The Pakistan Development Review
28 : 4 Part I (Winter 1989) pp. 509–528

Invited Lecture

The Agrarian Sector in Pakistan's Development Process – Historical Evidence and Implications for Policy and Theory

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This paper intends the following:

(i) To explain the changing role of agriculture in Pakistan economy and society from 1947 until now;
(ii) To analyse the increasing socio-economic differentiation of agriculture in recent times;
(iii) To speculate about the consequences of the change in agriculture and its role in the society for agriculture and rural development policy and theory.

1. 1947–1965, THE PERIOD OF STAGNATING AGRICULTURE

In 1947, Pakistan was a mere agricultural country. A few factories, especially for processing cotton and sugar could only be found in the cities of Karachi and Lyallpur.

The young nation's main task in the initial years was to secure its population's survival, to integrate millions of refugees from India and to legitimize the new state. In an agricultural country, it was not surprising that the first political approaches were made in agriculture.

While the agrarian reform measures of the first years were not very drastic, the abolition of intermediaries was rather successful. This measure could be enforced because it did away with colonial relics. It was far more difficult to enforce a ceiling legislation, although land was urgently needed for distribution to refugees.

For the development process, the structure of the country's elite was a deter-

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mining influence. It was, and still is, pluralistic with landowners, military men and higher administrative officers – and these often in close relationships – sharing power in the initial years. An industrial elite developed some years later only, consisting mainly of families migrating from India. The landowners were of decisive importance during that time.

The large landowners practised mostly a policy which has been characterized as "rental feudalism". The land was rented to small tenants, and landlords cared little about improving agriculture but tried to earn higher incomes by strict control of the rent. Their aim was not to increase the production but increase the skimmed off part of the yield.

Of course, there were also numerous small and medium farms, but their efficiency was limited. They practised traditional farming. Improved seed varieties, fertilizers, etc., were not available and the irrigation system had many shortcomings, especially as far as management is concerned. Salinity became more widespread. The objectives of these smaller farms were self-sufficiency and barter at the local level. Lacking infrastructure even made it difficult to produce for the market.

During this time, several large-scale attempts were made to improve agricultural development, by way of extension, by establishing cooperatives and by a community development programme. All of these had little success partly because of a too isolated approach, partly because of insufficient personnel and financial means and also because the rural elite was more oriented towards retaining the *status quo* than towards agricultural development. In this and later periods, the frequent change in strategies had a negative impact. No approach was carried on long enough to be able to mature.

Almost stagnating agriculture meant a production increase below the population increase of 2.5 to 3 percent and, thus, constant dependence upon food imports. This consumed foreign exchange, caused political dependence and hindered non-agricultural development.

In line with the concepts of development policy at that time, the first Five-Year Plan laid emphasis on industrial development but with poor success. Lack of industrial tradition, shortage of capital and foreign currency, limited purchasing power among the mass of the population and too strong regulation and interference by government created a climate which hardly promoted industrial development.

Increasing population and reduction in farm sizes as a result of the inheritance custom led to growing underemployment. Adjustment by way of migration was hardly possible because of the few jobs in towns. Moreover, the caste system, still intact at the time, prevented many persons from changing their occupations as is generally required when one migrates. Indeed, the castes (*zat*) in Pakistan lacked the religious components, but they are rigid, endogamous patronage groups. Otherwise, there was often a strong aversion to manual work outside agriculture and to working

for others.

During this period of stagnating traditional economy and agriculture, there were not many forces which tended towards changing the conditions. Besides the few cities and towns, the country consisted of a large number of isolated villages populated by illiterates. Until the war against India, in 1965, the mass of the population had hardly developed any national feeling. There were no transistors nor other means of communication in the rural areas. Therefore, for the mass of the population, the world was restricted to an orbit of a few villages. Agriculture and the urban centres had little connection politically or economically.

The role of agriculture in this community at that time was:

(i) To provide food and raw materials;
(ii) To form capital mainly for transfer to other sectors by way of taxes and prices;
(iii) To procure foreign exchange, especially by cotton export; and
(iv) To absorb the increasing number of labourers.

The stagnating agriculture fulfilled these tasks to a limited extent only and, therefore, contributed little towards development. The feudal structure provided no incentives for change. Peasants were dependent on their landlords.

2. 1965 – 1977, THE PERIOD OF PROGRESS IN AGRICULTURAL PRODUCTION

In the mid-Sixties, a considerable production increase took place in agriculture due to the process known as "Green Revolution". It consisted in the introduction of biological-technical as well as mechanical-technical progress in the agrarian sector. It was launched by the introduction of new wheat and rice varieties, which had a considerably higher genetic yield potential than the old local varieties. However, to exploit this potential, complementary inputs, especially fertilizers, pesticides and irrigation must be available. This demand excluded non-irrigated areas so that the level of prosperity between irrigated and non-irrigated areas became more marked still.

The high production increases caused a rapid introduction of the new varieties, beginning with the larger holdings. But many smaller ones followed suit when they had overcome difficulties in access to inputs, baking quality and taste of the new varieties. Two bottlenecks occurred in the new production process: lack and insecurity of irrigation water and lack of draught power for the higher cropping intensity. Within a few years, these bottlenecks were overcome by constructing more than 100,000 tubewells and by purchasing an equal number of tractors. This was

made easy by heavy subsidies.

This wave of mechanization had far-reaching consequences: the pressure to absorb the costs of mechanization and the wish to realize new profit opportunities led to the dismissal of numerous tenants and to a concentration in larger units of operation. Draught animals, after tractorization, decreased by 1.7 million from 1960 to 1980 and, therewith, one of the most important reasons for the old sharecropping system – decentralization of bullock-keeping and, thus, reduction of risks – was no longer valid. At the same time, the traditional 50 : 50 share for the gross yield meant a very high pay for labour because tenants supplied only their labour and yields had increased considerably. As attempts to reduce the tenants' share failed, leases were terminated and owner-cultivation was practised. Often, the cultivated area was expanded by renting land from small farms which could not cope with the financial demands of the new level of technology.

The technological changes led to considerable differentiations regionally as well as between different strata. The main beneficiaries were the owners of medium and especially large farms, whereas the small farmers drew much less benefit. In many cases, tenants and labourers even lost the basis of their existence.

With the emergence of a commercial type of agriculture, the traditional nature of relations between groups of the rural population changed. The common interest which all rural inhabitants had hitherto in agriculture, which provided their living, made way for increasing polarization of interests. The former labour relations involving mutual obligations – labour and loyalty against salary, patronage and welfare – were replaced by contractual commitments. For sure, the old, institutionalized mutual relationships were strongly one-sided, but they gave the weak a certain basic security of existence while nowadays those must often live without this minimum social security.

However, the extensive dismissal of tenants did not lead to mass poverty. This is attributed, in the first place, to the prohibition of imports of combine-harvesters. Therefore, during the harvest – with high pay – the landlords depended upon casual labour which thus had income opportunities. Moreover, many of the former tenants exchanged their bullocks for buffaloes and thus could sell milk or *ghee*. This was the task of women whereas men were free to seek work even in distant places.

Such jobs were offered to a growing extent. According to the rule of the agrarian society: "If the farmer has money, the whole world has money", the higher income in agriculture and the higher marketing quantities led to a strong increase in the demand for transportation, storage, trade, construction, consumer goods, etc., so that the dismissed tenants – after a period of transition – found a new means of existence. While this was true for the majority, individual people, especially of advanced age, experienced considerable hardships. In addition to new job opportu-

nities in the service sector, numerous places of work were created in the production of machinery and implements, less in large-scale industries but mostly in small-scale units along the highways and in the *mandi* towns.

The "Green Revolution" brought about a considerable increase in the output per acre in irrigated areas and made the country independent of grain imports for some time. Thus, a price increase for staple foods because of scarcity could be prevented. Since this technological development of agriculture took place before an effective agrarian reform – the second attempt to 1970 also yielded but few results –, it only led to a consolidation of the prevailing inequality among the rural population, to an increasing concentration of land cultivation, to a polarization of social relations and to migration of numerous people out of agriculture and from the rural areas.

Since the increase in income of landowning families was higher than that of other rural households, at the same time fewer job opportunities were offered in the villages, many of the landless migrated.

Industrial development took place to a very limited extent only – apart from that of the rural service industries mentioned. Quasi-socialistic experiments such as nationalization of industry and banking and minimum wage laws turned out to be obstructive. The main development occurred in small-scale industries and rural towns. Large groups of the rural population, especially the lower class in rural areas, in their attempt to find new opportunities became mobile to an extent unknown hitherto. This change of residence also caused the observance of old norms to diminish when selecting employment.

During that period of great, mainly positive changes, agriculture had become more productive but also more liable to risks. It now was irrevocably intertwined with other branches of the economy and, therefore, dependent, among others, upon the government's price and subsidy policy. As the government took back part of its preference for agriculture in the mid-Seventies and, simultaneously, the negligence in expansion of plant breeding stations proved to be prejudicial, the agricultural production experienced a set-back. The "Green Revolution" has not launched an actual development of agriculture but only raised production to a higher level.

Agriculture's task in society enumerated below changed in comparison to former times:

(i) It still comprised the provision of food and raw materials, and agriculture was more successful now;
(ii) Capital formation was utilized to a greater extent for investments in agriculture, that is, in its own sector;
(iii) Procurement of foreign currency changed in type. Export shortened with

concentration on grain production, but self-sufficiency substituted for the import requirements;

(iv) For the first time, agriculture was, to a large extent, a market for non-agricultural products and services and thus promoted the expansion of those sectors; and

(v) Slowly, labour was released from agriculture and land was ceded for residential and small industrial enterprises.

3. 1977 UNTIL NOW – PERIOD OF EXTERNALLY STIMULATED DEVELOPMENT

During the last ten years, Pakistan's economy has made remarkable progress but it appears that this is not so much the result of internal economic development but mostly dependent on foreign influences. The conditions are home-made: a liberal, almost early capitalistic economic policy, in which the public sector is less in the forefront as previously. The propelling forces behind the economic activities are two developments outside the country, namely, the labour demand in the oil-producing countries and the war in Afghanistan. The oil-producing countries provide work to millions of young foreigners, a large number of whom comes from Pakistan. These workers' remittances – more than 2 billion US-dollars per annum for some time – not only solved the country's foreign exchange problem but also brought much purchasing power to the country, especially to the rural areas.

The war in Afghanistan brought the burden of three million refugees but also purchasing power in form of aid funds from international organizations and, in addition, a large amount of foreign funds for investment in the military forces. Among the refugees, who enjoy relative freedom of movement in Pakistan, are also numerous people with technical knowledge that is of benefit to the local economy.

The strong increase in purchasing power influenced especially the rural areas and the lower classes. Landless families were not bound by the labour requirements of agriculture and could easily send their young members to work in the oil-producing countries. Also, they had to overcome the least cultural handicaps against taking up manual work for others.

The strong increase in purchasing power led to considerable demand for consumer goods and in construction and, thus, to a boom in the rural industries and trades which greatly expanded and created many new employment opportunities. Together, the expansion of the middle-level industries, especially for consumption goods, and a boom in construction and transport offered alternatives not only abroad but also within the country, to the youth in the rural areas. Indeed, it is not easy to find employment, but with the help of relatives and friends already working outside agriculture, the young people usually find work after a period of

quest. Often, this is neither the work nor the pay they want but a means of support, sometimes even more. Otherwise, they would not leave the village.

Since the wages, or the hope of receiving them, in comparison with the income from traditional small-scale agriculture are more attractive and the young people in town can free themselves more easily from the social control in the village, the youths from small farmers' families lose more and more interest in agriculture. At least, continuing farming on farms that become smaller and smaller because of the inheritance custom is no longer the only way of life but one among several alternatives. Often, the older generation supports taking up non-agricultural employment by the youth as it finds that this is a more rapid way of improving the living standard than all efforts to increase agricultural production.

As a result of these developments among the small-farm households, numerous forms of multiple employment emerge:

1. Small cultivators take up a non-agricultural main or side occupation or work permanently or seasonally as agricultural labourers. The two occupations are carried out by the same person, as is always necessary when no family member is old enough to be able to earn a living. Since farm cultivation continues, the second occupation can only be carried out locally, as craftsman or shopkeeper, or in the vicinity.
2. In other households, one or more sons take up an off-farm employment, locally or in distant places, permanently or whenever they find work and give part or all of their income to their family. Sometimes, agriculture is practised only during the second half of life. Up to the age of 45 approximately, the son works off-farm whereas the father cultivates the land. When the latter becomes too old, the son takes over the cultivation but, often, his own children are of working age already. It is not rare that, in the second half of life, people have claim to a small pension for having worked in the army, police force, etc.

   This household income combination opens the possibility of taking up an occupation at distant places and of increasing the household income in this way.
3. Nuclear families maintain close social and economic relations with other members of the extended family although they migrated permanently out of the village. Branches of the family living in the urban areas obtain, for example, some of their basic foodstuffs from their parents' farm as support or for sentimental reasons. Moreover, the right to return means an important social security in case of unemployment. Inversely, services are also offered in return in form of remittances and help at harvest times. The remittances do not have to be regular but can be effected when

actually needed for investments.

The consequences of these forms of multiple employment for agriculture are very different and depend upon the individuals' personal attitude and circumstances. Sometimes, earnings from a non-agricultural occupation are invested and utilized to modernize the small farm which is expanded by renting in additional land. But in many other cases, the interest in agriculture decreases. The people limit themselves to extensive production for subsistence and enjoy a quiet and cheap residence far from town. Especially old people, in the absence of other forms of social security, continue an extensive subsistence farming as long as they can and enjoy village life, sometimes after a life of work in the city. Villages become the home of the aged.

After migration out of agriculture had become so frequent, the social norms also changed. Belonging to a certain *zat* or being cultivator is, nowadays, no obstacle to migration from the rural areas but may still influence the nature of the selected new occupation.

The experience of many small farmers' sons led to a completely changed attitude towards agriculture. Whereas it was predetermined that the fathers' generation would take over the parents' farm, for the young people of today, agriculture is only one among several possibilities. They no longer demand an equal share of landed property or 'land for everyone' (as was the goal of the land reforms) but, in the first place, equal income opportunities, wherever these are offered (in rural areas, in urban centres or abroad). This transition from demand for equal access to land to demand for equal access to income opportunities has turned the agrarian question into a problem of the overall society instead of one of the agrarian society as before. It can now be solved only within this wider framework.

Changes in the man-land relationships can also be ascertained on large farms. On the one hand, there is a differentiation within agriculture: whereas most of the farmers practise a modern, market-integrated commercial agriculture, others keep to traditional agriculture with sharecroppers and satisfy their income requirements through a strict skimming of rent instead of production increases. On the other hand, non-farmers in a sound financial position find it interesting to invest in agriculture and set up dairy farms, fattening farms for cattle and poultry, etc. Thereby, speculations, tax evasion and exploitation of subsidies play an important part.

For a qualitative assessment of all these differentiations among farms, statistics are not very helpful. By using their figures on farm sizes, tenancy, separating irrigated and non-irrigated areas, I have tried to come to the following groupings which put more light on the socio-economic character of Pakistan's four million holdings in 1980. Naturally, these are estimates. They are meant to substantiate the argument. The resulting breakdown is as follows:

1. Larger farms (landlords) of more than 60 ha with a wide variety in quality and intensity of cultivation,
   approximately 13,500 = 0.3 %.
2. Medium farms of 10 to 60 ha, most of them cultivated rather intensively,
   approximately 300,000 = 7.3 %.
3. Small farms of 3 to 10 ha, whose management quality and future prospects differ and which often have members of the cultivator's family working outside agriculture or which are occupied by an aged couple,
   approximately 1,100,000 = 27.0%.
4. Marginal farms of less than 3 ha, which only guarantee sufficient subsistence in combination with non-agricultural incomes, or are the basis of life for aged persons,
   approximately 1,600,000 = 39.5%.
5. Tenants' farms of more than 5 ha, which are usually well managed,
   approximately 240,000 = 5.9%.
6. Tenants' farms of less than 5 ha, often traditionally cultivated,
   approximately 810,000 = 20%.

According to these figures, agriculture has developed in very different directions. Some peasants pursue the traditional way of life and apply few modern methods of production. Many of these farms will be given up in the future since the young generation is only partly interested in continuing farming. Or the old people will spend the rest of their life in the rural areas and cultivate the small farm which will serve as residence in their old age and gain some of their subsistence from it. If the farm has a favourable location, the land could also be used for commercial purposes by the next generation. Other farmers adopted modern, intensive agriculture.

The fact that the increase in non-agricultural incomes in the rural areas is higher than that of the agricultural income will bring about further migration, especially from small farms and areas with poor yields like the *barani* areas. Farms will further be divided as a result of the inheritance custom and become smaller. Only migration of part of the population out of agriculture – not necessarily from the rural areas – can stop this process. This means that the urbanization of the country will continue.

The interweaving of agriculture with the remaining economy, the young people's striving for comparable incomes and the readiness to migrate have largely changed the position of agriculture in the overall economy and society. If agriculture used to be the focus of attention of everybody, it is now an integrated and dependent component of the economy. It is not so much the leading part of economic development but more and more the supported one. Since agriculture is a shrinking business – at the moment, about 50 percent of the labour force work in agriculture

– as a result of further migration, it will soon be practised by a minority only. Already today, in many villages not more than 15–20 percent of the families are farming. In such a situation, it is an important shortcoming that there are no powerful institutions to represent agriculture's interests *vis-a-vis* the government and other sectors of the economy.

The task of agriculture in society has changed again and widely expanded during this period:

(i) It still comprises the provision of food and raw materials of a constantly higher quality;
(ii) It makes a contribution to the development of the market for non-agricultural products and services;
(iii) In order to achieve comparable income, it is necessary to increase labour productivity and to expand cultivated area per farm unit as well as continuously release labour. In this, there are still many frictions; and
(iv) Moreover, the preservation of resources and the maintenance of the cultivated area is gaining greater and greater importance.

4. CONSEQUENCES FOR AGRICULTURE AND RURAL DEVELOPMENT POLICY

Over the last forty years, a number of factors have caused a socioeconomic differentiation within agriculture. Agriculture today takes place in a variety of different ways of life that are only partly determined by agriculture. Depending on these characteristics, each requires a different policy, and a prerequisite for an effective policy, is the exact definition of target groups. Some examples may illustrate this statement.

(i) Larger commercial farms are organized along economic principles. Their requirements for support by the public, centre for instance, on plant breeding, credit facilities, provision of import facilities for spare parts and price policy to their advantage. Otherwise, it is in their interest if government reduces its interference in the economy to a minimum.
(ii) Medium farms are often intensively managed along modern lines but family circumstances and subsistence requirements play a role for labour economy as well as cropping pattern. For their activities, support by an effective extension service is of great importance and they are the main beneficiaries of cooperatives if these exist because they meet the urgent requirements of this group. This includes easier access to credit. The same applies to a lesser degree to the small farmers.

(iii) Marginal farms often live or at least try to live on a combination of agricultural and non-agricultural income. The more the latter is in the forefront, the more it influences the organization of land cultivation. Income maximization from farming is only one of several possible goals of these households. Not the highest yield or income from agriculture is the target but for instance low labour requirement so that much time is left for the non-agricultural job. Or one attempts a cropping pattern with short peaks in labour requirements during which man takes leave or during which all relatives are called for help. Price policy is of limited importance because most products are consumed at home. On the market, these households sometimes act as producers, sometimes as consumers. Co-operatives as well as extension service are not frequented much, and credit is dangerous for this group. Provision of non-agricultural jobs and training for non-agricultural jobs are of much greater interest.

Household of the aged with land are hardly influenced by measures of agricultural policy. In the absence of other means to support them, they continue cultivation as long as they can in an extensive way. With reducing ability to work, more and more tilling is given on custom hire or more of the land is rented out. Living in familiar surroundings together with other aged people is part of their way of life. Measures of social policy are called for to help these persons while agricultural policy hardly meets their needs.

The examples – which could be extended and specified – show that different parts of what is traditionally called 'agriculture' require different policies. With agricultural policy alone, one does not meet the whole variety of circumstances.

The primary goal of most people is to make the ends meet by a sufficient income and increase this standard. Secondarily, it may be the desire of persons to reach this goal by cultivating land. But for the majority – and varying from location to location –, agriculture today is one of several opportunities. They select the occupation or the occupations which offer the optimum total income possibilities.

The focus of public policy under such circumstances – widespread multiple employment and many holdings of the aged – should not be so much agricultural policy proper but rather regional development policy, i.e., the promotion of agricultural and non-agricultural activities and their basis. Naturally, even within this framework, agricultural policy has its place, but among other policies and often of different content than that for commercial farmers.

Since the beginning of efforts, the small farm, the peasant has been the main target in development plans and in speeches of politicians. The fact that agricultural development policy hitherto did not take notice of the socio-economic differentia-

tion between households engaged only in agriculture, and those which combine agricultural and non-agricultural activities, has led to suboptimal results of policy measures. While the target group – at least in declarations – usually has been the small farmers, nearly always, the large farmers could secure the lion's share of the support measures.

This state of affairs calls for a review of the theory of agriculture, which guides policy.

5. CONSEQUENCES FOR AGRICULTURAL DEVELOPMENT THEORY

What is 'agriculture'? 'Agriculture' is the cultivation of soil in order to produce food and raw materials useful for human beings. This production takes place in technical-organizational units we call farms or agricultural holdings. Depending on natural and socio-economic circumstances, we have a great variety of types of farms. But the most widespread one in the past and, so to speak, the prototype of 'agriculture' is the family farm. Characteristic of this family farm is that the family members use their labour capacity on the farm and live off the products of the farm. Since ALBRECHT THAER, every student of agricultural economics learns that the highest profit is the goal of the farmer. This proves true for large farms but as well for family farms, only that here some other goals play a role, too, like self-sufficiency, risk aversion, etc. If one remembers the different socio-economic types of holdings mentioned above, then one must say that the notion of the farm, on which the cultivator's family applies its labour and lives off the farm product does not hold true as a prototype of agriculture.

Rather, in most cases the farm family members work on a variety of jobs, whatever seems profitable to them, and the family lives on the total income from agricultural and non-agricultural sources. Chayanov in his theory of the peasant economy was the first to emphasize this difference.

From family to family (depending on age), from place to place (depending on economic location), from farm to farm (depending on size and productivity) and from time to time, the combination of incomes may vary widely. The smaller the farm, the larger usually is the share of non-agricultural income.

It appears that farm management went the wrong way or, at least, has generalized its results too much. Farm management originated and developed in north-western Europe and in the United States, i.e., in regions with relatively large farms and indeed these larger farms are technical-economic units, for whom socio-economic aspects can be neglected.

For the large number of small holdings in southern Europe, as well as in most of the Third World, the situation is quite different. Here, the household is the centre, and the household members try by optimal input of available resources to

assure their survival and to improve their livelihood. This is possible in several ways, and most often by combining several forms:

(i) By cultivation of the available land;
(ii) By labouring for other farmers;
(iii) By taking up non-agricultural work;
(iv) By assuming commercial activities; and
(v) By avoiding expenses through production and services within the household or on an exchange basis with the neighbours.

This combination can be achieved by one person or by generations living together and may change during lifetime.

As a result of all these considerations, I suggest that a change in the paradigm is necessary in order to make agricultural and rural development policy more effective.

The current general theory of agriculture assumes that a farm is cultivated by a family applying all of its labour on the farm and living off the proceeds of this farm. The goal of the farmer is a high net profit which will improve his living and that of his family. The smaller the farm is, the more other goals like self-sufficiency, risk aversion, etc., become important side-conditions. One can help this type by having recourse to the usual instruments of agricultural policy.

This theory of agriculture is all right for larger and medium-size farms, and perhaps some highly intensive small farms near the cities and with good irrigation facilities. But remember: only 8 percent of all Pakistani farms are larger than 10 ha.

For the remaining 90 percent approximately, I suggest another theory, which explains their circumstances perhaps more closely. Here we have a household, whose members, in order to assure their survival and improve their livelihood, use all the available resources – land and labour – wherever they get an optimum return. This may be in agriculture, or in non-agricultural activities, and may change in time. They select those fields, which give them the highest total income, for applying their efforts. One cannot help them much by means of agricultural policy, but by other measures.

I suggest that using these two theories of agriculture – whenever they apply – may lead to a better understanding of the reality in rural areas and, thus, to a more effective mix of policy measures.

Forty years have changed agriculture in Pakistan and elsewhere considerably. We have to ask ourselves: What is agriculture today? Perhaps this paper gives some hints towards an answer.

Comments on "The Agrarian Sector in Pakistan's Development Process – Historical Evidence and Implications for Policy and Theory"

Most of the less developed economies have entered the transitional phase to a more developed economy with a traditional agrarian economy characterized by a mix of a feudal and quasi-feudal institutional agrarian structure. Economic change in the agrarian economy was not always gradual, however. Different periods were characterized by different changes.

In his paper on "The Agrarian Sector in Pakistan's Development Process", Prof. Frithjof Kuhnen divides the recent economic history of agrarian development in three periods and analyses the agrarian changing patterns within each with the object of speculating on theory and policy. The three periods which Kuhnen chooses are:

1. Traditional Phase, 1947–1965;
2. Transitional Phase, 1965–1977; and
3. Universal Phase, 1977 until now, this phase may indeed be called universal since Kuhnen emphasizes here a change towards trends which are typical of the more advanced agrarian systems in the western world. This phase is according to Kuhnen simulated by external developments.

The first remark which comes to mind is with regard to the criteria employed for dividing agrarian development in these three periods. For the division between the first and the second periods Kuhnen mentions the intrusion of mechanization and the green revolution. Mechanization did start earlier but the timing of the green revolution fits well. On the other hand, the type of economic change which was associated with the green revolution dates earlier and was brought into action by other tendencies such as population pressure, scarcity and commercialization. The transition can be said to have started since independence and such events as mechanization or the green revolution are parts of the transition. Other criteria could have been sought for distinguishing discontinuities, if indeed it is helpful at all to distinguish diverse periods in a rapidly changing economy.

The second question which needs to be asked is in how far are the developments which Kuhnen describes also typical of the experience of other countries and which developments are more specific of Pakistan?

There are several explanations applicable in all third world countries of why the agrarian situation is strained during the early phases of development. These can be summarized as:

1. Rapid population expansion;
2. Demands made by industrialization;
3. Commercialization effects;
4. Technological change; and above all
5. The general inability of the inherited land tenure system and the political system to cope adequately with the changed situation.

Rapid and unexpected *population growth* can raise the demand for food beyond the capacity of the agricultural sector. At an annual growth rate of population of 2.5 percent and an annual percentage increase in the demand for food from increased income of say, x percent, the total demand for food should grow annually by about $(2.5 + x)$ percent. Looking back on the experience of developing countries we perceive that agricultural production grew in the past at an average rate of 2 percent, which meant that developing countries either had to depend for their food consumption on imports, or starve. Dependence on imported food, often at increasing prices, happens to be very costly in view of the other demands (for industrialization) that are made on the limited foreign currency available. On the other hand, the responsibility for allowing hunger has a price too. Also, the population expansion has added to the underemployment problem. In comparing Pakistan to other third world countries it seems that Pakistan did reasonably well with regard to food sufficiency. Rural underemployment in Pakistan is an officially recognized problem, however.

In the absence of valuable mineral resources or other external growth stimuli, the *industrialization process* makes a number of demands on the agricultural population that often have an adverse effect on the latter's welfare. The transition towards industry can be defined as a shift of investible resource from agriculture to industry. This shift of resources cannot occur unless agricultural land produces a surplus which, either voluntarily or by compulsion, is disposed of on domestic or foreign markets. The shift of investible resources from agriculture to industry in the form of agricultural marketed surplus, underpriced agricultural commodities or agricultural taxes and savings, form additional strains on agricultural production. And where there is such a shift of resources, certainly in the early stages, industrialization is discriminating against agricultural workers and against the poorest among them.

The evidence on this count for Pakistan may not be different than for other comparable countries in the Asian region.

For small agriculturalists, *commercialization* of agriculture reduces the possibility of earning a livelihood. That is typical of many situations: those in which common lands are turned into enclosures, or when small farmers sell their products at low prices fixed by traders with large financial resources, or when small farmers do not possess the resources needed to survive market fluctuations in the prices for inputs or for their products, or when land values, and rent rise constantly and indebtedness squeezes tenants. Commercialization, the increased significance of financial capital and the emergence of a strong group of traders, speculators and financiers have drastically upset rural livelihoods and have often contributed to the underutilization, dispossession, and impoverishment of the poorer segments of the agrarian population. The same commercialization has lead many workers to pursue other livelihoods than agriculture. The success degree has been different in different countries. In many villages in Pakistan some 45 percent of the workforce are already pursuing industrial activities. Comparative statistics on the situation in the Asian region are not sufficiently reliable to draw a conclusion on the relative performance of Pakistan. In general, the ASEAN countries are ahead of the SAARC countries in this respect.

The spread of *technological progress,* whether mechanical or biological, being a costly investment, is extremely unequal: the richer farmers can make greater use of modern technologies and reap more benefits. As a result, large landholders tend to strengthen their economic position *via-a-vis* that of small owners. The effect is often to increase the under-utilization of labour, which is already high through other causes. In addition, the pure labour-saving characteristics of mechanization work in the same direction. The land-augmenting characteristics of the green revolution need not do so. Most studies on the economic effects of the green revolution have pointed to the relative success of Pakistan, esp. in the Punjab, as compared to other countries.

It was pointed out by Kuhnen that the landholding *institutions* in developing countries have long been characterized by high rates of appropriation by landowners and by impoverishment of agricultural labour. In the recent past and under the structural changes imposed by population pressure, industrialization, commercialization and technical change, these institutions could not do otherwise than perpetuate the tendencies they possess. In a number of countries, governments have strengthened feudal tendencies by supporting the established interests of large landowners. More often, governments have practised policies tending to reinforce the disruption of the existing agrarian structure. There are the exceptions of a smaller number of countries where the industrialization process was accompanied by massive and successful land reform. Explanations as to why these countries have followed

different courses should be sought in their recent political history. In this respect, Pakistan does not have an ambitious record of land reform. It is also very difficult to speculate on how the country would have developed in case of an ambitious programme.

A couple of remaining questions which we would like to raise are with regard to the so-called universal phase 1977 – until now. First, the bench-marks which Kuhnen uses for initializing this period are two developments outside the country: the labour migration to the oil-producing Middle East, and the war in Afghanistan. While there can be reason for signalling labour migration as a major factor responsible for shaping the agrarian setting I fail to see how the Afghan-war would significantly affect the changes in land tenure which are described in the paper.

Secondly, the universal picture which Kuhnen projects for Pakistan's agrarian economy is more true of present American and European tendencies than a well-tested prediction for Pakistan. Problems of the aging of the farm population, the flight of youngsters from farming, the encroachment of cities on farm land and alike are very much problems of the very distant future, and they may not occur at all in the Asian setting. Historical universality is likely to be more a matter of belief than of refutable hypotheses.

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Comments on "The Agrarian Sector in Pakistan's Development Process – Historical Evidence and Implications for Policy and Theory"

I am impressed by several arguments of the paper. Therefore let me at the very outset, congratulate Prof. Kuhnen on presentation of an exceptionally thought-provoking paper. The paper is full of many interesting ideas and conclusions, but five of them need to be restated here as they amply reflect the vast ingenuity and deep insight of Professor Kuhnen in Pakistan's rural economy. Let me reiterate his points even though only briefly. Firstly, agriculture has played only a passive role in financing Pakistan's economic development throughout the 40-year period under consideration. Although the same was true of agriculture's role as a supplier of food, raw materials and labour in the 1950s, its contributions in this respect became somewhat more significant after 1965-66. Secondly, Green Revolution was instrumental in increasing agricultural output and employment in the rural areas. Unlike other authors, Prof. Kuhnen does not believe that Green Revolution has resulted in large-scale tenant evictions or in the addition of evicted tenants to the pool of the unemployed in the rural areas. As a matter of fact, Prof. Kuhnen has argued that tenant evictions, although positive, were at best few and evicted tenants were readily reabsorbed into agriculture as casual workers or as livestock holders. In fact, he points out that rural population was increasingly taking up non-agricultural jobs in the rural area, urban centres and international labour markets with favourable implications for rural poverty. Although no statistical data have been cited in the study, the consistency of his conclusions with empirical evidence in Pakistan produced in some of my own studies points to Prof. Kuhnen's enviable ability to understand Pakistan's rural economy.

His third point worth mentioning here is that although internal resources played a key role in the development of rural Pakistan until 1977, remittances from the Pakistanis working abroad and aid funds from international organizations for Afghan refugees were the principal external factors that boosted rural growth after 1977. Fourthly, in view of the development of Pakistan's agriculture in diverse directions it is no longer possible to address Pakistan's agricultural problems through price policy. Increasing reliance must be placed on social and regional policies for a widespread impact on the welfare of rural masses. Finally, Professor Kuhnen suggests

that the theory of farm management developed in the West has failed to solve the problems of agriculture in the less developed countries and must be redefined for a small farm agriculture with an increasing emphasis on self-sufficiency and risk aversion.

Although I am in full agreement with some of the conclusions of the paper, I would like to draw Prof. Kuhnen's attention to three specific points.

My first point relates to his division of the total study period into sub-periods. Professor Kuhnen has divided the study period into three sub-periods based on the phases of agricultural growth. He regards the 1947–65 period as the period of stagnating agriculture, the 1965–77 as the period of progress in agricultural production and the 1977–87 period as the period of externally stimulated development. As the general growth of agricultural production between 1959-60 and 1964-65 was well above 3.5 percent in contrast with the 1.5 percent growth during the period from 1949-50 to 1959-60, I do not think that the former period could be regarded as part of agricultural stagnation period. Similarly, production growth from 1969-70 to 1977-78 did not exceed 1.5 percent and could not be treated as part of the 1959-60 – 1969-70 period of rapid growth. During the Seventies as a whole, the annual growth rate of agricultural production remained well below 2.0 percent, which would be consistent with stagnating per capita agricultural incomes, given the population growth rates of 2.5 to 3.0 percent. In my opinion, for analyzing Pakistan's growth experience in agriculture, a decade by decade division of the total study period would have been more appropriate and fruitful than the one given in the paper.

Secondly, the paper by Prof. Kuhnen seems to underestimate the potential contributions of price policy to agricultural production. Pakistan's growth experience over the last forty years is quite suggestive of the importance of agricultural price policy. Stagnation of agricultural production in the Fifties and Seventies was mainly the result of unfavourable commodity prices relative to those of agricultural inputs and the rapid growth in the Sixties could be attributed to highly favourable prices in agriculture. If higher prices motivate medium and large farmers through profitability, they would force small and marginal farmers to produce more so that costly food purchases could be obviated. The paper could also mention the contributions of agricultural commodity prices to Pakistan's economic development. Low agricultural commodity prices have increasingly been used in Pakistan in the last two decades for immense resource transfers to the industrial sector, the government exchequer and the urban consumers. If these are included in the analysis of the paper, remittances and aid for Afghan refugees would be relegated to only a secondary.position as a source of funds for economic development.

Finally, let me draw Prof. Kuhnen's attention to two factual errors on the very first page of the paper. Firstly, the land reform law of 1950 (1959 to be exact)

limited landownership to 200 hectares of irrigated land, and to 400 hectares of unirrigated land, and not 100 hectares and 200 hectares respectively as stated in the paper. Secondly, contrary to what Professor Kuhnen's paper seems to imply, redistribution or allotment of land among the refugees has never been a goal of land reforms in Pakistan.

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