Agriculture and Textile Sector: Challenges and Way Forward

By:

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Agriculture and Textile Sector in Retrospect

- Agriculture is a vital component of Pakistan's economy, contributing 19.8% in GDP and providing employment to 42.3% of labour force. Historically agricultural output has increased to feed growing population, provide raw material for number of industries and earn much needed foreign exchange.

- Textile is an important component of manufacturing sector with a long production chain and inherent potential for value addition – contributing nearly one-fourth industrial value added, providing employment to 40% of industrial labour force and about 60% export earnings, while consuming about 40% of banking credit.

- Punjab occupies a pivotal position in Pakistan's agriculture. In cropped and irrigated area, its share is 73% and 77% respectively. In production of wheat, cotton, sugarcane, maize, rice, citrus, mango and guava, Punjab's share is 76, 72, 65, 81, 51, 97, 76 and 76% respectively. In buffaloes and cattle population its share is 65%, and 49% respectively. Thus Punjab's performance has a bearing on national agriculture.

- The overall performance of agriculture and textile sectors particularly in recent years can be regarded as sub-optimal:
  1. The agricultural GDP growth rate declined from 5.4% per annum in 1980’s to 4.4% in 1990’s, 3.2% in 2000’s and to 2.2% during 2010-16

2. There are considerable yield gaps for major crops between progressive farmers and national/provincial averages ranging from 31-73 percent for Pakistan and 19-59 percent for Punjab. In global context also our crop yields are generally low.

3. The number of textile mills increased from 353 in 2000-2001 to 477 in 2012-13, but declined to 423 by 2015-16. The number of working spindles/looms and spindle/loom hours worked and cloth/yarn output has remained relatively static or not increased significantly during last 8-10 years.

4. Rising per capita income in Pakistan during last 5 years (23% increase) has motivated textile sector to focus more on domestic captive market, while its performance in export market despite recent GSP Plus status has been sub-optimal, with textile and clothing exports declining by 9% from $13.7 billion in 2013-14 to $12.5 billion in 2015-16, while exports of competing countries China, India, Bangladesh, and Vietnam increased by 11, 12, 13 and 40% respectively during the same period.

5. During 2013-14 to 2015-16, Pakistan’s textile and clothing exports declined by 35, 10, 28, 15, 12 and 29 percent for cotton cloth, knitswear, cotton yarn, readymade garments, bed wear and towels respectively.

Factors Inhibiting Achievement of Agriculture Sector Potential

- Predominance of Small Resource Poor Farmers and Fragmented Farms
  About two-third of Punjab/Pakistan farms are less than 5 acres and one-third farms are not contiguous raising issues of scale diseconomies in input purchase/output marketing and services delivery and inefficiency in use of labour, water and farm machinery.

- Underinvestment in Agricultural Research
  Inspite of healthy rate of return on investment in agriculture research (40%), Pakistan/Punjab underinvest in agricultural research i.e., 0.18% of agri sector GDP compared with 0.4% for India, 0.5% for Turkey, 1.1% for Mexico, 2.1% for South Africa and 5.2% for developed countries.

In addition there are serious issues in research prioritization (pest resistance in cotton, long staple cotton varieties), lack of incentives for agricultural scientists, lopsided/limited capacity building and distortions in salary structure amongst research institutions.

- Fragmented Research in Cotton:
  Numerous federal/private institutions and private sector are involved in cotton research without effective coordination. A modest cotton cess (Rs. 50/bale) is collected and used primarily by PCCC for its research/staff welfare. APTMA is not involved in the way sugar and maize industries are involved in promoting respective commodities production. Contribution of Agricultural Universities/PARC with largest accumulation of highly qualified manpower in cotton research is not evident.

- Inadequate Regulatory Capacity for Seed Industry
  Seed Industry is in disarray for years due to inadequate regulatory capacity. The FSC&RD has been without regular D.G. for 8 years and 45 % of its professional staff positions are vacant. Logistic support has also been inadequate. It took 8 years to pass Amended Seed Act in 2015, while Plant Breeders Rights Bill has been passed recently after considerable delay. Institutional arrangements for its implementation yet to be worked out and aftermath of devolution of Agriculture to provinces yet to be properly comprehended.

- Inadequate Stakeholders Consultations/Commodity Analysis Capacity
  There is no proper forum in Pakistan/Punjab for indepth deliberations on commodity/cross cutting issues on a regular basis amongst the real stakeholders. Our cotton production in 2015-16 was similar to one we achieved in 2000-01 while Indian cotton production quadrupled during same period. Our cotton yields are significantly lower than China and Australia. Stakeholder’s consultations are a regular feature in Australia with positive results. Planning Commission started National Forum on Agriculture, which was discontinued after devolution of agriculture to provinces.

Commodity Analysis capacity is lacking at Federal/Provincial Level. Important Policy decisions continue to be made without proper analysis of relevant data, by a core team of professionals and examining implications of alternate policies.

- Breeding Objectives - Cotton Seed Certification Criteria.
  Cotton is grown on 2.169 million farms in Pakistan, 75% of them are in Punjab. Majority of them are small-56% less than 5 acres and 90% less than 12.5 acres implying financial constraints in incurring huge expenses on pesticide sprays. There are also health hazards associated with pesticides. Presently pest resistance is not an explicit cotton breeding objective Cotton seed certification /registration criteria primarily focusses on fibre characteristics and yield. Pest resistance does not receive due attention.

- Low Plant Density
  For attaining high cotton yield, recommended plant density is essential. However, it declined from 17000/Acre in 2005 to 12000 in 2012 and 2013. It increased to over 16000 in 2014 when near record crop production was achieved. In 2015 plant density declined to 12500 and cotton production also declined.

- High Weeds Infestation
  Weeds deprive us of upto 15% of crop output. Prime Minister’s Task Force on Food Security in its report (2009) recommended launching of a national campaign on weed eradication. No concrete steps were taken till 2015-16 to deal with it.
• **Findings of Punjab Government Committee on Low Yield of Cotton**
  Punjab Govt. Committee set up in 2015 concluded that climate change (high rainfall and abnormal variations in temperature) adversely affected growth and development of cotton crop in 2015. Weed infestation and low seed cotton prices also contributed.

  The Committee also observed that quality of seed had a minor effect on reduction in yields. However, in a broader and long term context poor quality seed is perhaps the main reason for our cotton yields being significantly lower than Australia and China, and our cotton production remaining relatively static since 2001, while India’s cotton production quadrupled.

  - In 2015–16 our certified cotton seed coverage was only 35%.
  - Due to weakness of regulatory system informal seed market has flourished.
  - Dr Neil William Forester, an eminent Australian Agricultural Scientist had blamed Pakistan cotton researchers for low cotton production/yield in Pakistan during his lecture at UAF on 23rd May 2016.
  - A study report by Faisalabad Chamber of Commerce and Industry pointed out poor cotton R D and blamed pesticide cartels for stunted local R&D.
  - It is plausible that some agricultural scientists have indulged in premature release of varieties in consonance with some seed companies/influential farmers, which failed when adopted subsequently on a large scale.

**How to Increase Cotton Growing in Punjab**

- Adopting an integrated approach in public policy, governance and institutional set up for cotton. Improving coordination among various institutions, enhancing capacity of FSC&RD and its counterparts in provinces, and Agricultural Policy Institute is a must. Agriculture universities with largest pool of highly qualified human resources should also focus on impact of their research on Punjab/Pakistan agricultural/cotton economy rather than numbers alone i.e., students enrolled, impact factor journal articles and their citation alone.
- Establishing independent forum for stakeholders consultation and cotton/textile commodity analysis capacity for informed decision making.
- Innovative approach in financing of cotton/agricultural research needed since Punjab/Pakistan has failed to invest adequately for this purpose. It involves; setting up of Commodity Boards with relevant professional expertise, imposing a levy of about one percent of gross value of relevant commodities/output.( eximting real small producers) and provision of matching funds by the Government on a sliding scale. Such arrangement is working efficiently in Australia.
- Revamping of seed industry through: building capacity of FSC&RD and related provincial institutions; working out modalities for implementation of Amended Seed Act/Plant Breeders Rights Bill; proper comprehension of Truth and Labeling Act before implementing it and amending cotton seed certification criteria to explicitly include resistance to pests.
- Promoting Corporate Farming/Producer organizations to deal with scale diseconomies and weak financial position of small farmers. Consideration be given to introduction of corporate farming whereby small farmers retain ownership of their land but allow land management by a corporate entity with better access to technology and capital resulting in higher incomes to them. Alternatively, an institutional mechanism could be devised whereby social mobilization precedes formation of Producer Organization at UC Level. Their input needs for progressive agriculture assessed and provided and such expenses recovered while marketing output through Producer Organization.
- Undertaking independent Third Party Evaluation of cotton research/ related institutions.
- Increasing cotton production horizontally and vertically by revisiting agro-ecological zones determined by PARC in 1980, and undertaking result oriented cotton research. Strengthening of vertical linkages should receive due attention and APTMA should come forward in a big way.
- Ensuring remunerative seed cotton prices to cotton producers. Regular research on marketing margins along the value chain be undertaken.
- Providing incentive to cotton researchers by implementing Plant Breeders Rights Bill and removing distortions in salary structure of agricultural scientists working in various research institutions. An independent mechanism to assess worth of agricultural research may be devised.
- HEC Criterion for assessing University faculty performance focusing on number alone may be changed to include also impact of their research on Pakistan’s agricultural economy also.
- During the last 5 years there have been 7 Secretaries of Agriculture Department in Punjab. Frequent changes at Agriculture Secretary level are not conducive for ensuring a vibrant agriculture/cotton sector and remedial measures be taken.
- A study be conducted to examine effects of synthetic clothing on human health. There is some evidence to suggest its negative effects.

**Textile Sector Challenges**

**Subdued Economic Growth**

Subdued economic growth rate globally from 4.2% in 2011 to 3.1 and 3.2 % in 2015 and 2016 respectively, in Euro area from 1.6% in 2011 to negative in 2012 and 2013 and 0.9% in 2014 and 1.5% in 2016, exerted a downward pressure on Pakistan’s textile exports.

**Oil Prices Decline Lowering Synthetic Fiber/ Commodity Prices**

With drop in international oil prices since 2011-12, international commodity prices experienced a significant decline. The COTLOOK A Index dropped from 100 in 2011-12 to 70 in 2015-16. The International Cotton Advisory Committee (2016) pointed out polyester-a synthetic fiber posing greatest competitive threat to cotton due to significant decline in oil prices. This in turn exerts a downward pressure on cotton prices, thus resulting in cost-price squeeze for cotton growers.

**Higher Labour Cost**

With increase in minimum wage of labour in Pakistan to Rs 14000 per month, the direct labour cost has risen to $ 135 in Pakistan compared with $ 68 in Bangladesh. Adding overtime, bonus, EOB, Social Security and other allowances, the total unit labour cost has risen to $ 222 in Pakistan relative to $ 97 in Bangladesh, placing Pakistan textile exports at a disadvantage.

**High Energy Prices**

Pakistan’s electricity tariff for industry is the highest in the region due to imposition of high sales tax and various surcharges. Some industrialists generate their own electricity. Generating electricity from gas costs 9 cents/kw relative to 4 cents/kw in Bangladesh. Again various surcharges are the culprit. Steam cost/ton in textile processing is $ 16.67/hr in Pakistan and $ 6.75 in Bangladesh.
Revival and Growth of Textile Industry/Subsectors

Lower Literacy and Skills

According to a leading textile mill executive, the literacy level of Textile Mills labour is low i.e. 8-9 years of schooling compared with 10-12 years schooling in competing countries. Moreover, labour engaged is not skilled and they learn on the job. Resultantly labour productivity is low in Pakistan relative to competing countries.

Low Investment in Textile Machinery

Textile industry in Pakistan has been unable to undertake requisite investment in machinery during 2008-16, while competing countries have done it. During this period China, India, Bangladesh and Pakistan investment in spindles was 43, 19, 3.2 and 2 million respectively while these countries investment in Shuttle Less Looms was 377, 69, 36 and 6 thousand respectively.

Revival and Growth of Textile Industry/Subsectors

- Ensuring regionally competitive electricity and gas tariffs by removing surcharges, and giving greater attention to hydel power generation by building large water reservoirs that can provide electricity at Rs. 2-2.5 / kw.
- Increasing productivity of cotton by: adopting innovative approach in research financing; reviewing breeding objectives; reforming seed industry regulatory arrangements; giving incentives to researchers; removing anomalies in salary structure at various research institutions, and amending HEC criterion for assessing performance of Agriculture University’s faculty to give due weightage to impact of their research on cotton/agricultural economy.
- Review and rationalization of industry taxes.
- Developing commodity analysis and policy analysis capacity and establishing forum for regular stakeholders consultations with core professional staff to back up.
- Effective utilization of Export Development Fund.
- Promoting value addition and exports diversification.
- Emphasizing technical education to produce skilled man power.
- Undertaking review of cotton pricing to ensure level playing field.
- Independent evaluation of cotton and textile research institutions and promoting multidisciplinary research.

Reforming Agricultural Extension Service

- Establishing an Agricultural Academy to provide induction/in-service training to agricultural graduates with background in diverse disciplines of agriculture to develop their communication skills.
- Mandate of extension staff be changed as besides inputs, farmers need advice on resource conservation technologies, marketing (harvesting/picking, proper handling/transport of produce and information on market prices), social mobilization regarding producer marketing cooperatives to improve smallholder’s competitiveness and SPS compliance.
- A benchmark regarding input use, adoption of technology/improved farming practices, and yields may be determined at Union Council level, then a target may be assigned to extension staff against which their performance may be assessed.
- A system of incentives/recognition for good extension workers may be introduced.
- Use of mass media/ ICT can enable coverage of large number of farmers. Effectiveness of mass media (radio/television) is established. A pilot project be launched to assess effectiveness of mobile phones in dissemination of improved technology/practices.
- Application of chemical fertilizer without knowing the nutrient requirements of the soil, results in imbalanced and/or uneconomic fertilizer use. Universal Soil Testing may be introduced and private sector also induced.
- Highly qualified manpower at Agriculture Universities should also be involved for extension work, as in our neighboring country, Agriculture Universities have played an important role in modernization of agriculture and increasing its output.

References: