SOME ALTERNATIVE POLICY APPROACHES TO AGRICULTURAL DEVELOPMENT - THE PAKISTAN CASE

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INTRODUCTION.

This study examines the role of agricultural policies, past and present, adopted by the various governments of Pakistan in agricultural development and suggests, at the end, some alternative policy approaches to achieve key objectives which past policies have failed to achieve. It is not concerned with policy-making as an institutional discipline which should help to make better policy nor with the dynamics of decision-making except occasionally for illustrating a point.

Agricultural policies can be viewed as a comprehensive, broad framework of action plans relating to crop production, animal husbandry, fisheries, forestry, plant protection, water-management, improvement of cultural practices, biological control of water-logged and salt-affected soil and to the associated institutional mechanisms such as land reforms, land utilization and tenure, co-operatives, procurement and supply of key agricultural inputs, subsidies and price-supports, agricultural extension, research, marketing, storage and so on. This study does not go into the detail of policies relating to all of these technological and institutional factors; it is confined specially to the socio-economic problems created by the agricultural modernisation programmes and policies pursued by the successive governments of Pakistan after independence in 1947 and to the policy options that can be suggested for dealing with these problems. First chapter provides background information about agriculture in Pakistan and its administrative set up, second, third and fourth chapters examine chronologically

the role of public policies in agricultural development in Pakistan from 1947 to 1977, chapter 5 illustrates the nature of the problem confronting the policy-makers of the present regime in the agricultural sector and chapters 6 and 7 provide some alternative policy approaches to agricultural development in Pakistan for the decade of 1980s and onwards.

What is development and what is agricultural development? This study does not touch upon the various controversial theories of development and agricultural development; it views agricultural development specifically in the context of Pakistan. It focusses on the nature of the problem as it exists today in the rural areas of Pakistan and on to how it can be solved by developing the existing available land resources. Agricultural development, as seen in this study, is intended to reduce poverty. Agricultural policies, therefore, must be designed not only to increase production and raise productivity but also to improve food supplies to the poorer sections of the society. Improved food supplies and nutrition should also be accompanied by basic services such as health, and education. Agricultural development, therefore, is closely intermeshed with the development of other sectors; it encompasses improved productivity, increased employment and thus higher incomes for the target groups in order to benefit from the basic services provided by other sectors. Such a programme might be made up of single - sector or multi-sectoral projects, with components implemented concurrently or in sequence, but in the rural areas of Pakistan where most of the people live on land, they can hope

to improve their conditions by improving agricultural sector's performance. This kind of strategy to meet everyone's basic needs - food, clothing, shelter, education, health, sanitation, clean drinking water and some public transport - can, therefore, be made successful by developing agriculture.

A strong commitment to growth with social justice at the national level is necessary if the impact of agricultural development is to be effective and broadbased. Often, economic policies are inconsistent with distributive growth. Price policies that favour manufacturing and processing industries, and those which aim to keep food prices low in urban areas, work against it. Subsidies on farm inputs, in such cases may be justified, but the bigger the farmer, the larger the amount of subsidies he would consume by investing relatively more on subsidized inputs and widen, in this way, the already existing gap in the levels of income between him and the smaller farmer.

The agricultural policies pursued by the successive governments of Pakistan after independence have been lacking a strong commitment to growth with justice with the result that the benefits accruing from the modernised agricultural technology have gone to a comparatively narrow segment of society, to the middle and larger landowners. The masses of small farmers have not benefitted at that scale. Indeed they may well be worse off. The great need for higher employment opportunities has been hampered by mechanisation and social and political tension increased by the wide disparity between what the small farmers have got and what the better-off classes of farmers have got

from deyelopment. If the current style of agricultural modernisation is allowed to continue, the bright development potential of the so called green revolution will be frustrated by the existing distribution of economic and political power which permits a few enterprising farmers to reap the larger share of the gains.

Agricultural modernisation is necessary for economic considerations but social considerations also must be given due weight if it is to be made viable in terms of its continuity with stability. One way to do it is to build into the new technology the elements that would secure social justice alongside increases in productivity. The study, accordingly, suggests at the end alternative policy approaches which can secure equitable, if not equal, gains of agricultural modernisation.

Any problem or a set of socio-economic problems can be examined from two different perspectives. The first involves analysis of alternatives and is normative i.e. deals with the desirability of proposed courses of action and prescriptions for the advancement of selected values and target groups. The second is the description and analysis of existing practices and situations and the prediction of what is likely to happen under given sets of conditions. The two approaches are,however, interdependent. Those who seek to prescribe policies recognize the need for empirically based knowledge and those whose interest is in economic behaviour often select problems for study because of their probable policy relevance. The two approaches, accordingly, tend to fuse here.

CHAPTER-I

AGRICULTURE IN PAKISTAN - BACKGROUND AND ADMINISTRATIVE SET UP

Pakistan has a total area of 796,096 Square Kilometres inhabited by 83.782 million people. At independence from the British Raj on 14 August, 1947, it had basically an agricultural economy but since then its economic edifice has undergone many structural changes. Its main agricultural crops are wheat,rice, maize, cotton, sugar cane and tobacco; principal industries include cotton textiles, sugar, vegetable ghee (oil), cement, fertilizers and engineering goods. Due to higher demand for the imports of machinery and raw material for development and essential consumer commodities, its imports are more than the exports. The main exports include rice, cotton and cotton products, leather and leather products, carpets and rugs, engineering goods etc; its chief imports consist of petroleum, tea, edible oil, chemical fertilizer and machinery.[1]

Pakistan comprises of four provinces, federally administered tribal areas (FATA) and Islamabad Capital territory. The provinces are Punjab (205,345 sq. km. in area), Sind (140, 914 sq. km.), North West Frontier Province (NWFP)(74,522 sq.Km), Baluchistan (347,188 sq. km), Federally Administered tribal areas (27,221 sq. km.) and Islamabad Capital territory (906 sq. Km.). 28.28 per cent of its population is urban and 71.72 per cent is rural. Male Female ratio is 111 : 100 and density per square kilometer is 105. Literacy rate is 24%, out of which rural population's literacy rate is 15.5% and Urban population's 45.5%. Female population's literacy rate is 11 per cent.[2]

The total number of villages in Pakistan is about 45000 and the total number of districts is 81. This number

includes political agencies in the tribal areas as well. There is a tremendous variation in the size, population and topography of the districts and in their level of development. There is also variation in the urban - rural complex. The district of Lahore in the Punjab, for example, is more urbanized than the district of Mianwali. There are further differences in physical facilities such as communications and transportation, in the cultural heritage like language pattern, in the nature and extent of political expression and in the attitudes of people toward government. Three or four districts grouped together make a division. There are in all 19 divisions. Each district is administratively sub-divided into tehsils (i.e. sub-divisions), Thanas (i.e. police stations), qanun-go and Patwar (revenue sub-divisions) circles. These smaller units are primarily designed for revenue and police administration. Qanungo and Patwari are the village level land revenue assessing and collecting officials. They are assisted by the village headman,(Lambardar) and the village watchman, (Chowkidar). The land revenue administration is located, in declining order of size in the provincial headquarters, divisional headquarters, district headquarters, tehsil headquarters, and in the village. The most important administrative unit is the district where some of the smaller units of departments such as irrigation, WAPDA (Water and Power Development Authority), Communications and Works have different areal sub-units and cut across the revenue and police units. The districts were created primarily for the purposes of revenue administration. At the district level, the department

of magistracy and land revenue administration is important and is headed by the Deputy Commissioner in his capacity as district magistrate and land revenue collector. He is theoretically speaking concerned with most of the regulatory functions of the district and is normally not required to interfere in the operation of most of the activities taking place in the departments concerned with development but, in practice he may, occasionally, have to perform some development functions. The other important person in the district is the chairman, district council. He is the elected representative of local councils in the district and in-charge of development functions. As the Deputy Commissioner is assisted by Tehsildar at Tehsil level and Qanungo and Patwari at the village levels in administring land-revenue and other allied matters, the chairman, district council is assisted by the chairman tehsil councils and chairman, union councils.[3]

Inspite of the various administrative reforms to curtail the power of the district administrator in Pakistan, the Deputy Commissioner (D.C) continues to be an embodiment of government power at the local level. He is the major force to co-ordinate policy of any kind at the level of administration including co-ordination of significant development activities which theoretically fall within the jurisdiction of the district councils. Although there are field workers at lower levels the real distance, in terms of communications within the bureaucracy, between the village and the district headquarters is great. Similarly, the tier of chairman district council was re-introduced just in 1979 after the abolition of the

Basic Democracies system in early 70s, and is, as such, weaker as compared to the powers exercised by the D.C. co-operatives are weak and village Panchayats have just been introduced in December, 1982 in some parts of the Punjab; the village panchayats in other areas of the country are intended to be set up in 1983. Thus, uptil now, the authority and power of the local councils remained sapped and superseded by the administrators.

Although the system of local bodies has been introduced where the D.C. now exercises regulatory functions or at least theoretically is required to limit his jurisdiction of functions to regulatory activities, yet, in practice, the higher civil servants and politicians are more likely to support the D,C. On the grounds that he can provide integration, co-ordination and initiative together with the future-oriented vision of a modern intellectual, which usually lack elsewhere in the rural Pakistani environment. This is more so because the "Indian experience with Panchayat Raj does not indicate" that rural politicians."are more acceptable decision-makers" to development-oriented administrators.[4] There has been and there is in Pakistan an appreciation of the importance of decentralisation of development decision-making and of replacement of colonial administration with indigenised administration, duly complemented by the village panchayats as conciliatory courts, but this perspective has never prevailed. The district administrator has a strong linkages with the higher bureaucratic hierarchy, being responsible to the divisional commissioner, located at divisional headquarters and to the Board of Revenue

TABLE-1

LOCAL GOVERNMENT STRUCTURE	LAND REVENUE ADMINISTRATIVE STRUCTURE
	Pakistan
District Council (81)	
	Provinces (4)
Taluka/Tehsil Council (covering 50 (222) to 100 villages)	
	Divisions (19)
	District/Agencies (81)
Union Council (representing about 10 villages)(3065)	
	Taluka/Tehsils (222)
	Field Qanungo Circles
	Patwar Circles
	Villages (45000)

Sources: Inayatullah, "Local Administration in a developing country - Pakistan" in weidner etal (edit), Development Administration in Asia Durham, Duke University Press, 1970 (P-288) (and updated from) Government of Pakistan, "Pakistan Economic Survey, 1981-82" Islamabad Finance Division, 1982 (P-177).

and the provincial government located at the provincial headquarters. The local government's hierarchical structure, on the other hand, either ends up at the district level or at the most at the divisional level (co-ordination - committees of local councils in the Punjab and Baluchistan exist at the divisional level whereas in the NWFP and Sind, they exist at the district level). Land revenue and district administration, therefore, continues to attract more importance. It is paternalistic in nature which is justified by saying that it is the most suited to a rural population whose predominant segment is illiterate. It is authoritian in nature which is necessitated for"maintaining powerful provincial administrations capable of assuring security and stability[5]," in contrast to the decentralized local governments. Political power centres in the provincial capitals in the struggle against (i) the growing influence of Islamabad and (ii) the decentralized local governments. The devolution of powers to local governments, which has occurred from time to time in the short history of Pakistan, has taken place as a "response to the perceived needs of development and not to the political demands of local communities and politicians for autonomy from provincial interference"[6]. This gives rise to the problem of displacement of goals. Local governments designed to achieve physical targets very often tend to overlook political development. In effect, representative local governments in Pakistan have so far helped identify the local leadership and through them local needs and aspirations, but they have failed to evolve a continued process of political development in rural areas. To suggest whether the present colonial district administration or indigenised local government administration

is more suitable for Pakistan is the most crucial policy issue and mainly outside the scope of this study. This study is mainly concerned with the role of administration in agricultural development in this chapter.

Easy access to the district land revenue bureaucracy is undoubtedly useful for a variety of purposes in Pakistan. It is highly valued by the villager, provides added social prestige, but many of the advantages of such bureaucratic access have very little to do with the needs of the farmer. Bureaucracy, according to Nichalson, is likely to be one of key constraints on development. "Wherever critical elements of the development" he says "are controlled by the civil service or tied up in the hierarchies of the provincial secretariats, that bureaucracy is likely itself to be one of the key constraints or limits on development".[7] The farmer is much more concerned with the access to key farm inputs - fertilizer, new seeds, and tubewell water - in order to develop his agriculture. These farm inputs donot require any access to land revenue and district administration, because they are, in most of the cases, available in the market where only the farmer's own purchasing power matters. Access to the district administration may be helpful in providing a license to carry arms, getting sugar and rice permits when needed in bulk or for sanction of an additional canal water supplies. In such exchanges, the larger farmers remain at a distinct advantage. The problem of improving farmer's access to the district bureaucracy and of strengthening their position when dealing with that bureaucracy was not critical for the success of the first stages of the green revolution in Pakistan and to some

extent is not critical now. Yet there are some direct bureaucratic controls over key inputs which frequently have an inhibiting effect on farmer's economic behaviour. But these controls lie within the jurisdiction of Agricultural Administration rather than district administration.

AGRICULTURAL ADMINISTRATION.

Pakistan is a federal state. Under the 1973 constitution, the executive authority of the federation is exercised by the Federal Government in the name of the President. Under the constitution, there is a list of subjects to be dealt with by the federal government and another list to be dealt with by the Federal Government and the Provincial Governments concurrently. All the residual subjects of administration are in the purview of the provincial governments[8]. The subjects under the federal government and in the concurrent and in the residual lists, at the level of federal government, are dealt with in the Ministries/Divisions of the federal government. Each Ministry is headed by a Minister and may consist of one or more divisions. Each division has a number of attached departments, subordinate offices as well as autonomous and semi-autonomous bodies. The ministries are responsible for policy - making, directing implementation of policy and overseeing its implementation and execution. Actual implementation and execution of policies is mostly the responsibility of the attached departments, subordinate offices, autonomous and semi-autonomous bodies or of the provincial departments when the subject concerned is either in the concurrent or residual

lists. The government structure of the four provinces is similar to that of the federal government. The executive authority of a province is exercised in the name of the Governor by the provincial departments.

Agriculture in Pakistan is a provincial subject. The impact of the federal government on it is indirect - either through provincial administrations or by the manipulation of basic economic parameters. All day-to-day administration of agriculture is in provincial departments - including extension, the distribution of agricultural inputs (whenever in government hands), regulation of markets and most rural public works. Agriculture in the sub-continent evolved as a provincial concern and remains so in Pakistan after independence. This constitutional and administrative position was necessitated by the diversity of conditions, which vary from the sparsely settled and arid Baluchistan populated by tribal peoples to the dense canal-irrigated areas of Punjab. This diversity in ecological, settlement, cropping and marketing conditions makes it almost impossible for the federal government to effect any detailed physical planning of the rural sector.

The Ministry of Food, Agriculture and Co-operatives at the federal government level, is mainly responsible for inter-provincial co-ordination, planning and policy-making in respect of food, agriculture on farm, water-management, forestry, range-management, soil and wildlife conservation and sericulture. Its functions include control on the import and export and also preparation of the basic planning for the bulk allocation and fixing and issuing prices of foodstuffs and their procure-

ment, plant protection, crop insurance and collection and compilation of agricultural and forestry statistics on production, consumption, and import and export. It als deals with the FAO, International Wheat Council, World Food Council and International co-operative alliance. The following Organisations, inter alia, are under its administrative control:-

1. Pakistan Central Cotton Committee.
2. Pakistan Forest Institute.
3. Pakistan Agricultural Research Council (PARC).
4. Pakistan Agricultural Storage and Services Corporation (PASSCO).

These Organizations, as their names indicate, are concerned at the federal government level, with the affairs of cotton, forest, research and storage and marketing of agricural commodities respectively. The nexus between federal and provincial agricultural policy is established in the Five year and Annual Development Plans. The parameters of the five year and annual development plans are set by the technocrats at the federal government level in the Planning Commission in consultation with the Ministry of Food, Agriculture and Co-operatives and other related ministries like Ministries of Finance, Commerce, Industries and the Water and Power. The Planning Commission makes recommendations to the Executive Committee of the National Economic Council (ECNEC) which in turn passes the plan on to a ministerial level meeting of federal and provincial governments. The five year plan is approved by the NEC once in a five years period, whereas the annual plans for each fiscal year (First July - 30th June), which are

formulated within the framework and keeping the policies and priorities of the 5 year plan in mind, are approved by it annually. While the medium term perspective is provided by the 5 year plan, annual planning is the practical instrument for its implementation in a flexible manner. As the recurrent budget is fixed every 5 years, the major flexibility in federal - provincial relations is found in the annual development plan. It is through this process that allocations for agriculture, among sectoral allocations, are made to and among provinces.

So far as agriculture is concerned the bulk of the projects are initiated by the provincial governments and funded out of the provincial allocations in the annual development plan. Hence the involvement of the federal Ministry of Food, Agriculture and Co-operatives is minimal. On occasion, however, federal initiative is exerted in the form of specific programmes which are either federally funded or subsidized. Large projects in the agricultural sector may however, be entirely funded by the federal government, for example, the water-logging and salinity control programmes. Or a major programme, like the former Integrated Rural Development Programme (IRDP), may, sometimes, be initiated by the Centre as part of the provincial development plans largely as a result of political pressure from the top.

The principles of inter-provincial allocation of public investment are difficult to ascertain. The bulk of investment in Pakistan in agriculture is in the private sector and the government in the past has made little effort to

influence this private investment. Production - oriented agricultural policies of the various governments of Pakistan designed to maximise exports and wage goods have tended to bring scarce inputs into the most productive regions and no major steps have been taken so far to correct the basic inequalities among the country's several regions. The centre has, no doubt, initiated programmes for the saline areas and the rain-fed areas of NWFP and Punjab, for example and it, therefore, does evince a considerable symbolic interest in the agriculturally backward regions by making some public investment in the sector there but this appears to be far short of an equalizing strategy. Another weakness in Pakistan's agricultural policy has been in the link between the market - manipulation and incentive strategies, which fall within the purview of the federal government and its field-level extension and distribution programmes which are administered by the provincial governments. As agriculture is a provincial subject in the constitution and as an administrative reality, there is little that the federal government can do to influence this aspect of the agricultural development programme. Lowdermilk, in his study of Multan, states that in all areas, the farmer is deficient in technical knowledge of how to get the maximum productivity out of land and seed; the extension service administered by the provincial governments either does not reach the farmer, or its advice is deficient when it does and that delay in the supply of vital inputs and crucial information frequently both makes it useless[9].

Agricultural Administration at the provincial level is mainly the concern of the respective provincial Agriculture Departments. The problem in the past and today is that Agriculture Departments in the four provincial headquarters have simply not been upto the task. For example the department in Punjab has 5 or 6 agricultural assistants in each tehsil and one Field Assistant in each union council area with an agricultural labourer to assist him. This is not a large staff if it really intends to provide extension and to manage distribution of key inputs to the farmers as well. The field staff is typically without either transporation or telephone. Thus, the Agriculture Department has not so far really managed to reach the villages. Lowdermilk reports that, in fact, the spread of High Yielding Varieties (HYV) and fertilizer cannot really be attributed to the government at all, but to the inherent profitability of the innovation and word of mouth communication. Many of the larger and more progessive farmers do have fairly frequent contact with the Agriculture Department, but this is more likely the effect rather than the cause of their progressiveness[10].

A systematic arrangement to supply the farmer's needs was made during Ayub period with the establishment of the Agricultural Development Corporation at the federal government level in 1961 whose function was to promote and distribute farm inputs and to act as a vehicle for the development of backward areas. In practice, however, it emerged as simply a wholesale distribution agent for imported fertilizers and seeds. Private sector fertilizer, produced by ESSO and Daud

Corporations, was supplied in the open market until fertilizer distribution was nationalized in October, 1973. The price difference between imported fertilizer, and public sector fertilizer, on the one hand, and private sector fertilizer, on the other, was reduced by a subsidy on the farmer and a surcharge on the latter. The Agricultural Development Corporation (ADC) was fairly flexible in its marketing practices and made supplies available to licensed private traders, co-operatives, and even opend its own distribution shops in areas which did not appear to have other sources. Thus fertilizer was available both on the open market and through public or semi-public agencies. Insecticides and seed (and fertilizer until 1961) appear to have been distributed through provincial agriculture departments.

In 1972, the ADC was abolished and a similar organisation, the Agricultural Supplies Organisation replaced it. Its functions are similar, save that it turns over supplies directly to provincial counterparts and has no direct role in distribution to the farmer. The operative principles of the new provincial level organisations are not very different from those of the ADC. They use the private dealers and see their function as regulatory. The reason behind the involvement of the government is to regulate distribution of agricultural inputs. This role of the government is promotional in nature, that is to persuade farmers to try new inputs and techniques. Second, this role is based on the profound mistrust of private sector on the part of administrators inspite of an active private trade in fertilizer distribution. Third, government

involvement is necessitated by its emerging strategy of rural development. The private trade, it is argued is inclined to seek out the easiest and most profitable markets, essentially the larger farmers who go to market themselves and the areas close to markets. Because they have been dealing in scarce commodities, it is argued, the trade has had little incentive to practice aggressive distribution techniques and the small farmer is left out. In addition, there is an awareness that the bulk of Pakistan's farmers are still reluctant to adopt the full range of inputs and techniques which are considered essential to boost production. Government control of fertilizer then permits not only to tackle scarcity but also provides an opportunity to put the farmer in direct touch with extension agents. This, in turn, assists the extension workers in promting their package of inputs and practices. For both ideological and practical reasons, therefore, the administration has an interest in superseding the private trade in services to the farmer.

The official role assigned to the low ranking agricultural extension worker demands promotion of general social and economic development in the predominantly agrarian rural set-up, a physical target not easily measurable. The rural - based local - government elected official has also more or less the same development functions; to develop agriculture and to achieve economic and other physical targets. The role, of the extension agent with respect to local self-government, therefore, needs to be specified. He being the appointed official must have a clear cut relationship with the

elected local official, so that both can function within their own jurisdictions. The extension worker should ensure physical achievements but at the same time must permit a change in decision-making authority from the appointed to the elected official. This policy recommendation, however, needs to be implemented with the "intended goal to replace the present, expensive and less effective extension agents with the trained farmers as effective extension agents through the growing participation of elected representatives"[12]. The extension agent, in his own administrative set up, has a triangular relationship i.e. with the farmers to identify a problem, with the research agencies so as to furnish the farmers with necessary data for finding an answer to the problem and with the line department for ensuring implementation. Hence a very close scrutiny of the existing functions, patterns and procedures should be carried out. The extension agencies need to be organised in a manner that a close linkage with the field as well as with the research organisations at the district or tehsil is established so that the timely action is taken to control pests and diseases.

At present, bulk of the agricultural research in Pakistan is carried out in the provincial research institutions and universities. The Pakistan Agricultural Research Council (PARC) at the federal level largely performs a co-ordinative role and finances most of the agricultural research projects in the country through directly funded research programmes. The capability of long range, multi-disciplinary research on major agricultural commodities and other problems in various

agricultural disciplines is still quite inadequate in the country at the federal or provincial levels. Most of the research institutions according to a PARC document have negligible trained staff or scientific facilities to undertake research of any kind - basic, applied, or adaptive and have just lingered on for decades without making any contribution".12

As stated above, Pakistan has a federal - provincial administrative set-up, with agricultural production largely a responsibility of the local and the provincial governments while policy, planning and co-ordination are the responsibility of the federal government. Indonesia, Brazil and Argentina have almost a similar set up. Such agricultural administrative set-up suffers from a poor linkage between agricultural research and extension in developing countries. This problem can be resolved by entrusting the functions of generation of new information and the dissemination of knowledge to the farmers, to the same organisation. The directors of extension for various agro-ecological regions and commodities,(who presently belong to a separate organisation), if placed on the campus of the concerned research institution or if made an integral part of the respective research station, can establish a better linkage between development of improved technology and its dissemination. This can be easily done in Pakistan and without causing any major change in the existing set up because both the provincial research institutions and extension agencies are, in most of the cases, administered by the respective provincial agriculture departments. Owing to the diversity in settlement and other conditions existing in the various regions in the country,

it would not be appropriate to place all agricultural research and extension exclusively with the PARC.

The absence of facilities for marketing and storage can be a constraint on agricultural production. Presently both the federal government and the respective provincial governments are engaged to expand their storage capacities. The bulk of the agricultural marketing is provided by the private sector, at the Mandi (Market) towns level. The private sector enters into the field through Arhties (food grains dealers) and commission agents who are notorious for profiteering. The provincial governments have set-up regulated markets at a few places for the convenience of farmers, but the number of such markets is very small. At the federal government level, the Pakistan Agricultural Storage and Services Corporation have also set up godowns in the country, but the facilities of storage provided by the corporation are far shorter than the mounting need for storage. Other agencies which provide storage facilities at the federal government level are Defence Division, National Logistic Cell, Food Directorate, Rice Export Corporation (for export of rice) and Cotton Export Corporation (for export of cotton). Well defined arrangements exist for marketing of agricultural products for export, but this cannot be said of marketing within the country, specially when production areas and consumption markets may be far apart in respect of certain commodities. With the advent of modern agricultural technology and consequent commercialization of agriculture, the so called backwardness of the majority of the farmers to understand the machinations of private traders is vanishing. They, in case

of most of the commodities produced by them, have been guaranteed minimum government controlled prices. Experience during the Bhutto period reveals examples of the way in which the "bureaucrat~~s~~ managers" of nationalized agro-based industries had sought bribes for "lifting the farmer's produce[14]". The thrust of the public policy should, therefore, be rather to regulate and promote private sector trade in the field of marketing and storage. The public sector should only provide planning and guidence and need not disturb (now denationalized) freer marketing system which assures better and timely returns to the grower. Public sector should, however, enhance its storage capacity. According to one estimate, the present post-harvest losses range from 35 to 50 % in the case of perishable products and 10 to 15% in the case of foodgrains and seeds.[15] Priority needs to be given to the improvement of existing arrangements for grading, parking, storage, processing and transportation. The need for storage is increasing further especially with the increasing utilization of threshers by the farmers which reduces the period of harvesting. The quantum of the storage capacity needs to be expanded both at the provincial and the national levels; it is necessary both for the purposes of price stabilisation and National food security.

Agricultural credit is an important vital agricultural input. There are a number of organisations which are offering credit to the farmers. Agricultural Development Bank of Pakistan is mainly directing its efforts for medium term and long term credits and has also embarked upon supervised credit. Federal Bank for co-operatives and the Provincial

Agricultural Development Banks and other commercial Banks also provide production loans. The provincial revenue departments, furthermore, advance taccavi* loans. The most important development which took place in 1978-79 has been the facility of interest free credit, channelled mainly through the commercial banks. The amount of this credit rose from Rupees 200 million in 1978-79 to Rs.348.003 million in 1980-81.[15] This loan is admissible to small farmers owning 12.5 acres or less of land for extending support for the purchase of inputs, irrigation facilities and farm machinery. Introduction of an interest free credit is a good step, but credit generally still remains the bottleneck that keeps agricultural development at bay. It also is responsible largely for distorting the agrarian structure in favour of the big landlord, the trader and the big farmer. According to the findings of M.H. Malik, the share of the credit extended through the above-noted agencies in 1973 to smaller farmers or even medium-sized farmers (i.e. less than 25 acres)) hardly exceeded 30%[16] and the position does not seem to have changed very much since then. The Agricultural Development Bank of Pakistan is oriented towards the larger farmer. Its loans are mostly long term for major capital investments. The commerical bank's loans are more often than not advanced to middlemen for purchasing crops or for other trade purposes. According to widely circulating rumours in the Punjab, a sizeable portion of the agricultural credit allocated to the commercial banks by the government is rather advanced to the urban shop-keepers and retailers because most of the farmers donot apply for the credit owing to a lot of cumbersome procedures involved; those who do get it, often misuse it or

* taccavi is a local term used for state agricultural loan.

donot repay it in time.

The co-operative department, especially in the Punjab province, is an old and established department, but it has been widely criticized as being distant from the farmer, bureaucratic and un-energetic. Co-operatives in general have not made much headway due to a variety of conceptional, organizational, financial, and politico- social reasons.[17] The Federal Bank for co-operatives is now the principal institution for meeting the credit requirements of provincial co-operative banks and multi-unit co-operative societies. It is also to assist the federal and provincial governments in formulation of schemes for development and revitalization of co-operative movement, arrange training in co-operative principles and co-operative banking and carry out research on problems of rural areas. But so far co-operatives in Pakistan remain "a very less successful example" in the developing world. They have for the most part been credit co-operatives working quite independently of the Agriculture Department or other private sector agencies which supply key inputs to the farmers. Farmers have been marketing mostly through private traders so that credit has been unrelated to the actual disposition of the crop. Furthermore, the various sources of credit have never been integrated in the field, though their common source of funds is the State Bank of Pakistan. Finaly, the co-operative societies do not appear to have done anything to mobilize rural savings. "If the farmers have been prospering and if the terms of trade are at least slightly in favour of the rural sector.... these developments donot appear to be reflected in any increasing assets of the co-operative societies"[18]

CONCLUSION

The land revenue administration in Pakistan is located, in declining order of size, in the provincial headquarters, divisional headquarters, district headquarters, tehsil headquarters and the villages, but the most important administrative unit, both from the land revenue collection and Law and Order points of view, is the district. The apparatus of district administration, designed during the British Raj, continues to be authoritarian and colonial in nature, although adjustments to modernisation have been made from time to time.

Local government has been and is a desirable goal as well as a convenient instrument for the realization of administrative tasks. As a goal, it is visualized as an ultimate substitute for the already existing and well-entrenched administration through the transfer of functions of development planning. As an instrument of administration, it is viewed as an extended arm of administration for the fulfillment of economic tasks. This gives rise to the displacement of goals-local government institutions designed to achieve physical targets fail to promote political development; the elected official, consequently, tends to treat the local government institutions as little better than any other government department. This may cause apathy and cynicism among the rural people who may ultimately identify local government with the already existing authoritrian administration.

The nature of land revenue and district administration has a very minimal effect on agricultural development. Access

to the bureaucracy is not very critical to the farmer. What is critical is the access to the key inputs required for effective farming. Key inputs are either available in the open market or their availability requires access to the officials in the agriculture department. Agriculture in Pakistan is a provincial subject; the impact of the federal government on it is minimal and through provincial administrations. The efficiency of the respective provincial Agriculture Departments is, therefore, very vital. They have, however, not been upto the task;their extension agencies are ineffective and understaffed, their arrangements for supplying key inputs to the farmers and their marketing, storage and credit facilities are inadequate, their co-operative departments are distant from the farmer and the scientific knowledge developed in their research institutions is not properly disseminated to the farmer through their extension agencies. Therefore, the provincial Agriculture Departments completely need to be revitalized by establishing and strengthening linkages between their respective field level extension and distribution programmes. Similarly the existing poor linkage between the market - manipulation and incentive strategies, provided by the federal government, and the field - level extension and distribution arrangements, administered by the provincial governments, needs to be strengthened.

The present agricultural development strategy of Pakistan, implemented and administered in the present constitutional and administrative constraints is promoting a lack of central guidence in programme administration and a lack of co-ordination between the investment and market strategies of the federal government and the administrative realities of the

districts. Effective and integrated agricultural policies in Pakistan would depend upon complementary action by the federal and the provincial governments. Co-operation and co-ordination is, therefore, critical. The federal Ministry of Food, Agriculture and Co-operatives and its attached departments seem to be the appropriate machinery for developing consistent national agricultural policy. This Ministry is already responsible for making national agricultural policy, but some additional steps are required to be taken under which it may have some enhanced role to direct and oversee its implementation in the provinces. Co-ordinated action in this regard will often require that the federal government provide financial incentives to encourage provincial governments to achieve targets of the national agricultural policy.

Agricultural policies play a vital role in agricultural production. How public policies create barriers to agricultural growth or facilitate it is the theme of the subsequent three chapters.

CHAPTER-2

STAGNANT AGRICULTURE - (1947-1958)

Pakistan's is basically an agrarian economy. Agriculture is the largest single sector of the economy and accounts for 30% of Gross Domestic Product (GDP), employs 53% of the total labour force, supports directly and indirectly 70% of the population for their subsistence, contributes 80% of the country's foreign exchange earnings- 36% through export of agricultural primary and 44% through agro-based industrial commodities -, provides raw materials for major industries like cotton textiles and sugar as well as several medium and small-scale industries. It is, therefore, evident that welfare of the vast majority of the population and even political stability of the country are critically dependent on efficient harnessing of the agricultural resources of the conutry on a progressively sustained basis to cope with the basic food needs of the fast growing population.[1]

From 1947 onwards, some progress has been made in the expansion of agricultural production from year to year, but the growth has not kept pace with either the requirements or expectations. Roughly, Pakistan's performance in agricultural sector can be divided into 4 distinct phases. The first is the phase of agricultural stagnation (from 1947-1958); the second is the phase of agricultural revolution and of relative prosperity (1958-1971), the third is the phase of another agricultural stagnation (1971-1977), and the fourth is the phase of recovery from that stagnation. This and the subsequent two chapters examine the role of public policy in developing agriculture in

the (and co-inciding with the) first three distinct phases. The next chapters are devoted to the examination of the present phase of recovery from agricultural stagnation and suggest alternative policy approaches to develop agriculture in the decade of 1980's and beyond.

Between 1947 and 1959, the rate of growth of agricultural production in Pakistan.(In view of separation of the East Pakistan the material used in this study refers to West Pakistan alone) was substantially less than the rate of demographic increase. "Indeed in the first dozen years after Independence agriculture was stagnant. What little growth was achieved", - approximately 1.1% per annum for both wings and 1.3% per annum for West Pakistan - "was due to an increase in the area under cultivation rather than to a rise in yields associated with improvements in techniques".[2] In consequence, the citizenry had to bear a loss in real income during the period and government policy promised little relief. (Population growth rate during the period was 2.5% per annum.) "A strife-ridden and inefficient political and administrative hierarchy paid little attention to development programmes and failed either to mobilize domestic resources or to attract foreign investment. Not until 1955 was the first 5 year plan launched - perhaps too late to turn the tide".[3]

Farmer's position, during this period, became critical in the irrigated plains owing to (i) salinity and water - logging (2) the over-crowding, erosion and hazardous dependence on rain in the submontane area, (3) the misuse of the huge rangelands and the smallness of their contribution to the

country's economy and (4) the denundation in the hill catchments and the flood hazards which resulted from it. These and other factors, pointed out by the "Report of the Food and Agriculture commission, 1960"[4] presented a sombre overall picture at a time when the biggest national priority was increased agricultural production to feed a rapidly increasing population.

In the 1940 s when the demand for the creation of Pakistan gathered momentum, the leadership of the Indian National Congress had described it as an economically absurd idea for, they said, the areas that were to be taken out of British India to form the new state were desperately poor. One of the muslim rejoinders to this argument was that the areas to form Pakistan had the "enormous agricultural potential" and there was some justification for such optimism[5]. After all, the western districts of the Punjab had been surplus in food ever since the opening up of the extensive system of perenial canals in the rich alluvial doabs (land between two rivers, of Chaj and Rachna). Also the eastern districts of Bengal (former East Pakistan) produced the bulk of India's Jute. Properly husbanded, the agricultural sector could sustain the development effort of the new state of Pakistan. However, agriculture made little contribution to the growth of Pakistan's economy in the first post - independence decade. That West Pakistan had become a food deficit area after independence puzzled many people. One reason advanced in the Report of the Food and Agriculture Commission, 1960 was that before Independence, the West Punjab, while exporting wheat, was at the same time, importing large

quantities of course grains from the East (now Indian) Punjab. This supply after independence was cut off. Some other reasons given in the report for the poor performance of agriculture were that (i) the increasing pace of urbanization had placed a higher pressure on wheat (ii) owing to the steady increase in population and to the upheaval caused by the exchange of population which often resulted in loss of leadership and a partial breakdown of community life, many leading men in rural life now found it more advantageous to transfer their interests and capital from farming to the developing industry and commerce in the towns (iii) educated people and men of means who might have invested in the agricultural field started moving to the towns to take advantage of the better amenities and newer opportunities (iv) without guidance and faced with a virtual breakdown in supply and marketing services after independence, the farmer was unable to play a full part in the national upsurge of production.[6] All these reasons might have played a part in causing agricultural stagnation in the period under consideration, but the most crucial of them seems to be (ii) above; that is the inability of the private sector to invest in agriculture seems to have made much of the difference. Agriculture stagnated in the 1949-1959 decade and prospered in the next mainly because the private sector's investment in agriculture had increased from 2.9% of the total national investment in the first decade to 3.5% in the next. The impact of public investment does not seem to have made much difference since in the same period it had declined from 2.5% to 2.2% (see table 2 overleaf). Private sector did not invest much in the agricultural sector presumably due to unsettled conditions

TABLE-2

PERFORMANCE OF WEST PAKISTAN'S AGRICULTURAL SECTOR

	1949/50	1959/60	1968/69
Share in Gross Provincial product (%)	52	49	41
Per capita income in the Agricultural Sector (Rs).	214	197	278
Total agricultural output per capita (Rs).	187	171	195
Public sector investment in agriculture as a proportion of the total investment(%).	2.5	2.2	4.8
Private sector investment in agriculture as a proportion of total investment(%).	2.9	3.5	-
Total foodgrains production per capita (Kg).	188	151	202
Per annum rate of growth of crop production (%).	2.3	-	5.4

SOURCE. Shahid Javed Burki, "The Development of Pakistan's Agriculture : Some Interdisciplinary Explanation", in Robert Stevens, Hamza Alavi, Peter Bertocci (eds.), Rural Development in Bangladesh and Pakistan, (Honolulu : University of Hawaii Press, 1976), P-291.

in this period but also due to slow rate of returns in the sector and also perhaps due to a number of bureaucratic controls on the prices of foodgrains, as we shall see later in this chapter.

But these were not the only reasons. Pakistan's progress has been studied in the framework of a dual economy where, as W.H.Nicholls has pointed out, the process of industrialization is looked upon as"the dual of the "law of the declining relatiye importance of agriculture.[7]" And this appears to be correct as the rate of public investment in agriculture declined as the process of industrialization gained momentum in the country. This is also manifest from the declining contribution made by agriculture to the grass provincial product, that is from 52%in 1949/50 to 49%in 1959/60 to 41%in 1968/69. The contribution of large scale manufacturing, on the other hand, increased from 1.5% in 1948/49 to 15.4% in 1968/69.[8] This bias of the public policies in favour of large scale industrialization is also supported by the Report of Food and Agriculture Commission, 1960. The report says:-

> "During the early days of re-organisation, priority was given to the Establishment and expansion of industries and the improvement of communications and ports. Of the balance of funds available for agricultural development, the major portion went to large irrigation works and only comparatively little help was given to the agricultural production directly.....[9]."

Thus one major reason for stagnation of the agricultural sector during this period was the decline of the relative importance of agriculture in the national policies in the decade of 50s. Moreover, there existed a cumbersome system of bureaucratic controls on agriculture. Many of these controls, such as the restrictive zoning of surplus areas and the compulsory sale of surplus foodgrains to the government at less than market prices, had been introduced as war - time measures by the British Government in the 1940[10]s. These measures remained in force uptil 1960 and the net result of these measures was that the farmer produced foodgrains either for his own consumption or because his land was not good for another crop. While the gross output of foodgrains remained more or less unchanged in the rain-fed areas, it actually declined in the irrigated areas where the farmer could switch over to cash crops and over which the controls did not apply. Since the principal determinant of marketable surplus is the gross output of food crops, the quantity of foodgrains marketed stagnated in this period. Thus the government, by emphasising to produce food crops and at the same time by deliberately keeping down the price of wheat and rice, contributed to the stagnation of agricultural productivity.

As regards price subsidies, they were reviewed every year as a result of which the farmer was left in doubt and could not plan ahead. Take for example, the case of fertilizer. The rate of subsidy on it changed from year to year basis and at such a short notice that much of the expected impact was lost. In 1952-53, fertilizer was sold at a subsidy of 60%, in 1953-54, it was raised to 66% but in 1954-55, it was reduced to 50%. It

was again raised in 1955-56 to 66%. In 1956-57 and 1957-58, it was 66% in East Pakistan and 58% in West Pakistan. The rate was reduced to 40% in 1958-59 and this sudden lowering of the subsidy gave a serious set-back to fertilizer consumption and "the imported fertilizers were lying in the government godowns in both the wings in large quantities" in 1959.[11] The thrust of the public policy during this period was on the purely engineering side of building new barrages and canals. The farmer was left alone to level and develop his land cheaply, in his own time and manner.[12]" Beacuse of this attitude of general complacency and indifference of the government to them, most of the farmers lived at a bare subsistence level; their resultant apathy became identified with idleness. "The farmer himself has come to be looked down on as illiterate, of little importance to the country's economy,[13]" says the Report,1960. In the political feild, the more vocal urban and upper classes attracted prior consideration and in the public esteem the political leaders were reluctant to accept a portfolio so unimportant as agriculture. In the field of education, the purpose of being educated was to escape from being an illiterate person into a white collor job. In the curriculum, agriculture hardly mattered and as career offered neither power nor prestige. Students placed it at the bottom of the list....with the result that by adverse selection, the quality of the personnel entering the agriculture department was, with exceptions of course, generally of a lower level than that of other services.[14]" This low status affected, in turn, the standing of the department of agriculture both among farmers and in the important competitive battle for a share of the country's scarce finance. The numbers,pay and facilities accorded

to the staff from research at one end to a nebulous extension service at the other, suffered great disadvantages from this reputation for unimportance. Thus another cause of agricultural stagnation was the poor status accorded to the agricultural sector by the policy-makers.

Let us now examine as to who were the policy makers? At the time of independence, the provinces of Punjab, Sind and NWFP forming part of Pakistan were dominated politically and economically by 80 landed families which together controlled nearly 3 million acres of land or one tenth of the total cultivated areas of West Pakistan and directly or indirectly were responsible for the livelihood of half a million households[15]. For a very short while after independence, the landed aristocracy suffered a temporary loss during Jinnah - Liaqat period (1947-1951). Addressing the annual meeting of the Karachi Chambers of Commerce in April 1948, Mohammad Ali Jinnah announced that "I can no more vizualize a Pakistan without traders, than I can one without cultivators and civil servants". This meant that industry, trade, agriculture and administrative apparatus, all were to be developed in a balanced manner. But owing to the meagre administrative capability, the government committed itself to public ownership in only three groups of industries: arms and ammunitions of war; the generation of hydroelectric power and the manufacture and operation of railways, telephone, telegraph and wireless equipment. All the other sectors, including agriculture, were left almost to the complete freedom of action of the private entrepreneurs. Agriculture, which under the British enjoyed government patronage now could not compete with the private entrepreneures led by

the enterprising industrial merchant class who had migrated from Bombay and other relatively developed parts of India and sustained a deterioration in terms of trade with other sectors.[17]

With the death of Mohammad Ali Jinnah in September. 1948 and assassination of Liaqat Ali Khan, his successor, in October, 1951, a major re-alignment of socio-political groups took place under the leadership of Ghulam Mohammad, a public accountant turned politician, under which the landed aristocracy was re-habilitated as an important element in the decision - making process. With the return of the landed class to the political arena,one could expect improvement in the agricultural sector, but it continued to stagnate. The reason for this is again to be found in the set of policies adopted in the period. These policies favoured the large landlords and "suited to the powerful bureaucracy" who felt comfortable with them[18]. As the new political "social coalition" group consisted of a number of political parties having conflicting interests with no single group or individual able to dominate the economic and political decision - making, bureaucracy had to play the dominant role in policy making.

The landlords, duly supported by the bureaucracy, maximised their returns by adopting agricultural policies which suited them. For them, water, not land was the real constraint; they used their power and influence now to persuade the government to extend the already very extensive Indus Irrigation System. With increase in water, their typical response was to "extend the acreage which in the past they left totally unused rather than to increase the water applied to the acreage they

were already cultivating"[19]. In doing this, they (i) benefitted by extensive rather than intensive cultivation and (ii) expanded their political constituency. The more land they could bring under their control, the larger the number of their tenants and the larger their constituency and the greater their political power. Evidence to this behaviour of the big landlords was provided after the imposition of EBDO (Electoral Bodies (disqualification) order) by Ayub Khan in August, 1959 which applied to any person who had held any public office or position and was found guilty of misconduct while holding that office. Some 6000 people [illegible] "laboured under the EBDO"[20]. Of all big landlords as many as 40% were charged under the order. Of those so charged, nearly 80% were found to have used their official powers for either "diverting to their lands a higher proportion than was allowed by law and customs of available irrigation water"[21], or "for changing the scope and extent of government sponsored irrigation schemes in such a way that a higher proportion than planned originally of new irrigation water was made available for use on their lands"[22]. This near monopolistic control of a scarce resource for production increased the aggregate wealth of the landlords, but not the productivity of the land they cultivated because they applied extensive methods of cultivation like increases in area under cultivation. Since the productivity of the land did not increase, and in some cases declined, the overall impact of the political return of the landed aristocracy was at best indifferent. The health of the agricultural economy, therefore continued to deteriorate, as it is evident from table 2.

CONCLUSION.

The first decade (1947-1958) of Pakistan was a decade of agricultural stagnation. Public policies adopted during the period were the major causal factor of this stagnation. Private sector did not invest much in the agricultural sector partly because of the upheaval caused by the exchange of population and partly because of the slow rates of return in agriculture where the government deliberately kept the prices of foodgrains low. The decline of the relative importance of agriculture in the National Economy was another cause. Another major causal factor was the bureaucratic controls on foodgrains and the rapid review of rates of subsidies due to which farmers could not plan ahead. But a more general and elaborate explanation for the stagnation of agriculture in the 1950s can be sought through an inter-disciplinary approach. There were not only economic, but social, political and administrative factors which caused stagnation. During Jinnah - Liaqat period, agricultural sector sustained deterioration because the government patronage enjoyed by it during the British period was withdrawn. During the social coalition rule, landed aristocracy assumed a dominant role and in collaboration with the bureaucracy, designed agricultural policies which paid little attention to increase agricultural productivity through intensive cultivation. Policies designed to expand cultivated area only enlarged the constituency of the big landlords. For them, water and not land was a major constraint; they, as such, designed policies through which large scale investments were made in the public sector

for expanding the Indus Basin Irrigation System and got, in this way, the maximum benefit. The middle and the small farmers, who formed the bulk of the rural population, for lack of investment funds, suffered a drop in total productivity. However proclamation of Martial Law in 1958 by Ayub Khan produced a significant change which is discussed in the next chapter.

CHAPTER-3

GREEN REVOLUTION - 1959-1971

The overall economic performance of Pakistan during these 13 years - 1959-1971 - of Pakistan's history was quite encouraging. The economy of West Pakistan grew rapidly during the Second Five Year Plan (1960-1965), with GDP increasing at 6.6% per annum. This high growth rate was spearheaded by an industrial growth of 13.1% per annum However, agriculture grew by only 3.7% per annum. Pakistan's overall economic growth slowed somewhat during the Third Five Year Plan (1965-1970) to about 6% per annum. The industrial growth rate fell to 7.6% but agricultural output grew at 5.6% annually with the aid of new high yielding varieties of wheat and rice varieties, reducing, but not eliminating, the food deficit. The major set-back was experienced by the agricultural sector in 1965-67 when it yielded growth rates of 2.00% and 0.9% in these 2 years. However increased emphasis on agriculture in the revised development plan, improved its performance.1 "The overall crop production index (1951-52 =100) jumped from 128 in 1964-1965 to 186 in 1969-70. The productivity indices of food, non-food, and fibre crops gained 57, 19, and 55 percentage points respectively during the same period. This sudden upward shift in crop productivity occurred because of the rapid adoption of new farm technologies - improved crops varieties, fertilizer, tube-well irrigation, pesticides and tactors".[2] Table 3 (1) and 3(2) overleaf provide "Rate of Economic Progress", and "Real growth rates" during this period. Let us explore below the underlying causes for this rapid expansion and the role of government policy in the success of the "green revolution".

The process of perpetuation of the political power of the landed aristocracy was still going on in Pakistan (as mentioned in chapter 2) when Ayub Khan proclaimed Martial Law in October, 1958. Ayub Khan belonged to a rural-based middle-class farming family of Hazara district (now Division). His rise, therefore, "exemplified the emergence of the rural middle classes as a powerful group in Pakistan's politics3". Using the cover of Martial Law (1958-62). he introduced land reforms in 1959, "that were aimed at reducing the power of the landed aristocracy4". The not so very radical land reforms produced an important political and psychological impact. The ceilings introduced on landholdings were liberal and loopholes many. Landlords could still own about 2000 acres of irrigated and 4000 acres of non-irrigated land if they transferred some of their property to their legal heirs and converted some other into orchards, nurseries and game reserves. They could continue to evict tenants if they failed to pay rent or cultivate land with a certain degree of efficiency. 2.3 million acres of land were directly affected by the reforms, and of these 930,000 acres consited of wastes, hills and river beds5. An important criticism of land reforms of 1959 has been provided by Leslie Nulty. She says:
".....5064 landowners declared excess land. On average, the declared excess per owner was 1445 acres. Land was actually acquired by the government from only 763 of the declarers, and only 55% of the declared excess land was acquired by the government for distribution.....it may be assumed that the remaining 45% of the total excess land stayed with its owners. After surrendering their declared excess land, the

TABLE 3(1)

RATE OF ECONOMIC PROGRESS (PERCENTAGE)

Rates of growth of	1949/50 to 1959/60	1959/60 to 1964/65	1964/65 to 1969/70	1969/70 to 1974/75
Gross Domestic Product	2.7	6.6	7.9	3.0
Population	2.4	3.0	3.1	3.0
Per Capita Income	0.3	3.6	4.8	0.0

Source: Shahid Javed Burki, " Pakistan under Bhutto - 1971-77" New York, St. Martin's Press, 1980, P-44.

TABLE 3(2)

REAL GROWTH RATES (PERCENTAGES)

	1949/50 to 1959/60	1959/60 to 1969/70	1969/70 to 1976/77
GDP at factor cost	3.1	6.8	3.0
Population	2.5	2.9	3.0
GDP per Capita	0.6	3.8	0.0
Agriculture	1.6	5.0	1.7
Industry	7.8	9.9	1.6
Services	4.0	4.4	4.1

Source: Ibid. P-165.

763 owners were each left, on average, with 2100 acres and Rs. 120,000 in compensation"6. In total, Nulty reports, 2.2 million acres were acquired by the government. Of this 1/4th were areas unfit for cultivation, and of the remaining 1.64 million acres, just under one half was classified cultural waste which would require considerable investment to bring it under the plough. Nulty concludes that "from the point of view of agricultural productivity and output, this attempt at land reform does appear to have awakened the interest of formerly absentee landlords in running their land on more commercial lines, largely out of fear that their tenants might otherwise be accorded proprietary rights to the land. Aside from this indirect influence, the generous provisions and the limited extent of their implementation the reforms has had only marginal, if any, effect on the traditional system of land tenure"7. It is generally accepted by other writers like Shahid Burki8& Nicholson9 that the 1959 land reforms had little direct impact on the redistribution of land.

Other agricultural policies, besides land reform, adopted by the Ayub Khan regime can be broken down into 3 basic components:- (i) Price Policy (ii) Public investment in infra-structure and (iii) credit policy. Let us examine each in turn.

Price policy in West Pakistan was reviewed by Ayub Khan regime that turned the terms of trade in favour of the agricultural sector. Many of the controls, referred to in chapter 2, were abolished in 1960. The administration now guaranteed farmers a minimum price of Rs. 13.50 per maund (82.3 pounds or about 37.5 Kgs) of wheat. Sales to the government were voluntary, and the Food department entered usual market channels only when prices dipped below the statutory minimum10. The net result of these changes was an increas in the price the farmers could get or expect to get for their surplus wheat. Other commodities whose minimum price was guaranteed were sugar-cane, cotton and rice (For West Pakistan, these are cash crops). The prices of these four commodities (including wheat) seem to haye been regulated throughout the period under consideration. These minimum fixed prices were, however, considerably lower than the world prices. By 1973 the prices had crept upto Rs. 46 per maund for the best grades of rice and Rs. 20 per maund for wheat. The Far Eastern Economic Review, in its issue of April 24, 1974 (P-55) reported that this price amounting to $ 70 per ton for coarse rice and $ 112 for fine rice when procurred on a compulsory levy in 1973-74 was sold at $ 225 and $ 470 a ton on the world market. The result of the policy of guaranteeing minimum prices of foodgrains, introduced by the Ayub regime and continued by the successive governments has been that the prices in Pakistan (of foodgrains) haye been considerably lower than the world prices. But guaranteeing such lower prices of foodgrains was compensated by subsidies on fertilizer and other key inputs. The government of Ayub Khan regime subsidized fertilizer and other inputs and made credit as easily available as possible in order to encourage private investment in the rural sector in such improvements as tubewells to supplement irrigation. The fertilizer subsidy bill for the year 1969-70, for example, was Rs.11.2 crores ($ 11.3 million)11. And a provision of Rs. 318 million for both West and East Pakistan was made in the Second Five Year Plan (1960-65) for the distribution of fertilizers and manures, and to meet the cost of subsidy.12 These

policies were a part of the "incentive strategy" of the government. Analysis by Nulty13 and Stephen Lewis14 indicate that the terms of trade between the urban and rural sectors remained fairly stable and slightly in favour of agriculture during the decade of the 60 s. Thus government expenditures in promotion of agriculture, in subsidies and building up of infra-structure in rural areas appears to have roughly balnaced by the controlled prices of foodgrains which were considerably lower than the world markets.

Leslie Nulty, however, questions the whole rationale of the so called "incentive strtegy" of the Ayub regime15. First poorly developed and poorly regulated markets, she says, tended to dampen the interaction between "incentive prices" and farm behaviour by reducing the amount of the incentive that actually reached the farmer. Second, once the farmer achieves self-sufficiency in grain production, he is more likely to respond to prices by changing the composition of his output than by increasing production. Third, the advantages of a tubewell and of the new seeds are so great that they would be adopted regardless of price shifts within fairly wide ranges.Fourth, the distribution of acreage between cash crops and grain i.e. between summer and winter crops is not determined by price, even after increases of procurement prices in 1967-68, but by the availability of water. She concludes that the government price policy cannot be construed to be a conscious attempt to improve real agricultural income " although the consequent response of agricultural output to what was assumed to be a favourable constellation of prices has in part been used as an ex-post indication of success that justifies past policies." 16.

This type of reasoning maylead one to a lot of controversy. There can be no doubt that the success of the market strategy and incentive strategy depended on a rational farm population which was highly price sensitives,perhaps this is why itwas particularly Punjabs' medium and larger farmers category, who"reaped the main benefits from the increased income"17It is also clear that it is the adequately irrigated areas of Punjab that provided bulk of this increased productivity."Thus there is ample evidence from Punjab----- that the incentive strategy can be highly effective but produces somewhat severe class and regional disparities"18 Ayubregime basically adopted a permissive policy which removed constraints and permitted farmers with resources to employ those recources more effectively. This policy no doubt, succeeded with the help of the already existing entrepreneurial talent, recources and investments but it is basically the public policy which exploited those recources. In the scarcity environmentof the 50s, and 60s, the government's strategy was a policy oriented towards rapid expansion of marketed foodgrains and export commodities like cottton. After the abolition of the village aid programme in 1958 until the initiation of the integrated rural development programme in 1972, the Pakistan government could hardly be said to have had a rural development or growth with justice programmes.

The most successful aspect of the public policy during this period was the expansion of public investment in rural infrastructure- roads, irrigation, land reclamation etc. Extensive government efforts proved effective in fighting the problem of water-logging and

salinity and at least 1450000 acres of land that had been uncultivatable werebrought into production.Additionally soil conservation efforts helped in checking soil erosion and between 1964-65 and 1969-70 an area of 195000 acres was recovered and brought under production. The worlds largest irrigation network was further enlarged by constructing new dams and barrages and small scale irrigation dams in the mountainous regions. These undertakings, together with the network of new canals and distributaries consumed Rs.6458 million out of the total public sector development alloctions of Rs.25147 million in the third five year plan (1965-70).In return, the nation had additional supplies of 3.5. million acre Feet (MAF) of irrigation water and 20210 KWH units of electricty. New irrigation supplies brought into cultivation an additional area of 2720000 acres. The local governments contributed Rs.4598400 out of a total of Rs.28740000 for some 8690 local irrigation projects during the period of 1963-64 to 1963-69. 19

The public sector also attended to the colonisation of new areas, particularly in the province of Sind and in the Third Plan period generated 5.7 million acres of farm land. The settlement on the newly opend up areas was accomplished through government efforts which included, besides revenue remissions and subsidised inputs, the provision of heavy earth-moving equipment, tractor-tillage facilities and technical advice. However, inspite of all these efforts, only 20% of the 200 million acres of potentially arable land was brought under the plough and the average cropping intensity for the farm economy as a whole just approached the 100% level. The major gains of the green revolution occured not in these areas"but in the more intensively farmed and older settlements of the Punjab"20. According to Nulty's findings, these efforts did serve to arrest a declining man/land ratio and might have had some impact on rural land pressures. 21

Agricultural Credit in this period has appeared as a major constraint on the green revolution. The modern agricultural technology is, in theory, neutral to scale, but it is not neutral so far as the access to inputs is concerned. Small farmers, without access to credit, find it difficult to buy fertilizer or to invest in the all important tubewell. Studies conducted on the "green revolution" reveal that the major part in its promotion was played by private initiative; public sector's contribution to it, by way of agricultural credit, was minimal. This can be illustrated by promotion of water supply for irrigation. Nulty reports that by 1963, there were 16280 tubewells in West Pakistan and only 22% of these were drilled by the government. The remainder had been installed by newly emerging private companies22. The wells began to expand first in Sialkot and Gujranwalla districts in the Punjab where the cost was low due to the high water table and availability of electricity, which obviously depended on the government sanctioning electric connections. But owing to difficulties involved in getting electric connections, some farmers used diesel pumps, though they were more expensive and less efficient to run. Thus the expansion in water supply occurred in and was financed primarily by the private sector in this period. In West Pakistan the expansion of the new technology - seeds, fertilizers, acreage and increases in yield etc - are directly related to and dependent upon the increases in the supply of irrigation water23. Thus the success of the new varieties was in those areas and among those farmers who had assured and controlled supplies of water. The importance of irrigation water was illustrated in 1970-71 when Pakistan's agriculture experienced a negative growth rate owing to bad rains and the inadequate supply of water in the canal system. Wheat production fell 11%, rice by 8% and sugarcane by 12%. 24

The co-operatives played a central role in the government's strategy of supplying credit to the rural sector. We have dealt with the co-operatives as an institution in chapter I. Here it can only be re-iterated that the contribution of co-operatives to the economic salvation of the rural sector was, by and large, dismal except for scattered and rare cases. "The numerical expansion of co-operatives and the inclusion of more and more activities into the domain of these organisations occurred, but with little result25". The overall performance of the co-operative sector during Ayub regime in promoting agricultural development is reflected in the fact that the Bhutto government had to promulgate a Martial Law Order to recover outstanding payments from members and executives of more than Rs.300 million and to initiate a complete overhaul of these institutions.

Fertilizer and pesticides production received sizeable allocations from the regime during this period. The joint efforts of the public and private sectors added additional production capicity of 37574 tons of nitrogenous and phosphatic fertilizers. The performance of the public sector in the distribution of these key inputs was weak; however the urban-based commercial and industrial entrefreneurs were encouraged by the government to establish their effectiveness by reaching distribution points and they reached as deep as"the small market towns and important transport crossings which, in turn, linked up with the individual farmers"26These entrepreneurs relied for the most part on the existing institution of market functionaries, thereby accomplishing their task without much additional social cost in terms of institutional infra-structure.

Promotion of agro-based industries during the period 1965-70 occurred mainly through the initiative of private entreprenurs as well. The private sector undertook marketing of farm inputs and continued also the age-old functions of merketing of farm products. Except for the procurement of foodgrains during periods of national emergency and the marketing by sugarcane marketing cooperatives of approximately 20% of the sugarcance produced, the remaining marketable farm surpluses found their way to processing plants and consumers, both local and foreign, through the private marketing functionaries. In the area of credit facility, Agricultural Development Bank of Pakistan, the co-operatives and the Revenue Department (which granted taccavi crop loans) managed to capture only 12% share in the total credit supplied in this period. The private sector, embodied in market functionaries and village shop - keepers, emerged as the major source of cash and in-kind credit for the green revolution.27

The private sector manufactured domestically only a few simple replacement parts of tractors and other farm machinery, but its performance in the manufacture of tube-well engines and related components was extensive. According to Falcon28,"towns where it was imposible to buy the proverbial pot in the mid 50 s had by 1965 become centres of diesel engine and pump manufacture". In contrast the government supported co-operative Karkhana-e-Alat-e-Zari. (Bahawalpur), which was expected to become a leading concern in the manufacture of modern farm implements suited to local Pakistani conditions, became a model of misappropriation of public funds and inefficient resource use.

It is manifest from the above discussion that it was generally the permissive atmosphere of the Ayub regime which permitted the progressive farmers to respond to the green revolution. In most of the cases, the revolution was brought by the farmers themselves; by the progressive middle class farmers with fairly adequate resources, who were enabled to employ those resources more effectively by the permissive nature of the agricultural policy. The government limited its role mainly to the creation of infrastructure.

But there are some other social and political explanations of the green revolution. We have seen that the 1959 land reforms had an insignificant impact in reducing the economic and political power of the landed aristicracy, but they had a great psychological impact on it. Ayub also put most of the big landlords behind the bars under EBDO. In this way, he made it possible to banish them from the policy making arena at least temporarily. Ayub also took steps to reduce the power of the bureaucracy by retiring 37 senior civil servants compulsorily. Their power on the economic life of the country was also reduced by Ayub Khan by removing the elaborate system of controls that had been created in the 1953-58 period. After taming the landed aristicracy and bureaucracy in this way, Ayub devised an elaborate system of Basic Democracies in 1959 "which was designed to bring the middle class farmer in the decision making arena".29

Briefly the Basic Democracies was a hierarchical system of four tiers of non-political representative councils. The primary rural unit was the union council with jurisdiction over about 8000 to 10000 people. The tehsil council, at the next level included all the elected union council chairmen within its jurisdiction and an equal number of appointed members, under the chairmanship of the Tehsildar or sub-divisional officer. The district and divisional councils, under the chairmanship of Deputy Commissioner and Commissioner respectively were made up of equal number of offcials and non-officials, some of the latter drawn from among union chairmen.30

The actual functions of the councils were the revenue collection, law and order, agricultural and community development and to carry on local government. The union councils also assisted in the concilation and settlement of disputes in the villages. The regular courts came into the matter only if concilation failed or in criminal cases if the controlling authority (D.C. or Tehsildar) or the concilation court itself felt that the interests of justice required a normal trial.31

The fact which contributed to the unpopularity of the basic democracies system was the decision to have the elected councillors serve as electors for national and provincial offices. On February 14, 1960, the newly elected councillors participated in a referendum expressing confidence in President Ayub's government. This precedent was followed in the constitution of 1962, which limited the franchise for presidential and legislative electors to members of an electoral college made up of the elected Basic democrats. This very fact of linking memberships in the local council with the legislative franchise destroyed the local orientation of the basic democracies and caused downfall of the system.32

The elections of 1959 to the local councils held under the B.D. system "brought a large number of middle class farmers into the political arena"33. Once they were there, they exerted their influence on the civil bureaucracy and the civil bureaucracy, in turn, re-consolidated its position by aligning itself more closely with this new social group"34. The middle class farmer, in the changed economic social, and political environment could now operate free of the control of the landed aristicracy and became the economic maximizer. Shahid Javed Burki finds evidence in the data collected by him from the survey of 27 villages in the Punjab which shows that the middle class farmers, owning between 50 and 100 acres of land, increased their production most rapidly in 1959 and early 60 s. They did this first by going in for intensive use of water, and then by quickly adopting the technology made available to them as a result of a breakthrough in the development of HYVS seed. Burki, on the basis of this data, concludes that while the green revolution in the developing world was thought to begin in the mid-60s, in West Pakistan, it began with irrigation water, more than half a decade before the so-called green revolution (that is in 1959/1960). This response of the middle class farmer to increase agricultural productivity co-incided with his emergence as a new powerful and independent factor in the political system of Basic democracies. The big landlord in the 1950s treated water as a scarce resource. As he (the middle class farmer) did not have access to the vast tracts of waste-land available a decade earlier to the big landlords, he concentrated his attention on maximizing his benefit by installing tube-wells for irrigation.35 On the basis of this fact we have ample evidence to conclude that one principal determinant of change in the agricultural sector of West Pakistan from the state of stagnation to the stage of prosperity was a new group of middle class agricultural entrepreneurs who was able to exercise influence over the formulation of public policy. This influence was exercised not only because the policy makers became aware of the potential power of this group, but also because in a number of cases the policy-makers themselves were the members of this class. Public policy provided fertilizers and pesticides and other key inputs at subsidized prices. Tubewell parts were imported at favourable terms of exchange; energy for the tube wells was made available by the state run WAPDA (Water and Power Development Authority), at subsidized rates36. Big landlords and small farmers also seem to have gained increases in production, but largely the small farmer sustained deterioration in income. The new class of agricultural entrepreneurs brought into being by the Ayub regime, later on, turned itself into a group of political as well as economic maximiser and in doing so, followed the model provided by the old landed aristicracy. This class might have increased conflict which existed in the rural set-up of Pakistan - a conflict between a big landlord and the middle class farmer or between a big landlord and his tenant. And this conflict must have contributed to the political awakening of the rural masses which was clearly seen in the anti-Ayub movement in 1968-69 and in 1970 general elections and later on in the Bhutto period.

CONCLUSION.

Pakistan achieved 54% increase in the average total production of cereals within 10 years of the Green Revolution period, that is from 1961 to 1970. This increase(excepting increases achieved by Tanzania (72%) and Jamaica (57%) in cereals in this period)was the highest in the world.[37] Pakistan's Punjab broke "international agricultural records through very rapid rates of growth in wheat production38". This outstanding achievement was made possible by the Ayub regime by introduction of reforms in the pricing policies of foodgrains and cash crops. The role played by the land reforms and agricultural credit policies was, however, insignificant. The reforms in the pricing policies, commonly called the "incentive strategy" of the government were highly effective but produced somewhat severe class and regional disparities, "increased rural conflict" and caused "considerable uncertainty about future agricultural development39".(We shall examine this aspect of green revolution in chapter 5 onwards).

Ayub regime basically adopted a permissive agricultural policy which removed many governmental constraints on the agricultural development which permitted many progressive middle class farmers with fairly adequate resources, to employ those resources more effectively. During this revolutionary period a large proportion of farmers in all size categories appear to have obtained some absolute increase in production through the widespread adoption of the high yielding rice and wheat seeds, but the major beneficiaries of the green revolution were the newly emerging middle class and large farmers. The government played its role in the infra-structure creation (and policy formation) like expansion of transportation facilities, provision of some of the key inputs, but the major role in the economics of the green revolution was played by the private sector.

Ayub devised an elaborate system of Basic democracies in order to transfer some of the political, social and economic power to the middle class farmers which, in turn, provided (i) legitimacy to the regime and (ii) rapid agricultural development.

Bureaucracy weakened temporarily regained its power and control in the economic life of the country by aligning itself with the newly emerging middle landowning class. Landed aristicracy weakened psychologically was brought back to influence (not to control decision making with the promulgation of 1962 constitution, but this time, the big landlord had to compete with the middle class landowner, civil and military bureaucracy, merchant-industrialist and small industrial producers. The 1962 constitution permitted very little power to these decision-influencers. It was very difficult to satisfy everyone's interests in this broad-based ruling coalition. The economic slowdown after the 1965 war with India brought to surface the grievences and conflict existing between various social groups in the rural areas which ultimately brought Ayub's fall in 1969 and another period of instability and adverse economic conditions started.

Chapter 4

Stagnation Dies hard - 1971-1977

The economic programme during the Ayub period produced rapid growth but relatively little gain at the lower end of the income distribution scale. The grievances of the groups who suffered from this disparity surfaced in mid-1967 in anti-Ayub movement, which turned violent in November 1968 and continued till March, 1969. On March 25, 1969, Ayub was forced out of office by General Yahya Khan. Anti-Ayub movement, which originated from west Pakistan, brought to surface Bengali grievances over the distribution of national resources. This conflict led to the popularity of Sheikh Mujib-ur-Rahman's Awami League and his six points which sought economic independence of East Pakistan and was, therefore, immediately rejected by the leadership in the West Pakistan. Awami League's triumph in the 1970 general elections and its claim to power in the early months of 1971 and its insistence on the acceptance of 6 points formula ended in a bitter conflict which resulted in the secession of East Pakistan and the emergence of Bangladesh as an independent state in December, 1971.[1]

On 20 December, 1971, the interim military regime of Yahya Khan handed over power to Zulfiqar Ali Bhutto, the Chairman of the Pakistan People's Party(PPP). The elections of 1970 had provided Bhutto with a broad economic and political mandate in the Punjab and Sind provinces of West Pakistan.

With the political disturbances and the separation of EastPakistan from West Pakistan, the country's economy under-went severe changes during 1971 and 1972. This was also partly caused by the prolonged drought that virtually halted the increase in agricultural output. For the 2 years, 1971 and 1972, agriculture showed increase of less than 0.5% but increase of about 3.1% in 1973 and 1974. Manufacturing value- added fell by more than 3% over the 2 years, 1971 and 1972, but then rose about 5.5% in 1973 and about 8% in 1974. From 1970 to 1977 GDP growth rate was on average 3% per annum and the population growth rate was 3% per annum. There was, thu hardly any improvement in per capita incomes. Owing to the loss in real incomes because of the adverse movement of the international terms of trade, per capita real incomes actually declined. Per capita commodity production declined markedly. Agricultural growth rates were, in fact, 1.7% per annum, significantly below the rate of population increase (See Table 3(2) in Chapter 3).

Pakistan's economy operated in adverse conditions in this period - and demonstrated its strength and resilience, both in its adjustments to the separation of the 2 wings in 1971 and in its absorbing of the shocks of drought in 1972, of Floods in the summer of 1973 and of the increase in international petroleum prices in October, 1973.

To G.T. Brown, Eastern Wing's separation had a favourable impact on Pakistan's agriculture's terms of trade, for after its separation, a substantial part of trade was diverted to world markets."This reflected both a sharp jump (about 1/3rd) in the size of the cotton crop and in the exports of cotton and cotton textiles, and the successful diversion to other markets of most of the flow of cotton, textiles, rice and other goods with which West Pakistan had pre-viously re-imbursed

East Pakistan for its flow of jute and jute earnings to West Pakistan.[2] But according to a study of the Ministry of Commerce, 57% of increase in exports in the years 1970-72 was due to quantity increases, 25% due to higher prices and only 18% due to diversion from East Pakistan to the world markets.[3]

For purposes of discussing politics of decision making in the agricultural sector, Bhutto regime may be divided into 2 phases. First phase (1972 - October 1974) is characterised by the ascent of the left. In this phase, a number of reforms were introduced by the regime primarily on ideological rather than on political basis. The protagonists in this phase, besides Bhutto, were the ultra-leftists like Mubashir Hasan (the Finance Minister), J.A. Rahim, (Minister for Production) and the rural leftists like Sh. Rashid. In phase 2 (Oct. 1974 - July 1977), Bhutto brought back all the old established landlords, bureaucrats and the right-right oriented politicians in the decision - making arena.[4]

The swiftness with which the ultra leftist government chose to nationalize 31 large firms in 10 basic industries in January 1972 was a manifestation of the ideological content of the policies adopted in the first phase. The industries affected by this decision involved iron and steel, basic metals, heavy engineering, motor vehicle assembly and manufacturing, tractor assembly and manufacture, heavy and basic chemicals, petro chemicals, cement and public utilities.[5] A period of great uncertainty followed nationalization. The private sector which had exhibited a tremendous amount of dynamism during the 1960 in bringing about the green revolution was confused about the real intentions of the government and the administration was not inclined to provide concerete assurances to it. Consequently, there was a sharp decline in savings and investment. In 1970, the nation had saved 13.3% of its wealth, but this declined to 8.4% in 1972. Investment by private entrepreneures in 1972 declined to 5.4% from 8.5% in 1970. At 5.4%, private investment was just sufficient to offset the depreciation of the existing stock of machinery and capital and nothing was being invested for the sake of the future.[6]

Bhutto regime did not neglect the farm sector. Land Reforms were introduced in March, 1972 which had had only marginal impact on the pattern of landholding and little short -run effect on development.[7] Under its provisions, irrigated holdings of more than 150 acres per owner and non-irrigated holdings of more than 300 acres per owner, were to be surrendered to the state without compensation for redistribution to landless and small farmers. These reforms compared with limits of 500 and 1000 acres per owner in the 1959 land reform. The limits were on an individual owner basis. However, the effective household ownership of much larger areas was possible. The par-celling out of land to wives, children and other close relations had already occurred in anticipation of such a reform, and much of the land taken over was of relatively little value. More important were the provisions requiring landlords to pay all taxes and water rents and half the costs of fertilizer, seeds, and other inputs. The landlord's share of the crop was fixed to 50% and tenants could not be evicted as long as they tilled the land and paid their rents. Tenants were also given first rights to the purchase of the land they cultivated.

Enforcement of these provisions was however difficult. Only a handful of formal actions against landlords were brought to court, though complaints about continuing evictions, excessive rents, and other landlord violations of the reform's provisions were numerous.[8] Nevertheless the law strengthened the phychological

position of tenants and made many landlords more cautious about removing or exploiting them.

Other important reforms introduced in the agricultural sector in the first phase were the imposition of various government controls on procurement prices of agricultural commodities, export duties and export restrictions. Public sector substantially invested in improving irrigation and drainage facilities and in controlling salinity. About one billion dollars (at 1973 prices) were proposed to be spent in irrigation improvement, drainage and flood control for 1975-79 of-which the water-logging and salinity control components were about $ 320 million. Export duties and bans and the government monopoly of raw cotton and rice exports kept domestic prices of many agricultural commodities far below world market levels. Take, for example, the case of cotton. In 1971 cotton exports were transferred from the non bonus to the 10% export bonus list, raising the exchange rate for its export from Rs.4.76 per dollar to about Rs.5.7 per dollar. At the time of the May 1972 devaluation of the Pakistan rupee (from US 21 cents to US 9 cents per rupee), raw cotton was one of 10 commodities on which export duties were imposed. (specific exports duties were also imposed on cotton waste, cotton yarn, grey cloth at decreasing levels, raw hides and skins, semi-tanned and tanned hides and skins, rice, oil cakes and raw wool). The export duty on raw cotton was set at 35% giving exporters Rs. 7.17 per dollar rather than the official rate of Rs.11 per dollar. In Spetember 1972, the export duty on raw cotton was raised to 40% that is giving exporters Rs.6.6 per dollar. Devaluation of the dollar in February, 1973 lowered the exchange rate by 10% to Rs.9.9 per dollar. In June, 1973 the export duty on raw cotton was raised to 45% ad plus an additional 30% on any excess of the price over Rs.1500 per bale. As a result the average exchange rate on raw cotton exports in 1974 was only about Rs.4.6 per dollar. Because of export duties on rice and its monopoly of rice exports, the government received about 75% of the price of Basmati rice exports in 1974, implying an exchange rate of about Rs.2.7 per dollar if compared with an official rate since devaluation of the U.S. dollar in February 1973 of Rs.9.9 per U.S. dollar.9

Despite these heavy rates of taxation, prices of cotton and rice within the country rose. The average price received by farmers per ma-und of seed cotton rose from Rs.50 in 1972 to Rs.60 in 1973 and Rs.90 in 1974. The procurement price for Basmati rice was Rs.46 per maund in 1973, Rs.62 in 74 and Rs. 90 in 1975.[10] Aside from its great need for revenues, the government's dilemma with agricultural prices was between letting farm prices rise higher to encourage production and limiting farm price increases in order to hold down increases in the cost of living. Lower farm prices also helped reduce the government deficit by providing greater potential and actual government revenues from export duties and by reducing government expenditures to subsidize the sale of wheat through ration shops. The procurement price of wheat was increased from Rs 17 per maund in 1972 to Rs.25.5 in 1974. Retail ration shop atta (wheat flour)prices were equal to the procurement price plus the fee paid for milling, with the government absorbing all handling and distribution costs. At Rs.25.5 per manud, farmers received the rupee equivalnet of about $ 69 per ton, while during nearly half of the 1974, ration shop supply had been imported at prices near $ 200 per ton. Thus the government was paying higher prices to Amercian and Candian farmers than the Pakistani farmers.[11] That idfference had been a drain on scarce budget resources, since all imported wheat had been bought for cash or on credits not exceeding 3 years and sold through ration shops at the ultra left PPP govt. was spending a lot of money on food subsidy. The Pakistani farmer was only receiving the controlled price of wheat which was then far below the world market prices. Obviously, "the urban consumer" proving to be a drain on government's scarce resources. Burki finds evidence that there was a strong urban bias in the various farm policies adopted by the leftist regime of PPP during the first phase

same subsidized price as domestic wheat. Thus the

The left's principal interest was to ensure the supply of Agricultural commodities and processed goods to its constituencies in the Urban Areas at equitable prices. The Government was prepared to intervene massively in the marketing system whenever prices rose by amounts that were considered to be unreasonable".12 The government first intervened in the autumn of 1972 when the prices of sugar, because of short supply, more than doubled in a period of less than three months. The government now established a two-market system under which the Urban consumers were permitted to purchase a part of their requirements from ration shops at heavily subsidized prices and at the same time a parallel private market was allowed to operate for those whose requirement was more than the ration shop. quota.13

There are sufficient grounds to assume that the agricultural policies of the regime had an Urban bias, but the govt. simultaneouniously was selling agricultural inputs at subsidized rates to the farmers. The domestic price of fertilizer was increased, without doubt, about 270 per-cent in 1973 and 1974 in order to reduce the fertilizer subsidy, but the cost of this subsidy still continued to rise because of the international fertilizer price increases and increased consumption. It was because of the rise in fertilizer prices that the govt. fixed the procurement price of wheat for the 1975 crop nearly 50% higher than that of 1974 and about 120% higher than that of 1971. Simultaneously, the govt. raised the prices of wheat flour (atta) correspondingly by the summer of 1975 in order to prevent the subsidy to consumers increasing. This, in turn, was accompanied by increase in wages of both public and private sector employees to offset the higher cost of wheat in low income family budgets. Thus what Bruki calls. " Urban bais " in adoption of polices may partly be interpretted as subsidy-price-wage-adjustment package. This type of adjustment package had taken place in july-Aggust 1973 also.

But the argument of Burki that the public policies of the govt. in the first phase had an urban bias cannot be dismissed because the urban consumer seems to be consuming much of the food items like sugar, atta, rice, pulses etc at highly subsidized rates whereas the rural producer was only being partly compensated through input subsidies for the low prices which he was receiving for his farm produce.

The hastily introduced reforms in other sectors like health, education, labour, administration etc. had far-reaching impacts on the farm sector. Here the impact of the administrative reform on agricultural sector would be relevant and would illustrate the point. As stated above, there were unprecedented floods in Pakistan in 1973. 200 human lives were lost, 4 million acres of cropland was inundated, some 885000 homes were seriously damaged, 54000 heads of livestock were lost and $ 38 million of damage was done to roads and other communications infrastructure. The govt. estimated the total loss at $ 800 million.14

This damage could have been less extensive, had the various branches of the bureaucracy moved in time to help the affected areas. But the bureacuracy was being re-organised that very summer; those who could have acted, had either been retired or removed from office or demoralished. The Chief Secretaries and the flood relief commissioners of the provinces of Punjab and Sind had lost their jobs under the reforms . Thus without guidance from the above, the bureaucratic response was slow . One manifestation of this was the inability to organise the delivery of basic items of consumption to the affected areas. During this crises , people had to go for

In
days without petrol and cooking oil./Northern areas, the price of cooking oil trebled. The situation worried the Govt. The remedy to this problem was sought in the nationalisation of the vegetable oil(ghee) industry. This nationalisation hurt the middle class as a good proportion of the cooking oil industry was owned by small and middle-sized entrepreneurs. Some of these were active PPP supporters and many other were favourably disposed to the party. The decision was, therefore, resented by the Govt.'s own constituency which generated pressure on Bhutto to reduce the influence of the left in the economic decision-making. The govt. was also brought into closer contact with the cotton producers as a result of this nationalisation(because a bulk of the cotton seed is utilized for making cooking oil). These farmers did not like the bureaucrats who took over the control of the 50 nationalized firms in this industry. They did not possess the expertise or the capital of the owners they had displaced. The cotton farmers needed both. Moreover, it soon became clear that most of the new managers were corrupt and sought bribes " for lifting the farmer's produce".15

Bhutto therefore became disenchanted with the ultra-leftist elements. He accordingly decided to replace them by relatively moderate people in October, 1974. Mubashir Hasan, J.A. Rahim, Khurshid Hasan Meer, Ministers of Finance, Production, Establishment respectively and representatives of the PPP left were replaced by mild mannered Rana Hanif and Rafi Raza (both lawyers by profession) and General(Retd). Jamaldar. Yousaf Khattak, an old Muslim Leaguer and a prominent businessman took over as Minister for Fuel, Power and Natural Resources. Agriculture was the only ministry that went to the left. Sheikh Rashid the new Agriculture Minister remained in the Cabinet probably to placate the left and to balance the landed aristocracy from Punjab and Sind who were now brought into the PPP in large numbers.

With the established groups now back in important cabinet positions, it was intended that much of the decision making would devolve on the bureaucracy. New appointments were made to the more important economic ministries; the divisions of Finance, Planning and Development were put under the charge of A.G.N. Kazi, a senior Civil Servant with a long record of service. The stage was thus set for the bureaucratisation of decision making. Bureacuracy however was unable to perform that dominant role which it had played during the latter part of the Ayub era mainly due to (i) Bhutto's dominance in decision-making (ii) the drastic change that had been incorporated earlier in the structure of bureaucracy.

In substitution, the Prime Minister and his secretariat played the dominant decision-making role. A part of the bureaucracy was re-organized along project rather than functional lines; where such re-organisation could not be undertaken, new organisations were set up. Population Planning Division was set up to pursue an ambitious family planning programme, Manpower Division was organised to facilitate the export of manpower to the Middle East, Agrarian Management division was set up to administer and control the agro-based industries, firms and corporations which were under or were recently brought under public control. Similarly, the procurement and distribution of food was separated from Agriculture division, and Rural development was also separated from Agriculture. Each of these new dvisions was to lookafter one or two important projects.

With the Planning Commission weakened and with the establishment of a number of single purpose divisions, it became increasingly difficult to define a set of objectives central to all economic decisions. What ensued was a 3 years period of decision making without constraints. The regime embarked upon a number of long-gestation schemes with emphasis on grand solutions to Pakistan's economic problems which claimed a large proportion of development resources. These schemes generated a political momentum of their own which the successor Govt. found very difficult to halt and which made it impossible to adopt more innovative solutions to the nations economic problems. Some of these long-gestation

projects were (i) Karachi Steel Mills(ii) 800 miles long Indus Highway, (iii) Installation of a dozen number of reactors to meet the country's energy gap(iv) construction of a Lowari Tunnel in order to connect the northern areas with the rest of Pakistan and (v) construction of a sports-complex at Islamabad.

The decisions to construct these projects were examples of economic decisions [16] taken for essentially non-economic reasons" Agriculture which could have helped the country out of a number of its economic difficulties did not receive the attention it deserved. In the 1974-77 phase, the regime did attend to agriculture, but the measures adopted yielded little because they were not aimed at the most dynamic sectors of the rural community, the middle class wheat growers, who had brought the green revolution, and the small farmers. The big landlords, who had joined the PPP ranks now, wanted to be suitably rewarded for extending support to the Prime Minister. The suitable rewards demanded by the landed aristocracy were adoption of agricultural polices which specifically suited the large farmers. Ayub Khan's green revolution created divisions of farming communities into roughly 3 categories. The large landlords, while growing foodgrains on a limited scale, came to specialize in the production of such cash crops as cotton, sugarcane, and oil seeds. The middle-sized farmers, while growing these cash crops on a limited scale, specialized in the production of hyvs of wheat and rice. The small farmers, however, continued to produce foodgrains for On-farm consumption. According to the findings of Burki, Bhutto in the second phase adopted an incentive structure that favoured only one category of farmers, that is the big landlords growing cotton. Consequently, " the fortunes of the large-scale cotton growers in the Southern districts of the Punjab and Northern districts of Sind" flourished in this period because for them the real cost declined by 46% between 1970/71..... and 1975/76".[17] According to Brown and Gotsch,[18] a sharp deterioration in the agriculture's terms of trade occured after 1974 when the landed interests (representing a very small minority) were installed once again in important decision making roles. Brown and Gotsch have also revealed that the years 1974-76 marked consecutive years of decline that resulted in one of the most unfavourable ratios to be found in the entire 20 years for which they have calculated the price index.[19]

The government's approach to mechanisation reflected the desire to favour large farmers. In 1974-75, the purchase prices of tractors as well as the costs of maintaining them were reduced. Measures were adopted to expand the role of the Govt. controlled Agricultural Development Bank, (which, as we have seen in Chapter-I, advances medium term and long-term and supervised credit for major capital investments oriented towards the large farmers) in making credit available for the purchase of tractors. This promotion of farm mechanisation "helped the landlords to displace tenants and sharecroppers with hired workers even though the tenants had legal rights on the land they cultivated."[20]

Trade in foodgrains, after the creation of Pakistan, had been largely with petty merchants and small rural inudstrialists. In July, 1976, the regime decided to assume the managements of some 4000 agro-industries like flour-milling rice-milling and cotton-ginning factories. This decision according to Burki was entirely political and not ideological and was arrived at to benefit the big landlords. "The real political and economic significance of this measure was that it resulted in the vertical integration of the agricultural sector in the sense that the landed aristocracy now had a share not only in producing a sizeable part of the output traded in the market but also in the marketing, processing and distribution of this output".[21] By directly intervening in these industries, the regime disloged the middle class merchants and brought in the large landlords and their representatives. to manage the 4000 nationalized enterprises. An Urdu daily, Nawa-i-Waqt, found

evidence[22] that of the 4000 new managers, nearly 2/3rd had close links with the large landlords who had now become prominent in the PPP. Thus the agricultural policies adopted by the Bhutto regime in the second phase benefited the large farmers. The petty grain traders, small agro-industrilists, small and subsistence level farmers were the worst-hit by these policies. As these groups were, initially, strong PPP supporters, Bhutto antagonized them, by adopting such measures. He tried to win back their sympathies, by announcing another land reform on 5 January, 1977, about 2 months before general elections. This land reform reduced private holdings to 100 acres of irrigated and 200 acres of unirrigated Land. Again the motive behind this reform was political rather than ideological or economic. The announcement of this land reform surprised everyone, especially his land lord supporters. This sudden shift in policy "enabled him to remind the public how fully the nation's policies turned on his will and whim".[23]

Conclusion

The economic reforms introduced by the Bhutto regime in the first phase (1972-1974) added a major element of uncertainty in economic relations, which could not be removed by subsequent assurances. Nationalization of significant part of inudstry and almost the entire financial system without adequate forethought raised serious problems of efficient public sector management. While problems of management were affecting performance of the large scale industrial sector, the nationalization of agrarian industries extended the effect of such policies to smaller industries dealing directly with the agricultural sector whose performance was also affected by the indifferent implementation of the land reforms.

During the later years of the first phase and in the second phase, the impact of a severe international economic crises was felt in Pakistan. World inflation, the rise in energy prices brought down terms of trade of Pakistan by 28% between 1973 and 1975.[24] The response of the Bhutto govt. to meet the severity of this international crises was inadequate. Investment commitments were r made for major non-economic projects. Agriculture which could ahve helped the country out of its economic difficulties did not receive much funds. By, 1977, the cumulative impact of the persistent agricultural stagnation combined with enlarged commitments for large development projects and non-development expenditure on subsidies had created an economic impasse.

Income distribution among the farming communities worsened during this period. This appears to have happened due to several national and international causal factors, but most of which can be attributed to the agricultural policies pursued by the regime. In the first phase the agricultural policies had a strong urban bias and in the second the policies favoured the cultivators of cash crops like cotton which only the big land-lords specialized. The middle class farmers specialized in foodgrains and cultivated cotton on a very limited scale. The small farmers only cultivated foodgrains for on the farm consumption. The cultivators of food grains sustained deterioration in terms of trade as the major benefit of the public policies went to the cotton-growers. The wheat growers sustained a loss of income because they sold their supplus produce to the Govt. at low prices for the urban consumers. Thus the most important reason for the agricultural stagnation was the decline in the share in total wealth of the middle and small farmers. These groups sustained a loss in income because they were, especially in the second phase, excluded from the ruling party's decision making positions.

Bureaucracy during the first phase was demoralized and disturbed owing to the administrative reforms and in the second phase, it had neither the power to discipline such a domineering figure like Z.A. Bhutto nor the ability to contain the ad-hoc and grand decisions being taken in the Prime Minister's secretariat.

The first phase of Bhutto regime was a phase of either abolition of institutions (like Basic democracies) or of restructuring institutions(like replacement of the Agricultural development corporation by Agricultural supplies corporation referred to in Chapter I) which created a lot of uncertainty and upheaval in the rural sector. The role of the public sector in the management of the agricultural sector expanded at a time when the administrative structure was also being re-fashioned. It was at that crucial time in a transitional stage and had no longer the strength to shoulder this additional burden. This does not mean that the administrative reforms were un-necessary, but their timing was unfortunate.

CHAPTER 5

HOW GREEN IS THE "GREEN REVOLUTION" NOW (1977 ONWARDS)

Zulfiqar Ali Bhutto's fall from power came swiftly. On 5 January, 1977 he surprised his landlord supporters with his second land reform. On 7 January, 1977, he announced the dates for the national and provincial elections. The national elections were to be held on March 7, 1977 and the provincial elections on March 10,1977. In both the elections, Bhutto's Pakistan Peoples Party(PPP) won in 3 of the four provinces of the country. The opposition,Pakistan National Alliance(PNA), which was expecting to win the elections or at least many more seats than it had done in the 1970 elections, found it difficult to accept the results and charged that Bhutto and his associates had massively rigged the elections. They opened a compaign against the government that quickly gained momentum. Only a month later, that is on 9th April,1977, the army was battling with protesting mobs in all the major cities. Unable to control the mounting violence, Bhutto was forced to impose military rule in the principal urban areas but the violence did not subside. On 5 July, 1977, Bhutto was forced out of office of the Prime Minister by the Pakistan Army. Thus ended Pakistan's second experiment with civiliar rule.1

With the advent of the present regime in July,1977,measures have been taken to restore private sector's confidence and to revive output and exports. Agro-based industries like cotton ginning,rice-milling and flour-milling units have been denationalized, export rebate procedures simplified and special incentives for the ailing textile industry have been granted. Present government's five pronged strategy seeks an agricultural revolution,the re-vitalization of the industrial sector, re-suscitation of the textile-industry and re-invigoration of the small industries sector. Agriculture, Rural development and meeting every one's basic needs are now the main focus of the government. The success of this approach, as viewed by the regime, is a determination to delay costly new projects until some of the long-gestation projects, started by the Bhutto regime are completed.2

An impartial study evaluating the performance of the agricultural sector in this period, that is in the Annual Development Plan 1977-78 and the Fifth Five Year Plan (1978-1983), has yet to come, yet according to the figures released by the government, the sector is developing now. Comparing with the 2 periods of agricultural stagnation when the average rate of growth in agriculture was 1.6% (in the 50s) and 1.7% during 1970-77(se Table 3(2), the average growth rate of agriculture in the period under consideration has been encouraging. Its average growth rate was 4.2% per annum in 1977-80.[3] According to Far Eastern Economic Review, the Fifth 5 year Plan of which more than 4 years has elapsed has not been an outstanding success because of a "lack of private sector's enthusiasm and the government's insistence on continuing major industrial projects such as the Steel Mill at Karachi and long-gestation water and power projects, including the giant Tarbela Dam" 4 (These long-gestation projects were initiated by the Bhutto regime). The annual growth rate in the farm sector, for the first four years of the Fifth Plan (1978-83), according to Review, has been 4.5% down from the 6% annual target because the fertilizer off-take has gone down and the growth rate is peaking.

Nevertheless, the most outstanding achievement of the present regime is that the agricultural sector is no longer stagnating and is, in fact, again ready to gain momentum towards more rapid growth. The country has now achieved self-sufficiency in wheat and rice. Import of wheat was discontinued in 1981. The country has been exporting rice and has now begun importing wheat. In 1981, Pakistan had 600 million dollars worth of food to export and during 1982,the country sold 700 to 800 million dollars worth of food items including poultry, fruit and vegetables.[5]

However, the country is still not producing enough to meet the basic food needs of the population in some commodities. The per capita availability of animal protein in Pakistan is one of the lowest in the World. There has been chronic shortage of essential agricultural commodies in the past four years like edible oil, pulses, dairy products and timber which had to be imported at the huge cost of foreign exchange and overall economic development. There are various factors which limit agricultural production in Pakistan like (i) high population growth rate which is about 3% per annum and which correspondingly reduces annual average growth rates in agriculture(ii the low man-land ratio which is about 0.59 acres per capita (iii) loss of a good proporation of cultivated land every year due to water-logging, salinity and soil erosion(iv) periodic occurence of floods and droughts and wide-spread prevalence of insect pests and diseases of plants (v) inability of the common-man to pay prices of milk and meat commensurate with the cost of production on commercial scale, resulting in economically non-viable dairy and meat industries and (vi) the non-availability of the site-specific package of technology for the important agricultural commodities in various agro-ecological zones.6

These are important development constraints which the present regime has inherited from the previous governments of Pakistan, but the major development constraint which the present govt. has inherited and which it shall have to remove exists in the socio-economic environment of the prevalent production system and which is the main theme of the present study. The field studies done by some writers have brought to light the major social and economic consequences of the new biological cum-agricultural technology introduced by Ayub regime and pursued by the successive governments of Pakistan and which is popularily called the "green revolution". Its socio-economic impact has been briefly highlighted in chapters 3 and 4; that impact is further discussed here.

The introduction of modernised agricultural technology has covered substantial acreage in Pakistan and has brought about a significant increase in the output of foodgrain. The country is self-sufficient now in at least rice and wheat and has become a big exporter of these commodities. But the country is not self-sufficient in other cereals and proteins even on the basis of current and admittedly inadequate levels of consumption. Nor has it freed agricultural production from the fluctuations that climatic and environmental variations have exposed it to in the past, like the prolonged drought of 1971-72, 1973 floods, although with the completion of Tarbela, Mangla and other small dams, the possibilities of drought have been reduced. The increase that has taken place in production has not been evenly spaced between different social groups or regions or cereals. The new technology, therefore, has still to be nurtured and developed if it is to achieve the objectives of food self-sufficiency, nutritional betterment and social justice.

Where the technology has been applied in substantial measure, as in Punjab or in some parts of Sind, the resulting benefits by way of increased returns have not been equally shared by the different size groups farms with the result that the rich have grown richer and the poor comparatively poorer with understandable consequences on social and political harmony in the country-side. This aspect of the green revolution has been examined by Gotsch et al.[7] Using a linear programming model, Gotsch has examined the relationship between technology, prices and income distribution in Pakistan after the green revolution, and has demonstrated that on a typical 12.5 acre farm in the Punjab using tube-well water and advanced rice, maize and wheat technology, the index of cropping intensity could profitably increase from 110 to 152 with an associated 85% increase in net revenue.

This study related to an area intensively irrigated by canal and supplemented by tube-well water, but in another study conducted by Rochin[8] shows the impact of the new inputs on production in the rain-fed district of Hazara (now a division and subdivided into 3 districts), where the dwarf varieties of wheat have doubled yields per acre. These two studies show the element of profitability involved in the adoption of the modernised agricultural technology. These two writers and Shahid Javed Burki[9] are in substantial agreement that the major beneficiaries of the productivity jumps in Pakistan have been the medium (50 to 100 acres) and large farmers. The authors agree that a large proporation of farmers in all size categories appear to have obtained some absolute increase in prodcution through the widespread adoption of the Hyvs of rice and wheat but rural income disparities, they say, have increased considerably. Thus the outstanding achievement of rapid growth in agricultural production, they conclude, has brought with it unanticipated consequences for social and political structures in rural areas.

Given the profitability of Hyvs, One can expect an increase in capitalistic farming, the attempted eviction by landlords of their tenants followed by increased cultivation with hired labour, and the buying out of small farmers by large farmers. And with the substitution of capital for labour, the demand for labour would fall unless the expansion in output is sufficient to overcome the substitution effect. Findings of various writers differ on Pakistan in so far as this hypothesis is concerned. There is a consensus on the point that land ownership patterns influence the response of cultivators to the new agricultural technology, but they interpret it in different ways. Burki[10] finds evidence that the quick response of the 7 best districts to the opportunities of the green revolution was related to the predominence of middle-sized holdings. It sounds reasonable as the size of holding may generally be taken as an index of the total resources available to a farmer and is important in determining the surplus available for investment and ease of his access to credit. Max Lowdermilk[11] reports that the small farmers have not been slow in adopting the new dwarf wheat varieties. However, only the larger farmers have access to reliable sources of water (i.e. tube wells), farm power (i.e. tractors), information and/or cash to use the proper "package" of inputs and practices required by the new varieties of crops. Hamza Alvi[12] explains that in some cases, the size distribution of tenant farms is similar to that of owner farms, for not all tenant farms are small. This being the case, it is possible that some tenant farms can overcome the investment barriers to adoption of the modernised agricultural technology. In some selected cases, Hamza Alvi must be right because the irrigated Punjab has been characterized by a relatively commercialized agriculture specializing in cash crops for several generations, but these cash crops are largely though not exclusively, the monopoly of the larger farmers or large farms either operated by the owners or by tenants. It is therefore not uncommon (in such selected cases) for landlords to assist their tenants. But there are still major questions of equity involved in the distribution of income between large and small farmers in Punjab as well as other areas of Pakistan.

A much more comprehensive study has been done by Mahmood Hasan Khan[13] which covers major aspects of the socio-economic impact of the prevalent production system in agriculture. He says that the Hyvs of wheat and rice are more efficient than the old varieties which reflects their genetic strength and responsiveness to water and fertilizer. He also finds evidence that large and small farms are equally efficient in producing the new seeds of wheat and rice. But the large farms in Pakistan, he says, enjoy preferential access to physical inputs, credit and markets because there exists a high degree of concentration of land ownership and use, which enables the owners/operators of large farms a disproportionate use of market power (ii) the strategy for agricultural development pursued by the successive governments of Pakistan has increased this power through subsidies on inputs and outputs. The subsidization of inputs

to encourage their use, Mr. Khan adds, almost always introduces imperfections in factor markets. Further a subsidy, he says, can be an instrument of encouraging socially desirable transfers of income. Pakistan's experience shows that this is not the best way to achieve the intended goal of parity among sectors or income groups. In view of the heavy reliance on subsidy on agricultural inputs in Pakistan and the fact that the access to these inputs has been unequal between large and small farmers, Mr. Khan concludes, that the income transfers have taken place from the weak to the strong.

The green revolution has had somewhat similar socio-economic impacts in other parts of the developing world. P.N. Junankar,[14] in his study of Ferozepur district of Punjab (Indian Punjab) finds evidence that through application of modern agricultural technology, "the larger farmer receives a disproportionately large increase in income". This result also supports Bardhan's findings in his comparative study of Indian provinces of U.P. P-unjab, West Bengal and Maharashtra.[15]

Here it needs to be clarified that, with the introduction of the high yielding varieties of crops, the traditional negative relationship between farm size, on the one hand, and cost and yield, on the other, no longer holds. Larger farms in Pakistan, as illustrated in the above noted studies, have increased intensity of cultivation, particularly in applying the new technology inputs, neutralising the previous advantage of smaller farms. In terms of surplus generation, large farms perform best. According to the findings of Dasgupta,[16] the larger farmers (in the case of India where the conditions are not dissimilar to those of Pakistan) have to incur the higher percentage of cost on hired Labour, but this disadvantage, he says, has been upset in 3 ways:-

i) Even a small farm must now hire labour, for transplanting, harvesting and generally coping with time constraints;
ii) Large farmers are using more machinery, expensive to buy but cost-saving;
iii) Smaller farmers are dependent on larger farmers for use of machinery; the rental they pay is higher than the maintenance and depreciation cost of the owners.

All this influences the cost of production per kilogram in favour of the large farmers. It is, therefore, generally the case that the larger the farm, the lower the cost of production for beyond a certain size, mechanisation becomes essential for keeping cost down.

Another impact of the green revolution in Pakistan has been that it has created regional tension and disharmonies between the irrigated and non-irrigated areas of Pakistan because of the integral connection between an assured water supply and the new technology. The extent of increased regional disparities has been documented by Alavi,[17] Gotsch[18] and Hasan.[19] The data and evidence collected by the 3 writers show strong relative gains by the Punjab province generally and by particular districts in the Punjab.

Another major impact of the green revolution has been that it has created changes in the agrarian structure as a result of which rural Pakistan's political and social structures and economic and technological behaviours are changing.[20] To Raulet, the significant changes include much improved rural security, greatly increased transportation and immense expanstion of irrigated areas. To Burki,[21] as illustrated in Chapter 3, Green Revolution has given rise to an enterprising middle-class farmer specialising in production of wheat and rice and with his rise the process of an unending conflict between him and the bigh landlord or between him, and the small farmer and tenant farmer has started. "What will this conflict do to the political and economic system" Burki asks and with a guarded optimism, he replies that "there is a good possibility that the strain caused by the major change in the agricultural sector will not tear apart

the political, social and economic fabric". To him, therefore, the rural social system of Pakistan is sufficiently elastic to accommodate to changing conditions. Gotsch, however, is pessimistic about it. He foresees that the new emerging class of progressive middle and larger farmers will have increasing prolitical influence to pressurise for continued high agricultural price supports and low taxes and would oppose increased public control over water resources and mechanisation. (That is what the larger farmers did during the social coalition group rule in the period from 1952-1958, and during latter years of Ayub and Bhutto regimes as explained in Chapters 2-4). The result of this package of policies will be to increase income disparities and further exacerbate rising rural unemployment. He therefore does not believe that in the near future Pakistani rural society will easily develop the reformist instruments necessary to cope with these contradictions.[22]

Moreover, it has been strongly argued by Michael Lipton[23] in the case of developing countries and by Burki[24] in the case of Pakistan that agricultural policies are generally urban in bias and that mechanisation policies in the interests of the urban elite, urban consumers of agricultural produce as a whole and those in the country-side who control a high proportion of natural and capital resources are identical. Certainly, evidence of the advantages of large farmers, as foreseen by Gotsch and others, is plentiful in the case of Pakistan, including influence on the import commercial environment through political means, which may include the shaping of policies designed to keep low the farmer's purchasing price for imported machinery and delaying tactics over implementation of various provisions of land reforms.

Conclusion

The agricultural growth in Pakistan which gained its momentum in early 1960's with the onset of the green revolution, experienced slow-down in the late sixties and stagnation in the 71-77 period, is again gaining momentum. Agriculture has completely recovered from its autumnal stage and is fairly green now. The 4.5% annual growth rate of the farm sector for the first 4 years of the Fifth 5 years plan, as compared to the 3% annual growth rate in population is fairly satisfactory The most outstanding achievement in this period has been that the country is not only self-sufficient in wheat, but is able to export. The critical problems which have been limiting agricultural development, like salinity, water-logging, over crowding erosion and drought hazards still exist however and need to be removed by the present regime.

But the most important problem which the present regime has to deal with relates to the socio-economic aspect of the prevalent production system. The modern agricultural technology introduced by the Ayub Regime and pursued by the successive governments has brought about a change in the agrarian structure in favour of larger holdings, capitalistic farming and the reduction in tenancies. The case studies conducted on the socio-economic impacts of the green revolution reveal that agricultural modernisation, if left to the continuing sway of its current style of progress, is bound to lead to social injustice, widening inequalities and inability to find employment for the existing labour-force in agriculture.

This does not mean that the prevailing style of the production system in agriculture cannot be improved; it can be but for this purpose proper techniques need to be discovered and applied immediately. What these techniques are and to what extent these are being applied by the present regime are the theme of the subsequent Chapters.

CHAPTER 6

Alternative Policy Approaches - Strategy and Reform

Agrarian reform is necessary for the social advancement of the rural poor and the landless peasants. According to a data presented in a paper in a seminar on Integrated Rural Development Programme in November, 1974,[1] there were the following 7 land tenure categories in Pakistan.

	Category	Characteristics	Percentage of Agricultural house holds.
1.	Landlord	Irrigated land above 150 acres - Owned (or corresponding acreage non-irrigated land i.e. double)	1
2.	Small landlord	Irrigated land above 25 acres to 150 acres -owned	4
3.	Family-owned cultivator,	" " " 7.5 acres to 25- acres	8
4.	Marginal owners / cultivators-	Irrigated land upto 7.5 acres	30
5.	Tenant of better standing-	"""" " "upto 12.5 acres Rented or partly owned	14
6.	Tenant at will -	Under 12.5 acres Rented	33
7.	Landless Labourer -	No land owned or rented -	10

According to this data, there were 43% landless households in Pakistan out of which 33% were earning their livelihood as tenants and the remaining as agricultural labourers. According to the above noted paper, the total estimated number of agricultural households in 1962 in Pakistan was 5.2 million, 43% of -which comes to 120930 households. This means that in 1973, there were at least 120930 families which were earning their livelihood as tenants or labourers. According to another study conducted by the world Bank,[2] there were 7 million people in Pakistan comprising of one million households who were cultivating less than 5 acres of (non viable) land-holding and another 6 million people comprising of another one million rural house-holds which were landless. This figure of (6+7) 13 million rural poor in Pakistan is not very much as compared with the corresponding figure of 70 million in Bangladesh and 327 million in India shown in the same study, yet it is a sizeable segment of the rural population. Obviously this category of small farmers with a non-viable farming profession and the agricultural labourers would earn their livelihood as labourers or by engaging in non-agricultural employment. It needs to be further clarified as to who can be a small farmer with a viable holding. A small farmer, if he is to be viable in his farming activity, should have a real income which is comparable to that obtained by those with corresponding skills in industry, this is the criterion applied in Japan. On the basis of the world Bank study quoted above,

it should be possible to obtain such an income with a minimum holding of 5 irrigated acres[3] and operated on modern lines for a household comprising of 5 or so dependents; its equivalent for rain-fed areas would be 10 acres and for arid and semi-arid areas almost 15 acres. The agricultural holdings in Pakistan, if this criterion as was applied would not be regarded viable or even as small holdings. The man-land ratio of cultivated land, as indicated in Chapter 5, is about 0.59 acres per capita, and as such, a non-viable ratio according to our definition. At the same time, the 47% of the agricultural house-holds working as tenants and another 10% house-holds working as landless labourers or the 13 million people categorized by the World Bank study as the "rural poor" need to be so rewarded by the public policies that they can adequately put their resources and energy in their occupation.

One way to reward these families is to redistribute land and assets away from the hands of a few, but this may or may not be possible without violence. Big landlords and the dominence of the urban interests over rural interests in Pakistan are some of the constraints which may not allow land reform startegy to suceed and may call for, theoretically speaking, revolutionary transformation of the rural set-up. These are powerful constraints which limit the results that can reasonably be expected from the policy making system of Pakistan. But this is not the position taken here. The position taken in this study is that the problems facing rural Pak. are* more moderate means than revolutionary solutions. Revolutionary solutions cause considerable upheaval, loss of production, new conditions and new problems. That is what happened during Bhutto period (as we have seen in Chapter 4). What is needed in the case of Pakistan is a kind of policy-making system that does not seem too radical, that does not promise to transform society massively and rapidly and that which seeks steady and persistent change to give all the population an equitable share of the resources of the country. No doubt this seems unexciting, but it has the virtue of realism not only in reflecting existing conditions, but also in suggesting how far and how quickly they can be changed. This kind of reform strategy is suitable for Pakistan because the land available per capita is very low and a radical land reform aimed at redistribution for the purpose of giving every cultivator an economic, viable holding alongwith what would be politically implementable as a resonable ceiling on the larger holdings, does not appear to be a practicable proposition without bloodshed and feuding.

*upto now manageable by

It is true that Japan was able to effect an effective land reform but that was under military occupation. China was able to effect an equally drastic re-distribution of land but after a people's revolution. Even in Japan the move now is for an enlargement of the size of the holdings, while in China, the small holdings, have been enlarged in operational size through setting up of communes, production brigades and production teams.[4] Some other successful examples of land reform in the developing world are those of Taiwan and Korea. As regards other countries including Pakistan, the reforms have not been very successful.

Agricultural policy, 1980 of Pakistan recognises the importance of equitable distribution of land but for the time-being lays emphasis on the enforcement of tenancy law. Security of tenure and other facilities for the tenants have been assured under the three successive land reforms since 1958, the policy document says and recommends that the necessary measures are required to be taken to achieve the purpose of these land reforms.[5] The three land reforms, as we have already seen in Chapters 3-4, had only marginal impact on the pattern of landholding and little short-run effect on development because most of their provisions were indifferently implemented and the fate of another reform, if not vigorously implemented, may be the same. What is considered to be more practicable by the policy document now -

is the agrarian reform.[6] 2. Agrarian reform is a much more comprehensive concept than land reform since it involves changes in price policies so as to turn the terms of trade in favour of the agricultural sector, increasing allocations to the sector in order to expand research, extension, training and storage facilities; making physical facilities, like fertilizers available and increasing credit for their purchase or providing infra-structure to facilitate production. Agrarian reform may or may not include land reform; in some instances there may be no need for land reform since land is already evenly distributed. In other cases, it may not be politically feasible to have land reform. Experience with land reform in Pakistan in the past points to the overriding importance of the political factor in securing meaningful change. The concentration of control over land provides a power base for many social groups. Land is a symbol of authority and a source of political power; the landowner in Pakistan controls the access of peasants to their only source of security-land. A meaningful land reform programme will inevitally destroy or limit the power base of many persons. It is not suprising, therefore, that land reform in Pakistan has often been a central issue in political debates, which were often couched in terms of redistributing political power as well as wealth. Ambitious programmes of land reform will never be implemented in Pakistan unless there are revolutionary shifts in political sentiment and power. The effective land reforms in other developing countries like China, in government in circumstances that favoured drastic changes.[7] Another factor of importance in making reform effective is the creation of institutions to implement the reforms once legislated and to press for continuing development. This usually involves organizing the beneficiaries to create follow-up pressure. For example, in Japan, Taiwan and Kenezuela, suitable institutions were established to ensure that land was indeed transferred.[8] In Pakistan, a communitry of interests between landowners and officials, combined with an absence of organized pressure from the beneficiaries, largely nullified reform efforts. The basic objectives behind the land reforms introduced in 1959, 1972 and 1977 in Pakistan were to bring about a redistribution of land ownership by enlarging the size of the landholding of the rural poor and by reducing the size of the holding of the large owners through enforcing a legal ceiling. But where land reform was accompanied by compensation as in 1959 reform, the tiller was not prepared sometimes to purchase ownership rights. Redistribution throggh ceiling legislation has not made any significant difference because of the erosion of the law by fictitious partitions arrived at for purposes of avoiding the ceiling. This does not however, mean that land reform has no place in Pakistan now, it has, but the extent of its effective implementation would depend upon the factors illustrated above. As these factors donot exist at present, any attempt at introducing another land reform in Pakistan is unlikely to succedd.[9]

* Kenya and Mexico was implemented only when there was a change

As regards tenany reforms, the rights of the tenant households are already fairly covered by the radical provisions of 1972 land reforms. They only need to be more vigorously implemented. (Most of these radical provisions have been illustrated in Chapter 4). Another tenurial reform, not touched upon in the 1972 reforms may be that the rents to be paid by the tenants may be fixed in cash unless the tenant wants to go in for share-cropping. All rents payable by the tenant may be paid, after deducting the costs which the landlord under the law is supposed to bear, into a bank and disbursed by it in cash to the landlord. This step shall minimise the chances of charging excessive rents by the landlord from the tenant. The type of tenancy reform whereby the tenants become owners of the land they operate, as it happened in Japan, Taiwan and some parts of Europe is not suggested because it involves a lot of turmoil, political unrest, bloods hed and loss of production. The tenancy reform most suited to a country like Pakistan should include stablization of the position of the tenant with respect to

rent paid, security of tenure, and labour objectives without transfering ownership rights to them. Here the main focus should be promotion of more efficient types of tenancy with contracts having well defined incentives and deterrents. The fixed cash rent contract seems to be superior to the more common crop-share contracts, since the whole income in excess of the fixed rent accrues to the actual cultivator. Share cropping has its own benefits as it provides risk insurance and is Relatively more suited to the landlord who may get more compensation of the costs incurred through crop-sharing. But in the case of a fixed rent contract, the cultivating farmer would psychologically feel more scure because of the feeling that he is going to get the whole farm income in excess of the fixed rent. The more secure producres tend to invest part of their higher earnings in their holdings and thus raise the level of investment in agricultural production. Finally, greater security enables tenants to benefit from appropriate technological changes, instead of being displaced when landlords find it to their advantage to adopt a different technology. "The financial returns to the landlord from using machines and hired labour may be high, but the returns to the economy are usually higher from labour intensive operations undertaken by small holders" 10. This means that the provision of greater security of tenure and improved rental contracts have a positive effect on development and the thrust of the public policy should, therefore, be geared towards this direction.

The strategy more suited to a country like Pakistan where most of the people live on land is the strategy of meeting basic needs of every one through an agricultural policy that develops agricultural along-side social justice. The objective to meet everyone's basic needs has been very explicity reflected in the Fifth 5 year plan going to conclude on 30 11 June, 1983 and is going to be reflected in the Sixth 5 year plan to be launched on 12 first July, 1983. Dr. Mahbul-ul-Haq, who is presently Pakistan's Deputy Chairman, Planning Commission, is himself one of the first exponents of basic 13 needs. Food, clothing, shelter, education, health, sanitation, clean drinking water and some public transport are the main features of this strategy. This strategy has the support and patronage of the International Labour Organization and is a further refinement of the idea of "redistribution with growth" and thereby the idea of social justice. 14.

This approach holds that development planning should set minimum targets in each of the fields like adequate food, clothing, shelter, health care education, employment and the right to participate in making the decisions that affect them. It has got two sets of needs. The first set of needs involves a basic level of private consumption consistent with survival, good health for work, and school and dignity. A minimum diet would vary, according to region between 2180 and 2380 calories per person. Every family should be able to afford a basic range of household equipment, like pots and pans, a minimum amount of clothing according to the climate and standards of public decency, minimum shelter adequate in space and for protection against the elements. 15.

The second set of needs is the essential services that Government provides. Clean water and sanitation, health services, public transport, basic education and if necessary, family planning. 16. These needs are largely unmet for the majority of the rural and urban poor in Pakistan because of the previous government's discrimination in favour of the modern city sector. The Govt. now would have to calculate a basic needs income which could purchase for the average poor family the required quantity of goods; minimum standards would have to be set in terms of a certain percentage of house holds with access to each service, target level for infant mortality, life

expectation, disease incidence or enrolment at school. In each case, performance would have to be measured area by area, social group by social group, to make sure that averages did not conceal large inequities. The final and central basic need is employment generation; without jobs, the poor will not be able to earn the money to satisfy their basic needs.

To meet every one's basic needs in the rural areas of Pakistan would need development of all the sectors like health, education, communications, but as agriculture is the mainstay of Pakistan's economy which accounts for 32% of GDP, employs 53% of the labour force, supports 70% of the population, it is through the development of agriculture that the basic needs of the majority of the rural population are to be met. Explaining various components of this strategy, Dr. Mahbul-ul-Haq told the Review that," we must consolidate and build on the recent remarkable advance in agricultural production. Both our present potential and future needs demand that agriculture should be given the highest priority in our national planning".17

The role of agriculture in meeting basic needs of the rural people is that Agricultural development can be seen as a technical means of increasing food production or agricultural output and as an essential step to social justice. Development may be measured and recorded in many ways, but essentially it is about people, who seek through it to improve their conditions and to ensure for their childern a less arduous and more prosperous life. In the rural areas of Pakistan, where most of the people live on land, they can hope to do these things for goods and services produced by people in other places or sectors. In this way, agriculture and the agriculturist not only meets his basic needs, but also contributes towards the over-all development of the country. The country cannot continue to make progress without a big increase in the efficiency with which farmers use fertilizer and water, as well as a significent rise in the yields per acre, which are extremely low by international standards. Seen in the contest of Pakistan, the strategy of Basic Needs involves agricultural development on a massive scale. Its main emphasis is the distribution of the unequal gains of agricultural modernisation and the provision of jobs to the agricultural labourers declared surplus by farm mechanisation. Where there is a large rural population and weak industrial base in the towns and where the introduction of modernised agricultural technology makes for larger land-holdings and changed factor intensities in production (as we have seen in Chapter 5), there is frequently a problem of the loss of jobs, with few opportunities for employment else-where. The object of the agricultural policy in the 1980's should therefore be an adoption of a strategy which takes account of the needs of all the rural population, not just a segment of it.

Conclusion

The defects existing in the prevalent production system in Pakistan's agriculture can be removed by pursuing argicultural modernisation alongside social justice. This objective is to be achieved through meeting the basic needs of the rural people. Land reform which is an important plank in the Basic Needs strategy is not desirable because the man-land ratio is so low in Pakistan that there are not ample opportunities for redistributing land so that inequalities can be diminished and the recipients of the land can generate an acceptable minimum income. Moreover a land reform is rarely undertaken without considerable upheaval and loss of production, which may aggravate and enhance the conflict already existing between the various social groups in the rural areas of Pakistan and which a developing country like Pakistan cannot afford. The viable course of action open to the government, therefore, should be to achieve the purpose of the 3 successive land reforms introduced in the country in 1959, 1972 and 1977, which were indifferently implemented in the past.

The main focus of the administration should be the effective implementation of the provisions regarding land tenure. The 1972 land reforms prescribe for the landlord to pay all taxes and water rents and half the cost of fertilizer, seeds and other inputs. His share is limited to 50% and he cannot evict the tenant as long as he tills the land and pays the rent. These are very good provisions and need to be strictly enforced. Measures are also required to be taken to strictly regulate landlord tenant relations so that the landlord may not charge excessive rent. Preference may be given, if possible, to the fixed-cash-rent. contracts under which the tenant would feel, psychologically more secure. The provision of greater security of tenure and improved rental contracts have a positive effect on development and thereby are commensurate with the basic needs strategy.

Security of tenure and tenancy reform are an important plank of the Basic needs strategy and need to be vigorously enforced. Other important segments of this strategy which are desirable and need to be enforced in Pakistan are the theme of the next Chapter.

CHAPTER 7

MODERNISATION VERSUS EQUITY - ALTERNATIVE POLICY APPROACHES

We have seen in the previous chapters that the small farmer in Pakistan has sustained deterioration in terms of trade through the public policies adopted by the successive governments of Pakistan. The present regime seems intent on tackling the problem through Agrarian reform. However the agrarian reform introduced so far appears to be against the interests of the small farmer. By small farmer is meant a farmer with a minimum viable holding of 5 irrigated acres here. However, his definition in Pakistan may vary from time to time and from province to province. The present regime have introduced the Revised Action Programme for Irrigated Agriculture (RAP) in the form of the National Agricultural Policy, 1980 referred to in the previous chapters. The government have taken several important measures to implement these new policy directions, aimed at reducing input subsidies, in order to release resources for other high priority areas to provide adequate incentives to producers through appropriate output-price adjustments and to transfer activities to the private sector, wherever feasible. These measures reinforced by subsequent decisions include about 50% increase in retail prices of fertilizers; a 25% increase in margins allowed to fertilizer dealers other than co-operatives and a nearly 50% increase for co-operatives;and finally privatization of the import and distribution of pesticides and the elimination of the subsidy on pesticides in Punjab and Sind. The increases in crop support prices during 1980 ranged from 9% for seed cotton 17% for basmati paddy, 20% for wheat and Irri-6 rice and 29% for sugarcane.[1] The sale of fertilizer is still being subsidized, but the amount of subsidy is being gradually reduced. For 1981-82, for example, the provision of subsidy was reduced from Rs.2423 million (in 1980-81) to Rs. 1950 million. Subsidy on improved seed is being continued, but generally the seed supplied by the public sector agencies is yet to generate confidence in the farming community. An aerial spray of pesticides as a free service has also been dis-continued in Punjab and Sind, where cost of this service would now be recovered in full from the beneficiaries.[2]

The privatization of this service is in the right direction in the sense that it now provides equal opportunities for all size categories of farmers to utilize it. But in another sense, it may again go in favour of the middle and large farmers who continue to control the market and have enough resources to invest in the utilization of such services. Reduction in the amount of subsidies may be defended on the grounds that they were initially introduced as a sort of the "come on" or the "quid pro quo" strategy for promoting the green revolution package of inputs and practices and that now that purpose has been achieved. But as we have seen in the previous chapters, that very purpose has not been adequately achieved in the case of small farmers. Reduction in the amount of subsidies or their gradual with-drawal would promote further pauperisation of the small cultivator and tenant. Government's new initiative to reduce subsidies and to increase prices of the key inputs is a right step for the medium and large farmers who were investing massively on the use of subsidized inputs and thereby were consuming the amounts of subsidies disproportionately, but the small and the marginal farmer still needs the financial support of the government in order to make his farming activity as viable.

FAVOURED ACCESS TO INPUTS.

In order to achieve the objective of meeting basic needs through growth with justice strategy, the small farmer, requires a special package of policies that will give him a due share of the gains from the new technology. This can be done by enabling the small farmer adequately to utilize the modern technology through a favoured access to the inputs. There are, however, several complicating factors involved. First, new technology is not neutral to scale in a complete sense as some inputs like water or mechanisation are indivisible units that involve capital investment beyond the economic capacity of the small farmer. Second, giving the small farmer equal or favoured access to inputs does not automatically mean that he will use them, partly because he may not have the necessary response skills and partly because he may find it both more profitable and less taxing to sell the inputs for cash to other farmers in the black market rather than use them himself with all the extra effort and risks involved. Third his social and cultural status is soinferior to that of the big landlord and the local bureaucrats that where he has to share the organisational

facilities for getting access to inputs with the big landlord, he is bound to be discriminated against. All these factors need to be taken into account in studying the feasibility of this policy recommendation.

The small farmers, if enabled to use modernised agricultural technology will no doubt, record a rapid rise in productivity and obtain a reasonable minimum income and a fair share in the gains accruing from agricultural modernisation, thus enabling the government to fulfil the objective of increased production with social justice, as laid down in the National Policy document and as necessitated by the Basic Needs approach buttressed by the present regime. Establishment of an organisation for providing favoured access to agricultural inputs may be eligible to get financial support from the United Nations, IBRD and other similar organisations as agriculture and the small farmers which headed the list of possible approaches in the search for more meaningful development alternatives in the begining of the second U.N.Development decade in 1971 is still receiving fairly adequate attention of these organisations. National commitment to solve the problems of the poor already exists; this commitment may help to overcome the opposition of big landlords and vested urban and rural interests to the implementation of the proposed favoured access to the inputs policy. If the charge of the grassroot banches of the organisation which will provide favoured access to the inputs to the small farmers is entrusted to a small farmer within the supervision of chairman, union council, he may have some enhanced degree of ability to implement this policy prescription, for the chairman union council is in a better position to act as a sort of pressure on the bureaucracy. Furthermore, the ability to implement this policy prescription is clearly related to the ability to promote consensus, weaken vested interest groups likely to lose from this policy and organise support from the groups who would benefit.

EMPLOYMENT CREATION

There are, however, one million non-viable households of marginal farmers with operational holding below 5 acres of irrigated land who have to supplement their income by either working as an agricultural labourers or engaging themselves in some other occupation. They may not be able to benefit very much from the

proposed favoured access to inputs policy because their farm size is extremely small. They can be enabled to meet their basic needs by diversifying their farming occupation, say by giving them a cow or a buffalo so that they can take to milk production to supplement their agricultural output. Alternatively, they can be given facilities to go in for a poultry farming or other activity allied to agriculture where this small land holding will give them an additional base. If such a policy is, somehow, implemented with efficiency, it will lift the marginal farmers above the limits of poverty and enable them to contribute their quota to additional production thus also promoting social justice.

The only other agricultural class that remains to be dealt with is that of another one million households of agricultural labourers who derive either the whole or the major portion of their income by hiring their labour. Some of them may own a small piece of land say half or quarter of an acre or less and sue it for getting part of their grain and vegetable requirements, but majority of them are landless and depend wholly on the wages they receive for their labour. The initial effect of agricultural modernisation has, on the whole, been favourable to them in terms of both wages rates and number of days for which employment was available, that is in the form of assisting the farmer in handling of large volumes of output. But while irrigation, multi-cropping and increases in output has promoted more employment and better wages, mechanisation has had adverse effects on employment. Whereas the tubewell/fertilizer/seed technology is complementary to labour and even increases the demand for labour, tractor mechanisation replaces it. Bose and Clark found in their interviews with farmers who had invested in tractors a consistent response that they had reduced their labour force by, on average, 50% from what it had been prior to tractor mechanisation.[3] Therefore, if tractor mechanisation continues along present trends, the agricultural sector is very likely to fall short of its employment-creating function which is the central object of the basic needs strategy.

There is a direct relationship between mechanisation and employment. Mechanisation may replace manual work and bullock labour and may at the same time increase labour demand arising from mechanisation-induced expended production. But this increase in labour demand takes place at the expense of the eviction of tenants class

which comprises of the 47% of the agricultural house-holds of Pakistan (see chapter 6). Nulty writing in 1971 visualized that a lot of big absentee landlords, in future, (if not already) would evict tenants and resort to much more profitable self-cultivation and employ the evicted tenants as hired labourers. A 100 acres landlord in this way would she calculates, save at least Rs. 5 to 6 thousand per year after paying for all the hired labour and inputs etc.[4] Since 1971 onwards there has been a fairly large expansion in commercial farm operation in Pakistan. It is, therefore, necessary to revise national policy on mechanisation and set definite limits to the volume and type of mechanisation permitted in Pakistan. Such a policy of selective mechanisation should not only be negative in banning or setting limits to defined types of mechanisation, but should be positive also by promoting employment in agriculture. This, in turn, requires that such mechanisation should not be based on imports or large unit capacities but on domestic manufacture with emphasis on suitability for small rather than larger farms of machinery needing low, if not human or cattle, power to the maximum extent possible.

RURAL DEVELOPMENT AND AGRARIAN REFORM.

With all this, there is still a danger of both unemployment and lower wages in areas of high density of agricultural population e.g Punjab. To minimise its incidence, 2 steps may be recommended. One is the fixation of the minimum wages for agricultural labourers by the government; the other is to create opportunities for non-agricultural employment through a programme of rural public works and rural industrialization.

Rural public works and industrialization pertains to a much broader field namely rural development and is outside the scope of this study, but as modern agricultural technology is one important item in the rural development, it will not be irrelevant to discuss it here very briefly.

In overall national development in Pakistan, rural development is not only concerned with higher yields in agriculture, but also aims at tackling other problems such as high rate of population growth, inadequate job opportunities, lack of essential services such as health, education, drinking water supply etc. In the past, a number of programmes were launched to improve the quality of life in the rural areas like Village-Aid Programme in the 1950s, Rural

works programme, Basic Democracies Scheme, Agricultural Development Corporation in the 1960s, People's works programme and Integrated Rural development programme in 1972-1977. Although these programmes did manage to achieve some measures of success, still"the results were not commensurate with the huge funds put into these programmes; their impact on rural economy specially on the underprivileged segment of the population was minimal".[5]

The concept and the progress of the programmes of IRDP and Peoples works programme were subjected to a critical review, removing the constraints which were impeding their smooth implementation by the present regime in 1978. The two programmes have now been merged together and the activity has been started under the name of "Rural development" with the objectives to (i) integrate rural development with the national socio-economic development effort; (ii) to reduce the burden of under-employment (iii) to increas the density and intensity of services provided to agriculture and other rural activities (iv) to improve rural infra-structure (v) to make a beginning towards providing social amenities to target groups and (vi) to create an institutional framework for ensuring community participation in the implementation of the rural development programmes.[6]

The existing staff of the local government, IRDP and PWP departments has been merged into one cadre and redeployed to man the positions in the new Rural development organisation and placed under the supervisions of the district councils already discussed in chapter I. The important fact to be pointed out is that the financial allocations made to the rural development programmes have been spent so far on the expansion of rural roads, drinking water supply, primary education, health etc. but no special programmes have been introduced so far to increase employment opportunities in the rural areas.[7] The thrust of the rural development programmes need to be redirected to the creation of specific employment opportunities for the agricultural labourers declared surplus by farm mechanisation through (1) diversification of agriculture (2) promotion of agricultural activities allied to agriculture, (3) rural public works for land development and infra-structure improvement - settring up of agro-based industries and of local manufacturing units to the extent technically possible, (4) decentr-alization of light

industries and their dispersal into the rural areas. All these should be a part of the overall programme of rural development besides provision of drinking water, rural roads etc. on which the bulk of the funds are being spent. The approach of area development and community development with creation of ample employment opportunities should be a necessary complement to the promotion of modernisation of agriculture. Without it the new technology in agriculture and rural development programmes will fail to solve the problem of rural poverty and lead only to an inefficient and inequitable utilization of its gains.

FAMILY PLANNING AND AGRARIAN REFORM.

Both agricultural modernisation and rural development programmes need to be linked with the family planning programmes for one cannot ignore the growing population increasing at the rate of 3% per annum. The Family Planning is again a wider and differnet discipline and outside the scope of this study, but is again inextricably interlinked with the fulfillment of the objective of meeting basic needs of the rural poor. Pakistan's experience with Family Planning has by now disillusioned the policy-makers for the programme did not become as popular as was expected. Ultimately, it has been merged into a broader development concept "involving activities which influence people through education, community development and overall social change programmes[8]". The underlying assumption for the perceived solution is that development generates a climate of modernisation leading to the innovation including those in the field of population planning, which might ultimately help achieve a small family

It is not relevant here to either support or challenge the policy adopted to control population growth. What is relevant here is that one cannot ignore the growing population which is bound to result in further sub-divisions and fragmentation of land and therefore to an increase in the number of uneconomic marginal and submarginal holdings with all their distributional implications. The real solution is population control.

REGIONAL DEVELOPMENT.

The uneven distributional gains of agricultural modernisation are not confined only to the agricultural rural classes, but

also to various regions; modernisation may lead to regional disharmonies and conflict in a country like Pakistan where the economic region is also a linguistic or some other emotion-linked region. There are areas like Punjab and Sind where facilities of irrigation exist and therefore, they are easily adaptable to modernisation; others are arid or semi-arid areas in Baluchistan for instance where the normal rainfall is very low and there is no technical possibility of introducing irrigation.

When development funds are limited, a choice may have to be made between intensification of production on existing irrigated areas and extending irrigation facilities into areas having no such facilities at the moment. A given increase in production could be brought about by intensive application of the new technology in the already irrigated areas or by extending irrigation to non-irrigated areas. From the point of view of regional social justice and without interfering with the growth of production, it would appear to be a better policy to give priority to new irrigation projects in areas with little or no irrigation at the moment . This would, no doubt, involve much investment and much more time for fructification in the case of major irrigation projects like the construction of Chashma Right Bank Canal being presently undertaken in NWFP (from the river Indus), but, in future, preference may be given to minor projects requiring less capital investment, yielding quick results, providing more employment opportunities and involving less costs. Such preferences are necessary to reconcile increased production with social justice from the regional angle. As regards low rainfall areas, semi-arid and arid regions, there is no scope for the application of the new agricultural technology if these areas cannot have irrigation. They need a new technology for dry farming with new seeds better resistent to drought, able to survive on low moisture and responsive in terms of yield to more appropriate agronomic practices. This brings us to agricultural research.

RESEARCH AND DEVELOPMENT.

Some detail has already been provided about the inadequacy of agricultural research facilities in Pakistan which need to be expanded. It is very difficult to establish a direct relationship between research and social justice for meeting everyon's basic needs. The working objectives of the research scientist pertain to technical efficiency, product characteristics and production risks. Increased

production is the immediate research objective and the goal of improved income distribution is not the immediate concern of the research scientist. Goals like economic growth, equity, nutrition and social welfare are to be set by the government and implemented through concrete decisions and actions by the administration. The main object of research is to develop technology and that of the public policy to make that technology available to everyone by removing hurdles posed by the socio-economic and political structures in the rural areas.

But in fact, research is inextricably linked with the factors which can achieve social justice. While the new technology developed through research undoubtedly makes for substantial increases in yield, it also increases susceptibility of the crops to pests and disease and thus increases the element of irsecurity and risk of the loss of the entire crop. In view of the fact that the new technology involves a big increase in chemical inputs which have to be obtained from outside the farm by purchase, the financial loss is much greater if the crop is lost than is the case with the traditional variety. This means in turn that the small farmer whose ability to finance cash increases in his production costs is already very limited, can afford even less the large loss that a failure of the crop will bring. The element of risk undoubtedly increases with the application of the new technology, both for the small and the big farmer, but its consequences are more severe for the small farmer and constitutes one of the major reasons for the uneven soical incidence of the resort to and gains from the new technology.

Consideration of both growth and social justice requires that research is directed to such matters, for example by paying more attention to resistence to pests and diseases than to more increases in yield and to the fact that this resistance is built into the seeds by genetic research rather than by chemical research for application after germination and growth of the crop. This type of research is needed from the point of view of getting more small farmers to participate in the application of the new technology.

Another field of research is the development of the shorter duration of crops and therefore of multi-croping which not only increase production and employment but also make the small farm more

viable. The social and equity orientation needed for scientific research in Pakistan's agriculture, requires that research should be directed in larger measure on the poor man's cereal crops, on the poor man's protein crops, and on the agricultural regions where, either due to low or excessive rainfall, floods or drought, yields are low and cultivators thereby are poor. This means research on a more intensive scale in Pakistan on millets, sorghums, pulses, rice, wheat and corn. Research is laso needed into oilseeds which constitute the principal source of fat for the poor masses.

Agricultural research is the means to generate knowledge and the dissemination of the knowledge, revealed through it, to the farmer is the ultimate end, except in the rare case where research is carried out for its own sake. This whole process of means and ends, that is research and extension need to be pursued in a combined manner. Some detail has been provided about the inadequacy and ineffectiveness of extension agencies in Pakistan in chapter I. The first and foremost policy recommendation in this regard is the establishment of an effective link between extension and research which at present is very weak. Second, Effective extension service is also very difficult as the bulk of the agricultural population is illiterate, though attempts are being made to liquidate rural illiteracy and provide out-of-school facilities for education through a TV and radio adult literacy campaign. Plans are also ahead to open one primary school with every mosque throughout the country and in fact 5000 mosque schools in the province of Punjab have started functioning in February, 1982.[9] But these programmes still lack agriculture orientation. The adult literacy programmes must have a functional bias for the farming population. Similarly, primary education in rural areas need to be re-organized with particular stress on environmental knowledge and work experience in agriculture and allied activities. In this connection, it may be proposed that during sowing and harvesting seasons, the entire school in the village should take part in the agricultural activities. Extension services cannot really function effectively against a background of bookish knowledge with no practical experience.

Third, it is not possible for the time-being to decentralize extension work when the local bodies are still in their infancy and bulk of the rural population is illiterate. An extension worker, therefore, should at least give a feeling of belongingness to the

cultivators amongst whom he works; he shall have to inspire their confidence not only by his technical experience but also by his noticeable identification with the interest of the farmers and especially the small and marginal farmers and the tenants. This object can be achieved (i) by training of the workers (ii) by restricting recruitment to the post of extension worker only to persons hailing from the class of small farmers and having a living connection with land either in his own working life or in that of his near and dear ones. To provide against the possible danger of becoming such recruits as bureaucratised or elitist, it is necessary to make him answerable to farmer's organisations duly represented by small farmers. While it is important that the extension worker should command respect, it is not desirable to entrust him with the supply of inputs for the cultivators for this makes him a power-centre and a disposer of patronage.

AGRICULTURAL CREDIT.

The problems involved in the supply of agricultural credit have also been discussed in chapter I. The first policy recommendation is the adoption of specific measures designed to see that credit is available on reasonable terms, reaches all cultivators who need it and contains built in provisions against misuse and delay or default in repayment. Another policy option is the adoption of a federal system of credit registration for all cultivators, irrespective of their tennurial status, based on their land holdings, history of previous production, cash inputs and repayment of loans and their current production programmes and cash requirements. These cards would have to be prepared at union council or tehsil council levels, but there should be provision for sample checks by higher officials. These cards should then serve as the document on the production of which, the farmer would be able to get the credit he needs from designated credit advancing agencies. Such credits, if necessary, may be guaranteed for repayment by the union council. The cards may bear all entries of loans given and repayments made and a balance struck at the end of each agricultural year. This project, if necessary, may be tried out in a few pilot areas in order to identify operational difficulties and for devising improvements for making it viable. Small farmers and those covered under the favoured access to inputs policy may be issued special cards so that they are easily identified and face no difficulties in getting the credit. This agricultural credit strategy can

in the long run, be integrated with the broader strategy of basic needs and rural development.

A viable credit system requires both increases in productivity from the utilization of the credit, and repayment of the credit thereof. The crucial point is whether such credit facilities can be economically extended to what are called non-viable small farmers. The only solution in their case seems to be formation of these farmers as viable groups before becoming eligible for credit facilities. The best way would be to start with group credit and then let other group activities develop in the natural course. Some such experiments have already been made in the Philippines, Malaysia and Bangladesh.

ORGANISATIONAL ARRANGEMENTS.

The above-noted policy prescriptions may pose a lot of operational difficulties to the administrators. Specific organisational arrangements for implemention of these policy prescriptions is a separate issue and outside the scope of this study. But it is relevant to note here that the effective implemention of these policy prescriptions would involve development of the administrative resources of government as the directing agency of modernisation. The policy prescriptions like(i)regulation of landlord - tenant relations(ii)removal of regional disharmonies in the level of agricultural modernisation existing in the various areas of Pakistan(iii)implementation of the favoured access to inputs proposal to the small farmers (iv)complementing of agricultural modernisation strategy by rural development programmes and Family Planning programmes, and(v)implementation of national registration of the credit card scheme shall have to pass the test of feasibility but their success would largely depend upon the effectiveness of the administrative apparatus. Because of the divergences in interests among the big and medium landlords and the small farmers and agricultural labourers the administration must have an enhanced degree of ability to implement the favoured access or other suggested prescriptions; this ability is clearly related to the ability of the administration to promote consensus, weaken vested interest groups and organise support from the groups who would benefit. In this connection the active participation of small farmers organisations would be an important factor. Given organised mass support, the vested interest

groups may not be a threat to the viability of the proposed policies, but the lack of commitment to national development may reduce the efficiency of their implementation.

One main weakness of Pakistan's administration is that it has little or no contact with the large poverty groups in rural areas.There is a sufficient commitment at the national level to remove their poverty,but this commitment needs to be created at the district,tehsil and village levels. The law and order,justice,land revenue and the local councils which affect the farmer in his every day life are administered at the provincial level.As regards agriculture,out of 3811 officials working in this field,only 185 were working at the Federal Government level in 1978; all the remaining 3626, that is 95.2% officials were working under the administrative control of the Provinces.[10] Thus the real commitment to social justice and to the fulfillment of"basic needs" needs to be transferred to the provinces and especially to the Tehsil, Union Council and village level. We have also seen in chapters 2-3 that the bureaucrat also tends to align himself with the middle and larger farmer. In such a situation, local government's administrative set up may be tried out to act as a sort of pressure to the agricultural administration to provide easy access to the small farmer. Local Government in Pakistan has, in fact, played an important function in the past both in the development process directly and by removing certain bureaucratic constraints in favour of the poor peasantry.

INTERNATIONAL ACTION.

It is a matter of satisfaction that there appears to be some international recognition of the problem of rural poverty of the developing world including Pakistan. But international aid is always tied to certain conditions which may hamper recipient government's programmes of development.

It is a matter of great concern that the Basic Needs strategy no longer enjoys the enthusiastic support of the World Bank. The turn of the second U.N. development decade has seen fundamental philo-sophical changes in World Bank's development thinking. With the departure of many of its major supporters from the World Bank, like Robert Mcnamara, Mehbub-ul-Haq, and Paul Streeton, the Keynesian welfare state approach to international development,epitomised by the hostile reception meted out to the Brandt Report[11] is

gaining currency. Dr. Mehbub-ul-Haq, now Pakistan's Deputy Chairman, Planning Commission, while resigning from the World Bank wrote that the"------goddess of growth----- (is returned)-----to her pedestal"[12]. Basic Needs strategy has now given way to growth strategies and to the Structural Adjustments policies as a vehicle for their implementation. Structural Adjustments mean (i) giving greater weight to growth objectives as compared to income distributional objectives and (ii) adoption of policies which should "give emphasis to measures that raise the productivity of the poor rather than increase consumption through the provision of public services or government subsidies[13]." To Higgott, the rationale of structural adjustments is their supposed facilitation of export-led growth[14].

This development has made the task of meeting basic needs of people very difficult for a developing country like Pakistan. being a developing country, Pakistan has to accept aid from the World Bank with structural adjustments conditions. In 1982, Pakistan negotiated a US$ 140 million quick disbursing structural adjustments loan (SAL) from the bank for the fiscal year 1983 and such loans for next 2 years will also be negotiated with the bank on the same conditions. The Bank's SAL's aim is a "longer-term structural reform in the economy[15]." The Bank would"like Pakistan to improve its programme in the agricultural and energy sectors as well as to cut government subsidies on various items such as food and fertilizers further[16]." This development has, therefore,coincided with the reduction in the amount of subsidies in the national agricultural policy as illustrated in this chapter. This development of sturctural adjustments with its emphasis on export-oriented industrialization is bound to lead Pakistan to the further commercialization of the agricultural sector by promoting cash crops for exports and agro-based export-oriented industrialization.

This development is contrary to the concept of the fulfillment of basic needs and requires to be checked. Here it needs to be pointed out that Pakistan is in the initial phases of Islamisation of laws. The basic guiding principles of social justice are described in the Holy Quran in the phrase, "Adl and Ehsan", that is justice and Equity. The Holy Quran says" "Lo! Allah enjoineth al-Adlwal-Ehsan[17]" (16:90). This is a view of a society in Balance. Speaking to the Far Eastern Economic Review, Dr. Haq told that "the heart of

an Islamic society is social justice which is reflected in Adl and Ehsan, that is justice and equity".[18] This concept of justice and equity is in complete conformity with the concept of Basic Needs and is required to be pursued if the country's programme for the Islamisation of laws is to be pursued for solving the socio-economic problems of the country.

The structural Adjustments policies contrary to the norms of social justice need to be resisted. Bulk of the resources for developing agricluture and meeting basic needs can be generated by Zakat funds (Zakat is one of the pillars of Islam under which every muslim surrenders 2.5% of his savings for disbursement to the needy. Zakat ordinance is already in force[19] and Ushr - (Ushr is a kind of agricultural tax (5% of the produce) levied by Quran and is being introduced in the country in July 1983[20]). In case World Bank and other International Organisations donot sanction aid except on SAL's conditions contrary to the basic needs strategy, the necessary financial assistance may be sought from the oil-rich countries of Saudi Arabia and Kuwait. These two countries have already shown much enthusiasm in helping Pakistan to Islamise its laws.

Chapter 8

Conclusion

As it has been seen in chapters 6-7, a number of policy options face Pakistan in dealing with the new technologies of agriculture and their impact on the vast masses of the rural poor. One policy option arises in regard to the new technology itself because of the recent energy arises and because of the dependence of the technology on non-renewable natural resources and methods of manufacture that lead to environmental pollution. David Piemental has called for a reversal of the policy that makes agricultural growth dependent on chemical inputs of both fertilizers and pesticides and mechanical energy powered by fossil fuels.

But to set the clock back in the fashion suggested by Piemental will only hurt the country which has just begun to use fertilizers on any significant scale and whose needs for agricultural modernisation are much greater both for meeting basic needs as also for getting its economy to commence a take -off from poverty. But agricultural modernisation with its emphasis on fertilizers and pesticides is bound to create problems not anticipated earlier and there is now a policy option of going in for modern technology with redistribution of growth to those poor farmers who cannot afford to apply it, or of devising other ways of meeting the need for plant nutrients by paying more attention to organic and green manures or making special national and international arrangements for a favoured position being given to the rural poor in the allocation of the supply of chemical fertilizers. Possibly, Pakistan will have to think in terms of combining all these factors.

The second policy option is in regard to mechanization as against labour intensive techniques for agricultural operations. There is , in fact, no option as far as using mechanical power for drawing water is concerned. Irrigation, pump sets and tube-wells have come to stay and will need to be expanded. But other forms of mechanisation are optional, depending upon the size-distribution of holdings, the pressure of population , the availability of land, and the social philosophy of the govt. in power. Here the option in practice, will not be between mechanisation and no mechanisation, but between the items to be included in selective mechanisation, and the pace at which it is to be introduced.

A third policy option arises as between the intensification of modern technology to already more developed - areas and its extension to the agriculturally less developed areas- Where funds are limited and there are regional disparities, better policy option is to extend modernisation to less developed areas.

A fourth policy option is between concentrating exclusively on agricultural modernisation proper and adopting a programme of rural development in which agricultural modernisation, of course, will have a prominent place. There is , in fact, no dispute that in general agricultural development and rural development have come to be accepted as the overall frame-work for a policy of rural development. In Pakistan where there is a massive rural un-employment, illiteracy, poverty, the norms of social justice demand that the agricultural development strategy should be complemented by the rural development strategy since with the increase in labour force that population growth and farm mechanisation bring about,

more-employment opportunities have to be found through rural development programmes.

A fifth policy option is between enhancing the role of the federal government in agricultural administration and strengthening the poor linkages between the market manipulation and incentive strategies of the federal government and field level extension and distribution programmes of the provincial governments. Owing to the diversity in ecological, settlement, cropping and marketing conditions which makes it impossible for the federal government to effect any detailed physical planning of the agricultural sector, the enhancement of the role of the federal government in agricultural administration is not desirable. The linkages between the national agricultural policies and the provincial field level activities however need to be strengthened. Similarly, agricultural research and extnesion need to be pursued in a combined manner under the respective provincial administrations.

The first conslusion that presents itself is that neither agricultural modernisation nor rural development programmes are going to provide the long-term answer to the poverty of the rural areas of Pakistan, if its population keeps growing faster than its growth rate. How population growth is to be controlled is a larger question and falls outside the scope of this study. But it is relevant to note that an effective policy of population control is a necessary condition for ensuring full employment and raising levels of productivity and income for its agricultural population.

The second conclusion of this study, based on the research findings of so many writers some of which have been quoted in Chapters 3-5, is that agricultural modernisation in Pakistan is leading to larger holdings, a diminution in tenantry, and an increase in the marginalisation of the small farmer, capital intensification including mechanisation, land purchase and increased cash inputs, more use of hired labour, and increasing production mainly for the market. What seems to be emerging is a kind of capitalistic farming with a new and a dynamic middle class of farmers adopting modernised agricultural technology and acquiring a new social and political power such as has not been seen before in the rural areas of Pakistan. Big landlords are also resorting to self-cultivation by ejecting their tenants for if they donot do it, they may lose ground to those landlords who have joined the dynamic ranks of the new middle-agricultural class which is acting as pace-setters for the modern technology. The marginal and small farmers are losing ground except that some of the more enterprising among them have also joined the ranks of the dynamic middle class in agriculture.

The third conclusion is that if capitalistic farming becomes the ruling form, it spells a dark future for the rural peasantry, many of whom may give up agriculture and emigrate to the towns in search of a better livelihood while the rest may stay on the farms as an inferior class in the rural hierarchy.

The larger number of people has added to the pressure of population on the land. The fourth conclusion of this study is that in order to feed the growing rural population adequately, a sustained and vigorous agricultural growth is necessary in Pakistan provided it is pursued (the study recommends) alongside social justice with emphasis on rural development. This would require policies involving a greater emphasis on improving welfare rather than simply increasing production

and on the development of non-farm employment in rural areas. This task is not very easy as the rate of growth in the labour force in Pakistan's rural areas is too large as compared with the rate of growth in the demand for labour. Rural urban migration is not a solution for without rapid industrial growth and consequent enhancement of employment opportunities , it would only displace the problem from the countryside to the cities. One shall therefore, have to look to vigorous agricultural growth along-side social justice and this is the ultimate conclusion of this study.

The study in the end suggests measures through which agricultural growth alongside social justice can be achieved. These measures include building into the agricultural production patterns a system of special programmes for the small farmer by giving him easy and if possible favoured access to all the inputs be requires , diversification of farming profession of the non-viable marginal farmer; getting small farmers, marginal farmers and tenants to organise themselves for receiving the benefits of indivisible inputs and giving them a political weightage and administrative patronage against the vested interest groups who may cause hurdles in the way of these groups to receive these facilities.

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