CHALLENGES AND OPPORTUNITIES FOR INDIAN AGRICULTURE

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INDIAN AGRICULTURE -MACRO DIMENSIONS

- Agricultural land 183.6 m.ha (2001-02) - 182.0 m.ha (2010-11)
- Arable land 157.35 m.ha (China-111.60 m.h)
- Share of agriculture & allied sectors 51.4% (1st Plan) to 15.2% (11th plan) and 13.7% in 2012-13
- Percentage of irrigated area 17.1% (1950-51) - 44.9% (2010-11).
- The cropping intensity 111.1 % (1950-51) - 140.5 % (2010-11).
- Average size of holding from 1.33 ha in 2000-01 to 1.16 in 2010-11

INDIAN AGRICULTURE -MACRO DIMENSIONS

- No.operational holdings 129 million(2005-06) to 138 million in 2010-11(Ag.Cen 2011)
- Total Investment in agriculture as percent of Agr.GDP has increased from 6.9% in first plan to 18.86% in 11th plan.(2004-5 prices)
- Public investment declined from 4.9% in 6th plan to 3.5% in 11th plan,
- Private investment has increased from 5.2% in 6th plan to 15.1% in 11th plan
- Rural Population 68.8 % of total population

CHALLENGES

1.Low growth- Weather Dependent,45% irrigation

2.Sustainability-

- land & environmental degradation
- unsustainable use of water, soils

3. Profitability-

- Size of farm- 1.33 to 1.16
- Level of technology adoption
- Profitability of Agriculture vis-a-vis other sectors
- Raising small holder productivity
- Disguised unemployment-pressure on land

CHALLENGES

4.Sustaining investment-

- Neglect in policy- Decline in Public Investment(4.9 to 3.5 %)
- Low return- lack of Private interest

5.Climate change

- Droughts, floods, erratic rains - greatest impact in rain-fed areas
- India's crop yields could fall by 30% by 2050(IPCC)

6.Marketing- Price instability, Imperfect markets

CHALLENGES

7. Rising wages and other input costs- MNREGA, migration, energy
8. International Competitiveness-WTO
9. Inadequate infrastructure-Physical
   - Supply chain constraints
10. Inadequacy of intuitions- credit and market, extension, R&D, risk management
11. Need for Large investments in Agro-processing

OPPORTUNITIES

1.India is a global agricultural powerhouse

- world's largest producer of milk, pulses, and spices,
- largest area under wheat, rice and cotton
- world's largest cattle herd (buffaloes)
- Second largest producer of rice, wheat, cotton, sugarcane, farmed fish, sheep & goat meat, fruit, vegetables and tea.

2.Diverse agro-climatic conditions/zones

4.Fertile soils

3.Large Domestic Market-

- Rising demand for food- high value fruits and proteins meat, dairy and fishery products.
- Rapid Urbanisation and increasing middle class

5.Domestic R&D and Extension capacity

6.Global Markets- expanding demand, bio-fuel competition

OPPORTUNITIES

7.Enterprising Farming Community

8.Scope for Increasing cropping intensity

9.Yeild Gap between world Average and across regions in India

- Best Farmers overall profitability is 77% higher than average farmers profitability
- Enhanced and balanced use of Fertilisers, HYV,irrigation can boost yields
- Better seeds can raise yields by 40%

10.Irrigation- minor irrigation has better returns on investment

11.Credit-larger credit availability for small farms can raise per capita output

12.Farm size-technology adoption, diversification

FOCUS AREAS FOR POLICY

1.Strategise for second green Revolution-

- dryland and Wasteland Development focus
- Efficiency in water use-“more crop per drop”
- Increased Irrigation- minor irrigation, precision farming
- Horticulture focus-NHM
- Investment in Promotion of soil Health

2.Focus on Animal Husbandry and Fisheries-

- Dairying,
- Aquaculture

3.Smart investments in post harvest and marketing infrastructure

- Supply Chain- Storage, processing, cold chain development
- Food Processing and Value addition activities
- Grading and Standardisation of Produce
- Commodity exchanges/Futures Markets
- Warehousing infrastructure

FOCUS AREAS FOR POLICY

4. Risk management measures-production and market risks
5. Reform Food Laws bring in Integrated Food Law- Essential Commodities Act, APMC Act, Forward Contracts (Regulation) Act
6. Demand Driven agriculture research and extension
7. Organic Farming
8. Technology- precision farming techniques, input use efficiency, processing and storage, marketing,
9. Crop Diversification- Shift from Rice-wheat cropping systems
10. Facilitating agricultural diversification to higher-value commodities

FOCUS AREAS FOR POLICY

- Marketing Reforms- APMC, creation of competitive markets, Development of National Market
- Modernisation of Seed Farming- Seed Laws etc
- Rural infrastructure development
- Agro-based food processing
- Promoting high growth commodities-Diary, Livestock, fishery
- Reduction in wastage on farm/off farm
- Credit Markets-reliance on private credit still large
- Risk insurance-market risk, production risk
- S&T-GM , precision Farming, protected farming, IT tools application

VERTICAL FARMING



FOCUS AREAS FOR POLICY

- Institutional Innovations-Group Farming, Producer Companies, Contract Farming
- Liberalization of constraints to marketing, transport, export and processing
- Building competitive value chains from producers to urban centers and export markets
- National Policy for Farmers 2007

CONCLUSIONS

- Address five Deficits of
- (a) investment, credit, infrastructure
- (b) research, extension (technology)
- (c) Market
- (d) diversification
- (e) institutions
- (f) education/skill

Thank You for Attention