

**18<sup>th</sup> CABI Review Conference**

# **Approaches for Addressing Food Security in Pakistan**

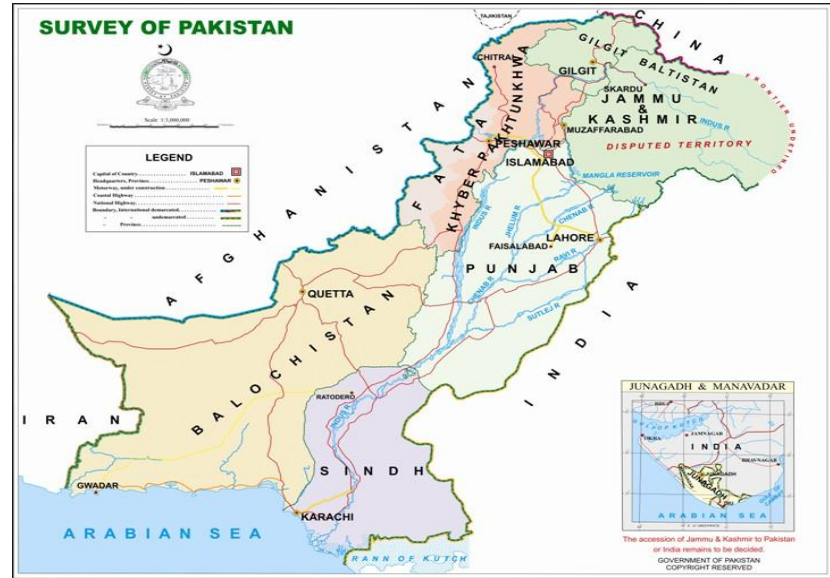
**By**

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# Country Profile

- Located in South Asia,
- Shares an eastern border with India
- North-eastern border with China
- Iran makes up the country's south-west border
- Afghanistan runs along its western and northern edge



# Country Profile

- Out of 79.6 m ha, only 22 m ha area available for farming
- Around 16 m ha irrigated and 4 m ha under rainfed farming
- Pakistan is predominantly arid and semi-arid with 68 m ha (85%) where rainfall is less than 300 mm.
- Pakistan has diverse landscapes including:
  - high mountain ranges of the Himalayas, Karakoram and Hindu Kush,
  - snow-covered peaks, eternal glaciers, and the inter-mountain valleys in the north,
  - vast rich irrigated plains in the Indus basin,
  - snow and glacier melt keeps the Indus Basin rivers perennial
  - undulating highly vulnerable agri. areas of rainfed Pothwar
  - stark deserts and rugged rocky expanse of plateaus in the south-west of Balochistan.

# Country Profile

- Total Area: 79.6m hectare
- Population: about 180 million, expected to double by 2050
- Rural population: 114 million (about 63 %)
- Employment by Agriculture: 45% of total labor force
- Contribution of Agric. to GDP: 21.4%
  - Major crops: 6.9%; Minor crops: 2.2%
  - Livestock: 11.2%; Fishery: 0.3%; Forestry: 0.3%

# Status of Agriculture - Pakistan

- Wheat --- 8th largest producer
- Rice --- 11th position in the world
- Cotton --- 4th position in the world
- Sugarcane --- 5th in the world
- Fruits ---
  - Largest in kinnow/citrus
  - 3rd largest in dates
  - 5th largest in mango



# Status of Agriculture - Pakistan

- Livestock ---

Pakistan falls in top 10 most livestock populous countries of the world

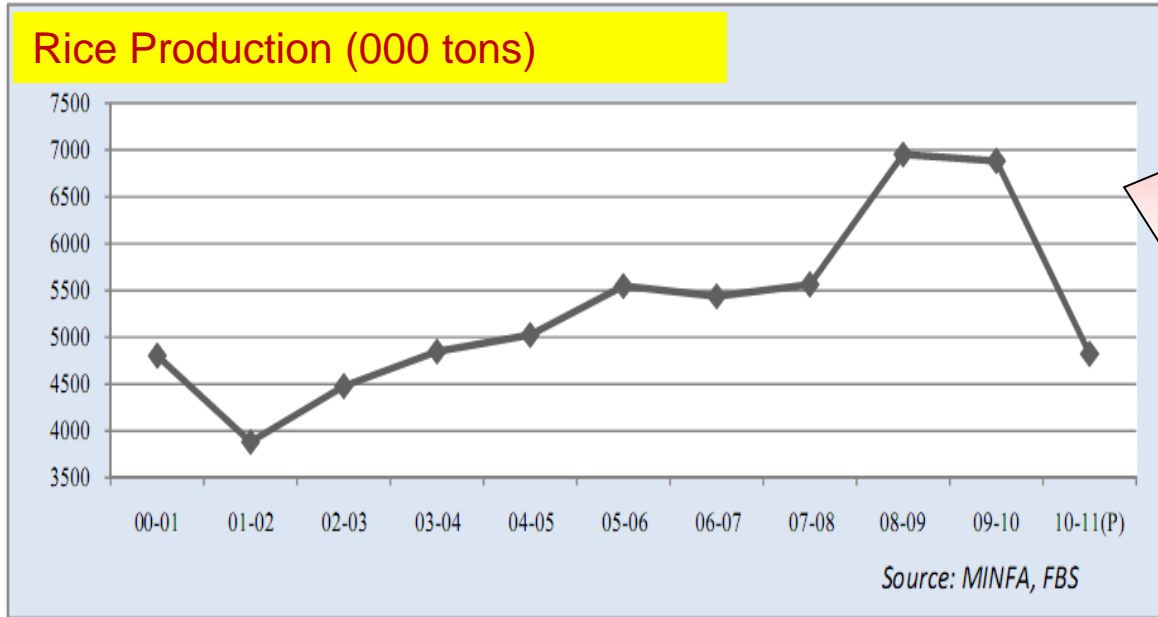
- 5<sup>th</sup> largest in milk production
- 2<sup>nd</sup> in buffalo population
- 3<sup>rd</sup> in cattle population
- 9<sup>th</sup> in sheep population
- 3<sup>rd</sup> in goats population

## Extreme Climatic Events in Recent Past

- 1992 Worst flood in Jhelum river
- 1996 500 mm rainfall in 24 hours in Lahore
- 1998-99 Glacier retreat and cyclonic storm
- 1996-01 Worst drought
- 2001 621 mm rainfall in 10 hours
- 2003 Tornado in Hyderabad region
- 2005 Heavy snow fall in northern areas and flash flood in Balochistan
- 2010 Heavy flash flood
- 2011 Unprecedented rainfall in southern part



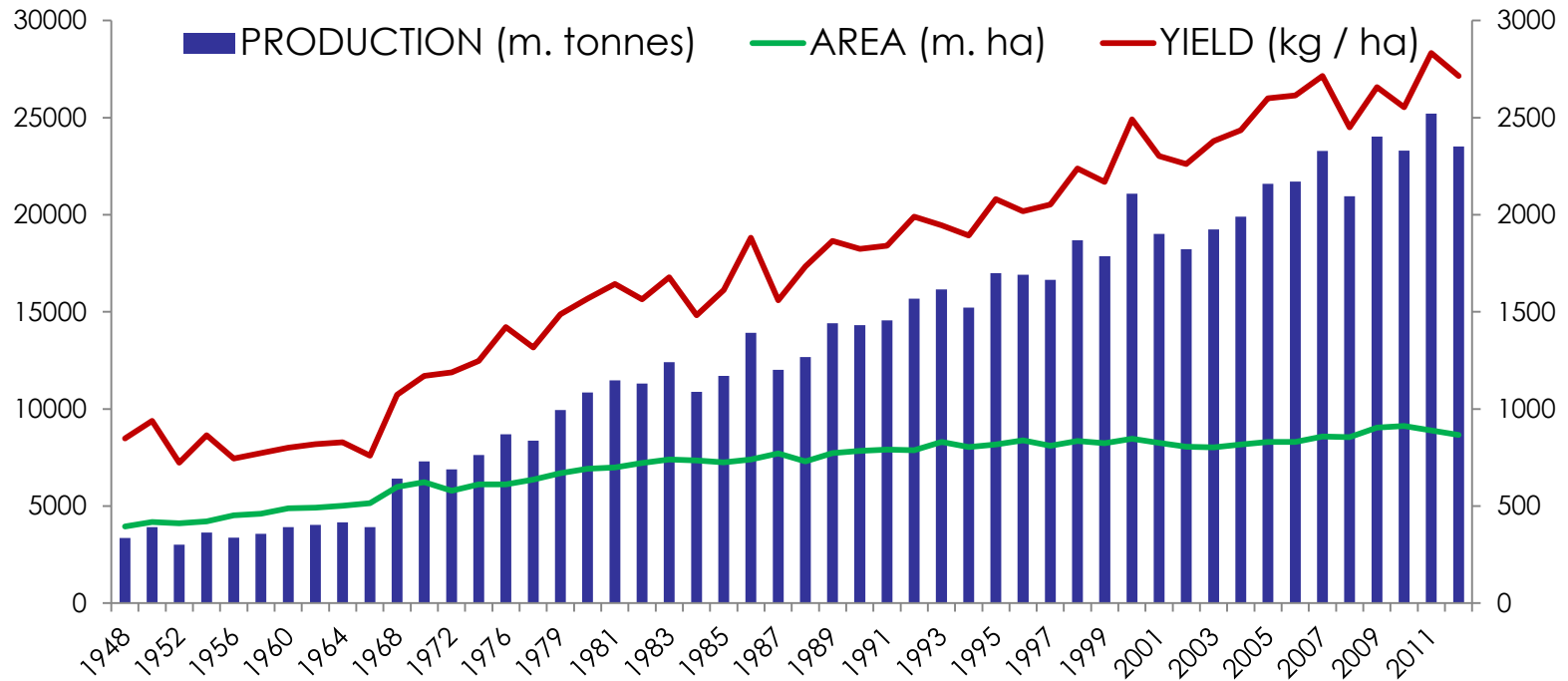
# Climate Events: Impact on Agricultural Production



- **Devastating floods of July 2010 caused 30 % less production**
- **Attack of Pests & diseases**
- **Lodging of early sown crop**



# National Efforts – Wheat



# National Efforts – Climate Change Adaptation

- Low Delta Crops
- Drought-tolerant Crop Varieties
- New Cropping Pattern Systems
- Adjustment in Crop Management
- Conservation Technologies
- Efficient Water Use

# Water Use Efficiency (Surface Vs HEIS)



Surface (30 - 40%)



Sprinkler (60 - 70%)



Micro Sprinkler (75 - 80%)



Drip ( > 90% )

# National Efforts – Livestock Sector

- Focus on development of dairy and meat Value Chains through Public Private Partnership
- Enhance foreign exchange earnings through exports of livestock products

## **Steps taken by the Government:**

- Quality Control Services
  - Accreditation of Quality Control Laboratories under ISO/IEC-17025
  - Establishment of NFSAPHRA
  - Establishment of BSL-3 at national level
- Establishment of National Disease Reporting & Surveillance System for Control of Transboundary Animal Diseases
- Conservation of Farm Animal Genetic Resources
- Modernization of Fishing Fleets and Improved Management of Marine Resources

# Food Security Situation Analysis

- Per capita availability of food grains
  - 143 kg (1975) to 155 kg/annum (2008-09)
  - Significant increase in the availability of HVAP
- Change in consumption patterns --- from wheat and pulses to rice, fruits, vegetables, meat, milk etc.
- Rising import of pulses, edible oil, tea, milk powder
- Micronutrient deficiency in women and children is sustained
- Continued decline in average farm size and rising ratio of farming households having up to 2ha land
- Need to closely monitor the availability of at least 19 basic food items



# Food Demand-Supply Gaps (% of Prod.)

Years	Wheat			Rice			Maize		
	Demand	Supply	Gap (%)	Demand	Supply	Gap (%)	Demand	Supply	Gap (%)
2015	27.00	26.50	-2.0	3.37	5.88	42.8	0.23	4.5	94.8
2020	30.00	28.00	-7.0	3.90	6.60	40.9	0.26	3.34	92.1
	Edible Oils			Pulses			Vegetables		
Years	Demand	Supply	Gap (%)	Demand	Supply	Gap (%)	Demand	Supply	Gap (%)
2015	2.56	0.59	<b>-332.4</b>	1.70	1.26	<b>-35.0</b>	14.05	9.81	<b>-43.2</b>
2020	2.97	0.62	<b>-376.8</b>	1.97	1.63	<b>-21.0</b>	16.29	10.48	<b>-55.4</b>
	Fruits			Meats			Milk		
Years	Demand	Supply	Gap (%)	Demand	Supply	Gap (%)	Demand	Supply	Gap (%)
2015	4.41	7.04	37.3	3.30	3.03	-9.1	21.95	37.81	41.9
2020	5.13	7.69	33.2	3.83	3.72	-3.0	25.44	45.35	43.9

# National Food Security Policy



# Policy Goals

## Sustainable Food Availability

- Ensuring sufficient availability of good quality and diversified food in sufficient quantities through domestic production and trade management
- Addressing different food preferences for age, income groups, diseased persons etc.
- Increasing food supplies
  - Better land use, input intensification & crop management
  - Increasing total factor productivity
  - Targeted transformation of agricultural R&D institutions





# Access to Food



- Subsidized food prices
  - Utility stores
  - Special incentives (such as Ramadan)
  - Cheap Bread scheme
- Safety nets:
  - BISP
  - School Children Feeding Program (KPK)
- Social set up
  - Daster Khan schemes
  - Tombs

# Policy Goals

## Sustainable Access to Food

- Ensuring access to good quality, diversified and safe food for all countrymen at household level
- Ensuring adequate food supplies in food deficient districts
- Ensuring economic access to food to people below poverty line and food insecurity vulnerables through social protection and food aid programs
- Maintaining low food prices



# Policy Goals

## Food Utilization & Nutrition Security

- Ensuring improved food utilization by proper food processing, storage, nutrition education of consumers and mothers on child care techniques
- Coordination with line ministries and departments for increasing knowledge on food safety standards, curing infectious diseases, healthy nutrition practices, role of better hygiene and sanitation, availability of safe drinking water, etc.
- Addressing malnutrition through multi-sectoral approach – health cure, diet improvement, adopting better food preparation methods, improving female status in the society, etc.



# Policy Goals

## Stability in Food Prices/Supplies

- Ensuring individual and household level access to good quality and nutritious /diversified food at all times
- Ensuring adequate food supplies through effective monitoring food distribution system and trade management
- Other measures in collaboration with NDMA
  - Coordinated approach to disaster preparedness and management
  - Ensure allocation of adequate resources for disaster management



# Policy Goals

## Food Safety

- Developing and applying food safety standards.
- Ensuring implementation of food safety and SPS measures in production and marketing of agricultural products intended for human consumption.
- Assessment and management of SPS risks associated with the production and marketing of food products.
- Ensuring that all food products/ derivatives are “HALAL”.
- Tracking of food safety and nutrition through surveillance system.



# Policy Future Strategies

- School feeding programme in the most food insecure districts
- Nutrition programmes for children under five years of age
- Nutrition programmes for pregnant women and breast-feeding mothers
- Targeted and conditional social safety nets
- Zero-Hunger Shops in low income areas of 45 districts in Balochistan, Khyber Pakhtunkhwa and FATA
- Coordination among various federal and provincial ministries, and private-public-civil society partnerships.

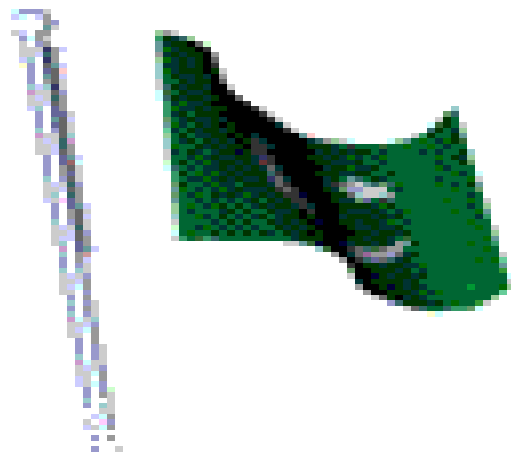


# Institutional Arrangements

## (Policy Innovations)

- Establishment of “National Food and Nutrition Security Council (NFNSC)”
- Launching “Pakistan Zero Hunger Programme (PZHP)”
- Establishment of “National Food Safety, Animal & Plant Health Regulatory Authority (NFSAPHRA)”
- Capacity enhancement of Ministry of National Food Security and Research





***THANKS***