PHILIPPINE AGRICULTURE AND FISHERY Challenges, Opportunities and Global Competitiveness Dr. Rolando T. Dy, Ph.D. Executive Director, Center for Food and Agri Business Dean, School of Management University of Asia and the Pacific Vice President, Philippine Chamber of Agriculture and Food Inc. March 9, 2010

AGRIBUSINESS AND ECONOMIC GROWTH

- Strong synergies between the performance of agriculture and development.
- Dynamic and efficient agribusiness spurs agricultural growth.
- Strong link between agribusiness and smallholders can reduce rural poverty

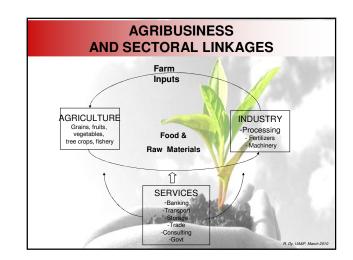
- WDR 2008

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OUTLINE

- Role of Agriculture and Agribusiness
- · The Global Picture
- The ASEAN
- · The Philippines
- Competitiveness Guidelines and Implications
- Challenges
- · Over-riding and Strategic Goals
- · Key Success Factors
- · Select Action Agenda
- · Food for Thought

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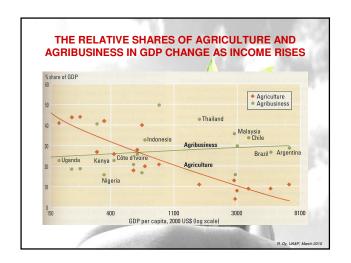


STRATEGIC ROLE OF AGRICULTURE IN DEVELOPMENT

- Economic contribution to GDP, food, raw materials for agro-processing, exports,
- · Livelihood jobs
- Environment impact of water use, deforestation, coral reefs, climate change

Source: World Bank, World Development Report 2008

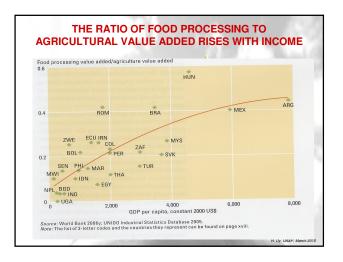
	Agriculture as % of GDP	Agribusiness as % of GDP	Multiplier
Indonesia	20	33	1.6
Malaysia	13	36	2.8
Thailand	11	43	3.9
Argentina 5.6		32.2	5.8
Brazil	7.5	26.6	3.6
Chile	8.5	32.1	3.8
Costa Rica	12.8	32.5	2.5



THE GLOBAL CHALLENGES

- Pressure on food supply
- Rising energy costs
- High fertilizer costs
- Increasing land scarcity
- Increasing water scarcity
- Climate change
- Stringent food standards

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Pressure on Food Supply

- Growing markets for food, feed, and biofuels
- Industrialization, urbanization and infrastructure reduce prime lands
- Less water for agriculture

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GLOBAL TRENDS

- Diversification toward high-value production is a demand-driven process in which the private sector plays a vital role
- Higher incomes, urbanization, and changing preferences cause domestic consumer demand for high-value products.
- The structure of food spending is shifting from the consumption of grains and staples to vegetables, fruits, meat, dairy, and fish.
- The demand for ready-to-cook and ready-to-eat foods is also rising, particularly in urban areas.

- IFPRI, 2007

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Rising Input Prices

Energy and fertilizer

- Slow growth but sustained demand
- Limited discoveries of large oil fields (peak oil?)
- Non-renewable supplies of gas, phosphate and potash
- Sources limited to few countries

Land and Water Scarcity

- Conversion of farm lands
- Competing uses of water: agriculture, industry, infrastructure, housing
- Climate change

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GLOBAL OPPORTUNITIES

- Rising incomes and wealth in Asia - China, India, ASEAN
- Supply chain transformation
- Biofuels boom
- Technology advances (Life sciences + ICT)
- Cross-border investments

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Climate Change

- Increasing variability
- Rising intensities of droughts, floods, and typhoons
- Variability in food supply

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Supply Chain/Logistics Transformation

- Moving goods efficiently
- With faster turnaround
- Multi-points sourcing
- Lower final costs to consumers

Impact: Countries, regions and firms with better logistics have the competitive edge.

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Stringent Food Safety Standards

The new non-tariff barriers

- New opportunities are stifled by rigorous safety and quality standards of countries, processors and retailers
- Traceability certifications
- Many developing, agri-exporting countries are ill-prepared.

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Biofuels

(Mandated In Many Countries)

· Bio- ethanol

Raw materials: sugarcane, cassava and sweet sorghum

Bio-diesel

Raw materials: palm oil, palm kernel oil, coconut oil, jatropha(?)

Technology advances

(Life sciences + ICT)

- GMO impact of increasing yield and shelf life, more nutritious goods, cost-effective plant architecture, and elimination/reduction of cost of farm chemicals use.
- ICT impact on rapid transmission of market signals, market transactions, new technologies, and decision-making

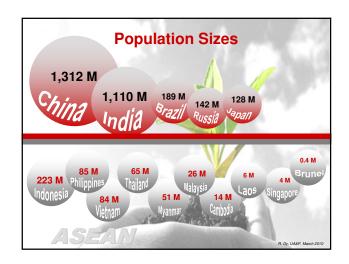
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Rising incomes and wealth in Asia - China, India, ASEAN • Population size • Rapid economic growth • Fast-rising middle class

Cross-border investments

- FTAs enlarge markets, lift economies of scale, and attracts FDIs
- Improving risk profile attracts attract foreign capital into emerging economies
- Simplified customs and guarantine
- Lower barriers of nationalism

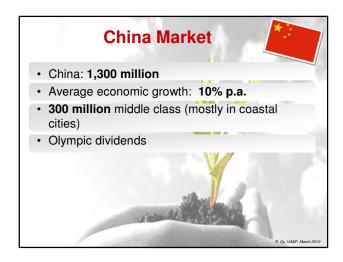
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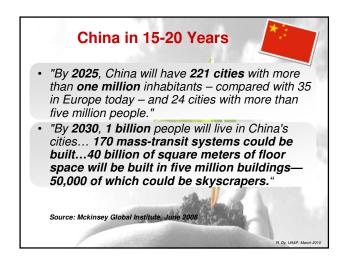


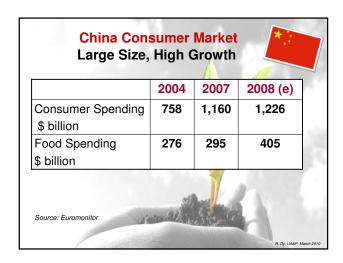
Rising incomes and wealth

- The global corporations are transforming the opportunities for small agricultural producers.
- Transactions along the corporate food chain have increased. Between 2004 and 2006, global food spending grew by 16 percent from US\$5.5 trillion to 6.4 trillion (Planet Retail 2007).

- IFPRI, December 2007



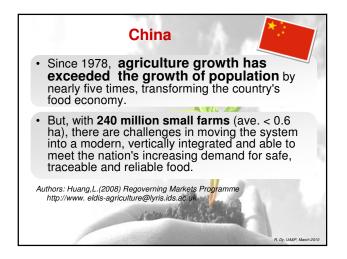


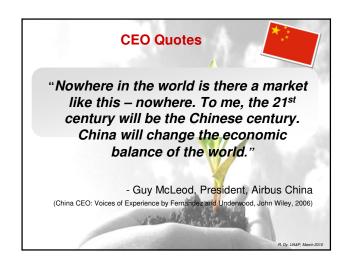


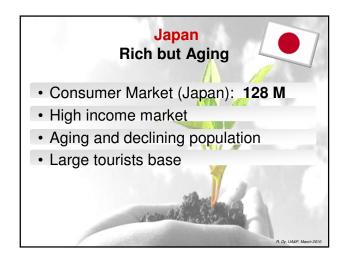


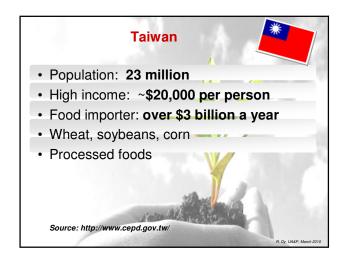


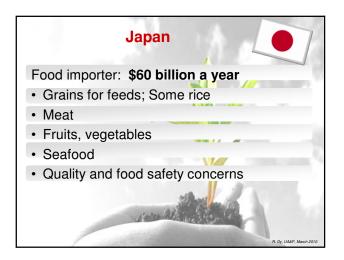


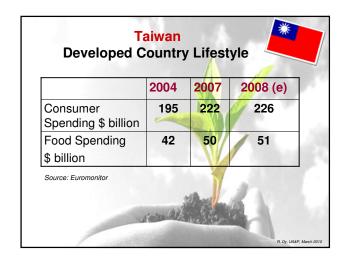




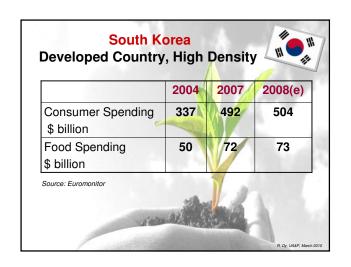




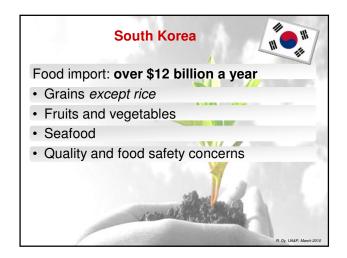












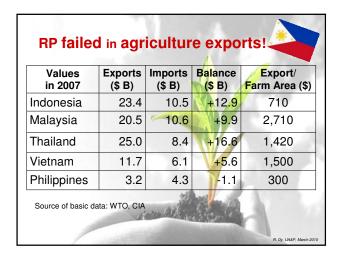
	SEAN COUN WORLD PI		6
	1	2	3
Rice	Thailand	Vietnam	India
Palm oil	Indonesia	Malaysia	Thailand
Coconut oil	Philippines	Indonesia	India
Natural rubber	Thailand	Indonesia	Malaysia
Coffee, robusta	Vietnam	Indonesia	Brazil
Banana, fresh	Ecuador	Philippines	Costa Rica
Pineapple, canned	Thailand	Philippines	Indonesia
	Name all	wester!	R. Dy, UA&P, March 2010



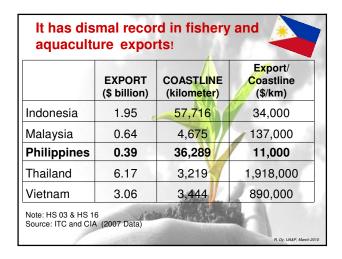
	SEAN EXPO	ORTS D PLAYERS	8
	1	2	3
Shrimps	China	Thailand	Vietnam
Catfish	Vietnam	China	USA
Canned tuna	USA	Thailand	Spain
Tapioca starch	Thailand	Vietnam	Indonesia
Pepper	Vietnam	India	Brazil
Cashew	Vietnam	Nigeria	India
Cacao	Ivory Coast	Ghana	Indonesia
		The second second	R. Dy, UA&P, March 20

PHILIPPINE AGRICULTURE PERFORMANCE RP tailed in the 1980s and 1990s (% Average Annual Growth) 1980-1990 1990-2000 2001-2008 Indonesia 3.6 2.1 3.4 Malaysia 3.4 0.3 3.3 **Philippines** 1.0 1.7 3.8 Thailand 3.9 4.2 3.0 China 5.9 4.1 4.2 Vietnam 2.8 4.3 3.9 Source: World Bank Development Indicators, 2004 and 2006; Asian Development Bank – Key Indicators of Developing Asia and Pacific Countries, 2007

Export Value in\$ B	INDON	MALAY	PHIL	THAI	VIE
Fish, etc.	1.6		0.3	2.3	2.5
Veggies				0.7	0.2
Fruits and nuts			0.6		0.5
Coffee	0.9				1.6
Cocoa and prep	0.9	0.6			1987
Cereals & prep	1		0.2	2.7	0.9
Vegetable oils	6.1	7.0	0.6		
Seafood prep	0.3	300	0.1	4.0	0.6
Rubber prod	5.5	4.8	(B)	8.9	0.9
All products	15.8	12.4	2.5	22.8	7.3



	wily is a rill	pino farmer poor?
ltem	Status	Major Causes
Farm Area	Low Utilization	Limited multi-cropping and diversification
		Inadequate irrigation and drainage Weak marketing infrastructure
x Farm Productivity	Low	Limited use of good seeds and genetics
		Low input use
		Access to technology and training Access to credit
= Production	Low	Plus: post-harvest losses
x Farm Price	Somewhat Low	High transport costs (poor rural infrastructure)
		Access to market information
		Weak farmers organization
= SALES	Low	Recipe for low income



MA	NG AMBO'S Why is he	7.		
Item	Status	Major Causes		
COSTS				
Farm Inputs				
- Quantity	Low Usage	 Lack of resources 		
		Not bankable		
-Costs	High	 High transport costs (poor rural infrastructure) 		
Loans	High Cost	Small loan size, high risk		
FARM INCOME	Low Income (Poverty level)	•Low revenue and high costs		

SOURCES OF COMPETITIVE ADVANTAGE

- √ Factor endowment
- ✓ Difference in productivity and costs
- ✓ Dynamic economies of scale

Source: Colliers and Venable (2007), Eifert, Gelb and Ramachandran (2005), and Wood and Mayer (2001) as quoted in the World Development Report 2008

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On Business Climate

- Good macro fundamentals
- Reasonable fiscal and external balances, realistic exchange rate, low inflation and interest rates, competitive markets, and
- Social and political stability.

-- ADB, Philippines: Moving Towards a Good Investment Climate, 2005

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Factor endowment

Natural resourcesLand, Water, Sea

Quality

> Human capital
Supply: Unskilled and Skilled

The state of the s

On Business Climate

- Infrastructure availability and quality of physical infrastructure, such as roads and ports, telecommunications, power and water supply.
- Maintenance of assets

ADB, Philippines: Moving Towards a Good Investment Climate, 2005

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Productivity and Cost Drivers

- Business climate
- **►** Infrastructure
- > Institutions

On Business Climate

- Governance and institutions: transparency and efficiency in regulation, taxation, and legal system, strong and well-functioning financial sector, labor market flexibility, and skilled labor force.
- -- ADB, Philippines: Moving Towards a Good Investment Climate, 2005

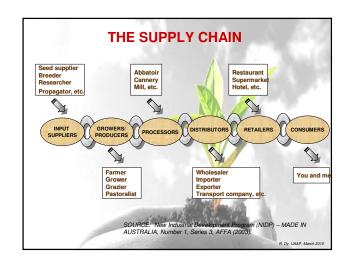
Economies of Scale

- Size matters
- Raw material base
- > Early movers have an advantage **ECONOMIES OF SCOPE**
- > Supplier industries and services in the cluster
- > Support institutions

DETERMINANTS OF GLOBAL COMPETITIVENESS AT THE FRONT OF THE SUPPLY/VALUE CHAIN: The cost, availability, and reliability of raw materials delivered to the processors Source: AFFA

GLOBAL COMPETITIVENESS IMPORT Domestic Price < Border (CIF) Price **EXPORT** Domestic Price < Border (FOB) Price







IMPLICATIONS

- Inter-connectivity of roads to ports
- Land consolidation for large scale raw materials
- Supply chain efficiencies

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AGRO-INDUSTRIAL COMPETITIVENESS

Where raw materials are priced at near world prices

- √ good marketing
- ✓innovative product development
- ✓ a sound understanding of consumers are keys to compete in value –sensitive markets

Source: AFFA

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IMPLICATIONS

Address longer term issues of:

- productivity
- plant efficiencies
- logistics
- scale

IMPLICATIONS

- Investing in marketing and export development
- Investing in product R&D
- Investing in market research and intelligence

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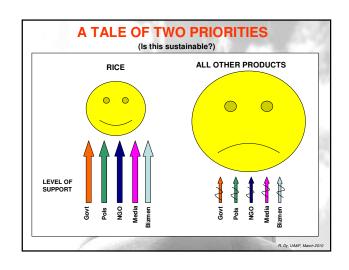
MAXIMIZE

GDP, Jobs, Incomes and Exports in Agri-Fishery

Subject to:

- Market
- Profitability
- Land and Climate Suitability
- Budget Constraints

Allocate budget to: **INDUSTRIES: FUNCTIONS:** Rice Market **Development** Corn R&D Coconut Technology Sugar Post-harvest Fruits **Extension and** Vegetables Training Poultry Human Livestock Resources Fishery Logistics Aquaculture



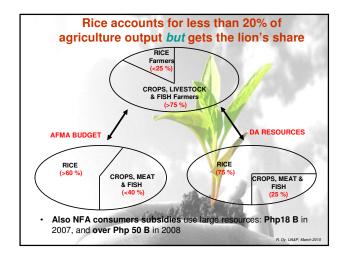


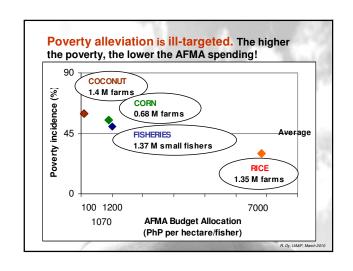
WHY THE OBSESSION FOR RICE SELF-SUFFICIENCY? **POINT:** Only 30 M tons (7%) are traded globally.

- The Philippines buys 2 M tons. With supply crisis, it will not be food-secure.

COUNTERPOINT:

- RP can produce 85-90% of its rice and refocus resources with higher returns ensuring income security.
- The ASEAN (Thailand, Vietnam and Cambodia) produce 15 M tons of world rice surplus.





THE CHALLENGES

- Private sector reluctance to invest (CARP, infrastructure, peace and order)
- Lack of long-term financing for tree crops
- Banking system anchored on collateral-based lending
- Low priority for R&D (highest impact on productivity and poverty in many places)

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THE CHALLENGES

- Governance issues
- Peace and order situation in areas with high potential
- Trade agreements
- Climate change
- Unorganized, fragmented farm sector (lack of economies of scale)

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RANKING OF PUBLIC INVESTMENT EFFECTS ON SECTORS

(INTERNATIONAL EXPERIENCE)

- R & D is a major catalyst of agriculture growth in competitor countries.
- >Education is next.
- Rural roads that connect markets and services.
- ►Irrigation is 4th or 5th

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OVER-RIDING STRATEGIC GOAL

MAKE FARMING PROFITABLE

for a sustainable, globally competitive agribusiness.

Income security first.

Food security will follow

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RANKING OF PUBLIC INVESTMENT EFFECTS ON SECTORS

(INTERNATIONAL EXPERIENCE) China India Thailand Vietnam Item Ranking of Returns in Agriculture Production
Agriculture R & D 1 1 1 1 Education Roads Telecommunications Irrigation Electricity Soil and water conservation China India Ranking of Returns in Poverty Reduction Agriculture R &D Roads Education Telecommunication Irrigation Source: Shenggen Fan (2005). The Role of Agriculture in Poverty Reduction: Evidence from Asia. IFPRI

FOOD FOR THOUGHT

AGRICULTURAL POLICIES OF KEY ASEAN COUNTRIES

Malaysia

Maximization of income through the optimal utilization of resources. This includes maximizing agriculture's contribution to GDP and export earnings as well as maximizing producers income.

Thailand

Enhancement of production efficiency to increase farm profits and reduce costs.

Source: Dy, R. 2009 Food for Thought: How Agribusiness is Feeding the World.

KEY STRATEGIC GOALS

- Increase farm productivity
- Expand market-led diversification
- Promote non-farm and off-farm job creation thru private investments

1000

KEY SUCCESS FACTORS

- A marketing infrastructure that links supply/value chains.
- A market information system with timely, accurate and accessible information.
- A well-funded R & D program, accompanied by human resource development of scientists and researchers, which engages universities and the private sector.

Source: AFMA F

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AGRICULTURE as pathways out of poverty

- ✓Increase productivity in foods sector
- √ Connect smallholders to rapidly expanding high-value horticulture, poultry, aquaculture, as well as dairy markets
- ✓ Generate jobs in the rural nonfarm economy.

Source: World Bank, WDR 2008

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KEY SUCCESS FACTORS

- An **investment climate** that **att**racts local and overseas investors.
- Organized producers that are learned on the dynamics of the market place – cost, quality and supply reliability.
- An appreciation of data and statistics as metrics of performance

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KEY SUCCESS FACTORS

- Strategy. A clear strategy that is stable over many years.
- Continuity. A bureaucracy that values professionalism, career paths, and meritocracy. A bureaucracy not subject to vagaries of frequent elections.
- o Organizational Capability. Creating and managing training and skill-development programs to maintain or improve on the priority capabilities. When top bosses are involved in setting the capabilities agenda, organizations are more successful at aligning those agendas with the capability and more effective at building the needed skills (Mckinsey, 2010).

FACTORS IN AGRI DEVELOPMENT MACRO ECONOMIC PUBLIC **POLICIES** INSTITUTIONS INVESTMENT (Bureaucracy) INFRASTRUCTURE **AGRICULTURE** ANDR&D HUMAN **DEVELOPMENT** CAPITAL AND **EDUCATION** PRIVATE ACCESS TO **INVESTMENTS** NATIONAL AND LAND GLOBAL MARKETS (INVESTMENT MARKETS AND CLIMATE) LAND LAWS POLITICS, ELECTIONS CONTINUITY

AGENDA

- Agriculture-Fishery Plan for the MTPDP, 2010-2016
- R&D, marketing, production, financing, and human resources plans

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SELECT ACTION AGENDA

- Food safety standards and testing labs
- Establish farmers' and barangay registry
- Invest in quality education for farmers and entrepreneurs
- Monitoring of inputs, outputs and outcomes

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SELECT ACTION AGENDA

 Review of realistic level of rice self-sufficiency.

Shift to sufficiency of food staples: rice, corn, banana, camote, cassava, gabi and other carbo sources

The Philippines has no Mekong Chaophraya and Irrawaddy rivers, sources of cheap irrigation

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FOOD FOR THOUGHT

Know your enemy, know yourself, and you can fight a hundred battles with no danger of defeat. When you are ignorant of the enemy but you know yourself, your chances of winning and losing are equal. If you don't know your enemy or yourself, you are bound to perish in all battles.

- Sun Tzu, The Art of War as elied by Ghemawat,Strategy and the Business Landscape, 2006

SELECT ACTION AGENDA

- Pump-prime the tree crops through rehabilitation, new planting, intercropping and conversion.
- Program for fishery production from aquaculture/mariculture
- Eliminate QR on rice imports and shift NFA role to logistics provider and buffer stocking.
- Craft a multi-year agriculture infrastructure plan

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FOOD FOR THOUGHT

Globalization is about producing where it is most cost effective, sourcing capital from where it's cheapest and selling it where it is most profitable.

- N.R. Narayana Murthy, Infosys, 2003 as cited by Ghemawat, Redefining Global Strategy, Harvard Business School, 2007

FOOD FOR THOUGHT

Innovation has become a primary force in determining industry growth and performance.

Unfortunately, a wide gap exists between aspirations to innovate, and the ability to execute.

- Paraphasing The McKinsey Quarterly 2007