

Issues and Strategies to Revitalize the Agriculture Sector of Pakistan



Agriculture is the lifeblood of Pakistan's economy because it contributes about 18.5% to GDP, provides livelihood to 64% rural inhabitants and employs 38.5% of the total national labor force. The sector has direct and indirect linkages with other sectors of the economy and plays a significant role in socio-economic development of the country. In contrast to high contribution of agriculture sector to Pakistan's GDP, a very meager amount of financial resources varying between 0.11 to 0.63% of agricultural GDP in last twenty year is spent on research and development (Figure 1). This has made Pakistan net food importing country since 2013 and put additional burden of US\$4.261 billion in first nine months of fiscal year 2019. Yield gap between average

and progressive farmers is about 40%, which is even higher between research stations and farming communities (40 to 80%). Although we proudly announced that we are food self-sufficient in wheat, rice and sugar but biased policies (input subsidy and support price etc) towards these crops discouraged farmers to shift from low value to high value crops.

Improvement in agriculture production is mainly driven by input intensification and area expansion but total factor productivity (TPF) is declining overtime. Injudicious use of chemical pesticide and fertilizer has adversely affected the natural resources like soil, water, air and quality and safety of food. High cost of production, low average yield and low quality produce are jointly providing

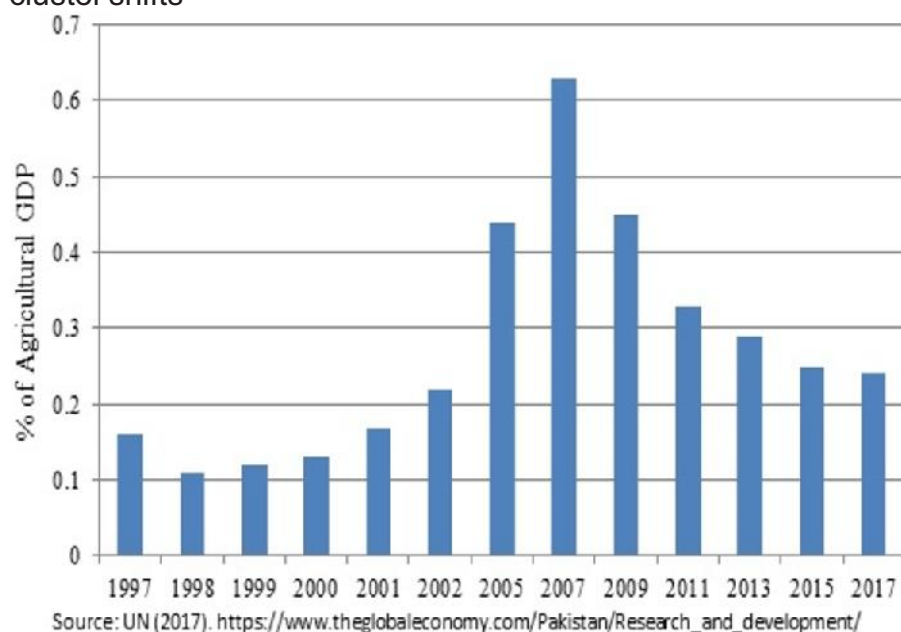
space for imported products to occupy our local markets. These issues are making Pakistan uncompetitive in the international markets and also affecting the welfare of local consumers adversely. Water, being a critical input for agriculture sector is getting scarce but Pakistan's water use efficiency in the crop production system is extremely low. Empirical evidence indicates that some of the best and most fertile lands have gone out of cultivation but food demand is continuously rising due to increase in population and per capita income. Widening gap between supply and demand is posing serious threat to future food security and poverty alleviation strategies. It is warranted, if government does not address the aforementioned problems and challenges faced by

agriculture sector then not only food security of future generations is at risk but it may also slow down the development in manufacturing sector and increased trade deficit and balance of payments.

Lack of capacity in developing and adopting innovations at each node of value chains are further adding to the poor performance of agriculture sector. Stakeholders involved at different nodes of value chains are either not capable to adopt or they are unaware about the benefits of adoption of modern production, grading and processing techniques. Hence, poor adoption capacity and low return discourage stakeholders to invest in modern technologies, subsequently convincing them to operate at lower end of global production frontier. It increases the dependency on imported innovations, which are not only expensive but also risky in our environment. Moreover, it limits the adoption of innovation only to progressive farmers.

Macro and micro level structural changes may help to revitalize the agriculture sector. The low private investment in agriculture sector is mainly because of wider gap between social and economic returns on innovation in agriculture sector. Contract farming and development of agro-industrial clusters (AIC) could be a viable option but contract farming is not

sustainable if different stakeholders in the value chain do not have the capacity to observe new technologies and innovations. Therefore, worldwide clusters have been considered potential drivers of agriculture development because cluster shifts



emphasis of firms from subsidies to competitiveness and differentiated products. Similarly, it also derive researcher from academic research to problem solving research and public funding to private funding research. Moreover, it helps to transfer government emphasis from broad-based subsidies to need-based support and general infrastructure to human resource development. However, it is also well documented that subsidies appear to be the least effective option to raise agricultural incomes and poverty reduction, thus subsidies refers to inefficient allocation of resources. The development of agro-

industrial cluster have potential to generate over US\$19 billion additional income in the agriculture sector but private investments are not coming to harness these potentials. Unless innovations at different nodes of value

chains and necessary infrastructure are developed through public investment, current situation is unlikely to change. Investment in agriculture sector needs to shift from subsidy to demand driven and problem solving research, establish incubators to transform subsistence agriculture into commercialization, and develop rural infrastructure to link rural economies with cities. Expansion of rural education network through agriculture based vocational training institutes could help to bridge the knowledge gap, improve productivity and efficiency of rural masses. These strategies will not only reduce dependence on

outdated extension system and imported innovations but also contribute to value addition by improving the agricultural value chains. Knowledge based innovations and interventions will lead to increase competitiveness, ensures future food security and reduce trade deficit. The process of uplifting agriculture sector can be summarized as below:
Policy reforms motivating vertical expansion in

residential and commercial construction could help to slow down the process of moving agriculture from highly productive to marginal lands. Shifting public investment from direct subsidies to problem solving research, towards developing production technologies (varieties and breeds), rural infrastructure, capacity building of stakeholders, establishing agriculture based

vocational institutes and incubators, and strengthening public-private partnership could help to revitalize the agriculture sector.
· Identification of viable clusters for each crop could help to promote contract/cooperative/corporate farming to overcome the existing inefficient production and marketing system.

