

Key Challenges Facing Pakistan Agriculture: How Best Can Policy Makers Respond? A Note

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Introduction

The recent unprecedented increase in global food and commodity prices has focussed attention, both domestic and international, on how best to cope with the immediate impact of these increases on the poor and the vulnerable households who spend nearly four-fifth of their incomes on food. Indeed, FAO (2008) estimated that in 2007 globally around 75 million people joined the number of hungry as a result of the increase in food prices. Several subsequent studies have reinforced the findings that millions of people have become food insecure and being pushed into poverty across the globe as a result of increases in food grain prices (IFPRI et.al. (2009), DFID(2009), UN (2008) and Ivanic and Martin (2008a). Studies on Pakistan have also drawn the same conclusion (Chaudhry and Chaudhry (2008).

While the immediate focus of attention has rightly been on cushioning this impact on poverty and hunger, the agriculture sector as a whole is now being examined in its entirety not only on how best it can ensure food security and combat hunger but also its role in economic development in a globalized economy.

For if this increase in food and commodity prices signals a secular change in the international terms of trade in favour of agriculture, and there is reason to believe this is so given the global upward shift in demand for food grains, then the agriculture sector can become the major engine of economic growth and development especially for developing countries like Pakistan. Also the traditional argument that increasing economies of scale are found only in industry because innovation and technical change drives productivity growth mainly in this sector, is also not increasingly true. Agriculture is also witnessing large and sustained increases in productivity due to the introduction of hybrid seeds, new forms of cultivation and other technical and scientific advancements.

In Pakistan the new democratic government is giving the highest priority to developing agriculture as well as assigning it a leading role in the development strategy being formulated for the forthcoming 10th Five Year Plan (2010-15). This Note identifies some of these critical challenges that policy makers face in assigning agriculture this leading role as well as examines how applied economic research and learning from other countries experiences can help provide guidance to some of the answers that the policy makers desperately seek.

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KEY ISSUES AND CHALLENGES

Agriculture Pricing : Should the Government be in the business of administering prices?

Neo-classical (now neo-liberal) economics is fairly clear that prices of agricultural commodities should be determined by market forces and no restrictions should be placed on their movement both in the domestic market as well as on their exports and imports. Such a free market regime would ensure that prices closely reflect world prices and result in the optimal utilisation of resources. Reality, however, is very different.

In Pakistan in its formative years after independence in 1947 the process of industrialisation (or “primitive accumulation of capital”) was financed indirectly through an import-substitution and pricing regime which changed the terms of trade in favour of manufacturing and against the agriculture sector (Amjad,1982). This resulted in rapid industrialisation and a country with hardly any industries at independence saw by the end of the 1950s the emergence of a significant consumer good industrial base.

Even though in subsequent decades the situation faced by the agriculture sector somewhat improved as the economy opened up and price controls were gradually reduced including the abolition of the food rationing system in the 1980s, agricultural prices remained on average less than 30 per cent of world prices. A recent study (Salam, 2009) has calculated that as a result of price controls and trade restrictions the resulting distortions led to an annual reduction in earnings of the major crops by almost \$1.7 billion on average during 2001-08 (see Table 1 and 2). This would be almost 15-20 per cent of the value of these major crops

Table 1: Average Annual Transfers from Selected Crops

Period	Wheat	Basmati paddy	Coarse paddy	Seed Cotton	Sugarcane
US \$ / metric ton					
2001-05	96.95	47.47	0.17	70.46	1.40
2006-08	139.39	49.64	19.26	38.66	1.21
2001-08	112.87	48.28	7.33	58.54	1.33

Source: Salam, Abdul (2009).

Table 2: Annual Resource Transfers from Selected Crops (\$ million)

Period	Wheat	Basmati paddy	Coarse paddy	Seed Cotton	Sugarcane	Total
Million US dollars						
2001-05	951	103	1	365	59	1478
2006-08	1599	143	66	233	53	2093
2001-08	1194	118	25	315	56	1709

Source: Salam, Abdul (2009).

Fixing Price of Wheat 2008-10

Wheat is the staple food of the people of Pakistan and accounts for nearly 40 per cent of value added in the crop sector.

In a decisive move the new democratic government that took over in March 2008 decided to raise procurement prices² of wheat for the incoming wheat harvest in Spring 2008 at Rs. 625 per maund³ from the price of Rs.425 per maund fixed by the last government to ensure better returns to farmers. This was also partly a reaction to the fiasco that had resulted from the policies adopted by the last government which had fixed the price well below world prices for the Spring 2007 wheat crop. Believing it had a bumper crop the then government had first allowed the export of wheat, but since it had fixed the price of wheat well below world prices a large part of the wheat crop was smuggled into neighbouring countries resulting in acute shortages. The government eventually was forced to import wheat at much higher prices than it had exported.

In fixing the higher price of wheat for the Spring 2009 crop the government relied amongst others on the recommendations of a Task Force of eminent experts that recommended fixing prices as near as world prices and announcing them well before the wheat sowing season.⁴ A wheat price of Rs. 950 announced by the government in September 2008 was almost 52 percent higher than its previous price. This resulted in a bumper crop, as farmers shifted land to wheat production as well as used more inputs, forcing the government to buy large quantities of wheat to maintain prices it had fixed. This led to a large build up in government reserves for which it had neither the godowns to store nor had allocated sufficient funds to pay for their storage. Also prices in neighbouring countries were lower so no wheat was smuggled out. Also world prices of wheat had begun to fall so that the government could only export wheat at a loss which it was not prepared to do.

In announcing the higher price of wheat for Spring 2009 crop in line with world

² The procurement price fixed by the government is the price it would buy wheat though farmers are free to sell to the government or private traders.

³ A metric ton (1000 kg) is equivalent to 25 maunds with 1 maund = 40 kg.

⁴ See Report of the Task Force on Food Security, Planning Commission, Government of Pakistan, 2008.

prices though welcomed by the farmers led to other problems. First and foremost it adversely affected the poor in urban areas and the landless labour and very small farmers (who do not grow enough to meet their needs) in rural areas. It also fuelled inflation in the economy that was then running at over 25 per cent. The government partly tried to offset this by providing direct income support to poor households in both urban and rural areas (of Rs 1000 per family per month through the Benazir Income Support Programme).

Announcing the price of wheat for the Spring 2010 crop again posed a dilemma to the government as international wheat prices had fallen to nearer Rs. 700 per maund. However, the government could not reduce the price it had fixed earlier and decided to maintain wheat prices at Rs. 950 per maund much to the disappointment of the farmer lobby.

Key Issues

This review of government interference in fixing the price of wheat in recent years to bring them in line with world prices as well as ensuring better returns to farmers is an illustration of the challenges a government can face when it intervenes in agricultural markets. The new government has also fixed minimum prices of rice in the last two years with limited procurement targets and faced similar challenges. In a related move the Supreme Court of Pakistan upheld an order of the High Court that fixed sugar prices at Rs. 40 per kilogram (Kg) which was well below the prevailing world price. The result was that sugar disappeared from the market and was available in limited quantities at nearer Rs. 60-70 per Kg although the government sold its sugar stocks through Public Utility Stores at Rs. 40 per Kg. Once the Supreme Court order receded sugar is now available in the market at around Rs. 70/- per Kg.

Some of the key questions that arise from the Pakistan's experience can be posed as follows:

- Should the government intervene in agriculture markets or leave them completely to market forces?
- If it does intervene what should be the basis on which prices should be fixed?
- If it does fix prices in terms of world prices how should it deal with problems arising from large fluctuations in world prices?
- How do you reconcile incentives to farmers through higher prices with affordable protection to the poor and vulnerable households who spend around 80 per cent of their incomes on food?
- If farmers are paid world prices for their products should they not also pay income tax (from which they are currently exempted in Pakistan) as do other

income earners in the country? How is this done in other countries?

- What are the possibilities of opening up trade in food grains in South Asia and the experience so far including the setting up of a Food Security Bank?

Research and Sharing of Country Experiences

The issues outlined have been much researched but in the current global milieu there is need for serious re-examination. At a minimal research can help policy makers realise the costs and benefits of the decisions they take. Also how other developing countries are deciding on these issues would help policy makers learn from each others experiences. The problem at the moment is that the IFI's, namely the World Bank and in Asia the ADB, have very rigid views on these issues (i.e. leave it completely to market forces with no trade restrictions) which are for most developing countries neither politically feasible nor necessarily economically the most efficient. Also equity issues do not lend themselves to easy solutions when such policy regimes are adopted. The search should focus on second best solutions which come as close as possible to ensuring efficient outcomes as well as meeting needs of the poor and vulnerable.

Reducing Rural Poverty: Empowering the Poor

While there remains considerable debate on levels and trends in poverty in Pakistan especially post-2001 where official estimates suggest a significant decline to around 22 per cent in 2005-06 as compared to nearer 35 per cent in 2001-02, there is no disputing the stark finding that poverty in rural areas is much higher as compared to urban areas. Rural poverty was estimated in 2005-06 at 27 per cent which is almost double that of urban poverty at 13.1 per cent (Pakistan Economic Survey, 2008-09). Also there is evidence to suggest that poverty is higher amongst females as compared to males. Estimates for 2007-08 which have not been officially recognized suggest that poverty levels may have further reduced to around 17 per cent overall which appear to be somewhat counterintuitive given a significant slowing down in the economy in that year and with inflation being at 12 per cent.

Pakistan's agriculture economy is characterized by an extremely skewed ownership of productive assets, particularly land and water. There are a large number of small, resource poor and subsistence farmers (86 per cent of 6.6 million farm households) who own less than 50 per cent of the land and water resources and a small number of large farmers (14 per cent of the total) owning more than 50 per cent of the resources. About a third of the rural labour force consists of landless labour which together with very small farmers (2 hectares or less), especially tenant farmers tend to be the poorest in the country. (see Annex Table I and II).

The challenge is to devise policies which make agriculture more equitable for small farmers and landless labour.

This is again a much researched area but there are two major initiatives by the newly elected democratic government on which sharing of country experiences would be particularly helpful. These relate to distributing state lands amongst the landless and the second is poverty alleviation through small holders livestock and diary development.

*Distributing State Land Among the Landless and Small Tenant Farmers*⁵

There is a growing body of research in Pakistan (drawing on the New Institutional Economics) that argues that a major factor hindering economic development is the limited access nature of its underlying social order.⁶

This school argues that poverty in Pakistan is not simply the result of adverse resource endowments but because the poor are locked “into a nexus of power which deprives the poor of their actual and potential income.”⁷ This power structure which includes state institutions and local powerful elite discriminates against the poor in gaining access over productive assets, finance, public services and governance decisions which makes it almost impossible for them to break out of poverty.

For them to break out of poverty requires first providing access to land for the landless labour as well as tenant households to buy land and then providing them through institutions over which they have control key inputs such as credit, seed, fertilizer, water extension services and access to markets.

In Pakistan’s case it is suggested transferring the estimated 2.6 million acres of state land to the landless together with the provision of credit to tenant farmers to enable them to buy land. This would make a major dent on improving conditions of landless and tenant farmers.

Pakistan has experience of distributing state land to retiring senior government functionaries both civilian and military. However only in recent years has this transfer been made as a direct intervention for reducing poverty.

The Punjab government in recent years distributed over 1 million acres to landless labour in the province in holdings of 12.5 acres under a number of schemes and provided vital inputs to these farmers to ensure good returns from the land. While no detailed study on these schemes have been published the general impression has been that they have been successful in terms of significant improvements in living standards and human development indicators of households who gained ownership rights to this land.

More recently the new democratic provincial government in Sind has also put in

⁵ This section draws on the Report of the Sub-group on “Growth Strategies and Development Priorities” (2009) of Panel of Economists set-up by the Planning Commission, Government of Pakistan and is led by Dr. Akmal Hussain.

⁶ See Akmal Hussain (2004) and Akmal Hussain (2009).

⁷ Planning Commission, Approach Paper to 10th Five Year Plan (2010-15), June, 2009 (p.30).

place a scheme to distribute state land to poor women (under the *Benazir Behan Basti Programme*) who are receiving direct income support under the Benazir Income Support Programme). No evaluation has yet been done of this scheme which was launched in 2009.

The author is not aware of any current or past schemes that assist tenant farmers in gaining access to lands they currently cultivate though this proposal is contained in the Approach Paper to the 10th Five Year Plan (2010-15) (see Planning Commission, June 2009).

Key Issues

The issues related to land distribution through land reforms or resettlement programmes in new lands brought under cultivation has been extensively analysed. However, there are a number of key issues which need in-depth research from which policy makers could benefit including through other country experiences. These relate to:

- Understanding the working of rural agriculture land markets and how such land could be made accessible to the poor landless and tenant farmers.
- Successful support programmes for providing key inputs to settle farm households who have been given land rights and especially those programmes in the running of which they are directly involved.
- Programmes which distribute state land to poor women for cultivation and housing.

Poverty Alleviation through Smallholders Livestock and Dairy Development

Only when it dawned on economic planners that livestock accounts for 52 per cent of agriculture sector GDP (Pakistan is the 5th largest milk producer in the world) that serious attention has been given to encourage its development. The private sector has, however, been active in the setting up of cool chains including foreign companies (eg. Nestle) which collect milk from designated points in rural areas and then sell as packed milk in urban areas.

Again what is not sufficiently recognized is that landless labour which account for almost one-third of agricultural households depend on livestock as an important source of income, which provides a regular flow of cash income on daily basis and livestock keeping which is mainly done by unpaid female household members is crucial for meeting their nutritional needs. Available evidence also indicates that extent of reliance of farm households on livestock is inversely related with farm size. The Government in Pakistan thus sees small holder dairy development particularly for landless as providing considerable potential for poverty alleviation.

Given acute scarcity of available village land and high prices for land the landless find it extremely difficult in finding appropriate space for their milch animals. Other constraints faced by them include inadequate nutrition, veterinary health and artificial insemination coverage. They are also exploited by “dhodies” (milk sellers) and also by foreign companies who offer low milk prices to them. Given that land is not available many landless labour keep their milch animals at “deras” (enlarged living quarters) of large landowners and in return they have to work for them with little or no wages.

To alleviate poverty amongst landless labour the government has therefore decided to launch a Smallholder’s Dairy Development Project which will assist them in increasing milk productivity as well as free them from exploitation by “dhodies” and big landowners. Important elements of the scheme include provision of land and infrastructure for community farms, setting up of farmer’s organizations, technology/input support especially provision of credit, support for improvement in health and breed of animals as well as support in processing and marketing of milk.

Key Issues

While analyzing growth and development of the agriculture sector economists as well as policy makers have not given sufficient attention to the development of the livestock sector which as we have seen can also be an important means of alleviating rural poverty. Policy makers could learn from other countries experiences especially in devising targeted programmes for small farmers and landless livestock holders. Some of the issues that need investigation are:

- Analysis of the role of the livestock sector in alleviating poverty especially female poverty in rural areas.
- Analysis of local, national and regional markets for milk and milk products and how livestock owners especially small farmers and landless can tap these markets and get better prices for the milk they sell.
- Livestock ownership as a means of providing economic support for poor rural households especially in meeting their nutritional needs and how these may be adversely affected by increasingly selling their milk for generating cash income.

Corporate Farming: Should it be encouraged in labour surplus economies?

With a highly skewed land distribution and labour force growth at near 3 per cent, amongst the highest in the world, the issue of encouraging corporate farming and more recently leasing out of large tracts of land to foreign companies or governments has become a highly emotive issue in Pakistan.

The economic case for not encouraging large scale corporate farming in Pakistan has been mainly based on the premise that this would lead to an ejection of existing farmers especially tenant farmers and at the same time reduce labour absorption in

agriculture. With job generation in the formal sector being very low these ejected farmers and landless labour would only be absorbed in the urban informal economy which already suffers from low productivity, low incomes and extremely poor and hazardous working conditions.

The debate on corporate farming has been intensified in recent months when with the recent increases in food and commodity prices led many countries exploring possibilities of meeting their food grain needs by buying or leasing out of land in neighbouring countries and thus ensuring food security for themselves . In Pakistan such interest has been seemingly expressed by neighbouring Middle-East countries.

It is also claimed that South Korea and India have leased land in African countries for the production of the so-called miracle crop *Jatropha* which has not quite lived up to its expectations.

Key Issues

Issues related to corporate farming and even leasing out of large tracts of land to foreign companies or countries needs some dispassionate analysis because the answers to these questions may well not be in black and white but be conditional on land location, its physical characteristics and local labour market conditions. If for example Pakistan was to lease out semi-arid land and those wishing to lease it are prepared to make sufficient investment to make the land cultivable then this would increase labour absorption and benefit the local economy. Also the conditions of the lease could be such that the land would after some time revert to national ownership. These conditions may also include limits on the use of surface and underground water as well as transferring of technology etc. Also in Pakistan some local large land owners have gone in for large scale corporate farming but rather than just eject those who were already farming the land they have absorbed them in activities both farm and non-farm which they run.

Some of the issues that therefore need to be researched could focus on:

- Advantages and disadvantages of large scale corporate farming and identifying conditions under which it should be encouraged or discouraged.
- Under what conditions should countries allow leasing of land to foreign companies or foreign governments without compromising on national economic interest and sovereignty.

Encouraging world class economic research on key agriculture (and trade related) issues

Policy makers in Pakistan are starved of information and analysis on key economic issues some of which have been highlighted in this note.

The Government is therefore seriously considering setting up of a very high

quality research policy unit in the Ministry of Agriculture.

However, past experience suggests that such government based research units are rarely successful and get mired in bureaucracy and fail to attract good researchers even if they are paid market based salaries.

Pakistan has a number of Agriculture Universities and a very large Pakistan Agriculture Research Council but these bodies are much better at doing scientific research rather than research on key economic issues.

This raises some fundamental questions on how research should be organized that concentrates on key economic issues such as terms of trade, agriculture pricing and other such important issues. Currently advice on these issues is given by the World Bank and the Asian Development Bank including under programme loans with conditionalities that their economic viewpoint on these issues is strictly implemented.

Key Issues

Governments can learn from each others experiences in conducting and drawing on policy relevant research in taking agriculture related decisions. Some key issues are:

- How best can research on key agriculture issues be organized which is both timely and relevant to needs of policy makers?
- Should research be conducted in bodies working in government or should these be done in independent research organizations and if the latter how should the government support the setting up and growth of such organizations.
- Role of international organizations (eg. GDN) in providing support to building up of such research capacity both at the national level as well as through pooling of global knowledge.

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Annexure 1: Average Farm Size in Pakistan (in hectares)

Years	Punjab	Sindh	NWFP	Balochistan	Pakistan
1960	3.55	5.94	3.28	9.96	4.07
1972	5.29	5.12	3.69	10.16	5.28
1980	4.75	4.69	3.14	7.80	4.68
1990	3.71	4.34	2.21	9.63	3.78
2000	2.91	4.04	1.67	7.83	3.10

Source: Economic Wing, Ministry of Food, Agriculture and Livestock (MINFAL) Agricultural Statistics of Pakistan (various issues).

Annexure 2: Percentage of Farm Numbers and Farm Area by Farm Categories in 1999-2000

Census year	2 hectares or less		2 to <5 hectares		5 to <10 hectares		Above 10 hectares	
	% farms	% area	% farms	% area	% farms	% area	% farms	% area
1980	34	7	40	27	17	25	9	41
1990	47	12	34	28	12	22	7	40
2000	58	16	28	28	9	19	5	37

Source: Economic Wing, Ministry of Food, Agriculture and Livestock (MINFAL) Agricultural Statistics of Pakistan (various issues).