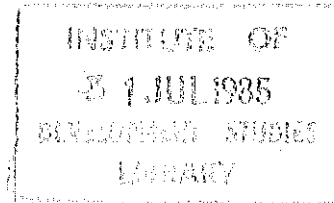


*Lectures in Development Economics*  
No. 4



**Mahmood Hasan Khan**

**Lectures on  
Agrarian Transformation  
in Pakistan**

PAKISTAN INSTITUTE OF DEVELOPMENT ECONOMICS  
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Dr. Khan's main research and professional interests lie in economic development (with emphasis on agriculture); planning and project evaluation; farm efficiency (by size and tenancy); land tenure and tax systems; rural poverty; income distribution; and agricultural policy.

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## INTRODUCTION TO THE SERIES

The purpose of this new Series is to create useful knowledge about development economics and to disseminate it widely. It is not possible to prescribe exactly the topics that will be discussed in this Series. Indeed, it would not even be desirable to do so because this subject is still developing. The mystery of the development process is not yet fully understood. The days of chivalry, when economic development was seen as simply a function of physical capital formation, are gone. The importance of such factors as human capital, education and religion as determinants of both the rate and the composition of economic growth is now gradually recognized. And then there are the efforts to understand more clearly the relationship between economic growth and income distribution. In this connection, the vital role of structural reform is also being realized. The practical (social and political) requirement of alleviating the incidence of absolute poverty has brought to the fore the key role of agricultural development. Furthermore, there is now a greater awareness of the importance of endogenizing the demographic variables in order to understand fully the problem of underdevelopment as well as the many ways of solving it.

In direct proportion to the comprehension of these issues, the intellectual fashions have changed among economists. And there are no signs – a healthy sign, of course – that economists will remain far behind ladies in their love for fashion. As such, we have left it to the contributors to this Series to decide on the topics of their lectures. And, yet, it is to be expected that economists, as if guided by an ‘invisible hand’, will select areas of enquiry that are most relevant not only theoretically but also for practical policy making.

The contributors to this Series are all members of the Advisory Board of the Pakistan Institute of Development Economics (PIDE) and of the Editorial Board of the *Pakistan Development Review*. The visits of these outstanding economists have been made possible by a generous grant by the Ford Foundation, which is administered by the Institute of International Education (IIE), New York. It is to be hoped that the success of this Series, which we can predict with certainty, will lead to greater financial support from the Ford Foundation and other donor agencies. Even more important is the 'fact' that these contributions will serve the cause of knowledge formation in an area where its marginal productivity is most likely to be optimized.

The present lecture by Prof. Mahmood Hasan Khan is the fourth in the series, but the second lecture funded by the Ford Foundation. Prof. Khan, a member of the International Editorial Board of the PIDE, is one of the most eminent exponents in the general discipline of Agricultural Economics. It is in this area that his intellectual fertility has been at its best. The two lectures reproduced here, along with the lively discussion that followed, should be of great interest to both economists and demographers and also to policy makers. It is hoped that this publication will be read with interest by the concerned social scientists throughout the world.

*Editor*

## INTRODUCTORY REMARKS

*by*

Professor Syed Nawab Haider Naqvi

Professor Khan and distinguished guests:

It is my great pleasure to welcome you all to the fourth lecture in the Series. You will recall that the first one was delivered by Professor Fritz Machlup. The second lecture was by Professor Ismail Sirageldin of Johns Hopkins University. The third one, quite recently, was by Professor Gustav Papanek of Boston University; and now is the turn of Professor Mahmood Hasan Khan to deliver his 'goods'.

Professor Khan is well known in Pakistan for all that he says and stands for. He has been coming here almost every year. Some say that he is more in Pakistan than in Canada. Being a 'rational' man, Professor Khan must have found the 'optimum' solution for his location problem. All I wish to say is that what is good for the goose is also good for the gander — of course, by no means implying either that Professor Khan is a goose or that I am a gander. This is good for the society as well because by being close to the soil, which is essential in the case of agricultural economics, Professor Mahmood Hasan Khan has made sterling contributions to our knowledge of Pakistan's agriculture.

Our purpose is to try to induce distinguished scholars through all possible means — of course, excluding 'unfair' ones — to create knowledge in the general area of development economics which, to my mind, is still developing and has not reached its 'steady state'. The complexities endemic in development economics are even greater in the case of agricultural economics, because it is an area where an economist must



really know the 'reality' on the ground. A detailed knowledge of 'facts' is essential before an agricultural economist proceeds to make generalizations. Without a firm knowledge of such 'facts', one can make very serious analytical mistakes. For the same reason agriculture is a treacherous territory, where one can easily be swallowed by the quicksand of reality, which if 'seen' with the bare eyes of the beholder is bizarre and confusing. The problem for an economist is to find the optimal 'distance' from reality in order to model that reality. It is owing to the failure to keep this distance that many agricultural economists turn, through some Kafkaesque metamorphosis, into non-economists, with their writings degenerating into mere catalogues of facts, sans analysis. They may be holding, so to speak, a mirror to reality in the Shakespearian style, but they certainly are not economists. I am happy to say, without fear of contradiction, that Professor Khan belongs to the class of those distinguished agricultural economists who at once know the reality on the ground and still keep sufficient distance from the reality to be able to formulate valid generalizations from what they observe with the eyes of a social scientist.

In introducing him I would refrain from going into the details of his multifarious activities, both curricular and extra-curricular. At times, it appears that his extra-curricular activities outweigh his academic ones, but when you see him working in an academic session then you would say that his academic activities outweigh his extra-academic activities. This shows at least that he is as good an extra-academician as he is as an academician. He has not explicitly stated when he was born, but has told us that he got his Ph.D. in 1966 from the Netherlands. He is Professor of Economics at Simon Fraser University in Canada, where he has been teaching since 1966. His students tell me that he is some kind of a Saint-Simon to his students, looking after even their small problems. He is at the same time a strict teacher who exacts from his students all that they are capable of offering.

Professor Khan has published widely. He has written three books, of which I shall speak briefly in a minute, and has published a lot of articles in journals of international repute like the *Quarterly Journal of Economics*, *Economia Internazionale*, *Population and Development*

*Review*, *American Journal of Agricultural Economics*, *World Development*, and last, but not the least, the *Pakistan Development Review*. He has also been associated with governmental and non-governmental agencies, in particular with the Planning Division, Agricultural Prices Commission, Applied Economics Research Centre (AERC) at the University of Karachi, and the PIDE, with the last-named institution as a member of the Editorial Board of the *Pakistan Development Review*. He has been a referee for several journals, such as the *American Journal of Agricultural Economics*, *Economic Development and Cultural Change*, the *Pakistan Development Review*, and the *Pakistan Journal of Applied Economics*.

A scholar is best introduced in terms of his main ideas and contributions, particularly his seminal contributions. I would not discuss all the papers which he has written but shall talk only about his three books which are fairly reflective of the evolution of ideas that Professor Khan has gone through since 1966. His first book, *The Role of Agriculture in Economic Development – Case Study of Pakistan*, was published in 1966. It was his Ph.D. thesis, and it was considered good enough to be published with a Foreword by Professor Colin Clark, who at that time was regarded as one of the high priests of development economics. In that book he was mainly concerned with the rather classical way of looking at agriculture – agriculture acting as a generator of surplus that finances industrialization, and also agriculture seen as a homogeneous entity. We then find him holding in his hands the *Economics of the Green Revolution in Pakistan*, published in 1975. Here we see the beginning of many of the ideas that Professor Khan is elucidating now. If I were to summarize the main thesis of this book in a rather light way, it would be that the Green Revolution has not, in fact, turned out to be as green as some thought it to be, and that it could have been made much more green if only the agrarian structure had been the ‘right’ one. Here “structure” is seen as a strategic factor conditioning the production possibilities of agriculture, which, incidentally, also highlights the importance of agriculture as a social unit as well as a political unit.

His latest book specifically addresses these particular issues and bears the sombre title *Underdevelopment and Agrarian Structure in Pakistan*. It shows that a faulty structure may have compromised the

production possibilities of agriculture in Pakistan. In this book, and in his subsequent articles – especially the one published in the *Pakistan Development Review*, namely, “The Political Economy of Agricultural Research in Pakistan” – he depicts the ‘true’ nature of Pakistan’s agriculture. Here he is not taking a narrow or, what he calls, “technocratic” view of agriculture. Instead he takes a broader view of it in which the social, ethical and historical forces are all taken into account with a view to understanding the agrarian structure and its significance for economic development.

His main contributions to agricultural economics are, of course, numerous and contain quite a few elements of ‘surprise’, which, as they say, is the measuring rod of the quality of scientific contribution. Measured by that yardstick (or rod, if you prefer) some of his writings do qualify as ‘original’ contributions. His first such contribution, as I have already pointed out, has been a study of the anatomy of agrarian structure in Pakistan, with a view to analysing its impact on the possibilities of agricultural growth. He has identified the agrarian structure as a “differentiated” structure consisting of 3 layers: one is the feudal agriculture, the other is the peasant economy or peasant agriculture, and the third is the capitalistic agriculture. In his last-mentioned book, he saw the contours of agrarian structure in agriculture. It appears that having seen these contours in all their bareness he has been enthralled by them and appears to be in a hurry to attempt an escape. He shows how a predominantly feudal structure has changed very slowly over time into a capitalistic mould – or, more accurately, a feudal-capitalistic mould. Whether this evolution has been good or bad remains to be seen because the rural poor, who have been groaning under the yoke of the feudal system, may have to groan even more under the capitalistic system. As things are, they are being elbowed out from the peasant agriculture where they at least had the satisfaction of owning some land and also from the feudal agriculture where they are just serfs.

I would not go on. I think I have already taken the ten or fifteen minutes that I always take to introduce the speaker. If, in the end, I were asked to summarize Professor Khan’s main concern, I would say it is this: while it is true that the bell has been tolling in agriculture, it has

in fact tolled for the rich and not for the poor. Unless it tolls for the poor we should not hope much from agricultural change in terms of its welfare-raising potentialities. With these few words, I would request Professor Khan to commence his lecture on "Agrarian Classes".

*Lecture I*

AGRARIAN CLASSES

*by*

Mahmood Hasan Khan

Professor Naqvi, Dr. Sarfraz Qureshi, and distinguished guests:

I am honoured to be here today before you. Before I commence my formal responsibility, I must respond to some of the comments that Prof. Naqvi has made. I am grateful to him that he did not divulge to you the year I was born because that is fortunately different from the actual year of my birth! Secondly, besides the institutions he has named, I have had the privilege of association with several other institutions in this country and elsewhere, particularly the Agricultural Development Bank of Pakistan, the USAID, the Canadian International Development Agency (CIDA) and the Middle East Technical University in Ankara, Turkey. These associations have given me a great opportunity to learn, study, and observe events, processes, personalities, and so on, some of which will hopefully be reflected in my submission to you.

Much as I am honoured to be here today, I am quite conscious of the responsibility that this opportunity has imposed on me. My hope is that I shall accomplish my modest and limited aim, which is simply to agitate your minds on some issues of interest to researchers and policy-makers alike. You may find the method of analysis somewhat unorthodox, but I hope it is refreshing. I would also want you to travel with me with broad brush, looking beyond the tip of your nose, indeed

looking much beyond the limited horizons of today. Your comments during the journey and at its end, if I survive until tomorrow, will very much enrich my knowledge and experience. So let us begin.

My plan in the presentations of today and tomorrow is to analyse and interpret the nature of the agrarian transition in Pakistan, with particular emphasis on the sources of this transition and the likely direction which it is taking. There are, at the end, several policy implications, which I would like to submit to you. Today I shall discuss the evolution of the agrarian structure and the nature of the transition. Tomorrow, I shall draw your attention to the sources of the agrarian transition and some policy implications. I hope you have with you charts and tables, which I would use in the discussion that follows.

I shall follow first a somewhat structured text. I shall digress from the text where I think a point needs to be elaborated or clarified, but some confusion I shall deliberately leave for the discussion that will follow, and you will find a lot of that as we move along. I hope that in the discussion a bit of humour will stay with us, so that we can really make discourse against the popular perception about economics as a dry, drab and colourless profession. You will find a lot of colour: some of it, I hope, in my presentation, and some in the discussion that will follow today and, if we are still here, tomorrow.

The historical role of agriculture in the process of development is well known. It provides surplus of output and manpower to initiate industrialization. Development is initially fuelled by increased agricultural productivity and the transfer of surplus for profits and capital accumulation. This is something that is well distilled from the history of almost all societies which have economically developed. It is equally valid today. Rapid development of the forces of production – and by forces I mean mainly land and labour in agriculture – is thus the most important task for an underdeveloped country. It is also true that as the forces of production develop, they bring about changes in the social relations of production. And I emphasize the social relations of production. In a predominantly rural society, the agrarian structure undergoes

a process of class differentiation.<sup>1</sup> The emphasis here is on class in which are embedded the seeds of uneven and unequal development. A study of class formation and agrarian transition should help to identify the nature and direction of the process of development in an underdeveloped country. Development implies capitalistic development as long as the ownership of means of production, like land and others, is in private hands. So, here I am making reference to capitalist development. It is against this background that I propose to present before you the situation in Pakistan.

The agrarian structure in Pakistan is highly 'differentiated', characterized by asymmetrical relations between direct producers and those who own and control the means of production, particularly land and capital. The process of class differentiation under way in Pakistan is a manifestation of capitalist development of agriculture, created by the forces of markets and technology and buttressed by public policies. There are two related issues here. First, I shall try to develop a typology of peasantry in Pakistan, using the criterion of unequal endowments of land and labour for class differentiation. This is the starting point for typology, or the theoretical underpinnings, if you wish. Secondly, I analyse the process of agrarian transition towards a capitalistic agriculture, with particular emphasis on the forces hastening this process.

Now, a few words here about the so-called "facts", empirical evidence, which I shall be using in order to reinforce my arguments. Since at each stage of my argument I plan to use empirical evidence, I should point out here the problems I, like others, have encountered in making use of the available, mainly official, data. I am saying this in the hope that, since there are some policy-makers in the audience, a word will go to them about the problems that a student like me faces in Pakistan. The usual caveats about the quality of almost all the published and unpublished data apply in Pakistan as in any other underdeveloped country. Further, the decennial censuses of population and agriculture and the periodic national surveys provide no direct information on farm households on the basis of ownership and use of land. Then there are no

<sup>1</sup>I will define these terms as we move along.

satisfactory data or estimates on the number and status of the landless agricultural workers. I had to go through many iterations, and my guess is probably as good as yours. Finally, we have not found, at least for my purposes, complete and consistent data set for each of the four provinces of Pakistan, namely, the Punjab, Sind, Baluchistan and the NWFP. I have, therefore, generalized on evidence mainly from Sind and the Punjab and, occasionally, from the NWFP. It should be noted that the Punjab and Sind, which constitute the Indus Basin, contribute over 80 percent of the national agricultural output, and a vast majority of farms are also located in these provinces.

Let us now look at the nature of what I have called the differentiated agrarian structure. But before I do this, a word is in order on biases in social and economic theories. I must make my bias quite explicit, unlike some of the positivists who keep on asserting that there is such a thing as scientific, objective social science. The neo-classical paradigm rests on a world-view in which the individual makes choices freely and independently among alternatives for the best outcome in economic relations with others. Development is then a market-adjustment process in which the economy tends to move, guided by the Smithian Invisible Hand, from one Pareto optimal equilibrium to the next, signifying a move towards a 'higher' level of welfare. It is within this framework that the various tenancy relations on land have been explained. However, the theory has little explanation for the coexistence of a variety of production relations or tenurial arrangements in agriculture. It is still less suited for explaining the agrarian transition which historically an economy undergoes. So, an alternative paradigm, which I prefer and which is close in many ways to the Islamic concept about the individual, is based on the premise that the individual is neither completely independent nor free but acts as a member of a group within a complex set of interrelationships. Individual choices are made only within a social context. With this premise, I also adopt a materialist conception of history.

The dialectical method then provides a satisfactory tool for understanding the historical process of differentiation of peasantry or class formation and the agrarian transition to capitalism. I use this method to



interpret the agrarian transition in Pakistan. I use the historical method, because the concept of class formation is central to an understanding of the tendency of a precapitalist, feudal or peasant, agriculture to transform into a capitalist state. This has been historically true in every society, including the first developed country, Britain, followed by European countries and Japan.

Class as a concept is embedded in the dichotomy between the ownership of means of production, i.e. land and capital, by some, and the exploitation of labour, i.e. peasants and workers, by others. It is an asymmetrical relationship between those who own the means of production and those whose labour-power produces the surplus. I use this dichotomy, like some others, as a basis for identifying agrarian classes. This is shown in Chart 1, using labour and land as the two most important factors of production, with some assumptions about their endowments.

There are at present five distinct classes in the agricultural sector of Pakistan.

First, there are landlords who own large areas of land and rent almost all of it in small parcels to landless sharecroppers. Landlords do not rent or lease land from others. Labour is entirely provided by the share-cropper households. Landlords neither work for themselves nor provide their labour-power to others. Their overlordship on land is exercised mainly through their agents (*kamdars*). In Sind, for instance, share-croppers play no role in production decisions. Profits and wages as economic rewards do not exist here; only rent exists. Primordial and traditional factors, and not economic considerations, play a central role in determining the nexus of landlords and tenants, including their shares in output.

Secondly, there are farmers. Contrary to the popular perception in Pakistan that there are "farmers" with complete homogeneity of interests, I emphasize heterogeneity. The capitalist farmers, who can also be called rich peasants, may own most or some of the land they cultivate and rent or lease from others part of it. They do not normally rent or

lease their lands to others. Others' labour is the basis of production and source of surplus value for capitalist farmers. Landless workers or the so-called free labour are hired for wages. Rich peasants do not sell their labour-power to others: they work on their land as entrepreneurs *par excellence*. They organize production, supervise free labour and innovate. Profit and wages appear as basic economic categories for the first time in the distribution of output, although rent may still remain as an important component of income. Rent does not disappear.

Thirdly, there is the class of family farmers who could be called middle peasants. This class consists of farmers who may own, rent or lease part of the land they cultivate. They may even rent or lease out part of their land to others. However, these landowners depend almost entirely on family or household labour for production. They usually do not work for others, nor do they hire others to work on their farms. These farms are probably nearest to the classic peasant farm of Chayanov, the famous Russian economist who gave this idea and developed a theory of peasantry. Chayanovian peasants have shown great resilience in the face of capitalistic development of agriculture in history in Russia and other countries.

Fourthly, there is the class of share-croppers, or *haris* as they are called in Sind. Landless share-croppers rent all the land they cultivate and share the output with landlords on some traditionally-determined basis, often in kind. This class may include some poor peasants, whom I call marginal landowners and who must supplement their meagre income by share-cropping on small farms of land rented from the landlord or others. Share-croppers do not hire labour and depend almost entirely on their household labour. They may sell their labour-power to landowners to supplement their meagre income. They are the linchpin in the feudal system which exists in parts of Pakistan even today.

The fifth and final class is that of wage workers. This class consists of what I call unattached (landless) workers, who must earn income by selling their labour-power. They work mainly for rich peasants or capitalist farmers. Their wage is partly in cash and partly in kind. They may work on a permanent basis but most of them find only

seasonal work. They may supplement their incomes by working outside agriculture. These workers constitute the burgeoning proletariat for agriculture and industry.

I want to clarify here two or three points in Chart 1. Firstly, hiring of labour by landlords implies use of share-croppers, i.e. the labour-power of others. It is a reference to the attached labour. Secondly, family farmers may work for others either in or outside agriculture. This, of course, depends on the requirement of the family farm and the level

Chart 1

*Agrarian Class Differentiation in Pakistan*

Class	Land	Labour
1. Landlords	LO > 0 LR <sub>o</sub> > 0 LR <sub>i</sub> = 0	SE = 0 HL <sub>i</sub> > 0 HL <sub>o</sub> = 0
2. Capitalist Farmers (Rich Peasants)	LO > 0 LR <sub>o</sub> = 0 LR <sub>i</sub> > 0	SE > 0 HL <sub>i</sub> > 0 HL <sub>o</sub> = 0
3. Family Farmers (Middle or Poor Peasants)	LO > 0 LR <sub>o</sub> > 0 LR <sub>i</sub> > 0	SE > 0 HL <sub>i</sub> = 0 HL <sub>o</sub> ≧ 0
4. Share-croppers	LO = 0 LR <sub>o</sub> = 0 LR <sub>i</sub> > 0	SE > 0 HL <sub>i</sub> = 0 HL <sub>o</sub> ≧ 0
5. Wage Workers	LO = 0 LR <sub>o</sub> = 0 LR <sub>i</sub> = 0	SE = 0 HL <sub>i</sub> = 0 HL <sub>o</sub> > 0

Note: LO = land owned; LR<sub>o</sub> = land rented out; LR<sub>i</sub> = land rented in; SE = self-employment; HL<sub>i</sub> = hiring in labour; HL<sub>o</sub> = hiring out labour.

of income of the household to reproduce its labour power. Thirdly, share-croppers may also work for others outside the landlord-tenant nexus, either in or outside agriculture. Finally, leasing of land by capitalist farmers or rich peasants could be either from landlords to whom they pay the ground rent or from the middle to poor peasants on fixed payment.

Now why this typology? It has several advantages. Firstly, it specifies the non-homogeneous and highly differentiated character of the agrarian sector. More importantly, it avoids many of the pitfalls inherent in empty categories based on either tenure or size, e.g. "landlords", "owner operators", "tenants", a classification based on an arbitrary criterion of tenure, which I have myself used in my last book. I am trying to get out of it and this is the first experiment I am conducting. It reflects perhaps a middle-age crisis in my personal and professional life. Prof. Naqvi has in half jest referred to the extra-academic part of my private life. I don't deny that; but my most important concern has been to do substantial load-shedding of the dead weight of the neo-classical paradigm. Similarly, the classification of farmers as "large", "medium", and "small" is based on an even more arbitrary criterion of farm size and is the cheapest nonsense.

Our typology cuts across the simplistic tenure categories of lessors and lessees. It also does not maintain a direct relationship to large and small holdings. Lessors could be landlords or even middle or poor peasants owning but not using land. Therefore, you may be lumping together in this category different sorts of people such as landlords and small owners. Lessees could be capitalist farmers or share-croppers and poor peasants supplementing their own holdings. So, you are putting together apples and oranges in one box. I am saying: get out of this box which is empty, nonsensical. A classification based on the arbitrary size and tenure categories does not reveal the true relations of production. They mystify the creation and appropriation of social surplus in agriculture. These groupings do not even assist in analysing the problems of farm organization in relation to the issues of efficiency and equity in Pakistan. Finally, and more importantly from the point of view of rural poverty, they do not reveal the impact of extraction of agricultural surplus for capitalist accumulation on each of the classes.

Now what facts or empirical evidence do I have from Pakistan in support of the proposed typology of classes? In Table 1, I have made an attempt to obtain, by households, some very rough, crude estimates of the magnitude of these classes in three provinces of Pakistan. You may ask me how tortuous this exercise has been! Well, I may not have spent sleepless nights, but I have amply suffered, and made some others suffer in this process.

There are several interesting features of Table 1. Firstly, family-farm households are preponderant in the NWFP and the Punjab, but just over one-quarter of the households are family farmers in Sind. Secondly, sharecropping/tenant households dominate in Sind, but they have only one-quarter of the farm households in the other two provinces. Thirdly, capitalist households are most visible in the Punjab, followed by Sind. These households have less than 12 percent of the share in the NWFP. Finally, landlord households in all the provinces are under one percent. However, their relative dominance in Sind is reflected in the high share of tenant/sharecropping households in the economy of that province. Wage workers as a category, unfortunately, could be estimated only as residual and I was not sure if that residual really meant much. It is still a very small size, especially in Sind. It is somewhat large and growing in size only where the capitalist farms are emerging. But I do not know what the magnitude is. This is my next task if I have some available evidence or data. I will come to that in the discussion.

There is another related aspect of these four classes. Family farms seem to have control on holdings ranging from less than 1 acre to 25 acres. Those who are operating or owning less than one acre can be regarded as landless households, much like the landless workers available in the labour market in or outside agriculture. These households have about 12 percent of the share in the NWFP, but they are apparently much more limited in the Punjab and almost non-existent in Sind. Most of the holdings in the ranges of 1–5 acres and 5–12.5 acres are dominated by either family farmers, as in the NWFP and the Punjab, or by sharecroppers as in Sind. Capitalist households seem to cultivate in the ranges of 12.5 acres to 25 acres and 25 acres to 50 acres, partly in the Punjab and Sind. Capitalist holdings decline after the size of 50 acres, as landlords apparently dominate the higher size of land holdings. Let me

Table 1

## Percentage Distribution of Rural Households in three Provinces of Pakistan, 1971/72

Class	Province	Under	1.0- <5.0	5.0- <12.5	12.5- <25.0	25.0- 50.0	50.0- 150.0	150.0 Acres & Over	All
		1.0 Acres	Acres	Acres	Acres	Acres	Acres	Acres	Farm Sizes
Landlords	Punjab						0.17	0.03	0.21
	Sind						0.62	0.10	0.72
	N.W.F.P.						0.23	0.02	0.25
Capitalist Farmers	Punjab				12.72	10.23	3.56	0.37	26.88
	Sind				12.87	5.48	2.10	0.42	20.88
	N.W.F.P.				3.71	4.31	2.95	0.72	11.69
Family Farmers	Punjab	2.80	14.74	21.17	11.10				49.82
	Sind	0.32	6.69	11.11	9.21				27.32
	N.W.F.P.	9.11	29.99	17.26	6.01				62.37
Share- croppers	Punjab	0.85	5.90	16.34					23.09
	Sind	0.10	11.28	39.70					51.08
	N.W.F.P.	2.41	12.20	11.08					25.69
All Classes	Punjab	3.65	20.65	37.51	23.82	10.32	3.73	0.40	100.00
	Sind	0.42	17.97	50.81	22.08	5.48	2.72	0.52	100.00
	N.W.F.P.	11.52	42.19	28.34	9.72	4.31	3.18	0.74	100.00

Note : The household data from the 1972 census have been combined with the landownership data provided by the provincial Land Com-missions for the same year.

emphasize that these are only crude estimates. Please keep that in mind when discussing this lecture, because the basis of data unfortunately is quite weak and this is the first attempt in Pakistan to have a rough idea of what their magnitude might be.

I now turn to a schematic presentation of the agrarian transition in Pakistan, followed by a discussion of the empirical evidence on the process of differentiation of peasantry in the last two or three decades. For this, please turn to Chart 2, which is a conceptualization of what I think is the reality in rural Pakistan.

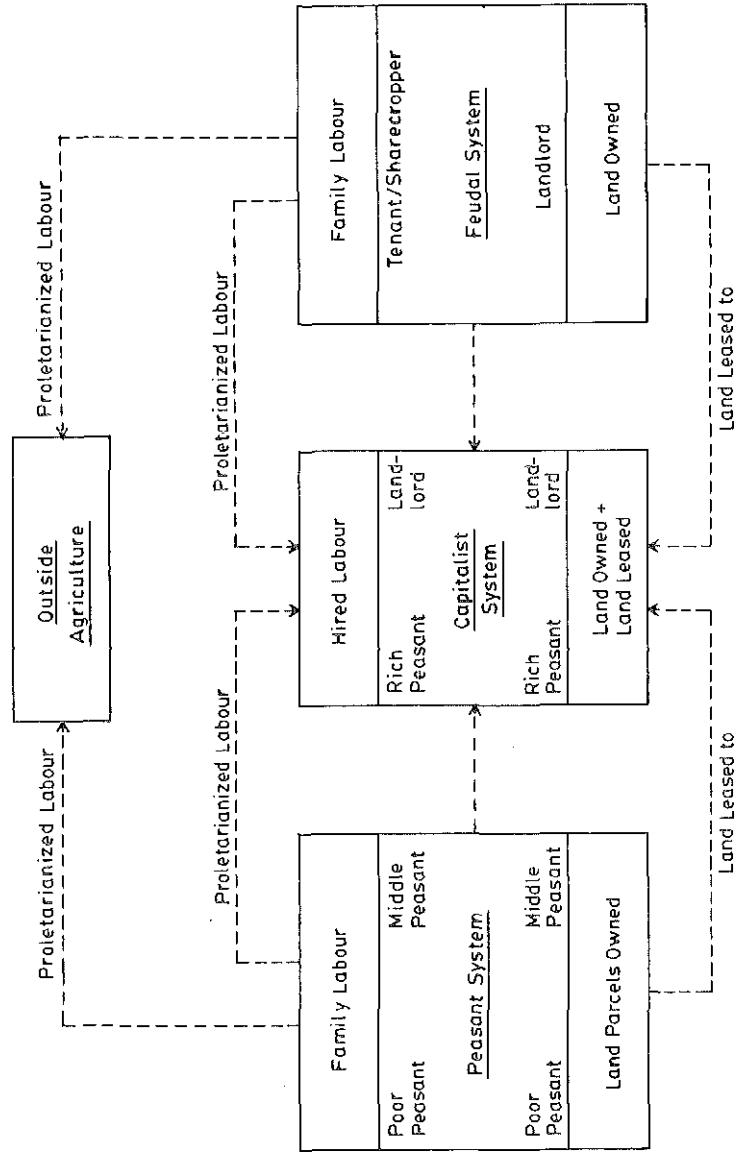
There are three basic agrarian systems which coexist in Pakistan, namely, for want of words, the "feudal", the "peasant", and the burgeoning "capitalist" systems. The landlord-tenant system is in the right block, the peasant system in the left block, and the central block is for the capitalist agriculture. In the feudal system, i.e. the block on the right, the landlord provides a land parcel to the landless share-cropper who cultivates it with his family labour and the animals he owns. These are the two important things that he supplies traditionally, along with his labour. In case he fails to do so, he is not needed. The distribution of rental and labour income is based on the traditional 50:50 share in output, but without a well-defined division of costs.

The second dominant system, which is on the left-hand side, is that of the peasant households, cultivating family farms and including poor and middle peasants. Each owner household depends on its own labour-power and animals.

The third system, i.e. the middle block, is of the capitalist farmer who uses hired labour on land and extracts surplus value as profit for capital. Now the capitalist farmer emerges from amongst the ranks of landlords and rich peasants. He may own all land or even lease a part from peasants and landlords. Labour-power is provided by the landless or near landless, whom I call the proletarianized labour. They could be from among the poor and middle peasants, i.e. family farmers or share-croppers being evicted or displaced by landlords who are transforming into capitalist farmers. Of course, not all proletarianized labour is being absorbed in the capitalist sector of agriculture. Increasing numbers of

Chart 2

AGRARIAN TRANSITION IN PAKISTAN





these unattached workers are migrating from villages to towns or cities or even to the Middle East, and you can see the fourth block on top. Depeasantization as a result of capitalist agriculture is increasingly feeding that block.

What facts support this outline of the agrarian transition in Pakistan? For this, I would like to take you on a brief excursion into the evolution of the agrarian structure that we have got in Pakistan. Where has it come from and what forces have produced it? This, I hope, will be a useful background to my presentation on the agrarian transition later.

Historically, in the areas of the former British India which now constitute Pakistan, peasants or cultivators had no right to own land before the British conquest. In the pre-British days, even after the decay of the Mughal empire, there were two basic claims on land: production by peasants and collections of rent as land tax by the king's servants for an absolutist State. Direct producers on land were tenants and the State or the king was the landlord. So all direct producers were tenants to the State or the king as their landlord. Admittedly, this relationship had been greatly disturbed in many areas of India due to the disintegration of the Mughal empire by about the mid-18th century.<sup>2</sup> Simultaneous and contending claims on land had become quite common although no clear market for land had yet been developed. Rent as income from private ownership of land was not an established economic relationship.

The idea of private rented property in land was transplanted into India after her conquest by the British. Starting from Bengal in the 1790s, private titles for land were awarded to the former rent collectors and collaborators. These included some of the former ruling chiefs, as *Amirs* or *Mirs* of Sind were allowed to retain a large part of their estates after 1843. Similarly, most of the traditionally cultivated area in the Punjab was allotted to a small number of large landowners after 1849. Initially, most of the land was distributed as private property to a limited number of farmers, rent collectors and friends of the court. The direct producers or peasants continued to remain tenants, now not of the

<sup>2</sup>There was a lot of confusion in the last days of the Mughal empire as normally happens in periods of political upheaval.

State but of the new private landlords. Landlords were content with collection of rent from their tenants in the face of shortage of labour, and tenants had nowhere else to go to earn their income. No industries were left, thanks to the British and their policies. This became the basis of the feudal system which has existed in Pakistan.

There was one significant change introduced by the British with the development of a canal irrigation system in the Punjab in the 1880s. Crown lands, which could not be cultivated earlier without a sure supply of water, were distributed to the landless cultivating peasants in small parcels in the so-called canal colony districts. This was seen as the beginning of yeoman farmers, supporting the British in their task of transferring surplus from the colony. But before the end of the 19th century, a large proportion of these family farmers started to lose their lands to money-lenders. Land fragmentation became another debilitating factor, particularly because of the growth of population and the laws of inheritance. In 1901, the British administration introduced legislation in the Punjab and the Frontier to protect the peasantry from land alienation and fragmentation. However, it did not completely halt the process of depeasantization or the increased vulnerability of these farmers to the forces of market. A peasant system on a similar scale never developed in Sind, mainly because of the absence of a perennial irrigation system. In fact, even after the construction of the Lloyd barrage – now called Sukkur barrage – in 1932, most of the land remained concentrated in the hands of a small number of landlords and cultivated by the tenants-at-will or *haris*.

Now let us go to the time of the creation of Pakistan in 1947. At the time agrarian structure in Pakistan was characterized by a quasi-feudal landlord-tenant nexus in most areas of Sind and several areas of the Punjab, and a peasant system with numerous fragmented individual and joint-family farms in the NWFP and the Punjab. As I have shown in Chart 2, Pakistan had a dual agrarian structure in which a feudal system coexisted with the peasant system. This has been well documented in several reports of the then ruling Muslim League and the provincial governments in the 1940s and the early 1950s. Land concentration was particularly high in Sind, although the more numerous family-farm

owners in the Punjab and the NWFP did not own more than 55 percent of the total farm area. There is also evidence that most of the land in Pakistan was cultivated by tenants. According to the Muslim League Agrarian Committee (1949), about 50 percent area in the Punjab and Sind was indeed so cultivated. It should also be noted that while occupancy tenants, who had some legally recognized rights, were predominant in the Punjab and the NWFP, the tenants-at-will dominated in Sind. The latter had no legally recognized rights. The family farms, quite numerous in the first two provinces, were highly fragmented and did not occupy a significant proportion of the farm area.

How has the structure of landownership changed in Pakistan since the 1950s? Table 2 shows that the share of landowners with over 100 acres went down in both number and area in each province. More striking, however, has been the increased share of landowners with less than 5 acres, particularly in the Punjab and the NWFP. This reflects mainly the subdivision of land within the small size of holdings. As we will explain later, owners of these holdings are the poor peasants who increasingly are forced to lease their land to rich peasants and seek alternative employment in or outside agriculture. These developments at the extreme of the tenant-ownership spectrum indicate, at least partially, the erosion of the feudal base on the one hand and the increased number of poor peasants on the other.

The data on landownership, inadequate as they are, do not by themselves reflect the process of differentiation. For this we must combine them with the data on the distribution of operational holdings (farms), obtained from the Agricultural Censuses of 1960 and 1972. I was fortunate enough to have some data from the 1980 Agricultural Census as well. Operational holdings reflect access to land. This is the second important component. You do not have to own land. Also, since landownership data are available for individuals, and not for households or families, the reduction in the number and the owned area of large landowners, including landlords, may be largely illusory.

Two things seem to have happened, partly in anticipation of and partly in response to the land reforms of 1959 and 1972. First, there were significant legal and not-so-legal intra-household transfers of land.

Table 2

*Change in Distribution of Landownership in three Provinces of Pakistan, 1950 to 1976*

Farm Size (Acres)	Year	Percentage of all Owners				Percentage of all Owned Area			
		Pakistan	Punjab	Sind	N.W.F.P.	Pakistan	Punjab	Sind	N.W.F.P.
5.0 or less	1950	64.4	66.3	29.8	70.3	15.3	15.7	3.6	31.9
	1971	—	60.4	36.7	—	—	20.6	5.6	—
	1976	70.8	69.1	40.3	85.9	24.9	26.1	8.2	40.8
>5.0 to 25.00	1950	28.7	28.9	46.0	21.6	31.7	39.0	18.8	25.2
	1971	—	35.6	42.9	—	—	45.7	29.9	—
	1976	25.1	27.4	41.5	12.4	39.4	43.0	30.5	33.0
>25.0 to 100.0	1950	5.7	4.1	16.2	6.9	21.8	21.9	23.2	19.7
	1971	—	3.5	17.7	—	—	21.6	40.3	—
	1976	3.5	3.0	15.8	1.5	24.0	21.7	40.4	15.2
Over 100.0	1950	1.2	0.7	8.0	1.2	31.2	23.4	54.4	23.3
	1971	—	0.5	2.7	—	—	12.1	24.2	—
	1976	0.5	0.5	2.4	0.2	12.6	9.2	20.9	11.0
Over 500.0	1950	0.1	0.1	0.9	0.1	15.4	9.9	29.1	12.4

So, while the ownership titles to large holdings declined, the actual control of land remained largely within the same household. This, once again, is important as some of it may explain the increased share of holdings of 5 – 25 acres and 100 acres. Secondly, the breakup of the landed estates may have been held up by the introduction and use of new farm inputs of which the benefits could not be shared with tenants. We will return to this explanation in the next presentation tomorrow.

My basic hypothesis about the formation of classes and the agrarian transition in Pakistan is strengthened by a close examination of the use of land in conjunction with the ownership of land. Ownership and access are combined together. Some of this evidence is provided directly by the agricultural census data on the distribution of farms by size and tenure. When combined with data on landownership, they can even indicate changes in the production relations, i.e. shift from the feudal and peasant to the capitalist relations.

Let us first look at the broad picture of changes in the distribution of farms and farm area during the Seventies. These changes are shown in Table 3, and it is consistent with the evidence on landownership by size presented earlier. The family farms of under 5 acres are predominant in the NWFP. Their share in the total number has increased substantially in the three provinces. Similarly, their share in the total farm area has increased, but in 1980 it was still less than 20 percent in the NWFP and less than 5 percent in both the Punjab and Sind. It is important to note that while the numbers of family farms increased the area did not increase really that much, especially in Sind and the Punjab. That these farms are cultivated mainly by poor peasants, who must supplement their income by work for others, would become clear when we examine their tenurial status. The largest proportions of farms in the Punjab and Sind are accounted for by farms whose area varies between 5 acres and 25 acres, and they also occupy most of the farm area, particularly in Sind. These farms are predominantly sharecropped in Sind and operated by family farmers in the Punjab and the NWFP. The share of farms of more than 25 acres has declined in these two provinces but increased in Sind. Their share in the area also increased in Sind, reflecting perhaps the resumption of land by landlords for capitalist farming. It

Table 3

*Change in the Distribution of Farms and Farm Area in Pakistan and three Provinces, 1972 to 1980*

Farm Size (Acres)	Year	Percentage Distribution of Farms				Percentage Distribution of Farm Area				
		Pakistan		N.W.F.P.		Pakistan		N.W.F.P.		
		Punjab	Sind	Punjab	Sind	Punjab	Sind	Punjab	Sind	
< 1.0	1972	4.1	0.4	4.0	0.4	12.2	0.2	0.1	0.0	0.7
	1980	4.5	0.6	4.3	0.6	12.0	0.2	0.2	0.0	0.7
< 5.0	1972	28.1	18.8	26.1	18.8	55.5	5.3	4.8	4.5	12.7
	1980	34.1	25.3	31.7	25.3	61.2	7.1	6.5	6.4	16.5
5.0—<25.0	1972	61.0	73.8	62.1	73.8	38.0	51.8	53.4	63.7	40.5
	1980	56.7	67.1	58.5	67.1	33.6	52.1	53.6	59.8	42.7
25.0—<50.0	1972	7.7	5.2	8.8	5.2	4.0	18.8	21.2	13.1	14.2
	1980	6.5	5.3	7.2	5.3	3.2	17.8	19.3	15.0	13.5
50.0—<150.0	1972	3.0	1.7	2.7	1.7	2.3	15.0	14.7	10.7	18.9
	1980	2.0	1.8	2.3	1.8	1.5	15.0	14.0	11.8	15.8
150.0 and Over	1972	0.0	0.0	0.0	0.0	0.0	9.0	5.7	7.9	13.5
	1980	0.0	0.0	0.0	0.0	0.0	8.0	6.4	6.9	11.9

is also important to note that while the shares of large farms declined in the Punjab and the NWFP, the fall in their areas was proportionately much less than the fall in their numbers.

The foregoing changes are highlighted in another way in Table 4. The average size of farms in each size up to 12¼ acres decreased between 1972 and 1980. However, the average size of farms of over 150 acres increased substantially in the Punjab and the NWFP. The average size of middle-sized farms grew somewhat in Sind, but remained unchanged in the above-mentioned provinces.

More substantial evidence in support of the transition appears in Table 5. We have here data on the area rented in and rented out by various sizes of farms between 1971-72 and 1979-80 which are more or less the census periods. Not only farmers owning 5 acres or less were renting their area out but the area so rented out also increased substantially in the Seventies. What is even more interesting is that owners of middle-sized farms, 5 – 25 acres, in the Punjab rented out land but in Sind they rented in from others. Now this is very important because it reflects sharecropping in Sind as opposed to non-sharecropping or capitalist type of family farming in the Punjab. These opposite tendencies explain the fact that while middle and poor peasants lease out increasing amounts of their land to others in the Punjab, the sharecroppers rent in from landlords in Sind. This is also supported by the evidence that owners of large holdings rent out their area in Sind.

However, I have shown in another study that the area rented out by large landowners, i.e. landlords, in Sind declined in the Seventies, indicating a shift towards capitalist farming through increased resumption of land by landlords from share-croppers for cultivation by their own selves. In the Punjab, most of the land rented out by poor and middle-level peasants is leased in by rich peasants, particularly those with 25 – 50 acres. In fact, this tendency for the very large farms to increase in size also shows up in Table 4. The average size of farms of over 150 acres increased substantially in the Seventies.

Table 4

*Change in Average Farm Size in Pakistan and three Provinces, 1972 to 1980*

Farm Size (Acres)	Pakistan						Sind		N.W.F.P.			
	1972		1980		1972		1980		1972		1980	
< 1.0	0.49	0.49	0.49	0.49	0.49	0.67	0.60	0.50	0.50	0.48	0.48	
1.0 - < 5.0	2.75	2.69	2.78	2.71	3.06	2.98	2.53	2.45	2.53	2.45	2.45	
5.0 - < 12.5	8.21	8.02	8.23	8.05	8.43	8.07	7.53	7.40	7.53	7.40	7.40	
12.5 - < 25.0	16.45	16.47	16.29	16.16	16.76	17.08	16.36	16.83	16.36	16.83	16.83	
25.0 - < 50.0	31.89	31.84	31.62	31.54	31.97	32.62	32.00	31.94	32.00	31.94	31.94	
50.0 - < 150.0	71.86	72.07	70.29	70.95	77.92	71.73	79.63	79.63	73.18	79.63	79.63	
150 and Over	280.13	301.31	255.57	274.86	374.00	316.00	481.00	481.00	287.50	481.00	481.00	
Average	13.00	11.50	13.10	11.70	12.70	11.50	9.10	7.60	9.10	7.60	7.60	



Table 5

## Renting of Farm Area by Size of Holding in Provinces of Punjab and Sind, 1971-72 and 1979-80

Farm Size (Acres)	Area Rented in (000 Acres)				Area Rented Out (000 Acres)				
	1971-1972		1979-1980		1971-1972		1979-1980		
	Punjab	Sind	Punjab	Sind	Punjab	Sind	Punjab	Sind	
up to 5.0									
> 5.0 - 25.0		+2,607		+1,856		-165		-1,023	
> 25.0 - 50.0	+1,917		+820			-1,074			-882
> 50.0 - 150.0					-765	-2,383	-1,540		-2,490
over 150.0			+ 538		-432	-917			-721

Note: The areas rented in and rented out have been determined by differences in each size of farm between owned and operated areas.

Now these changes in the renting or leasing of land between various sizes of farms indicate that poor peasants are increasingly renting out their lands to middle and rich peasants. Secondly, landlords are renting out less lands to share-croppers. Thirdly, capitalist farms are increasing in the Punjab and Sind at the expense of poor and even middle-class peasants in the former and against landlords and their share-croppers in the latter province. In fact Akmal Hussain and I have provided supporting evidence on changes in the owner-operated and sharecropped areas in the country in the Sixties and the Seventies.

What I have tried to do here is to present before you an analytical framework, using the concept or notion of classes and their typology related to the feudal, the peasant and the emerging capitalist subsystems. How is this transition being caused, where is it coming from, and what forces underly this process are indeed the more interesting but complex questions. My analysis sheds some light on these issues relating to agricultural transition in Pakistan.

Now one of the things that I must say today as an introduction to what I will be discussing or presenting before you tomorrow is that this so-called tendency towards a capitalist agriculture in Pakistan would not necessarily follow a reductionist or an iron law. In the dialectical (historical) process, there are embedded counter-tendencies within the peasant system, e.g. the resilience of the peasantry. One of the most important lessons of history is that a peasant system has a tendency to prolong itself. Finally, I will discuss tomorrow public policies which have helped in hastening the advent of capitalist agriculture: the process of depeasantization and the reduction of a large number of differentiated peasants into two classes. I would also try to point out the forces of markets and technology which may be sharpening class differences and so on.

## DISCUSSION

*Prof. Syed Nawab Haider Naqvi:* I think we all agree that it has been an especially refreshing and provocative discourse on Pakistan's agriculture, which should lead you to a lot of lively discussion with the speaker. I should, therefore, request the discussants to ask questions.

*Dr. M. A. Hussein Mullick:* Well, I have heard a fine lecture by Khan, who has by now become almost a master of the subject, and yet modestly calls himself a student. One fundamental point that has been disturbing my mind deals with Prof. Naqvi's remark that Development Economics is a young science. I have been wondering why, with all this analysis of Dr. Khan and of so many others, the development process is very little understood and the expected changes take place not so much as a consequence of our policy recommendations. I feel that Dr. Khan's analysis has one very big fault: it is a victim of macro-thinking and macro-analysis. We have found that Lord Keynes also faulted and his greatest mistake was that he relied too heavily on macro-analysis. I can cite the examples of one or two countries where development has been very little influenced through macro-exercises but greatly influenced through micro-exercises. I think it is all right to say that so much ownership is changing, and that there is a class struggle going on between the owners of land and those who do not own land, but I think this analysis helps only partially. Perhaps we are forgetting that the village units have to be regarded as our primary goal. All your recommendations will have little effect on our village situation, as a village is not susceptible to change from the top. It remains cut off, and if you want a fundamental change it need not flow from your macro-analysis. The change will have to be initiated at the village level. That change is entirely a new phenomenon, which unfortunately has only been studied by non-economists and not much by economists. I think this is a fundamental criticism of your work from my side. Of course, I am not in any way denying the utility of your work, but if your goal is to bring about change I can tell you that little can be achieved in this way because the village in Pakistan remains continuously cut off from changes which we recommend or the government tries to introduce.

*Prof. M. H. Khan:* My purpose in this analysis has been to take a broad brush, use a methodology which is admittedly unorthodox, and look at the larger contours of changes and the forces embedded in the system undergoing change. The implication is that unless direct producers or cultivators at the micro-level participate in the process of acquisition of the surplus they produce the process of transition might lead to a condition where in fact the capitalist development ends up by sharpening class differences, which may turn the society upside down. So I would

definitely emphasize the point which is implied in your emphasis on the village.

*Dr. M. Ghaffar Chaudhry:* It seems to me that the data presented in Table 5 are misleading. For each rented-in acre, there should be a rented-out acre, i.e. rented-in acres must equal the rented-out acres. For instance, if there is a renting-in farmer, there is somebody who rents-out that land. So that equality must be maintained. If I add up the columns of Table 5 in Sind, for instance for 1979-80, the rented-in land amounts to only 1,856 acres but the rented-out land is 4.65 acres. For the Punjab the rented-in land is only 1.358 acres but the rented-out land is 10.843 acres. This is one of the major discrepancies in the table. I would like to know why there is so much discrepancy and what you think about it? Is it a typographical error?

*Prof. M. H. Khan:* No, this is not a typographical error. First, I would like to explain the basis of these data on rented-in and rented-out areas. Most authors have used the 1960 and 1972 census data. I am perhaps the first to have had access to the 1980 census data. The 1960 and 1972 census data are related only to information on operational holdings or farms. They say nothing about ownership. Anyone who wants to deduce from these data the state of landownership in this country is soon frustrated. Landownership data are obtained through land-revenue records or from the Land Commissions. I was able to bring together the landownership data with the land distribution data from the censuses. I have tried to put together in Table 5 the two sets of data and have thus shown the rented-in and rented-out areas. Now the discrepancy is because the basis of the two data sets is different. It is only by combining these disparate data that I could get this kind of information. Secondly, the data in Table 5 are not the only basis of my arguments here. It is just one among several pieces of evidence that I have tried to construct from the data set, which unfortunately is incomplete or inconsistent. I, therefore, stand to be corrected if there is an alternative or better way of finding out the rented-in and rented-out areas.

*Prof. M. Rashid:* Let me ask two questions instead of one. One, what are the prospects of the small farmer emerging out of low productivity in the

Sixth Five-Year Plan period? Two, has there been a change in the traditional class composition under the heading 'Capitalist Farmers' during the 1960–80 period?

*Prof. M. H. Khan:* Unfortunately, I did not have access to the Sixth Five-Year Plan document except in the last week, and that is also in a draft form. I have come across the rhetoric that the Sixth Five-Year Plan is for the people, by the people and of the people, but I have not explored beyond that rhetoric. It will be improper to comment on the Plan document at this stage.

As for the concern with 'small farmer', it is an issue dear to the heart of everyone, especially to the hearts of the politicians and policy-makers in this country. Who is against the smaller farmer? Everybody loves him! He has been recently 'discovered', and everyone is running around identifying him in order to help him. I hope to say something more specific tomorrow on this question in the context of the bimodal strategy that is still being pursued in this country.

Secondly, has there been a change in the traditional class composition? I would say, yes. First of all, there was no capitalist farmer as I have defined him here. He was just emerging on the horizon in or around 1960. The capitalist farmers are coming in from two sources. Some of them are the transformed landlords and others are urban-based *kulaks*, including civil and military bureaucrats.

*Dr. S. K. Qureshi:* I have a question about the method you have used in your analysis of agrarian transition. You have used class as a basis of the study of agrarian transition in Pakistan. What I should like to know is the relevance of stratification schemes, based not on classes but on other alternative criteria, to your type of analysis. The criterion of class has been dealt with by you in an insightful manner but you ignore other stratification schemes like *biradari* system in the Punjab or the caste system in India or the tribal system in the NWFP. These stratification systems exist in our social set-up, especially at the village level. Like classes, these stratification systems are not based on the neo-classical paradigm. There may be other extra economic considerations in their

relationships within a stratum and between different strata. The question is how do these stratification systems interact with the class system that you have focused on? Do they go hand in hand when the classes are changing? If they are not changing when classes are being formed, are they relevant in the process of agrarian transition that you have analysed in your lecture? What I should like to know is how relevant are these stratification systems to your analysis of the agrarian transition in Pakistan?

*Professor M. H. Khan:* Indeed this has been one of the biggest problems of those who have adopted the method of interpreting the primordial concept. I think it needs a little bit of clarification here why I have not used them explicitly. If you look historically, the caste system, whatever its manifestation, has in it embedded the endowment of land, labour, and so on. The evolution of the caste system has gone hand in hand with changes in the economic endowments of both labour and land at the village level. So, for instance, those who are completely landless have traditionally belonged to certain kinds of low castes. There is actually an economic basis for social caste system that you observe both in Pakistan and in other societies.

But, the important thing in the agrarian transition that I am discussing is that the primordial relations are dissolving and the economic relations are becoming dominant with sharpening differences among classes. This is a dialectical process. While it is dissolving the caste system, the caste system itself is a barrier to the capitalist development. So there is a counter-tendency in primordial relations. This concept of class does not become clear, because it has a counterweight of the primordial relations in which religion, values, mores and structure are used to smother the emerging class conflicts at the village level.

*Ms Nigar Ahmad:* First of all, your Table 1 is bothering me a little bit. You call it the 'percentage distribution of rural households' in the provinces of Pakistan, but it obviously refers to households with access to land.

The second question probably will be more relevant to what you are promising us for tomorrow. So if you are going to talk about it

tomorrow you need not bother to answer it today. You have not mentioned wage workers and artisans, i.e. the landless households, and the changes that are supposed to have taken place in these households. For very obvious reasons, you cannot talk in terms of the transition of rural economy because agricultural and non-agricultural activities are so intricately bound up that you are quite likely to have counter-forces to various processes of change that may be taking place in agriculture. Non-agricultural activities should be characterized within a larger category of rural economy. The question then is: What is happening to the wage workers? What is happening to the artisan class? How are they being affected by industrialization? Is it providing a kind of outlet to the process of depeasantization or is it in itself being affected by industrialization and putting pressure on agriculture? So one would be very much interested in these questions to be able to understand the process of change as a whole. If you are going to deal with these questions tomorrow, then I am not going to press them today.

*Professor M. H. Khan:* The first question is very valid. I took note of it the moment I had finished the table. But there was a problem. Population census data alone can give you some rough estimate of the total (rural and urban) households of the country. From the agricultural census data I could take the agricultural households and estimate non-agricultural households of artisans, wage workers, etc., as a residual. I agree with your point.

Your second question is more interesting and relevant. In this transition what has been happening to these households is indeed of central interest, because they are the linchpins of the capitalist system. I am going to deal with it tomorrow.

*Mr. Shaukat Kazmi:* At the beginning of your lecture you suggested that market forces and technology are responsible for the agrarian transition in Pakistan. But I think that it is the capitalization of the farmer. Market forces in Pakistan have played a very significant role between 1960 and 1980. If you see the cash crops which were being produced in Pakistan in the 1960s and the 1970s, the composition has very much changed. Similarly, the expansion of technology, in which I also include transport,

communications, information, and enlargement of the market and its linkage with the national and the international markets, has also been responsible for bringing about a transition as far as the capitalization of agriculture in Pakistan is concerned. I hope in your book you are going to give them more importance than to the institutional or structural phenomena which you have been emphasizing. I think the emphasis should be more on the market forces.

*Professor M. H. Khan:* This is a good comment. There is a popular notion, thanks to the mythology perpetuated by education through generations, that markets are important. You perhaps do not realize it until you study closely that markets are indeed playing an important role even in an economy such as Pakistan's. But these markets are dominated by those who have disproportionately large endowments of the means of production. I will deal with this issue tomorrow, including the role of technology and markets, buttressed by public policies. This you see the world over. For instance, in Latin America, Alain de Janvry has shown how capitalist agriculture is being induced through internal markets and more importantly by the international capitalist system through the multinationals.

*Dr. Munawar Iqbal:* You have raised a number of questions today, and probably that is a part of your strategy, as you said in the beginning, that you will create agitation today to produce tranquility tomorrow. So I will stick to only two questions. First, I will bring you back to the question raised by Dr. Ghaffar Chaudhry. I think that was a very crucial question and you cannot sweep that under the rug simply by saying that it is not basic to your analysis presented today. I think it is. For the major thesis that you present is that there is a transition from the peasant and feudal systems to the capitalist system and the only evidence that I could find as far as today's lecture is concerned is in Table 5. If that table is not central to your analysis then would you kindly let me know what other evidence you have to support your thesis that there has been a transition from the feudal and peasant systems to the capitalist system?



My second question relates to the new typology of agrarian structure or classes that you have so eloquently presented. I think you need to do it a little bit more carefully. There are two very elementary or basic requirements of any typology. Firstly, it should deal with all possible cases, i.e. it should be exhaustive. Secondly, it should not be overlapping. I find both of these characteristics lacking in Chart 1. Probably, if you can spend a little time, you can make a lot more sense out of that chart which makes a definite contribution to the subject. I will point to two of these things. There is a class of landlords without renting out or renting in of land. That is not covered in your typology of the so-called owner-operators. If they are not renting out land or renting it in, you have to put them somewhere in your typology. In your Class 3, both rented-out and rented-in areas are positive. Naturally, it cannot happen simultaneously. Probably you are putting two different categories in this category: some of the households are landowners and they are renting land out and some of them are landowners and they are renting land in. If they are renting it in, then they fit into the class of capitalist farmers, and if they are renting it out then they fit into the landlord category. So there is some overlapping.

*Professor M. H. Khan:* There are problems with Table 5, as I have suggested earlier. But Tables 1 to 4 are also giving much of the information needed to support my basic hypothesis.

Turning to your second question, when you define classes you should not have really this overlapping. Indeed this is the case; if you look carefully at the labour criterion then capitalist farmers are quite distinct from family workers. There is thus no confusion in the proposed typology.

*Ms Nigar Ahmad:* Labour in fact is probably the more important criterion in terms of family farmers, because the whole idea is that they are using labour of the family. Most of them are neither hiring out labour nor hiring it in. You could have small farmers who need to make their ends meet by working for others, and in family farmers you also have people who do not have as much labour and they could well afford to rent out some of their land. They would both fall in the category of family farmers, because they are essentially using the labour of the family and not hiring labour.

*Dr. Shahrukh Rafi Khan:* I need a clarification, unfortunately again in Table 5. I see a reverse pattern in the categories of 5 to 25 acres and of greater than 50 acres. I see, for example, in Sind renting in decreasing in the categories of 5 to 25 acres and renting out increasing, and then the reverse is happening in the category of 25 to 50 acres, where you have renting in decreasing and then renting out also decreasing. Why is that happening?

*Prof. M. H. Khan:* First, what we find here is that between two points in time while the signs are the same there is a decline in the Punjab. There is an addition in the rented in area, but there is renting out in the 25 – 50 acres holdings. They reflect structural differences between Sind and the Punjab due to the landlord system being more dominant in Sind. The trend is the same in both areas except for the structural differences. In the category of 50 – 150 acres, the two signs are exactly the same. The rented out area in the Punjab has gone up, particularly because some of the small owners are increasingly leasing out their lands to the so-called capitalist farmers. This is what I am trying to show.

*Prof. Karol J. Krotki:* I was very sensitive to your repeated stress on the market forces. Even when they are not directly at play, they often show themselves up in changes in institutions. So it was very useful for you to repeatedly stress the importance of market forces. However, there is one factor which you ignored almost completely and that is the impact of population size.

Now in Pakistan it is particularly important for several reasons. One of them is the pace of urbanization. It is probably the slowest in the world. Another is that the progress of literacy and education in some recent young-age groups is actually declining. The third reason is that the increase in the population size is probably greater than in most countries of the world. Still another reason is that the recent out-migration to the Middle East and so on has convinced people that it is a good thing to have additional children because somebody can run the farm well while his elder brother is earning money in the Middle East. So with all these influences the image which we should have is of a mass increase in population in the rural areas which changes no characteristic except one, namely, farm size.

*Prof. M. H. Khan:* You have put forward an interesting hypothesis. I have not seen any empirical evidence that the increase in foreign remittances or incomes is going to induce larger family sizes. I know from history that usually with increased income levels there is a tendency towards reduced family sizes. So I am interested in the notion that the reason may be that they must have someone to look after the land. I do not know why they cannot hire labour? Why should they have family farms? Why not buy or lease some more land from other small landowners and become capitalist farmers? They themselves do not have to work on the larger holding as workers. I would like to know more about your hypothesis.

*Prof. Karol J. Krotki:* There are two countervailing tendencies. The first one is, of course, the innovating impact of emigration not just in the form of remittances but in other ways of bringing in ideas. The other tendency is hypothetical, but some impressionistic observers of the rural scene in Pakistan, including Baluchistan, told me that this tendency does exist. I say no more.

## SUMMING UP

by

Professor Syed Nawab Haider Naqvi

I think we have heard a very clear, lucid and provocative lecture by Professor Khan this morning. He has made a lot of things clearer, even though, as Frank Ramsey would insist, nothing ever becomes absolutely clear. Professor Khan, through his typological taxonomy has tried to have a go at understanding the mystique of the *relations* of production which, following Marx, he differentiates from the *forces* of production in Pakistan's agriculture. The exact manner in which the production relations interact with the forces of production still remains a fruitful area of research. Professor Khan has made two things clearer, notwithstanding the 'non-convexities' of the by-now-notorious Table 5. First is his hypothesis that agriculture is not a homogeneous lot. It has to be 'seen' and analysed in all its multi-dimensionality. He enumerates five classes, which he has asked everybody to consider to be the proper unit of analysis. I think this taxonomy is extremely important. A lot of analysis so far has focused on the 'farmer' as an optimizing agent as if he were a homogeneous entity. What will happen to the neo-classical analysis once the diversity in the farmer class itself is incorporated explicitly in the analysis remains to be seen. Professor Khan does not offer an opinion on this analytical 'fall-out', but he does open up a very fertile area requiring careful exploration – or, shall we say, cultivation.

Chart 2 is very interesting. On this he has worked hard, and his efforts here have been crowned with success. You may or may not agree with that, but at least here we have a basis for further discussion of the issue. What more can you expect from an author or a lecturer in one or two sittings on such formal occasions? Professor Khan has succeeded in giving a jolt to those who overlook production relations when studying the forces of production, and gives no quarter to those who talk for hours on end about the lot of the rural poor and yet find it acceptable to consider the agrarian structure as irrelevant to their analyses.

The second point raised in Professor Khan's lecture relates to the nature of agrarian transition. He shows that the agrarian structure in Pakistan, which is essentially "bimodal", has undergone a slow but definite change during the three decades or so since the creation of Pakistan in 1947. The implication of his analysis is that this change has not been for the good of the poor, even though from the point of view of efficiency it may look to be all right at first glance. Chart 2 makes it quite clear that we have in the agriculture sector a phenomenon similar to the one known in economics as the process of "immiserizing growth", implying among other things an accentuation of rural poverty accompanying agricultural growth. Again, there can be a difference of opinion on this point, but at least we have here a clear presentation of the nature of the transition and its probable consequences for the emerging agrarian structure and the nature of the forces of production embedded in this structure.

Professor Khan's hypotheses, as was expected, have led to a lot of discussion on the role of markets in the agricultural sector. It has been pointed out by some discussants this morning that the role of markets ought to have been given much more prominence than has been conceded by Professor Khan. I would like to say that while it is true that market forces should be clearly recognized in such analyses, one can also assert even more legitimately that since the agrarian structure is rigid and a large part of the transactions within that structure is in kind, one cannot really speak much of a market. Even more importantly, the 'market' in the rural sector has not really operated as freely as some people would like us to believe. Through export subsidies, an overvalued rate of exchange, the system of procurement, etc., agricultural markets have been greatly 'distorted', and would have operated better in the absence of such 'distorting' policies.

Some discussants have questioned the proposed typology of classes portrayed in Chart 1 on the basis of the evidence presented in Table 5. Professor Khan claims that his Table 5 is as good as it could be, and also that it is not necessarily central to his analysis. Others have pointed out that it is quite central to the analysis. Here we have a problem worth pondering: to be or not to be, that is the question. I think we had better accept Professor Khan's clarification to escape Hamlet's dilemma. After all, it is not so uncommon to find some set of figures not reconciling with the other set when the data are drawn from two different sources. Knowing the keen 'inter-publication rivalry' that is so

common in Pakistan, there is no point in indulging in so much breast-beating on this score.

A question was also raised about the interaction of the traditional institutions, like the *biradari* system, which ought to have been considered in studying the proposed class taxonomy. There has also been a question raised about the overlapping nature of classes. I would not like to answer for Professor Khan, but I would say that there is no harm in constructing overlapping classes. After all, classes cannot be constructed like water-tight compartments as in mathematics; for in real life we do have interacting or overlapping sets.

I would reserve my general remarks on the subject for tomorrow, but for the moment I must congratulate the speaker on being responsive to the questions asked from the floor. I would also like to thank the participants for asking very searching questions. Professor Khan had promised a refreshing and provocative lecture. I think that he has made good his promise. I suggest we leave Professor Khan at that. Thank you.

*Lecture II*

AGRARIAN TRANSITION

*by*

Mahmood Hasan Khan

Prof. Naqvi, Dr. Sarfraz Qureshi and distinguished guests:

Before I resume the second part of my presentation, I would like to recapitulate the thrust of the argument that I presented to you yesterday. First, going beyond the neo-classical tradition, I suggested that there was an alternative way of looking at agricultural development in any underdeveloped country, including Pakistan. The alternative analytical framework is premised on the assumption that an individual is neither completely free nor independent, but must be seen within a specific social context. Secondly, I proposed that we should use the historical method to understand the process of agricultural changes. Such a method can perhaps shed light on events in the agriculture sector in a manner that is beyond the reach of the neo-classical paradigm.

It is from this premise that we can look at the agrarian structure of Pakistan by using the concept of class and class formation on the basis of the criteria of labour and land as the two most important factors of production. I then presented a typology of these classes and made a modest attempt to interpret the nature of the agrarian transition in Pakistan, or what is popularly called the process of agriculture development, in the last 35 years. Also, I gave a brief historical background of the evolution of the differentiated agrarian structure of Pakistan. I suggested that the agrarian transition would inexorably, if not inevitably, reduce the number of classes from five to two; viz. the agricultural capitalist, to whom accrues the surplus, and the *depeasantized proletariat* who will emerge from among the ranks of the poor peasantry including share-croppers. In other words, the agrarian transition shows a tendency towards capitalist agriculture and would follow the historical route which we have observed in other societies. In proposing this scheme

and in some of my arguments, I have used evidence that I was able to find from the existing official data. In this, I have encountered, as I am sure others have, all kinds of problems. That itself is a serious issue, which should be debated among policy makers and researchers in this country.

In today's lecture I shall try to identify the underlying sources of the agrarian transition. These sources may be in the realm of private market or public policies, which have contributed to this agrarian transition towards capitalist agriculture. At the end, I hope to draw your attention to some of the major policy implications of my analysis.

Before I start discussing the sources of the agrarian transition in Pakistan, I think it is fair to draw your attention to the uneven and unstable performance of agriculture in this country during the last 35 years. Even if you look at the aggregate rate of growth of agriculture, it was less than 2 percent in the Fifties. In the Sixties the pace of development increased, and the overall growth rate was close to that achieved in the mid-Seventies, when agriculture stopped growing at more than 2 percent. In the last six years, there seems to have been a doubling of this rate. But this highly aggregate picture of agricultural growth in Pakistan does not, of course, reveal several important aspects of growth and distribution. For one thing, not all subsectors of agriculture have experienced sustained growth. I do not have to tell you the crisis-like conditions with respect to the growth of livestock, edible oils and pulses. Secondly, not all the growth in output, even in those activities which have experienced significant growth, has been due to increased efficiency. This is another important aspect of the problem that has so far gone unnoticed in this country. Sugar-cane is a very good example of it. Thirdly, the high growth rate experienced by agriculture even in the Sixties was uneven between various regions within a province, particularly between regions with and without irrigation. Of course, provinces with limited irrigation facilities and infrastructure have been no less seriously handicapped. Finally, and this is perhaps the most important point and one directly related to the issues that I have raised today, farm groups or classes have also been affected unequally depending upon their access to land and other related income-earning opportunities. These observations are supported by a substantial body of evidence from the primary or farm-level and secondary or aggregate data. I will draw your attention to some of them as we move along.



The agricultural crisis of the Fifties has been well documented. Gotsch and Falcon, for instance, did a very large study on this. Farm productivity stagnated and the rate of growth of population started to gather momentum. The agrarian structure remained highly differentiated. Furthermore, at the lower end of the peasantry, the farm holdings were being increasingly subdivided and fragmented, especially in the Punjab and the NWFP. The settlement of Muslim refugees from India, at least in the Punjab, added to the increasing number of middle and poor peasants. In Sind, the settlement of Muslim refugees tended to aggravate the conditions of the *haris* (share-croppers), as most of the settled refugees joined the ranks of the absentee landlords or landowners. The political climate for agrarian reforms, so much publicized in the early days of Pakistan by the top leaders, remained unfavourable and the landed elite stayed intransigent. The tenancy reforms of the early Fifties in the provinces of the Punjab, the NWFP and Sind introduced some marginal changes for both the occupancy and the non-occupancy tenants. I have produced considerable evidence elsewhere about the failure of these so-called reforms of the Fifties.

The Land Reforms of 1959 exercised the first visible pressure on landlords to readjust their holdings and relations with peasants. However, as I and others have shown in our studies, there is ample evidence that these reforms did not basically alter the concentration of landownership, as there were several substantial intra-family or intra-household transfers, both legal and illegal, to evade the ceiling on land. Generous as these ceilings were, the landless and near-landless peasants received little, if any, land; and most of the resumed land was in any case uncultivable. By the way, there has been a lot of debate on the consequences of the 1959 reforms. For instance, Shahid Javed Burki is of the opinion that the land reforms of 1959 introduced into the agrarian scene an enterprising middle farmer as a vehicle for capitalist agriculture in the future. But Hamza Alavi has maintained that no such thing has happened. On the contrary, landlordism may have been even more firmly set in the saddle.

The most significant change affecting the agrarian structure came with the development of water supply, particularly of ground water, through the installation of private tubewells in the Punjab. This facilitated the adoption of fertilizer and new seeds of wheat and rice in the mid-Sixties to late Sixties. Public policy of giving subsidies and price

support seems to have played an important supporting role in this development. This policy has been part of a "bimodal" strategy in agriculture. In fact, the term bimodal came into use in the Sixties in the light of the experience of countries like Pakistan, Mexico, and so on. It is a strategy to build on the "best" and was followed by governments in those countries where the agrarian structure was highly differentiated: dominance of large farmers in the political and economic spheres with numerical preponderance of small peasants (share-croppers included) on the land. It was assumed that the large farmers were necessarily the best, the most enterprising, and so on. The term "large" was used interchangeably with "best", and hence the term bimodal. In fact, Johnston, Kilby and others have devoted a lot of space to this issue, which is even more relevant today than it was during the Sixties.

The bimodal strategy of agricultural growth, reflecting the dominant ideology and political alliances, included several important factors which were by no means scale-neutral. Increased private profitability of new inputs, created mainly by subsidies, produced a double process: it increased capitalist relations on land and decreased feudal tenancy, both at the expense of poor peasants and share-croppers. It is, however, important that, much as the underlying forces making for agrarian transition are central to its explanation, they should be seen within the context of the agrarian structure itself. The availability and use of the productivity-increasing inputs are themselves a function of the social conditions within which they appear. This is what I keep emphasizing. Other people say, "Let us discuss markets; let us not worry about institutions." I am saying that the performance of the market depends very much on the social relations in the economy. The endowments of assets and land as wealth interact with each other. We have considerable evidence of such an interaction between land holdings, credit and farm inputs. It is a two-way street, but the relations are not always linear or mechanical.

Let us now examine the forces which help explain the agrarian transition under way in Pakistan. Once again I will use "facts" where data permit. Private profitability depends on, among other things, the extent to which new or better inputs lead to positive changes in cropping patterns, cropping intensities and yield levels of crops. Berry and Cline have brought together considerable evidence from several countries, including Pakistan, to test several hypotheses about the impact of tenurial status and farm size on farm productivity and the intensity of

inputs use. They have shown that farm productivity or technical efficiency is closely related to the size of farm and the tenurial arrangement. The traditional superiority enjoyed by the small owner-operated farms was premised on their intensive use of family labour and animal power. That is historically true of all the peasant systems. They have survived for so long in most societies only because of their propensity to reproduce themselves. This proclivity to reproduce in fact is itself a function of the need to provide family labour to survive. This link is very important.

However, with the spread of the so-called Green Revolution technology in Pakistan, the size-efficiency relationship seems to have reversed, thanks to the water-fertilizer-seed-machine package which the rich peasants and landlords could obtain at highly subsidized rate. The water-machine technology requires lumpy investment and the technology package is not necessarily scale-neutral. The credit-extension services with the input and output markets have also been closely linked to the size of holdings. I will go into details of this later. The structure of technology and the direction of credit flows themselves reflect the influence of large landowners and capitalist farmers on public policy. It is not divine laws that produce public policy. Instead, political and social processes of the society, including the dominant ideology, alliances and so on, go with the making of policy decisions. I shall have more to say on this.

There has also been an equally impressive demonstration of the higher level of productivity of owner-operated small farms *vis-a-vis* the sharecropped small farms in Pakistan. Evidence from my earlier works and from those of others supports this generalization. Landlords could entirely appropriate the benefits of new technology by reducing their dependence on share-croppers. Resumption of land for cultivation by self became not only profitable but also necessary for the survival of landlords. The increasing pressure of the cash economy and the competition with rich peasants (and capitalist farmers) have narrowed the choices for landlords. Landlords too are facing tough times, again supporting my contention that the agrarian transition is squeezing and transforming the landlords into suburbanized elite and capitalist farmers. Further, in those areas of the Punjab and Sind where the cost of "attached labour" (*haris* or share-croppers) is rising rapidly, there has been an incentive for landlords to adopt the machine technology and make

use of the relatively cheap labour. Thanks partly to population growth, but mainly to the displacement effect of machine technology on those activities for which the animal power and the tenants' labour are required by the landlord, the pool of attached labour has been increasing in most Sindhi villages. The scale and management effects have become clearly dominant in determining the size and tenancy arrangements in Pakistan's agriculture. Under the propitious conditions created by new technology, supported by public policy, capitalist agriculture has become an increasingly attractive and even a necessary alternative to the feudal and peasant systems. I would now turn to those factors (inputs and policies) which created the differential productivity effects in the first place.

Against the background of a stagnating agriculture in the Fifties, the Ayub regime launched in the early Sixties its search for what were regarded as the key inputs required to generate and sustain agricultural growth in Pakistan. Water has been rightly conceded as one of the most important inputs for crop growth. The canal irrigation system, inherited from the British administration and concentrated mainly in the plains of the Punjab and Sind, was quite inadequate to meet the water requirements of even the traditional cropping patterns. The water losses from the canal system, caused partly by poor drainage and partly by poor water management on the farm, were no less serious. Vast national resources were required to expand the surface irrigation system and to eliminate the menace of waterlogging and salinity. It was at this time, at least in the plains of the Punjab, that installation of private tubewells as a supplementary source of water became evidently profitable. We should pay homage to the late Ghulam Muhammad of the Pakistan Institute of Development Economics who convincingly demonstrated the superior profitability of tubewells for the central and eastern districts of the Punjab. These tubewells soon yielded impressive results and this technology spread quickly in the Punjab. Private tubewells not only provided additional water but provided it at the times when it was most needed for plant growth. New crops, which required more water, could now be grown and use of fertilizer became evidently profitable. It also then facilitated the adoption of high-yielding seeds of wheat and rice, introduced in the late Sixties.

There are at least four important aspects of the development of private tubewells which should be highlighted here.

Firstly, private tubewells have been installed mainly in the plains of the Punjab. They are not economical in the mountainous areas because of the depth at which ground-water is available. They have not been developed in Sind because of the depth level and the saline water. This uneven development of ground-water has been a serious factor in explaining some of the inter-regional disparities one observes in Pakistan. Secondly, private tubewells have been installed mostly by landowners with holdings of over 25 acres. Given the indivisible capacity of the diesel and electric tubewells, even the middle peasants cannot meet their fixed and variable costs. Therefore, there has been a high concentration of ownership of tubewells, which has led to a few problems. Thus, while a market for tubewell water has evidently developed, it has not been easy for the non-owners, poor peasants, to buy water at reasonable rates and at the time when it is needed most. This has created increased uncertainty which acts against innovation. The other problem is that the concentration of tubewells has provided added incentives to large landowners, tubewell owners, to lease their neighbours' land if not to buy it all. Capitalist farming is thus facilitated by the increased size of operational holding even further. Thirdly, the inducement to invest in tubewells has been provided by handsome subsidies on fuels, installation costs and maintenance. In fact, these subsidies may well become an important policy instrument for transferring public tubewells, which were installed in the Indus Basin to alleviate the problems of waterlogging and salinity, to private ownership. Fourthly, private ownership of tubewells has in no small measure been encouraged by a credit policy under which loans are advanced through the Agricultural Development Bank of Pakistan (ADBP). The ADBP shows that these loans have not only been readily available, given the collateral of land, but are given at a low rate of interest and convenient terms of repayment.

As stated earlier, a substantial investment in surface- and ground-water supply has been made by various levels of government starting mainly in the late Fifties. Surface water has been available to users at highly subsidized rates, and this needs to be emphasized. Water revenues do not even cover the maintenance expenses of the canal system. I am quite happy to see that the World Bank, in their last report on water use in this country, has finally drawn the attention of the Government of Pakistan to this aspect in a very serious way. The access to canal water in the village is not without problems. The watercourse system is regulated by public officials in consultation with the so-called committees of

water users on each watercourse. Studies by the World Bank and the USAID have shown that the tail-enders on a watercourse, who are usually the middle and poor peasants, are always at a disadvantage in getting water in adequate amount and when they need it most. This has been a serious handicap to innovation and higher level of income.

It is also well known by now that an additional and assured supply of water has been a major factor in raising the private profitability of fertilizer and new seeds of wheat and rice. As a new or non-traditional input, fertilizer was introduced with public subsidy. It was an important component of the government policy for increasing crop output. However, the use of fertilizer and new seeds, which in any case was premised on the availability of adequate water, has not been without serious inter-regional and inter-farm disparities. Dependence on rainfall, as in the rain-fed areas of the Punjab and the NWFP or in some areas of Sind, and inadequate canal water, as in the southeastern parts of Sind, have been major barriers to using fertilizer and new seeds, resulting in increased differences between regions. Inter-farm disparities have been observed between poor and rich peasants because of the unequal access to the fertilizer-credit markets. Small peasants have clearly indicated in surveys after surveys, especially in Sind, that insufficient and uncertain supply of water and inadequate availability of cash or credit militate against increasing the level of fertilizer per acre and the coverage of crop area. The cash/credit problem is aggravated by unequal access to the extension service which is supposedly the carrier of applied knowledge about new technology. Unfortunately, in Pakistan, extension service has become a laughing stock in most areas. You just have to go round the country and talk to any farmer to find this out.

The impact of mechanical inputs on agricultural growth and the agrarian structure has been a controversial issue in Pakistan. This applies particularly to the use of tractors, which have increased rapidly since the mid-Sixties. The case for tractors is premised on the argument that they help agriculture by their positive effect on

- (a) cropping intensity,
- (b) yield level, and
- (c) land preparation and post-harvest operation.

On the other hand, there are doubts expressed about some of these positive effects, particularly those relating to the yield level and cropping

intensity. It has also been contended by some that tractorization in Pakistan has resulted in (a) labour displacement and tenant eviction, and (b) expansion of holdings which are already large. Implied in these arguments is the notion that rich peasants and landlords are increasingly finding it profitable to encroach on the lands of poor peasants and share-croppers.

In the light of available evidence, some generalizations can be made about the tractors and their effects on growth and agrarian structure in Pakistan. Firstly, the ownership of tractors, which are all imported, has increased rapidly since the late Sixties. Secondly, tractors are of 35 hp and 55 hp and are generally beyond the means of a vast majority of landowners. Thirdly, there has been almost no positive effect of the use of tractors on the yield level. Fourthly, tractor ownership has generally increased the size of land holdings, through both an increase in the land leased from poor and middle peasants and cultivation by the landlords themselves at the expense of share-croppers. Fifthly, private return on tractor is particularly high if more water is available to reclaim land. Hiring out of tractors has also raised the return on investment, particularly as the tractor market is highly concentrated. Sixthly, cropping intensity seems to have increased on farms using tractors, but mainly in areas of more or assured supply of water. Seventhly, while there is no conclusive evidence on net displacement of labour due to tractors, the position of share-croppers on the landlord estates has weakened as less of their time and power of their animals is required for land preparation and post-harvest operations. The traditional strength of the share-cropper represented by his family labour and animal power has been undermined as the landlord is now even less willing to share the benefits of new technology associated with fertilizer, water, seeds and tractors.

The process of tractorization, dominated by large tractors, was initiated by pressures from large landowners. It has in turn resulted in a concentration of tractor ownership on the one hand and an increased pressure for expansion of area under large land holdings, both of landlords and of rich peasants, on the other. The tractor market, dependent on imports so far, has been closely regulated by the government. Public policy has so far consistently favoured the import and use of large tractors. The government has also provided handsome incentives for the purchase of tractors by reducing import duties and taxes. These incentives are in addition to the low-interest loans advanced by the ADBP. The tax-credit subsidies have remained high even with rapidly increasing

demand for tractors by landowners. The price of imported tractors in Pakistan compares favourably with what American farmers pay in the domestic market. However, remember that an average farmer with a 35-hp tractor in the USA has productivity level which is perhaps ten times as high as that of his counterpart in Pakistan. And yet they both seem to pay more or less the same for the 35-hp tractor. It is one way of looking at the subsidy.

The simultaneous transformation of the peasant and feudal systems into a capitalist mode, creating capitalist farmers from amongst rich peasants and landlords and wage labour from amongst poor to middle peasants and share-croppers, has been clearly aided by public policy and markets with unequal adoption of new technology for agricultural growth. This brings me to one of the most important elements helping the development of capitalist agriculture in Pakistan. Increasing investment in new technology which has tended to be lumpy and indivisible requires easy access to credit at reasonable cost. On this score, poor peasants and share-croppers have clearly been at a great disadvantage. A share-cropper has only one way to get credit, viz. through the landlord, if at all he can get it. The indebtedness of the peasant and the poor countries is truly legendary. Most of them are caught in the fetters of debt simply because their incomes are not adequate to sustain them from one season to the next. The condition of the poor peasant is even more desperate now than it ever was before. The cash economy is upon him and his credit-worthiness for loans from institutional sources is low. Hence his continued dependence on the traditionally high-cost sources of credit. Poor and middle peasants have relied on friends and money-lenders, including landlords. In fact, in many areas of Sind, loans advanced to share-croppers have been an important source of strength for the landlords.

Institutional sources of farm credit have become somewhat significant in the last 10 to 15 years. However, lending practices of public institutions have clearly favoured expenses on only certain inputs and their collateral requirements have excluded a majority of small peasants, particularly share-croppers, from taking advantage of these loans to meet their cash needs. For instance, the ADBP, which has emerged as the single most important credit agency of the government in the farm sector since the mid-Seventies, has been concentrating on loans for tractors, tubewells, special projects, land development and so on, for which only landowners with 25 acres or more can establish their credit. Lending for



the so-called short-term inputs, viz. fertilizer and seed, has been transferred to the co-operative banks and commercial banks, to which most small landowners are expected to turn. While these loans are soft, their acquisition by small peasants involves cumbersome procedures and a web of officials and merchants on the way. The consequent delays have tended to discourage their use. The non-institutional sources, friends, money-lenders and merchants, still remain important for poor peasants and share-croppers. Acquiring credit from money-lenders and merchants may be convenient, but service charges can easily exceed the total cost of procuring credit from institutional sources. For most of the poor and middle peasants, credit from these sources provides cash for (consumption) expenses between seasons. This is one problem about which the institutional sources do not have any plans or programmes at all. It is often such consumption needs of the peasants for which the institutional sources do not in any case provide loans and which maintain their dependence on money-lenders and discourage investment and innovation.

One final aspect of public policy affecting growth and agrarian structure remains to be explained. Direct subsidies on key inputs – viz. fertilizer, plant protection, new seed and tubewells – have been an integral part of public policy to promote agricultural growth since the early Sixties. These subsidies should be distinguished from indirect subsidies involved in water charges, huge as they are. We are here also not counting the subsidy implicit in support prices given for major crops, for example, wheat, rice, cotton and sugar-cane, which have been playing their role in changing the cropping patterns, private profitability, etc. As you know, a substantial part of the output of major crops is procured by the government. Farmers are guaranteed a basic price which is announced sometimes before the crop season. The support price of a crop is supposed to reflect (a) a fair return to farmers, and (b) an incentive for increased productivity. However, in practice it is determined through a political process in which the interests of large landowners are well protected if not necessarily promoted. Similarly, access to procurement centres and public facilities is not equally available to producers of large and small marketable surpluses.

The issue of the impact of subsidies, including the effects of changing input and output prices, on agriculture in Pakistan has been recently analysed in an excellent study by Gotsch and Brown. In Table 6, I have tried to provide evidence of the magnitude of direct subsidies on major agricultural inputs. All these data have been taken directly from

Table 6

*Distribution of Major Agricultural Subsidies in Pakistan, 1965-1982*

(In Million Rupees)

Year	Fertilizer	Plant Protection	Seed	Mechanization	Total Input Subsidy	Subsidy as Percent of Development Budget
1965-66	75	15	1	26	117	5.0
1966-67	125	18	2	37	182	3.8
1967-68	89	30	3	27	149	3.5
1968-69	118	31	3	38	190	4.4
1969-70	122	25	2	39	188	3.8
1970-71	98	30	3	—	131	3.1
1971-72	72	54	3	—	129	6.3
1972-73	228	128	2	25	383	10.8
1973-74	118	63	4	22	207	4.3
1974-75	326	112	6	16	460	5.5
1975-76	607	241	6	69	923	8.8
1976-77	381	306	6	74	767	5.8
1977-78	665	289	18	99	1,071	7.2
1978-79	1,692	—	—	27	1,719	10.7
1979-80	2,500	—	—	48	2,548	16.2
1980-81	2,448	—	—	48	2,496	14.4
1981-82	1,950	—	—	24	1,974	9.9

government publications. What is equally striking in these figures is that direct agricultural subsidies have claimed an increasing share of the development expenditure of the federal government, rising from 4 or 5 percent in the Sixties to over 10 percent in the late Seventies and early Eighties. It should be pointed out that the development budget itself has increased consistently over this period. Since we have evidence that the level and coverage of fertilizer and plant protection measures per acre are generally higher on large than on small holdings, it implies a disproportionately larger flow of subsidies to owners and operators of large landholdings. Moazam Mahmood, myself and some others have produced the evidence in support of this contention. It is similar in its effects to the unequal distribution of indirect subsidies involved in the farm credit programme in the public sector. This in turn distorts the private profitability of input use as between rich peasants or landlords and poor or middle farmers, reinforcing the tendency towards a capitalist agriculture.

Let us now look at the above-mentioned tendencies and counter-tendencies in a more generalized way. It would be wrong to suggest that the process of depeasantization in Pakistan would follow a reductionist law of transformation. There are several conceivable counter-tendencies which can halt, slow down, and perhaps even reverse this process to some extent in some periods of time. Undoubtedly, the contradictions now operating within the differentiated agrarian structure under the influence of markets and public policy are dissolving the dominant features of the feudal and peasant systems. However, the transformation of rich peasants and landlords into pure capitalists and of the poor peasants and share-croppers into pure wage-workers can be prolonged and delayed by several counter-tendencies. For one thing, peasants have historically shown a high degree of resilience and ability to adapt to new ways of agriculture. The Russian debate on this before the Bolshevik Revolution and after provides ample evidence on this point. Similar evidence seems to have existed in France and Poland. The peasants can remain attached to the land and provide their labour-power as peasant proletariat to the burgeoning capitalist farmers, working partly on their land and partly as wage-workers for the capitalist farmers. In fact, in this they may play a complementary role in the development of a capitalist agriculture such as they were doing in Russia before the Revolution.

We have at least two major arguments which need some explanation here in the light of what has been recently happening in Pakistan. Let

us examine the landlord-tenant system first. Landlords have not been entirely in favour of evicting their share-croppers. This is partly to avoid the legal problems which a large-scale tenant eviction can produce. But the more important reasons are perhaps economic. Subsidized inputs, including tractors and other machines, have raised private profits which landlords would not want to share with their tenants. Some landlords have adopted the policy of sharing the costs of all modern inputs with share-croppers, thus weakening the bargaining power of tenants. It also raises the cost of animal power. Tractor is another good example. The share-croppers must pay for the use of tractors. But the use of tractors reduces the landlords' dependence on their family and animal labour. Share-croppers must still maintain a stock of animal labour. In addition, landlords have expanded the areas under their own cultivation, mainly by reducing the size of the parcel of land they give to each share-cropper. This practice supplements the rotation system followed in Sind, precisely to avoid the problem of having to entertain claims by a tenant to a particular piece of land. These policies add to the pool of an increasingly dependent and relatively cheap labour, which cuts down their dependence on seasonal or casual labour. Please observe this phenomenon closely. A landlord does not yet have to depend too much on the casual unattached labour. He can produce a similar kind of labour within the feudal system by weakening the bargaining position of the share-cropper. This mechanism works well in areas where either there is a chronic shortage of seasonal wage labour or alternative employment opportunities for share-croppers are not many. The Punjab belongs to the first case and Sind to the second. Attached labour then provides a pool of weakened peasants whose dependence on landlords has also been increasing due to their indebtedness.

I turn now to the peasant system which exists in many areas of the Punjab and the NWFP. Migration of a part of the household labour has become a desperate necessity for the poor and middle peasants. This migration could be to the larger towns or cities within the country or even to the Middle East, which has been a major source of employment to the middle and poor peasants. The landless have not necessarily been the major beneficiaries of emigration to the Middle East because of their poor liquidity position. One has to have some liquidity to be able to purchase air ticket to the Middle East. Then, one must also leave something behind for the family until the new income stream starts to flow in the new job.

Migration from villages has also been to escape from the drudgery and lower wages than can be earned in industry and town. For households which own, individually or jointly, a small parcel of land, migration from the village, particularly to large cities and the Middle East, has brought additional income. The remittances have also become, at least for some middle or poor peasants, a source of additional land which can be leased or bought from other poor peasants who cannot evidently survive on their incomes from farming small plots. This is a counter-tendency in the peasant system, with reduced vulnerability to competition from rich peasants and even the prospects for joining the ranks of rich peasants.

The peasant system at the lower end can thus extend its 'life span' and even remain a contending force to a rapid development of capitalist agriculture. But this is not all. Without additional income, and given the private profitability of investment in agriculture, the competition for land intensifies and an increasingly active land market can work both ways for the peasants. Some middle and poor peasants can no longer survive this competition, while others, some middle and most rich peasants, can flourish in an increasingly capitalist system of agriculture. In fact, the government has decided to promote what I call "corporate" farming, a decision intended to modernize agriculture in a capitalist way. On this, I must say a few additional words. There has apparently been a well-orchestrated campaigning since at least 1982 to popularize the notion that large-scale corporate farming may be a panacea for agriculture in this country. This argument is, in addition to other equally persuasive forces, increasing the involvement of industrial capitalist into corporate farming. Involvement in agriculture would mean several benefits: agricultural subsidies, loans from the ADBP, reduced taxes on industrial income and no tax on agricultural income. Of course, investment in agriculture is also a very profitable venture for those who want their "black" money turned into legitimate income, on which they have to pay only a fraction. Now how far it extends or how rapidly this corporate farming disintegrates the feudal and peasant systems will depend on the economic and political contradictions it creates in the society. These tendencies then reflect the contradictions which the process of development itself gives birth to.

Agrarian reformism can also significantly slow down the process of depeasantization in a society. The populist rhetoric of "land to the

tiller" can really be an impediment, not in a negative sense, to the development of the forces of production, i.e. of capitalist relations of production in agriculture. Indeed it has happened in many societies, and some governments have been far-sighted or lucky enough to do these things at the right time. Populist alliances, sometimes confused with socialism, can introduce land reforms which confer upon the landless and poor peasants rights of private property in land resumed from landlords and rich peasants. Such was indeed the promise of the Bhutto regime in launching the 1972 reforms.

In a country where most cultivators are either landless or most of the land is owned in large parcels by a small number of households, a transfer of substantial land to the former groups can extend the peasant system or even transform it into a co-operative (co-operatized) farm system. On the other hand, a land-reform programme can also promote, rather than retard, the development of capitalist agriculture by creating the necessary pressures on landlords without redistributing significant proportions of land to the landless share-croppers and poor peasants. There is substantial evidence that the land reforms of 1972 may have contributed to this tendency without at the same time strengthening the peasant system.

My tentative analysis of classes and the agrarian transition in Pakistan is, as I have been suggesting and emphasizing, only a first modest attempt to demystify the process of development. It should provide some help in discovering the mechanism by which agricultural surplus is extracted from direct producers. It may also provide a starting point for analysing the phenomenon of rural poverty. In fact, research on rural poverty in Pakistan, negligible as it is, should be directed at this framework. On my own agenda, I have a clarification of the concept of rural poverty in Pakistan. But this is, of course, for me only a beginning. I would like others to give substance to the rhetoric appearing in public announcements on rural poverty. Finally, on my agenda, and I hope it to be on the agenda of other researchers and policy makers, is the question: how is agricultural surplus extracted by the State for infrastructural development and for redistribution among various classes within rural areas? Unfortunately, this is an area in which our ignorance is complete. We must start asking: who produces the agricultural surplus, and how, through direct and indirect taxes, is it extracted by the State? Also, once extracted, how is the social surplus ploughed back? In what form and to what farm groups are the infrastructural facilities available?

Let me say in the end that I am most grateful to all of you for sharing my thoughts so patiently. I am now ready for questions and comments.

### DISCUSSION

*Professor Syed Nawab Haider Naqvi:* I think we all agree that it has been a very impressive and learned exposition of Prof. Khan's ideas. There must be a whole lot of questions for which we have plenty of time. Let us begin with Dr. Hussein Mullick.

*Dr. Hussein Mullick:* I will continue my earlier reaction to your otherwise excellent lecture. I still feel that our approach to development has not been the right one. I do admit that your approach does show several aspects of our agricultural development which could help the policy makers to change certain policies, but the main goal of having a quick and distributive development at the village level through this process is again neglected. I think our approach to development in rural areas has always been unfortunately imposed from above. I am afraid that this approach has failed; it has created a lot of tensions and changes that you have pointed out, which perhaps were not desirable for achieving harmonious and balanced development. I think time has come to change this macro-oriented approach which is good as a literary piece of research but does not serve the purpose of broad-based development in rural areas. I feel that a community-oriented development will be the most appropriate.

I can again assure you that the change brought from above and imposed on the villages has led to unfortunate results. Firstly, as you have pointed out, the influence of land reforms imposed from the top may have led to unnecessary ejection of tenants and promoted use of machinery and other things which were perhaps not so necessary. Secondly, I feel that development, if allowed to take place at the village unit, will not lead to quick polarization, which is very difficult to digest. I also feel that changes imposed from the top on villages have created two classes, the beneficiaries and non-beneficiaries. On the other hand, if change had taken place at the village level, perhaps this polarization would not have arisen. Further, these policies have led to massive migration of rural people, which in turn has led to an unfortunate pattern of development in our industries. I do not believe that our resource endowments demanded this type of industrial growth.

We have followed a wrong agricultural development policy, and as a consequence of this the urban centres were flooded with workers from rural areas. We went in for import substitution, which was a terribly primitive and out-dated development strategy. This type of development led to transfer of the rural surplus to urban centres. I wish the agricultural development policy had been more village-oriented. This enormous rural surplus transfer would then not have taken place. You cannot imagine it, but hardly any money collected at the village unit is disbursed to the rural areas. The money that you get in rural areas is very little and comes from the Agricultural Development Bank, whereas the money that is collected at the village level is simply passed on to Karachi and similar other places. I have asked some of the managers why they do this. They say the more deposits we collect the more we are in a position to transfer this money, i.e. the surplus capital, from rural areas to Karachi and other cities and the greater the prospects for our promotion are. I think I have a fundamental disagreement with your approach. I do, however, admit that your analysis has been extremely interesting.

*Prof. M. H. Khan:* Thank you so much for making these observations and comments. My purpose in the two presentations was not to come out with any policy prescriptions. I am trying to look at the process of transformation which is taking place and trace out the forces, unleashed by public policy and the market, which are helping this process. I have also attempted to point out the counter-tendencies which this process itself has created. That was the intent of these two presentations. That does not mean that either I am not aware of or I have not dealt with the issues you have raised. For instance, in my book of 1981 and in other research articles, I have indeed dealt with the issues like the one you have suggested.

My thesis here used a world-view which is completely and diametrically opposed to the neo-classical notion, which implies that development is a harmonious process. I am saying that development is a disharmonious process, a process of disequilibria. That is the first thing people should understand, and if I am not able to clearly communicate this message then there is something wrong with me. Secondly, it is always easy to say that we should worry about small farmers and we should have people's participation. Everybody will agree with such a prescription, the policy makers and politicians alike. Who is against the common man? Of course, no one! But the problem is that no one so far



has called a spade a spade: People cannot participate unless the structure of ownership and the use of the most important income-earning assets remain what they are, as they influence markets and public policy. You cannot expect people to participate unless the existing structure is attacked and changed.

*Ms Nigar Ahmad:* I must admit I am quite disappointed today, because I thought that we were going to have some substantive arguments from you regarding the process of social change in rural Pakistan. Unless Pakistani economists are singularly ill-read, I feel that nothing you have said so far is new. It is not necessary that the people may have to read Hamza Alavi and Gotsch and some others and the message comes across very clearly. What I was really interested in was the rest of the rural economy, i.e. other than agriculture. We find very little about that part in your presentation. I mean even elsewhere one has heard of capitalist farmers who have benefited from the Green Revolution, and thus set in motion the process of depeasantization. But what is happening in the rest of the rural economy? Is the rest of the rural economy, the non-agricultural sector, able to provide the forces which are weakening the process of depeasantization? Or is it in itself disintegrating as a result of what is happening in the national economy? Somehow the link is missing between the agrarian sector and the rest of the economy.

*Prof. M. H. Khan:* Thank you so much for drawing my attention to what you consider to be the important issues. First of all, may I humbly submit that you do not expect me to deal with all the issues under the sun in two sittings. Secondly, intellectually there is a capacity available to all of us. I have never pretended, nor should anyone else expect me to pretend, that I am going to deal with all the issues. Some of the issues that are of particular concern to you – for instance, the role of the State in transforming the agrarian structure and therefore influencing the process of agrarian transformation – are in Chapters 9 and 10 of my 1981 book. Some of the things I have said here are obviously based on others' studies and my own impressions and studies.

You keep referring to the rural economy, of which agriculture is only a part. I agree with you on that. The problem is that some fragmented studies give us some clues of those groups about whom we do not say much directly, and yet they are very much the victims of the process of change. I know that. You see that depeasantization increases the pool of the non-agricultural labour force. So, to that extent I am

dealing with them. There is no doubt that there is now a growing tendency, especially in the Punjab, for the numbers of artisans and landless wage workers to increase. In fact, if you look at the migration picture, among the migrants probably the largest proportion is that of artisans and these workers. I thought that this is not necessarily the place where I should go into details of exactly what is happening to all of these forces. In my ongoing study of rural poverty, I am attempting to analyse the behaviour of those groups.

*Dr. Ghulam Rasul:* Thank you, Mr. Chairman, for letting me make a comment. Let me start by first of all offering my compliments to Prof. Khan for presenting very clearly his thesis that the process of transformation of agriculture in Pakistan has, if I understand it correctly, worsened the condition of the poor *vis-à-vis* that of the other classes. I missed the lecture yesterday, as I was out of station, but I have a couple of observations on what he has presented this morning.

First of all, I would like to refer to Prof. Khan's remarks regarding the water charges. I would like to submit that the policy makers are very well aware of the problem that water charges are not enough to meet even the maintenance expenses of the irrigation system, and despite the best government effort they are still far lower than the actual expenditure on the maintenance as well as on the capital cost of supplying irrigation water. But to me the central question is not whether the water charges are meeting the maintenance expenses or not. The important policy to be viewed is whether the overall charge of the sector is being used for a certain function. I here bring to your notice, for instance, the big effort being made by way of very large project of rehabilitation of canals and water management. So if a large expenditure is being incurred on that account, it matters little if the water charges are not recovered to meet the expenses of that particular function.

Secondly, reference has been made to the indivisibility and lumpiness of investments in the Punjab as compared with those in the Indian Punjab. However there may be other factors explaining this difference. The Sikh in the Indian Punjab may be more efficient than the Punjabi Muslim. This could in fact be an important difference.

My last observation is regarding the tables that you have presented. In Table 4 you talk of changes in land holdings during the period from 1972 to 1980. It puzzles me because this was the period in which a lot

of remittances went into the farm sector. Now these remittances were not used for increasing the size of this sector whereas you say that land is a very big attraction for investment by farmers. If they have not invested in the purchase of lands, then where are those remittances reflected? The point I am trying to make is that this kind of information that one uses is to me a very scary piece of information. My submission is that before a researcher makes use of this kind of data, he should first refine them rather than use them unrefined and make generalizations from them.

*Prof. M. H. Khan:* Dr. Ghulam Rasul is not only a high official in the Planning Commission, but he is an old friend. Therefore, there is all the more reason why I welcome his comments.

First of all, on water charges. My point here is not that I am concerned only with canals not being maintained because water charges are low. No, I am saying that water charges are one of the biggest sources of subsidies to farmers if you look at the marginal value product of that water to individual farmers. That is what I am really suggesting. I maintain that a part of the surplus should be extracted if it is being produced in a way which meets the criteria of efficiency and equity.

Secondly, on the Sikh-versus-non-Sikh issue. This debate can go on, but the fact that we see more divisible or non-lumpy investment in the East Punjab and not in West Punjab has nothing to do with religion. What is important is the agrarian structure as a precondition. The East Punjab agrarian structure is mainly of holdings which are small and more equally distributed. The ownership of and access to land are relatively egalitarian. The other reason could be that the agro-climatic conditions in West Punjab are far more heterogeneous than in East Punjab. Please do not compare the average of East Punjab with that of West Punjab. That is one of the problems and a fault of aggregation.

Thirdly, about Table 4 I tried to explain yesterday that some of this enlargement of size of farms may have come about as a result of increased leasing of land of owner-operators and landlords by capitalist farmers. Obviously, I do not have direct evidence, except by combining the data on landownership (from land records) and on operational holdings (from censuses). I obtained the landownership data and combined them with the operational holdings to make some sense out of them. That is all that I have done.

*Dr. Akhtar Hasan Khan:* I would just like to ask a small empirical question. You have said that there has been an uneven growth in Pakistan's agriculture: that we had a growth rate of less than 2 percent in the first half of the Seventies and of about four percent in the last six years. My conjecture is that in the first half of the decade public policy was more favourable towards the big landlords in terms of support prices and subsidies than it has been more recently. But I would like you to comment on this difference in the growth of agriculture.

*Prof. M. H. Khan:* Two factors: first, there is an assumption by you that public policy was conducive to large-scale farming in the early Seventies. I have not found much evidence of that. In fact, it was a period of great uncertainty for both landlords and peasants because of the so-called land reforms. There were erratic changes in the prices of inputs and outputs. Changes in the fertilizer price in 1973-74 are a good example of it. Secondly, the weather conditions. Unfortunately, in 1973-74, the conditions due to floods and untimely rainfall were also perhaps responsible for that. This has been pointed out in the literature. If you look at the weather, for instance, in the last four years, it has been largely favourable. Another factor may be the foreign-exchange situation.

*Mr. Shafi Niaz:* I would first like to supplement some of the arguments which have been put forward by Prof. Khan in regard to the difference between the East Punjab and West Punjab agriculture. I think, in addition to what he has said the factor that has contributed to the apparently better agricultural development in East Punjab is the better infrastructure that has been provided by the Government. For example, rural roads made other inputs easily available to the farmers. Fertilizer was available in the form in which it was required. Gypsum, on which there is an ongoing controversy in this country for the last 8 to 10 years and which we had mentioned in the five-year plans from the very first plan, is available in East Punjab in the form in which it should be used. Then there is the availability of appropriate machinery for the size of holdings. These were some of the other factors which may have played an important part in the development of agriculture in East Punjab.

My second point is about Prof. Khan's mentioning the issue of land reforms with no practical discussions on this, particularly in the Sixth Plan. I would like to ask him from what angle does he think the issue of land reforms should be considered for the future? Does he think that further breaking up of the feudal system is necessary? Does he think

that it would help to increase productivity? Does he think that he can do more social justice through a redistribution of land? Or does he think that better land utilization can take place in terms of the intensity of cropping and otherwise? Or does he think that he can bring a better consolidation of holdings? What does he mean by 'land reform'? In my judgement, it is not just redistribution of land, as he appears to imply. There are other aspects of land reforms which are equally important.

The third point which I want to make is about the definition of small farmers. We talk of small farmers perhaps as if they are not using much of the inputs and, therefore, their productivity is low. All our surveys in the field during the last 1½ years in the Agricultural Prices Commission have revealed that this is not the case. I would suggest that when we use the words "small farmers" we should not forget that their efficiency, cropping intensities, and use of inputs are as good as those of big farmers, and we have found in some cases that they are even better than those of the big farmers.

*Prof. M. H. Khan:* Thank you, Mr. Shafi Niaz, for making these comments. I have dealt with land reforms rather extensively in my 1981 book. I am saying that the issue of land reforms is a complex one. It is just not simply the case that you redistribute an equal amount of land to everyone who is landless. There is not enough land. If you do redistribute, it may be completely useless and may still perpetuate poverty. Some form of tenancy must exist. So a ceiling on holdings for redistribution of land is only one part and not necessarily the only part of a programme of land reforms. Taiwan and South Korea, for instance, have shown that rearrangements of tenancy contracts can bring about substantial efficiency and equity effects within agriculture. Secondly, tenancy reforms may be politically the least inconvenient. Thirdly, the consolidation of holdings can be done independently of the redistribution of land. A lot of small farmers in the Punjab and some in Sind have highly fragmented holdings. Frankly, the consolidation of holdings at a war footing in this country may alleviate a lot of rural poverty.

*Mr. Manzoor Ahmad:* Indeed I join others in paying my compliments on your very thorough analysis of the situation and circumstances which have been responsible for accelerating the process of depeasantization. I only wanted to say something on public policies towards small farmers, which are being quoted by you within inverted commas. I hope that

after some clarification that I will render, at least one of the inverted commas would disappear!

I would first like to take up the question of mechanization that you have dealt with at length. You have said that perhaps we have been wedded until 1982 to the principle of giving to farmers no choice except to tell them that they must use big tractors. In fact, the entire policy of mechanization was a policy of tractorization. We have forgotten about all other implements. You have already noted that the government has taken a decision to lift the ban on small tractors. They have decided to let in 20 to 35 hp tractors. They have also decided to let in 1 to 20 hp tractors with greater freedom than the ones falling within the range of 20 to 45 hp tractors. What is more important is that a rental-market is developing. You say that this is accentuating the problem of polarization amongst the peasants and the wage workers, and formation of the capitalist farmer. The government would like to encourage promotion and establishment of agro-services. The idea is that farmers are not making an efficient use of big tractors. Energy is being wasted because they are using some kind of implement which is only scratching the surface and is as good as a bullock-driven plough but no better. We want to diversify the range of equipments to see that the services are available to small farmers under a guided arrangement. It is hoped that there will be a set-up of triangular arrangement between the lending agency, small farmers and operators of agro-services to see that the reach of agro-services really extends to small farmers.

With regard to credit, the channel of co-operatives will be more homogeneous in the sense that they will consist of farmers with farms of 12½ acres or less to take advantage of this interest-free credit. We are trying to initiate a process of homogenization. In the past one of the difficulties and drawbacks of the co-operative system has been that there were heterogeneous groups, i.e. the higher the land holding the greater their influence, with the result that the small man's interest was by-passed. I think that the government decision to make interest-free loans to small farmers and also to channel them through the co-operatives will bring about equity in agriculture. The government wants the ADBP to concentrate on development loans, and the World Bank has also put a condition that 35 – 40 percent of the loans must be given to small farmers.

My other comment deals with the role of dairy industry in agricultural development. In Pakistan, the marginal farmers are the ones who own milking herds. It is their marketing that the government has to ensure and that is why concessions have been given to dairy plants. Fortunately, new technologies are available under which they do not have to be located in the consuming centres. They are being pushed to the producing centres and all these concessions have been given. There is no income tax and no duty in the dairy sector, not because the desire is to make the rich richer but to see that the dairy plants benefit the low-income people.

One final comment is on the Sikh-versus-non-Sikh efficiency. I would like to add another dimension. A point has been made that differences in infrastructure are also responsible. Another point is that in comparing East Punjab with West Punjab we ignore three things: (i) West Punjab has a lot of *barani* area, but East Punjab is entirely irrigated, except for a very small area; (ii) East Punjab is fortunate that their entire ground-water is sweet; and (iii) because of the earlier lead they have been able to keep the water table at a fairly reasonable level. Salinity and waterlogging problems are not there.

*Prof. M. H. Khan:* I must thank Mr. Manzoor Ahmad for making valuable comments and for informing me about the policy issues on which the government is now apparently moving. Since my presentation did not really deal with policy prescriptions, I did not go into the details of specific steps taken by the government in the area of agricultural development. I have never suggested that public policy makers are not aware of problems. They are usually more aware than we give them credit for, but I am drawing your attention to the social and political constraints that the policy makers must reckon with.

*Mr. Shujaat Ali:* Before asking the question, I would like to say that I have the honour and privilege of sharing the institutional affiliation with Prof. Khan as one of his students. I have detected in Prof. Khan's works a strong plea for direct agricultural taxation. Now I cannot foresee that the government will remove the agricultural price ceiling, given the government's sensitivity to the very vocal urban interests. Under these circumstances, this price ceiling represents a very large implicit tax on agriculture. I cannot see how one can advocate direct taxation of agriculture unless it is coupled with an equally strong advocacy of removal

of all ceilings on agricultural prices and equal access to credit and infrastructure as is given to the industrial sector in this country. I would like your reaction to this.

*Prof. M. H. Khan:* I have myself been opposed to the insidious indirect taxes on agriculture, which include these ceilings as they are regressive and harm efficiency and equity in agriculture. However, the historical task of agriculture should also be kept in mind. It has always paid the price of development. Even in the Soviet Union, who bore the blunt of industrialization? What I am advocating is that the burden of development be distributed more equitably.

*Prof. Karol J. Krotki:* I have a comment to offer on the exploitation of family labour. In the literature, there are two views. One view says that people are poor because they have large families. The other view says that people are too poor to have large families. I happened to hold the second view for 22 years, counting from my articles which I wrote in the *Pakistan Development Review*, which is edited by you, Mr. Chairman. It is only now that a chapter dealing with this problem in the Sixth Five-Year Plan calls the policies, based on the first view, a misdirected effort. Therefore, we are at a very important stage of development, if this new view is really taken seriously.

I have another comment to offer on the effects of immigration and emigration in this area. Yesterday, I agreed that it is hypothetical that emigration may have been increasing the fertility of the rural people. In fact, I did some thinking about it and there is considerable literature to substantiate my point of view. It is less than hypothetical. The earliest view that I am aware of is the view of the Director of Census in the U.S. in 1870. I think he was an army General in the Civil War who became the Director of the Census. He thought that if only these Irish had not come to the U.S. then the fertility of the Anglo-Saxon stock and consequently the population would have remained the same and that it would be a much more homogeneous society. Similar views were expressed by writers with regard to other territories. So this business of density in Pakistan is something which does deserve more attention than it has received so far. I remember an article, I do not exactly know where I read it, which has shown that in areas which were subject to canal colonization human fertility has increased simply because there were now the means to increase fertility. I would be grateful if somebody remembers where this article appeared because I would like to actually use it.



*Prof. M. H. Khan:* Thank you, Prof. Krotki, for your comments. I do not have to add anything except that Malthus came before that U.S. General and said that with increased per capita food supply the proclivity to reproduce will also increase!

*Dr. S. K. Qureshi:* Professor Khan, you have very succinctly traced the impact of public policies adopted in Pakistan during the 1960s on class structure in rural areas. You have also argued for drastic land reforms as a condition for eradicating rural poverty.

I find some difficulties with your analysis and the policy prescription emerging from it. The pricing and other public policies adopted during the Sixties were a response to the particular situation prevailing then in the agricultural sector. The adverse prices given to farmers did transfer resources out of the agricultural sector. In this process, growth and equity both suffered. Though no hard evidence exists, rural poverty might have increased during the 1950s as real wages had shown a declining trend. The stagnating agricultural production during the 1950s was argued by some to be related to the unfavourable prices given to farmers for their produce. A switch in the policy package, composed of better agricultural prices, better rural infrastructure and improved supply of inputs, was aimed at to increase the rate of growth of the agricultural output and also to some extent to mitigate the rural poverty resulting from rising real wages and increased employment opportunities. All observers of the agricultural scene agree that the agricultural output had registered impressive gains during the Sixties.

There are conflicting opinions on the trends in rural poverty and in income inequality. The important point to note is that the disintegration of the peasant and feudal systems in Pakistan may not have been accompanied by rising levels of poverty. With this background, I suspect that the drastic land reforms consisting of lower ceilings applicable to families and not to individuals would create a large number of peasants just to be "eaten up" by the capitalist farmers. A regime of small peasants will be less conducive to accumulation of capital and growth. In this sense, your policy proposal would not be laying the basis for a socialist transformation of agriculture. In fact, it would be arresting the historical process currently under way in most of the Third World countries. In the capitalist societies, the dominant classes receive as income a share of the fruits of the labour of tenants and landless workers.

The State institutions and public policies tend to sustain and perpetuate this system. Socialist development implies control by the people directly engaged in the productive work. Short of the revolutionary seizure of power, Professor Khan, would you recommend any policy that could start the process of socialist reconstruction of the agricultural sector in Pakistan? I am afraid the dominant classes would frustrate the institution of any effective land reforms or any radical change in other policies that you have analysed.

*Dr. A. R. Kemal:* My question relates to Prof. Khan's basic thesis of the emergence of capitalist farmers, or the increasing trend towards promoting them. I have an uneasy feeling that we are trying to explain an issue which may not exist here. This brings us back to yesterday's discussion regarding Table 5. Now whatever the problems, whether minuses cancel pluses or not, even if we leave them aside, just a comparison of the 1971-72 and 1979-80 data suggests that both in the Punjab and Sind capitalist farmers have not experienced additions to their acreage, which has declined over time. If that is anything, it shows not an increasing trend but a declining trend. If I have not misunderstood Prof Khan, it is apparently not basic to his thesis; then the question would be how rural-credit-requiring collateral could be supplied to small farmers? What are your views on removal of subsidies and their replacement by higher prices? After all, if you do remove subsidies and increase prices, these are going to benefit large farmers once again because they have higher marketable surplus.

The other point which I want to make relates to Dr. Akhtar Hasan Khan's comments on growth rates. If you look at Table 6, we find an increase in subsidy as percentage of total development budget, and it has almost doubled if you compare with 1976-77. The increase is just 1 percent of the GNP every year, which comes to 3 percent of the agricultural output. If there is a 4 percent growth rate in a sector, out of which 3 percent is contributed by subsidy, would we call it an increase or decrease in the growth rate?

*Miss Shahida Wizarat:* My first question relates to Prof. Khan's point that technical change in agriculture is neutral. According to a study I have completed, the new technology has been either neutral or labour-augmenting. I have examined the relationship between technological change and the capital-labour ratio in agriculture, and the results show that there is either no relationship or at best a negative relationship

between the shift parameter and the capital-labour ratio. This implies that technological change has at best been either neutral or labour-augmenting. I would like your comments on these findings.

My second question is related to the thesis that institutional obstacles, or as you referred to them as social factors, inhibit agricultural growth. According to this thesis, these factors become an obstacle to growth after a certain stage has been reached in agricultural development. In the beginning, agricultural growth goes along with this social factor and only after that certain stage has been reached do these social phenomena start exerting their influence and inhibit further growth in agriculture.

*Prof. M. H. Khan* (jointly to Dr. S. K. Qureshi, Dr. A. R. Kemal and Miss Shahida Wizarat): Dr. Qureshi has apparently raised no questions. I agree with him that you cannot go on using agriculture as a milking cow. I know there is a historical task of agriculture to produce surplus for industrialization, but you cannot go on using it as a milking cow as it is being used now. In Pakistan the poor farmers have been victims of this policy. So, in fact the brunt has been borne by the rural poor.

Dr. A. R. Kemal! In Table 5, I think there are problems of adjustment of data for the two censuses. The other thing is that a capitalist farmer is a capitalist farmer not just simply because of the apparently large size of the farm he owns. It is only one indication, but there are other indications of capitalist agriculture: use of machinery and wage labour, displacement of sharecropping or share-croppers, and so on. In the Marxist tradition, capitalist agriculture implies definite and specific social relations, which we should also take into consideration in analysing the situation in Pakistan.

Secondly, I agree entirely, and I think everyone else will, that the government should pay higher prices but remove subsidies. No one disagrees with that. I think you have made a good point by using my Table 6 that the 4 percent growth rate in the late Seventies has been achieved at high cost. Sugar is a good example of how it has been produced in this country at a very high cost. It is one of the most expensive uses of domestic resources.

Miss Shahida Wizarat! I am aware of your good contribution about technological change in agriculture. I call this a technocratic issue. You are only supporting the argument that technical change is not neutral. These aggregate production functions are very bad animals. Once you get increasing returns to scale, how can you explain them in the neo-classical paradigm? Where are the super profits coming from? On the second point, I think the comment is well offered, but I have little to add.

May I in the end thank you all very much for the patient hearing I have received from you. I am particularly grateful to Professor Syed Nawab Haider Naqvi for his invitation and hospitality.

## CONCLUDING REMARKS

by

Professor Syed Nawab Haider Naqvi

Professor Khan has spoken on one of the most sensitive and explosive issues relating to the structure of agriculture in Pakistan. As you will agree with me, Professor Khan spoke with a confidence born of an intimate and detailed knowledge of his subject. At the heat of the moment his confidence sometimes resembled the 'Chief-has-spoken' type of confidence of the legendary American Indian chieftain. However, for the most part he has pleaded his case with the help of a reasoned argument, raising its macro-edifice on micro-foundations. He has kept his cool in the face of the blazing reality, even that at the district level, and has come out unsinged to talk of the historical forces that have swept Pakistan's countryside in the last three decades. Professor Khan, having done his job with remarkable dexterity, has now passed the buck to me.

My response will mostly be a passive one, trying to recapitulate what Prof. Khan poured out at supersonic speed, creating occasional sonic booms, and then to state my own views on the subject for whatever they are worth. The point of departure of Professor Khan's basic thesis is the Marxian dichotomy distinguishing between the *forces* of production and the *relations* of production. The recognition of this basic distinction in the context of Pakistan's agriculture has paid immediate dividends, as it has rightly shifted the focus of discussion from the 'surface' phenomenon of agricultural growth to the structural factors underlying the surface. Exactly how and in what proportion these factors explain the ebbs and flows that Pakistani agriculture has experienced over time remains nebulous, partly because the underlying structural factors have also undergone a change. It is tempting to make *casual* statements based on observed *correlations* between the secular shifts in the forces of production and the relations of production, but Professor Khan has, by and large, refrained from falling a prey to such temptations.

From the fume and fury of his (reasoned) argument it is legitimate to single out three basic themes on which Professor Khan has expatiated with authority. First, focusing on the relations of production he has come out with a most interesting typological taxonomy of a five-tiered “differentiated structure”, which in his opinion must be explicitly taken cognizance of in the analysis of the behaviour of economic agents in the agricultural sector. In this he takes issue with the neo-classical paradigm which looks at the ‘farmer’ as a homogeneous creature going about his traditional chore of profit maximization. However, he has not pushed his quarrel with the neo-classicals into an open showdown. Having dropped a hint he has walked away from the ‘scene of crime’, leaving it to others to fight it out.

Secondly, we have from Professor Khan a clear exposition of the ‘agrarian transition’ from a purely feudal structure to a capitalistic structure – but not quite. There are, he is careful to point out, “counter-tendencies” that may reverse, impede or slow down this transition. Professor Khan has traced the drift of events where the present five-tiered system – consisting of landlords, capitalistic farmers, family farmers, share-croppers and wage workers – may be reduced to a two-tiered system, consisting only of capitalists and the “depeasantized proletariat”. This drift, while it may be arrested by counter-tendencies, must be guided into socially desirable channels to usher in a more efficient *and* just agricultural structure. The field is wide open. There is still a chance that government intervention can change the *character* of agrarian transition from one with visible capitalistic strains to the one that leads to a co-operative farm system.

Thirdly, Professor Khan has related the anatomy of agrarian transition to conscious public policies, which he characterizes as a set of “bimodal” policies that have tended to favour the big farmers at the expense of small farmers on the presumption that big landlords are more efficient than the small ones. This explains the manner in which public policy has *consciously* encouraged the use of large tractors, tubewells, fertilizers and credit primarily by the big farmers. It may be noted that this policy has, by and large, been consistent with a similar set of policies pursued in the corporate sector where large-scale manufacturing has been subsidized to the virtual exclusion of small-scale manufacturing and capitalists have been favoured at the expense of labour. However, both these strategies, aimed at maximizing growth *rather than* equity, have backfired precisely because they were premised on a wrong notion of

economic processes. In the agricultural sector, it has been shown by several authors, including Professor Khan, that small farmers tend to be *at least* as efficient as large farmers. Also, the policy of pampering big landlords has led to a misuse of key inputs and tractors which has helped neither growth nor equity. The 'trickle-down' effect has failed to materialize in the agricultural sector as it has manifestly done in the urban sector. That is why the Green Revolution has not been as green as it could have been, at least from the point of view of equity. Hence the need for a substantial reorientation of public policy to favour the small farmer with a view to helping growth and equity simultaneously.

I think this is a fair recapitulation of Professor Khan's basic contribution in these two lectures. Since I tend to agree with the main thrust of his argument, I confine my remarks only to a couple of points.

My first comment relates to the question of land reforms. We all agree that the several land reforms so far introduced in Pakistan with much fanfare and rhetoric have failed to make a dent in the differentiated agrarian structure. This is because these reforms have been half-hearted while the vested interests have proved to be too strong to let these reforms take hold and make any impact on the feudal structure of agriculture in Pakistan. However, I wish to emphasize that a mere demonstration that land reforms did not work in the past does *not* prove that they will not work in the future as well, even if the agrarian structure does not remain infested with powerful vested interests, who so far have succeeded in frustrating all moves to break their stranglehold on Pakistan's agriculture. The failures of the past must be an added reason why we must do more of the same, but with a greater cutting power. To walk away from the very idea of land reforms is a defeatist retreat which would only strengthen the hands of the tyrant. Or is it that having failed to defeat him – the tyrant I mean – we have opted to collaborate with him?

My second point relates to Professor Khan's observation that public policy has contributed to the emergence of capitalist agriculture. Doses of direct and indirect subsidies have been fed to the economic agents in the agricultural sector in the vain hope that they will respond productively to the bait. What should then be done? Here I feel that both Professor Khan and the many discussants from the floor have tended to agree on a point that I would not agree with. True, agricultural subsidies

cost money to the society, but then what is a government for if not for stepping in where the market fails? Is there any warrant to justify the oft-repeated Smithian optimism, *not* echoed by Professor Khan, that market forces, if unfettered, will maximize social output? I do not think that there is any such warrant, irrespective of what our starry-eyed, ever-optimistic policy-makers may have been dreaming about. Furthermore, it is not subsidies *per se* that are bad, even if large subsidies have gone to those who needed it the least – the big unproductive farmers. It will be wrong to infer from this episode that we should stop subsidization and let the ‘market’ do for the government the job of economic management. All it means is that the ‘structure’ of subsidies should be reoriented to help those who need it the most. For the government to abdicate its social responsibility on the ground that it costs money is chicanery, to say the least. It will also be unwise. Indeed, such a step will amount to throwing the baby away with the bath water.

My third comment concerns the visibility, however hazy, of capitalist agriculture on the agrarian horizon in Pakistan. The debate centres around the consequences of this phenomenon for agricultural growth and equity. That capitalist agriculture is upon us may not necessarily be bad, at least in the short run. In fact, it may represent considerable progress over the feudal or peasant system. That these systems are being squeezed out or are on their way out should be welcome. This much has been conceded even by the arch-enemy of capitalism, Karl Marx. In that sense, the emergence of a capitalist class in agriculture may even be socially desirable. Professor Khan has been careful to hedge his bets on this point. However, not knowing as much as he does of Pakistan’s agriculture, I would not rush to shower unqualified praises on the shape that agrarian transition has taken in Pakistan. My reservations about the drift towards capitalist agriculture in Pakistan emanate from three factors.

(i) We may be encouraging the development of a highly subsidized, but not necessarily efficient, capital-intensive methods of production by the big landlords. High subsidies tend to raise private profitability of their *excessive* use over their social profitability. The misuse of tractors and key inputs like fertilizers, water, etc., is a good example in this context.

(ii) We may be repeating the mistakes of the Sixties: widening income disparities and transforming disguised unemployment into open unemployment – thus letting out in the open what had better be hidden



under the rug. For open unemployment in rural and urban areas can become explosive.

(iii) The basic question that we must answer is: For whom does the bell toll? I think that this is the ultimate question that we have to face as social scientists and humanists. Professor Khan has shown that the bell apparently tolls for the rich, at least for the present. I think that his findings are correct, and it is too bad. Of course, some would argue that the trickle-down effect has been quite evident and strong. But one only has to look at the evidence about the concentration of ownership of land, tractors and tubewells to be suspicious about any such pleasant scenario. The prosperity generated in aggregate terms by capitalist agriculture may simply be a drift towards an explosive situation. An unimpeded growth of capitalist agriculture can be a forerunner of a social upheaval.

I am not yet through. My main worry is that what we have experienced in Pakistani agriculture may not be a clear break from its feudal moorings. Capitalism for all its faults has one, if only one, silver lining: it effectively scatters the dark clouds of feudalism. If Professor Khan can assure me that the agrarian transition in Pakistan has had this effect, I will then offer at least two cheers, if not three, to such a development. However, I do not think Professor Khan would be so rash as to make a bet on this point. My fear is that what we have upon us is not an orderly transition from feudalism to capitalism but a drift into the quicksand of a feudal-capitalistic structure which, as Paul Baran pointed long ago, is worse than both capitalism and feudalism, *pure and simple*. Their mixture is explosive, and this is what we have on our hands. We see an 'iron curtain' rising between the landless wage earners and the feudal-capitalist landlords.

However, let me not spoil the beauty of the morning in Islamabad by my doomsday talk. Instead, I wish to congratulate Professor Mahmood Hasan Khan on his two excellent lectures. I am grateful that he accepted my invitation to come to Pakistan, defying the long distance between Canada and Islamabad. His presentation has been characteristically provocative; hence the occasional heat in the discussion. As if to demonstrate that he is no relation of Juliet, who "speaks" but "says nothing", Professor Khan has gone out of his way not only to speak but also to say – and say a lot. Remembering how many Juliets we have in Pakistan and elsewhere in the general area of agricultural economics, it is comforting to know that Professor Khan is not one of them.

I should also like to thank the Ford Foundation for giving a grant to the Pakistan Institute of Development Economics (PIDE) to finance the speakers in the present series of "Lectures on Development Economics". I must also thank the participants from outside the PIDE. I am particularly indebted to my colleagues at the PIDE for their cooperation, without whom these lectures would not have been so well attended. This is a sad commentary indeed on the state of intellectual health in Islamabad. But I remain optimistic: the sun will also rise and the frosty intellectual weather in this otherwise beautiful city of Islamabad will one day melt away. If winter comes, can spring be far behind? Let me close on this happy note.

Thank you all again.

*Appendix*

**BIOGRAPHICAL SKETCH  
OF  
PROF. MAHMOOD HASAN KHAN**

- Date of Birth: August 8, 1937
- Education : **Ph.D.**, Agricultural University, Wageningen, The Netherlands. 1966
- M.Soc.Sc.**, Institute of Social Studies, The Hague, The Netherlands. 1963.
- M.A.**, University of Sind, Hyderabad, Pakistan. 1960. Economics
- B.Sc.**, University of Sind, Hyderabad, Pakistan. 1957. Agriculture
- Employment Record: **Professor**, Simon Fraser University, Burnaby, B.C., Canada: September 1980 to date.
- Associate Professor**, Simon Fraser University, Burnaby, B.C., Canada: July 1969 to August 1980.
- Assistant Professor**, Simon Fraser University, Burnaby, B.C., Canada: May 1966 to June 1969.
- Research Officer**, Agricultural University, Wageningen, The Netherlands: October 1965 to March 1966.
- Lecturer**, Agricultural College, Tando Jam, Sind, Pakistan: October 1960 to September 1961.

Honours, Awards,  
Grants:

Visiting Professor, Applied Economics Research Centre, University of Karachi, Pakistan: September 1981 to August 1982.

Member, Board of Editors, *Pakistan Development Review*: since March 1979.

Visiting National Professor, Applied Economics Research Centre, University of Karachi, Pakistan: January 1 to December 31, 1978.

Visiting Research Fellow, Pakistan Institute of Development Economics, Islamabad, Pakistan: September 1973 to June 1974.

O.E.C.D. Consultant and Visiting Associate Professor, Department of Economics and Statistics, Middle East Technical University, Ankara, Turkey: December 1969 to December 1970.

Visiting Research Fellow, Department of Economics, University of California, Davis: January to August 1968.

The Canada Council Leave Fellowship: 1973 – 1974.

The Canada Council Research Grant: 1967-68, 1973-74, 1978-79.

Consultant: (i) Agricultural Development Bank of Pakistan: February to July 1982. (ii) Pakistan Agricultural Prices Commission: November 1981 to August 1982. (iii) U.S.A.I.D.: October 1981. (iv) Sind Regional Plan Organization: April 1982 to July 1982. (v) Pakistan Planning Commission: from September 1982.

Membership in Professional Societies:

International Association of Agricultural Economists;  
Canadian Asian Studies Association;  
American Agricultural Economics Association;  
American Economic Association.

**Recent Representative Publications  
of  
Prof. Mahmood Hasan Khan**

**A. Books**

*The Role of Agriculture in Economic Development: A Case Study of Pakistan.* Foreword by Colin Clark. Wageningen, The Netherlands: Centre for Agricultural Publications and Documentation. 1966.

*The Economics of the Green Revolution in Pakistan.* New York: Praeger Publishers. 1975.

*Underdevelopment and Agrarian Structure in Pakistan.* Boulder, Colorado: Westview Press. May 1981. Also published by Vanguard Books, Lahore, Pakistan. 1982.

**B. Articles**

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“The Capital Coefficient in the Process of Economic Growth”. *Economia Internazionale*. Vol. 18, No. 1. 1965.

“Some Aspects of Food Consumption and its Long-Term Perspective in Pakistan”. *Journal of Agricultural Economics*. Vol. 20, No. 1. 1969.

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“Green Revolution or Technocratic Euphoria: Some Problems of Rapid Agricultural Change in Asia”. *Economia Internazionale*. Vol. 26, No. 1. 1973.

- “Food for the Future: A Comment”. *Population and Development Review*. Vol. 2, Nos. 3&4. 1976.
- “Land Productivity, Farm Size and Returns to Scale in Pakistan Agriculture”. *World Development*. Vol. 5, No. 4. 1977.
- “Estimates of Agricultural Income Tax in Pakistan”. *Pakistan Development Review*. Vol. 17, No. 1. 1978.
- “Effects of Farm Size on Economic Efficiency: The Case of Pakistan”. Co-authored with D. R. Maki. *American Journal of Agricultural Economics*. Vol. 61, No. 1. 1979.
- “Farm Size and Land Productivity Relationships in Pakistan”. *Pakistan Development Review*. Vol. 18, No. 1. 1979.
- “The Poverty Curtain: A Review Article”. *Journal of Contemporary Asia*. Vol. 9, No. 1. 1979.
- “Relative Efficiency by Farm Size and the Green Revolution in Pakistan”. Co-authored with D. R. Maki. *Pakistan Development Review*. Vol. 19, No. 1. 1980.
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- “Growth and Fluctuations in Output of Major Crops in Pakistan”. Co-authored with A. S. Siddiqui. *Pakistan Development Review*. Vol. 21, No. 2. 1982.
- “Socio-Economic Indicators in Rural Pakistan: Some Evidence”. Co-authored with Mahmood Iqbal. *Pakistan Development Review*. Vol. 21, No. 3. 1982.
- “Green Revolution and Redistribution of Rural Incomes: Pakistan’s Experience – A Comment”. *Pakistan Development Review*. Vol. 22, No. 1. 1983.

### C. Other Articles

- “Is Small Farmer the Problem?” *Pakistan Economist*. Issue 19. May 13, 1978.
- “Pakistan’s Fifth Five-Year Plan: A Critical Review”. *Pakistan Economist*. Issue 38. September 2, 1978.
- “Green without Revolution”. *Pakistan Economist*. February 27, 1982.

### D. Chapters in Books

- “Economic Aspects of Crop Losses and Disease Control”. In J.M. Webster (ed.), *Economic Nematology*. London: Academic Press. 1972.
- “The Application of Some Economic Principles to Crop Losses Due to Plant Diseases”. In J. Chant *et al.* (eds.), *Canadian Perspectives in Economics*. Toronto: Collier-Macmillan. 1973.
- “The Sind Hari Committee, 1930–70: A Peasant Movement?” In A. Bhaduri and M.A. Rahman (eds.), *Studies in Rural Participation*. Geneva: International Labour Office. 1981.
- “Land Productivity, Farm Size and Returns to Scale in Pakistan Agriculture”. In Karamat Ali (ed.), *Pakistan: The Political Economy of Rural Development*. Lahore: Vanguard Books. 1982.

### E. Consulting Reports

- “Fertilizer Demand Study for Pakistan, 1975–85”. Completed for ESSO Pakistan Fertilizer Co., Karachi. 1974.



“Evaluation of the Cotton Maximization Project in Sind, 1978”.  
(Completed for the Government of Pakistan.) Applied Economics Research Centre, Karachi. 1978.

“The On-Farm Water Management Project in Pakistan”. U.S.A.I.D.  
(Project Impact Evaluation Report No. 35.) Washington, D.C.  
June 1982.

“Agriculture in Sind”. A Report to Sind Regional Plan Organization,  
Karachi. July 1982.

#### F. Journals for which Articles Refereed

*American Journal of Agricultural Economics*  
*Economic Development and Cultural Change*  
*Pakistan Development Review*  
*Pakistan Journal of Applied Economics*

#### Research Interests

Economic Development, with emphasis on agriculture: Planning and project evaluation; Farm efficiency by size and tenancy; Land tenure and tax systems.

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