VALUE ADDITION IN PAKISTAN - CHALLENGES AND OPPORTUNITIES

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Contents

Value Addition

- **Value addition - process of increasing the economic value and consumer appeal of an agricultural commodity**
- **It is a production/marketing strategy driven by customer needs and preferences**
- **“Value-added” is used to characterize food products converted from raw materials through processes that give the resulting product an “incremental value” in the market place either through higher price or expanded market**
- **Examples of “value-added products ” - Jams, Ketchup, squashes, cheeses and pre-cooked meats are considered**

Why Value Addition?

- **Make more money: value added agricultural product has more market value than raw commodity**

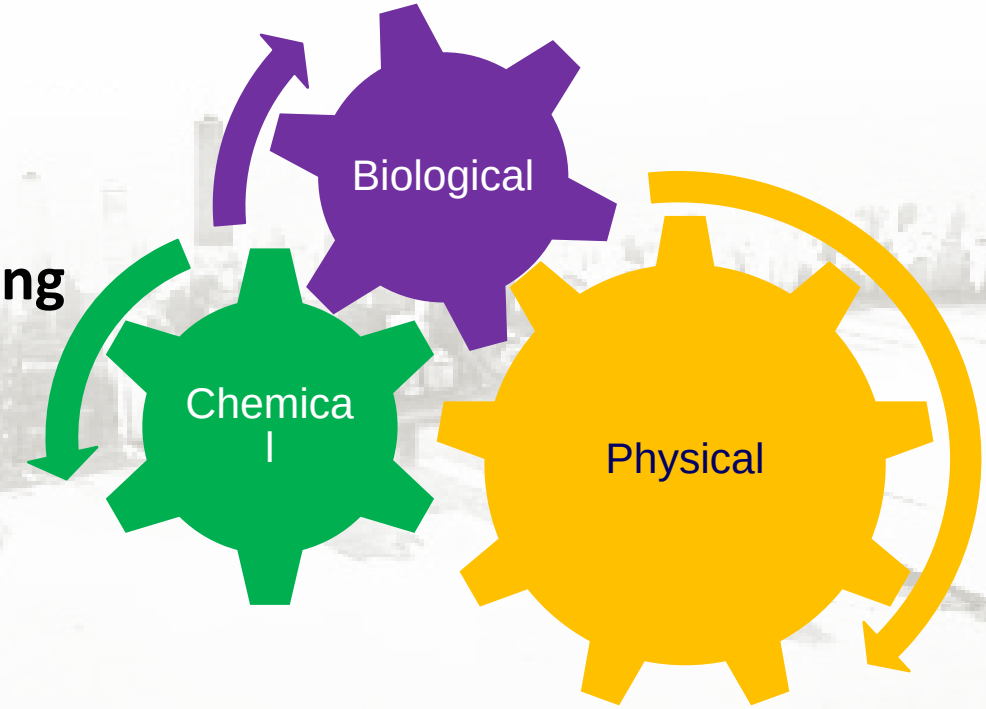
- **Meet changing tastes and preferences of consumers - *convenience, quality, safety, health, variety, price, social and environmental consciousness***

- **Compete by differentiating a product in a highly competitive market**

Food Processing and Value Addition

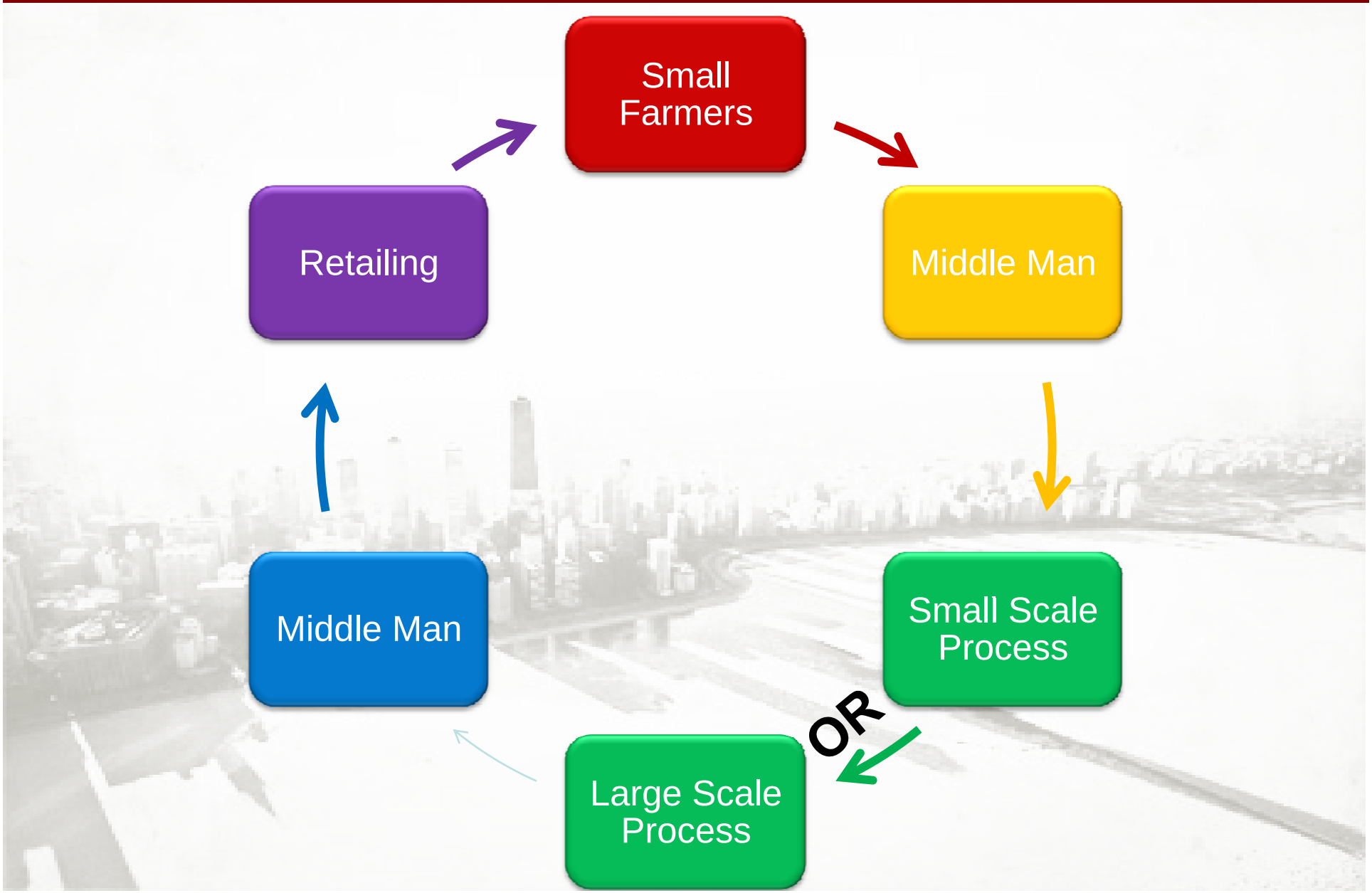
- **Food processing involves any type of value addition to the agricultural produce starting at the post harvest level**
  - **The value of farm products can be increased through any of the route singly or in combination**

- **Cleaning & cooling**
- **Processing**
- **Distributing**
- **Churning**
- **Culturing**
- **Grinding**
- **Hulling**



- **Extracting**
- **Drying**
- **Smoking**
- **Labeling**
- **Packaging**

Traditional Approach to Food Processing



Food Processing: Worldwide

- The size of global processed food industry is estimated to be valued around US $3.5 trillion and accounts for three-fourth of the global food sales
- Most of the growth is taking place in developing countries in Eastern Europe, Asia and Asia-Pacific, which are experiencing increase in population
- The huge market in ASEAN countries alone, with over 550 million people, is a vast potential waiting to be untapped
- Despite its large size, only 6% of processed foods are traded across borders compared to 16% of major bulk agricultural commodities

Food Processing: Worldwide …

- Fortune 500 indicate Food Sector is growing 15.9 % annually for the past 5 years
- Major food processing industries are American and European
- Convenience products such as dried instant soups, reconstituted fruits and juices, shelf cooking meals are becoming popular throughout the world

Employment in Food Sector

- US: 12 million
- Europe: 2.5 million

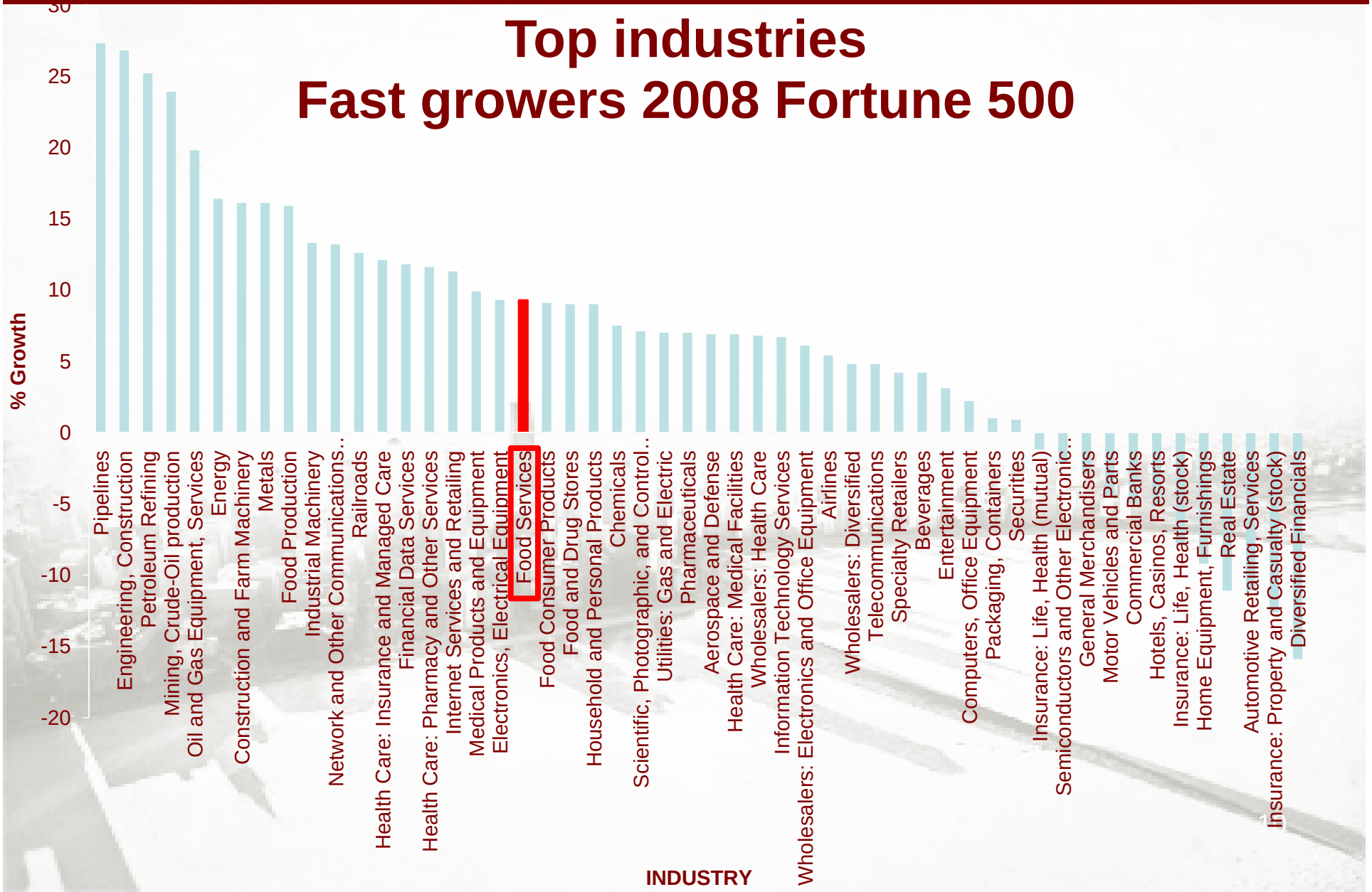
Food Market

- US = US $ 100 billion
- India: US $ 69.4 billion

Food Processing: Worldwide …

- Japan is the largest food processing market in the Asian region followed by India and China
- One of the most technically advanced food-processing industry globally is Australia as the products produced are of international standards having comparatively low prices
- Countries in the Sub-Sahara African region, Latin America and some parts of Asia continue to be on the lower-end of technology for competence in food items
- Europe, North America, and Japan are on the higher-end of technology, with a sharper shift towards convenience and diet foods.

Food Processing: Worldwide …



Food Processing: Pakistan

- Food Industry is the 2nd largest in Pakistan
- Accounts for 27% of its value-added production & 16% of the total employment in manufacturing sector
- With an estimated 169 million consumers, Pakistan holds the world's eight largest market
- More than 1000 large scale food processing enterprises in Pakistan
- 75% of rural- based food manufacturers are in so-called informal sector (difficulty in accessing raw material, finance skills, knowledge & management)

- **Pakistan's food sector is changing significantly with an inclined shift in lifestyles and traditional eating habits**

- **Average consumer spends 42% of one's income on food**

- **Retail sales of processed foods is expanding by 10 % per anum and currently are estimated at about US$1.4 billion, of which imported products account for US$325 million**

- **Supermarkets are gaining in popularity as a shopping venue and now account for about 10% of all retail food sales**

- **In addition, Pakistan now hosts numerous western-style fast food chains reflecting a rising popularity with such eating style**

Food Processing Units in Pakistan

Type of processing industry	Units	Employment
Fruits and Vegetable	155	23,500
Cereal based	1246	45,000
Edible oil	321	34,000
Sugar sector	427	25,000
Livestock	68	28,5000
Total	**1989**	**154,250**

Source: Estimates based on report of the APO Multi-Country Study Mission on Rural Based Food Processing Industry, Abdul Hafeez Chaudhary, APO (2004). (Mt = Metric tons; Mnt = Million tons; Mnl = Million litres)

- **The ability of food processors at industrial level depends absolutely on the availability of raw materials**

- **Pakistan is a major producer of commodity and industrial crops (such as wheat, rice, sugarcane and oilseeds)**

- **Livestock and horticultural products are also important elements in agriculture and provide additional raw materials for processing and export**

Cereals

- **Wheat is the leading food grain in Pakistan, 9042 thousands hectares area under cultivation and 80% farmers involved** (Federal Bureau of Statistics, 2009-2010)
- **Rice is second most important cereal crop with 2883 thousand hectares of cultivated area** (Federal Bureau of Statistics, 2009-2010)
- **Harvest and post-harvest losses of wheat and other grains range between 15-18%**
- **Value added products: biscuits, starch, glucose, etc.**

Fruits and Vegetables

- Great demand in the international market, especially mango, apples, dates and citrus
- 12% share in agriculture value addition
- Citrus and mango account for 48% of all fruits produced in Punjab
- Balochistan produces the second largest volume of fruits, mainly apples and dates
- High post harvest losses (20-40%), Only 3-5% is being processed
- Value added products: Jams, squashes, syrups etc.

Oil Seeds and Vegetable Oils

- Self-reliance in edible oils during 1947 to 1960
- Major sources of edible oils are:
  - Cottonseed
  - Sunflower oil
  - Canola oil
  - Rapeseed oil
- Import started in 1960; Now the local production is only 29% and import is 71% (Palm oil constitutes > 90 % of oil imports)
- Higher per capita consumption: 11.9 Liters per capita
- Value added products: specialty fats, shortenings, margarine

Sugarcane

- One of the major cash crop in Pakistan providing raw material for sugar based products
- Its share in value added of agriculture and GDP are 3.6 percent and 0.8 percent, respectively.
- During 2009-10, area under sugarcane cultivation was 943 thousand hectares
- Sugar industry waste like mud, molasses can be used to produce several value added products using biotechnological techniques
- Value added products: White sugar, brown sugar, refined sugar, chipboard and paper

Livestock Sector

- Livestock accounted for about 50% of GDP of agricultural value added and about 9.4% of the GDP
-
- Net foreign exchange earnings from livestock products and by-products accounts for 11% of the overall export earnings of the country

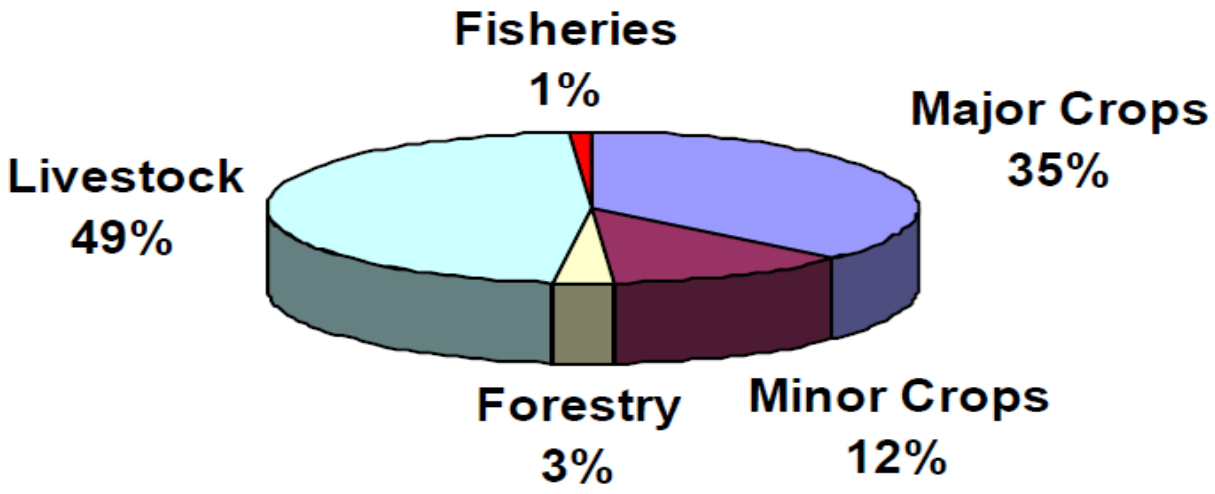
- Pakistan is probably one of the world's least efficient users of livestock resources since home-based slaughtering generally does not make most efficient use of the by-products

Milk and Dairy

- **Pakistan is the 5th largest producer of milk in the world, with 45 billions liter annual production** (Ministry of Livestock and Dairy Development, 2009-2010)

- **Only 4-5% milk is being processed**

- **Value added dairy products commonly consumed in Pakistan: whole milk powder, skimmed milk powder, condensed milk, ice cream, butter, ghee**

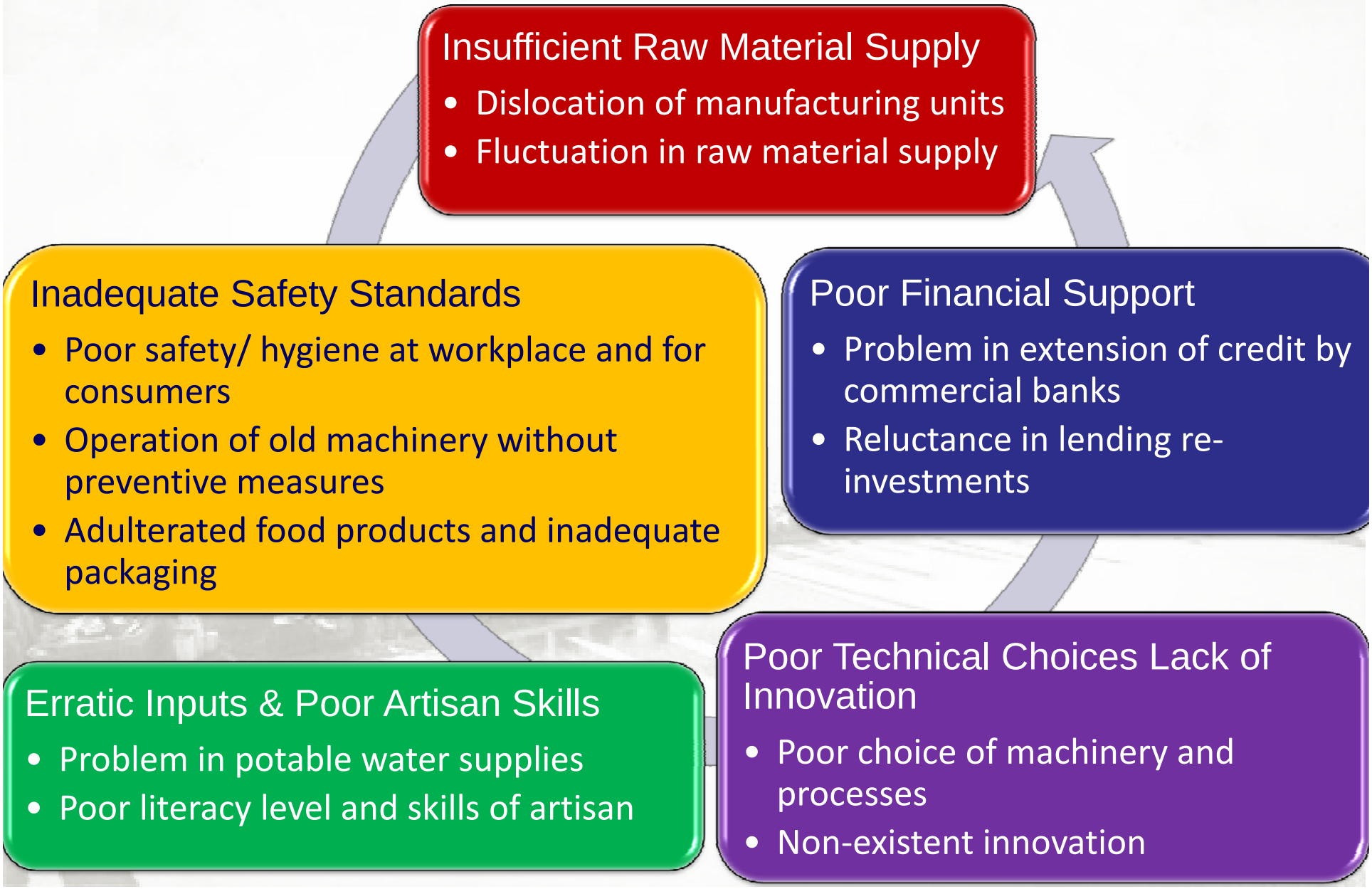


Source: Economic Survey of Pakistan

Meat & Poultry

- Poultry sector is one of the organized and vibrant segments of agriculture industry of Pakistan
- This sector generates employment (direct/indirect) for about 1.5 M people
- Poultry meat contributes 23.8% of the total meat production in the country
- Meat sector is highly unorganized in Pakistan, though local and export potential exist
- Value added products: Gelatin, sausages etc.

Barriers to Value Addition in Pakistan



Major Challenges as a Nation

- Population growth
- Ageing population
- Urbanization
- Food for health
- Food for different age groups
- Food for pleasure and convenience
- Health disorders: CVD, Obesity, hypertension, diabetes
- Food Safety

Challenges in Agro-Processing

- Post-harvest losses due to lack of storage and transport infrastructure
  - Food grains : 15-18%
  - Fruits and vegetables: 20-40%.
- Inability to manage raw material supply
- Inadequate cold chain facilities
- Poor financial support
- Lack of investment in the supply chain
- Lack of training facilities for farmers and processors

Challenges in Agro-Processing ....

- High excise duty on packaging
- Varying standards for food products
- Poor or non-existent standards of safety in the workplace and for the consumer
- Poor quality of the products
- Weak regulatory system
- Poor technical choices and a lack of innovation

Challenges in Agro-Processing …

- Frequent failure or interruption of power production/ processing belts
- Unequipped food analysis laboratories
- Inefficient market structure
- Lack of adequate trained manpower
- Lack of coordination links with academia, industry and research organizations

Opportunities of Food Processing in Pakistan

- Halal meat products
- Seed / grain drying, aeration and storage technology
- Application of extrusion technology in cereals
- Rice drying technology for obtaining higher head rice yield
- Efficient pulse processing technology
- Rice par-boiling technology
- Pre-cooling technology for fruits and vegetables

Opportunities of Food Processing in Pakistan

- Fruits and vegetables canning, grading, and packing technology
- Cold stores for potatoes, citrus, apples and other foods
- Modified atmosphere technology for fruits and vegetables
- Apricot and dates drying and processing technology
- Small-scale fruit juice technology for the remote fruit growing areas
- Value addition in milk e.g. milk powder, cheese, yoghurt and ice-cream

Suggestions

- Establish agro-processing training institutes
- Bulk handling and storage technology at farm levels
- Credit by banks and financial institutions
- Setup of "Food Parks" and "Technology Transfer Centers"
- Develop cottage industry on priority basis
- Establish small food processing units at district level
- Encourage direct marketing of products by the farmers
- Revise Pakistani food standards for quality of food products

Suggestions

- Use of local material in packaging
- Improving process efficiency and decreasing losses
- Value added products rather than fresh produce
- Promote export of indigenous products for ethnic groups
- Linkages between industry and research organizations
- Focus on brand building
- Creating awareness among consumers


Thanks