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Pakistan: Reforming Agriculture as a Means of Reforming Government

Introduction:

Pakistan, a nation of over 159 million people, suffers from a level of poverty that is uncommon among the nuclear powers of the world. At this point in time ten percent of the country is labeled as chronically poor, with another thirty three percent of the populous vulnerable or likely to enter poverty. Nearly eighty percent of the population survives on less than two dollars a day ("Rural Poverty in Pakistan"). Poverty is a cancer that is destroying the country from within.

Two thirds of the nation lives in rural areas. The majority of these people depend on agriculture, specifically the growth of wheat, rice, cotton, and sugarcane for a living. The problem is that most of the land is arid, semi-arid and rugged. Furthermore, water is scarce and irrigation is a difficult undertaking in large parts of the country. Yet, life goes on. Eighty percent of farmers are landless laborers. Those few people who do own land have farms that measure at 5 ha or less. Sharecroppers who work for the wealthy land owners are often in debt, further reducing their earnings. Many people living in the rural areas have insufficient access to safe drinking water, health care, education and other basic services. The likelihood of people escaping poverty decreases tremendously when education is taken in to account. Only half of the population is literate and literacy rates are dramatically lower for women. Only twenty two percent of girls have a primary education, yet women still play a crucial role in the welfare of the household ("Rural Poverty in Pakistan").

Since independence the population of Pakistan has increased fourfold, yet the production of wheat has only increased threefold. With each passing year the amount of wheat imported is continuously growing. Water and irrigation systems are being used inappropriately resulting in crop levels significantly below the expected harvest. Land is distributed in such a way that the upper echelons of the farming population control the majority of the land. The common farmer may have land to till but the credit system is so complicated that farmers go without the capital necessary for agricultural advancement. However, the most detrimental factor to Pakistan's food security has been government policy concerning agriculture. It is of the utmost importance that the government of Pakistan initiates a massive agricultural improvement policy. However, it is in no way appropriate to expect a country without the necessary resources to instigate reforms in every aspect of its agricultural sector. At this point in the most appropriate course of action would be to start reform in one sector and when the time is appropriate expand the efforts.

Definition:

In order for a comprehensive plan to be established one must be familiar with the severity of the issue. The definition of food security as established at the World Food Summit (1996) is, "Food security 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." (Rome Declaration on World). In this regard Pakistan has not been a food insecure nation historically speaking. Since the green revolution the production of grains has increased over three hundred percent, but when the 10% to 16% of crop is allowed as feed, seed and wastage the harvest falls short of meeting domestic needs. As a result Pakistan has had to import an upwards of 15% of its wheat requirements. This relation between the domestic food production and imports is one that has been keeping Pakistan alive both in the individual and national sense. However, this country is dealing with a critical balance of payment deficit and foreign exchange problem. Consequently, a stable supply of food is unavailable for entire country all year round (United Nations. Food and Agriculture Organization 14-16).

Issues:

One of the keys to food security is access to food. In the past year the availability and price of wheat and rice have sky rocketed. In fact, the price of wheat rose 26% in just one month (Vaswani). More and more people line up each day to receive the small portions of food that are doled out at the end of the day. It is blatantly obvious that Pakistan's people cannot keep up with rising prices. The countries urban districts have reported a per capita income below US\$100 a month ("Pakistan: Urban food security"). Half of this income is spent of food, another fifth is spent on housing, and the rest is consumed by clothing and transportation (United Nations. Food and Agriculture Organization 16). Of Pakistan's 56 million urban citizenry 21 million are now food insecure as well as 39 million of the rural population ("Pakistan: Urban food security"). The people of Pakistan do not have the monetary resources to attain the food they need.

Equity is another issue that is significant to the problem of food security. Pakistan has a high level of inequity in land holdings and income. There are great discrepancies in income and development between the various provinces. The most extensive inequities lie in rural areas. This inequity is manifest in land distribution. Only 7% of farmers own 40% of the land. The large land owners have greater access to water, credit, fertilizer, and other farm resources. In contrast 81% of farmers possess 5 ha of land or less. They receive between 20% and 25% of the total agricultural income in comparison to the 60% that large land owners cultivate. Inequity needs to be dealt with because it is a constraint on the growth of the country, both in general and agricultural terms. The concentration of wealth by a small portion of the population has resulted in policies that protect sectional interests and deter growth for the society as a whole (United Nations. Food and Agriculture Organization 20-21).

In the past decade the government of Pakistan policy objectives concerning food security have focused on increasing savings and investment, improving physical infrastructure, and alleviating poverty. Among the key policies is a government plan to achieve food self-sufficiency. This plan aimed to increase wheat production by 20%, establish greater self-sufficiency in vegetable oils, and developing higher value crops for export among other things. The government's plans include a poverty reduction initiative. This plan calls for actions to sustain growth and raise incomes. Projections show that at present the National Poverty Reduction Program will sustain the poverty level at its current state. The government statement is idealistic in the sense that they call for a change yet provide no plan of action. If they are to succeed then policies are needed to ensure that the poor benefit from this initiative, subsidies are eliminated, improved land access in both rural and urban areas, and improved opportunities for women.

Another facet of the food security initiative is addressing problems in the irrigation subsector. Pakistan possesses the world's largest canal irrigation system, obviously that doesn't mean the country is producing at maximum levels. The government is looking to fundamentally change the way in which water is managed and supplied. In dealing with surface water the government seeks to increase the role of farmers in the management of the canal system through the strengthening of current organizations. In terms of ground water, new regulations have been proposed and the use of new technologies, such as fractional tube-wells is being promoted. To control flooding, the government is instigating a series of watershed management programs in important catchment areas (United Nations. Food and Agriculture Organization). The success of these plans relies heavily on the means of their implementation. The final portion of the food security plan is one under much scrutiny. It calls for the increased exportation of agricultural commodities, chiefly rice and cotton. At the time that this plan was proposed the exportation of rice would have been a viable option, but in current circumstances rice may be needed as a substitute for wheat.

Past Actions and a New Direction:

The plan that the Government of Pakistan has proposed is sound in rhetoric but lacking in details. Without a clear plan of action the country will not be able to rise of the current predicament. Furthermore the plan does not address some of the key issues concerning food security. A comprehensive plan is required, one that covers all issues ranging from efficient use of natural resources to the proper productivity enhancement of major crops.

In terms of natural resources the government should pay special attention to land and water reform. The lands currently under cultivation need to be looked after. The focus on reform concerning these lands should be on soil erosion, water logging and salinity, and soil fertility. Furthermore, Pakistan can take up new lands for cultivation. There are approximately 4 million acres of land in the riverine belt that are not being utilized. There is no shortage of moisture in the area, allowing a crop intensity of 140% according to some estimates. There are also lands available in the coastal regions of Balochistan and Sindh (United Nations. Food and Agriculture Organization 27).

The Pakistani government has shown that it understands the importance of reform in the area of water and irrigation. Currently the World Bank is assisting the irrigation and drainage improvement program. The Asian Development Bank is also proving monetary aid in this initiative. However, it is of the utmost importance that comprehensive water resources and irrigation plan be created with the technical support of UN agencies. Further regulations must be placed in Balochistan and parts of Sindh with respect to use of the scarce water resources. In Balochistan the water table is falling dramatically due to the over construction of wells (United Nations. Food and Agriculture Organization 28). In parts of the country where water is available in extremely limited quantities techniques for better harvesting of rainwater need to be implemented along with the implementation of better water usage practices.

With respect to improved farming techniques, special attention should placed on issues of seed, credit availability, and pesticide use. Better quality seed is essential to increasing the productivity of farms. To promote the use of quality seed the government should seek to involve the private sector at a greater level than before. The FAO has supported this policy in the past and should continue to do so. As aforementioned the credit system is overly complicated, causing small farmers with limited monetary resources to forgo applying for loans. The one window operation that was initiated in the past few years has had success and should be supported in the years to come (United Nations. Food and Agriculture Organization 29). The agricultural loans should be made more flexible so that farmers can use them for a variety of agricultural needs. This does not mean that the government should not monitor these loans to assure that the money is being put to proper use. The final point concerning farming techniques deals with the hazardous use of pesticides in Pakistan. It is vital that policies be implemented to regulate pesticide usage. The FAO, UNDP, IPM, and ADB have all pledged support in this area (United Nations. Food and Agriculture Organization 30). If a successful policy is to be implemented these organizations need to act on their promises.

The most obvious way in which to improve food security is to increase the productivity of major crops. Wheat, rice, and maize should be the main focus of any action to increase yields. Wheat is the main staple of the country. The yield range of wheat is between 0.8 and 5.5 tons per ha. Currently the FAO's Special Programs for Food Security has focused on wheat and other food crops such as rice and maize. The efforts of this program have increased yields by 25%-60% in some districts (United Nations. Food and Agriculture Organization 30-31). This is a great increase in wheat production but it is not enough to meet the requirements of the nation. Fortunately, there is still room for improvement and the government is making plans to expand the program to other districts. Rice is the second major crop of the country. Rice yields are around 2 tons per ha against the expected yield of 2.56 tons per ha. The high yields make rice one of the country's chief exports (United Nations. Food and Agriculture Organization 31). However, there has been a surge in demand and rice is being used as supplement when wheat is in short supply, resulting in higher prices. At this point rice harvest can only be increased through technical advancements, such as the use of mechanized transplanting and hybrid rice.

Maize is a crop that needs to be given special attention in Pakistan. It is currently grown exclusively in the North West Frontier Province at a production level near 1.7 million tons. The NWFP is one of the most food insecure regions in the country; as such the increasing of maize production should be one of the government's top priorities. Corn production is at 1.5 tons/ha, a number that is significantly lower than the potential yields of 10-12 tons/ha (United Nations. Food and Agriculture Organization 31). The introduction of hybrid corn coupled with better irrigation techniques should form the crux of the government plan concerning maize. If maize is given the consideration it deserves the Pakistani government may be able to solve two problems through one crop. Pakistan consumes a large quantity of edible oil. The problem is that the country's

production of edible oil is nowhere near the amount that is necessary for domestic requirements. As a result much of the oil is imported (United Nations. Food and Agriculture Organization 31-32). If maize production reaches optimum levels, it can be used to create corn oil. This coupled with an increase in the production of other oil seed crops can break Pakistan's dependence on imports.

There are a number of non-agricultural policy reforms that can help both farmers and consumers achieve food security. The first is improving infrastructure with a focus on roads, electricity, drinking water, education and healthcare. Improvements in these areas will aid people in their efforts to ascend the economic ladder. Fluctuations in prices for both the producer and consumer have drastic effects on the food security of the populous. A stabilization policy to combat this situation should be one of the government's aims in the coming years.

Conclusion:

Food security is a human right. History has shown us that when a people reach a point of utter despair they take matters into their own hands and a tremendous loss of life follows. Pakistan is reaching that point. In recent years Pakistan has seen both a rise in food insecurity and violence. Granted, much of the discord is coming from Afghanistan and the War on Terror, but there is a domestic component to the violence as well. The sole reason that the Taliban and Al Qaeda have had so much success in Pakistan is because the government has failed the people. It is an accepted fact among the masses that government has become a game of "in-fighting and jostling for seats..." (Vaswani) According the Global Integrity, Pakistan is country that suffers from a government that is concerned with maintaining power, overly corrupt, disregarding of the law, and lacking in transparency (Iqbal). If the people cannot rely on their government for the basic protections necessary to live in this world then they will rebel. It has already started to occur with the increase in militancy. The most obvious route is one in which government amends itself. This will not be done easily. In recent years the United States has been sending enormous amounts of relief aid in the form of monetary resources. It is in the best interest of both the United States and Pakistan that an oversight committee is created with members of both nations to make sure the money is being used for the good of the people and not for the betterment of the individual. Furthermore, steps should be taken by the global community to pressure the government of Pakistan and those of other nations to reform their practices.

The best option the government has of restoring faith in its people is to make sure they are fed. Food security is critical to future of Pakistan. As such, it is of the utmost importance that new policies are created concerning water management, land reform, pesticide use, the availability of credit, and increasing yields of the major crops. Pakistan has the water and land resources it needs to provide for its people. The issue is one of management. Through the aid of UN and other global organizations a plan to correctly irrigate the entire nation can be achieved. Land reform is a must if Pakistan truly seeks food security. At its current state the land is managed in an incredibly divisive manner. Parliament will have to put politics aside and assure that the small farmers of the nation are given access to the resources they need to cultivate the land they have. Pesticide use has gone unchecked for far too long. It is within the government's current means to increase pesticide regulation. Among the most important areas of reform is credit. With a simpler, more accessible credit system small farmers will finally be able to utilize resources that were previously out of their reach. If there is one aspect of the food security plan that is more important that any of the others it is the need to increase yields of major crops. There are numerous ways of achieving this goal such as the use of hybrid seed, mechanized transplanting and numerous other methods. Special attention should be paid to the issue of maize. Pakistan is currently harvesting maize at minimal levels. Through the use of hybrid corn and technical aid from the UN and other nations corn harvest can be brought to maximum levels of 12 tons/ha. Maize provided two solutions. It will alleviate if not abolish food insecurity in the nation as well as fulfilling edible oil requirements. There is great potential for Pakistan to rise out of the confines of food insecurity.

Works Cited

- Iqbal, Mahmood. "Pakistan." <u>Global Integrity</u>. 2006. Global Integrity. 15 Sept. 2008 http://www.globalintegrity.org/reports/2006/PAKISTAN/index.cfm.
- "Pakistan:Urban food security deteriorating WFP study." <u>IRIN humanitarian news and analysis.</u> 8 Jan. 2008. UN Office for the Coordination of Humanitarian Affairs. 15 Sept. 2008

 http://www.irinnews.org/Report.aspx?ReportId=76138>.
- "Rome Declaration on World Food Security and World Food Summit Plan of Action." World Food

 Summit. 1998. Food and Agriculture Organization. 15 Sept. 2008 http://www.fao.org/WFS/index_en.htm.
- "Rural poverty in Pakistan." <u>Rural Poverty Portal</u>. 19 June 2007. IFAD. 15 Sept. 2008 http://www.ruralpovertyportal.org/english/regions/asia/pak/index.htm.
- United Nations. Food and Agriculture Organization. <u>United Nations Statement on Food Security in Pakistan</u>. Islamabad: United Nations System in Pakistan, 2000. 1-38. 15 Sept. 2008 http://www.un.org.pk/unic/pdf/finaldoc.pdf>.
- Vaswani, Karishma. "Pakistan's poor hit as food prices soar." <u>BBC NEWS</u>. 30 June 2008. BBC. 15 Sept. 2008 http://new.bbc.co.uk/go/pr/fr/-/2/hi/business/7481882.stm.