

Agriculture Policy in Pakistan – what it is and what it should be

Sohail Jehangir Malik PhD

Chairman Innovative Development Strategies (Pvt.) Ltd

PIDE

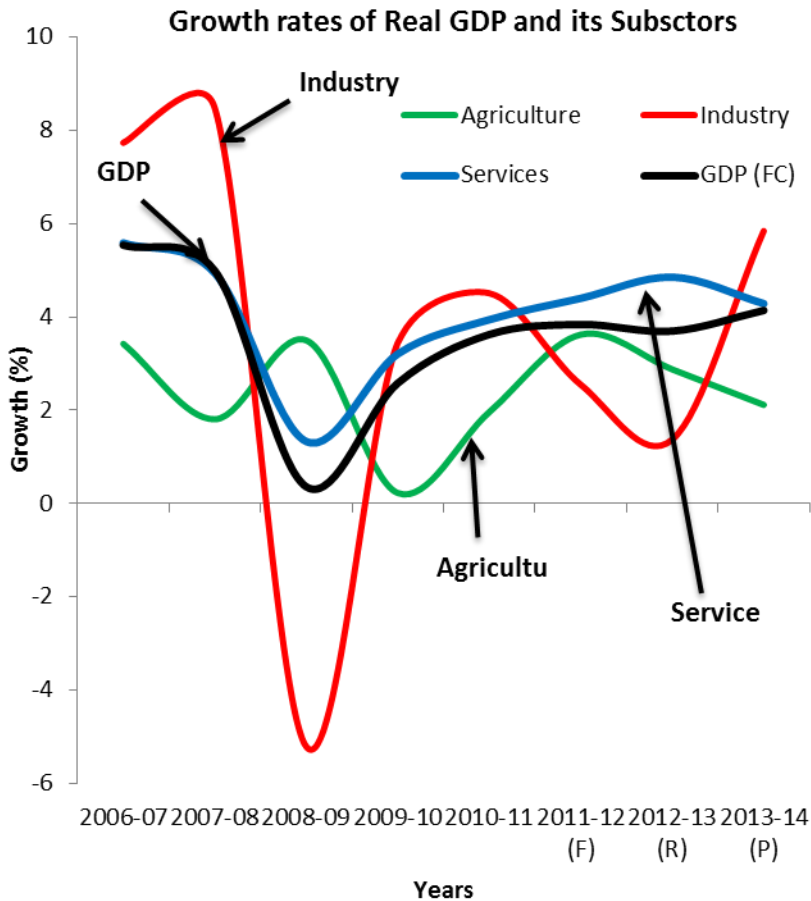
April 24, 2015

Putting Pakistan's Agriculture in the Overall Economic Context

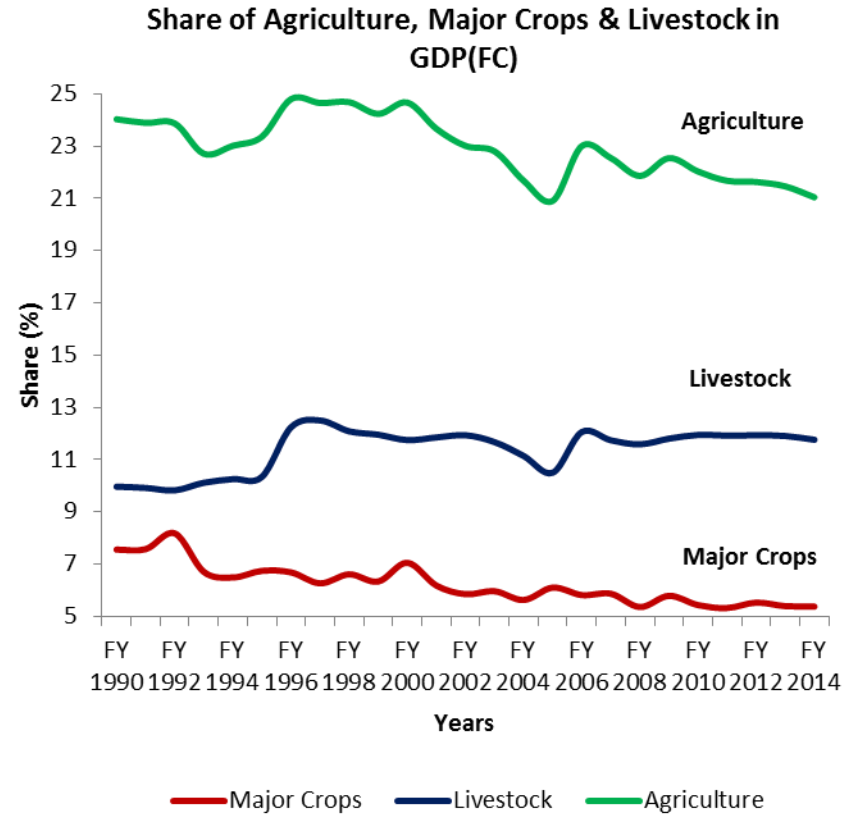
- Inequitable Unjust Distribution of Resources and Power
- Rapidly growing population – majority with little or no education, skills or access to productive resources
- Energy Crises – Fully Blown
- Water Crises – Looming around the corner
- Poor Governance
 - Rampant Corruption
 - Rapid deterioration in ethical norms
 - Poor Policy, Non-existent Analyses, Poorer Data, Rapidly Diminishing Domestic Capacity to formulate or Implement Reform
 - False Bravado
 - Increasing Reliance on Donors for analyses and support
- Circumstances out of our control
 - War on terror – domestic terrorism
 - Earthquakes – Floods
- An attitude of Waiting for Allah – Manna from heaven or from Kerry Lugar or from the IMF? No independent foresight and action

These Constraints have Driven the Economy to the Precipice – And Agriculture functions as a neglected sector in this depressing scenario

Agriculture in Pakistan's Economy



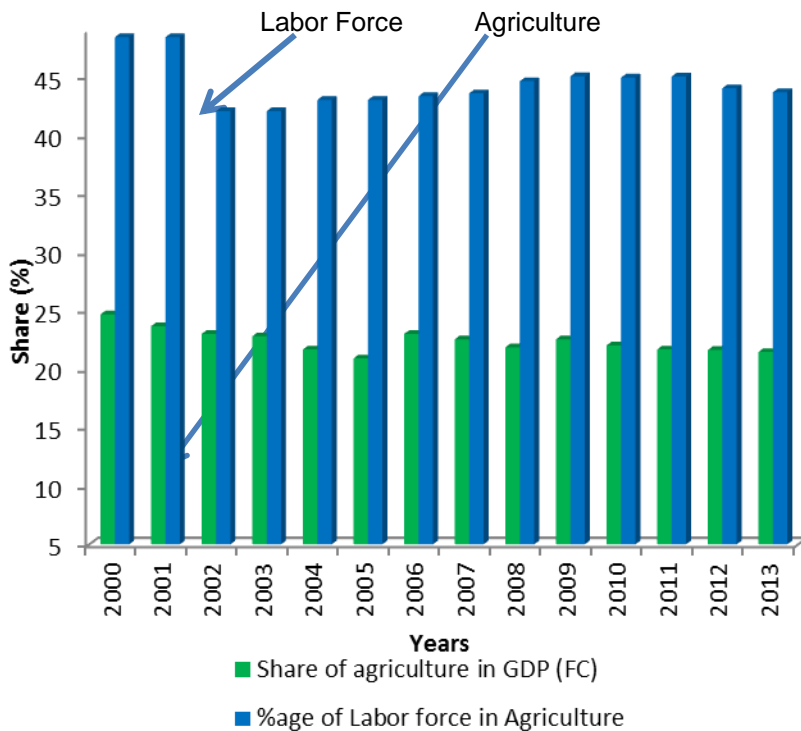
Source: Pakistan Economic Survey 2013-14



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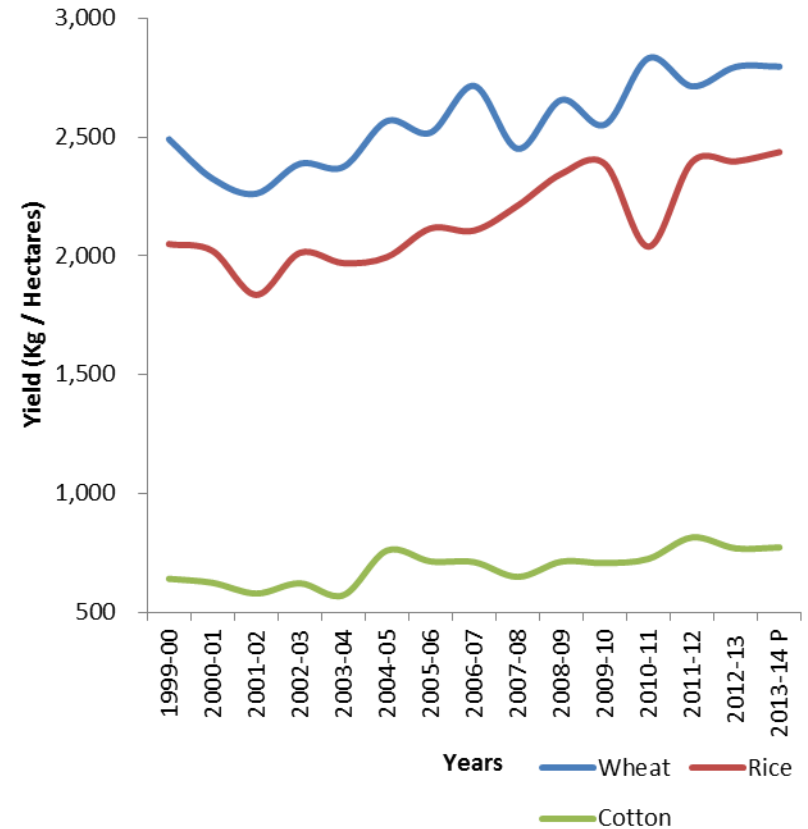
Agriculture in Pakistan's Economy

Share of Agriculture in GDP and Share of Labor Force in Agriculture



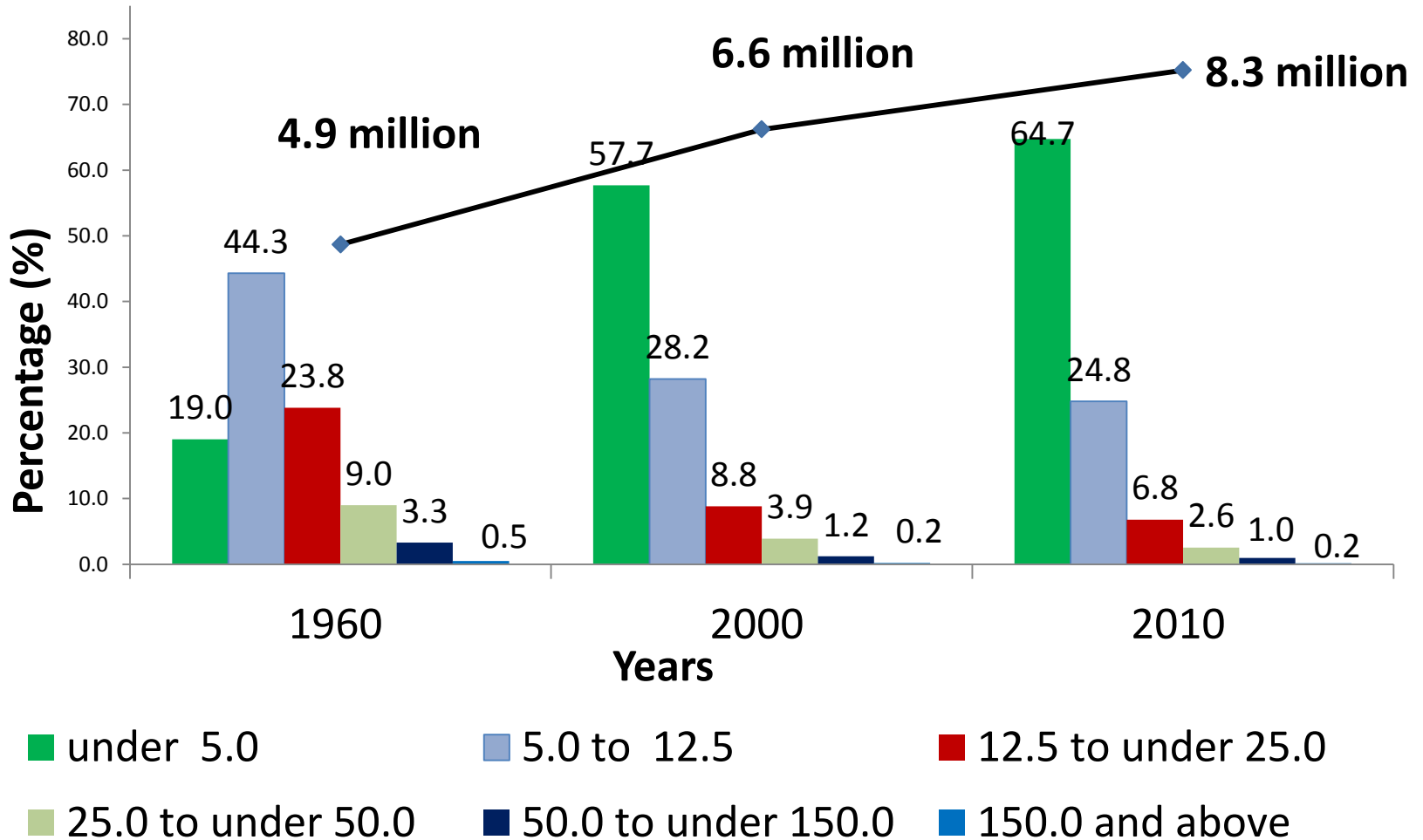
Source: Economic Survey 2013-14

Yield (Kg / Hectare) of Three Important Crops



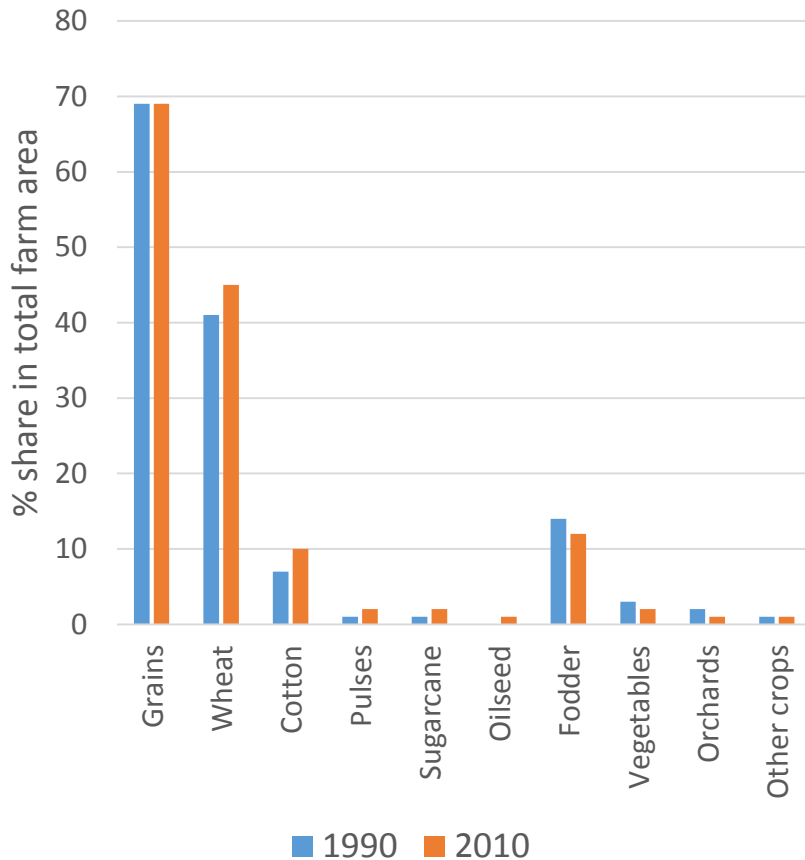
Source: Economic Survey 2013-14

Predominantly Small Farms - The Total Number of Under 5 Acres Farms has More than Tripled since 1960

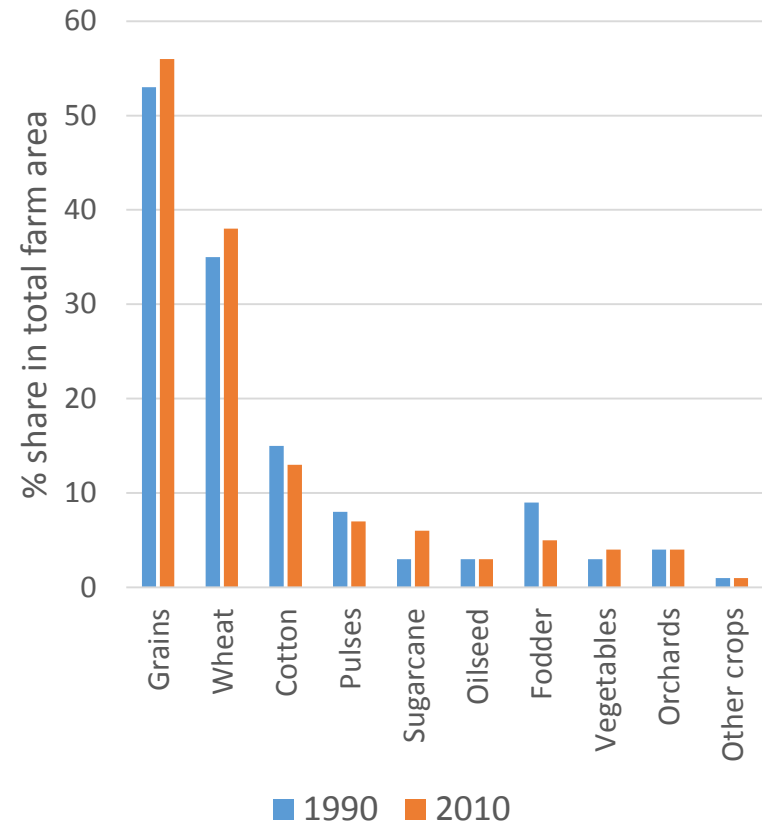


Limited Diversification in Crop Agriculture across all farm sizes

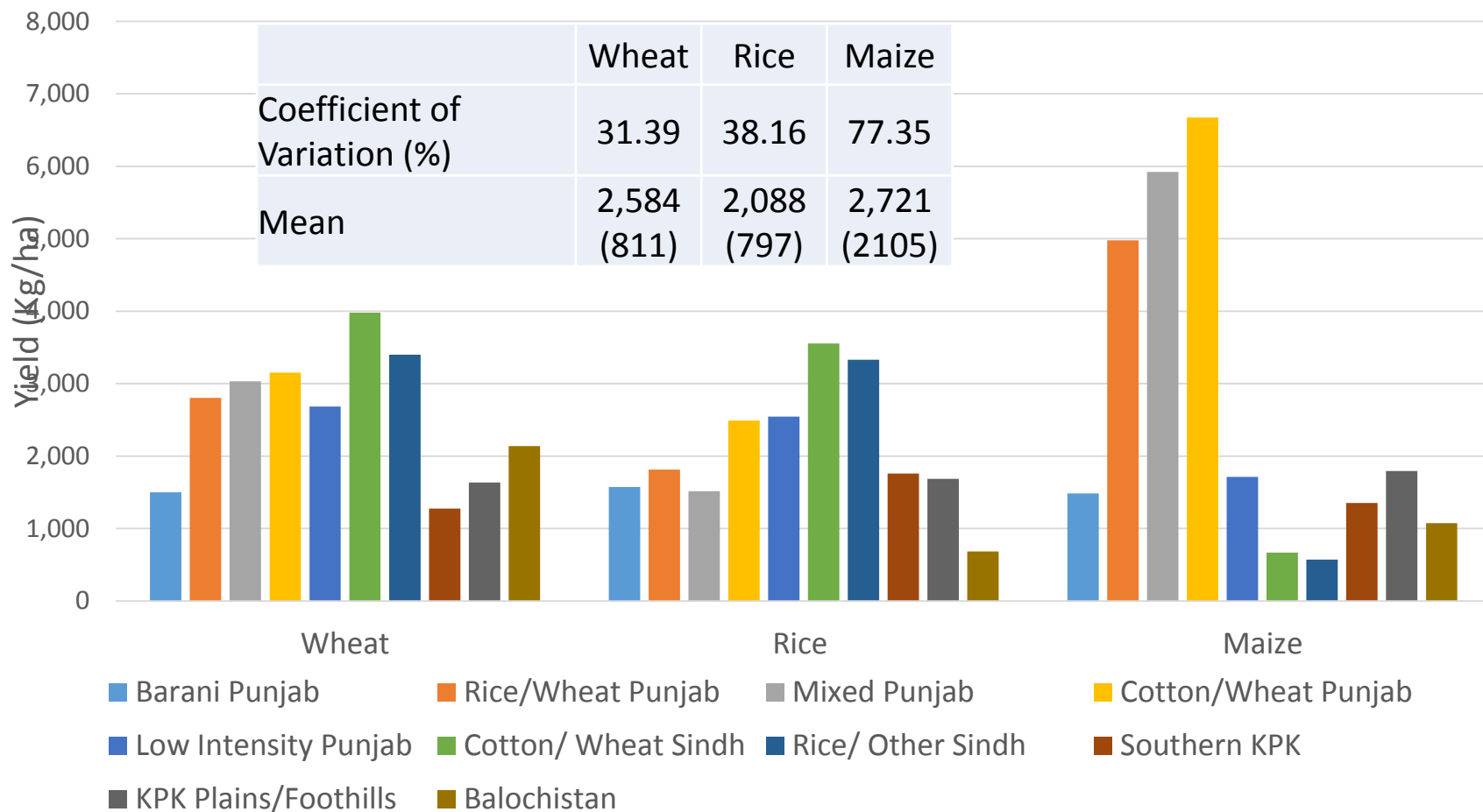
Farms less than 5 Hectares



Farms 20 Hectares and above



Large variability of Crop Yields across Agro-climatic Zones in Pakistan 2010-11



Source: Computed from HIES (2010-11)

The Challenges to Agriculture Growth

The Challenges to agricultural growth have been well known for several decades

1. flat (low) yields and large yield gap relative to potential;
2. low productivity of water;
 1. non-reliability of water services;
3. under-performance of rural factor and input markets;
4. Rapidly declining investment - especially public investment - serious under-investment in research and technology development and dissemination/extension

Many factors hinder Pakistan's agricultural growth

(and hence employment and rural poverty reduction)

- Unequal land distribution – and resultant skewed distribution of power and policy biases
- Inefficient allocation and use of irrigation water
- government intervention in markets
- Neglect of agriculture in all policy decision making and resource allocation except decisions that lead to elite capture
- Serious disconnects between the center and the provinces in decision making and implementation – one size fits all policies - **overly focused on Wheat and fixated on 4 crops only**
- Regulatory environment that discourages investment and reduces market efficiency

The Critical Constraints to Pakistan's Agriculture Policy Reform... Numerous Strategies over the decades...Same Issues... Same RecommendationsLittle Success

1. Extremely elaborate strategies but poor translation and lack of attention to detail and implementation capacity and processes
2. Poor Policy, Poor Research and Inadequate Extension and the Disconnect between these
3. Lack of integration of agriculture (input) policy with overall policy reform and lack of integration of various inputs
4. One size fits all is not conducive to meet diverse sub-national requirements
5. Modernizing Agriculture is not seen as a policy priority - input policy seen only as a way of accessing subsidies
6. Thin Markets and Weak Institutions – neglected in policy
7. Extremely poor governance and lack of accountability
8. Absence of M&E and lesson Learning - decade after decade same issues - same recommendations - no progress

Some Key Agricultural Input Policy Issues

Seed

- High yield, disease free certified seed to meet huge yield gap
- Adherence to safe seed replacement cycles
- Certified and improved seed
- Unregulated burgeoning seed Industry with little or no R&D capacity – IPR issues
- Breeders Act, Seed Act, Seed Policy
- Public private-partnerships

Fertilizer

- Adverse impact on fertilizer use due to price hikes incl. gas
- Nutrient mix unbalanced
 - Farmers lack of awareness in optimal use and traditional preference for nitrogenous
 - Distorted relative prices
 - Limited or no soil testing
- Adulteration and Timely Availability
- Increasing subsidies since 2009-2010
 - Rs 500 per 50 kg potash
 - Rs 1400 per 50 kg on urea
 - Total Rs. 14.5 bln
 - Plus 50 % subsidy on price of gas

Some Key Agricultural Input Policy Issues

(contd.)

Farm Mechanization

- Traditional bias against mechanization as labor displacing etc.
- Credit and capital constraints
- 2011 estimate 0.9 hp per ha as against FAO recommendation of 1.4 hp
- Subsidy - elite capture and political misuse
- Developing market for mechanization services

Water

- Fluctuating availability from surface and ground water sources between 122 MAF in 1998 and 138 MAF in 2010
- Seasonal variation and climate change
 - Water reservoirs deplete to minimal levels in December to February when water requirements for wheat otherwise a low delta crop are largest
- Policy Distortions and biases towards high delta crops – sugarcane, rice and maize
- System losses, water delivery efficiency and on farm water use efficiency
- Low O&M, political interference, theft and corruption
- Increasing non-farm water use
- Pricing, distribution, maintenance and water users
- Rain fed Areas Issues

Some Key Agricultural Input Policy Issues (contd.)

Research and Extension

- Investment levels very low – private sector almost absent
- Inefficient use of available public resources – bulk on establishment charges – operational research only about 3 to 4 percent of total
- Inconsistent with national needs and not demand oriented

Farm Credit

- Essential for modernization
- Access to credit limited by collateral and information constraints and prone to political abuse
- Policy Distortions and inadequate market development
- Limited Geographical spread of the rural financial market – micro finance evidence mixed and

**Same Challenges Well Documented
but
Recommendations too Aggregate**

- **Report of the National Commission on Agriculture (NCA) 1988**
- **The National Agricultural Policy 1991**
- **The Agricultural Perspective and Policy 2004**
- **The Draft National Food Security and Agriculture Policy 2013**

Food Security and Agriculture Policy 2013 (Draft) aims to

- achieve value added growth in the agriculture sector for both domestic and export markets.
- achieve food security and to raise overall rates of economic growth for the benefit of all sections of the society.
- the agriculture sector needs to grow at 5 percent for reducing poverty and reaching the growth targets of 7-8 percent for the national economy of Pakistan

The Food Security and Agriculture Policy 2013 (Draft)

- sets out a vision and goal for agriculture and food security
- with a set of policy directions.
- Overall responsibility for agriculture and rural development with the Provinces after the 18th Amendment
 - articulate their own policies and strategies, formulate investment plans for both the public and private sectors.
- A set of actions related to Federal and inter-provincial issues in agriculture and food security related to international and domestic coordination, upstream and strategic research.
 - covers minimum standards for food safety, seed certification, and pest and animal health surveillance.
- Federally funded flagship programs to address critical issues that need a national approach and political backing to be successful

The Food Security and Agriculture Policy 2013 (Draft) aims to:

- create a modern, efficient and diversified agricultural sector that can ensure a stable and adequate supply of basic food supplies for the country's population, and provide high quality products to its industries and for export;
- ensure attractive incomes and decent employment for those who live and work in rural areas;
- use the resource base in an efficient and sustainable manner;
- flexibly adapt to climate change and be resilient enough to quickly recover from shocks and emergencies; and
- ensure that all sections of the population have stable access to adequate, nutritious and safe foods necessary for a healthy life

The Real Constraints to transforming Pakistan's Agriculture are related to

- Weak and Fragmented Markets with substantial government intervention
 - Especially Non Performing Land Markets
 - Inefficient allocation and use of irrigation water
- Regulatory environment that discourages investment and reduces market efficiency
- Primitive Rural Non Farm Economy and Limited Interface with the Modern Business Practices
- Rapidly declining investment - especially public investment – with serious under-investment in research and technology development and almost non-existent extension and outreach

LAND is at the root

- Small (less than 5 acre) private farms have increased significantly – from **19 percent** of total in **1960** to **64 percent** in **2010**.
- Small size and high poverty **restricts the ability to take risks and diversify**. It also tilts the playing field against the **small farmer as a seller** and **small farmer as a buyer**.
- Issues connected to Land Titling/Records tie up a large proportion of the rural population in litigation and unproductive activity
 - **Lead to Disempowerment and reduced access to justice, credit, technology, services and markets etc.**

WATER: Some Estimates indicate that Requirements will Outstrip Availability by 2015 [World Bank (2004)]

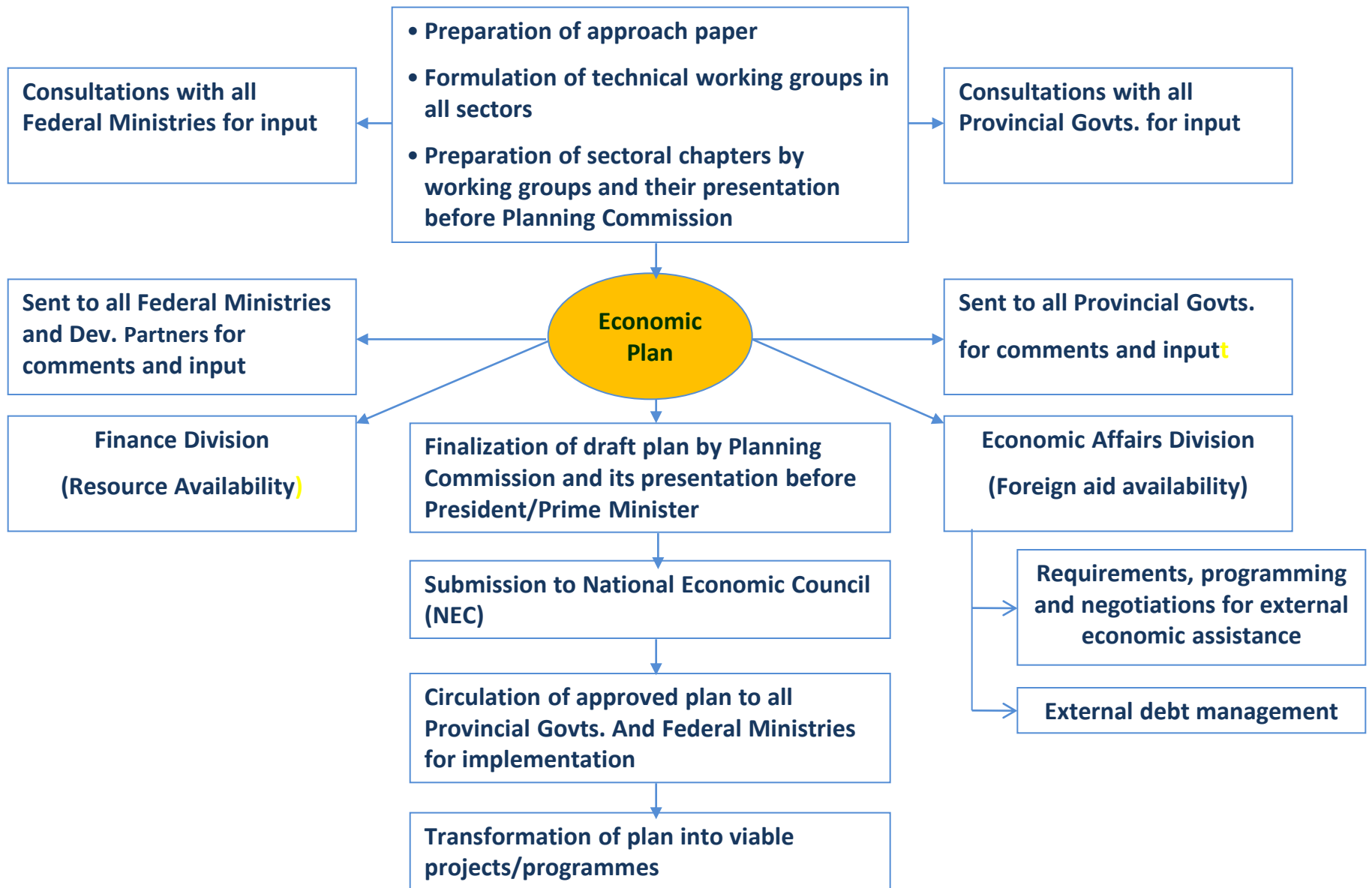
	MAF
Water resources available to meet future needs	
Average annual flow to the sea	38.0 (93% in Kharif)
Additional ground water	1-2
Saving from water conservation	5-10
Estimated total	44-50
Projected incremental water requirements	
Environmental flow requirements	10
Urban domestic and industrial demand	9
Accord deficit	11
Increase in irrigation water demand	5-30
System losses	5-10
Estimated total	40-70

The Disconnects between Research, Policy and Implementation are most critical

- Weak Link between **Demand Driven Agriculture Research and Effective Extension Services**
- Absence of **M&E – feedback and dissemination** – extremely poor and deteriorating quality of data and analysis
- Need for a **holistic policy approach** – agriculture policy should be part of an integrated overall growth promoting policy framework
 - Agriculture should be seen as a system and not just four major crops
- Federal and Provincial Disconnects and lack of **capacity** at all levels especially at the **implementation** level
- **Budgeting and Expenditure Reform** Issues

The Development Policy Process in Pakistan

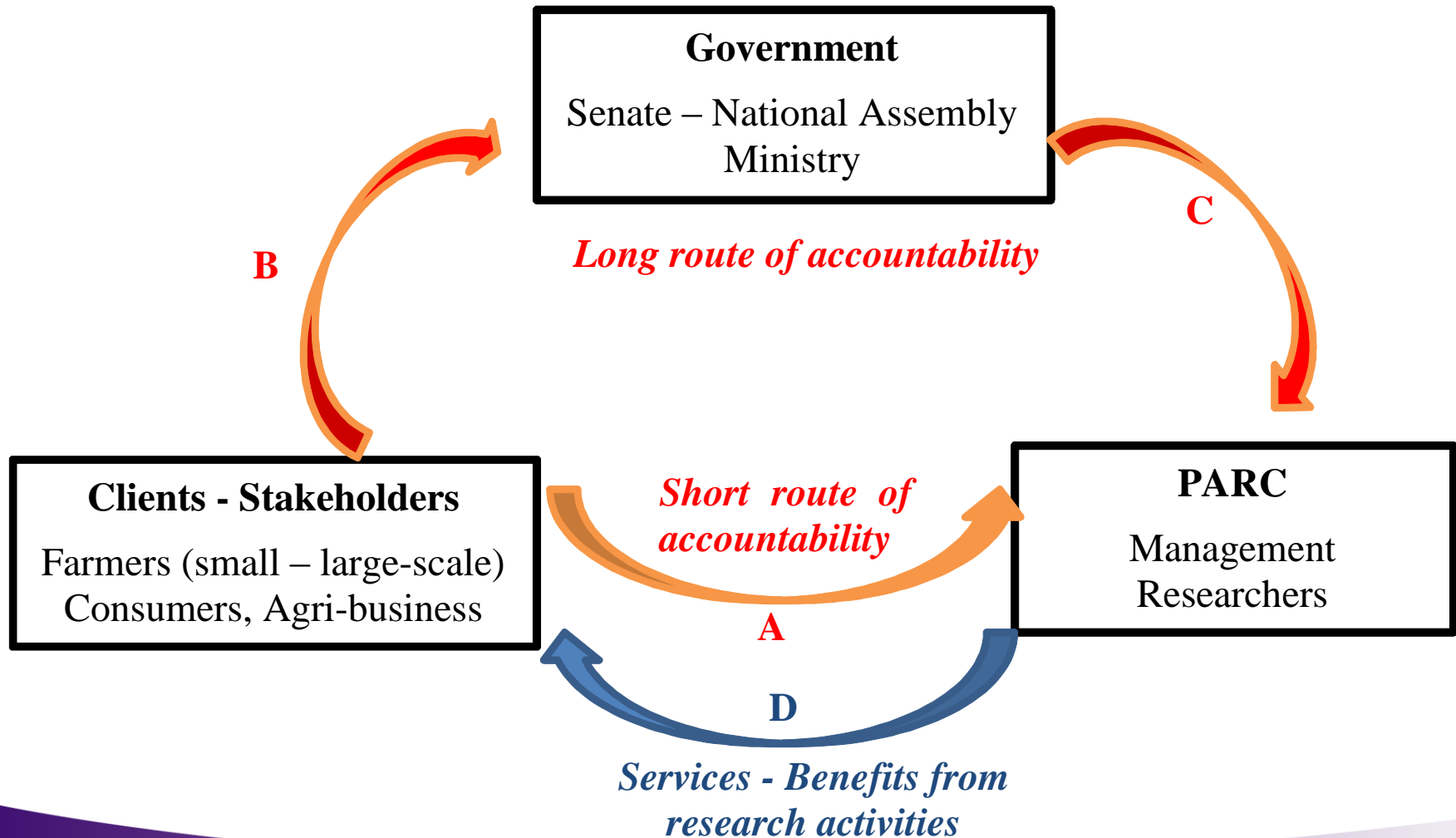
Where is the Research??



Better Monitoring and Evaluation – Accountability and Lesson Learning

The need for a client/stakeholder/private sector interface to enhance the accountability and demand responsiveness of the public research system – A Recommendation from the IFPRI/PSSP Independent Third Party Assessment of the Pakistan Agriculture Research Council

Creating real accountability for performance? Recommendation from a recent IFPRI evaluation of the Pakistan Agricultural Council



Ensuring Agriculture Growth – Let markets function

- catalyze the system to generate and propagate **independent knowledge** that makes perverse decision making and rent seeking impossible
- Identify and clarify Incentives to ensure the market works for all
 - Connect the disconnects through highlighting private incentives and removing information asymmetries
- Unleash the forces of the market to ensure competition and efficiency
- Considerable research is already available – there are a lot of low hanging fruit at all levels

The Path Forward: 1) Analysis 2) Reform implementation 3) Investments *in a conducive environment* and 4) skilled manpower capable of handling the modernization

Four essential steps need to be highlighted:

1. Increase **analytic capacity** to **provide** government, civil society and business the knowledge required to ensure policy reforms and informed decision making
 1. **Wise and profitable Investments** in key agricultural sub-sectors and value chains are made
2. **Strong advocacy and ownership for reform** that ensures the necessary conducive regulatory environment is created and sustained so that markets function properly and demand-based agricultural technology innovation institutions thrive
3. A **trained manpower** that can handle the requirements of a modernizing agriculture system

Ideal Economic Policy

Government should protect and defend

- Lives and property of the persons under its jurisdiction
- Settle disputes
- Leave the people free to pursue their goals and ends in life

Ideally government should only be caretaker

- of the people themselves
- of the conditions which will allow individuals, producers, traders, workers, entrepreneurs, savers and consumers to pursue their goals in peace.

The Case of the Wheat Procurement Policy of Pakistan

PAUL DOROSH ET AL (2015)

Government Wheat Market Interventions

- Domestic procurement at fixed “support price” in excess of open market prices
 - Large farmers who sell wheat to government benefit most
- Significant losses in government storage, and high costs of handling and transport
- Sales of wheat to flour mills at fixed “release price” below open market prices
- Subsidies on sales of imported wheat
 - In some years, subsidized sales of exports

Financial Losses: 2012-13 Wheat Marketing Year

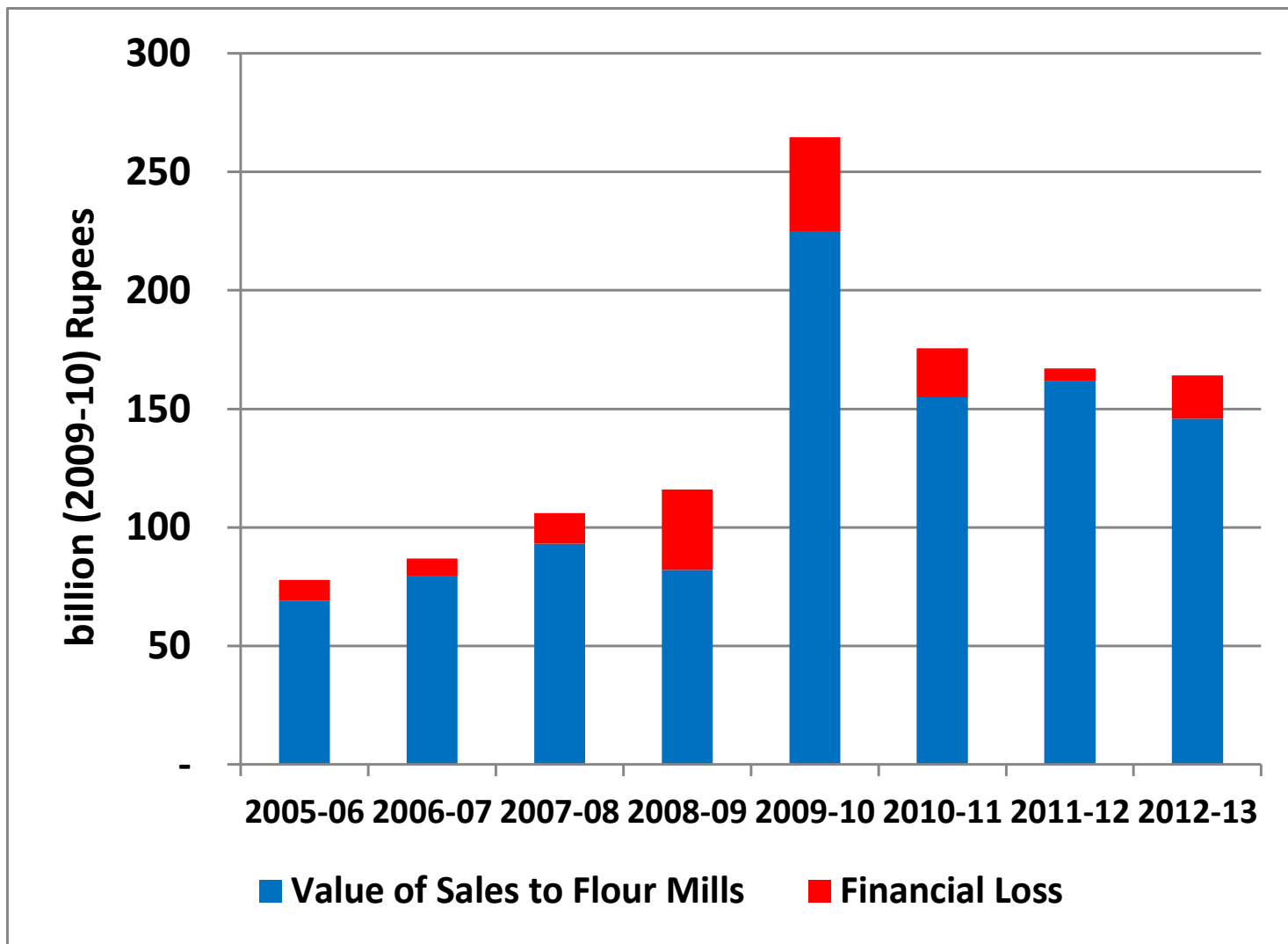
- Subsidy on wheat procured in 2012-13 and sold in same year: **4.18 Rs/kg)**
- Quantity of procurement: 5.95 million tons (compared to peak of 9.23 mn tons in 2009-10)
- Potential losses at 2012/13 release price: 5.95 million tons (total procurement) 4.18 Rs/kg subsidy = **24.8 bn Rupees**
- Total releases: 6.0 million tons times 4.18 Rs/kg subsidy = **25.1 bn Rupees**

Possible Per Kg Financial Losses* on Domestic Wheat Procurement and Sales (Rs/kg)

	Support	Incidentals			Release	Unit
Year	Price	PASSCO	Punjab	Sindh	Price	Subsidy*
	(Rs/kg)	(Rs/kg)	(Rs/kg)	(Rs/kg)	(Rs/kg)	(Rs/kg)
2005-06	10.38	1.83	1.73	-	10.75	1.40
2006-07	10.63	2.30	1.95	2.25	11.63	1.13
2007-08	15.63	2.30	2.00	2.40	15.63	2.15
2008-09	23.75	3.03	2.50	2.73	18.75	7.76
2009-10	23.75	4.80	5.00	4.98	24.38	4.28
2010-11	23.75	---	6.00	4.90	26.25	3.50
2011-12	26.25	---	8.08	7.50	33.25	1.08
2012-13	30.00	---	7.43	6.17	33.25	4.18

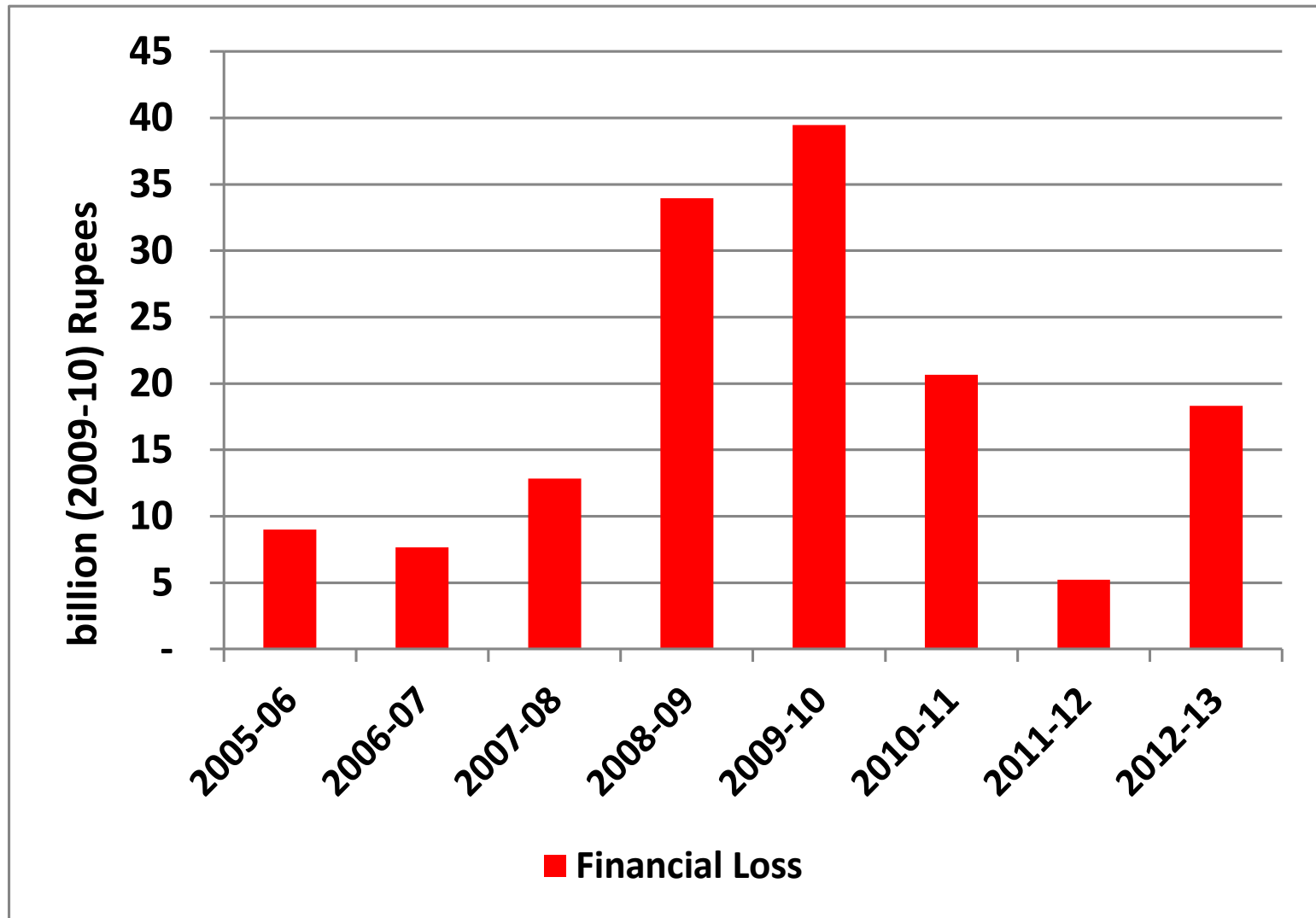
* Possible financial loss (unit subsidy) for each year is calculated as the domestic procurement price plus the cost of incidentals minus the release price.

Possible Financial Losses* on Domestic Wheat Procurement and Sales (bn 2009-10 Rs)



* Possible financial loss for each year is calculated as the domestic procurement price plus the cost of incidentals minus the release price, times the quantity of domestic procurement.

Possible Financial Losses* on Domestic Wheat Procurement and Sales



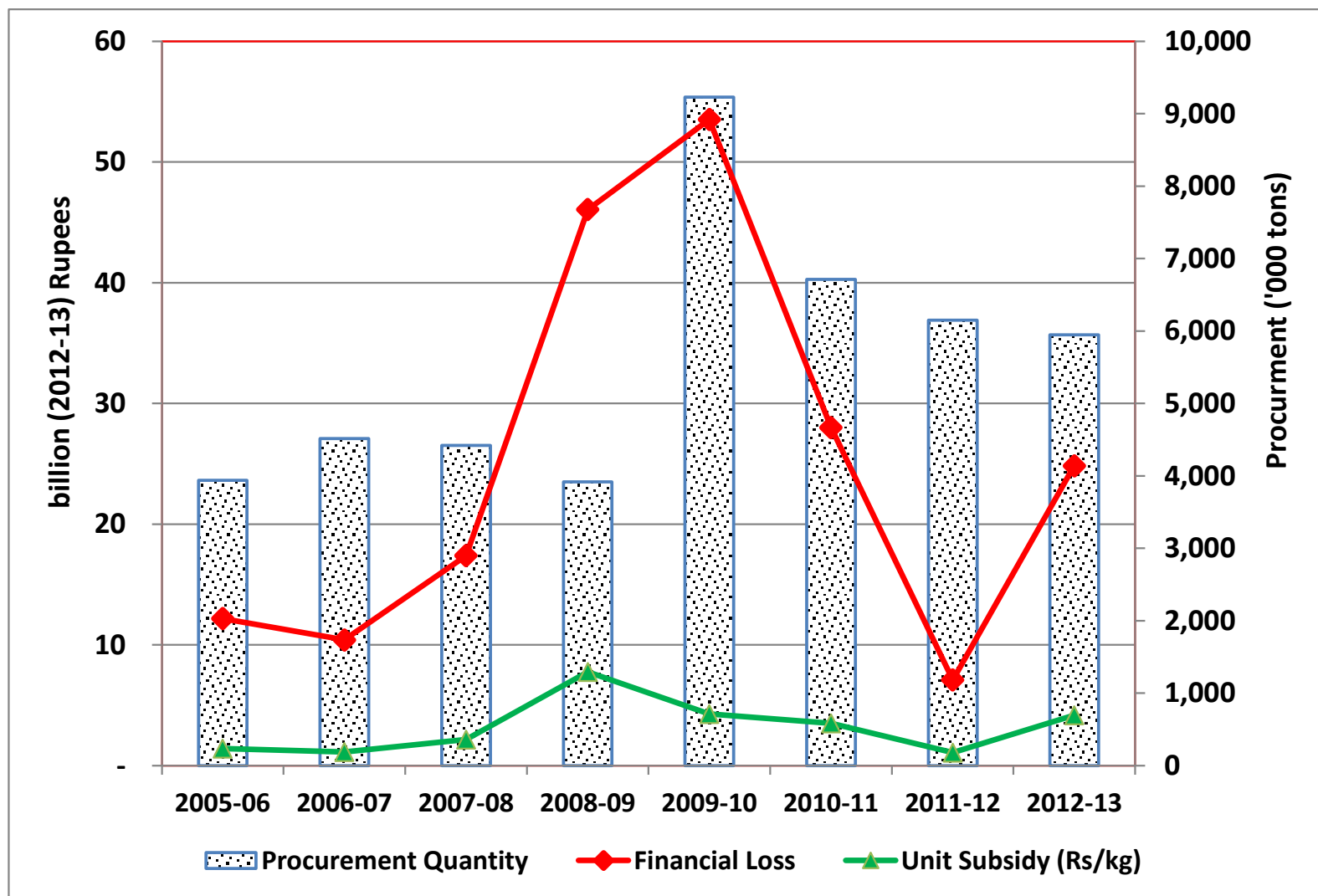
* Possible financial loss for each year is calculated as the domestic procurement price plus the cost of incidentals minus the release price, times the quantity of domestic procurement.

Wheat Procurement, Unit Subsidy and Total Subsidy 2006-06 to 2012-13

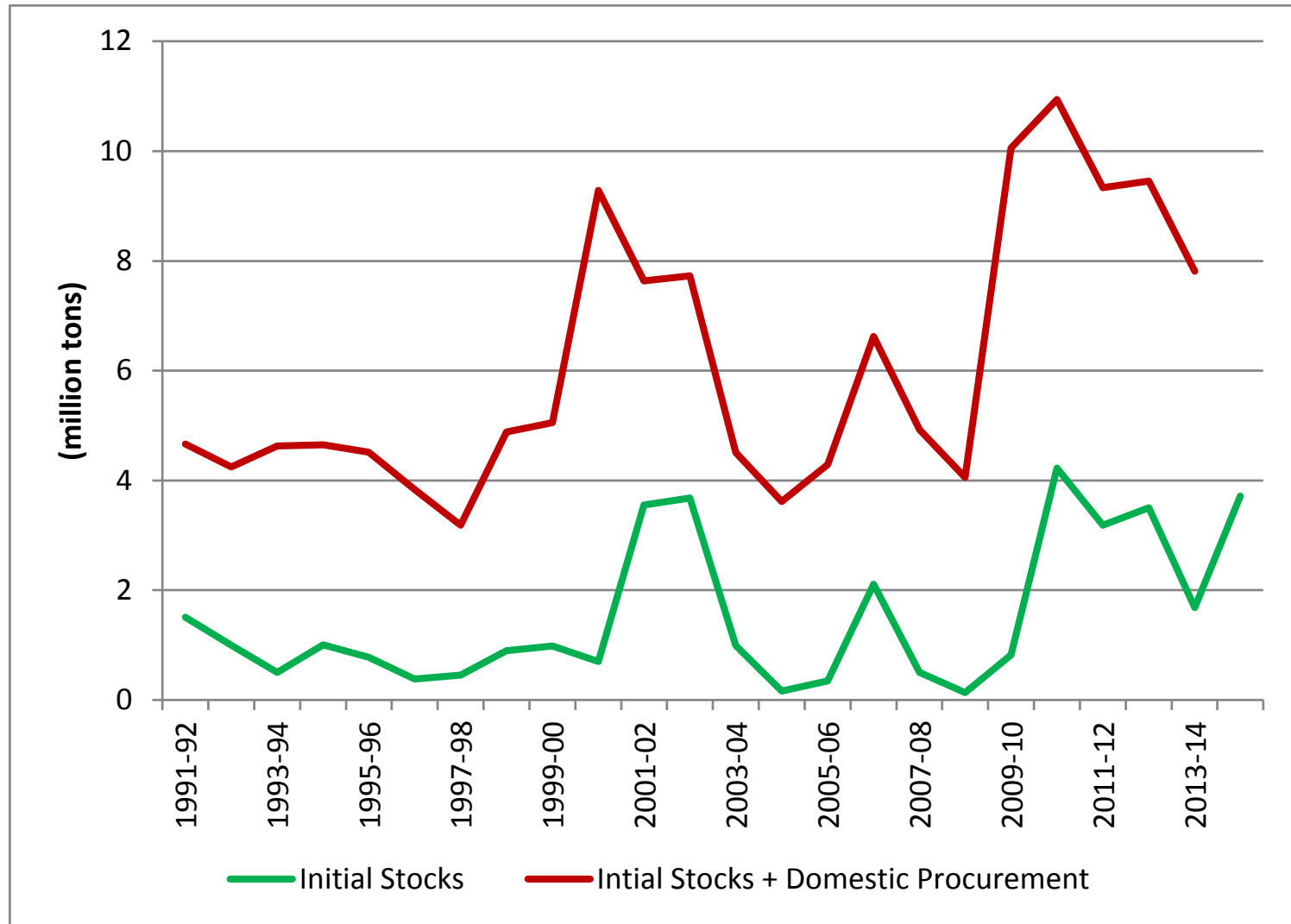
Year	Procurement Quantity ('000 tons)	Support Price (Rs/kg)	Release Price (Rs/kg)	Unit Subsidy* (Rs/kg)	Financial Loss** (bn Rs)	Financial Loss** (bn 12/13 Rs)
2005-06	3,939	10.38	10.75	1.40	5.51	12.18
2006-07	4,514	10.63	11.63	1.13	5.08	10.41
2007-08	4,422	15.63	15.63	2.15	9.51	17.40
2008-09	3,917	23.75	18.75	7.76	30.41	46.07
2009-10	9,231	23.75	24.38	4.28	39.46	53.53
2010-11	6,715	23.75	26.25	3.50	23.50	28.01
2011-12	6,150	26.25	33.25	1.08	6.61	7.10
2012-13	5,948	30.00	33.25	4.18	24.84	24.84
Ave 06-08	4,292	12.21	12.67	1.56	6.70	13.33
Ave 11-13	6,271	26.67	30.92	2.92	18.32	19.98

* Possible financial loss for each year is calculated as the domestic procurement price plus the cost of incidentals minus the release price, times the quantity of domestic procurement.

Wheat Procurement, Unit Subsidy and Total Subsidy 2006-06 to 2012-13

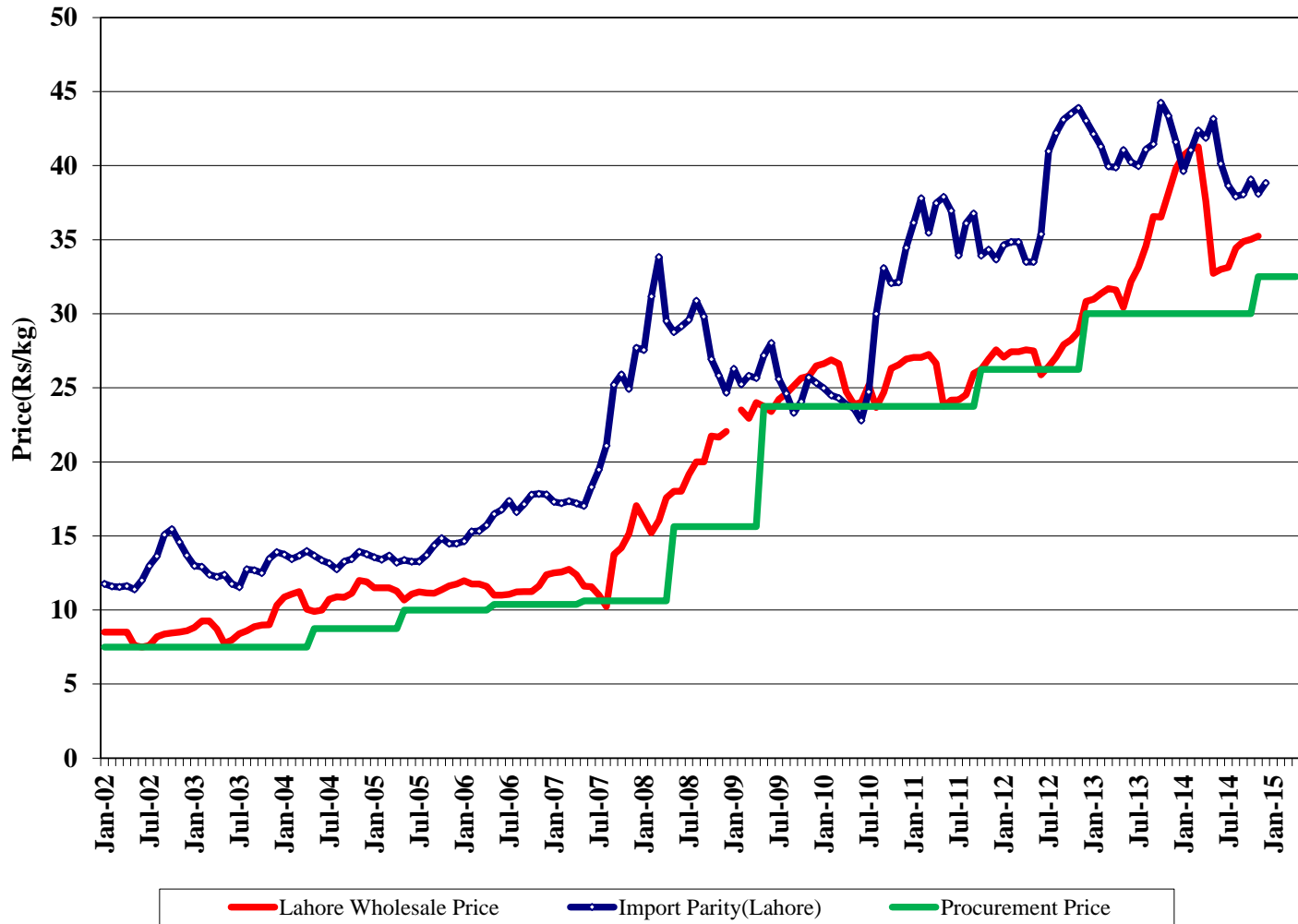


Pakistan: Initial and Estimated Peak Wheat Stocks* 1991-92 to 2013-14

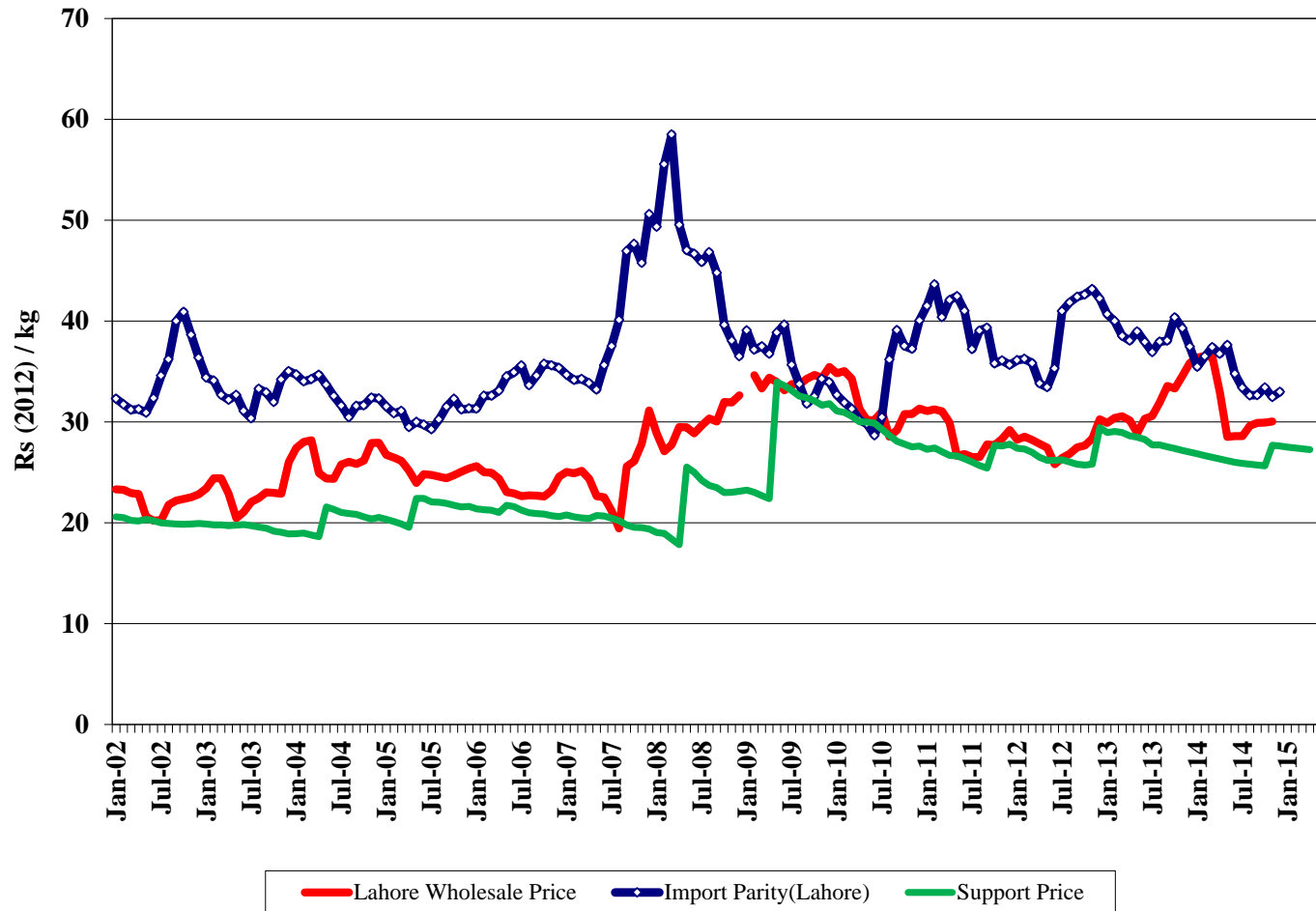


* Peak wheat stocks are estimated as end-April stocks plus May-June domestic procurement.

Pakistan: Nominal Wholesale, Import Parity and Support Prices of Wheat



Real Wholesale and Procurement Prices of Wheat 2002-2014

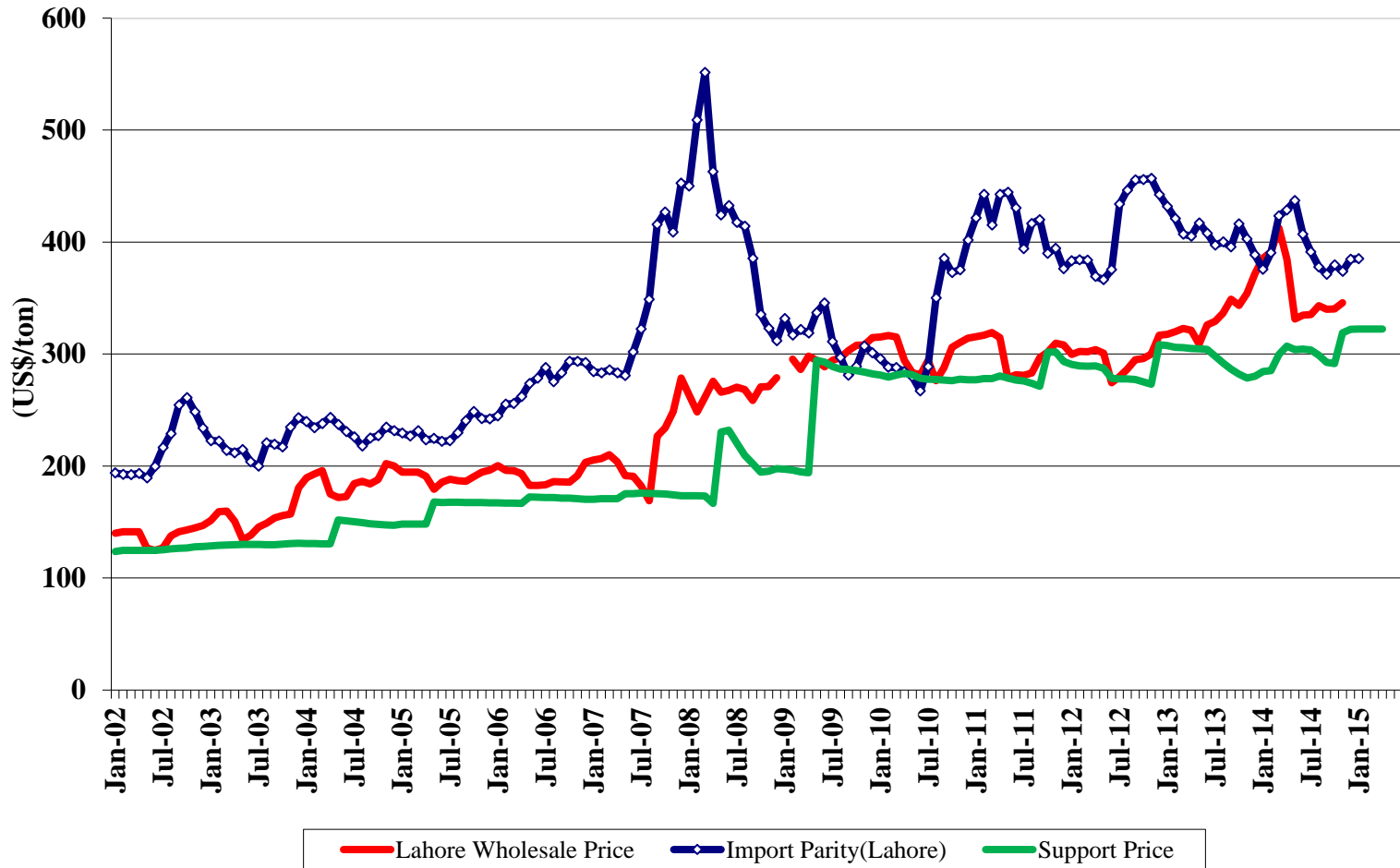


Real wheat prices rose in early 2014 to levels near 2009 highs, but have since declined. Nonetheless, they are still higher than average levels for

Domestic and International Wheat Prices

- Government interventions in domestic wheat markets generally make private international trade (wheat imports or exports) unprofitable.
 - In terms of price formation, wheat generally behaves as a non-traded good, with domestic prices not directly linked to international prices.
- In most years from 1990 to 2006, domestic sales of government imports of about 2 million tons/year kept domestic prices below international (import parity) prices, so private imports were not profitable.
- When international prices rose sharply in 2008, export restrictions prevented exports and kept domestic prices from rising to export parity levels

Pakistan Wheat Prices (US\$/ton) 2002-2014



Note: December 2014 US HRW#2 wheat price was \$291/ton (fob Gulf); \$325/ton c&f Karachi.

Current International Wheat Prices

- In mid-2010, international wheat prices increased sharply and have remained at a level of about \$400/ton import parity (Lahore) through the end of 2014.
- Domestic wholesale prices have generally been far lower (about \$350/ton)
 - There has been no incentive for private sector imports for most of this period.

Wheat Policy: Procurement and Release Prices

- **Setting domestic procurement prices too high relative to domestic release prices results in massive fiscal costs** with little or no benefit to consumers and to small farmers that do not sell wheat to government agencies.
- The unit subsidy could be reduced by **raising the release price** and thus reducing a subsidy to flour mills.

Wheat Policy: Quantity of Procurement

- Wheat subsidies have increased by 50 percent in real terms (average 2010/11-2012/13 compared with average 2005/06 – 2007/08).
 - This corresponds to a 46 percent increase in the quantity of procurement over this period (from 4.3 to 6.3 million tons per year).
- **Reducing quantities of procurement** to these earlier levels could save 6.7 bn rupees per year.
 - Further gradual reductions in quantity of procurement are also possible, allowing the private sector to play a larger role in marketing.

Sources:

- Dorosh, Paul, Elena Briones Alonso, Shauib Malik and Abdul Salam. 2015. "Agricultural Markets and Trade", manuscript.
- Dorosh, P. A., and A. Salam. 2008. "Wheat Markets and Price Stabilization in Pakistan: An Analysis of Policy Options", *Pakistan Development Review* 44(1):71-88.

Thank You So Much