

Corporate Agriculture Farming

The Role of Corporate Sector

By

Zubair Faisal Abbasi



540, Street 105, I-8/4,
Islamabad
Pakistan
[www. impactconsulting.com.pk](http://www.impactconsulting.com.pk)

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Executive Summary

Agriculture sector is of vital social, political, and economic importance for Pakistan. On economic side, it contributes 21 percent of the GDP and employs 44 percent of the labour force. A host of economic activities in the services and industrial sector are also based on contribution of agriculture. However, the country is still struggling to effectively utilize the potential of agriculture sector though the country is endowed with fertile soil and irrigation system. Empirical evidence suggests that Pakistan is still not able to mark an enviable record in productivity growth during last many years. There are many reasons which revolve around the issue of functioning of markets, problems of public policy, research and development capacity of institutions, availability of credit, capabilities of labour force, availability of science and technology, prices of inputs (fertilizers, seeds, and credit etc.) and farm values of the produce, as well as administration and distribution of water and land.

However, looking at the data from agriculture censuses from 1960s and onwards, it appears that Pakistan has undergone serious change in agrarian structure. The agriculture sector has moved on from being quasi-feudal to capitalist. Two features mark this transition. One is the increase of wage labour and second size of farms as well as transition towards self-cultivation (Khan, 1999, Khan, 2006, Zaidi, 2008).

In 2001-2002, the Government of Pakistan announced a policy package to introduce Corporate Agriculture Farming (CAF). The policy promises to improve efficiency in the system, bring more investment, technology, and jobs and ultimately increase both the revenue and export. The opponents of the CAF have a word of caution to share. They argue that the CAF is not really designed to solve Pakistan's problem i.e., poverty, inequality, environment, and food security. They also argue that rights of small scale farmers who either own or are landless have not been taken care of during the formulation of such a policy. While Pakistan faces a threat of food insecurity especially amongst the economically disadvantaged communities and rural population (SDPI and WFP, 2004) it is important to factor in the issues of small scale farmers. It must be mentioned here, 'the food security is not exclusively an agriculture phenomenon, and the monetary and fiscal policies also play an equally important role' (Khan, 2009).

However, Instead of distribution of land to the small farmers as a key resource transfer for capability enhancement, the government has announced the policy of corporate farming (CAF) under which it intends to lease vast tracts of lands to foreign entities and MNCs. CSOs and farmer groups have argued that irrespective of the claims by the government, CAF is not destined to serve the interests of the small farmers in Pakistan. In fact, if not supported by flanking public policies, small scale farmers may be eliminated causing social and political disequilibrium. It has been argued that since Pakistan's subsistence farmers are already hard pressed, reliance on corporate greed for profit would prove to be fatal for them. As a result of the CAF, small farmers will have to flee and find alternative sources of livelihood. It

would increase unplanned and unmanageable urbanization. Therefore, it seems that the policy package for Corporate Agriculture Farming (CAF) has become controversial and many civil society organizations as well as the small farmers have argued against it.

Instead of encouraging CAF, redistributive pro-poor land reforms and changes in price mechanisms are the best available solution to overcome the crisis of food insecurity in Pakistan. In addition, a serious pursuit of social protection and human development interventions is needed for the small scale farmer. It needs customized solutions for rural communities which help them access good quality farm inputs such as seed, fertilizers, chemicals, and farm equipment which can change their techniques of production. At the same time, it is recommended that special programmes are launched which help build and strengthen cooperatives for small scales farmers with the aim to improve agribusiness especially by women entrepreneurs. A major aim should be to improve positions of small farmers in value chains of crops and also bring in diversity in farm produce.

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List of Abbreviations

CAF	Corporate Agriculture Farming
CSOs	Civil Society Organizations
FAO	Food and Agriculture Organization
GB	Gilgit Baltistan
GDP	Gross Domestic Product
KPK	Khyber Pakhtunkhawa
MNCs	Multinational Corporations
UAE	United Arab Emirates
WFP	World Food Programme
WTO	World Trade Organization

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Chapter 1: Introduction

Agriculture forms the major economic activity in Pakistan. While it generates direct livelihood for 45 per cent of the labour force of which 36.6% are male and 74.9% are female. The percentage share of agriculture sector in GDP is around 20.9 per cent while it was 25.9% in 1999-2000 (MOF, 2011). Exports from Pakistan are largely dependent on agriculture sector especially cotton yarn, cotton cloth, raw cotton, and rice. Indus river plain in Sindh and Punjab province provides the fields for these crops.

Empirical evidence shows that since the early 1960s considerable development and expansion in agriculture output has occurred. As a result of improvement in the irrigation system, the amount of cultivated land has increased by more than one-third since independence. At the same time it has been argued that 'for the last few decades, the cropping area is stuck at 550 million acres' which can be increased at least 30% (Khan, 2009). However, the following table 1.1 shows the growth rate in agriculture which has been badly affected by floods in 2009-2010 and shows only 0.6% growth.

Table 1.1

Agriculture Growth (in %age)						
Year	Agriculture	Major Crops	Minor Crops	Livestock	Fishery	Forestry
2004-05	6.5	17.7	1.5	2.3	0.6	-32.4
2005-06	6.3	-3.9	0.4	15.8	20.8	-1.1
2006-07	4.1	7.7	-1	2.8	15.4	-5.1
2007-08	1	-6.4	10.9	4.2	9.2	-13
2008-09	4	7.8	-1.2	3.1	2.3	-3
2009-10	0.6	-2.4	-7.8	4.3	1.4	2.2
2010-11(P)	1.2	-4	4.8	3.7	1.9	-0.4

P= Provisional

Source: (MOF, 2011, p. 49)

However, the country needs to catch up with the performance of agriculture sector around the world and its neighbours. Some experts have argued that Pakistan has many options to increase both vertically by increasing yield and horizontally by increasing more land under cultivation (Khan, 2009). It appears that Pakistan has used the potential of agriculture in a suboptimal way which the well-irrigated and fertile soil from the Indus irrigation system could have supported. The following assessment needs to be quoted in length:

"It can increase perhaps culturable area by at least 100 per cent, if vast tracks of Baluchistan can somehow be irrigated. The potential for horizontal growth can be gauged from Pakistan's current culturable

waste, which stands at massive 20 million acres. In Punjab alone, it is around four million acres. Compare it with only 67,000 acres in the Indian Punjab, and Pakistan's efforts for ensuring food security stand exposed, along with their cost for the nation. Potential for vertical growth is equally massive. The agriculture experts that research (seed) can make 25 to 50 per cent difference in production, cultural practices (extension service) can increase yield by around 35 per cent – 25 per cent through balanced use of fertiliser and 10 per cent through better plant protection or use of pesticides. Water alone, they maintain, could take production up by 50 per cent. It only goes to prove that the country can increase its food production by 100 per cent by simply improving its management practices" (Khan, 2009).

Agriculture: The Basics

The landscape of Pakistan has five major regions:

1. Northern High Mountainous Region
2. Western Low Mountainous Region
3. Baluchistan Plateau
4. Potwar Plateau (Upland)
5. Indus Plain in Punjab and Sindh

The total land area of Pakistan is 79.61 m ha. The following are the land use categories for Pakistan (Khan, 2006):

Table 1.2

Land Utilization

Land Use Category	Area	Per cent
Agriculture	22.7	29.4
Forests	4.0	5.2
Rangelands	30.6	39.6
Waste Lands	19.9	25.8

Source: (Khan, 2006, p. 45)

Pakistan has one of the vastest and controversially best irrigation systems. The river Indus and its tributaries constitute one of the largest irrigation systems in the world. This system waters more than 16 million hectares of land. Three major water storage reservoirs are built on these rivers. In addition, there are numerous barrages, head works, canals and water distribution channels¹.

¹ For details please see <http://countrystudies.us/pakistan/49.htm> [Last Accessed: October 2, 2011]

In Pakistan, most crops are grown for food. Wheat is by far the most important crop in Pakistan and is the staple food for the majority of the population. Its contribution to GDP is 2.7 percent. In 2010-11, wheat was cultivated on 8805 thousand acres. In FY 2009-10, wheat production was 23.3 million tonnes. Between FY 1961 and FY 2010, the area under wheat cultivation has almost doubled. Wheat production is vulnerable to extreme weather, especially in non-irrigated areas (MOF, 2011).

Rice is the other major food grain. In FY 2010, rice production in Pakistan was about 6883 thousand tons. It contributes 1.4 percent to the GDP. Pakistan produces very high quality rice both for domestic consumption and for export purposes (MOF, 2011). Pakistan exports rice to the Middle East and EU. Millet, Sorghum, corn and barley are also produced. The corn production area has substantially increased. Fruits and vegetables are grown on vast tracts of land for domestic consumption as well as for export. The commercial crops include cotton, tobacco, sugarcane and rapeseed².

The below given table 1.3 shows the production of major crops from 2004-2011.

Table 1.3

Production of Major Crops (000 Tons)					
Year	Cotton (000 bales)	Sugarcane	Rice	Maize	Wheat
2004-05	14,265	47,244	5,025	2,797	21,612
2005-06	13,019	44,666	5,547	3,110	21,277
2006-7	12,856	54,742	5,438	3,088	23,295
2007-08	11,655	63,920	5,563	3,605	20,959
2008-09	11,819	50,045	6,952	3,593	24,033
2009-10	12,913	49,373	6,883	3,262	23,311
2010-11 (P)	11,460	55,309	4,823	3,341	24,214

P= Provisional (July - March)

Source: (MOF, 2011, p. 16)

Problems of Agriculture

There are many structural and administrative weaknesses in the agriculture system of Pakistan:

- One major reason is the insufficient investment in research and development (R&D) for agriculture in Pakistan
- The procurement system of wheat, rice, sugarcane etc. is neither efficient nor farmers friendly

² *ibid*

- The irrigation system is under great stress
- A lack of adequate agricultural credit and an unexpected rise in the cost of agricultural inputs without corresponding adjustments in the prices of agricultural products are other major problems plaguing the agriculture sector in Pakistan

Objectives of the Research

The main objective of the research was to explore and analyze, CAF related policy initiatives in Pakistan and learn from other country experience as well. In the process of analysis, it was aimed at to know the key drivers in agrarian change in Pakistan in general and CAF in particular. The central objective was to contextualize the state of small scale farmers and understand potential impact of CAF in the light of food security and climate change. Last but not least, the research was supposed to come up with policy recommendations to improve the CAF in a way that improves the fortunes of small scale farmers.

Methodology

The research relied on secondary data and works of eminent scholars in agriculture. The main sources of information were identified and a thorough analysis was carried out to find dynamics of agrarian change and key drivers of change, special focus was done to understand how small scale famers will be affected by CAF. While contextualizing the CAF policy package announced by the Government of Pakistan, attempt was made to re-examine it with the perspective of human development and food security.

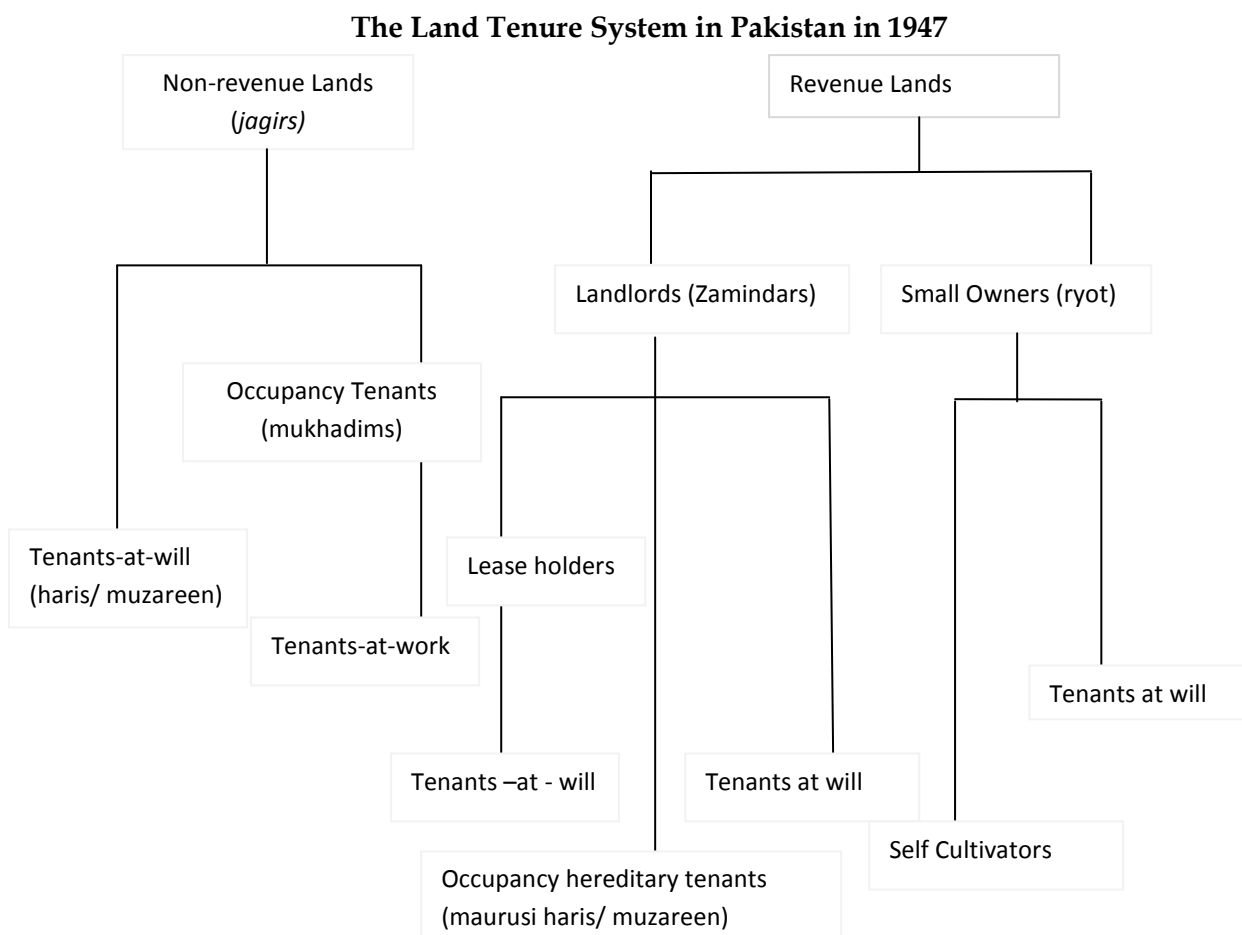
The report is structured in seven chapters. As a result of this analysis, the first chapter introduces the agriculture in Pakistan and research methodology. The second chapter looks into the state of agriculture and farm structure of Pakistan. The third chapter explores the concept of corporate agriculture and outlines the experience of other countries. The fourth chapter explores the policy issues of CAF policy packages which Pakistan has announced and analytically draws from diverse literature which favours and opposes the CAF. The fifth chapter tries to analyse the CAF in the context of food security and climate change. The sixth chapters shares perspectives about the potential impact of CAF on small scale farmers. The research ends with conclusions and policy recommendations.

Chapter 2: Pakistan’s Agricultural Farm Structure

The Mughals and the British colonial rule has been a major influencing factor in giving shape to the farm structure in Pakistan. In the ‘settled’ areas, two types of land tenure systems were most conspicuous at the time of independence of Pakistan in 1947. Predominantly, it was *Zamindari* (landlord-tenant) system in which the *Zamandirs* (landlords) and *Jagirdars* (non-revenue paying landlords) owned large tracts of land while majority of the landlords were absentee owners securing rents from the tenants. The second major type of land-tenure system was based on peasant proprietorship. Under this system, the peasants cultivated their own small patches of land. This system played a major role in the Punjab and the irrigated areas of KPK. However, the peasant proprietorship remained a small fraction of the land ownership distribution (Husain, 1999, p. 59-60).

A slightly detailed figure 2.1 illustrates the situation in 1947.

Figure 2.1



Source: (Zaidi, 2008, p. 16)

Therefore, there were two basic classes in land cultivation. One was a minority having large tracks of land and a vast majority of landless sharecroppers or owners

of small landholdings. However, in the 'unsettled' areas of Baluchistan, some parts of KPK and GB region, the property rights were ill-defined or tribal ownership existed in which local elites such as *sardars*, *maliks*, *mirs*, and *rajas* enjoyed a predominant position (Khan, 1999, p. 119-120).

Pakistan like many other countries trying to chart out a way for rapid economic growth and development - especially in the context of the political economy of post-independence distribution of resources for equitable development - tried land reforms (Annexure A shows the key dates and features of land and tenancy reforms in Pakistan). The results of which remained controversial in development debates. A brief overview of the land reforms is necessary here. The Ayub administration under Martial Law Regulation No. 64, around 2.3 million acres were distributed among around 185,000 tenants. A ceiling of 200 hectares for irrigated land and 400 hectares of non-irrigated land was placed on individual ownership while compensation was paid to owners for land surrendered. The Bhutto government under the 1972 regulation distributed around one million acres amongst the peasantry. In 1977, additional measures were taken that reduced the ceiling on the individual holdings to 100 acres irrigated and 200 acres non-irrigated land. However, after the overthrow of Bhutto the legislation on land reforms was suspended by General Zia (Irfan-ul-Haq, 1987, Khalid, 1998).

Transition towards Capitalist Agriculture

In Pakistan, during the initial stages of agricultural development, both the capital and wage labour were in infancy. With the passage of time, the agrarian structure has undergone many changes. The key drivers of agrarian change appear to be various tenancy and land reforms along with demographic transition, division of land under law of inheritance, new technologies, rural-urban remittances, changes in public policies regarding subsidies and farm credit, and liberalization of agriculture markets. It has been argued that though land ownership is still concentrated but in all provinces the level has declined. It appears that the small landholding which comprise of less than 5 hectares has increased while the proportion of landowners who own more than 20 hectares has gone down from their 26% share in total area to 23% (Khan, 1999, Zaidi, 2008).

According to data from Agriculture Consensus Reports of 1960 to 1990, the proportion of owner-operated farms has increased during the last thirty years especially in Punjab and KPK while sharecropping has been reduced significantly. Tenant operated farm area has also declined from 46 to 26 per cent in all farms. For example, most of the sharecropping farms which are in the range of 3 to 5 hectares have shown decline both in area (30 to 16 per cent) and number (34 to 19 per cent). Interestingly, the average farm size has declined from 5.3 hectares to 3.8 hectares but the average size of largest farms has increased (Khan, 1999, p. 123-124). The below given table 2.2 shows the change in landholding.

It has been argued in recent literature on agriculture farm structure in Pakistan that a serious transition from quasi-feudal to capitalist mode of agrarian structure has

taken roots (Zaidi, 2008). Landlords and rich farmers have emerged dominant in *khud kasht* (self cultivated) area and labour comprises of landless workers who are either poor peasants and evicted sharecroppers. These trends have released labour from the farm sector for non-farm activities and possibly put pressure in migration from rural to urban areas in Pakistan. The rapid growth of megacities of Lahore and Karachi shows a trend in that direction.

Table 2.2

Average Size of operational Holding, 1960-1990				
Farm size (acres)	1960	1972	1980	1990
All sizes				
Pakistan	10.07	13.04	11.57	9.38
Punjab	8.78	13.07	11.75	9.2
Sindh	9.91	12.65	11.58	10.76
Under 5.0				
Pakistan	1.91	2.42	2.4	2.98
Punjab	1.86	2.43	2.41	2.96
Sindh	3.04	3.07	2.61	2.88
5.0-12.5				
Pakistan	8.14	8.22	8.01	7.69
Punjab	8.14	8.23	8.05	7.73
Sindh	8.23	8.43	8.22	7.69
12.5-25.0				
Pakistan	17.19	16.45	16.48	16.4
Punjab	17.06	16.29	16.16	16.02
Sindh	17.46	16.76	17.11	17.15
25-50				
Pakistan	33.1	31.89	31.77	31.55
Punjab	32.79	31.62	31.48	30.94
Sindh	33.51	31.97	32.4	32.48
50-150				
Pakistan	74.31	71.86	72.01	70.33
Punjab	100.7	70.29	71.69	70.11
Sindh	171.5	77.92	72.53	72.22
150-over				
Pakistan	349.7	280.1	286	311.44
Punjab	285.2	255.6	277.6	275.09
Sindh	398.5	249.3	322	302.74

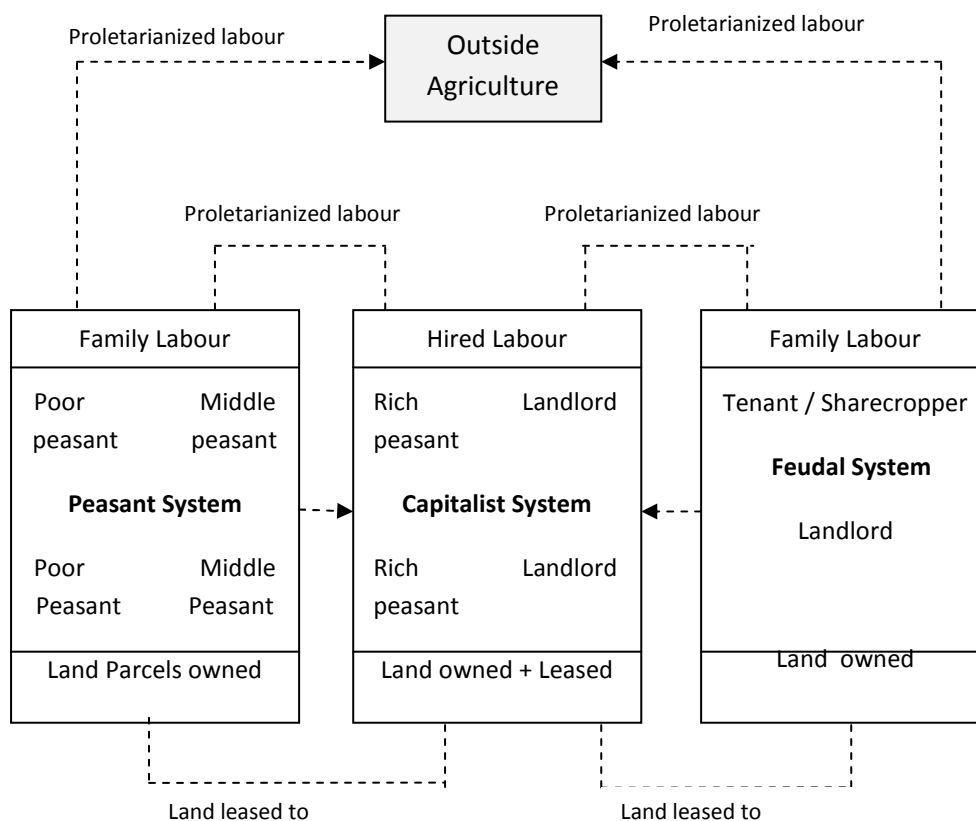
Source: (Zaidi, 2008)

Reasons of change in Agrarian Structure of Pakistan

While analyzing the reasons of changes in agrarian structure of Pakistan, it has been argued that subsidies inputs and promotion of technology which replaces labour has caused profits of the landowners to grow which they do not want to share with sharecroppers. In addition, export opportunities and increase in income levels of urban population has caused changes in cropping patters. The animal-driven cultivation which was the mainstay of the poor peasantry which has been replaced by horse-powers built in machines for cultivation. The incomes of poor small landowners and sharecroppers have fallen over time. In addition, increase in owing urban-rural remittances, the incentive for the poor small landowners seems more in selling the land and engage more in non-farm activities or migrate to cities in search of livelihoods(Khan, 2006). This is why there has been a decline in labour engaged in agriculture which was 60% in 1960s and not around 40% though the absolute number is still rising (MOF, 2011).

Figure 2.2

Agrarian Transition in Pakistan



Source: (Zaidi, 2008)

It is interesting to note that the use of family labour has not declined in small farms but has been reduced on large farms. It shows possibilities of labour absorption in large scale agriculture farming which tends to hire casual labour. One feature of

agrarian change in Pakistan is increase share of wage labour in large scale agriculture from 30 to 55% while families engage some of their members in non-farm activities to sustain themselves in cash economy (Khan, 2006, p. 125).

Conclusion

Pakistan has transformed itself from quasi-feudal society to a more capitalist orientation in agriculture economy. The peasant households and animal power used in sharecropping and tenancy is declining while *khud kasht* or self-cultivation by owners is increasing. Various market and policy interventions have brought this change. It appears that the way land resources are being distributed and allocated for cultivation has very little to offer to small scale farmers. Those small farmers have been worse off in agriculture farm activities, during the last thirty years, who were either landless and engaged in sharecropping, or those who owned very small farms. Neither the technology nor the policy interventions have been deployed in a way which can make them viable in an extremely competitive environment. In this context farm structure in Pakistan, the next chapter analyses corporate agriculture farming and explores the experiences elsewhere.

Chapter 3: Corporate Sector Agriculture

Corporate Agriculture Farming (CAF) is about food production at a large scale and especially uses modern techniques in crop cycle handling. MNCs are dominant players in the CAF. It also involves leasing out large tracks of land for farming and maintaining seed supplies, managing farm inputs such as agrichemicals. It is said that since 1980s, foreign investment particularly in contract farming and in other aspects of agricultural production such as fertilizers, machinery, processing, manufacturing and retail have been preferred by investors and transnational agribusinesses (UNSIB, 2010, p. 1).

While investment in agriculture is needed, the current investment flows from the private sector of rich countries are likely to produce crops for food, feed and fuel, whichever commands the highest price or supplies other integrated production chains (UNSIB, 2010). It appears that the new investments in agriculture are not aiming at following comparative advantages but are more interested in factoring in food, water and energy potentials in foreign lands. United Nations Sustainable Investment Briefs argue, 'the current land purchase and lease arrangements are largely about shifting land and water uses from local farming to essentially long-distance farming to meet home state food and energy needs.' (UNSIB, 2010, p. 1).

Following global trends, the Government of Pakistan has announced the policy for CAF which intends to lease vast tracts of lands to foreign entities and multinational companies. It has been argued that despite serious concern of farmers' community and civil society, previous government under Pervez Musharraf approved Corporate Agriculture Farming (CAF) policy. The Government aimed to raise revenue as well as create employment opportunities through this policy. Proponents of the policy advocates that it will help bring efficiency, mainstream new technology as well as spread best business practices in the agriculture sector to improve both production and productivity. While aiming at better business management at firm level, the policy envisages that food production targets can be achieved with reorganizing and synchronizing agricultural production, processing and marketing activities (Rizvi, 2002).

CAF is argued to be the answer to bring intersectoral linkages in crop cycle. It has been argued by the proponents of CAF that it provides favourable resource base which results in high quality products (Rizvi, 2002). CAF maintains internationally competitive unit cost of production for all major crops, fruits and vegetables. The advocates of CAF also espouse evidence which supports the idea that fragmentation of agricultural lands into economically unviable sizes needs a change. They point to the accompanying inability of resource-constrained small farmers to adopt new technologies required to get optimum yield. However, it must be noted that many CSOs and farmer groups have argued against the CAF arguing for protection of small farmers who constitute 93% of the total agriculture labour (45%) deployed in rural areas. According to a growing body of research, corporate greed-led industrialization of agriculture is not answer to the food security related issues

(Suleri, n.d.; Malik, 2002). It is said that over 6 million families work around 50 million acres of land in the country as subsistence farmers, each occupying less than an average of 12.5 acres (Daniel, 2011). There is a need to do a thorough analysis of the impact of such policy initiatives in Pakistan especially from the perspective of local food security situation of the poor subsistence farmers. However, in the absence of such studies, there is a need to look at other country experiences in CAF.

Corporate Agriculture Farming: Lessons from Elsewhere

Like Pakistan, there are dissenting voices against CAF in other parts of the world. Gosh (2003) has analyzed the effects of corporate agriculture farming and trade liberalization on small farmers. Gosh (2003) argues that MNCs monopolize markets with large farms and dictate prices in less competitive environments. The MNCs dominate the market through a combination of horizontal and vertical integration. As these corporations have a large resource base and worldwide network, they have no compulsion to buy from a particular markets and sellers. In such situations of monopoly and monopsony, the small farmers get worse off (Gosh, 2003).

Reflecting on the methods of businesses, it appears that MNCs consolidated their position by integrating the various stages of the agriculture system. Companies like Cargill, Monsanto in food grain and Tyson foods in livestock enjoy greater economic power. Therefore, such extensive control of the food system gives greater leverage to manoeuvre prices which might not always favour the small farmers. The prices are set in a way that the profits of procuring and processing firms are increased while farmers get less and less out of agribusiness. Therefore, despite agribusiness flourishing the farmers owing to less economic power become worse off. Interestingly, both the direct producer and consumer have to bear the effects of falling (farm value) and rising prices (Gosh, 2003).

The Case of Pepsico in Punjab, India

Gosh (2003) brings evidence from the relationship between farmers in Punjab and the Pepsico which started business in India in 1989. While the investment was in agro-processing, it started exerting greater control over yield and quality of tomatoes. Contract farming methods was applied and after initial rejoicing by the farmers, when the market prices fell, the company started enforcing quality control for pay lower prices rather than the pre-determined ones. Farm value of products reduced while farmers felt in deep vertical linkage with Pepsico. Learning from this experience Gosh (2003) argues that relative pricing policy accompanied by a supportive system of public agricultural extension services could have helped produce better outcomes for farmers rather than private corporates taking advantage of the poor peasants' limited choices.

In addition to the effects on pricing and wellbeing of farmers, Gosh (2003) argues that despite increase in employment owing to contract farming in various crops, the wage levels have been pushed to subsistence level with tenure insecurity by increased competition for work amongst migrating peasants. Poor working

conditions add to misery of workers too. An alarming situation is that while excessive mechanization has reduced male employment, the women and children are employed now for labour-intensive activities. However, looking at the situation from a human development perspective, it appears that there has been negative implication for health and nutrition of workers.

Corporate Agriculture Farming and Sub-Saharan Africa

Sub-Saharan Africa, which uses only 2 percent of its freshwater resources for irrigation is seen by the investors as having an untapped potential for agriculture owing to water resources. Experience of some countries in the sub-Saharan Africa suggests that corporate agriculture farming is not really serving the longer term interests of the local farmers. The following examples, illustrate the issue:

‘In Ethiopia, the lands which were previously being used by the locals for shifting cultivation and dry-season grazing were allocated to foreign investors thus affecting the indigenous population. In Kenya, the local communities in the delta of Kenya’s Tana River reacted strongly to reports of government’s intention to lease 40,000 hectares of coastal land to Qatar. In Tanzania, a Swedish company is trying to get 400,000 hectares of land for sugarcane production. It will result in the displacement of 1000 small-scale rice farmers. As their land rights are not recognized by the government of Tanzania, there will be no compensation’. (UNSIB, 2010, p. 6)

Key Drivers and Issues in Corporate Agriculture Farming

Around the world, the food crisis of 2008 has had a lasting impact and has become one of the key driver for land acquisitions for corporate farming. At the same time, high oil prices in 2007-08, added another driving force for land acquisition to produce energy crops for fuel.

However, in the context of Pakistan, it appears that it is water which is one of the major drivers in attracting investments from Arab countries since irrigated agriculture is vital to fulfil production needs. In many countries water sources are depleting because of overuse and food production coming under stressed. In order to fulfill their agricultural needs, the Gulf countries use around 80 percent of their water for irrigation. Saudi Arabia, because of its depleting water reserves has decided to phase out its wheat production by 2016 (UNSIB, 2010, p.2). On water scarcity, Saudi Arabia is possibly the worst hit which may witness worst kind of water shortages in the next 50 years. Other counties of the region such as UAE, Bahrain and Qatar are also bracing themselves with declining water resources. ‘Water table in Minah region has already dropped to horrible level and while Israel imports its total portable water from Turkey. So water situation for the gulf region is alarming’ (Khaliq, 2009).

It has been reported in press that Arab companies rush for corporate farming in Pakistan to tap scarce water resources in agriculture belts. As mentioned above, the Government has offered around one million acres of agriculture land to Arabs (Khaliq, 2009). The Saudi private equity company Abraaj Capital along with United Arab Emirates (UAE) companies and institutions have acquired 800,000 hectares of farmland in Pakistan with the support of the UAE (Khaliq, 2009).

Along with the advent of CAF, there is an issue of 'land grabbing' which primarily questions the purchase or long term lease of vast tracts of land. The issue is complicated in the context of those countries which are rich in land and water resources but have large segments of poor population. In the case of Punjab province of Pakistan, there is a very grave situation for small farmers. UAE purchased 324,000 ha (800,000 acres) in May 2008. As a result of this deal, it is estimated that around 25,000 villages are likely to be displaced without any compensation mechanism threatening livelihood and food security options of the poor. The villages which have been using the same land since many generations (Daniel, 2011).

It is important and central thesis of this paper that the issue of CAF must be looked at from the perspective of not only investment and economic efficiency but also food security and human development.

Conclusion

CAF argues to bring in economic efficiency, increase production and productivity by adding technological resources, as well as increase exports. It also promises to bring in new investment in agriculture which is vital for less developed countries. However, there is a need to look at the key drivers behind such moves. This analysis shows that these are food, fuel, and water resources which are drivers behind motivations of acquiring land in foreign destinations. It can be concluded that while potential of gains from CAF might be real, there is a need to re-examine CAF from the perspective of food security and wellbeing of small farmers. At the same time, our tentative conclusion is that there is some empirical evidence which does not paint a rosy picture for CAF as panacea for the problems of poverty in less developed countries. Therefore, cautious approach needs to be taken while pursuing CAF in Pakistan as well. The next chapter explores the legal structure and policy which has so far been developed to facilitate corporate agriculture in Pakistan.

Chapter 4: The Policy to Facilitate Corporate Agriculture Farming

Corporate Agriculture Farming in the Context of Agrarian Change

As mentioned in previous chapters, Pakistan's society has undergone serious agrarian change. Currently, the literature on agriculture argues that for all practical purposes, there has been decline in sharecropping and tenancy and an increase in self-cultivation with increased mechanization of production processes. Along with this, capitalist farmer class is emerging which uses contractual wage labour (Khan, 2006, Zaidi, 2008), essentially changing the legal and social rights and obligations in agriculture sector. The new types of commercial relations between the new capitalists and the agriculture workers, technological advances and corporatization of production and processing is a new landscape; in which the poor and small farmers are yet to create a prominent commercial position.

At the same time, within this new emerging landscape of agriculture, the Government of Pakistan has announced a policy package to facilitate Corporate Agriculture Farming in the country in 2001. The proponents have argued in line with the standard trade liberalization theory that the corporate companies will bring in modern technology, capital, and managerial efficiencies. CAF is envisaged to enable producers to have direct access to domestic and foreign markets. While improving efficiencies and coordination between the production and inputs industry, the later will be rewarded with access to economies of scale of larger consumers of farm inputs (Rizvi, 2002).

The salient features of the policy package are as following:

- The policy package has made provision for a **duty-free and sales tax-free import of machinery** and equipment for use in CAF
- Under the package, the CAF will have a **status of industry** and will enjoy all the facilities including the credit availability as admissible to industry. To improve the credit facility, all financial institutions are expected to earmark separate credit share for CAF
- A **tax holiday** for five years for the irrigated areas, 7 years for *barani* (non-irrigated) areas and 10 years for the cultivable areas will be provided. In addition, there is a provision that such tax exemptions would be available to the companies listed on the stock exchange
- **Exemption on duties on transfer of land** would also be allowed
- The corporate agricultural companies will be required to observe the relevant sections of the workmen's compensation Act 1923, payment of wage Act 1936 and bonded labour system abolition Act (111 of 1992)
- There is **no ceiling on land holding** so the legal cover will be provided. The state land may either be sold or leased out to the investors for 50 years and extendable for another 49 years under the corporate farming. The preference in this regard will be given to cultivable wasteland
- The land to be used for CAF will not be included in any future land reforms

- There will be **no hurdles in exporting** the CAF production nor there do any tax at the district level
- Electricity tariff for these corporate farms will be the same as applicable to agriculture tube-wells. Gas, water and phone facilities will be provided by the state at normal charges (Malik, 2002; Rizvi, 2002).

The Controversy

However, the CAF policy has some issues of omission and commission which invited corrective comments from civil society organizations and small farmer associations. The claims of CAF bringing new technologies and techniques of production, processing, and marketing as well as direct foreign investment have been contextualized in food security and sustainable development paradigms. Calling it a policy to promote greed-led interests of big players in utter disregard of the interests of small subsistence farmers as well as damages to ecological resources (public goods and natural capital) the broader contours of the debate has been defined (Suleri, n.d.; Malik, 2002).

It has been argued that landless poor farmers have been sidelined and CAF is meant for industrial countries pursuing industrial agriculture on foreign lands. Taking a historical institutional perspective on agricultural development in the now-developed countries, the critiques have argued that developed countries provided both protection and subsidies to their farmers at the comparable levels of development vis-à-vis the less-developed countries (Chang, 2009). However, policy space for such interventions by the state is limited now owing to multilateral trade agreements under WTO as well as due to structural adjustment programmes which argues for austerity in development spending. Therefore, the activists and academics from various CSOs argue that instead of providing subsidies to the small farmers, it is providing lands to the MNCs while abolition of subsidies, domestic support, increase in power tariffs and imposition of GST on fertilizers have worsened the plight of small farmers (Malik, 2011).

The Current Land Acquisitions

A section of press has reported that some companies from UAE have already purchased 800,000 acres of land in Pakistan at different places. The land acquisition initiatives has been taken in all four provinces of Pakistan and are at various levels of negotiations and leasing. The private companies from UAE, have acquired more than 1.5 hectares of land in Balochistan near Mirani Dam. UAE is also in negotiation with Sindh government to acquire land in Shikarpur, Larkana and Sukker. They also showed interest with governments of KPK and Punjab where interest is in fertile areas of surrounding Mianwali, Sargodha, Khushab, Jhang and Faisalabad (Khaliq, 2009).

Whither the Small Farmers?

It has been argued that Pakistan is a country which shows little progress on social development specially on core human development indicators while its record on economic growth is not less impressive in comparison with other developing countries (Easterly, 2003). The slow progress on social development such as education, technical trainings, and women empowerment takes its toll from the rural poor – most of whom are small scale farmers. As a matter of fact, the small farmers have no resources to purchase modern machinery and technology to boost their production and increase productivity. They are inherently trapped in competitiveness challenge. Therefore, it has been argued that as a result of the induction of modern technology and machinery and the latest methods of production by the corporations, the small farmers will be unable to compete in cost and method of production. As most of the corporate firms might be interested in cash crops, they may promote monoculture farming system (Gosh, 2003) which is a direct risk to our food security. Food insecure rural areas in which local land and water resources are exclusively given to the rich corporations means mass exodus to the cities. It will increase poverty at the national level instead of reducing it and make problems of urbanization bigger (Malik, 2002).

Government is also going to develop a new security force of 100,000 men to be split among the four provinces to help stabilize the investment by Arab Monarchs. This will cost the government about \$2 billion to pay the salaries and train the security force. Some human rights activists view that this force will be used to remove local communities from their lands, which they have been tilling for centuries. (Khaliq, 2009)

It has been estimated through surveys that a typical small farmer, having less than 2 hector of land, in Punjab and Sindh earns around PKR 26000 (US \$ 320) with three ton per hector production. Out of three tons, he must keep at least one ton for family consumption and guests. But if the cost incurred on inputs such as fertilizers is taken away, the net income is much smaller. However, the survey showed that the farmers who also have livestock are slightly better off. Notwithstanding, the below given table 4.1 illustrates the plight of a small food insecure farmer (Kugelman and Hathaway, 2010, p. 37).

While the amount of PKR 2000 per month seems much less than the average national minimum wage i.e., PKR 7000, it becomes apparent how difficult would it be for the small farmer to make their both ends meet. In Sindh, where family size is bigger, the consumption of wheat might be higher at the household levels leaving little in the hands of a farmer as cash income. Lack of cash means a number of issues. For example, investment in education and new farm equipment or in purchase of high quality seed is limited. Therefore, it results in low investment in human development which keeps the farmer trapped in a cycle of low income and poverty.

Table 4.1**Characteristics of <2 ha Farm (estimated averages), 2008-09**

Zone	Farm Size (ha)	Area Allocation to Wheat (ha)	Wheat Yields (tons/ ha)	Family Size (no)	Livestock (no)
Punjab					
Rice - wheat	1.41	0.8	2.964	6	10
Cotton - Wheat	2.02	1.42	2.865	5	6
Mix Zone	1.01	0.8	2.668	4	4
Sindh					
Rice - wheat	2.02	2	1.778	10	0
Cotton - Wheat	2.02	1.8	3.458	8	1
Mix Zone	2.02	1.42	2.47	14	5

Source: (Kugelman and Hathaway, 2010, p. 36)

It appears that owing to increase in the prices of agriculture produce, an additional amount of PKR 342 billion was transferred to the rural areas in 2010-11. A large segment of this amount actually went to rural areas on account of higher prices of major crops such as wheat and rice (MOF, 2011).

Higher prices have actually enabled the small farmers to increase food security for one to two months. However, income from wheat is not enough. 'The farmer understands that wheat or grains alone will not sustain him, and that he requires a diversified food income that involves integrated farming', argues Zafar Altaf in his chapter in (Kugelman and Hathaway, 2010). The below given table 4.2 depicts the food security challenges of small farmers on a household level, based on survey data for 2008-09.

Much has to do with the system of distribution of food in Pakistan. This is where the social and economic policy environment of Pakistan needs a turnaround. Instead of singularly focusing on enhancing production mechanisms of ensuring equitable distribution is the case in point. For example, in Pakistan despite bumper crop in wheat during the last few years many people faced food insecurity in the countryside since even farmers have to buy wheat which they sold in the market. Critiques argue that, the capital intensive techniques of production coupled with duty-free import of machinery will harm the growth of domestic agriculture equipment industry.

Table 4.2

Household Income Expenditure and Food Security, 2008-09 (food security on <2 ha surplus-wheat-growing regions; estimated averages)

Zone	Net Income (Wheat + Livestock Rs/\$)	Total Expenditure (Food +Non food Rs / \$)	Deficit Amount	Food Share in total Expenditure
Punjab				
Rice -wheat	46,898/586	78,304/979	(-)31,406/393	68%
Cotton- Wheat	57,688/721	63,530/794	(-)5,841/73	72%
Mix Zone	53,022/663	6,220/78	(-)9,418/118	78%
Sindh				
Rice -wheat	50,770/635	81,660/1021	(-)30,890/386	87%
Cotton - Wheat	115,195/1440	121,664/1521	(-)6,469/81	66%
Mix Zone	128,995/1612	161,140/2014	(-)32,145/402	61%

Source: (Kugelman and Hathaway, 2010)

On another count, it has been argued that instead of leasing or selling land to foreign companies, the local communities, the tenants, the landless poor, should be given the cultivable wasteland owned by the government. It will bring them out of the poverty trap and provide them better livelihoods (Malik, 2011). However, looking at the agrarian change situation in Pakistan, it seems that the country needs a bigger push for human development and capability approach-like interventions at the local levels.

Wither Indigenous Communities?

Activists from CSOs have argued that the indigenous communities living in Balochistan, Cholistan, Greater Thal and riverine areas will be greatly and negatively affected by CAF. Evictions and resettlements will make their lives miserable and socially undesirable results may crop up. For example, the corporatization of agriculture has resulted in harassment of farmers in Okara where farmers were tilling land for the last hundred years. Now the Government is forcing them to evict the land. Another instance is equally worth mentioning here. In Cholistan, the total cultivable area is 6.6 million acres while the total population is 1.2 million. The government should distribute this land to the indigenous people but so far only 350000 acres have been distributed (Malik,2002).

Conclusion

The Policy package announced by the Government of Pakistan must factor in the development rights of the small farmers. It must factor in the local food security situation and concerns of equity in distribution of food along with efficiency. The government must invest more money in human development of small farmers so that they are mainstreamed in the new forms of agriculture as well as promote their own ways of living. It requires a radical change in public policy making processes and the voices of the poor small farmers must be heard and corrective measures taken. With this conclusion, the next chapter explore the links between CAF and food security.

Chapter 5: The Relationship between Corporate Agriculture and Food Security

It has been argued in the previous chapter that development rights of the small farmers and food security lens must be used to assess the CAF. Various research studies show that Pakistan is facing food insecurity despite significant progress made in food production since 1960s. Empirical evidence claims that around half of the people in Pakistan suffer from absolute to moderate malnutrition which is a one significant dimension of food security. This dimension sheds light on the accessibility and absorption of food intake to a considerable extent. This aspect is also a significant factor in productivity growth of human capital. The most vulnerable in food insecurity situation are children, women, and the elderly even within the lowest income group (Arif , 2006).

The proponents of CAF in Pakistan support the corporatization of the agriculture sector to overcome the food crisis. For example, Sartaj Aziz, in his report titled 'Task Force on Food Security', has supported the idea of corporate and cooperative farming to overcome the food insecurity. He argues that as a result of shrinking of farm size with the subdivision of holdings due to the law of inheritance, the efficiency and profitability of agricultural farming is being affected. He proposes the introduction of corporate farming to address the issue of the farm size (Aziz, 2009). There is a need to reexamine this claim.

Many researches on agriculture and food security claim that this is not only the availability of food which makes people but a host of other factors influence it. For example, Amartya Sen's research on famines claim that availability of information on food stocks, capabilities of people and skill endowments, and entitlements play a central role in ensuring food security (Sen, 1999). At the same time, there are researches which claim that food security has direct links with sustainable agriculture practices (Khor, 2009).

Pakistan is also an example in which Green Revolution has played a very significant role in increasing the availability of food and reduced extreme shortages in the recent past but a sheer lack of equitable distribution systems has not really removed the threats of food insecurity from the economy. A major act of omission has been a neglect of small farmers who could not really benefit from the new agriculture technologies on the one hand but were also a victim of farm mechanization. The poor farmers had to get out of business and go through transitions from rural to urban livelihood patterns (Khan, 2006, Paarlberg, 2010). It has been argued that regional disparities also widened as the primary gainers of it were irrigated areas. Rains fed areas were not able to benefit from many improved technologies of the

Box 5.1

FAO definition of food security.

"It exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life".

Green Revolution, and were left behind (Ahmed and Amjad, 1984). However, despite engineering solution, 'food insecurity has remained an unresolved problem. A recent report by a British company, Maplecroft, which provides risk intelligence service for businesses – has ranked Pakistan 11th most food stressed country. In an indexation of 148 countries, only states like Angola, Haiti, Mozambique, Burundi and Congo precede Pakistan' (Khan, 2009).

While the evidence about increase in production without a sustainable solution to food security is abundant and convincing, climate change has added another dimension in food security debate.

Climate Change and Agriculture

The effects of climate change on agriculture sector in Pakistan are a serious concern. Under climate change situations, extreme fluctuations in irrigation water being warned against. There is a possibility of over flooding during summer season due to intensive summer rains as is evident from 2010 floods. Acute water shortages during winter season due to higher crop water requirements and decline in water reservoirs caused by reduced water supply is also expected. In order to minimize natural resource degradation as a result of climate change, there is a need to enhance knowledge and capacity of farming community for sustainable management of natural resources³.

Climate change in deed affects all the four dimensions of food security. It affects food *production* and *availability* through adverse changes in agro-ecological conditions. It has a whole range of political economy of dislocations and conflict implications in this sense (Chatterjee and Khadka, 2011, Dell *et al.*, 2008). With fluctuations in crop yield it also reduces *supply* of food. With reduction in production and supply of food, climate change affects *access* to food by means of low production and high prices. Ultimately, climate change has the potential to affect the food *utilization* due to emergence of health conditions and food safety issues (Chatterjee and Khadka, 2011).

Small and Cooperative is Beautiful?

It has been argued in various researches that it is possible that small farmers make efficient use of their resources. They produce diversified and more food. It has also been claimed that small farms are sustainable and environmental friendly while no displacement occurs as a result of small farming (Chatterjee and Khadka, 2011). Instead of corporate farming, redistributive land reform is the best available solution to overcome the crisis of food insecurity in Pakistan (Malik, 2002). Cooperative

³ For detailed presentation please visit

http://www.cdmpakistan.gov.pk/cdm_doc/what%20are%20expected%20impacts%20of%20cliamte%20change%20in%20pakistan.pdf [Last Accessed: 16 January, 2012]

model of farming could be employed on these farms to increase their productivity (Aziz, 2009). This model has the potential to feed more people ultimately leading towards economic development. It would also conserve biodiversity and productive resources.

Small scale farms can make valuable contribution to the growth of Pakistan's agriculture if they are provided with more resources to compete. This is possible only through the right kind of policy and investment from the public sector. Some preliminary evidence suggests that redistribution of land to the landless poor has resulted in wellbeing of the rural poor (Zafar, 2011). Genuine land reforms are needed in order to reduce the poverty and improve the well being of the people (Zaidi, 2008). Small farmers in Pakistan use a broad array of resources. And since their very survival depends on it, they have a vested interest in their sustainability. Their primary strength lies in diverse farming systems and they incorporate and preserve functional diversity in their farms (Gosh, 2003; Zafar, 2011). However, what is needed is to ensure public action in the direction of making small farms competitive while improving their techniques of production, improving their access to finances as well as improving their position in value chains. Other things being equal, it appears that CAF is not really supportive to the existence of small farmers and thus their food security through direction involvement in production (Gosh, 2003).

Conclusion

Corporate farming is not a viable solution to food security and environmental problems since the only objective of corporations is to maximize profits at the expense of local ecology (Suleri, n.d.). A food security and climate change strategy must incorporate perspectives of small scale farmers in agriculture sector. They have potential of diversification which can be a big resource in fighting food insecurity under climate change situations. The next chapter explores the potential impacts of CAF on small scale farmers in Pakistan while drawing lessons learnt from other countries as well.

Box 5.2: Main Elements of Task force on Food Security

- Ensuring adequate supply of food by achieving an average agriculture growth rate of four per cent
- Evolving an efficient and equitable system of food procurement, storage and distribution
- Improving the access of poor households to food
- Building a transparent and well managed system of safety nets

Source: (Aziz, 2009)

Chapter 6: Potential Impacts of Corporate Agriculture Farming on Small Farmers

As discussed in previous chapters, there is growing body of literature which argues that CAF has the potential to bring in efficiency and expand the production of food thereby affecting the availability situation. However, there is also an equally important body of literature which asks for restraint in building a success case of CAF. The proponents of this approach bring in empirical evidence from different countries including the USA and Sub-saharan Africa to develop a case for the rights of small scale farmers (Gosh, 2003; UNSIB, 2010). While the evidence is still emerging, it appears that without catering to the special needs of the small farmers to keep them in the business or to shift them to new occupation, there is a threat of CAF creating a difficult situation for the tenants, landless, and the small land owners.

Land and Water Rights

It is argued that being an agrarian country, around 67 percent of the population in Pakistan is directly or indirectly linked to the agriculture sector. Agriculture sector contributes one-fourth to the GDP of Pakistan. This sector also employs 44 percent of the population of Pakistan (MOF, 2011). However, despite being an agrarian country, food shortages occur in Pakistan time and again. There is no surprise that Pakistan is a net food importing country where the threat of insecurity looms large. At the same time, there are perceptions amongst the farming community that Pakistan faces threat from the investors and MNCs involved in the business of CAF since it will negatively affect their use of land and water resources (Chandio, 2009).

Employment and Displacements

During conferences and seminars organized by the pro-poor civil society organization, concerns have been voiced against the excessive mechanization of farming by the big investors and MNCs. Concerns have been raised specially in the context of employment and utilization of labour thereby threats of increase in poverty and hunger. In addition, Pakistan is a water-stressed country and at number of times farmers could not get good yield due to shortage of water. In such circumstances, diverting water resources to corporate farms would deprive small scale farmers of the required water. The net result will be displacement of small farmers and a lull in debate over land reforms which could aim at redistribution of productive resources for poverty eradication and food security (Chandio, 2009).

Excessive Competition

It has been argued that the CAF will increase wasteful competition in the agriculture sector to the disadvantage of the small farmers. The small scale farmers without a credible access to upgraded technology and managerial skills, will find it extremely hard and resource-constrained to achieve the new high level equilibrium in

production and sales of their produce. As a result, the small farmers will not be able to continue in this competitive environment severely constraining their ability to survive even at the subsistence levels. It is feared that such a competitive environment may force the local farmers to sell its land to corporate agriculturists thus putting the rural social fabric in turbulence (Shah, 2009).

Loss of Land and Finance

While there is no limit to land holdings under the CAF policy of Pakistan, it is feared that it will end up increasing inequality in the rural settings. In addition, it will cause evictions of farmers and a move towards cities. In addition, it has been feared that the direction of finance for agriculture will be further skewed leaving small scale farmers more at the mercy of informal and exploitative money lenders (Shah, 2009). There is a possibility that profits in agriculture rise enormously concomitant with productivity growth but not translating into jobs and thus lapsing into a jobless growth situation.

Inclusion of Women

In small scale agriculture, women play a vital role in ensuring food security by providing support to food production, processing, and trading (SDPI and WFP, 2004). In fact, women are responsible to more than half of the world's food production but their work as subsistence farmer and unpaid caregiver is not recognized and so remains invisible in economic statistics (MHHDC, 2010/2011). Therefore, their lower social and economic status limits their access to education, training, land ownership, decision making, and credit which ultimately put cap on the empowerment and growth (Hill, 2003). CAF will not be helpful in radically changing the situation in women's favour and it is possible that their actual situation further deteriorate their position as in the case of India (Gosh, 2003). However, it can be unambiguously claimed that owing to migration of men to urban areas the role of women in agriculture is bound to increase.

Conclusion

It seems that popular perception is that the net effect of CAF will not be congenial for the small scale farmers. The current state of Pakistan's agriculture in which prices of inputs have increased many fold during the last ten years without much improvement in the profits which accrue to the small scale farmers, CAF is not designed to help alleviate their situation. However, there are possibilities that public action to improve their technological capability and managerial acumen to upgrade on value change matrix can be very important. Currently, under the contract farming, small scale farmers may be better off if their competitiveness in agribusiness is improved. Other things being able, the small farmers may be the net losers in the new competition which CAF brings in the market.

Chapter 7: Conclusions and Policy Recommendations

Over the years, Pakistan has transformed itself from quasi-feudal society to a more capitalist orientation in agriculture economy. The peasant households and animal power used in sharecropping and tenancy is declining while khud kasht or self-cultivation by owners is increasing. Those small farmers have been worse off in agriculture farm activities, during the last thirty years, who were either landless or engaged in sharecropping, and those who owned very small farms.

While CAF argues to bring in economic efficiency, increase production and productivity by adding technological resources, as well as increase exports. It also promises to bring in new investment in agriculture which is vital for less developed countries. However, there is a need to look at the key drivers behind such moves. This analysis shows that these are food, fuel, and water resources which are drivers behind motivations of acquiring land in foreign destinations.

Looking at CAF from the perspective of food security and environmental problems, it appears that there are serious threats to fragile ecosystems as well as subsistence of small farmers specially the women. A food security and climate change strategy, flanking CAF policy, must incorporate perspectives of small scale farmers in agriculture sector. It seems that popular perception is that the net effect of CAF will not be congenial for the small scale farmers. Ever increasing input prices and changing technologies necessitate upgrading small scale farmers on value change matrix. Currently, under the contract farming, small scale farmers may be better off if their competitiveness in agribusiness is improved.

Last but not least, the policy package announced by the Government of Pakistan must factor in the development rights of the small farmers. It must factor in the local food security situation and concerns of equity in distribution of food along with efficiency.

Key Policy Recommendations

- A review of the CAF of Pakistan is needed from a human development and food security perspective. It must involve all stakeholders specially small scale farmers and pro-poor civil society organizations
- The binding constraints on small scale farmers such as access to technology, finance, and other input resources must be reduced
- Special efforts should be made to improve agriculture infrastructure which increases diversification in farm produce of the small scale farmer. Fruits and vegetables are one of such key areas
- A serious thinking of land distribution must be taken. Small scale farmers may be given state land to help remove poverty and increase income opportunities
- There is need to formulate a climate change response policy in Pakistan which addresses to the questions of small scale farmers and their vulnerabilities.

Public action with support of CSOs is needed to improve adaptation and resilience of small farmers

- Cooperatives of the poor farmers which are managed by professionals should be encouraged and special policy be made as well
- The central policy recommendation is to develop special focus in mainstream development activities which targets the poor small scale farmers on priority.

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Key Dates and features of land and tenancy reforms in Pakistan

Year	Reform	Key Features and Recommendations
1945	Tenancy Laws Committee, Sindh	Occupancy rights should be granted to haris who had personally cultivated at least 4 acres of land annually for the same zamindar for 8 years.
1947	Hari Committee Sindh	Defended the landlords, famous Note of Dissent from the one member who argued for radical changes in the land tenure system.
1949	Muslim League Agrarian Committee Report	Abolition of jagirs, security of tenure for all tenants; share rents should replace rent-in-kind; ceiling of landholdings of 150 acres irrigated and 450 acres for un-irrigated; land distribution to tenants and compensation to landlords (report shelved).
1950	Punjab Tenancy Act	No charge by landlords from tenants other than 50% crop share.
1950	Sindh Tenancy Act	Permanent rights of tenancy to long term tenants, eviction rights to landlords under certain conditions.
1950	Punjab protection and restoration of tenancy rights Act	Eviction of tenants allowed only under specific conditions.
1952	Punjab Tenancy (Amendment) Act	Abolition of occupancy tenancy; transfer of ownership rights to occupancy tenants, share of landlord reduced from 50% to 40 %
1955	Executive Order	Abolition of jagirs and other revenue free grants; like other zamindars, now jagirdars required to pay land revenue. Landlordism remained intact, for no limit to ownership as long as legal dues paid to the government.
1955	Challenges to the Executive Order	Challenges upheld by Sindh High Court

1959	Land and Tenancy Reforms - Martial Law regulations 64, 64A and 64B	Ceiling on landholdings: 500 acres irrigated, 1,000 acres unirrigated additional land allowed to bring landholdings to equivalent 36,000 PIUs; resumed land to be sold first to tenants and then to small farmers, abolition of jagirs, occupancy tenants made owners; all tenants, haris and tenants at will given legal protection; rents to be paid in kind and all charges other than crop share abolished.
1972	Land and Tenancy reforms - Martial Law regulation 115 and amendments	Ceiling on landholdings: 150 acres irrigated, 300 acres unirrigated or equivalent of 12,000 PIUs + 2000 PIUs for tractor and tubewell owners; no compensation to landowners, land redistributed without charge to landless tenants cultivating resumed land; untenanted resumed land redistributed without charge to small owners/ tenants with holdings below subsistence; share system remains unchanged; land revenue, water rates, and seed costs borne by landlords and cost of fertilizers and pesticides to be shared equally; tenant eviction decided by revenue courts if tenant failed to pay rent, failed to cultivate land, sublet tenancy, or rendered land unfit for cultivation.
1977	Land reform Act	Landholdings: 100 acres irrigated, 200 acres unirrigated or 8,000 PIUs equivalent; compensation to landowners on resumed land at Rs 30 per PIU; redistributed as in 1972. The Act was completely ignored by the military government after July 1977.