SOME REMARKS ON AGRICULTURAL TAXATION IN DEVELOPING COUNTRIES

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I. AGRICULTURAL TAXATION AND ECONOMIC DEVELOPMENT.

Agricultural taxation in developing countries has always been an attractive issue for economists, politicians and lawyers. As the important role of government in economic development has been unanimously accepted and as taxation is held to be one of the means to increase saving and therefore capital accumulation, it is quite natural that taxation in a main sector should attract so many minds to it.

There have been many discussions among economists over the priority of the agricultural versus the industrial sector in economic development. Now, it is widely accepted that this is a false issue. Agriculture and industry both have their places in development. Agricultural growth, can contribute vitally to compensate the increase in the demand for food due to rapid urbanization, income increases and high income elasticity. is inevitable for a balanced growth. Increase in agricultural output can provide foreign exchange earnings for a developing country, which is an indispensable need in many cases. Also, the growth of this sector can make possible the transfer of the working population to industrial and service sectors and can contribute to capital formation by effecting terms of trade between the sectors «ceteris paribus», and can create demand for industrial output so necessary for development because of the «indivisibility of demand».

Therefore, agricultural growth is indispensable for countrywide economic growth, in many cases. Increasing the food supply may also compensate for the malnutrition and under-nutrition which are very widespread in developing countries and may increase the healthiness of the population. For that reason, agricultural growth should be accepted as one of the best ways of «investment in human capital» which is so productive for development.
The most important aim of agricultural taxation is certainly the providing of revenues for the government. Agricultural taxation can be directed towards increasing the speed of capital formation and reallocation of resources. As a matter of fact, there can be extra-fiscal aims of the taxation in this sector, as is the case in other sectors: for example, the relation between agricultural reform and agricultural taxation has been very well stressed and it has been concluded that the tax system can contribute to the realization of this reform. In fact, agricultural taxation may be used for the consolidation of small landholdings or the fragmentation of the larger ones. Agricultural reform can also contribute to the efficiency of taxation. Taxation in rural areas, by skillful manipulation, can contribute to more monetization in the agricultural sector. Therefore, agricultural taxation should not be thought of only as a revenue securing device but should be designed by taking into regard all of these desired or undesired results.

Let us study more closely some of the extra-fiscal aims of agricultural taxation.

1) Contribution to economic stability: Increasing productivity in the agricultural sector may increase real and/or money revenues of the rural population. This result necessitates the channeling of
some of the surplus revenues to productive investments. Such a policy is especially necessary for the populations with low investment propensity. As Rao indicates, the multiplier effect can operate only for money incomes and not for real incomes, in developing countries. Therefore, if not principally directed towards or compensated by productive investments, real income increases in agricultural sectors are to end in inflationary pressures or unproductive ostentatious investments (1).

Therefore, the channeling of extra income to productive investments (including investments in human capital such as education, health, etc.) seems to be an important function of tax systems.

2) Channeling of agricultural production: Agricultural taxation may be effectively used to direct the agricultural production. The governments, by skillfully differentiating direct taxes, custom duties, export taxes or even exchange rates, can contribute to the production increases in desired kinds.

3) Effecting income and wealth (especially land) distribution: Agricultural taxation will have certainly a re-distribution effect. This effect can be used in favor of some definite groups or classes (such as owners of land under definite area or immigrants, etc.).

Agricultural taxation may, in some cases, be directed towards re-distribution of land. Taxation of the uncultivated land is a good example. The main aim of such a practice, as used in New Zealand, is to force the owners of uncultivated lands to give up ownership (2).

Kardelj asserts that, in Yugoslavia, land taxes based on possible revenues, and not actual revenues, and which are also progressive,


prevent capitalistic growth in agricultural sector of Yugoslavia (3). Kaldor, besides others, also claims that taxation based on potential yields creates a favorable condition for more efficient distribution of land (4).

Progressive income and land taxation can contribute to the correction of excessive land ownership differences. Very steeply progressive income taxation in the agricultural sector may also force big landowners to give up ownership (5). Certainly, it should be taken into regard that heavy taxation on land designed to change the land distribution can produce the desired results only under favorable political, economic and social conditions. However, supposedly heavy taxes, if they are based only on one of the variables of taxable capacity, such as land ownership, can cover only a small part of total revenues of big landowners whereas they may exert a heavy burden on small peasants. In this case land can be re-distributed from poor to rich.

4) Slacks: Some authors stressing the relation between taxation and productivity, claim the existence, in developing countries, of a vast unused productive capacity and assert that agricultural taxation could be used to increase productivity in this sector (6). Some of the methods to show the existence of such an unused capacity could be: a) to prove that more production could be provided in some plots under the constraints of present inputs, b) to compare the production indexes of the most productive farms with the moderately productive ones, and c) to show that a large

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(5) In a sense, big landowners seem to be more sensitive to an efficient income tax than taxes based on average yield, as income taxes cover all the sources of income, and may be steeply progressive. Big landowners also seem not sympathetic with record keeping and auditing. See footnote 30.


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portion of the resources allocated to this sector are unused by comparing the investment and production indexes of different plots.

Such an unused productive capacity could be connected with different factors such as ineffective determination of the products, insufficient investment, and backward sloping Supply curves.

The Japanese case is forwarded as a good example of this case. It is claimed that heavy land taxation in Japan, by producing a favorable income effect, has directed the farmers to work more and has contributed to an increase in agricultural productivity.

This assertion, the claiming that an increase in agricultural taxation will further agricultural productivity is certainly one of the most inaccurate ideas on this subject. As a matter of fact, a) There can be vast social and psychological differences between the peoples of developing countries and even between the different strata of the same people. Heavy taxation, while creating a favorable income effect for some groups, may simply result in less incomes and increased poverty for others. Therefore, without scientific research on the economic and psychological characteristics of the people involved, it should not be right to claim that such a result may occur.

b) The low levels of agricultural productivity may be due to lack of knowledge, lack of productive inputs (fertilizer, seeds), and unbalanced land distribution, vast existence of sharecropping or tenancy practices besides those mentioned above and especially a lack of desire on the part of the human element to increase productivity as they do not see a strong relation between more work and more income. Without securing the means of increasing productivity (as in the case for the governments of many developing countries), to depend on heavy taxation in this regard could be simply inoperative and politically unfeasible. Let us assume that farmers have everything they need, that is to say, fertilizers, land, and other kinds of production means. Then if we accept that farmers of developing countries do not have the desire, in this case, to increase their revenues, and the only way to force them to work
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(4) Nicholas Kaldor, Report on the Turkish Tax System (State Planning Organization of Turkey, 1962), unpublished.
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more is to decrease their disposable incomes, then this result could be achieved simply by indirect taxes imposed on the commodities that the farmers generally use or, generally by making terms of trade more unfavorable for the agricultural sector. But, in developing countries, the bulk of the peasants are living in such poverty that they should have already enough incentive to increase their revenues, if it could be assumed that a designed increase in poverty could force peasants to work harder. If what Khusro and Agarwal assert is right, that is to say, if the disincentives for the Indian farmers are related with tenure and size ties and with the great number of families working on the same small plots (7), without eliminating these, to reduce further the disposable income of the farmers is anything but justice, political feasibility or productive.

c) In every developing country there exists unused productive capacity not only in the agricultural sector but in many productive units of the industrial and service sectors. Unused productive capacity exists in even much higher levels in developed countries (8). If heavy taxes could increase the productivity in the agricultural sector why should not they do so in non-agricultural sectors. And if such a relationship had been found between heavy taxes and increasing productivity it would be quite easy to develop countries, i.e., simply impose heavier taxes.

d) To expect a favorable income effect from taxation, taxes paid should be effectively differentiated according to taxable capacities (principally incomes, as broadly defined) of the economic units in the agricultural sector. Such a differentiation could be made only by an effective income taxation (or expenditure taxation). Wealth taxes (mainly land taxes), production taxes, even if based on potential yield of land, and other kinds of taxes if not based on an effective indicator of taxable capacity (such as incomes or


(8) The first five-year plan of Turkey has substantial information about the unused productive capacity in the industrial sector. A recent study suggests that nearly a half of existing capacity in American industry is unutilized: Monthly Review (New York, June 1962), pp. 88-92.
expenditures) cannot possibly be differentiated according to personal capacities. Therefore, in many cases, an increase in the tax burden by arbitrary tax means simply results in an excessive tax burden for some units and a very light burden for others.

e) To push, by heavy taxation, the productive units in the agricultural sector and not to do this in the other sectors is morally undefendable. Also, a tool which proved to be effective in a feudal order of a nineteenth century country (Japan) may very well be inoperative under the conditions of present political orders of the developing countries.

f) An increase in productivity and total agricultural production are not always followed by an increase in farmers' incomes. As a result of the price system, increases in productivity and total production may not create substantial increases in farmers' incomes, even if not decreasing them, and heavy taxes can simply continue to be heavy once they are imposed in spite of such increases in productivity and total production.

Therefore to assert that increasing the tax burden will increase agricultural production is not a scientific approach. The reason for low productivity in agricultural sectors cannot be correlated with a low tax burden. There are many reasons for low agricultural productivity and there is every reason that peasants living in sheer poverty desire an increase in their incomes, even without an increase in the tax burden to push them to be more productive. Therefore, the best way to increase agricultural productivity is to supply the necessary means, organization and education towards it, and to create the conditions whereby peasants could actually observe the relation between more work and a better standard of living. They will certainly pay the taxes. However, these taxes should be correlated with individual taxable capacities, and should not be substantially different from the non-agricultural sector. In any case, taxation may be everything but a blunt and arbitrary force which could be used to increase the productivity by increasing the poverty. The opposite of this is hardly an acceptable idea.
III. CHARACTERISTICS OF DEVELOPING COUNTRIES RELATIVE TO AGRICULTURAL TAXATION.

After mentioning the aims of agricultural taxation I think it is worthwhile to indicate the main characteristics of developing countries relative to taxation in the agricultural sector. These characteristics have led many authors of the subject to recommend tax measures for these countries different from those for developed ones. In this chapter, we will try to analyze these characteristics.

1) The bulk of the gross national product is created by the agricultural sector in developing countries. As a matter of fact, in many of these countries the industrial and service sectors are not well developed. As the calculations of Simon Kuznets have shown, the decline of the share of the agricultural sector in GNP and total wealth and the rise of the share of the industrial sector are two of the most general indicators of growth (9).

When this reality, that is to say, the agricultural origin of the bulk of the GNP exists then it becomes necessary to tax this sector for capital accumulation as well as for other economic policies. This is, no doubt, one of the reasons why agricultural taxation in developing countries is an important problem.

2) Low productivity and low per capita income exists in the agricultural sector. This situation is true for the developed countries as well as for the industrial sectors of developing ones. As Higgins indicates, it is surprising that in developing countries with predominant agricultural production in GNP agricultural productivity is much below the productivity levels of developed countries (10). And again, the larger share in GNP does not mean larger per capita incomes. In almost every developing country, per capita income in the agricultural sector is lower than in the non-agricultural sector (11).

The main reasons may be the following:

a) The bulk of the population is living in the agricultural sector. In many developing countries, the share of this sector in total population is very much above its share in GNP. Through the development process, the substantial migration out of this sector does not result in many cases in the reduction of agricultural production; the existence of very extensive disguised unemployment remains a fact (12).

b) Higher productivity occurs in other sectors especially in the industrial sector: The industrial sector is more capital intensive and more apt to adapt technological innovations. The industrial worker is subject to a better education. This situation results in more productivity and more per capita income in the non-agricultural sector (13).

c) Terms of trade among the sectors: Industry has more supply elasticity than agriculture. Through development, as the demand shifts towards non-agricultural products, the elasticity of


(11) In Turkey, the per capita income in the agricultural sector is one third of that in the non-agricultural sector. Time series show that this ratio does not change considerably through time. See: Turkish Ministry of Finance, Türkiye'de Vergi Yükü (Tax Burden in Turkey), Ankara, 1968.


demand also falls. But, more important than these, the workers in the industrial sector are better organized in many countries than are the rural workers and farmers. Better organization results in comparatively better wages and a downwardly inelastic wage. Therefore in many cases, the earnings of the service sector can be increased by institutional causes which may not result from any productivity increases (14). This situation affects the terms of trade between the sectors.

In any case, low productivity and low per capita income decrease the taxable capacities of the agricultural sectors of developing countries and make direct taxation a poor tool. That is why in many developing countries, it may be a more reasonable policy to increase the earnings of rural people by setting floor price levels, an increase in cooperation, direct subsidies and by other measures instead of increasing the tax burden on them.

3) Characteristics of the land use: In many developing countries, there exists an irrational land distribution, irrational for productivity as well as for income distribution.

As a matter of fact in many of these countries the land owned per capita is low, even though a small group of people owns the bulk of the land. There are many families without a plot to cultivate, and also sharecropping, tenancy and absenteeism are common practices. These practices end in ineffective land usage in parallel with the lack of knowledge, fertilizers and insufficient mechanization on the part of farmers.

Extreme differences in land distribution create extreme differences in income distribution. Such an income distribution makes necessary the taxing of the people of high income in this sector, with taxes based on clearly defined taxable capacities, but, the great number of economic units and their poverty also makes such

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(14) For example, it is statistically difficult to find a relation between the salary increases in government and productivity of government.
a taxation very difficult. Tenancy and sharecropping practices also contribute to this difficulty (15).

4) Cadastral surveys, means of communication and transportation: In many developing countries, cadastral surveys are not complete. This simply means that it is difficult to determine in many cases «who owns what». This situation, besides the practices of sharecropping and tenancy, makes it difficult to determine the earnings accruing from land use.

Again, in many developing countries, means of communication and transportation, such as roads, railways, telephones, etc., are in a very undeveloped stage (16). If the distribution of villages is wide-spread and if the country is mountainous and subject to severe winters, then reaching the people may be very difficult (17). All of these problems contribute to the hardships of reaching the taxpayers and of the taxpayers reaching the tax authorities.

5) Sociological aspects of rural life: It is a generally accepted idea that rural people have some sociological characteristics different from those of the urban population.

Hagen, by generalizing on these characteristics, differentiates between peasant and industrial societies. According to this author, in the peasant societies social mobility is very slow. There is an unsurpassable gap between the elite and the ordinary people. The family form is extended to a large family with definite disciplinary ties to it. The peasant is an uneducated person without any admiration for scientific action. For example, such events as the high rates of infantile death, flooding, and even famines are deterministic

(15) There is ample information on these subjects in United Nations, Progress in Land Reform (New York, 1964).

(16) One can see the extreme differences between developing and developed countries regarding the transportation and communication means by looking in a United Nations Statistical Yearbook.

(17) In Turkey, it is generally accepted that many villages in the mountainous and unproductive areas have been set up historically in order to evade the rioters and bandits and not under economic necessities.
forces which cannot be prevented in the eyes of the peasants. Therefore, peasants are generally irrational people without any entrepreneurial ability. Hagen, attempting even to show the psychological factors underlying these situations, indicates that economic growth can take place only when the dominant group is suddenly replaced by another with capability for fostering development (18).

A comparative study between two Turkish villages has very effectively explained the social differences which are related to differences of contact with modern technology. In a village which is very far from modern centers the observations go this way. «All people who by their mode of life, clothing, or speech are different from the villagers, including government officials... The villagers consider themselves in a strange place when they move two or three kilometers beyond their village. Within limits, the standards of riches vary according to the amount of land, number of farm animals, and size of the crops. The two or three families who own relatively large pieces of land are considered by the other villagers to possess wealth beyond anything in their own power to obtain... Except for those two or three men who own (to the villagers) these huge farms, the greatest sum of money the villagers can conceive is about $80 for women and around $800 for men. However, neither men nor women have succeeded in amassing such enormous sums of money in spite of their toil.» (19).

Besides the common sociological characteristics of the peasantry, it is quite possible that wide differences exist between different groups. In any case, agricultural taxation should be designed by taking into regard the characteristics of the rural people and should be accompanied by measures to have an effect on those characteristics that can be hostile to efficient taxation. If the bulk of the peasantry are living under feudal conditions and have the tradition


of paying taxes to landlords, it could be very difficult to extract funds from this sector without changing or affecting the feudal ties. The confidence and belief of the peasantry in the government mechanism, operations, and cadres will always affect the effectiveness of taxation. Therefore, agricultural taxation should be considered as one of the tools and targets of global social and economic planning and be correlated thoughtfully with other variables.

6) Characteristics of the tax systems: Generally, in developing countries the ratio between tax revenues and GNP is below 0.20. As the calculations of Harley H. Hinrichs have shown, for low income countries the major factor determining revenue/national income ratios is the degree of «openness» of the economy. Indirect taxes still dominate the middle stage of economic development; the decline in revenue deriving from external indirect taxes on foreign trade is counterbalanced by the rapidly rising internal indirect tax revenues (20).

Generally, income taxation exists in many developing countries but in some of them, agriculture is not subject to this taxation or if it is subject, agricultural incomes are determined by estimation methods. Therefore, as a rule, we can say that tax systems of developing countries are based on taxes not very well correlated with taxable capacities (if defined as equal to income).

Tax evasion is, as a rule, very widespread and is done generally by all income groups (21).

7) Administration: As a general rule, public administration in developing countries is accepted as «generally inefficient and corrupted».


There are not many studies analyzing the reasons for corruption and inefficiency on the part of the administration of a developing country nor pointing out clear cut methods to remedy them (22). Kaldor, as far as the tax administration is concerned, refers to low pay scales and advises the formation of an «elite» group elevated in esteem and pay scale so as to attract the best minds and talents (23).

Whatever the reasons for inefficiency and corruption and whatever the restraints that a political system can impose against the movements to sweep them away, it is necessary to improve the entire public administration in a country instead of tax administration alone. It is very surprising that a consistent strategy has not been created regarding the improvement of public administration in developing countries (24). Creating an efficient public administration is the beginning of economic and social development.

8) Political Framework: Large landowners in almost every developing country are a part of the dominant ruling group. Other parts of the ruling group have to live in cooperation or at least in agreement with this very powerful group. As mentioned above, the feudal ties between these owners and the rural people increase their status and power (25).


(24) However that is what I am trying to explain in one of my papers. My assertion is that the efficient staffing of the central budget bureaus and defining budgetary reform so as to include personnel reform and administrative reform, besides others, could be a good strategy in improving the public administration in a developing, as well as in a developed, country.

Any tax reform or agricultural reform may very probably be resisted and eliminated by this group. That is why T. Lynn Smith remarked that it is much easier to have a revolution in Latin America than a really effective land tax (26).

In any case, big land ownership is related with the private ownership system and is not much different from the big ownership of other estates or industrial complexes (27). Once one accepts private ownership, there is not anything to complain about. Large landowners are not alone in using a developing country's resources inefficiently and even governments may be a part of it. In many cases the resistance of large landowners to agricultural taxation, especially based on potential yield, comes from the claim that such a taxation will impose a very heavy burden on them. A taxation system similar to that in the non-agricultural sectors is more difficult to criticize. In many cases, many reform proposals for the agricultural sector are actually somewhat arbitrary methods to extract funds from the big landowners. The beliefs centering around the idea of the incapability of these people to make productive investments, to use resources effectively, and to their tendency towards ostentatious investment and consumption expenditures certainly are effective in shaping these proposals. However, as I mentioned above, this fact may be valid for other economic units also in many developing and developed countries. Therefore, tax reform should bring forward homogeneous tax measures so as not to be criticized by any group on the basis of arbitrariness and differential treatment from other groups. This should be one of the important rules on which any kind of tax reform would be based.


(27) Once a big landowner complained to me about it this way: «When a rich person buys a factory nobody says anything about it. When we buy villages, the people get angry. The problem is that villages are sold in the agricultural sector, not factories».
IV. METHODS OF TAXING AGRICULTURAL SECTORS OF DEVELOPING COUNTRIES

The agricultural sectors of developing countries as well as of developed ones may be «taxed» by deliberate policies as well as by actual taxes and duties.

One of the policies which can be used instead of actual taxation is keeping constant, or worsening, the unfavorable terms of trade for the agricultural sector. As a matter of fact, the economic, organizational and special marketing structure of the rural sector may create continuously unfavorable terms of trade. As a result of this, increases in agricultural production, in many cases, may not result in increases in farmers' incomes. Therefore, as mentioned before, governments, by taking into regard the relative poverty of this sector, may choose to increase the peasant incomes through subsidies, marketing boards, minimum price policies, etc., and by these policies, to try to push farmers to increase productivity and total production, instead of increasing the tax burden on this sector. Conversely, helping the peasants to increase their productivity and production by securing them necessary inputs and know-how and by not allowing them to have more revenue by failure to change the conditions creating unfavorable terms of trade, may quite well be a method in «taxing» the agricultural sector. This is what has taken place in the initial development phases of many developing countries. Certainly, if the rural sector is composed of rich landowners, the worsening terms of trade may not create substantial income changes in ratio to economic capacities of rich people so as to be important for their standard of living. But, keeping poor peasants in sheer poverty for a long period necessitates great political strength.

Inflation may also be another measure to «tax» the agricultural sector. If inflationary pressures do not result in price increases in agricultural products at least parallel to price level changes, the terms of trade between the sectors may worsen for agriculture.
In this regard, one should also accept that government expenditures are also important. In a theoretical example, in country A, if we think that the agricultural sector contributes 10% to government revenues, whereas the non-agricultural contributes 90%, and again if we think that there is not movement between the sectors, and government operations are directed to nonproductive operations in the urban sector, at least, for tax officials of country A, it is difficult to find a moral reason for increasing tax revenues from the agricultural sector.

Income and wealth distribution may play their roles in this respect. If again in country A, the bulk of rural people are living as workers or tenants (or sharecroppers) on the lands of big landowners and if these people cannot increase their incomes against the rising incomes of the rich landowners, and if the rich people direct the funds to investment or are taxed efficiently, this may give the same result as actually taxing the bulk of the people.

Among the actual taxes, land taxes are the ones which are used most in developing countries. They may be based on the land area with a uniform rate or on the "rent" or "capital" value of the land. There are huge difficulties in determining the values and areas and following their changes, even if the cadastral survey is completed. Therefore, some countries have resorted to self-assessment methods and to the threat of purchase by government if the assessment is made too low.

The land values and areas are subject to change in developing countries due to rapid migration and urbanization. As the authorities are not in a situation to follow them closely, there exist great discrepancies in many countries between the taxes paid and actual land values. In some countries, proponents of the already existing land taxes claim that such a tax can contribute to government revenues by compensating the low yield of income taxation in agriculture. There are people proposing a graduation in the land tax and so imposing a heavier burden on the land which is not used at a normal capacity (28). Land taxation certainly could be a revenue-securing device if it were a part of a general property tax.

(28) International Bank for Reconstruction and Development. The
However, a special kind of taxation proposal has attracted great attention: "Taxation based on the potential yield of land" (29). According to the proponents of this proposal, the potential yield of each plot should be evaluated and the tax should be geared to this yield. However, in some cases, potential yield has been replaced by "average yield" (30).

The main arguments behind such a proposal are these.

a) For development, it is necessary to increase the tax burden of the agricultural sector to finance the development of operations. This has been so in almost every developed country.

b) There is an extensive tax potential in the agricultural sector where income taxation generally is not applied.

c) The tax burden of agricultural taxation is low relatively to the non-agricultural sector which is taxed by income taxation among others.

d) In developing countries, there exists a very large unused production capacity in the agricultural sector. This capacity should be used as an instrument to finance development, to compensate the migration from agriculture and to create a food supply for growing population in cities. Therefore, tax amounts geared to potential yield could push the farmers to increase their disposable income, also penalize underutilization and result in better land distribution.

e) Income taxation is difficult to handle for the developing countries. Therefore, an arbitrary taxation is necessary for taxing agriculture.


(29) For example, Kaldor proposed such a tax for the Turkish agricultural sector. See Nicholas Kaldor, Report on the Turkish Tax System.

(30) The Turkish case is very interesting in this respect. When Kaldor proposed taxation based on potential yield, it created a great reaction and ended in almost naming Kaldor "a communist". But, when political conditions turned to be normal for big landowners they proposed an agricultural tax scheme based on "average" yield. Even this development shows the difficulty of discriminating between "average" and "potential". It is clear that big landowners do not desire, in the Turkish case, an efficient income taxation as this tool can be much more fund-extracting than an arbitrary taxation based on a correctly undelinite "average yields".
After indicating the ideas of the proponents of taxing the potential yield and leaving the discussions of a, b, and c to the next chapter, let me indicate some of the views against this kind of taxation.

a) Determining the potential yield for a developing country's administration under the present conditions of agricultural sectors is very difficult. In many of these countries, the cadastral survey is not completed. There exist other factors (lack of transportation and communication and others mentioned above) making such a determination and its collection more difficult.

d) Potential yield is a flexible concept and can change according to the species of crops, availability of inputs and know-how, mechanization, climate and so on. In each special case, it is very difficult to determine the level of these factors. In defining the potential yield of a plot, the level of know-how of a peasant, the availability of fertilizers and other problems are difficult in each case.

c) Especially in developing countries, agricultural production changes according to climatic conditions. Climatic conditions may affect different areas and different crops differently. Therefore, a tax geared to an assumed potential yield may put a heavy burden on some peasants and may be low for others. In any case, it is mostly probable that it creates a tax burden not just or at least parallel in many cases. It should be indicated that the use of statistical averages to determine future crops may have many pitfalls.

d) As mentioned in chapter 2, unused productive potential exists not only in the agricultural sector but also in the non-agricultural sectors. Then why not also in the non-agricultural sectors determine the potential yields and gear the taxation to these yields? Peasants are by no means alone in using resources unproductively. Unproductive investment or ostentatious consumption are not only the deal of large landowners. If taxation based on potential yield is carried out in the agricultural sector, then why should not it be applied in the non-agricultural sector, too?

e) Taxation geared to potential yield, if not collected «in kind» can push farmers to market more of their production more quickly. Although this is desired, it may worsen the poverty of the bulk of
the peasants. It makes the terms of trade unfavorable to agriculture, given the positive correlation between capital and increases in income in the non-agricultural sectors. In that case, the tax may put an unbearable burden on many peasants and may endanger the expected revenues. In such a situation, governments may be induced to resort to policies affecting agricultural prices. This, too generally, will end as budget deficits, if done through minimum pricing, subsidies or in other ways. Therefore, in such a case, it will be worthwhile to compare the expected budget deficits and expected net revenues of the tax.

f) Potential yield taxation has been proposed in many cases for countries where income is taxed in non-agricultural sectors. If a country applies income taxation in the service and industrial sectors, it is hard to defend another kind of taxation in another sector for equity principles of taxation and because it may be arbitrary to the taxpayers in this sector. Therefore, it is indefensible to propose different kinds of taxation which are based on different kinds of taxable capacity definitions and rates.

g) When one suspects the effectiveness of tax measures to eliminate production slacks, the only aim of such a tax is revenue-securing. But if the method of revenue-securing is not based on such a method as income taxation, that is to say, if it will include a great deal of arbitrariness, then why not apply other methods of taxation, such as indirect taxation? There is a possibility that skillfully designed taxes imposed on the goods consumed and utilized by peasants, may result in the same revenue collection. It will be very difficult to prove in that case, that indirect taxation is more arbitrary relative to taxable capacities than taxation based on potential yield.

h) To effect land distribution by such an arbitrary taxation is difficult to perceive. Once ordinary land taxes operate in this direction, and if the taxes become heavier than normal as they are presumed to be, then in many cases, it is very possible that they would exert a heavy burden on the poor peasants instead of rich landowners. They may even force these peasants to give up the land. In this case land would be redistributed from poor to rich.

Certainly, there are many other things to say about that kind of proposal. But in any case, this proposal is very much related
with an overestimation of potentials of taxation in solving the problems of agricultural productivity. If in a developing country there exist large areas not being used productively, the best thing to do is not to wait for the uncertain results of that kind of taxation on big landowners, but simply to effect the land reform, imposing a ceiling on land ownership. The way of increasing the productivity in the small plots area is to eliminate the disincentives accruing from the sizes of the lands, or tenancy and sharecropping practices and unavailability of the land, or tenancy and sharecropping practices and unavailability of the land, to supply necessary inputs and know how and to organize small units so that they can gain from economies of large scale and division of labor. If the peasants do not work in spite of the existence of these means, that is to say, if they do not desire to increase their revenues above what they now receive, why could not they do so as the people in other sectors?

In some developing countries, individual income taxation is applied. As R. Goode indicates, economists and tax reformers are inclined to look first to income taxes as the most desirable means of increasing total revenue or replacing harmful or ineffective taxes. This faith in income taxation is shared by a good many intellectuals and politicians in the underdeveloped areas, and a few of the countries have fairly elaborate income tax statutes. In most underdeveloped countries, nevertheless, net income taxes are a relatively minor source of revenue, and the income taxes on the books are discriminatory in application. (31).

Goode gives the following reasons to explain this:

a) Nonexistence of a predominantly money economy.
b) Illiteracy among farmers.
c) Nonprevalence of accounting records honestly and reliably maintained.
d) Nonexistence of a large degree of voluntary compliance.
e) Political conditions.
f) Lack of honest and efficient administration.

As our subject now is agricultural taxation, we will deal with income taxation in this sector. After indicating the above, it is possible to add a few items to the list as far as the difficulties of income taxation in the agricultural sector are concerned, such as: lack of organizational units, lack of communication and transportation means, the great number of peasants and therefore of prospective taxpayers, difficulties regarding the accounting of agricultural operations and determining the taxable units, difficulties in following the taxpayers and determining their incomes because of the very extensive practices of tenancy, sharecropping, etc., not based on contracts and, in some cases, movements of peasants and lack of cadastral surveys, etc. (32).

The difficulties coming from the lack of honest and efficient administration are certainly not easy to handle. When we take into regard the important expenditures that governments make in developing countries and their role in strategic and infrastructural investments, and social and economic regulation of the country, then we have to accept that an honest and efficient administration is necessary for development of a country. If such an administration does not exist, not only an efficient income taxation, but simply nothing else exists such as the nonexistence of an effective government spending, indirect taxation and whatever other taxation. An inefficient government simply means waste and certainly it is unnecessary for such a government to increase tax revenues if these revenues will be channelled to unproductive investments, to increasing the salary and number of useless bureaucrats. Therefore, a good administration is the beginning of everything and the duty of a social scientist is to show the ways of improving the administrations in developing countries, not simply mentioning the existence of it and so, may be, diffusing the view that an inefficient and corrupted government is simply a normal phenomenon for an underdeveloped country and that it should be taken for granted.

Political conditions are a similar problem. If wealthy groups

(32) In Turkey during an income tax audit in order to determine the areas owned by a big landowner an inspector had to use an automobile and its odometer. Certainly a lot of conflicts have arisen between the taxpayer and the tax authorities following the audit report,
have enough political power to block tax measures that they consider threatening to their position, then a social scientist should show a way out of it or at least simply refer to the writers who have shown a way out of it. If the wealthy group can block tax measures then they can also affect all kinds of government policies. In a country where the wealthy group is so dominant and backward, there is nothing to do but first to decrease the effectiveness of this group.

Therefore, in our conclusions, we will simply assume that the wealthy group of a developing country is not so backward as to block a normal income taxation, and public service is as efficient as it is in an average developed country. In the last chapter we will propose a solution to the problems created by the other barriers in the agricultural sectors of these countries towards an efficient income taxation.

There are certainly many other kinds of taxes which can be used to extract funds and/or products out of the agricultural sector or for some deliberate policies. We may make a list of these other taxes, not claiming to be comprehensive:

- poll taxes
- import duties, sales and excises
- marketing taxes
- transfer, gift and inheritance taxes
- labor tax
- permits, stamp taxes and duties
- government purchases with government determined low prices
- obligatory deliveries to government
- water and salt tax
- graduated faculty tax

(We are not going to evaluate these listed taxes because our purpose is broader. We shall set up a model to increase the effectiveness of general countrywide levies which are based on a homogeneous and improved definition of taxable capacity, e.g., a comprehensive income tax.)
V. THE ISSUE OF THE TAX BURDEN ON THE AGRICULTURAL SECTOR

It has been argued for some countries and from time to time that the tax burden on the agricultural sector is low compared to that of the non-agricultural sectors. The main reasoning or observation behind such an argument is, in many cases, non-existence of income taxation in the agricultural sector.

Recently, an Indian author, Gandhi, by some elaborate calculations, has concluded that he has shown the relative heaviness of the tax burden of the non-agricultural sector compared to that of the agricultural one in India (33). Gandhi, by taking taxable capacity as the function of per capita income minus subsistence requirements and as the function of other variables such as per capita income, per capita wealth, and income and wealth distribution, and by taking into regard the taxes actually paid and the tax incidence, and by adding «progressivity» to his model of comparison, arrives at the conclusion that «the agricultural sector of the Indian economy is being inadequately taxed in comparison to the non-agricultural sector and that the tax burden on the agricultural sector should be raised in the interest of intersectoral equity and to reduce the outflow of funds from the non-agricultural to the agricultural

sector." (34). Gandhi also finds this inequality between the parallel income classes of these two sectors (35).

There are many assumptions that strongly affect the results in this study. By leaving aside the problems from the degree of accuracy in national accounting and therefore of per capita incomes, income, wealth distribution, dividing the incomes and taxes paid between sectors, computation and correctness of assumptions about tax incidence, we can easily say that changes in the figures of even the subsistence requirements or making the progression «increasingly progressive» can change all the results. It is futile to say that a «decreasing progression» is a common feature of income taxation and there is not any reason why the tax system should not be increasingly progressive once we take all taxes paid and relate it to per capita incomes.

Studies on tax burden differences among sectors in other countries do not give parallel results.

More important than this, it is necessary to say that inter-sectoral equity is a new concept. Equity of taxation is a concept which applies to individuals or taxable units. Progressivity of taxation would be related with the individual differences regarding the taxable capacity. Therefore, equity of sectors does not have any meaning as any kind of tax method designed to increase equality between sectors will act differently on individuals. Making two sectors nearer equality is just a meaningless concept against making the individuals nearer equal regarding the taxation.

The same problem can be approached differently. It is not possible to give up individual equality in order to secure equality (however defined) between sectors.

To illustrate the situation with an example, let us take two groups with ten people each, and let us think that as a result of our calculations we have concluded that the tax burden of one of the groups is higher than that of the other. Tax burden is calculated as

the ratio between average tax paid and the individual taxable capacity, however defined. With such a conclusion, can it be advisable to apply the taxes which are not related with taxable capacities and therefore not certain as far as their effects on each individual is concerned? In such a case, the heaviness of the tax burden of one of the groups may result from one or two individuals paying very high taxes and others not paying taxes at all. Therefore, the only thing to be done is to compare the burdens of twenty individuals, and not to compare the tax burden of the two groups.

A similar point is this. Conclusions based on the heaviness of the tax burden of the non-agricultural sectors cannot determine that this sector is contributing as much as it should do to the financing of development. Great differences between individual tax burdens may make it just and feasible to increase tax burdens of many individuals in these sectors.

Definitions of tax capacities should not be different from sector to sector. If in the non-agricultural sectors, people are mainly paying taxes based on their incomes, then in the agricultural sector tax capacity should be determined in the same way. Treating the sector differently for tax purposes is not acceptable under taxation philosophy. The application of income taxation poses many difficulties in the non-agricultural sector, too, and these difficulties do not result in giving up this kind of taxation. But, if a country decides not to base its main revenue method on the concepts of horizontal and vertical equity, and decides to collect revenues through direct and indirect taxation which are mainly random in their incidence on individuals, these methods of taxation should be homogeneous in all sectors.

Once income taxation is applied in one of the sectors, then it becomes imperative to apply it in all the sectors because of the organic structure of income taxation. If the flows of agricultural products cannot be determined efficiently through the documentation which income taxation makes necessary, it is almost impossible to determine the revenues deriving from manufacturing and trading of these products. When we leave the major sector out of
income taxation or apply it in this sector very partially and by estimation methods, then it is not possible to make income taxation a reality in the other sectors, too. In a country where the flows of agricultural products cannot be followed closely, income taxation may result in an administration under which each taxpayer pays whatever he deems necessary.

Therefore, it seems to me that tax burden comparisons between sectors are irrelevant. The problem is not making the sectors equal regarding taxation but making each taxpayer or individual with a taxable capacity equal however we may define the «equality». This is not something impossible even in the agricultural sector of developing countries provided the subject is studied with a broader viewpoint.

The problem of financing economic development is also a controversial issue. It is certain that agriculture should contribute to economic development by more saving and more production. But, the countries that developed did not create economic development simply by squeezing more funds and production out of the agricultural sector. The agricultural contribution can be only one of the factors necessary for economic development. For example, without an effective government which can handle the problems of growth efficiently, and without a skillful entrepreneurial group in the private sector, increasing the burden of the agricultural sector may result in a larger inefficient bureaucracy and a better standard of living only in the non-agricultural sectors. The problem is that in a developing country, agriculture may be contributing enough for economic development but this contribution may not be associated with enough impulse towards development in other parts of the economy; it may simply be wasted.
VI. TOWARDS A BETTER THEORY OF AGRICULTURAL TAXATION IN DEVELOPING COUNTRIES

When one closely looks at the agricultural sectors of developing countries, one will easily observe the great number of self-employed there. As a matter of fact, the great number of people or families in this sector are productive units by themselves and self-employed either because of the ownership of small land plots or because of the sharecropping and tenancy practices. During economic development, as the share of the agricultural sector decreases, the self-employment also decreases. One of the most important indicators of development is the increase in the number of joint ownerships and big institutions (like corporations, universities, funds, etc.) in the non-agricultural sector and the increase in the number with employee status (36).

Therefore, one of the factors making income tax applicable in the developed countries is the prevalence of joint and big ownership and employee status. In the case of large firms, tax evasion becomes more difficult as the management, accounting and other services are carried out in different compartments and an unlawful act necessitates the compliance of many people. Also, the direct benefit from a possible tax evasion, in many cases, may not be very big for

(36) Simon Kuznets, op. cit., pp. 186-188.
a manager as he is a salaried employee or as the profits are divided among many owners. For tax purposes, there is a contradiction of benefits between an employer and an employee. An employer always wants to decrease his tax liability by correctly reporting the wages and salaries he has paid especially in the case when withholding tax does not exceed the probable increase in income tax because of not reporting those wages and salaries.

Certainly, these are not the only reasons making income taxation effective in developing countries. But certainly these factors, that is to say, growth in joint and big ownership and increase in the numbers with employee status are important contributors. When an important share of the production distribution and spending is documented, then for the remaining parts of the economy, tax evasion becomes more difficult and even impossible. The growth of the public sector and spending is certainly another contributor as documentation of this spending is compulsory.

The great number of self-employed and small proprietorship is the main reason for the ineffectiveness of income taxation in developing countries. Also, a partial income taxation applied to large landowners is doomed to fail, because:

a) land can easily be subdivided among the family members in order to evade its application;

b) in many developing countries, the cadastral survey is not complete. In order to determine the limits of large landholdings, one should also determine the small plots surrounding the large plots, to prevent the attribution of product to surrounding lands in order to evade the tax. This is too difficult if all economic units are not made subject to the tax.

c) Most important of all, the bulk of the agricultural product, in many cases, is produced in small plots. Therefore, exempting all of these plots from income taxation may be hindrous to the desired economic effects such as providing products for the growing cities, increase in total saving, etc. Besides this, having the major portion of production without documentation, may simply result in an
ineffective search for these products and for the revenues deriving from them. In that case, it becomes also impossible to differentiate income taxation among specific objectives.

Therefore, income taxation and documentation should cover all the agricultural sector. When one thinks about the high illiteracy rates, lack of communication and transportation and even the unavailability of material necessary for making documents, such an idea seems at first unrealistic. However, as we mentioned above, if we leave the bulk of the agricultural sector, the largest sector in almost very developing country, (in other words, if a great majority of production is without documentation) then the application of effective income taxation is close to impossible in the non-agricultural as well as in the agricultural sectors. Therefore, peasants should document their sales at least even if they are exempt from income tax. The difficulties and even impossibility of such a practice may be compensated for in only one case and that is the subject of our next chapter.
VII. ORGANIZATIONS AND TAXATION IN THE AGRICULTURAL SECTOR

By simplification, we can categorize the agricultural organizations under four headings 1) peasant farming, 2) large agricultural estate farming, 3) state farming, and 4) cooperative farming.

Within the context of developing countries, large agricultural estate farming exists in many places. Working with an extensive use of capital and hired manpower, this kind of farming, mainly including the plantations of some agricultural products and industrial raw material, is convenient for high productivity and efficient taxation. They are generally operated by foreign capital interests. Whatever their effects upon the remaining part of the agricultural sector may be, such as those summarized under the «duality» concept, these big units are very easy to handle for tax purposes, because they are few in number and their records are better. These units, if they comprise the bulk of the agricultural sector, certainly contribute to the effectiveness of taxation in the other parts of the agricultural sector as well as in the non-agricultural ones, because they document their purchases, sales and other transactions. It is futile to indicate what kinds of uses «state farming» can provide for taxation purposes. Therefore, without mentioning them, we come to peasant farming.

Certainly, the most important barrier for effective taxation in the agricultural sectors of developing countries is, as mentioned in

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the previous chapter, the extension of small peasant farming associated with high levels of illiteracy and lack of communication means and others. Therefore, it seems to me that the only way of compensating for the difficulties of taxation in the agricultural sector of developing (as well as in some developed) countries, is to shift from small peasant farming to large farming by setting up as many cooperatives as possible in the agricultural sector, and also by organizing this sector as extensively as possible, by other means.

The subject of this study is not «agricultural cooperation», but to point to the relation between effective taxation and agricultural organizations. Therefore, we will mention some of the most common forms of organization. Before this, it is worth mentioning that agricultural cooperation has been generally welcomed as a step toward agricultural development of developing countries but could not be effected because of ineffective administrators, sociological and psychological traits of rural people and many other factors (37).

One cooperative form is collective farming. Its best examples are the kolkhoz in the Soviet Union, the kibbutz in Israel and the jido in Mexico. In this kind of cooperation, communities of members own land and other assets. Whereas in the Soviet Union members can have small private plots, this is not the case in Israel. Again, while in the Soviet Union, for the distribution of profits «the work done» is taken as somewhat essential, in Israel, it is distributed according to the need.

Another kind of cooperative which may be more appropriate for the developing countries with a «private property system», is an agricultural organization wherein cultivators of an area voluntarily associate together, pool their individual landholdings for purposes of cultivation and manage the whole farm as one unit under an elected management. The individual ownership of land is, however.

(37) In this respect see Margaret Digby, The World Co-operative Movement (London, Hutchinson's University Library, 1950); United Nations, Rural Progress through Cooperatives (New York, 1954); and A. M. Khusro and A.N. Agarwal, op. cit.
retained, the private property of the ownership dividend in proportion to the land (and sometimes other assets) contributed by him. Each member working on the farm receives wages at stipulated rates for the work done, and here the quantity as well as the quality of individual work is taken into account. After deducting the wage bill and other costs and contractual charges like interest on capital from the sale proceeds, gross profit is arrived at. A part of gross profit may be withheld for the building up of reserves, and the rest distributed among members generally in proportion to the lands and other assets submitted. Thus cooperative farming essentially is a system wherein there are individual ownership and joint management of land.» (38).

Another kind of cooperation may exist for marketing purposes. Sales cooperatives are that kind of organization which is used to market the products for most favorable revenue. It can generally include processing, transportation, opening and operating sales establishments. In some cases, they comprise all the products of the members whereas in other cases they are formed for a definite product. As a general rule, members are obliged to deliver all of the products involved to the cooperative once they become a member. Sales cooperatives, in a sense, try to perform the function of mediators between producers and ultimate consumers and therefore obtain a share in trading revenues in favor of their members and also increase the supply elasticity of agricultural products by some other methods, besides marketing.

Credit cooperatives, as another kind of cooperation among farmers, are a kind of cooperative banking. The main business of cooperative credit is to combat usury by giving cheap credit.

Certainly, these are not all the ways of agricultural cooperation. Cooperation among farmers can be carried out for the use of machines, providing for and purchasing inputs, irrigation, building and other targets. Even consumer cooperatives can be set up among farmers which provide consumer goods cheaply. Cooperatives can

include more than one target. For example, a collective farm can act as a consumer cooperative, too.

It is not difficult for anyone who knows what tax administration is, to realize the uses of the collective farms; but as they are very rare outside socialist countries, it will be better to note the needs of «joint farming based on individual property» for tax purposes:

1) Such cooperatives are to have central recording with a record of each peasant’s income and property. In many cases, peasant income may be in kind. But, as the cooperative recording will show the amounts of product distributed to each peasant, it is not difficult to define them in monetary terms. Therefore, cooperatives will maintain records for the members. This kind of cooperative, by efficiently separating wage, return to assets, and production and individual consumption will help solve the severe problems of accounting in determining the definition of incomes of individual peasants, due to difficulties in separation of wage elements in the case of family workers on the same plot, and the difficulty in separation between the production and individual consumption.

2) Cooperatives, by recording each peasant’s land can contribute to a practical cadastral survey and make clear what are the lands of peasants surrounding the cooperative area.

3) This kind of cooperatives will document their sales and increase the effectiveness of policing the incomes derived, either by trading or manufacturing, from their sales. They will also document their purchases from the non-agricultural as well as the agricultural sectors. Therefore, they may contribute to the effectiveness of income taxation.

4) Cooperatives, by bringing peasants together, will also increase the effectiveness of educational and propaganda activities relative to taxation and decrease the number of the units that tax authorities must contact.

5) The production of cooperative areas can be effectively used for estimation purposes of the products of the areas outside the cooperative.
6) One of the most important aspects is that cooperatives can secure the means for in-kind taxation if the monetization in the agricultural sector is not complete.

Certainly, these are only some of the uses that cooperatives can be for taxation purposes. It is quite possible to enlarge this list.

In any case, it is quite possible that some peasants would not desire to participate in the cooperatives. In that case, the best thing to do is to tax these peasants by taking into regard the production of nearby efficient cooperatives, during audits. Such a move will push these peasants either into participating in cooperatives or into increasing their productivity. For the purposes of estimating the incomes of large landholdings for audit purposes (it is more possible for large landowners to have their own record keeping) the indexes of production of the cooperatives will be very useful.

Whereas cooperatives contribute to the efficiency of taxation, taxation can contribute to the cooperation among farmers, either by giving incentives or financially pushing them to join cooperatives.

Sales cooperatives will also contribute to the taxation administration especially if they are so comprehensive as to cover all the products of the members. The records of credit and other kinds of cooperatives may be very useful. Creating a relation between government credit and cooperatives and other kinds of help from the government side, will certainly contribute to the extension of cooperation among farmers.

Cooperatives are not the only kind of organization that could contribute to the efficiency of taxation in the agricultural sector. Some other organizations which can be very useful in tax administration are the following:

1) Unions of farm workers related to social security measures: To organize farm workers in unions and set up social security organizations' for rural workers as they exist in many developing countries, for industrial workers may be very helpful in determining the wages paid. When social security is involved employers
also generally pay for it and workers do not desire that the wages paid to them be kept secret as the social security benefits could be proportional with the wages received.

2) Farmers unions: These unions which are established to help in solution of the problems can make some record keeping for lands, and other properties of the members, mechanization, price movements, etc.

Besides this, a general educational campaign and propaganda activities could be very helpful for taxation purposes. Agricultural extension activities, by increasing the knowledge about the inputs, outputs and assets, will certainly contribute to the effective imposition of taxation.
VIII. CONCLUDING REMARKS

Taxation is not the only way of squeezing funds and products out of the agricultural sector. There are many ways for it. Also, indirect taxation, (especially some excises on the commodities consumed extensively in the agricultural sector), import duties, property taxes and many other kinds of taxes could be used for this purpose.

But, a country can decide to use a tax means which is most effective and based on taxable capacities of the taxpayers and differentiated for incentive purposes, redistribution of income, securing minimum living standards and other social and economic goals. Such a taxation, as generally agreed is income taxation (or expenditure taxation). All the other tax means are almost randomised as far as their effects on individual tax capacities are concerned; income taxation could effectively be handled for the purposes of different goals and individual effects.

In many developing countries, income taxation is already being used, however ineffective it may be, and one of the properties of income taxation is the necessity of its being country-wide. Once a sector or a part of the country is exempt from this tax, it is very difficult to make it a «real income taxation» in the other parts of the country. Besides this, use of income taxation in a sector while not using it in another is something inappropriate for any tax system.
Many authors stressing the imposibility of applying income taxation in the agricultural sector (sometimes also in the non-agricultural sector) of developing countries, advise some arbitrary methods for taxation in the agricultural sector. These authors, whereas unanimously indentifying the difficulties of the application of an improved tax means, could not see that there exists a way of compensating for these difficulties.

The relation between the number of effective organizations and taxation is so clear and may not be a big discovery. But the problem is that income taxation could be used even in the agricultural sector of a developing country if it is taken in the context of another tool which is generally accepted as the best way of increasing agricultural productivity, that is to say, agricultural cooperation, and if its application is thought to be a tool and a target of countrywide socio-economic planning.
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