest cropped area irrigated (both during Khariff and Rabi Seasons) 1978-79, is found in the Cuttack district, with 2.2 lakh hectares irrigated during the Khariff season and 1.1 lakh hectares irrigated during Rabi season. Next in importance of irrigation are Puri, Ganjam and Sambalpur districts. The irrigated cropped areas of these four districts constitute about 70 percent of the total irrigated cropped area in the State. Largest cropped area (one lakh hectare) irrigated by the minor irrigation projects (flow) during the year 1978-79 is in Ganjam district.

The irrigation potential created in Orissa by the end of 1979-80 is presented in the following table.

TABLE - 2

IRRIGATED POTENTIAL CREATED IN ORISSA BY THE END OF 1979-80
(Area in Lakh Hectares)

| Source | Khariff | Rabi | Total |
|---|---|---|---|
| 1. Major and Medium irrigation | 7.35 | 3.43 | 10.78 |
| 2. Minor irrigation | | | |
| a) Flow | 3.33 | - | 3.33 |
| b) Lift | 0.88 | 0.52 | 1.40 |
| 3. Dugwells | - | - | 1.76 |
| Total | | | 17.27 |

Source: Bureau of Statistics and Economics, Bhubaneswar, Economic Survey of Orissa (1980-81), Chapt. V, p.28.

Land Utilisation

The total geographical area of the State according to the village papers is 1,55,40 thousand hectares, out of which, the net area sown is 36.8 percent, forest area is 42.8 percent and the rest of 20.4 percent is shared by area not available for cultivation, permanent pastures, cultivable wastes, fallow land and land under miscellaneous tree crops during the year 1978-79[6]. The area sown more than once in a year is 35.7 percent of the net area sown. Koraput district is in the top position in respect of area sown more than once followed by Ganjam and Puri districts. Double and multiple cropping is in practice to a greater extent than elsewhere in the State in Cuttack, Ganjam and Puri Districts. The cropping intensity in Cuttack district is highest being 170.3 percent followed by the districts of Puri (165.2 percent) and Ganjam (161.7 percent) as against the State average of 135.7 percent. The land utilisation pattern of the State for the period 1972-73 to 1979-80 is given in Table 3.

The data represented in the table reveals that the total area under forest has increased from 39.18 percent to 42.72 percent to the total geographical area during the last decade, whereas cultivable waste land has been decreased from 2.93 percent to 1.69 percent of the total geographical area in the year 1979-80 as against 1972-73. However, land under net area sown has increased from 36.18 percent to 38.41 percent

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[6] Government of Orissa, Statistical Abstract of Orissa (1979) pp.41-42.

TABLE - 3

LAND UTILIZATION PATTERN IN ORISSA DURING 1970-71 TO 1979-80

(Area in '000 Hectares)

| Items | 1972-73 | | 1973-74 | | 1974-75 | |
|---|---|---|---|---|---|---|
| | Area in '000 Hectares | Percentage to Geographical Area | Area in '000 Hectares | Percentage to Geographical Area | Area in '000 Hectares | Percentage to Geographical Area |
| Geographical Area | 155,40 | 100.00 | 155,40 | 100.00 | 155,40 | 100.00 |
| Forest | 60,88 | 39.18 | 60,88 | 39.18 | 60,88 | 39.18 |
| Misc.: trees, crops & groves not included in the net area sown | 6,19 | 3.98 | 6,19 | 3.98 | 6,19 | 3.98 |
| Permanent Pasture & other grazing lands | 5,43 | 3.49 | 5,43 | 3.49 | 53 | 3.49 |
| Cultivable waste | 4,55 | 2.93 | 4,26 | 2.74 | 4,26 | 2.74 |
| Not available for cultivation | 8,80 | 5.66 | 8,80 | 5.66 | 8,80 | 5.66 |
| Fallow: | | | | | | |
| Current | 10,91 | 7.02 | 8,26 | 5.32 | 10,40 | 6.69 |
| Other | 2,42 | 1.56 | 1,85 | 1.19 | 2,25 | 1.45 |
| Total | 13,33 | 8.58 | 10,11 | 6.51 | 12,65 | 8.14 |
| Net Area | | | | | | |
| Irrigated | 9,17 | 5.90 | 12,67 | 8.16 | 9,27 | 5.96 |
| Unirrigated | 47,05 | 30.28 | 47,06 | 30.28 | 47,92 | 30.84 |
| Total | 56,22 | 36.18 | 59,73 | 38.44 | 57,19 | 36.80 |
| Cultivated Area | 67,13 | 43.20 | 67,99 | 43.75 | 67,59 | 43.49 |

Table continued...

TABLE 3 continued

| Items | 1975-76 | | 1976-77 | | 1979-80 | |
|---|---|---|---|---|---|---|
| | Area in '000 Hectares | Percentage to Geographical Area | Area in '000 Hectares | Percentage to Geographical Area | Area in '000 Hectares | Percentage to Geographical Area |
| Geographical Area | 155,40 | 100.00 | 155,40 | 100.00 | 155,40 | 100.00 |
| Forest | 63,59 | 40.92 | 66,55 | 42.82 | 66,40 | 42.72 |
| Misc.: trees, crops & groves not included in the net area sown | 4,91 | 3.16 | 4,89 | 3.15 | 4,20 | 2.70 |
| Permanent Pasture & other grazing lands | 5,37 | 3.46 | 5,37 | 3.46 | 5,60 | 3.60 |
| Cultivable Waste | 3,56 | 3.29 | 2,80 | 1.80 | 2,64 | 1.69 |
| Not available for cultivation | 8,80 | 5.66 | 8,27 | 5:32 | 6,22 | 4.00 |
| Fallow: | | | | | | |
| Current | 5,55 | 3.57 | 7,18 | 4.62 | 2,68 | 1.72 |
| Other | 2,25 | 1.45 | 1,57 | 1.01 | 5,89 | 3.79 |
| Total | 7,80 | 5.02 | 8,75 | 5.63 | 2,07 | 1.33 |
| Net Area: | | | | | | |
| Irrigated | 10,15 | 6.53 | 10,49 | 6.75 | 1,181 | 7.59 |
| Unirrigated | 51,22 | 32.96 | 48,28 | 31.07 | 4,789 | 30.81 |
| Total | 61,37 | 39.49 | 58,77 | 37.82 | 5,970 | 38.41 |
| Cultivated Area | 66,92 | 43.06 | 65,95 | 42.44 | 64,43 | 41.46 |

Source: Government of Orissa, Economic Survey of Orissa (1979-80), Annexure 4.1(A), p. 105.

Note: Area not available for cultivation includes barren and unculturable land and land put to non-agricultural uses.

in the year 1979-80. On the otherhand, it is seen that the total cultivated area has decreased from 43.20 percent in the year 1972-73 to 41.46 percent of the total geographical area of the State in the year 1979-80.

Cropping Pattern

The main food crop of the State is rice cultivated over an area of 43.72 lakhs hectare in the year 1978-79, which constitutes about 65 percent of the total area under food crops and 58 percent of the total area under food and non-food crops. The other major food crops are ragi, small millets, maize and wheat. The area under wheat has increased from 14 thousand hectares in 1969-70 to 61.5 thousand hectares in 1978-79. This shows the increasing interest of the cultivators in wheat cultivation.

The percentages of area under each crop to the total cropped area are given in Table 4.

Among all the crops, rice was dominant in 41.2 lakh hectares or 55.5 percent of the cropped area in the State in 1979-80, as against 43.7 lakh hectares or 57.6 percent in 1978-79. The percentage of area was as high as 69.5 percent in 1973-74.

It is interesting to note that though rice is the most staple food grain in Orissa, the area under rice cultivation, has declined considerably during the last two decades, i.e.

TABLE - 4

PERCENTAGE OF AREA UNDER PRINCIPAL CROPS TO THE TOTAL AREA SOWN, 1960-61 TO 1979-80

| Crops | 1960-61 | 1965-66 | 1968-69 | 1973-74 | 1977-78 | 1978-79 | 1979-80 |
|---|---|---|---|---|---|---|---|
| Rice | 74.83 | 72.40 | 69.96 | 69.51 | 60.40 | 57.58 | 55.52 |
| All cereals | 83.09 | 76.78 | 76.78 | 77.17 | 70.61 | 67.34 | 64.77 |
| Pulses | 10.41 | 15.12 | 14.66 | 14.13 | 18.79 | 20.63 | 22.28 |
| Foodgrains | 93.49 | 91.90 | 91.44 | 91.30 | 89.40 | 87.97 | 87.05 |
| Oil seeds | 4.33 | 5.37 | 5.57 | 5.69 | 7.45 | 8.75 | 9.74 |
| Fibre | 1.18 | 1.09 | 1.28 | 1.46 | 1.34 | 1.37 | 1.31 |
| Other crops | 1.00 | 1.64 | 1.71 | 1.55 | 1.81 | 1.91 | 1.90 |
| All principal crops | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Area in 000 Hectares | 4,742 | 5,846 | 6,097 | 6,810 | 7,292 | 7,593 | 7,415 |

Source: Government of Orissa, Economic Survey of Orissa, (1980-81), p. 19 (Table No. 4.9).

from 1960-61 to 1979-80, because of the following reasons:

The open market price prevailing for all other crops has been more attractive than the market price of rice. Further, the procurement price of paddy has been low in comparison to other crops, which discouraged the farmers in investing more to produce rice. While the production of all other commercial crops fetches a substantial profit to the farmers the production of rice does not sometimes even cover their cost of production. For these reasons, there has been a tendency for farmers to shift their cultivation from rice to other food and commercial crops.

The decline of the percentage in area under rice during 1979-80 was due to severe drought in the State. It reduced the area under rice from 43.7 lakh hectares to 41.2 lakh hectares. Area under cereals was 48 lakhs hectares or 46.8 percent in 1979-80 as against 51.1 lakh hectares or 67.3 percent in 1978-79; 52.6 lakh hectares or 77 percent in 1973-74 and even 83 percent in 1960-61. The area under pulses occupied the second position after rice with 16.5 lakhs hectares or 22.3 percent of the cropped area of the State in 1979-80 as against 15.7 lakh hectares or 20.6 percent in 1978-79. Owing to the severe drought in 1979-80, the rice production suffered seriously and more area was put under Rabi cultivation.

Size of Land Holdings

According to the 1976-77 Agricultural Census, the total number of operational holdings in that year in the State

was 35.8 lakhs as against the total holding of 34.1 lakhs in 1970-71. Thus, the operational holdings have increased by 5 percent during a period of six years, whereas the area of the operational holdings have decreased from 64.5 lakhs hectares to 57.3 lakh hectares during the same period. The average size of an operational holding is 1.6 hectares. The number of holdings in the size class of below 1.00 hectare is 16.7 lakh which is 46.59 percent of the total holdings. The next size class, 1.00 to 1.99 hectares, covers 29.11 percent and the next three size classes, ie.e. 2.00 - 3.99 hectares, 4.00 - 9.00 hectares and 10.00 hectares and above, cover 24.30 percent of the total holdings. This shows that 75.70 percent of the total holdings come under the size class of below 1.99 hectares.

The number of operational holdings in different size class, for some selected districts of the State is given in Table 5.

Yield Per Acre

The yield rate of almost all the crops has increased due to adoptation of improved agricultural practices, use of chemical fertilizers and increase in irrigation facilities. The yield rate of wheat in 1978-79 had shown an increase of 32.4 percent over the yield rate of 1969-70, which was the second highest increase of all crops. But, its yield rate during the year 1978-79 was less than that of the previous year. The credit for highest increase in yield rate in

TABLE - 5

NUMBER OF HOLDINGS IN DIFFERENT SIZE CLASS FOR THE YEAR 1976-77
(Area in Hectares)

| District | Below 1 Hectare | 1.00 to 1.99 Hectare | 2.00 to 3.99 Hectare | 4.00 to 9.99 Hectare | 10 Hectare and above | All sizes |
|---|---|---|---|---|---|---|
| Balasore | 1,44,421 | 75,083 | 56,674 | 18,196 | 1,630 | 2,96,004 |
| Bolangir | 8,85,757 | 55,476 | 48,736 | 22,017 | 4,759 | 2,16,745 |
| Cuttack | 3,07,004 | 1,91,517 | 66,293 | 26,131 | 2,169 | 5,93,114 |
| Dhenkanal | 1,11,454 | 97,471 | 37,204 | 10,002 | 925 | 2,57,056 |
| Ganjam | 2,37,895 | 68,930 | 35,755 | 12,075 | 964 | 3,55,619 |
| Kalahandi | 49,368 | 41,669 | 44,969 | 23,561 | 4,494 | 1,64,061 |
| Orissa | 1,66,014 | 10,40,942 | 6,00,542 | 2,32,787 | 35,791 | 35,76,076 |

Source: Government of Orissa, Economic Survey of Orissa (1977), pp.11-12.

1978-79 over 1969-70 has gone to jute as it recorded an increase of 72.8 percent[7].

Table 6 shows the average yield in kilograms per hectare of rice, wheat, millets and pulses in the districts of Orissa during 1971.

The average yield per hectare of rice for the State was 861 kgs. Eight districts had recorded yield above State average. The yield of rice per hectare of Cuttack district (1,075 kgs.) was the highest in the State, whereas, Keonjhar district (564 kgs.) had recorded the lowest yield per hectare. The yield per hectare in the coastal districts was comparatively higher than that of the districts belonging to hilly tracts.

The average yield per hectare of wheat in Orissa was 1,056 kgs. The highest yield was recordded in the district of Sambalpur (1,822 kgs.) followed by Mayurbhanj (1,266 kgs. per hectare), while the lowest yield (378 kgs.) was noticed in Bolangir district in 1971.

The average yield of pulses of the State was 517 kgs. per hectare. The District of Keonjhar and Boudhkhondamalas had respectively recorded the highest (711 kgs.) and the lowest (307 kgs.) yield during the period under review.

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[7] Government of Orissa, Statistical Abstract of Orissa, 1979, pp.61-62.

TABLE - 6

YIELD PER HECTARE OF RICE, WHEAT, MILLETS AND PULSES 1971

| State/District | Rice | Wheat | Millets | Pulses |
|---|---|---|---|---|
| Orissa | 861 | 1,056 | 713 | 517 |
| Sambalpur | 981 | 1,822 | 630 | 660 |
| Sundargarh | 743 | 1,134 | 393 | 322 |
| Keonjhar | 564 | 996 | 799 | 711 |
| Mayurbhanj | 898 | 1,226 | 788 | 560 |
| Balasore | 875 | 1,117 | 1,158 | 526 |
| Cuttack | 1,075 | 1,034 | 804 | 610 |
| Dhenkanal | 897 | 1,194 | 540 | 510 |
| Boudh-Khondamalas | 730 | 868 | 508 | 307 |
| Bolangir | 918 | 870 | 378 | 534 |
| Kalahandi | 726 | 876 | 473 | 567 |
| Koraput | 809 | 617 | 663 | 528 |
| Ganjam | 968 | 980 | 1,385 | 488 |
| Puri | 1,037 | 994 | 762 | 403 |

Source: Government of India: Census Atlas, Series 16, Orissa Part IX, p.120.

Cost of Selected Items of Farm Cultivation

During the period 1970-1978, the cost of all items of farm cultivation had increased by about 50 percent. The percentage of increase in the price of bullocks, plough, plough-share, spade were 41.6 percent, 54.3 percent; 140.6

percent and 136.1 percent respectively. The prices of inputs including bran had also increased more than 50 percent during these years. The increase in price of paddy, mung, biri and bran had varied between 75 percent and 140 percent[8].

State Income

The State income at current prices was Rs. 2,156.39 crores in the year 1979-80. This works out to be 2.73 percent of the national income of India in the same year. The per capita income in the State was Rs. 435.2 in the year 1979-80 as against the corresponding per capita figure of Rs. 667.8 for India, showing a gap of Rs. 242.6 (36.32 percent lower than the national per capita income)[9].

In 1979-80, the share of agriculture in the total income of the State amounted to Rs. 1,303.22 crores or 60.4 percent of the total which was significantly higher than the corresponding ratio of 44.1 percent for the country as a whole. The relative contribution of agriculture to the total income of the State seemed to have increased somewhat since 1970-71. Out of the total income of Rs. 2,156.39 crores in the year 1979-80, agriculture accounted for Rs. 1,303.22 crores or 60.4 percent[10].

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[8] Government of Orissa, Statistical Abstract of Orissa, 1978-79, pp. 407-408.

9 Government of Orissa, Economic Survey of Orissa (1980-81) p.5.

[10] Ibid.. pp.81-82.

TABLE - 7

STATE INCOME OF ORISSA BY INDUSTRIAL ORIGIN AND CURRENT PRICES FROM 1970-71 TO 1979-80
(SECTORAL BREAKUP) (Rupees in Crores)

| Industry | 1970-71 | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 | 1977-78 | 1978-79 | 1979-80 |
|---|---|---|---|---|---|---|---|---|---|---|
| Agriculture, Animal Husbandry and Anciliary Activities | 702.06 (67.1) | ... | ... | 1147.11 (70.9) | 1106.18 (66.5) | 1112.85 (64.1) | 958.85 (58.7) | 1289.16 (63.3) | 1368.52 (63.3) | 1303.22 (60.4) |
| Mining, manufacturing and small enterprise | 145.00 (13.8) | ... | ... | 199.07 (12.3) | 249.17 (15.1) | 261.83 (15.1) | 292.10 (17.9) | 311.04 (15.4) | 326.60 (15.2) | 356.59 (16.5) |
| Other services | 112.28 (10.7) | ... | ... | 146.41 (9.1) | 176.60 (10.6) | 218.43 (12.6) | 240.43 (14.7) | 256.76 (12.7) | 292.44 (13.5) | 324.41 (15.0) |
| Commerce, transport and communication | 87.37 (8.4) | ... | ... | 125.08 (7.7) | 132.13 (7.9) | 142.81 (8.2) | 142.69 (8.7) | 166.78 (8.2) | 172.91 (8.0) | 192.17 (8.0) |
| Net domestic product of factor cost | 1046.71 (100.0) | ... | ... | 1617.67 (100.0) | 1664.08 (100.0) | 1735.92 (100.0) | 1634.07 (100.0) | 2023.74 (100.0) | 2160.47 (100.0) | 2236.39 (100.0) |
| Per capita income | 482.42 | ... | ... | 697.24 | 701.37 | 715.49 | 658.63 | 820.36 | 860.16 | 863.23 |

Source: Government of Orissa, Economic Survey of Orissa (1980-81), pp.81-83. Annexure 2.5

Note: Figures in the bracket indicate percentage.

From Table 7 it is seen that the value of agricultural and allied sectors' output has increased from Rs. 702.1 crores in 1970-71 to Rs. 1,368.5 crores in 1978-79 at current prices, a rise of about 95 percent over the years. The annual growth rate of the State income was 2.5 percent in the Fourth Plan (1969-74) and 2.8 percent in the Fifth Plan (1974-78). At the per capita level, the increase was 0.2 percent in the Fourth Plan and 0.3 percent in the Fifth Plan period. But, what is disturbing is that during the same period, the population increased at an annual rate of 2.5 percent. Therefore, the per capital income could only marginally increase from Rs. 482 in 1970-71 to Rs. 514 in 1978-79. The State income in 1979-80 declined by Rs. 179.3 crores or 13.9 percent, and at the per capita level, the decline was Rs. 79.3 or 15.4 percent due to severe drought which reduced the food grains production by almost one-third of the previous year's level. As a result, the gap between the per capita State and National Incomes which was Rs. 150.4 in 1970-71 had further widened to Rs. 213.1 in 1978-79. Table 8 shows the disparity in per capita income of Orissa and India for the last one decade.

State's Expenditure on Economic Development

The entire expenditure of the State Government under Revenue Account has been divided into development and non-development, expenditure. The development expenditures are made under two heads: i) Expenditure on Economic Development,

TABLE - 8

DISPARITY IN PER CAPITA INCOME OF ORISSA AND INDIA
(Base 1970-71)

| Year | India | Orissa | GAP |
|---|---|---|---|
| 1970-71 | 632.8 | 482.4 | 150.4 |
| 1971-72 | 626.6 | 434.1 | 192,5 |
| 1972-73 | 604.1 | 456.6 | 147.5 |
| 1973-74 | 621.2 | 480.7 | 140.5 |
| 1974-75 | 617.6 | 426.8 | 190.8 |
| 1975-76 | 663.6 | 489.8 | 173.8 |
| 1976-77 | 659.2 | 420.9 | 238.3 |
| 1977-78 | 701.0 | 500.4 | 200.6 |
| 1978-79 | 727.6 | 514.5 | 213.1 |
| 1979-80 | 667.8 | 435.2 | 242.6 |

Source: Government of Orissa, Economic Survey of Orissa (1980-81), p.5, Table No. IV.

ii) Expenditure on Social Services. Development expenditure refers to the expenditure incurred whereby the State utilises the resources available to bring about a sustained increase in per capita production of goods and services. The details of development expenditure for the years 1970-71 to 1979-80 are given in Table 9. The table indicates a rising trend in the expenditure under economic development for all the years.

The data reveals that in 1979-80, 37.31 percent of the total expenditure on economic development has gone to agriculture, animal husbandry and rural development; 9 .41 percent to irrigation and multipurpose river scheme; 0.33 percent to electricity scheme; 15.95 percent to public works; 20.20 percent to G.D.P., N.E.S. and local development works; 6.62 percent to forest; 0.29 percent to transport, 3.59 percent to cooperation and 6.30 percent to other miscellaneous works. The data shows that State's expenditure on agriculture and allied sectors has increased over three times during the last decade. The total expenditure on agricultural sector was Rs. 59.7 crores in the year 1979-80, as against Rs. 11.03 crores in the year 1970-71.

Public Revenues

The revenues of the State are derived from two sources, viz. tax and non-tax sources. Tax revenues contributed 52.39 percent of the total revenues and the balance of 47.61 percent was contributed by the non-tax sources in 1979-80. During the

TABLE - 9

EXPENDITURE ON ECONOMIC DEVELOPMENT FOR THE PERIOD 1970-71 TO 1979-80
(Rupees in Thousands)

| Year | Agriculture Animal Husbandry and Rural Development | Co-operation | Irrigation and Multi-Purpose River Scheme | Electricity Schemes | Public works | CDP, NES Local Development works | Forest | Transport and Communication | Others | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 1970-71 | 11,03,56 | 1,46,69 | 9,15,17 | 3,86,78 | 8,71,27 | 3,92,03 | 2,30,38 | 3,08,72 | 1,52,81 | 45,07,41 |
| 1971-72 | 11,93,37 | 1,35,85 | 13,05,69 | 49,06 | 10,69,85 | 6,16,70 | 2,65,20 | 3,30,75 | 1,71,32 | 51,37,80 |
| 1972-73 | 12,58,62 | 1,79,29 | 12,91,64 | 78,89 | 11,77,38 | 10,71,87 | 2,83,06 | 3,34,99 | 2,23,96 | 58,99,70 |
| 1973-74 | 13,25,63 | 2,07,13 | 15,53,69 | 2,28,77 | 11,79,28 | 11,19,84 | 4,34,49 | 3,81,54 | 2,96,04 | 68,26,4 |
| 1974-75 | 16,43,69 | 2,37,06 | 21,32,52 | 1,92,17 | 13,39,93 | 8,79,91 | 3,40,74 | 59,22 | 3,08,70 | 71,33,94 |
| 1975-76 | 21,54,70 | 2,98,98 | 19,51,79 | 3,93,25 | 14,70,17 | 10,14,19 | 5,47,58 | 8,42 | 4,12,10 | 82,51,18 |
| 1976-77 | 23,35,60 | 4,16,60 | 25,54,94 | 4,93,88 | 13,79,55 | 11,92,52 | 5,23,99 | 6,31 | 4,31,20 | 93,34,59 |
| 1977-78 | 35,07,31 | 3,63,22 | 27,07,90 | 5,61,87 | 12,89,03 | 13,09,19 | 5,76,00 | 6,43 | 4,87,38 | 1,08,08,33 |
| 1978-79 | 53,91,15 | 5,20,97 | 31,99,28 | 6,16,04 | 19,93,09 | 19,11,13 | 8,02,60 | 21,93 | 7,46,28 | 1,52,02,47 |
| 1979-80 | 59,62,18 | 5,73,19 | 15,04,06 | 52,29 | 25,49,07 | 32,27,98 | 10,57,98 | 45,84 | 10,07,20 | 1,59,79,79 |

Source: Government of Orissa, Budget of Orissa, 1980-81, p. 14.

decade, 1970-71 to 1979-80, the total revenue of the State had increased from Rs. 135.83 crores in 1970-71 to Rs. 482.40 crores in 1979-80; and increase of about 255 percent. This increase has been mainly due to various additional taxation measures implemented by the State Government to finance successive Five Year Plans, better collection of existing taxes and implementation of recommendations of the Finance Commissions resulting in a large devolution of resources from the centre to the State by way of higher share in the central taxes mostly from Union Excise Duty.

Out of the State's total own tax revenues of Rs.128.7 crores in 1980-81, land revenue accounted for only Rs. 8.6 crores.

Thus, from the above discussion, it is seen that Orissa is primarily an agricultural State where about 79 percent of the population is engaged in agricultural pursuits. However, Orissa's agriculture is characterised by low level of productivity, low level of farm technology, low farm income and wide fluctuation in agricultural output due to vagaries of monsoon.

As a consequence, Orissa still remains as one of the poorest States of India. Though significant development has taken place in some spheres since Independence, access to opportunities for minimum standards of living in Orissa is one of the lowest in the country. And, it has been estimated that

more than two-thirds of Orissa's population live below the poverty line. During the period 1970-71 and 1977-78, per capita income in Orissa did increase from Rs. 482 to Rs. 799 at current prices, but it was far below the all-India average of Rs. 632 and Rs. 1210 respectively; and it was one of the lowest in the country[11].

That Orissa is essentially a rural economy with 88.18 percent of the total population remaining backward, is indicated by the production figures. The contribution of the agriculture and animal husbandry to the State income of Orissa has remained constant at about 65 percent from 1971 to 1981.

The condition of the agricultural sector is something dismal. Only 16 percent of the area under cultivation is irrigated as against 75 percent in the country as a whole. The per hectare consumption of fertilizers is as low as 9 kgs. in Orissa as against 95 kgs. in Punjab. Agricultural output increased significantly during the first two plans but thereafter, it has fluctuated. In foodgrains, productivity declined from 935 kgs. per hectare in 1962-63 to 487 kgs. in 1970-71. For about a decade now, rice production has remained stagnant at about 45 million tonnes. Production of other food grains has increased modestly, but rice is still the major produce of Orissa.

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[11] Government of Orissa, Statistical Outline of Orissa (1979), pp. 30-31.

On the otherhand, industry accounts for 15 percent of the State income of Orissa. The State has a share of 6.6 percent of the total value of the mineral resources of India, and 43 percent of the area of the State is under forests. But, Orissa's share of industrial production in India was only 1.6 percent as against 10.7 percent of West Bengal and 5.8 percent of Bihar, in 1977-78. The gross per capita output of industry in Orissa in 1977-78, was only Rs. 241.18 compared to Rs.612.8 for the whole country. Only about 7 percent of the working people are engaged in manufacturing of which, less than three percent are employed in non-household sector.

All this shows widespread petty production which does not generate much surplus. The co-existence of the high magnitude of self-employment with poverty indicates the uneconomic character of the own-account enterprise.

# CHAPTER - III

# AGRICULTURAL TAXES IN ORISSA

# AGRICULTURAL TAXES IN ORISSA

In this chapter we discuss the main agricultural taxes in Orissa and their individual features. These taxes are the land tax and the agricultural income tax. To these we may also add the cess on land and the water rates. Before we discuss these taxes in Orissa, it was thought desirable to have a look at some aspects of the land revenue system in India - we do this in Part I of the chapter. Agricultural tax system of Orissa is discussed in Part II.

## Part - I

### LAND REVENUE SYSTEM IN INDIA

Since World War II, the land revenue system of India has been subject to powerful forces of change and has been in a process of transition. Land Reform Legislation, especially the abolition of Zamindari tenures, has resulted in making all land-revenue systems to conform to one common Raiyatwari system. The 'Price Revolution' of the last two decades has rendered the assessment in most regions out of alignment with the price-cost-income structure and has enormously reduced the relative significance of land taxes in the fiscal structures of the states. Adjustment to these forces has been of a transitional or adhoc nature; no long range plan of re-orientating the levy to the fiscal objectives of planning has emerged.

The Report of Bengal Land-Revenue Commission (1940) set in motion, the great movement towards the abolition of

permanent zamindari systems. After a thorough examination of the social, economic, fiscal and administrative results of the Permanent Settlement, the Report concluded that, "no other solution than the State acquisition of the interests of all classes of rent-receivers would be adequate to remedy the defects"[1]. The principle and policy of abolition of Zamindari received strong support from several other committees after Independence. The various legislative measures, which accomplished this great Land-Reform are too well known to need specific mention. With the abolition of Zamindari tenure, the relation between the occupants cultivators and the State all over the country have conformed to the Raiyatwari pattern. The tenanct's old rent to the zamindars simply came to be converted into Land-Revenue without being properly re-assessed or placed on a national basis on well-thought-out fiscal principles.

In the newly created Raiyatwari areas as well as in the old ones, the operative techniques of the system developed during the last century and a half have almost ceased to function. In most regions revision settlements have been postposed or abandoned so that the assessment rate structure of the pre-war period has remained unaltered inspite of the virtual price revolution which has occurred since then. Whether under the altered price-cost-income structure the

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[1] Government of Bengal, Reports of the Land Revenue Commission, Bengal, 1940, vol. I, p. 38.

taxable capacity of the occupants at different levels has increased, and if so, to what extent, whether these classes are relatively under-taxed as compared to similarly situated income groups in the non-agricultural sectors, are some of the debatable questions which need to be enquired into, and forms part of our subsequent analysis. The statistical and analytical arguments for and against the upward revision of land revenue assessments are very slippery, but we believe that there are sufficiently reliable indicators on which a particularly valid case for a revision can be supported. So far only transitional readjustment in the form of surcharges have been made in some states: they have met with opposition in others. However, surcharges are merely adhoc or transitional devices and are no substitutes for the overdue long-range programme of reconstruction.

The price revolution has also significantly altered the relative importance of land-revenue in the fiscal structure of the states and of the country as a whole. While there has been practically very little absolute real increase in land-revenue receipts, the levels at which the states are operating their other fiscal instruments are much higher than at the beginning of the war. It is thus clear that today land revenue as a fiscal levey is wholly out of alignment with the prices and costs and with the other elements which make up the financial structures of the states. Under the increasing pressure of fiscal needs for planning and defence, it may not be advisable to altogether under-play this levy which

despite its reduced fiscal significance constitutes a sizeable amount of public revenue.

Again, the direct taxes on agriculture, i.e. land revenue and agricultural income tax have almost remained static since 1950-51, below 2 percent of the income from agriculture. Agriculture has, thus not contributed much towards economic development, even though the crude index of economic welfare of the agricultural sector has been rising. Further there is a high concentration of land in the hands of a few and the trend is increasing in recent years. For instance, about half of the land holders own only 6 percent of the land and, on the other hand less than half percent of land owners own more than 11 percent of the land. The richer sections of the agriculturists are bearing a low burden because a) they pay land tax which is a proportional tax and b) they may or may not pay agricultural income tax.

Realising the above problems, the Perspective Planning Division of the Planning Commission suggested that additional agricultural taxation should be introduced to serve three objectives, viz. i) to secure larger investible and marketable surpluses from agriculture, ii) to provide an incentive to raise agricultural output and iii) to introduce an element of progressive taxation so as to make it more equitable[2].

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[2] Government of India, Reports of the Planning Commission, 1973, pp.74-75.

For achieving these objectives, the Division suggested the introduction of a progressive surcharge on land revenue, surcharge on area under commercial crops, a purchase tax on commercial crops and a tax on livestock.

There had also been suggestions that the land revenue rates should be raised from the then existing levels and that progression should be introduced. Others had argued that the regressive land tax should be abolished totally and it should be replaced by progressive agricultural income tax.

In view of the controversy over the issue, the Chief Ministers' Conference on 'Resource Mobilisation', held in 1971, recommended the appointment of an Expert Committee to examine the Centre's proposal to link or merge income tax with agricultural income tax. Accordingly, the Committee on Taxation of Agricultural Wealth and Income was appointed under the Chairmanship of Dr. K.N. Raj in February 1972, to examine the question of taxation of agricultural wealth and income from all aspects. It submitted its report in October 1972.

The Committee pointed out that the present land revenue system suffers from two basic defects,[3] i.e. i) the incidence of land revenue in relation to the productivity of

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[3]Government of India, Report of the Committee on Taxation of Agricultural Wealth and Income, 1972, p.108.

land was not uniform over different parts of the country as the land revenue settlement was done under different systems and at different times in different parts of the country, ii) the land revenue has been assessed at a flat rate per hectare and therefore, was not progressive.

To remove these defects, the committee recommended that Agricultural Holdings Tax (A.H.T.), should be imposed on agriculturists who have no other assessable income. It is a tax on net farm business income, i.e. on the net rateable value of agricultural land holding. The A.H.T. was to be imposed, according to the committee, on operational holdings, i.e. land owned by the farmers minus only part of his land leased out or mortgaged to others plus any land leased in or mortgaged by him from others. The basis of assessment was to be the family, and not the individual, consisting of husband, wife and minor children.

The implementation of A.H.T. was recommended to be in two phases, i) the replacement of the present land revenue by the A.H.T. on all operational holdings with rateable value of Rs. 5,000 or more and ii) extension of the A.H.T. to all other operational holdings with rateable value below Rs. 5,000. The additional resources likely to be raised from the A.H.T. have been estimated to range between Rs. 150 - 200 crores per year.

The other major recommendations of the Committee were as follows:

i) In the case of assessees having non-agricultural taxable income, income from agriculture should be included in the total income for the purpose of calculating income tax.

ii) Income from livestock, fisheries, poultry, dairy farming, etc. should be subject to tax.

iii) An integrated taxation of agricultural property through wealth tax should be introduced.

iv) Capital gains tax on transfer of agricultural lands should be imposed.

It was felt that while considering the issue of a progressive agricultural income tax, it was necessary to take into account various economic and administrative difficulties in imposing such a tax. It is difficult to determine the farm income for the purpose of levying tax on it. Wide fluctuations in the prices of different crops and their output lead to fluctuations in the farm income, leading to indefinite basis for taxation. Different systems of land holdings and different kinds of tenancies make the location of the assessee very difficult. Finally, the cost of collection of agricultural income tax may be very heavy since, the farmer assessees are scattered all over the country. Inspite of these practical difficulties, the progressive income tax on agriculture is justifiable on the ground that while there is progression in taxation of non-agricultural income, there is no such progression in the taxation of agricultural income. There is, thus, a need for tapping additional revenue from agriculture for purposes of economic development of the country.

## Part - II

### AGRICULTURAL TAXATION IN ORISSA : A SHORT INTRODUCTION

In this Section, we consider briefly the different taxes borne by the agriculturists in Orissa. The term agricultural tax as used here includes not only taxes paid by the agriculturists in their capacity as agricultural producers but also those borne by them in other capacities, for example as consumers, owners of wealth, etc.

Direct tax on agriculture consists of the land tax, and agricultural income tax. These may be called "agricultural tax proper".[4] Other direct taxes include estate duty, wealth tax, expenditure tax, gift tax and stamps and registration. Under indirect taxes, we may mention, excise duties, the general sales tax, import duties, entertainment tax, electricity duty, motor vehicle tax, sale tax on mot er spirit, etc.. Of the various taxes affecting the agricultural sector, land tax and agricultural income tax, which are the main sources of revenue from agriculture, are levied, collected and the proceeds retained by the State Government.

For the purpose of this study, we include under agricultural taxation, only the land tax, agricultural income

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[4] Mathew, E.T., Agrictultural Taxation and Economic Development in India, 1968, p.7.

tax and other relevant taxes which have a direct bearing on agriculture and the agriculturist, such as the cess on land and the water rates.

Land Revenue

Land revenue has been traditionally the most important tax on agricultural land in the State. Though its relative importance has greatly declined in recent times as a result of inflation and also due to the introduction and extension of many new levies it is still the most important tax on agriculture. The land revenue is levied and collected by the State Government. In 1973-74, land revenue accounted for 5.48 percent of the State's own tax revenue.[5] The rapid decline in the relative importance of land revenue as a source of revenue is brought out by the fact that in 1936-37, land revenue had contributed 48.71 percent of the State's own tax revenue.[6]

Land revenue is the oldest tax in the State. The foundations of the modern land-revenue system were laid by Akbar (1556-1605), the great Moghul emperor of India, with the help of his famous revenue minister, Raja Todar Mal. Land revenue was fixed as a percentage of the gross produce. In calculating the gross produce, differences in soil and

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[5]Government of Orissa, Conspectus of Orissa Budget 1936-37 - 1973-74, Finance Department, 1974, p.215.

[6]Government of Orissa, Ibid., p.216.

fertility were taken into account. With the decline of the Mughul Empire, the middlemen employed to collect the land revenue became stronger and in course of time, became "Zamindars", or owners of land. The East India Company conferred greater status and legality on the Zamindars. The Company under Lord Cornwallis decided in 1793, in favour of a 'Permanent Settlement' of land revenue in the then Bengal Presidency which included the present State of Orissa too. Under the Permanent Settlement, land revenue was fixed permanently.[7] Land revenue was fixed at nine-tenths of the rental.[8] The Zamindars were thus assured of the benefits of any future increments in the value of, and income from, land. Since, the Permanent Settlement ensured a regular inflow of revenue, the East India Company later extended it to many other parts of the country. When the company's rule was, however, securely established, it was thought that the State would benefit more from periodical settlements. There were two types of such settlements: 'Mahalwari' and 'Ryotwari'.[9] In the former case, settlement was concluded with village community according to which the villagers were held jointly and severally responsible for the payments of land revenue. The Land revenue was initially fixed at 83 percent of the rental of the estate.[10]

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[7] Dutt, Ramesh Chandra, The Economic History of India (Delhi: Govt. of India Press, 1960), vol.I, pp.58-68.

[8] Jena, Krishna Chandra, Land Revenue Administration in Orissa during the Nineteenth Century, 1968, p.200.

[9] For details, see Jena, K.C., Ibid., pp.93-187.

[10] Ibid., p.147.

In the latter case, land revenue was directly settled with the individual farmers. The land revenue was fixed at 45 - 55 percent of the gross produce.[11] In these cases, the assessments were not fixed in perpetuity but for a definite period, varying from fiteen to forty years.

Impact of Land Reforms on Land Revenue

Under the land reforms implemented in Orissa, intermediaries between the State and the tiller of the soil were abolished in most cases. The 'Zamindari' system has disappeared and along with the Permanent Settlement of land revenue. These changes have had a profound impact on the land revenue system. Receipts from land revenue increased from Rs. 0.5 crores in 1936-37 to Rs. 13.6 crores in 1979-80.[12] The substantial increase in the receipts from land revenue was largely accounted for by the fact that, the payments which formerly went to the land lords now went directly to the Government. Thus, in a real sense the increase in the receipts from land revenue in the recent past did not indicate increased taxation of the agriculturists, it was only a conversion of rents into land revenue.

In Orissa, land revenue settlement is based on individual holdings assessed separately. Such holdings usually do not exceed ten acres and may be even as small as

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[11] Jena, K.C., op cit. p.139.

[12] Government of Orissa, Orissa Budget - Some Facts and Charts, 1979-80, p.18.

one hundred part of an acre. Separate assessments are made for 'wet' and 'dry' lands. In 'dry' village, the basis for grouping land is similarity of climatic conditions, marketing facility including that of railway transportation, proximity to a town, etc.; whereas in a 'wet' village the basis is the character of the source of irrigation. Soil are also classified and sub-classified according to their admixture of sand and clay. On the basis of this classification, land is considered 'best', 'good', 'ordinary', 'interior', or 'worst' to determine the amount of crop each of the different 'class' as 'sort' of soil will produce. The quantity of 'standard grain' per acre on each 'class' and 'sort' is calculated and the grain value determined in money terms on the basis of the average price prevailing for the twenty non-famine years immediately preceeding the settlement, suitable deduction being allowed from such average price on account of cartage and merchant's profits.[13]

From the 'grain value' so determined, the cost of cultivation consisting of costs on account of (i) ploughing cattle, (ii) agricultural implements, (iii) seeds, (iv) manure, (v) labour required for ploughing, sowing, weeding, reaping threshing etc. are usually deducted to arrive at the net value of the produce. Assessment of land revenue is then levied on

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[13] The food grain taken as standards are rice, for 'wet' lands and ragi for 'dry' lands. While calculating the outturn of these crops, from each kind of soils an allowance (usually 25 percent) is made from the gross produce for the vicissitudes of seasons and for unprofitable areas included in holdings.

the basis of the value of 'net produce', determined by estimating the gross produce, valued at the average price of the crop for a specified period minus the cost of cultivation.

The land revenue is charged at the rate of 35 percent or one-third of the total net produce. However, as there has been no regular periodical revision of the land revenue assessment in the last few decades, the above mentioned base has fallen into disuse and thus lost much of their practical validity. Thus, the land revenue has, in practice, become a crude acreage tax.

Cess on Land

At present, cesses on land is leviable under the provision of the Orissa Cess Act 1962 which levied the cess on all lands liable to payment of rent or revenue excluding those in respect of which a tax on holding is assessed under the Orissa Municipal Act of 1968. The assessment is related to the annual value of land which is treated as equivalent to land revenue payable in respect of the land. The rate of cess was 25 percent of the annual value till 1st of April, 1970. The rate was increased to 50 percent of the annual value from 1st of April, 1970.[14]

ii) Agricultural Income Tax

The Orissa Agricultural Income Tax Act 1947, defines agricultural income as income derived (a) by way of rent from

[14] Government of Orissa, "Conspectus of Orissa Budget, 1936-37 to 1973-74" (1974), p.217.

land used for agricultural purposes (b) from any building owned or occupied by the cultivator or receiver of rent and used in connection with processing or sale of agricultural produce and, (c) by agriculturist including processing of the produce in order to render it fit for marketing. Deductions are allowed for (i) payment of land revenue, water rates, cess, municipal taxes, etc. (ii) expense of repairs to capital assets (iii) depreciation and interest charges (iv) expenses of cultivation and transportation of crop to market as well as cost of maintenance of agricultural implements.

The agricultural income tax has been a minor source of revenue in Orissa. The bulk of the revenue from the tax comes from a few big landlords in the upper income brackets. The tax contributed less than two percent of the total state tax revenue and less than one percent of the aggregate revenue receipts of the State during the first two years of its levy, iee. from 1st of April, 1948.

The sudden fall in revenue from Rs. 12.9 lakhs in the year 1951-52 to Rs. 6.57 lakhs in 1952-53 and then diminishing receipts each year reaching the negligible figure of Rs. 2.24 lakhs in 1956-57 was due to the abolition of the Zamindaries. Under the Estates Abolition Act, the permanently settled estates had been taken over by the State Government from 1952 and gradually the temporarily settled estates were also being taken over. Curiously, the number of assessees was not reduced to any large extent due to these reform measures. Thus, in

1951 the number of assessees was 2,216, it declined to 1,813 in 1952 and came down to 1,624 next year. But the fall in the revenue was more than proportionate inspite of the enhanoement of the rates in 1952.

The turnover of the tax is given below which indioates the insignifioant position, it holds among the state taxes.

TABLE-I

Reoeipts Under Agricultural Income Tax in Orissa

| Year | Tax receipts in 000' Rs. | Peroentage Col.2. to States own tax revenue | Percentage Col.2. to State's Total Revenues Receipts | Index of the tax growth (Base 1960-61 as = 100) |
|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) |
| 1948-49 | 168 | 0.63 | 0.27 | 46.03 |
| 1956-57 | 196 | 0.37 | 0.12 | 53.70 |
| 1960-61 | 365 | 0,43 | 0,10 | 100.00 |
| 1965-66 | 720 | 0.36 | 0.10 | 197.00 |
| 1969-70 | 576 | 0.20 | 0.05 | 157.81 |
| 1973-74 | 594 | 0.14 | 0.04 | 162.74 |

Source: Government of Orissa, Conspectus of Orissa Budget, 1936-37 to 1973-74, p.215, Table 4.

One more reason can be assigned to the fall in revenue. Natural calamities such as drought, floods and heavy rains,

which had shaken the economic foundation of the agriculturists, caused a serious reduction in the yield from the tax and it reached its lowest point in 1959-60, when the tax contributed only 0.39 percent of the total state tax revenue. The absolute contribution of the agricultural income-tax has not exceeded Rs. 3 lakhs, from the year 1955 to 1960. The year 1962-63 shows the highest yield, ie.e. Rs. 11 lakhs which is mostly due to the realisation of arrear dues.

Since the imposition of the tax, many changes have been introduced on grounds of Administrative requirements and with a view to make upward revision of the rates. The tax is levied for each financial year on the total agricultural income of the previous year. Total agricultural income means the aggregate of the amounts of agricultural income derived from the land situated in Orissa and determined in the specified manner after allowing for the reductions provided for under the Act. A person is not liable to tax unless the total agricultural income after deductions exceeds Rs. 5,000.

The rates of Agricultural income is progressive, starting from 3 percent on the lowest to 78 percent on the highest slabs, the details of which, is presented in below.

TABLE-II

Rates of Agricultural Income Tax

| | | |
|---|---|---|
| 1) | On the first 5,000 of the total Agricultural Income | - Nil |
| 2) | On next two thousand of the total Agricultural Income | - 3% |

| | | |
|---|---|---|
| 3) | On next five thousands | - 6% |
| 4) | On next five thousands | - 9% |
| 5) | On next five thousands | - 16% |
| 6) | On next five thousands | - 22% |
| 7) | On next five thousands | - 29% |
| 8) | On next fifteen thousands | - 36% |
| 9) | On next five thousands | - 44% |
| 10) | On next fifteen thousands | - 50% |
| 11) | On next fifteen thousands | - 62% |
| 12) | On next fifteen thousands | - 69% |
| 13) | On next fifteen thousands | - 72% |
| 14) | On next fifteen thousands | - 75% |
| 15. | On the balance of the total agricultural income | - 78% |

(iii) Water Rates

Water rates were levied on lands irrigated by Orissa canals in the district of Cuttack and Balasore under the Provisions of Bengal Irrigation Act, 1876. The water rates under this act, were in force since 1931 and were reduced by one-third in 1939 on account of the economic depressions then prevailing, but were restored to the level of 1931 in 1949. Since, 1949, the rates remained unchanged till the Orissa Irrigation Act came into force in 1959.

Water cess was levied on lands, irrigated by Rushikulya land and old Madras Irrigation works of Ganjam District under the Madras Irrigation Cess Act 1865. Unlike water rates, the

water cess was compulsory. It was levied on all lands commanded by an irrigation source. The water rates were fixed in 1933.

The Orissa Irrigation Act, 1959, came into force from 1st July, 1963, in the districts of Ganjam and Koraput; from 1st June, 1963, in Cuttack, Puri and Balasore Districts; and from 1st June, 1961, in all the other areas. According to the provisions of Act, compulsory basic water rates for supply of water for purposes of irrigation was levied at the rates and on the basis of principles indicated below.

Compulsory basic water rates were levied according to the classification of the water source, which are as follows:

| Cess of Irrigation Work | Rate per Acre per year |
|---|---|
| 1st Class (Period of Supply - June to November, Depth of water guaranteed was 28 inches) | Rs. 8.00 |
| 2nd Class - July to November 23 inches | Rs. 6.00 |
| 3rd Class - July to October 18 inches | Rs. 4.00 |
| 4th Class - July to October 9 inches | Rs. 2.00 |

Apart from the compulsory basic water rates, which covered the main Khariff crop, water rates for Rabi and other crops were also leviable under the Act. The rates varied from crop to crop. The system continued till 1967, when the system and rates were changed in pursuance of the recommendation of the Water Rate Revision Committee 1966. In accordance with the

recommendation of this Committee, a system of payment on voluntary basis by agreement with a stipulation that when water is supplied to a block for staple cereal crops on the application of 75% or more of the owners or cultivators within the block, whether they have joined in such application or not, was agreed to, whereby the Block shall be liable to pay water rate for water supplied to the staple cereal crops. This remained in force from 1967 to 1973-74. The rate prevalent between 1967-74 were as follows:

I - Rs. 4.00 per acre per annum
II - Rs. 3.00 per acre per annum
III - Rs. 2.00 per acre per annum
IV - Re. 1.00 per acre per annum

Water rates has been further revised in 1974-75 in the following manner and the old system of compulsory basic water rates has been revised.

(a) Compulsory:

Class I Irrigation - Rs. 8 per acre
Class II Irrigation - Rs. 6 per acre
Class III Irrigation - Rs. 4 per acre
Class IV Irrigation - Rs. 2 per acre

(b) Rabi Rates differ from cropt to crop:

Lowest Mung Rs. 1.50 per acre
Highest (Ganja) Rs. 50 per acre and paddy Rs. 24 per acre

The total revenue from this tax was 1.7 crores rupees in the year 1970-71, which increased to Rs. 4.2 crores rupees in the year 1979-80.[15]

(iv) Other Direct Taxes

Land revenue together with agricultural income tax represents agricultural taxes proper. However, since in our study, we are interested in the total tax burden of agricultural sector, we have also to take into account other taxes falling on the agriculturists. These taxes with the exception of stamps and registration are new levies.

The new levies - estate duty and wealth tax do not yet play any significant role in Orissa's tax system. The combined receipts from these taxes amounted to only 0.84 percent of the direct taxes of the State. Since the exemption limits of these taxes are very high, the amount collected from the agriculturists cannot be significant. Furthermore, agriculturists are granted certain special exemptions. For instance, agricultural land and growing crops, and standing trees on such lands, are exempt from wealth tax. Also tools and implements used for the raising of agricultural products are exempted.

In sharp contrast to the above direct taxes, the receipts from stamps and registration have been quite substantial. Stamp duties and registration fees jointly form 11.67

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[15]Government of Orissa, "Orissa Budget - Some Facts and Charts, 1978-80, 1980, p.10.

percent of the total tax revenue of the State. In 1979-80, the State Government realised Rs. 4.9 and Rs. 1.4 crores rupees respectively from the stamp duties and registration fees.[16] And lastly taxes on vehicle form 13.70 percent of the total tax revenue of the State.

(v) Taxes on Commodities and Services (Indirect Taxes)

Among the indirect taxes, which affect the agriculturists as consumers, state excise duties and the State's sales tax are the most important.

Sales tax is a comparatively new levy, though an increasingly important one, and occupies a coveted position. It contributes 29.01 percent of the total collections under all indirect taxes. The total revenue from this source was Rs. 35.5 crores rupees in the year 1979-80, as against, Rs. 10.3 crores rupees of the previous collected in 1970-71. State Excise Duties contributed about 3.85 percent to the total collection under indirect taxes. Electricity duty has become a very important source of raising revenues its contribution has increased from Rs. 2.79 crores in 1970-71 to Rs. 17.08 crores in 1979-80, an increase of about 369 percent.[17]

Besides, excise duties and general sales tax, there are some other taxes, but they are of relatively minor importance.

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[16] Government of Orissa, Orissa Budget, 1979-1980, p.6.

[17] Ibid., p.8.

Among them sales tax on motor spirit and the motor vehicle tax are the most prominent; their relative importance has been growing recently.

Trends in the Yields and Relative Importance of State and Central Taxes

We may conclude this chapter with a brief examination of the trend in revenue yields from different taxes and also their relative place in the system of taxation. The following table shows the combined tax revenue receipts of the State and central government for over a decade from 1970-71. We observe that the revenue from all taxes listed in this table except taxes on agricultural income has recorded an increase during the period 1970-71 to 1979-80. The annual rate of increase in revenue has been negligible in respect of agricultural income tax (0.04 percent), taxes and duties on electricity (2.02 percent), entertainment tax (1.67 percent), and stamps and registration duties (2.13 percent). The increase in respect of land revenue (27.08 percent), taxes on motor vehicle (8.56 percent), and state's own sales taxe· (53.24 percent) has been quite substantial.

The most spectacular growth in revenue, however, has been in the case of State's sales tax (53.24 percent), to a lesser extent on taxes on passenger goods (2.62 percent), state excise duty (3.12 percent), and taxes on motor vehicles (8.56 percent) taxes. Along with the sales tax, the state excise duties have also emerged as an important tax in the state during the last decade.

Table - 3

REVENUE RECEIPT OF ORISSA BY SOURCES UNDER REVENUE ACCOUNT
(Rs. in crores)

| Year | Land Revenue | Taxes of Agri-cultural Income | Stamps and Registration Fees | State Excise Duties | Sales Tax |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 1960-70 | 1.7 | 0.1 | 2.3 | 4.2 | 14.5 |
| 1970-71 | 1.7 | 0.1 | 2.7 | 4.2 | 17.5 |
| 1971-72 | 1.8 | 0.1 | 3.2 | 4.6 | 17.5 |
| 1972-73 | 2.0 | 0.1 | 3.3 | 4.9 | 21.2 |
| 1973-74 | 2.3 | 0.1 | 3.5 | 5.1 | 22.4 |
| 1974-75 | 2.4 | 0.1 | 4.4 | 5.5 | 27.3 |
| 1975-76 | 3.2 | 0.1 | 5.3 | 6.1 | 38.0 |
| 1976-77 | 4.4 | 0.1 | 5.1 | 6.7 | 47.1 |
| 1977-78 | 4.8 | 0.1 | 5.6 | 7.0 | 47.1 |
| 1978-79 | 5.5 | - | 6.6 | 7.2 | 55.2 |

Table - 3 (cont'd.)

| Year | State's Own Tax | | | | | State Shared Tax | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Union Excise Duties | | | | | | |
| | Taxes on Vehicle | Taxes on goods and Passenger | Taxes and Duties on Electricity | Entertainment Tax | Total | Basic | Additional | Total | Income Tax | Excise Duty | Shared Tax Total | Grand Total of all Taxes |
| | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 1969-70 | 2.6 | 0.4 | 2.1 | 0.4 | 28.3 | 12.5 | 1.6 | 14.1 | 10.9 | 0.3 | 25.3 | 53.6 |
| 1970-71 | 2.9 | 0.9 | 2.8 | 0.5 | 33.3 | 14.9 | 2.1 | 17.0 | 13.2 | 0.2 | 30.4 | 63.7 |
| 1971-72 | 3.1 | 1.0 | 2.9 | 0.6 | 34.8 | 17.2 | 3.1 | 20.3 | 16.9 | 0.3 | 37.5 | 72.3 |
| 1972-73 | 3.3 | 1.0 | 3.3 | 0.8 | 39.9 | 20.1 | 4.0 | 24.1 | 18.0 | Nil | 42.1 | 82.0 |
| 1973-74 | 3.6 | 1.2 | 3.3 | 0.7 | 42.2 | 21.7 | 4.9 | 26.6 | 19.4 | 0.4 | 46.4 | 88.6 |
| 1974-75 | 4.7 | 1.5 | 3.4 | 1.2 | 50.5 | 21.2 | 6.4 | 27.6 | 19.1 | 0.5 | 47.2 | 97.7 |
| 1975-76 | 5.7 | 2.0 | 6.7 | 1.3 | 68.4 | 26.2 | 7.6 | 33.8 | 27.1 | 0.3 | 61.5 | 129.9 |
| 1976-77 | 5.5 | 2.2 | 8.0 | 1.7 | 80.8 | 31.4 | 9.1 | 40.5 | 24.3 | 0.4 | 65.2 | 146.0 |
| 1977-78 | 6.2 | 2.5 | 8.5 | 1.9 | 83.7 | 33.0 | 10.8 | 43.8 | 25.2 | 0.4 | 69.4 | 153.1 |
| 1978-79 | 7.1 | 2.8 | 11.9 | 2.1 | 98.4 | - | - | 48.9 | 26.4 | 0.4 | 75.7 | 174.1 |

Table - 3 (cont'd.)

| Year | State's Own Non-Tax | | | | | | Grant-in-Aids | Total non-tax Revenue | Total Revenue Tax and Non-Tax |
|---|---|---|---|---|---|---|---|---|---|
| | General Service | Social & Community Services | Economic Services Except Forest | Forest | Interest Dividends and Profit | Total State's Own Tax | | | |
| | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 1969-70 | 1.9 | 3.7 | 10.2 | 6.6 | 14.2 | 36.6 | 40.9 | 77.5 | 131.1 |
| 1970-71 | 2.3 | 3.7 | 7.7 | 7.4 | 12.1 | 33.2 | 38.9 | 72.9 | 135.8 |
| 1971-72 | 2.5 | 3.5 | 7.8 | 7.9 | 13.1 | 34.8 | 44.2 | 79.0 | 151.3 |
| 1972-73 | 3.1 | 2.2 | 11.4 | 8.0 | 13.1 | 37.8 | 48.3 | 86.1 | 168.1 |
| 1973-74 | 3.8 | 4.0 | 11.6 | 8.2 | 14.2 | 41.8 | 44.2 | 129.7 | 174.6 |
| 1974-75 | 2.7 | 3.3 | 11.8 | 11.0 | 19.2 | 48.0 | 81.7 | 147.6 | 227.4 |
| 1975-76 | 3.4 | 4.6 | 18.9 | 12.4 | 18.8 | 58.1 | 89.5 | 179.8 | 227.5 |
| 1976-77 | 9.3 | 6.0 | 23.0 | 14.4 | 25.6 | 78.0 | 101.8 | 215.7 | 325.8 |
| 1977-78 | 4.9 | 9.6 | 20.9 | 19.1 | 26.8 | 81.3 | 134.4 | 273.3 | 368.8 |
| 1978-79 | 5.6 | 7.0 | 26.7 | 26.6 | 28.9 | 94.8 | 178.5 | 273.3 | 447.4 |

Source: Government of Orissa, Statistical Abstract of Orissa (1978-79), pp.426, (State Finance).

Thus, we observe that the relative contribution of land revenue, agricultural income tax, estate duty, general sales tax, entertainment tax and electricity duties have remained more or less the same over the period 1969-70 to 1978-79. Finally, sales tax on motor spirit, and motor vehicle tax have grown considerably in their relative contributions.

# CHAPTER - IV

# ECONOMY AND EFFICIENCY OF AGRICULTURAL TAXES IN ORISSA

# ECONOMY AND EFFICIENCY OF AGRICULTURAL TAXES IN ORISSA

In this chapter, we intend to examine the 'cost-effectiveness' and the 'burden' of agricultural taxation in Orissa. However, before we attempt such an analysis, it is useful and necessary to have an idea of the implications of the agricultural tax system of the State in relation to some of the important economic variables. In section I of this chapter, we attempt such an evaluation, albeit, in a summary manner. And in section II we analyse the efficiency of tax administration in terms of its cost-effectiveness.

## Part - I

We present in Table 1 the important relationship of the agricultural tax system of Orissa for the decade, 1970-71 - 1979-80, to some of the other relevant economic stocks and flows in the State for the same period.

Column 3 of the table shows the trend of total tax revenue of the State since 1970-71. Tax revenues show a rising trend throughout the period from 1970-71 to 1979-80, increasing from Rs. 63.7 crores in 1970-71 to Rs. 252.7 crores in 1979-80, that is, an increase of about 296 percent. This increase can mainly be attributed to various additional taxation measures implemented by the State Government to finance successive Five Year Plans, better collection of tax revenues and a larger devolution of resources from the Centre to the State by way of higher share in the central taxes, resulting from the recommendations of the Finance Commissions.

TABLE - I

Important relationship of the Agricultural Tax System of Orissa for decade, 1970-71 - 1979-80 to some of the other relevant economic stocks and flows in the state for the same period.

| Year | 1000 Rs. Own Tax Revenue | 000, Rs. Total Tax Revenue | Rs. lakh State Income Net State Domestic Product | Rs. lakh Agricul-tural Income | 000, Rs. Land Revenue | 000, Rs. Agricul-tural Income Tax | Popula-tion in lakhs | 000, Hec-tare Gross Cropped Areas | 000, Hec-tare Net Areas Sown | Column 3 as % to Column 4 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1970-71 | 348000 | 637276 | 104671 | 70206 | 16683 | 739 | 216.97 | 6761 | 5601 | 6.088 |
| 1971-72 | 399000 | 723529 | 106596 | 70513 | 17877 | 905 | 221.87 | 6874 | 5765 | 6.787 |
| 1972-73 | 422000 | 820200 | 130689 | 90414 | 20446 | 910 | 226.88 | 6936 | 5622 | 6.275 |
| 1973-74 | 505000 | 886205 | 161767 | 114711 | 23144 | 594 | 232.01 | 7284 | 5973 | 5.478 |
| 1974-75 | 684000 | 976654 | 166408 | 110618 | 34287 | 582 | 237.26 | 7134 | 5719 | 5.869 |
| 1975-76 | 808000 | 1298679 | 173592 | 111285 | 31917 | 799 | 242.62 | 7733 | 6137 | 7.481 |
| 1976-77 | 837000 | 1460346 | 163407 | 95885 | 43912 | 886 | 248.10 | 7209 | 5877 | 8.936 |
| 1977-78 | 984000 | 1531409 | 202704 | 128916 | 48304 | 730 | 253.71 | 7931 | 5997 | 7.554 |
| 1978-79 | 1040000 | 1680800 | 214024 | 137273 | 49500 | 800 | 259.44 | 8275 | 6097 | 7.85 |
| 1979-80 | 1287000 | 2527500 | - | - | 65800 | 800 | - | 8166 | 5970 | - |

Growth rate: Column 2 = 12.601 + 0.1478t, $R^2$ = 0.978

Column 3 = 13.182 + 0.1406t, $R^2$ = 0.966

Column 4 = 11.5016 + 0.08844t, $R^2$ = 0.90

Column 5 = 11.1391 + 0.0763t, $R^2$ = 0.753

Column 7 = 7.6324 + 0.00161t, $R^2$ = 0.00093, its growth rate is .016

TABLE - I (Contd.)

| Per capita Income (Rs.) | Ratio of Column 2 to Column 3 | Column 2 as a % to Column 4 | Per capita Tax | Column 15 as a % of Column 12 | (000, Rs.) Total Agricultural Taxes | Column 17 as a % to Column 3 | Column 17 as a % to Column 2 | LR/LR+AI | Agricultural Tax as per GCA | Agricultural Tax as per NAS |
|---|---|---|---|---|---|---|---|---|---|---|
| 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 482.42 | 0.546 | 3.324 | 29.37 | 6.088 | 17422 | 2.733 | 5.006 | 0.95758 | 2.576 | 3.111 |
| 480.44 | 0.551 | 3.743 | 32.01 | 6.787 | 18782 | 2.595 | 4.707 | 0.95181 | 2.738 | 3.257 |
| 576.03 | 0.514 | 3.229 | 36.15 | 6.275 | 21356 | 2.603 | 5.060 | 0.95738 | 3.079 | 3.798 |
| 697.24 | 0.569 | 3.121 | 38.19 | 5.477 | 23738 | 2.678 | 4.700 | 0.97497 | 3.258 | 3.974 |
| 701.34 | 0.700 | 4.110 | 41.16 | 5.911 | 24869 | 2.546 | 3.635 | 0.976597 | 3.485 | 4.348 |
| 715.49 | 0.622 | 4.654 | 53.52 | 7.480 | 32716 | 2.519 | 4.049 | 0.975577 | 4.230 | 5.331 |
| 658.63 | 0.573 | 5.122 | 58.86 | 8.938 | 44798 | 3.067 | 5.351 | 0.98022 | 6.214 | 7.623 |
| 799.10 | 0.642 | 4.854 | 60.36 | 7.587 | 49034 | 3.201 | 4.983 | 0.985112 | 6.182 | 8.1176 |
| 824.95 | 0.618 | 4.859 | 64.78 | 7.852 | 50300 | 2.992 | 4.836 | 0.984095 | 6.078 | 8.249 |
|  | 0.509 | - | - | - | 66600 | 2.635 | 5.174 | 0.98798 | 8.155 | 11.155 |

Growth Rate: Column 9 = 8.7869 + 0.02253t, $R^2$ = 0.855

Column 10 = 8.63442 + 0.007945t, $R^2$ = 0.546

It would also be noted that the annual compund rate of growth of total tax revenue during the period is approximately 14.06 percent.

In column 4 is presented the State income, the Net State Domestic Product (NSDP). The data presented is the aggregate of the sectorwise estimates by industrial origin of the State Domestic Product at factor cost at current prices.

During the decade, the SDP had increased from Rs. 10,4671 lakhs in 1970-71 to Rs. 21,4024 lakhs in 1979-80, showing an increase of 104 percent. The annual compound rate of growth during the decade is about 8 percent.

In column 11, is shown the percentage of total tax revenue to the State income. We see a gradual, though not a spectacular increase in this percentage over the years, from 6.08 percent in 1970-71, to 7.85 percent in 1978-79.

Column 2 of the table indicates the State's own tax revenue for the decade. Such tax revenues which were Rs.34.8 crores in the year 1970-71, increased to Rs. 128.7 crores in the year 1979-80. The rate of growth over the years was 14 percent. This increase of the State's own tax revenue over the years was mainly due to large receipts under taxes on vehicles and also land revenue both of which, have increased considerably over these years.

Column 13 of the above table shows the ratio of the State's own tax revenue to the total tax revenues accruing to

the State during these years. A remarkable feature regarding this is that, the ratio which was 0.546 in the year 1970-71, has increased over the years to 0.618 in the year 1978-79 (although this ratio was only 0.509 in the year 1979-80).[5] The increasing ratio between own tax revenue to State's total tax revenue would seem to indicate that the State has put in greater efforts than before in raising its own tax revenue in a much more efficient way during the last one decade, and tapping more resources from the State economy thereby increasing the avenues for financing its own expenditure.

Column 14, of the table shows an encouraging fact, confirming what has been said in the previous paragraph. In this column, we present the percentage of State own tax revenue to the State's Domestic Products over the years. The percentage of State's own tax revenue to State's income which was 3.24 percent in 1970-71, has increased over the years and was near about 5 percent in the year 1978-79. The State's own tax revenue has been moving in the same direction as the increase in the State's income.

In column 15, the per capita tax revenue is given, i.e. the ratio of the total tax revenues for each of the years over the decade to the total estimated population of the corresponding years. It is to be noted that the percapita tax burden over the period has increased considerably. The percapita tax burden, which was Rs. 29.37 in the year 1970-71 has increased to Rs. 64.78 in the year 1978-79, an increase of two and half times

over the period, while per capita income has increased only by about 1.7 times (as presented in column 12) over the period. The per capita income of the State has not increased in any considerable measure during these years. As a result, the per capita tax burden has been growing more than in proportion to the growth of per capita income.

The percentage of per capita tax to the per capita income for each of the years has been calculated and presented in column 16. This ratio of percapita tax to percapita income shows the increasing trend over the period. The percapita tax burden to the percapita income was 6.08 percent in the year 1970-71 and it increased to 7.85 percent in the year 1978-79. Figures in columns 11 and 16, give the same result, viz., an increasing trend in the ratio of the State's own tax revenue to the total State income (column 11) and in the percentage of percapita tax to percapita income (column 16).

Column 18 of the table shows the percentage of the agricultural tax revenues to the State's total tax revenue for the ten year period of 1970-80. Our calculation shows that the contribution of total agricultural taxes to the State's total tax revenues was 2.73 percent in 1970-71, which has remained more or less constant throughout the years, (its percentage contribution to the State's total revenue was only 2.63 percent in the year 1979-80). This may be taken as an indication of the fiscal significance or otherwise of the agricultural taxes in the State.

Although the percentage contribution of the agricultural taxes to the state's total tax has remained more or less constant, its percentage contribution to the state's own tax revenue has shown a slight increase. The agricultural taxes contributed 5.006 percent to the state's own tax revenue in the year 1970-71 (with slight fluctuations in some of the successive years in this percentage point). The percentage contribution in 1979-80 of agricultural taxes to the state's own tax revenue was 5.174, thereby showing a slight increase. We would not be completely off the point if we are to consider this situation as an indication that agricultural taxes still play not an insignificant role in contributing resources for the economic development of the State.

Column 17 shows the total agricultural taxes (which include land revenue and agriculture income tax) from the year 1970-71 to 1979-80. Over the years agricultural taxes have emerged as one of the main sources of revenue to the State. The total agricultural taxes which were Rs. 1,7422 thousands in the year 1970-71 has increased to Rs. 6,6600 thousands in the year 1979-80; showing an increase of the order of 282 percent for the period. The rate of growth of land revenue for the entire period was 0.16 percent and the growth rate of agricultural income tax was 0.016 during the same period.

It is also to be noted that the ratio of land revenue receipts to the total agricultural tax revenue receipts has increased over time, from 0.957 in the year 1970-71 to 0.987 in

the year 1979-80 as can be seen from column 20. It indicates that in the total agricultural taxes of the State, land Revenue plays a more important role than other agricultural taxes in contributing to the total revenues from the agricultural taxes. Its contribution represents nearly 98 percent of the revenues from the agricultural taxes.

In the last two columns of our table (columns 21 and 22) are shown our calculations of the per hectare agricultural tax impact on Gross Cropped Area (GCA) and Net Area Sown (NAS). The per hectare impacts on both GCA and NAS show an increasing trend to be interpreted as an increasing per hectare agricultural tax burden. The agricultural tax per hectare of GCA was Rs. 2.57 in 1970-71 and per hectare of NAS was Rs. 3.11, both of which had increased more than four times in the year 1979-80 to Rs. 8.15 and Rs. 11.15 respectively on GCA and NAS.

Our discussion so far has shown that agricultural taxes have occupied not an insignificant place in the overall system of Government Finance. However, its fiscal importance has been continuously declining particularly over last 30 years as a result of several factors. As the state economy is increasingly becoming more monetised, it is providing scope for introduction of several new taxes. On the other hand, the public expenditure is ever increasing year after year, and as a result new avenues of taxation have been traversed. Further, with the secular upward trend in prices and the consequent heightened income structure, the inelastic land revenue and

agricultural income tax are lossing their relative importance as an important source of public revenue.

Though the dominant position of agricultural tax revenues have been gradually declining, agricultural taxes still remain as one of the principal sources of tax revenue to the State Government and fetches not an insubstantial amount of income to the exchequer, roughly amounting to 5 percent of the State's own tax revenues.

## Part - II

We have noted that agricultural taxes contribute roughly over 5 percent of the total own tax revenues of the State of Orissa and their per hectare burden in 1979-80 was Rs. 8.16 in respect of Gross cropped area under cultivation and Rs. 11.16 with regard to net area sown under cultivation. In this section we attempt to analyse whether agricultural taxes are 'cost-effective', that is whether they are in conformity with the maxims of economy or not.

Every tax has a cost of collection. It is important that the cost of collection should be the minimum possible. It will be useless to impose taxes which cost more in collection than the revenue they yield, and which therefore impose an unnecessary burden upon society in the form of additional administrative expenses. The fruits of the productive efforts of the people are frittered away, due to a wasteful use of resources on the salaries of the officials.

The cannon of economy is based upon a principle of sound economic administration policy. To quote Adam Smith, "Every tax ought to be so contrived as both to take out and to keep out of the pockets of the people as little as possible, over and above, what it brings into the public treasury of the State ... the levying (of a tax) may require a great number of officers, whose salaries may eat up the greater part of the produce of the tax, and whose perquisite may impose another additional tax upon the people".[1]

The principle of economy as laid down by Smith has two parts, (i) how much a tax takes out the pocket of the people and (ii) how much of the tax taken out of the pocket of the people accrues to the exchequer, i.e. not spent as cost in collecting the particular tax revenues. If a tax takes out of the pocket of the people more than what it adds to public exchequer, it is certainly an uneconomic tax, and is further detrimental to economic pursuits and development.

As a proportion of agricultural income, a tax which has a burden of only Rs. 8 to 11 per hectare, while the value of output per hectare is over Rs. 1600, does not have any effect which may discourage either production or investment in agriculture nor can it discourage employment of agricultural labourers; it has, therefore, hardly any adverse effect on agricultural pursuits. Hence from this point of view, agricultural taxes are rather recommendable.

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[1] Adam Smith, Wealth of Nations, the Modern Library, 1937. p.778.

So far the second criterion, i.e. how much of a tax taken out from the pocket of the people goes to the exchequer that is, in the process of collecting the tax, how much is incurred as 'cost of collection' is concerned, agricultural taxes seem to be rather uneconomic.

The criterion of economy is often employed as one of the standard measures for evaluating the 'efficiency' of a tax, and sometimes of a tax system as a whole. This principle implies that Receipts 'R' (total tax revenue) minus cost 'C' (cost of collection) should be strictly positive and further that the ratio, (R-C)/C should be increasing over time. In what follows, we present the results of our attempt at examining whether this principle holds good in respect of agricultural taxes in Orissa by applying the (R-C) analysis to them. The tax that costs more to collect than the revenue it generates for the exchequer should be considered as uneconomic and there would be a strong case for dropping it from the tax system, or alternatively, economy in collection should be improved.

Methodology

For this analysis, we have taken data from the State Budget papers for the years 1970-71 to 1979-80, with respect to total tax receipts from the individual agricultural taxes and the total expenditure incurred in each case in collecting these taxes.

The criterion for the analysis which we have followed are: Revenue minus cost (R-C) ratio of net revenue over total revenue ($\frac{R - C}{C}$) and percentage of cost over revenue ($\frac{C}{R} \times 100$) where C refers to cost of collection of the agricultural taxes and R refers to the total receipts of the agricultural tax revenue. R - C is a very simple analytical tool. It enables us to have an idea about the net revenue received by the State Exchequer. It will also indicate to some extent, the efficiency and as well as the cost-effectiveness of the tax administration.

The ratio, $\frac{R - C}{C}$ may be termed as the net revenue-cost ratio, and it is indicative of the true efficiency of tax administration. The ratio should always be strictly positive, if a tax levy is to have any financial justification.

The ratio $\frac{C}{R}$ gives us the proportion of cost incurred for each rupee worth of revenue collected from tax. This ratio should always be less than one. If $\frac{R}{C} = 1$, then the benefits accruing in terms of the receipts is marginal, it is just covering its cost. If $\frac{R}{C} > 1$, the benefit in terms of receipts is more than the cost and if $\frac{R}{C} < 1$, then the benefit is less than the cost and it is worthwhile to explore avenues to raise the revenue in a more efficient way.

Analysis

We have applied the economy criterion separately to the land revenue and agricultural income tax in order to assess

individually their 'efficiency' and their 'cost-effectiveness'.

Land Revenue

The expenditure incurred by the State Government for the collection of land revenue during the period 1970 to 1980 is given below. The expenditure on this account has been increasing throughout the period (with the sole of exception in 1972-73 when compared to 1971-72).

TABLE - 2

Expenditures on Collection of Land Revenue (Rs. thousand)

| Year | Total Expenditure | % growth of land revenue collection expenditure to total tax collection expenditure |
|---|---|---|
| 1970-71 | 38148 | 72.90 |
| 1971-72 | 42831 | 72.39 |
| 1972-73 | 42613 | 70.05 |
| 1973-74 | 53625 | 72.65 |
| 1974-75 | 62232 | 72.38 |
| 1975-76 | 78670 | 71.41 |
| 1977-78 | 97195 | 72.23 |
| 1978-79 | 111156 | 73.58 |
| 1979-80 | 135603 | 74.72 |

Source: Government of Orissa, Orissa Budget - Some facts and charts, 1979-80, p. 18.

Expenditure incurred in the year 1979-80 is four times higher than the expenditures incurred in the year 1970-71. The percentage increase in expenditure incurred for collection of this revenue in 1979-80 is 255 percent more than in the year 1970-71; it has increased from Rs. 3.8 crores in 1970-71 to Rs. 13.5 crores in 1979-80. It is also noteworthy that the percentage expenditure on the collection of this tax to the total collection expenditure is increasing over time. The percentage expenditure for the land revenue collection to the total expenditure was Rs. 72.90 in the year 1970-71, which increased to Rs. 74.72 in the year 1979-80. Revenue minus cost (R-C) figures enable us to have an idea of the Net Revenues realized from the land revenue.

Our calculation shows that the net revenues accruing to the State Government from land revenue is negative throughout the years. And, this negative net revenue benefit also shows a rising trend. The net revenue to the Government which was (-) 2.1 crores in the year 1970-71 increased to (-) 6.9 cores in the year 1979-80.

Table 3 shows the total receipts and cost of collection of land revenue tax in Orissa (for the period 1970-71 to 1979-80). It is seen from the table that throughout the period costs of collection have been far exceeding the receipts from collection: (R/C) ranges between 0.39 to 0.50. It implies that hardly 50 percent of the cost is covered by the receipts and thus over 50 percent of the cost of collection of land revenue

TABLE - 3

Cost-effective Analysis of Land Revenue (Rs. in thousands)

| Year | Total collection of land revenue (Receipts) | Expenditure incurred in collecting (Cost) | R- C | R - C/C | R/C | $\frac{C}{R}$ x 100 |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1970-71 | 16683 | 38148 | (-) 21465 | (-) 0.5626 | 0.4373 | 228.66 |
| 1971-72 | 17877 | 42831 | (-) 24954 | (-) 0.5826 | 0.4173 | 239.58 |
| 1972-73 | 20446 | 42613 | (-) 22167 | (-) 0.5201 | 0.4798 | 208.42 |
| 1973-74 | 23144 | 53625 | (-) 30481 | (-) 0.5684 | 0.4315 | 231.70 |
| 1974-75 | 24287 | 62232 | (-) 37945 | (-) 0.6097 | 0.3902 | 256.24 |
| 1975-76 | 31917 | 78670 | (-) 46753 | (-) 0.5942 | 0.4057 | 246.48 |
| 1976-77 | 43912 | 92301 | (-) 48389 | (-) 0.5249 | 0.4757 | 210.19 |
| 1977-78 | 48304 | 97195 | (-) 48891 | (-) 0.5030 | 0.4969 | 201.22 |
| 1978-79 | 49500 | 111156 | (-) 61656 | (-) 0.5546 | 0.4453 | 224.55 |
| 1979-80 | 65800 | 135603 | (-) 698030 | (-) 0.5147 | 0.4852 | 266.08 |

is met from some other sources of public revenue.

Normally, the ratio (R - C)/C should be positive and increasing overtime. But, our result shows that in case of land revenue the ratio (R - C)/C is negative and also increasing over time. The ratio, which was (-) 0.56 in the year 1970-71 increased to (-) 0.51 in the year 1979-80, This, of course, implies that the cost of collection of land revenue is gradually declining, which is a good sign, but still the deviation from the criterion of economy, which is a sign of an uneconomic tax system is still dominant.

The percentage ratio of cost over receipts shows it to be of the order of Rs. 228.66 in the year 1970-71, which, however, decreased slightly to Rs. 206.08 in the year 1979-80. Though the change over the years is marginally lower, it still implies that for every Rs. 100 worth of land revenue collected, the Government of Orissa had to spend Rs. 228.66 in 1970-71 and Rs. 206.08 in the year 1979. This is certainly an unsatisfactory system of financial administration and it indicates that the land tax does not at all satisfy the 'principle of economy'.

Agricultural Income Tax

Like in the case of land revenue, we have also subjected the administration of the agricultural income tax to the criterion of economy. Table 4 gives the total receipts from and the cost of collecting the agricultural income tax in Orissa, for the period 1970-71 to 1979-80.

TABLE - 4

Economy Analysis of Agricultural Income Tax (Rs. in thousands)

| Year | Total Receipt | Total Collection | R - C | R-C/C | R/C | $\frac{C}{R}$ x 100 |
|---|---|---|---|---|---|---|
| 1970-71 | 739 | 118 | 621 | 5.262 | 6.262 | 15.967 |
| 1971-72 | 905 | 132 | 773 | 5.856 | 6.856 | 14.585 |
| 1972-73 | 910 | 149 | 761 | 5.107 | 6.107 | 16.373 |
| 1973-74 | 594 | 156 | 438 | 2.807 | 3.807 | 26.262 |
| 1974-75 | 582 | 162 | 420 | 2.592 | 3.592 | 27.835 |
| 1975-76 | 799 | 159 | 640 | 4.025 | 5.025 | 19.899 |
| 1976-77 | 886 | 171 | 715 | 4.181 | 5.181 | 19.3002 |
| 1977-78 | 730 | 229 | 501 | 2.187 | 3.187 | 31.3698 |
| 1978-79 | 800 | 273 | 527 | 1.930 | 2.980 | 34.125 |
| 1979-80 | 800 | 302 | 498 | 1.649 | 2.649 | 37.75 |

The table reveals that while the total revenue from agricultural income tax has increased by about 8 percent over the decade, 1970-71 to 1979-80, the total expenditure incurred in collecting the amount has increased by about 155 percent, i.e. from Rs. 118 thousands in the year 1970-71 to Rs. 302 thousands in the year 1979-80. It is clear that expenditure incurred in collecting the agricultural income tax is going up at a faster rate, while there is only a marginal change in the growth of agricultural income tax revenue during the same period.

Our analysis shows that the net tax benefit accruing to the State Government though positive throughout the years, it is fluctuating, and does not show the expected increasing trend. The total net benefit, which was 621 thousands in the year 1970-71, came down to Rs. 498 thousands in the year 1979-80.

Further, the R/C ratio shows a decreasing trend; while the R/C ratio was 6.26 in the year 1970-71, it came down to 2.64 in the year 1979-80. In normal circumstances, one would expect (R-C)/C to be increasing over time. But in the case of agricultural income tax, it is seen to be declining over the period. The table also indicates that the administration of the agricultural income tax is slowly tending to remove itself further away from the criterion of economy and likely to become an uneconomic tax levy in future.

We have also calculated the growth rates of receipts and cost of collection of land revenue tax. For estimating the growth rate, the formula used in both cases, is

$Y = ae^{rt}$, where, t = time, Y = receipts or costs of collection as the case may be, r = growth rate.

The least square estimates of the above equation for land revenue are:

$$R = 9.4679\ e^{0.1574t}; \quad R^2 = 0.985$$

$$C = 10.3404\ e^{0.1574t}; \quad R^2 = 0.982,$$

where, R = Receipts, C = Cost of collection, both expressed in Rs. thousands.

The growth rate in receipts is nearly 0.16 and the growth rate in cost is also approximately 0.16. There does not seem to be any difference between the two growth rates. Thus, the growth in revenue is absorbed by the growth in costs, and the former does not add anything substantial to net receipts. Hence, the cost effectiveness and efficiency of land revenue tax is remarkably poor.

The growth rates of receipts and cost of collection of agricultural income tax have also been carried out by using the same procedure used in case of land revenue analysis.

The least square estimates of the said equations ($Y = ae^{rt}$) are:

$$R = 6.6324\ e^{0.00161t}; \quad R^2 = 0.00093$$

$$C = 4.6442\ e^{0.96667t}; \quad R^2 = 0.900.$$

The growth rate in the receipts of agricultural income tax is approximately 0.C02 (0.2 percent) while the growth rate in cost is nearly 0.1 (10 percent). Thus, it is clear that while the compund growth rate in revenue is 0.2 percent, the growth rate of cost is 10 percent per annum, the collection system is becoming more and more uneconomical.

We have also examined whether the agricultural taxes (both land revenue and agricultural income tax) as a whole are based upon the criterion of economy or not. The analysis, which we have carried out is presented in Table 5.

The table shows that the total expenditure incurred for the collection of total agricultural taxes over time has increased. Total expenditure incurred in the year 1979-80 is near about four times greater than the expenditure incurred in the year 1970-71. The percentage increase in the total expenditures incurred for the collection of agricultural taxes in 1979-80 is 255 percent greater than in the year 1970-71, raising the expenditure to Rs. 13.6 crores in that year, from Rs. 3.8 crores in 1970-71. At the same time, total collection of receipts from agricultural taxes also show a rising trend, but the increase in this case is not as steep or spectacular as in the case of costs; Rs.6,6600 in 1979-80 as against Rs. 17,422 in 1970-71.

However, the net benefit accruing to the State Government from agricultural taxes shows a negative trend throughout the period. And, this negative benefit to the State Government

TABLE - 5

Economy Analysis of the Agricultural Taxes (as a whole)
(Rs. in thousands)

| Year | Total Agricultural Tax Revenue | Total Expenditure incurred in collecting these taxes | R - C | R/C | R-C/C | $\frac{C}{R}$ x 100 |
|---|---|---|---|---|---|---|
| 1970-71 | 17422 | 38266 | (-) 20844 | 0.4552 | (-) 0.5447 | 219.64 |
| 1971-72 | 18782 | 42963 | (-) 24181 | 0.43716 | (-) 0.5628 | 228.74 |
| 1972-73 | 21356 | 42769 | (-) 21406 | 0.49941 | (-) 0.50058 | 200.23 |
| 1973-74 | 23738 | 53781 | (-) 30043 | 0.44138 | (-) 0.5586 | 226.56 |
| 1974-75 | 24869 | 62394 | (-) 37525 | 0.39857 | (-) 0.60142 | 250.89 |
| 1975-76 | 32716 | 78829 | (-) 46113 | 0.415024 | (-) 0.58497 | 240.95 |
| 1976-77 | 44798 | 92472 | (-) 47674 | 0.48444 | (-) 0.5057 | 206.42 |
| 1977-78 | 49034 | 97424 | (-) 48390 | 0.503305 | (-) 0.4966 | 198.69 |
| 1978-79 | 50300 | 111429 | (-) 61129 | 0.45140 | (-) 0.5485 | 221.53 |
| 1979-80 | 66600 | 135905 | (-) 69305 | 0.49004 | (-) 0.50995 | 204.06 |

is also increasing over the period. The net benefit to the State Government which was (-) Rs. 20,844 thousands in the year 1970-71, increased to (-) Rs. 6,9305 thousands in year 1979-80. So, it is evident that the Government was collecting the agricultural taxes at a loss to the State exchequer by the amount of Rs. 6,9305 thousands in the year 1979-80. It is further seen from the table that in all the years of the period cost of collection is much higher than the receipts.

Further the R/C ratio also shows fluctuating trend, but it is always much less than one, thereby showing the uneconomic nature of the agriculture taxes. The R/C ratio which was 0.45 in the year 1970-71 was raised to 0.49 in the year 1979-80. While, the R-C should be strictly positive and a positive (R-C)/C ratio should be increasing over time for a good tax system, our analysis for the agricultural taxes shows that (R-C)/C is negative but has also been increasing over time. Though the cost of collection has declined to a certain extent, still, it does not conform to the criterion of economy. Our analysis also shows that only 49 percent of the cost of collection of agricultural taxes is covered by the total receipts from the source and that the other 51 percent of the cost of collection of agricultural taxes is met from some other source of public revenue.

Thus, it is seen that the administration of the agricultural taxes as a whole is not in conformity with the maxim of economy, and needs to be reformed in order to make these taxes productive of a reasonable amount of net revenue.

The growth rates of receipts and cost of collection of the agricultural taxes have also been calculated by following the same formula of $Y = ae^{rt}$.

The least square estimates of the above equations are

$$R = 9.51765 \; e^{0.153333t} \quad R^2 = 0.967$$

$$C = 10.3437 \; e^{0.14579t} \quad R^2 = 0.9825$$

The over all picture of the agricultural taxes (land revenue and agricultural income tax) that emerges from our study is that while the growth rate of revenue is only slightly higher than the growth rate in cost of collection, the cost effectiveness, or the net benefit in terms of net revenues to the State exchequer from these taxes, has been negative.

## Appendix to Chapter III

We have also made an attempt to investigate the efficiency of the cost of collection in raising the revenue from agricultural income tax in the following way.

Our hypothesis is that the amount of revenue raised by agricultural income tax is a function of three variables, namely,

i) cost of collection (C)

ii) the agricultural production in value terms, (P)

and iii) whether that particular year in which tax was collected was a good year or a bad year (Y).

We have designated these variables by C, P, and Y, respectively. Thus,

$R = f(C, P, Y)$. We undertook a multiple regression analysis to test our hypotheses.

Our result is the following estimated equations

$$R = 831.41 + 0.591C - 0.06741 P + 219.713Y.$$

The value of $R^2$ is .656. The $\underline{t}$ value for the coefficient associated with C is 1.19, the $\underline{t}$ value of the coefficient associated with P is (-) 0.10, while the $\underline{t}$ value of the coefficient associated with P is (-) 0.10, while the $\underline{t}$ value of the coefficient associated with Y is 160. This shows that the role of C and P in deciding the value of R is not significantly different from zero, although for the overall fit of the equation, $R^2 = 0.656$ and $F(3.6) = 3.81$, significant at 7

percent level.

We have suspected, however, that due to the inherent nature of time series data, it is possible that disturbance vector might be outo-correlated. To test this, we have estimated the Durbin-Watson Statistic[1]. The value of DW is 1.77. This shows that our suspicion has no ground for support. Hence, our analysis in estimating the above equation is not vitiated by outo-correlated disturbances.

We have also carried out a test for inequality of variance of the disturbance terms (Heteroskedasticity). We have used Bartlets test[2]. We get the value of the Statistic 1.29, which is not significant at even 20 percent level. Hence, we conclude that our error terms are free from the problem of unequal variance.

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[1] Durbin-Watson test $DW = \dfrac{\sum_{t=2}^{n} (e_t - e_{t-1})^2}{\sum_{t=1}^{n} e_t^2}$, where e = the disturbance term, we have used it for testing outo-correlation.

[2] Barlet test $Q/1 = \dfrac{n \log \frac{n_j}{n} S_j^2 - nj \log S_j^2}{1 + \frac{1}{3}\left(\frac{1}{n_1} - \frac{1}{n}\right)\left(\frac{1}{n_2} - \frac{1}{n}\right)}$

where, $n_1$ = number of observation in the first group and $S_j^2$ = the variance of the first group. $n_2$ = number of observation in the second group and $S_j^2$ = variance of the second group. $n + n_2 = n$. And Q/1 is distributed like CHI square. We have used this test for Heteroskedasticity.

Thus, we come to the conclusion that our estimated equation is not illusive and hence, we conclude that the contribution of increasing costs of collection in raising the revenue of agricultural income tax is not different from zero.

Otherwise also, the elasticity of R with respect to C, keeping P and Y constant comes to 0.14. That is revenue is not cost elastic.

Our above analysis may be interpreted as showing the inefficiency of the tax collection system.

Thus it may be concluded that, from whatever angle one looks at it, agricultural taxes do seem to violate the principles of economy.

The aim of the tax-structure should in practice be to evolve and implement a tax policy and tax administration as closely approximating to the principle of economy as far as possible. This does not seem to be the case in respect of the two principal agricultural taxes in Orissa.

# CHAPTER - V

## INTER-DISTRICT VARIATION IN LAND REVENUE

## INTER-DISTRICT VARIATION IN LAND REVENUE

In the previous chapter, we have examined the role of agricultural taxes in the tax system of the State and saw that even though agricultural taxes still contribute near about 5 percent of the tax revenue to the State's own tax revenue, from the point of view of cost-effectiveness or the canon of economy these taxes do not seem to conform to its tenets. In the present chapter, our purpose is to analyse these taxes in order tc find out whether there is any serious inter-district and/or inter-landholding group variation in its burden.

In the last few years, several states in India nave either abolished or modified the land revenue levy to suit the changing circumstances. One of the motivations for such acts was the fact that agricultural taxes have come to contribute only a very small proportion of the total tax revenues of the States concerned. Moreover, agricultural taxes seem to have become uneconomic in operation. In the previous chapter, we have analysed this aspect in the case of Orissa and seen that agricultural tax administration has become uneconomical. However, these taxes still continue to contribute not an insignificant proportion to the total tax revenues of the State. Hence, it may not be advisable to conclude, a priori, that Orissa should either abolish these taxes or continue collecting them.

In order to substantiate further our study on the issue. whether agricultural taxes should be abolished or modified, it is thought useful to analyse the performance of these taxes on

the basis of inter-district distribution of their burden, and this is the main subject matter of discussion in this chapter.

We have attempted here a detailed examination of the land revenue system. While considering the merits of the case for abolition or modification of land revenue, one has to make a distinction between two basic issues related with this problem. First, it is necessary to find out whether the agricultural sector in Orissa is under-taxed as compared to the non-agricultural sector, and if so, to what extent. Secondly, given the relative burden of taxation, how far the present system of land taxation is based upon the accepted norms of 'equity' and 'social justice' in taxation. In this chapter we shall concern ourselves with an examination of the second issue listed above, viz. that of equity, the other issue is considered in the next chapter.

In Part I of this chapter we analyse the comparative burden of land revenue in Orissa on an inter-district basis and in Part II we attempt an inter-group comparison. No comparison of tax burden on individual cultivator is attempted here as our study is based on official data, and such sources do not provide any information on individual farmer basis.

## Part - I

In this section we attempt to examine the variation in the distribution of the burden of land revenue between the various districts of Orissa.

Methodology

The analysis of this problem is based on the data of agricultural income and land revenue pertaining to the year 1979-80 for the 13 districts of Orissa. Estimates of income of different districts have been taken from the Economic Survey of Orissa, for the year 1979-80. We calculated the districtwise contribution of land revenue on the basis of the total land holdings of each district. We adopted this method as the available figures of land revenue collection pertain to the whole State and not to each district. The land revenue collection from each district thus obtained was then related to the estimates of the agricultural income of the corresponding district. And from these, we calculated the per capita figures of both land revenue and agricultural income.

For the purpose of this study, the year 1979-80 has been chosen. It appeared to us to be a very suitable year, especially from the point of view of availability of adequate information, and also a representative year in that it seemed to embody the essential aspects of inter-district variations in the important variables.

Net income from agriculture has been considered as the most appropriate and meaningful variable for the purpose of inter-district comparative study. Estimates regarding the net percapita income from agriculture in each districts were prepared in the following way. Percapita income is obtained by dividing the total net income from agricul-

tural population[1].

Estimates of the land revenue contribution of each district was derived from the total land revenue collected by the State, by taking into account the total agricultural holdings of each district. This method was used owing to the non-availability of better information regarding the district-wise contribution of the land revenue. The land revenue figures available are for the State as a whole, and not for individual districts. We had to disaggregate this figure in respect of each district in the following manner:

We divided the total land revenue collection of the State by the total area in hectares which is subject to the tax. This gives us the per hectare tax burden of land revenue. We then took the area in hectares subject to the land tax in each district and multiplied it by the per hectare tax to arrive at the amount of land revenue contributed by each district.

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[1]This procedure though widely followed by economists and statisticians in India, is not quite valid because the agriculturists may derive part of their income from non-agriculture. (Definitely, a person is an agriculturist, if he derives more than 50 percent of his income from agriculture). Thus, the income from agriculture is not the same as the agriculturists income, the latter includes non-agricultural income also.

This method is widely used by Pathak and Patel and C.H. Hanumantha Rao in their respective studies of "Agricultural Studies in Gujarat' and 'Taxation of Agricultural Land in Andhra Pradesh'.

There are, of course, three other alternative indices viz., (i) Total Geographical Area, (ii) Gross Cropped Area, and (iii) Net Area sown which could have been used. But we did not select these alternatives for the following reasons:

Gross Cropped Area[2] depends on the suitability of land for multiple cropping, made possible through better irrigation facilities, use of other agricultural inputs, and also smaller size of the land holdings and to some extent on monthly distribution of rainfall. On none of which is land revenue based. Hence districtwise estimation of land revenue on the basis of Gross Cropped Area would have given us an unrepresentative estimate.

In the case of Net Area sown[3], rainfall is the most dominant factor in determing net area under cultivation and it would have been a bad index in determining the share of land revenue of the districts. Though the area owned by the people are subjected to land tax, there are some areas which are not owned by any, but may be considered as common land. Once again, the ratio of such type of land will vary from district to district. So estimation on the basis of total geographical area of the different districts would also have given us some misleading figures.

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[2] Gross Cropped Area: If different crops are raised in a year in a given land, the same area is accounted for each crop.

[3] Net Area Sown: Area sown more than once but taken only once.

So, in the absence of any better index, we have selected total agricultural holdings of the districts as the instrument for estimating the share of land revenue of the different districts; because of the reason that land revenue is fixed per hectare of land and its produce after taking into account the factors which affect the income flow from various types of land.

Also, it may be noted that the taxable capacity of the famers depends on their income which in turn depends on the quality and fertility of the land, which is not the same in every district. This aspect of the problem is fully considered in our analysis.

The estimates of percapita land revenue has been worked out in the following way. In order to derive the percapita land revenue, the estimates of agricultural population is required. No such separate estimates are available in census publication. However, the estimates of total workforce as "agricultural cultivators and agricultural labourers" are available for the State. The proportion of agricultural cultivators plus agricultural labourers to total population of the State is taken as a guideline to work out the proportion of agricultural population in each district. The land revenue contribution of each district is divided by the agricultural population of the district to derive the per capita land revenue of the concerned district.

Analysis

We have examined the land revenue system from the view point of percapita income. Table 1 gives information about percapita income from agriculture of the agricultural population for each district separately and for the State as a whole, and the per capita land revenue contribution. The percapita income from agriculture for Orissa thus calculated for the year 1979-80 comes to Rs. 249.40 and per capita land tax to nearly Rs. 3.00. The following conclusions are drawn from this table.

i) For Orissa, as a whole, farmers paid 1.19 percent of their percapita income by way of land revenue in the year 1979-80.

ii) If the land revenue as a percentage of percapita income falling between 1 percent and 1.50 percent is accepted as the average range, then four districts paid land revenue within this range (Koraput, Phulbani, Mayurbhanj and Keonjhar); five districts paid land revenue above this range (Sambalpur, Sundergarh, Dhenkanal, Bolangir and Kalahandi), and other four districts paid land revenue below the range (Puri, Ganjam, Cuttack and Balasore).

iii) The burden of land revenue both in absolute as well as relative terms, varies within and also between different per capita income groups.

iv) With the increase in the level of percapita income, the burden of land revenue does not vary or appear to be increasing

v) The ratio of percapita tax to percapita income varies from 0.55 in Cuttack to 2.47 in Sambalpur district.

TABLE -- 1

Relation between Percapita Income (Agricultural Sector) and Percapita Land Tax in various Districts of Orissa for the year 1979-80.

| District/State | Percapita Net Income (in Rs.) | Percapita Land Revenue (in Rs.) | Column 3 as percentage to Column 2 |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
| ORISSA | 249.40 | 2.99 | 1.19 |
| SAMBALPUR | 175.91 | 4.35 | 2.47 |
| SUNDERGARH | 206.65 | 3.15 | 1.52 |
| KEONJHOR | 241.73 | 3.35 | 1.38 |
| MAYURBHANJ | 250.64 | 3.29 | 1.31 |
| BALASORE | 307.01 | 2.64 | 0.86 |
| CUTTACK | 348.06 | 1.92 | 0.55 |
| DHENKANAL | 222.98 | 3.38 | 1.52 |
| PHULBANI | 299.20 | 3.14 | 1.05 |
| BOLANGIR | 199.89 | 4.19 | 2.11 |
| KALAHANDI | 228.21 | 3.49 | 1.53 |
| KORAPUT | 167.38 | 2.40 | 1.25 |
| GANJAM | 349.22 | 2.05 | 0.59 |
| PURI | 319.69 | 2.04 | 0.64 |

vi) This analysis does seem to show a wide variation in the distribution of the land tax burden in the State.

Further, we have also examined the problem of variation in the relative distribution of land revenue between the different districts of Orissa on the basis of three variables, namely, Gross Cropped Area, Net Area Sown and the yield rate of food grain production in the State. Our analysis is more or less the same as the Lorenz curve analysis. We attempted this inter-district comparison of land revenue contribution in order to have an idea of the magnitude of the differences with regard to the distribution of the burden of land revenue that prevail between the different districts of the State.

Methodology

For this analysis data for the year 1979-80, with respect to the Net Area Sown, Gross Cropped Area and total production of the 13 districts were taken in order to assess their estimated land revenue contribution. We then calculated the cumulative values of land tax with respect to the cumulative values of Gross Cropped Area, Net Area sown and productivity separately.

As land revenue is a tax levied on agricultural land and is to be paid out of the value of the productivity of the land, we considered it legitimate to estimate the burden of the tax per hectare of Net Sown Area, Gross Cropped Area and productivity.

TABLE - 2

Tax per Hectare with Respect to GCA, NAS and Total Production (Yield Rate) for the year 1979-80 (000 hectare, in Rs.)

| State/Districts | NAS | Tax per Hectare of NAS | GCA | Tax per hectare of GCA | Total production | Tax per hectare of Yield Rate |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Orissa | 5970 | 11.02 | 8166 | 8.05 | 5977440 | 0.011 |
| Sambalpur | 589 | 13.65 | 734 | 10.95 | 695843 | 0.011 |
| Sundergarh | 265 | 12.23 | 280 | 11.57 | 853711 | 3.79 |
| Keonjhar | 289 | 11.08 | 344 | 9.32 | 414662 | 7.72 |
| Mayurbhanj | 436 | 10.82 | 504 | 9.36 | 556181 | 8.48 |
| Balasore | 431 | 11.25 | 588 | 8.25 | 144135 | 0.034 |
| Cuttack | 652 | 11.27 | 1186 | 6.19 | 214006 | 0.034 |
| Dhenkanal | 410 | 10.67 | 515 | 8.50 | 327854 | 0.013 |
| Phulbani | 222 | 8.82 | 293 | 6.68 | 647874 | 3.02 |
| Bolangir | 397 | 13.13 | 519 | 10.04 | 207307 | 0.025 |
| Kalahandi | 498 | 8.15 | 695 | 5.84 | 389044 | 0.010 |
| Koraput | 835 | 11.13 | 987 | 9.49 | 484919 | 0.019 |
| Ganjam | 475 | 9.92 | 754 | 6.25 | 379833 | 0.012 |
| Puri | 469 | 10.19 | 767 | 6.23 | 662071 | 7.22 |

Source: For column 2, 4 and 6 - Government of Orissa, "Orissa Agricultural Statistics" 1979-80, pp. 8-10.

The per hectare burden of land revenue has been worked out by dividing the estimated contribution of land revenue of different districts by their corresponding figures of Net Area Sown, Gross Cropped Area and per hectare productivity respectively. The table below gives the results of our calculation.

Analysis

The table reveals that land revenue per hectare of net sown area for the whole of Orissa in 1979-80, was Rs. 11.02. The per hectare burden of the districts varied from Rs. 8.15 in the case of Kalahandi to Rs. 13.65, in the case of Sambalpur. It is to be noted that since the net sown area does not include the area under tree crops or groves, the per hectare land revenue figure we have calculated is over stated. Further, if we include all land, which could be cultivated for one purpose or another, the per hectare burden of land revenue will be still smaller. Thus, the table indicates the variances in the burden of land revenue only on net area sown of the different districts. While the impact of land revenue per hectare of Net Area sown for the whole of Orissa is Rs. 11.09, in the districts of Sambalpur, Sundergarh and Bolangir, the per hectare burden is higher than the all-Orissa average.

In the second step of our analysis, we rearranged the figures of Net Area sown, Gross Cropped Area and total productivity of the various districts with respect to their respective estimated land revenue figures in an aseending order. We then calculated the cumulative index of land revenue with

TABLE - 3

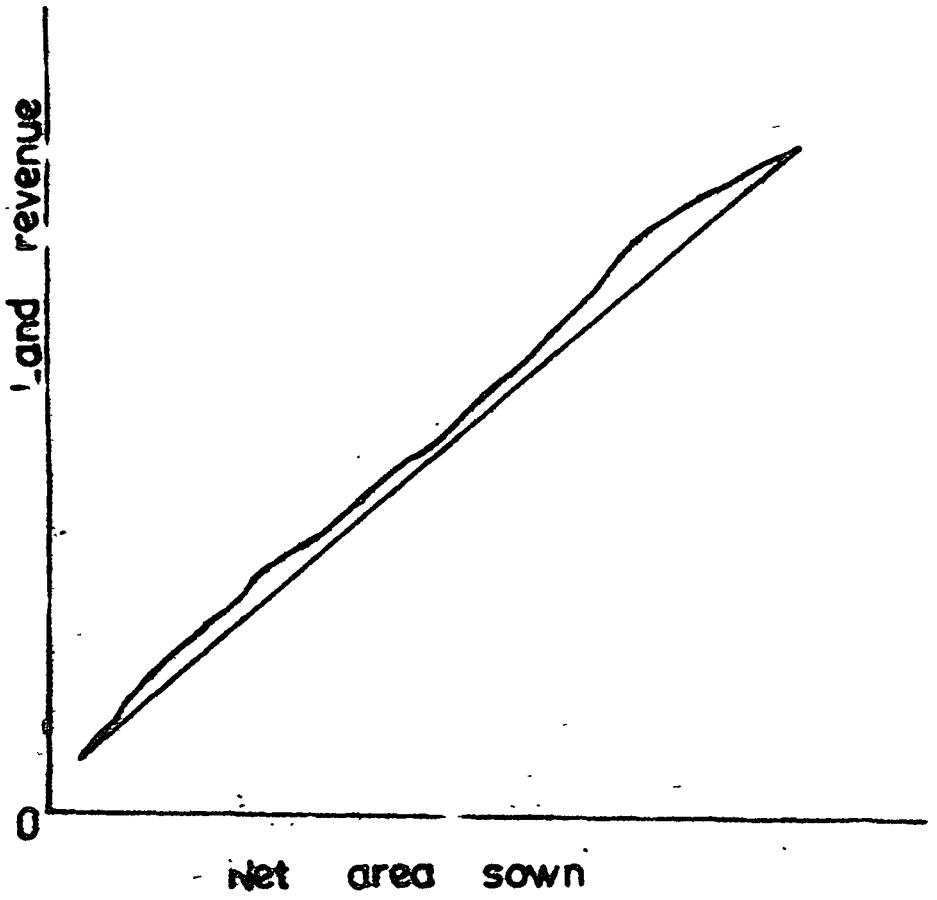
Cumulative Values of Land Revenues with respect to NAS, GCA, and Productivity figures first given in an ascending order.

| NET AREA SOWN | | | | | GREEN CROPPED AREA | | | | |
|---|---|---|---|---|---|---|---|---|---|
| State/District | NAS 000' Hectare | Land Revenue 000' Rs. | Cumulated value of NAS | Cumulated value of L.R. | State/ District | GCA 000' hectare | Land Revenue 000' Rs. | Cumulative value of GCA | Cumulative value of L.R. |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Phulbani | 222 | 1957 | 3.718 | 2.974 | Sundergarh | 280 | 3241 | 3.428 | 4.925 |
| Sundergarh | 265 | 3241 | 8.157 | 7.899 | Phulbani | 293 | 1957 | 7.016 | 7.899 |
| Keonjhar | 289 | 3205 | 12.998 | 12.771 | Keonjhar | 344 | 3205 | 11.229 | 12.770 |
| Bolangir | 397 | 5213 | 19.648 | 20.693 | Mayurbhan | 504 | 4719 | 17.401 | 19.942 |
| Dhenkanal | 410 | 4378 | 26.516 | 27.346 | Dhenkanal | 515 | 4378 | 23.708 | 26.595 |
| Balasore | 431 | 4849 | 33.735 | 34.715 | Bolangir | 519 | 5213 | 30.063 | 34.518 |
| Mayurbhanj | 436 | 4719 | 41.039 | 41.887 | Balasore | 588 | 4849 | 37.264 | 41.887 |
| Puri | 469 | 4782 | 48.894 | 49.155 | Kalahandi | 695 | 4061 | 45.775 | 48.059 |
| Ganjam | 475 | 4712 | 56.851 | 56.316 | Sambalpur | 734 | 8040 | 54.763 | 60.278 |
| Kalahandi | 498 | 4061 | 65.193 | 62.487 | Ganjam | 754 | 4712 | 63.997 | 67.439 |
| Sambalpur | 589 | 8040 | 75.059 | 74.706 | Puri | 767 | 4782 | 73.389 | 74.706 |
| Cuttack | 652 | 7346 | 85.980 | 85.870 | Koraput | 987 | 9297 | 85.476 | 88.835 |
| Koraput | 835 | 9297 | 99.967 | 100.000 | Cuttack | 1186 | 7346 | 99.999 | 100.000 |
| Orissa | 5970 | 65800 | 100.000 | 100.000 | Orissa | 8166 | 65880 | 100.000 | 100.000 |

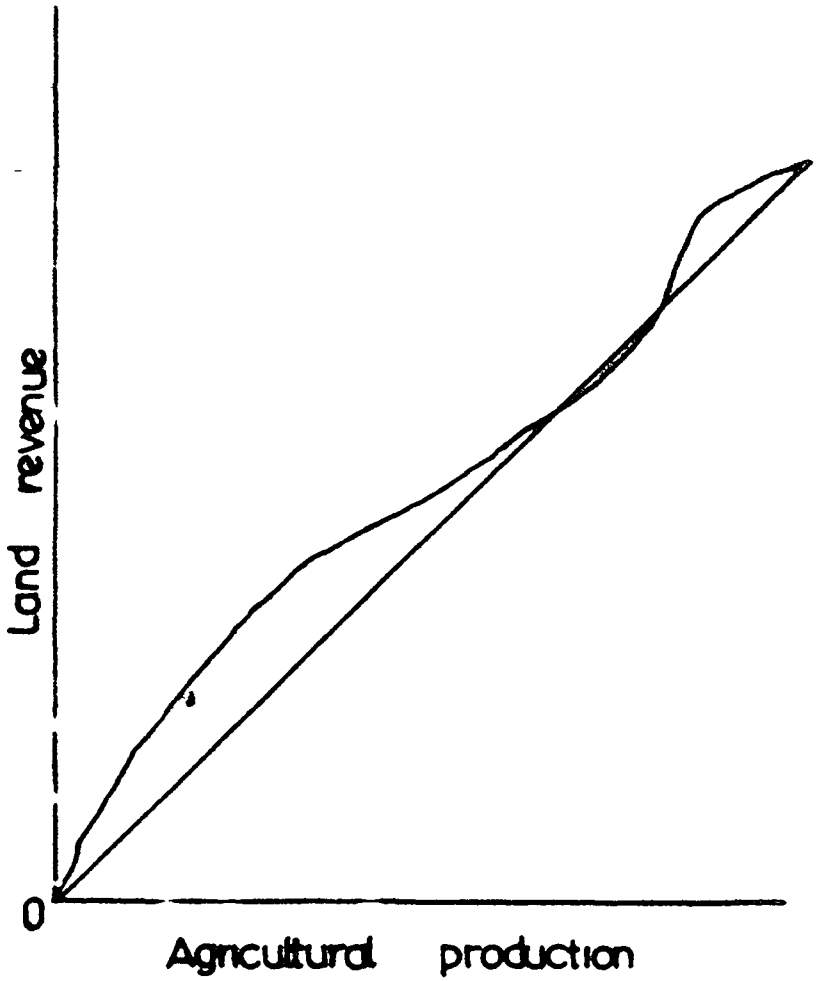
TABLE - 3 (Contd.)

| PRODUCTIVITY | | | | |
|---|---|---|---|---|
| State/District | Productivity | L.R. 000' Rs. | Cumulative value of Production | Cumulated value of L.R. |
| 11 | 12 | 13 | 14 | 15 |
| Phulbani | 144135 | 1957 | 2.411 | 2.974 |
| Keonjhar | 207307 | 3205 | 5.879 | 7.844 |
| Sundergarh | 214006 | 3241 | 9.459 | 12.770 |
| Dhenkanal | 327854 | 4378 | 14.994 | 19.424 |
| Kalahandi | 379833 | 4061 | 21.299 | 25.595 |
| Mayurbhanj | 389044 | 4719 | 27.807 | 32.767 |
| Bolangir | 414662 | 5213 | 34.745 | 40.689 |
| Balasore | 484919 | 4849 | 42.857 | 48.059 |
| Puri | 556181 | 4782 | 52.169 | 55.326 |
| Ganjam | 647874 | 4712 | 63.000 | 62.487 |
| Koraput | 662071 | 9297 | 74.077 | 76.617 |
| Sambalpur | 695843 | 8040 | 85.718 | 88.835 |
| Cuttack | 853711 | 7346 | 100.000 | 100.000 |
| Orissa | 5977440 | 65800 | 100.000 | 100.000 |

# LORENZ CURVE ANALYSIS OF INTERDISTRICT VARIANCES IN THE BURDEN OF LANDREVENUE



# LORENZ CURVE ANALYSIS OF INTERDISTRICT VARIANCE IN THE BURDEN OF LANDREVENUE

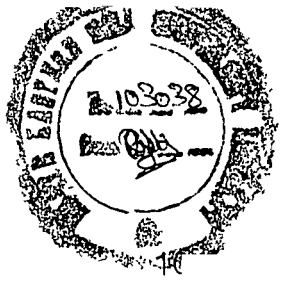



respect to the net area sown, of Gross Cropped Area and productivity. Taking the grand total for each as 100 (we have taken the Orissa index as 100), we express these cumulated totals of the variables, i.e. the land tax and the values of gross cropped area, net area sown and productivity, as percentages of their corresponding grand totals. We have presented these cumulative values in the following table.

Columns 4 and 5 of the table, show the cumulative values of Net Area Sown and its relative tax burden.

It is seen that the cumulative values of land tax are slightly higher than the cumulative figures of net area sown in the districts of Bolangir, Dhenkanal, Bolasore and Puri, while they are a little lower to their corresponding figure of net area sown in the districts of Phulbani, Sundergarh, Kalahandi and Sambalpur. One would, therefore, be justified in concluding that there is inequality in the distribution of land revenue burden between the different districts of the State.

We have represented graphically the cumulated values of Net Area Sown and land revenue. The X-axis represents the percentage of cumulated values of the Net Area Sown and, the Y-axis represents the percentage of the cumulated values of land tax of the various districts. When we join the plotted points of the cumulated values of land revenue with respects to those of Net Area Sown, Grosse Cropped Area and total agricultural production, we get something like the Lorenz Curve of distribution.



All the three graphs of Net Area Sown, Growss Cropped Area and the agricultural production with respect to land revenue, show an unequal distribution of the burden of land revenue between the different districts of Orissa. Since the rate of the land tax is a uniform one, we would be justified in assuming that the cumulative values of the land tax, of area sown or cropped should coincide, i.e., 10% of the tax should be collected from 10% of land, 50% from 50% of land, etc. The cumulative values of all the variables would then be lying on the diagonal, i.e. on the line of equality between the variables on the two axes. However, the curve of equality in all these cases lies below the curve of unequal distribution which would seem to indicate both a higher and an inequitable distribution in its burden.

Since this tax is not levied on valuation of land or improvements on land, it has an inherent tendency to be discriminatory in its impact because, the farmers, who have same area of land but which differs in quality or productivity are charged at the same rate. Since, agricultural income tax is not levied on all those lands on which land tax is levied, one cannot argue that agricultural income tax takes care of the inequalities in the burden created by the land tax. Hence in the land tax system we find evidence of wide variations in the distribution of its 'burden' between the different districts which are not rectified by any other tax.

## Part - II

In this section, an attempt has been made to study inter-group differences in the land tax burden between the farmers of Orissa of the different districts holding land over and above 2 hectares.

### Methodology

The average size of land holdings in Orissa is 2.19 hectares. Hence we took land holdings above 2 hectares to study the nature of the distribution of the land tax burden among the farmers of different districts of Orissa, holding the same size class of land above 2 hectares.

We constructed two indices, namely (i) the index of land revenue tax per hectare (ILTH) and (ii) the index of the concentration of land (ICL) over and above two hectares. The ratio of these two indices gives us a new index viz., the index of unequal burden of land tax on the farmers of different land holding size (LB)[4].

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[4] $ICli = \left(\frac{H1i}{Hi}\ \frac{Ai}{A1i}\right) / \left(\frac{H1s}{Hs}\ \frac{As}{A1s}\right)$, where,

ICli = the index of concentration of land in the ith district.
H1i = Holding numbers over 2 hectares in the ith districts.
Hi = Holding number of all sizes in the ith district.
H1s = total area over 2 hectares and above in the state.
Hs = total area in all size class in the state.
LTHi = (Ti/Ts) x 100, where, LTHi is index of land tax per hectare in the ith district.
Ti = Tax per hectare in the ith district.
Ts = Tax per hectare in the State.
LBi = (ILTHi/ICLi), where, LBi = Burden of land tax per hectare in the ith district.
$LB^*_i$ = (LBi YRi) where, LB* is the normalised index of tax burden in the ith district.
Yri = Index of yield rate in the ith district.

The rationale behind the index ILTH is that in those areas where I TH is more than one hundred, the farmers are paying more tax per hectare as compared to the average per hectare tax for Orissa as a whole. In a similar manner, in the districts where ICL is more than one hundred, land is concentrated in a fewer hands than for the whole of the State. The ratio of the two indices represents the relative distribution of land tax burden.

If the value of LB is equal to 1 (one), it is assumed that the taxable capacity is proportional to the burden of the tax. But, in those areas where the ratio of ILTH to ICL is greater than one, it represents that tax paid per hectare is more than in proportion to the concentration ratio. It would imply more burden on the farmers.

We have also taken into consideration the fact that the productivity of the land in different districts is not uniformly the same. Hence, we have deflated the LB index by the yield rate and a new index, LB*, has been constructed. In the areas, where the value of LB* is more than one, the area is over burdened and vice-versa.

Analysis

The study of the burden of land revenue on farmers having different size groups of holdings in the different districts reveals some interesting results. Figures about the range of variation in the burden of taxation are presented

separately in Table 4.

The index of concentration of land (ICL) in our analysis gives some important findings. The concentration of land over and above 2 hectares is very high in the district of Bolangir (117.572), while it is the lowest in the district of Ganjam (73.812) in comparison to the State oaverage of 100. The high concentration in the district of Bolangir is followed by the two other districts of Kalahandi and Balasore, where the concentration index are 104.815 and 104.152 respectively.

The index of tax per hectare (ILTH) clearly shows the wide variance in the distribution of burden of land tax on the farmers of Orissa. The burden varies from 72.511, the lowest, in the district of Kalahandi to 124.646, the highest, in the district of Bolangir, compared to the State average of 100.00. The burden of land tax is also relatively high in the district of Dhenkanal and Balasore in comparison to the other districts of the State. The burden is relatively low in the districts of Cuttack, Kalahandi and Ganjam.

Column 10, of the table gives the index of the land tax burden (LB) in the different districts. It is seen that the index of land tax burden per hectare is more in the districts of Bolangir, Dhenkanal and Ganjam, where the index of land tax per hectare (ILTH) is more than the concentration index. The burden of land tax per hectare is less in the district of Balasore, Cuttack and Kalahandi, where the ILTH is

TABLE - 4

Intersectional Comparison of Land Tax Burden

| District/State | No. of holdings in size class 2.00 hectare to 9.99 and above 10 hectares. | Ratio of (2) to total Land Holding in all size class. | Area under 2.00 hectares to 9.99 and 10 Hectares and above | Ratio of (4) to total area under 2.00 hectares and above. |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| Balasore | 76500 | 0.2584424 | 263706 | 0.6088914 |
| Bolangir | 75512 | 0.3483909 | 326217 | 0.7272165 |
| Cuttack | 94593 | 0.1594853 | 335369 | 0.4493551 |
| Dhenkanal | 48131 | 0.1872393 | 165841 | 0.4630567 |
| Ganjam | 48794 | 0.1372086 | 172149 | 0.4562002 |
| Kalahandi | 55151 | 0.3361615 | 330601 | 0.7871040 |
| ORISSA | 869120 | 0.2430373 | 3418583 | 0.5964621 |

Source for Columns 2 and 4: Government of Orissa,
Statistical Abstract of Orissa, 1979, p. 69.

TABLE - 4 (Contd.

| Measure of concentration $\frac{3}{4}$ x 100 | Tax per Hectare taking (GCA) into account | Index of Tax per hectare ILTH | Index of concentration ICL | Index of Burden of Land Revenue $\frac{8}{9}$ LB | Index of Yield Rate YR | Normal listed Index of Tax Burden LB* |
|---|---|---|---|---|---|---|
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 42.439 | 8.246 | 102.333 | 104.152 | 0.982 | 1.16 | 0.846 |
| 47.907 | 10.044 | 124.646 | 117.572 | 1.061 | 1.06 | 1.000 |
| 35.492 | 6.193 | 76.855 | 87.103 | 0.882 | 1.05 | 0.84 |
| 40.435 | 8.501 | 105.497 | 99.234 | 1.063 | 0.92 | 1.155 |
| 30.076 | 6.249 | 77.550 | 73.812 | 1.051 | 1.056 | 0.995 |
| 42.709 | 5.843 | 72.511 | 104.815 | 0.692 | 0.76 | 0.911 |
| 40.747 | 8.058 | 100.000 | 100.000 | 1.000 | 1 | 1 |

ILTH = Index of Land tax per hectare, has been worked out by taking Orissa as base = 100.

ICL = Index of concentration of land has been worked out by taking Orissa as base = 100.

LB = Index of land Revenue burden has been worked out by dividing ILTH/ICL.

YR = Index of yield rate has been worked out by taking Orissa as base = 1.

LB* = has been worked out by deflating the index of land revenue burden by the index of yield rate.

less than the concentration index. One point, to note here is that the districts of Kalahandi and Balasore, having a high concentration index paid less land revenue as compared to the districts of Ganjam, Cuttack and Dhenkand, where the concentration index is low, and which contributed more land revenue. This clearly indicates the unequal distribution of the tax burden between the farmers holding same size class of land in different districts.

We have also worked out the normalised index of tax burden (LB*) by taking into consideration the index of yield rate. Our hypothesis is that the districts having high yield rate can be expected to pay more tax as the yield rate is an important index in determining the ability of the farmers to pay the tax. But, our analysis gives us some distorting result. The districts having high yield rate, i.e. Balasore and Ganjam paid less land revenue in comparison to the districts having lesser yield rate, i.e. Kalahandi and Dhenkand, which paid land revenue higher than the State average. This further indicates the disparity that prevails in the distribution of the tax burden among the farmers in the different districts of the State. More weightage is given to the findings on the basis of the LB* index because it incorporates the productivity of land, which is one of the very important indicators of capacity to pay.

The following conclusions are drawn from the above analysis:

i) Variations in the burden of land revenue seem to be large for the same size of holding in the different districts of the State.

ii) The lowest burden is found in the prosperous districts of Balasore and Cuttack while the highest burden is found in the district of Dhenkanal.

iii) The range of variations in the burden of land revenue is narrow between Kalahandi and Ganjam, between Cuttack and Balasore and between Dhenkanal and Bolangir, but fairly wide between Dhenkanal and Cuttack.

A measure of direct taxation, on the agricultural sector of the economy is not expected to show such wide variations in its burden on the same land holding size group of farmers in the different districts. The distortionary effect of this measure assumes all the more importance when it is realised that several other taxes are also tagged on to the land revenue rates. For example, cess on land is levied at 50 percent of the land revenue. And the Nistar cess is levied at 3 to 12 percent of the land revenue. Therefore, the other direct taxes are likely to aggravate the inequitable burden of the land revenue itself, with which they are related.

In these circumstances, measures directed at only rectifying partially the weaknesses of revenue inflexibility and rigidity of rate structure of the land tax system do not appear to be sufficient. The impact of either inflation or

development is not likely to be uniform upon different regions and different groups of farmers. Therefore the imposition of additional levies would only tend to accentuate the inequalities inherent in the obsolete settlements.

There are many reasons for getting, what we consider to be very unsatisfactory results about the burden of land revenue. First, since the initial settlements were made, conditions have changed significantly in terms of crop pattern, irrigation facilities available, quality and quantity of other inputs and prices of both inputs and outputs, etc. Therefore, the past settlement, however, rational they might have been under the then existing conditions, have little relevance in the present situation. Secondly, it would seem that the system of land revenue was designed for a static and subsistence agriculture. That seems to be one reason why the system has remained almost inelastic and inflexible with respect to changes in prices and production. It would, however, be conceded that the original settlement of land taxation with its inflexibility had two advantages. First, it laid down the liability for tax payment in very clear and definite terms. Second, it also aided the administration in collecting the conveniently, and perhaps, efficiently in the early days. However, the price that we have to pay in terms of inflexibility and 'inequity' appears to be not commensurate with the gains in terms of convenience and 'efficiency' associated with the system. Any system of land taxation, that we may devise will have to make adequate allowance for the dynamic changes

which are occuring and likely to intensify in the agrarian economy of Orissa in the near future.

There can be differences of opinion, indeed there are, as to whether agricultural sector should be taxed at relatively higher or lower rates. There can also be difference of opinion regarding the most appropriate method that can be adopted for mobilising resources from the agricultural sector. However, if the land revenue system is to be retained as an instrument for resource mobilisation, there can hardly be any difference of opinion regarding the need for revising the existing pattern of land revenue settlements so as to make the system flexible and equitable.

# CHAPTER - VI

# INCIDENCE OF AGRICULTURAL TAXES IN ORISSA

## INCIDENCE OF AGRICULTURAL TAXES IN ORISSA

In the previous chapter, we have analysed the distribution of the burden of land revenue on an inter-district basis and have seen that there are wide variations in it between the farmers of the different districts of the State. We have also examined in some detail the problem of equity of agricultural taxation as between the farmers of the same land holding size-groups and seen that agricultural taxation as a whole does not conform fully to the principle of equity in the distribution of its burden. In the present chapter, we intend to estimate the relative burdern of taxation, direct as well as indirect between the agricultural and non-agricultural sectors of Orissa and to find out whether and to what extent the agricultural sector in Orissa could be considered as being undertaxed or not as compared to the non-agricultural sector.

With every effort at mobilising additional resources through taxation, the importance of direct as well as indirect taxes have increased both in absolute and relative terms. In order to find out how far these changes in the structure and yield of these taxes have altered their relative burden on the rural and urban sectors, we have attempted in this chapter an analysis of the relevant variables which determine the distribution of this burden. The concepts used and methodology followed in this analysis are broadly the same as those used by the Taxation Enquiry Commission (T.E.C., 1953) in their Report[1].

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[1] Government of India (1953-54), Report of the Taxation Enquiry Commission, Vol. I, pp.45-84.

TEC made the first comprehensive effort in this direction to find out the relative burden of taxation upon Agricultural and non-agricultural sector for the whole of India.

Consumption data of 28th round of National Sample Survey have been used to derive the incidence estimates for the year 1970-71 to 1979-80[2].

With regard to the direct taxes, we have assumed that their burden is borne by the persons on whom these taxes are imposed. Their impact and incidence are the same and the taxes are not shifted either forward or backward.

The burden of indirect taxes is assumed to be shifted to the consumers. This would imply that the outlay taxes constitute a given proportion of consumer expenditure incurred on the taxed commodities. Our assumption of forward shifting of commodity taxes involves the further simplifying assumption that the demand for these commodities is inelastic and supply is elastic. To the extent that these conditions are not fulfilled, the actual burden would be different. It is possible that a part of the burden of indirect taxes may be shifted backward or it may not be shifted at all and borne entirely by the seller or the manufacturer. However, in this study we do not propose an analysis of such cases as data regarding them are not available. Also, in a country like India our assumption appears to be a plausible one in view of the excess demand for commodities consequent partly on increasing population and

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[2] Though National Sample Survey (NSS) has conducted a survey on consumer expenditures in the year 1983, in its 38th round, the processed data regarding it is not yet readily available. So, we have taken the Report of NSS on consumer expenditure for the year 1973-74 from its 28th round survey.

partly on the prevalence of the 'parallel economy' and partly on the existence of a seller's market for most commodities.

Our analysis covers both direct and indirect taxes imposed by the Central and State Governments. The following direct taxes have been included.

i) Income Tax (Central Government)
ii) Land Revenue (State Government)
iii) Agricultural Income Tax (State Government).

The indirect taxes included are the following:

i) Union Excise Duties (Central Government)
ii) Sales Tax (State Government)
iii) Entertainment Tax (State Government), and
iv) State Excise Duties (State Government)

The incidence of direct as well as indirect taxation has been calculated for a period of ten years from 1970-71 to 1979-80.

Methodology

We have apportioned the burden of the indirect taxes between the agricultural and non-agricultural sectors on the basis of per capita Consumer-Expenditure data pertaining to these sectors. Since, the commodity taxes are assumed to fall on the consumers of the taxed commodities and services, we can apportion the tax burden between the two sectors in proportion to the expenditures of the two sectors.

Estimates of consumption expenditure have been taken from the 28th Round Report of the N.S.S. for the year 1973-74[3]. This Report contains data on consumption expenditure specially processed for the incidence study conducted by the Ministry of Finance, Government of India. The N.S.S. figures are for the rural and urban sectors. It is assumed that they are relevant and valid for a comparison between agricultural and non-agricultural sectors. It is also assumed that, the relative proportions of the consumption expenditure on various items in 1979-80 would be the same as in 1972-74.

The details of the method of analysis which, we have used in this study are as follows:

From the consumer expenditure table, we have calculated the ratio of expenditure on any given group of commodities (which are subject to various individual taxes) with respect to total consumer expenditure, separately for the rural and urban sectors. As indirect taxes are proportional, the tax revenues are expected to vary directly with expenditure. Hence, we have divided the tax burden between the two sectors, in the same ratio as that of the expenditures on the taxed commodities or services. The ratio is given by:

$$R \cdot \left(\frac{C_t}{R_c}\right) \text{ and } U_c \cdot \left(\frac{C_t}{U_c}\right) \text{ where,}$$

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[3] Government of Orissa (1973-74), Report of NSS on Consumer Expenditure of Rural and Urban Areas. Table 5, pp.12-15, Bureau of Economics and Statistics, Orissa.

$R_c$ = Total rural consumption expenditure

$C_t$ = Expenditure on the taxed commodities in rural areas.

$\frac{C_t}{R_c}$ = Expenditure on commodity as a proportion of total rural expenditure.

$U_c$ = Total urban expenditure.

$C_t$ = Expenditure on the taxed commodity in urban areas

$\frac{C_t}{U_c}$ = Expenditure on commodity as a proportion of total rural expenditure.

The above ratios are derived from the following method.

'Total rural consumption expenditure multiplied by expenditure on the commodity as a proportion of total rural expenditure; total urban consumption on expenditure multiplied by the expenditure on commodities as a proportion of total urban consumer expenditure.'

As people do not usually spend their whole income on consumption expenditure (as law of consumption suggests), a part of their disposable income is saved to meet their future needs. So the total rural consumption expenditure is derived by substracting rural savings from rural per capita (disposable) income. Similarly, the total urban consumption expenditure is derived by substracting the urban savings from urban per capita (disposable) income. We have assumed that 5 percent of the monthly income will be saved in rural areas, and 20 percent will be saved in urban areas. Our assumption is supported by the data given in the Reserve Bank of India study on "Debt and Investment Survey".[4]

We have multiplied the per capita percentage expenditure (both for rural and urban sectors separately) on the goods subjected effectively to various individual taxes, (i.e. Union Excise Duty, Sales Tax, State Excise Duty and Entertainment tax, etc.) by the total rural and urban population respectively in order to arrive at the total expenditure on the group of commodities subjected to these taxes in rural and urban areas. We then multiplied the tax rate of various taxes into it, which finally gives us the total gross contribution of different taxes to the State Exchequer.

It is remarkable that the actual amount of revenue collected from the various taxes as reported in the State Budget papers is more or less the same as the figure we have got in our calculation[5].

The rate of different taxes, which we have used in our study are 5 percent for Sales tax, 20 percent for Excise Duty (both for Central and State) and 45 percent in rural and 65 in urban areas for Entertainment tax. The rates of the different taxes and which we have used in our analysis are the actual rates of these taxes. We have taken these rates from the Orissa Budget Papers.

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[4]Reserve Bank of India Bulletin (August, 1972), p.1419.

[5]The slight differences in the two figures are due to the rounding off at different stages of computation. While the actual receipts from those taxes as shown in the State Budget Papers, i.e. Union Excise Duties, Sale Tax, Entertainment Tax and State Excise Duties are in the order of Rs.17.04, Rs.17.54, Rs.0.1 and Rs. 4.2 crores in the year 1970, in our analysis. The figures come to Rs.16.94, Rs.17.00, Rs.0.91 and Rs.3.8 crores respectively.

Thus, in this way the consumption expenditure on each of the taxed items separately for both the agricultural and non-agricultural sectors have been estimated. These estimated expenditures have been used for allocating the tax burden in respect of indirect taxes between the two sectors for the years 1970-71 to 1979-80. The respective figures of the tax burden for the sectors when aggregated, gives us the total burden of various indirect taxes on the two sectors.

With resepct to the distribution of the burden of various direct taxes between the two sectors, it has been assumed that the entire burden of land revenue and agricultural income tax rest upon the agricultural sector and that of income tax rests on the non-agricultural sector. Data on land revenue, agricultural income tax and income tax have been taken from the Budget Papers of the Government of Orissa.

Analysis

Data about the total incidence of indirect taxes both Central and State are given in table 1. A broad finding which emerges from this table is that the total burden of taxation does not vary significantly between the two sectors. The total tax collection is shared by the agricultural and non-agricultural sectors in the proportion of 44.56 respectively.

While the total absolute burden of indirect taxes has been shared more or less equally by the two sectors, a comparison of the tax burden on a per capita basis shows wide

## TABLE - 1

INCIDENCE OF INDIRECT TAXES ON AGRICULTURAL AND NON-AGRICULTURAL SECTORS (1970-71 - 1979-80)

(Rs. in thousand)

| Taxes | 1970-71 | | 1971-72 | | 1972-73 | | 1973-74 | | 1974-75 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Agricul-tural | Non-Agri-cultural | Agricul-tural | Non-Agri-cultural | Agricul-tural | Non-Agri-cultural | Agricul-tur | Non-Agri-cultural | Agricul-tural | Non-Agri-cultural |
| Sales Tax | 96246.12 | 74251.88 | 114770.75 | 88543.25 | 135790.47 | 104759.53 | 150011.36 | 115730.64 | 155719.02 | 120133.98 |
| Sales Tax | 30345.19 | 72345.81 | 32479.59 | 77434.41 | 36566.35 | 87177.65 | 49209.02 | 117318.98 | 58044.18 | 138382.82 |
| Enter-tain-ment Tax | 916.50 | 3955.50 | 1143.04 | 4936.96 | 1489.15 | 6431.85 | 1325.96 | 5727.04 | 2171.02 | 9376.98 |
| State Excise Duties | 11615.27 | 30853.73 | 12711.46 | 33765.54 | 13463.31 | 35762.69 | 13910.76 | 36951.24 | 15071.48 | 40034.52 |
| Total | 139123.08 | 181406.92 | 161104.84 | 204680.16 | 187309.28 | 234131.72 | 214457.10 | 275727.90 | 231005.70 | 307928.30 |

Table cont'd.

| Taxes &&&& | 1975-76 | | 1976-77 | | 1977-78 | | 1978-79 | | 1979-80 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Agricul-ture | Non-Agri-culture | Agricul-ture | Non-Agri-culture | Agricul-ture | Non-Agri-culture | Agricul-ture | Non-Agri-culture | Agricul-ture | Non-Agri culture |
| Union Excise Duties | 190581.41 | 147029.59 | 228725.24 | 176456.76 | 247221.64 | 190726.36 | 278975.90 | 466302.10 | 640425.25 | 494074.75 |
| Sales Tax | 86553.43 | 206351.57 | 90686.29 | 216204.71 | 82085.76 | 195700.24 | 88524.41 | 211050.59 | 104859.36 | 249994.64 |
| Enter-tain-ment Tax | 2474.08 | 10685.92 | 3275.71 | 14148.29 | 3562.22 | 15385.78 | 3854.00 | 16646.00 | 5470.80 | 23629.20 |
| State Excise Duties | 16768.83 | 44543.17 | 18302.89 | 48618.11 | 19136.52 | 50832.48 | 19965.49 | 53034.51 | 20922.75 | 55577.25 |
| Total | 296377.75 | 408610.25 | 340990.13 | 455427.87 | 352006.14 | 452644.86 | 391319.80 | 747033.20 | 771678.16 | 823275.84 |

TABLE - 2

Percapita Incidence of Indirect Taxes in Orissa
1970-71 - 1979-80.

| Taxes | 1970-71 | | 1971-72 | | 1972-73 | | 1973-74 | | 1974-75 | | 1975-76 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Agri | Non-Agri | Agri. | Non-Agri | Agri. | Non-Agri.. | Agri. | Non-Agri. | Agri. | Non-Agri | Agri. | Non-Agri |
| Union Excise Duties | 5.21 | 22.81 | 6.09 | 26.61 | 7.04 | 30.78 | 7.77 | 34.00 | 7.72 | 33.75 | 9.24 | 40.40 |
| Sales Tax | 1.64 | 22.22 | 1.72 | 23.27 | 1.40 | 25.62 | 2.55 | 34.47 | 2.87 | 38.88 | 4.19 | 56.70 |
| Entertainment tax | 0.04 | 1.12 | 0.06 | 1.48 | 0.08 | 1.89 | 0.07 | 1.68 | 0.11 | 2.63 | 0.12 | 2.94 |
| State Excise Duties | 0.63 | 9.48 | 0.67 | 10.14 | 0.69 | 10.51 | 0.72 | 10.86 | 0.75 | 11.25 | 0.81 | 12.24 |
| TOTAL | 7.54 | 55.74 | 8.54 | 61.50 | 9.71 | 68.79 | 10.87 | 79.23 | 11.45 | 86.52 | 14.37 | 112.27 |

TABLE - 2 (Contd.)

| Taxes | 1976-77 | | 1977-78 | | 1978-79 | | 1979-80 | |
|---|---|---|---|---|---|---|---|---|
| | Agri. | Non-Agri. | Agri. | Non-Agri. | Agri. | Non-Agri. | Agri. | Non-Agri. |
| Union Excise Duties | 10.84 | 46.71 | 11.46 | 50.11 | 12.65 | 119.82 | 28.57 | 124.90 |
| Sales Tax | 4.30 | 58.09 | 3.81 | 51.42 | 4.01 | 54.23 | 4.68 | 63.19 |
| Entertainment Tax | 0.15 | 3.80 | 0.17 | 4.04 | 0.17 | 4.27 | 0.24 | 5.97 |
| State Excise Duties | 0.87 | 13.06 | 0.89 | 13.36 | 0.91 | 13.63 | 0.93 | 14.05 |
| TOTAL | 16.17 | 122.37 | 16.32 | 128.94 | 17.74 | 191.96 | 34.43 | 208.13 |

TABLE - 3

Incidence of Indirect Taxes as percent of Income in Orissa 1970-71 to 1979-80.

| Years | AGRL. SECTOR | | | NON-AGRL. SECTOR | | | Percapita tax in Non-Agrl. Sector as multiple of per capita tax of Agrl. Sector | Per capita Income of non-Agrl. Sector as multiple of per capita Income in Agrl. Sector |
|---|---|---|---|---|---|---|---|---|
| | Tax per capita | Income per capita | Taxes as percent of Income | Tax per capita | Income per capita | Taxes as percent of Income | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 1970-71 | 7.54 | 219.20 | 3.44 | 55.74 | 489.42 | 11.55 | 7.39 | 2.20 |
| 1971-72 | 8.54 | 221.65 | 3.85 | 61.50 | 480.44 | 12.80 | 7.20 | 2.17 |
| 1972-73 | 9.71 | 226.08 | 4.29 | 68.69 | 576.03 | 11.92 | 7.07 | 2.55 |
| 1973-74 | 10.87 | 275.28 | 3.94 | 79.23 | 697.24 | 11.36 | 7.28 | 2.53 |
| 1974-75 | 11.45 | 291.42 | 3.92 | 86.52 | 701.37 | 12.34 | 7.56 | 2.41 |
| 1975-76 | 14.37 | 390.06 | 3.68 | 112.27 | 715.49 | 15.69 | 7.81 | 1.83 |
| 1976-77 | 16.17 | 455.68 | 3.54 | 122.37 | 658.63 | 18.58 | 7.56 | 1.44 |
| 1977-78 | 16.32 | 346.56 | 4.71 | 128.94 | 799.10 | 16.13 | 7.90 | 2.31 |
| 1978-79 | 17.74 | 359.78 | 4.93 | 191.96 | 824.95 | 23.27 | 10.89 | 2.29 |
| 1979-80 | 34.43 | 353.92 | 9.73 | 208.13 | 831.37 | 25.03 | 6.05 | 2.34 |

Source for columns 3 and 6: Government of Orissa, "Statistical Abstract of Orissa", 1979, pp. 420-423.

variations. Figures of the incidence of indirect taxes on a per capita basis are given in table 2. It shows that the total burden of taxation upon the non-agricultural sector is almost eight times higher than the that on the agricultural sector.

A more meaningful comparison of the tax burden is made by relating the tax burden per capita with the income per capita. Table 3 provides the comparative data. When the tax burden is considered as a percentage of income, the disparity in the burden of taxation noted in the above paragraph is further confirmed. As compared to the agricultural sector, the per capita tax in the non-agricultural sector is nearly 7.39 times higher during the year 1973-74, which slightly decreased to 6.05 times higher in the year 1979-80. On the other hand, the per capita income in the non-agricultural sector is only approximately two and half times higher as compared to the agricultural sector in all the years except 1975-77, when the difference was somewhat reduced because of the bumper agricultural production in that year. Thus, the disparity in the incidence of indirect taxation does remain significant when the variations in the levels of income between the two sectors are taken into account.

Differences also emerge when the tax burden is considered in relation to the ability to pay the taxes. The burden of taxation as a percentage of consumption was almost seven times higher in the urban sector as compared to the rural sector. This difference is not significantly at variance with

the difference in the tax burden observed when it was related with income, which is considered a more appropriate index of the ability to pay taxes. The T.E.C. study did emphasize that income is a better measure of the ability to pay taxes. However, it related tax with aggregate expenditure since data on the distribution of income by size groups was not available.

The proportions in which the three important indirect taxes, namely, sales tax, union excise duties and entertainment tax have been distributed between the agricultural and non-agricultural sectors are; Sales tax: 30:70; Union Excise Duty: 56:44; Entertainment tax: 19:81.

The above ratios are based upon detailed calculations carried out by us. There is an intuitive feeling that the consumption of some of the commodities subject to excise duties is relatively higher in the agricultural sector than in the non-agricultural sector in Orissa. However, no definite evidence can be adduced to sustain that intuition.

The direct taxes imposed upon the agricultural sector have remained largely inelastic and their importance in the total revenue collected by the government has declined significantly. In contrast to this, the taxes imposed upon the non-agricultural sector have been quite elastic and their revenue potentiality has been successfully exploited by the Central as well as the State Governments. The obvious outcome of these developments has been that the burden of direct taxes is substantially higher on the non-agricultural sector. This

## TABLE - 4

Incidence of Direct Taxes on Agricultural and Non-Agricultural Sector 1970-71 to 1979-80.

(Rs. in thousand)

| Taxes | 1970-71 | | 1971-72 | | 1972-73 | | 1973-74 | | 1974-75 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Agri. | Non-Agri. | Agri. | Non-Agri. | Agri. | Non-Agri. | Agri. | Non-Agri. | Agri. | Non-Agri |
| Land Revenue | 16683 | - | 17877 | - | 20446 | - | 23144 | - | 24287 | - |
| Agri. Income Tax | 739 | - | 905 | - | 910 | - | 594 | - | 582 | - |
| Income Tax | - | 132318 | - | 169453 | - | 180094 | x | 194638 | - | 191095 |
| TOTAL | 17422 | 132318 | 18782 | 169453 | 21356 | 180094 | 23738 | 194638 | 24869 | 191095 |

TABLE - 4 (Contd.)

| Taxes | 1975-76 | | 1976-77 | | 1977-78 | | 1978-79 | | 1979-80 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Agri. | Non-Agri | Agri. | Non-Agri. | Agri. | Non-Agri. | Agri. | Non-Agri. | Agri. | Non-Agri. |
| Land Revenue | 31917 | - | 43912 | - | 43304 | - | 49500 | - | 65800 | - |
| Agri. Income Tax | 799 | - | 886 | - | 730 | - | 800 | - | 800 | - |
| Income Tax | - | 273819 | - | 243278 | - | 251918 | - | 283300 | - | 334100 |
| TOTAL | 32716 | 273819 | 44798 | 243278 | 49034 | 251918 | 50300 | 283300 | 66600 | 334100 |

difference is clearly shown in the estimates of the incidence of direct taxes given in Table 4.

Table 4 gives details about the incidence of various direct taxes. As can be seen from the table, the important tax borne by the non-agricultural sector is the income tax. The agricultural sector contributes revenue from direct taxes through land revenue and agricultural income tax. The total amount of direct tax revenues paid by the non-agricultural sector is nearly 6 to 7 times higher than that by the agricultural sector. This disparity in the burden of taxation becomes still more apparent, when the tax incidence is compared on a per capita basis. Table 5 gives the estimates of the burden of direct taxes on a per capita basis. The per capita tax burden on the non-agricultural sector is 31 times higher than on the agricultural sector.

Table 6 relates the per capita tax incidence with the per capita incomes in the two sectors. It shows that, while, the agricultural sector paid about 0.95 percent of its income by way of direct taxes, the non-agricultural sector paid about 8 percent of its income in taxes. Even, when the disparity in the levels of per capita income is taken into account, a significant difference in the burden of taxation persists.

Table 7 provides estimates of the combined incidence of direct and indirect taxes taken together for the years 1970-71 to 1979-80. In the year 1970-71, the agricultural sector paid Rs. 15,6545 thousands by way of taxation as compared to

TABLE - 5

Percapita Incidence of Direct Taxes in Orissa 1970-71 to 1979-80.

(Figs. in Rs.)

| Taxes | 1970-71 | | 1971-72 | | 1972-73 | | 1973-74 | | 1974-75 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Agri. | Non-Agri. | Agri. | Non-Agri. | Agri. | Non-Agri. | Agri. | Non-Agri. | Agri. | Non-Agri. |
| Land Revenue | 0.90 | - | 0.95 | - | 1.06 | - | 1.17 | - | 1.20 | - |
| Agri. Income Tax | 0.40 | - | 0.48 | - | 0.47 | - | 0.30 | - | 0.28 | - |
| Income Tax | - | 40.65 | - | 50.92 | - | 52.91 | - | 55.93 | - | 53.69 |
| TOTAL | 1.30 | 40.65 | 1.43 | 50.92 | 1.53 | 52.91 | 1.47 | 55.93 | 1.48 | 53.69 |

TABLE - 5 (Contd.

(Figs. in Rs.)

| Taxes | 1975-76 | | 1976-77 | | 1977-78 | | 1978-79 | | 1979-80 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Agri. | Non-Agri. | Agri. | Non-Agri. | Agri. | Non-Agri. | Agri. | Non-Agri. | Agri. | Non-Agri. |
| Land Revenue | 1.55 | - | 2.08 | - | 2.23 | - | 2.25 | - | 2.99 | - |
| Agri. Income Tax | 0.38 | - | 0.42 | - | 0.33 | - | 0.36 | - | 0.36 | - |
| Income Tax | - | 75.24 | - | 65.37 | - | 66.19 | - | 72.79 | - | 84.46 |
| TOTAL | 1.93 | 75.24 | 2.50 | 65.37 | 2.56 | 66.19 | 2.61 | 72.79 | 3.35 | 84.46 |

TABLE - 6

Incidence of Direct Taxes as percent of Income in Orissa 1970-71 to 1979-80.

(Figs. in Rs

| Years | AGRI. SECTOR | | | NON-AGRI. SECTOR | | | Percapita tax in Non-Agri. Sector as Multiple of per capita tax of Agri. Sector | Percapita Income of Non-Agri. Sector as multiple of Percapita Income of Agri. Sector |
|---|---|---|---|---|---|---|---|---|
| | Tax per capita | Income per capita | Taxes as percent of Income | Tax per capita | Income per capita | Taxes as percent of Income | | |
| 1970-71 | 1.30 | 219.20 | 0.59 | 10.65 | 482.49 | 8.42 | 31.26 | 2.20 |
| 1971-72 | 1.43 | 221.65 | 0.64 | 50.92 | 480.44 | 10.59 | 35.61 | 2.17 |
| 1972-73 | 1.53 | 226.08 | 0.68 | 52.91 | 576.03 | 9.19 | 34.58 | 2.55 |
| 1973-74 | 1.47 | 275.28 | 0.53 | 55.93 | 697.24 | 8.02 | 38.04 | 2.53 |
| 1974-75 | 1.48 | 291.42 | 0.51 | 53.69 | 701.37. | 7.66 | 36.27 | 2.41 |
| 1975-76 | 1.93 | 390.06 | 0.49 | 75.24 | 715.49 | 10.52 | 38.98 | 1.83 |
| 1976-77 | 2.50 | 455.68 | 0.55 | 65.37 | 658.53 | 9.92 | 26.14 | 1.44 |
| 1977-78 | 2.56 | 346.56 | 0.74 | 66.19 | 799.10 | 8.28 | 25.85 | 2.31 |
| 1978-79 | 2.61 | 359.78 | 0.73 | 72.79 | 824.95 | 8.82 | 27.88 | 2.29 |
| 1979-80 | 3.35 | 353.92 | 0.95 | 84.46 | 831.37 | 10.16 | 25.21 | 2.34 |

TABLE - 7

Total Incidence of Direct and Indirect Taxes as percent of Income in Orissa 1970-71 to 1979-80

(Figs.in Rs.)

| Years | AGRI. SECTOR | | NON-AGRI. SECTOR | |
|---|---|---|---|---|
| | Total tax percapita | Per capita taxes percent of percapita income | Total tax percapita | Percapita tax as percent of percapita income |
| 1970-71 | 8.84 | 4.03 | 96.39 | 19.97 |
| 1971-72 | 9.97 | 4.49 | 112.42 | 23.39 |
| 1972-73 | 11.24 | 4.97 | 121.70 | 21.11 |
| 1973-74 | 12.34 | 4.47 | 135.70 | 19.38 |
| 1974-75 | 12.93 | 4.43 | 140.21 | 19.90 |
| 1975-76 | 16.30 | 4.17 | 187.51 | 26.21 |
| 1976-77 | 18.67 | 4.09 | 187.74 | 28.50 |
| 1977-78 | 18.88 | 5.45 | 195.13 | 24.41 |
| 1978-79 | 20.35 | 5.66 | 264.75 | 32.09 |
| 1979-80 | 37.78 | 10.68 | 292.59 | 35.19 |

Rs. 31,3727 thousands paid by the non-agricultural sector. While the agricultural sector paid nearly about 4 percent of its income, the non-agricultural sector paid 19.97 percent of its income in taxation. This difference in tax burden appears to persist in the subsequent years without any change.

Estimates about the incidence of taxation on a per capita basis are also presented in Table 7. The tax burden per capita in the agricultural sector was Rs. 8.84 in the year 1970-71. It gradually went up to Rs. 37.78 in the year 1979-80. Correspondingly, the tax burden per capita on the non-agricultural sector which was Rs. 96.39 in 1970-71, went up to Rs. 292.59 in 1979-80. The tax burden on the non-agricultural sector is nearly 11 times higher than on the agricultural sector. On the other hand, the per capita income in the non-agricultural sector is only about two and half times higher than in the agricultural sector. Even if we assume that the capacity to pay taxes increase more than proportionately with every increase in income, the total tax-burden on the non-agricultural sector appears to be rather high.

In Orissa, there are 20 million people in the rural sector and 1.8 million people in the urban sector. The rural people constitute 91.57 percent of the total population, but bear only 33.29 percent of the total tax burden while urban population constituting 8.42 percent of the total bears the remaining 66.71 percent of the burden of taxation.

# CHAPTER - VII

# CONCLUSION

# CONCLUSION

The focus of our study is an analysis of the place of agricultural taxation in the economy of the State. In order to have such an analysis, we thought that it was necessary first to have an idea of the State's agricultural sector. The first chapter deals with the salient features of agriculture and its place in the State's economy. In the course of our analysis, the following broad characteristics of the sector emerge:

i) In Orissa 79 percent of the population is engaged in agricultural pursuits.

ii) Orissa's agriculture is characterised by low level of productivity, low farm income and fluctuation in the agricultural output owing to its dependence on the monsoon.

iii) Although significant developments have taken place in some spheres since independence, access to opportunities to have even a bare minimum standard of living in Orissa is one of the lowest in the country.

iv) We notice a high magnitude of self-employment and a high incidence of poverty. The co-existence of these two would seem to indicate the uneconomic character of the 'own account' enterprise.

The per capita income in the agricultural sector of the State in 1979-80 comes to Rs. 353 at 1970-71 prices as against Rs. 435 for the whole State and Rs. 667 for India. It is against this background of Orissa's agricultural sector that we have analysed the agricultural tax system of the State.

In the second chapter, the focus is on the general features of agricultural taxes in Orissa. We also briefly look at a few aspects of land tax in India in recent times. The main taxes on agricultural sectors are the land tax, agricultural income tax, cess on land, and water rates. The nature, rates and revenues from these taxes have been analysed in this chapter. We find that:

i) The relative importance of land revenue has greatly declined in recent times partly as a result of inflation, but mainly due to the introduction of many new levies and extension of other existing ones. But land revenue still continues to be an important tax on agriculture.

ii) The contribution of land revenue to the total revenues of the State has remained almost static (at 2.6 percent) during the decade 1970-71 to 1979-80.

iii) The assessment of land revenue is based, in addition to the area of the land, also on the "net produce" of the land. One-third of the net produce is assessed as tax. There has, however, been no regular revision of the assessment during the last few decades. Consequently, the assessments do not seem to be very much related to the present-day conditions prevailing in agriculture.

iv) The contribution of agricultural income tax too, to the total revenues of the State Government has been very negligible. The agricultural income tax contributes less thar two percent of the total state tax revenues and less than one

percent of the aggregate revenue receipts of the State.

We have examined in Chapter III, "Economy and Efficiency of Agricultural Taxation in Orissa", that is, whether these taxes are 'cost effective', whether they are in conformity with the principles of economy or not.

Every tax has a cost of collection. It is important that the cost of collection should be the minimum possible. It is highly uneconomic to impose taxes which cost more in collecting them than the revenue they yield, and which, therefore, impose an unnecessary public burden in the form of additional administrative expenses. A distortionary effect on the economy is likely to occur owing to a wasteful use of public funds on administrative expenditures to collect revenues which yield much less than the amount incurred on these expenditures.

Our analysis has shown that:

i) Throughout the period, 1970-71 to 1979-80 the cost of collection of agricultural taxes exceeded the receipts from collection. R/C that is, the Revenue-Cost ratio ranges between 0.45 to 0.49 during the period 1970-71 to 1979-80. It would imply that hardly 49 percent of the cost is covered by the receipts and that 51 percent of the cost of collection of the agricultural taxes is met from some other sources of public revenues.

ii) In our analysis the net benefit accruing to the State Government from agricultural taxes is negative throughout the period. And this negative benefit to the State Government also shows an increasing trend over the period. The net benefit to the State Government which was (-) Rs. 2,0844 thousands in the year 1970-71 increased to (-) Rs, 6,9305 thousands in the year 1979-80; indicating thereby a net loss to the State treasury to the extent of the above mentioned amounts.

iii) The cost-revenue ratio, $(\frac{C}{R} \times 100)$, which gives us the proportion of cost incurred for 100 rupees worth of revenue collected from tax also gives us scope for distress. It is seen that the Government of Orissa was spending Rs.219.64 as cost of collecting Rs. 100 worth of agricultural taxes in the year 1970-71 and this figure slightly came down to Rs. 204.06 in the year 1979-80.

iv) Further, we also calculated the growth rates of revenue from, and cost of collection of, agricultural taxes. The growth rates of both revenue and costs were of the order of 15 percent, thus showing no improvement in the efficiency or economy in the administration of these taxes.

v) The overall picture of the agricultural taxes (land revenue and agricultural income tax) that emerges from our our study is that while the growth rates of revenue and the cost of collecting it have moved in the same proportion over the period, the net benefit in terms of net revenue to the State exchequer, from these taxes has been negative.

vi) Thus from whatever angle, one looks at it, agricultural taxes do not seem to conform to the principles of economy.

The next chapter on inter-district variations in land revenue seeks to study the differences observed in the distribution of the burden of land revenue between the different districts of the State.

In Section I of this chapter we analyse the problem by relating the per capita tax burden to the per capita agricultural income. In Section II, we analyse the inter-group distribution of land revenue burden between the same size land-holdings-size groups in the different districts of the State.

From our analysis of the relation between the per capita land tax burden and the per capita agricultural income, the following conclusions emerge:

i) For Orissa as a whole, farmers paid 1.19 percent of their per capita income as land revenue in the year 1979-80.

ii) If land revenue as a percentage of per capita income falling between 1 percent and 1.50 percent is taken as the average range, then farmers in four districts paid (on the average) land revenue within this range (Korapot, Phulbani, Mayurbhanj and Keonjhar), five districts paid land revenue above this range and other four districts paid land revenue below the range (Puri, Ganjam, Cuttack and Balasore).

iii) The burden of land revenue both in absolute as well as relative terms varies within and also between per capita income group.

iv) There is no evidence that the burden of land tax increases along with the increase in the level of per capita income.

v) The ratio of per capita tax to per capita income varies from 0.55 in Cuttack to 2.47 in Sambalpur districts.

We have also analysed the variations in the distribution of the burden of land revenue between the various districts of Orissa with respect to Net Area Sown and Yield rate per hectare. The cumulative values of the above variables have been calculated with respect to those of the tax revenue contribution of the different districts of the State. The results obtained confirm the earlier finding of much variation in the burden between the different districts of the State.

In Section II of the Chapter, we studied the variations in the burden of land revenue between the same size-class of land holdings over and above 2 hectares, with the help of three indices, namely (i) the index of land tax per hectare (ILTH), ii) the index of the concentration of land (ICL) over and above two (2) hectares and (iii) the ratio of these two indices which gives us the index of the land tax burden on farmers of different land holding size-groups (LB).

Our findings from this exercise are as follows:

i) There is much variation in the burden of land revenue for the same size-group of holding in the different districts of the State.

ii) The lowest burden is found in the prosperous districts of Balasore and Cuttack, while highest burden is found in the comparatively less prosperous district of Dhenkanal.

iii) The range of variations in the burden of land revenue is narrow between Kalahandi, Ganjam and Cuttack, but fairly wide between Dhenkanal and Cuttack.

One might adduce some reasons for getting such a picture about the distribution of the burden of land tax in the State. First, since the initial settlements were made, conditions have changed significantly in terms of crop pattern, provision of irrigation facilities, quality and quantity of other inputs and prices of both inputs and outputs etc.. Therefore, the past settlement, however, rational they might have been under the then existing conditions have little relevance under the present conditions.

Secondly, the system of land revenue appears to have been designed for a static and subsistence agriculture. That seems to be a reason why the system has remained almost inelastic and inflexible with respect to change in prices and production over the years.

We have also analysed the comparative incidence of the tax system on the agricultural and non-agricultural sectors of Orissa's economy. We have allocated the total burden of various taxes between the two sectors on the basis of the data on the consumption expenditure of the two sectors. To do so, we have used the data furnished in the 28th Round of the Report of the National Sample Survey.

Since indirect taxes are proportional, the tax varies directly with expenditure. Hence, we have divided the tax burden between the two sectors in the same ratio as the expenditures on the taxed commodities or services. To arrive at the ratio we multiplied the total rural/urban consumption expenditure by the expenditure on the commodity taxed as a proportion of the total rural/urban consumption expenditure.

The following findings emerge from our analysis:

Our findings support the generally accepted view that the incidence of the taxes on the agricultural sector is relatively low as compared to the non-agricultural sector.

i) The popular view that the incidence of indirect taxes is heavier on the non-agricultural sector than on the agricultural is also supported by our findings of Orissa. As compared to the agricultural sector, the per capita tax in the non-agricultural sector is nearly 7 times higher during the year 1970-71 to 1979-80; on the other hand, the per capita income in the non-agricultural sector is only about two and half

times higher than that of the agricultural sector in all the years except 1975 to 1977, when the difference was somewhat reduced due to a bumper agricultural production in these years.

ii) The second important results of our enquiry about the incidence of taxation is that the burden of direct taxes on non-agricultural sector of Orissa is greater than the burden of indirect taxes. While the agricultural sector paid about 1 percent of their income by way of direct taxes, the non-agricultural sector paid near about 11 percent of their income in such taxes in the year 1979-80.

Thus, the significance of land tax as an item of revenue contribution to the exchequer and an item of burden on the agriculturist has undergone very substantial changes from time of its introduction. First, there have been vast changes in the agricultural economy, including the big upward movements in agricultural prices in relation to which, land revenue has shrunk in dimension. Further, the present burden of land revenue as brought out in our analysis is, one may say, quite inequitable and arbitrary. One reason for this may be that the present settlement is outdated and does not reflect the tax paying capacity of the farmers. The first standard settlements were made in the second half of the 19th century and have not been fully revised for a long period. It is not surprising, therefore, if we find the present system of land revenue to be 'inequitable' and 'arbitrary'.

Further, the present system of land revenue is inelastic and inflexible in relation to changes in production and prices.

It is always possible to devise a suitable system of land taxation where the existing weakness can be removed.

Taking into account the above factors, it is possible to suggest the following considerations for evolving a suitable system of land taxation: i) it should yield a reasonable amount of net revenue to the Government; ii) it needs to be fixed in relation to the tax paying capacity of the farmers; iii) it should, as far as possible, satisfy the condition of equity, both on inter-sectoral and inter-district basis; iv) the system should have an element of built-in-flexibility so that revenue would increased with increase in production and prices.

Given the basic objectives, the following elements may be mentioned as desirable for being incorporated in a satisfactory policy of land revenue: i) small farmers at the subsistence level need to be exempted from the payment of taxes. For this purpose, the subsistence requirement may have to be properly defined; ii) it may be advisable to have a rate structure such that it would not impose an unwieldy burden on the agriculturists, but at the same time would bring within the tax net as large a number of agriculturists as are able to pay the tax without undue distress; iii) the standard settlements should be periodically revised every five to seven years so as to make

the system elastic with respect to changing economic conditions.

It may be advisable to consider the possibility of delegating the administration of this tax to village panchayats. The tax may be levied by the State in order to ensure uniformity of rates in the State as a whole, but the collection and utilization of the revenues from it may be completely transferred to the village panchayats. This might help to minimise if not, to completely eliminate the inefficiency and dis-economy in its administration, and to ensure a fair degree of equity in the distribution of its burden.

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