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Chantal Andriamilamina is a principal investment officer at the International Finance Corp. and a member of IFC's global agribusiness team.

She has 15-plus years of experience financing private-sector investments in emerging markets, with a strong focus on agribusiness, consumer services and infrastructure.

She is currently leading IFC's business development and investment activities in the seafood sector.

She has an MBA from Northwestern University.





Aquaculture in IFC's Agribusiness Strategy

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Agenda

- I. About IFC**
- II. IFC in Agribusiness**
- III. The case for investing in Aquaculture**
- IV. IFC Products and Value Addition**



I. About IFC



IFC is a Member of the World Bank Group

IBRD
International Bank
for Reconstruction
and Development

Est. 1945

Role: To promote institutional, legal and regulatory reform

Clients: Governments of member countries with per capita income between \$1,025 and \$6,055.

Products:

- Technical assistance
- Loans
- Policy Advice

IDA
International
Development
Association

Est. 1960

To promote institutional, legal and regulatory reform

Governments of poorest countries with per capita income of less than \$1,025

- Technical assistance
- Interest Free Loans
- Policy Advice

IFC
International
Finance Corporation

Est. 1956

To promote private sector development

Private companies in member countries

- **Equity/Quasi-Equity**
- **Long-term Loans**
- **Risk Management**
- **Advisory Services**

MIGA
Multilateral
Investment and
Guarantee Agency

Est. 1988

To reduce political investment risk

Foreign investors in member countries

- Political Risk Insurance

Shared Mission: To Promote Economic Development and Reduce Poverty



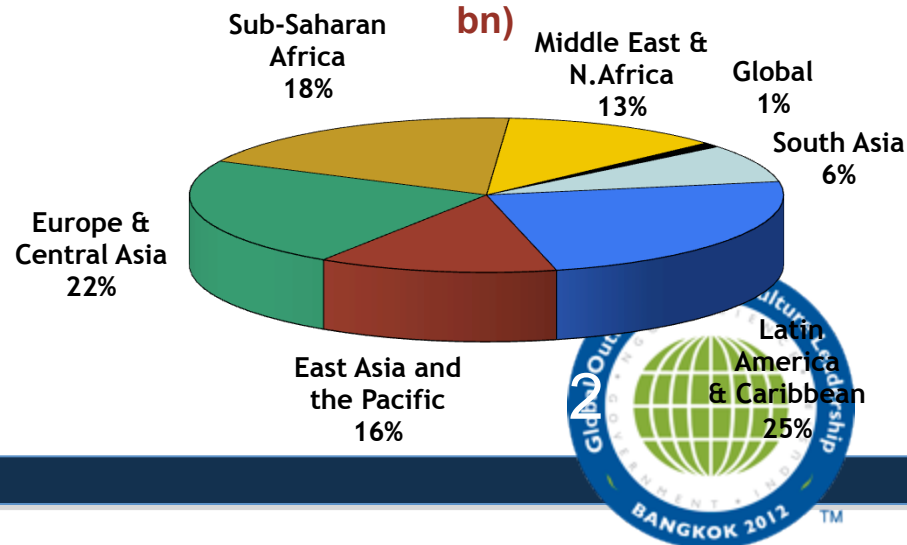
Over US\$150 billion Invested in Emerging Markets since 1956

- Largest multilateral source of loan/equity financing for the emerging markets private sector
- Founded in 1956 with 182 member countries
- AAA rated by S&P and Moody's
- Equity, quasi-equity, loans, risk management and local currency products
- Takes market risk with no sovereign guarantees
- Promoter of environmental, social, and corporate governance standards
- Resources and know-how of a global development bank + flexibility of a merchant bank
- Holds equity in over 800 companies worldwide

IFC FY12 Highlights		
Portfolio	*	US\$ 55.2 billion
Committed	* US\$ 18.7 billion	
Mobilized	US\$ 6.5 billion	

* Including IFC's own account and mobilization

Composition of FY12 Transaction Volume (US\$12.2 bn)

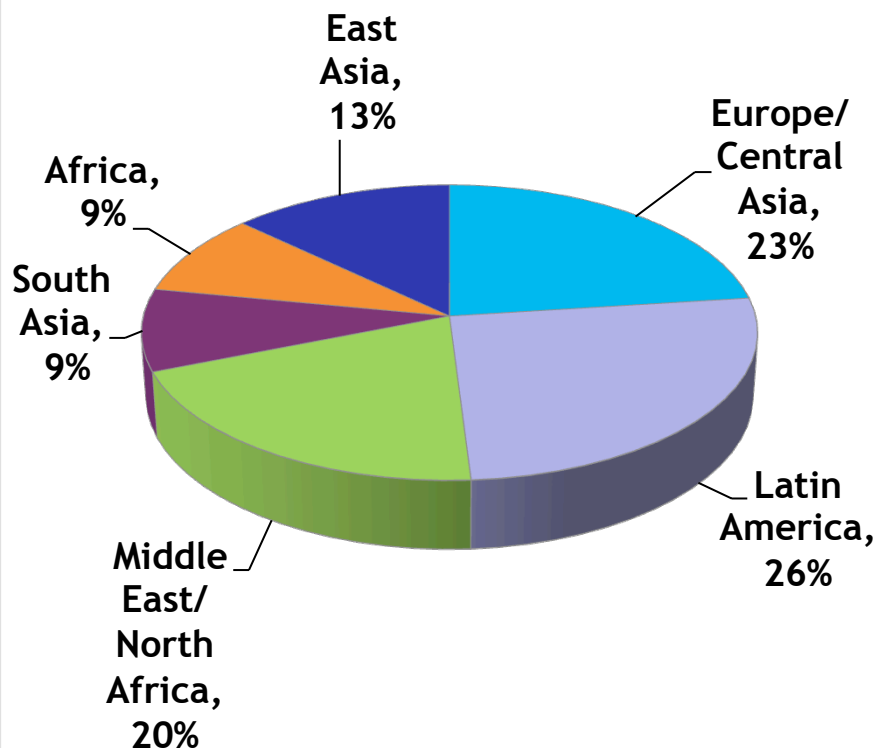


II. IFC in Agribusiness

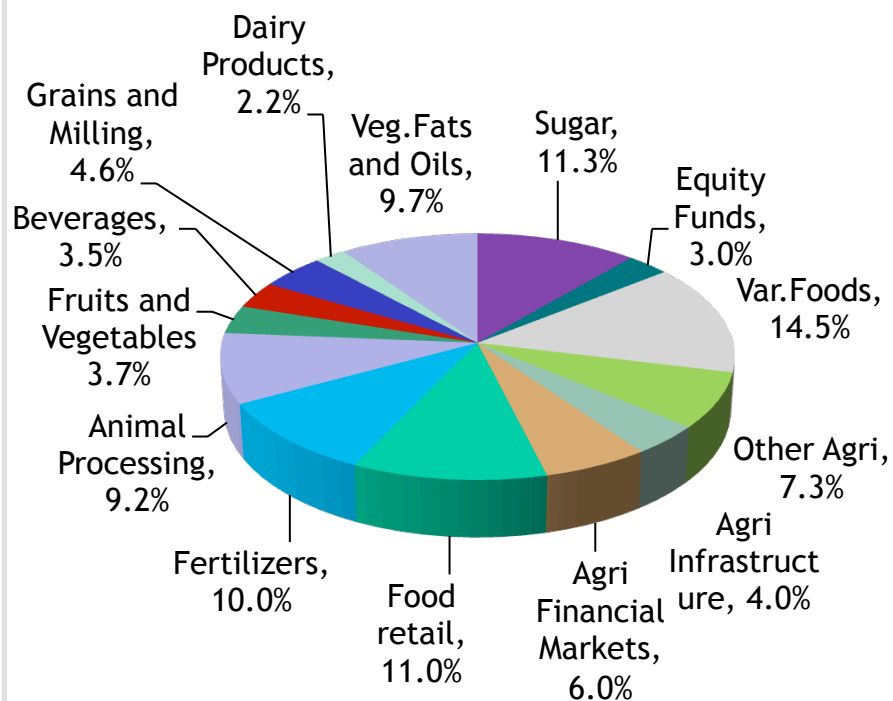


A US\$5 billion Well-Diversified Agribusiness Portfolio

REGIONAL BREAKDOWN



SECTORAL BREAKDOWNS



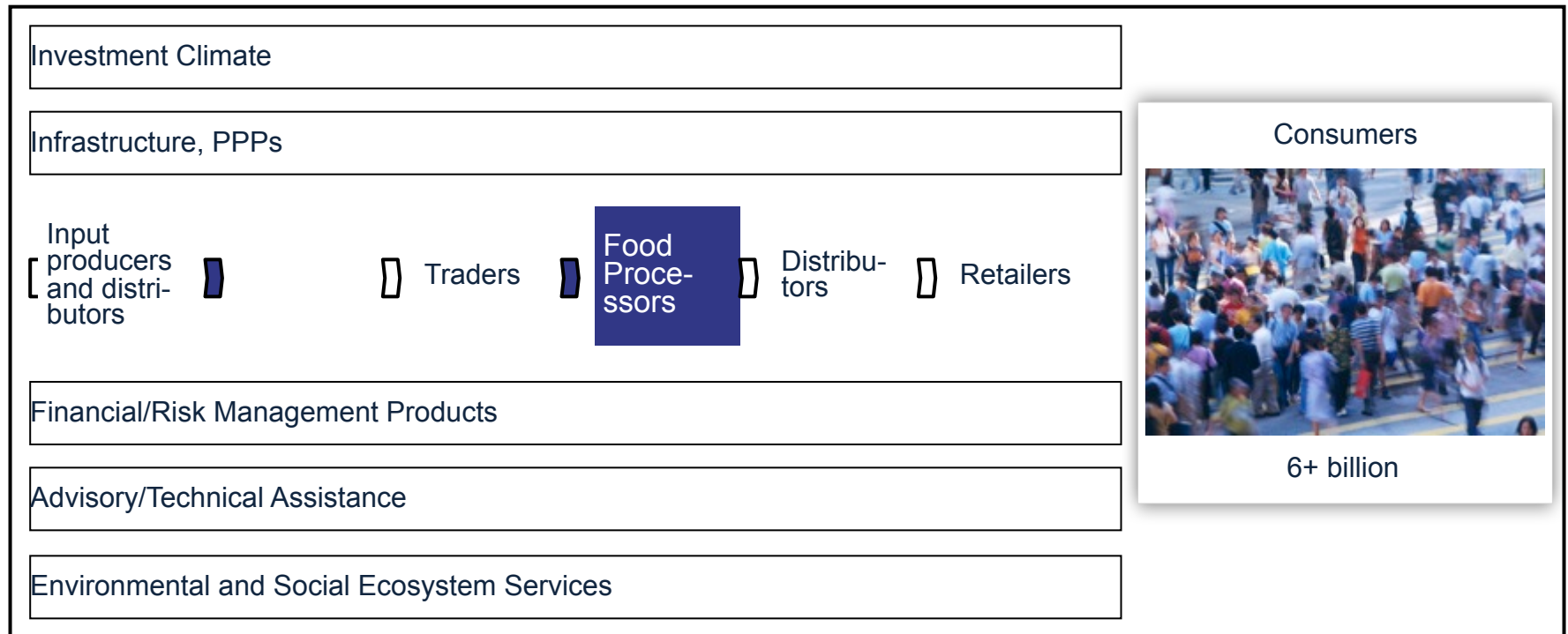
Global Expertise: Sample Clients



Clients benefit from access to global expertise
and IFC network of clients



From initial focus on Farmers and Food Processors...

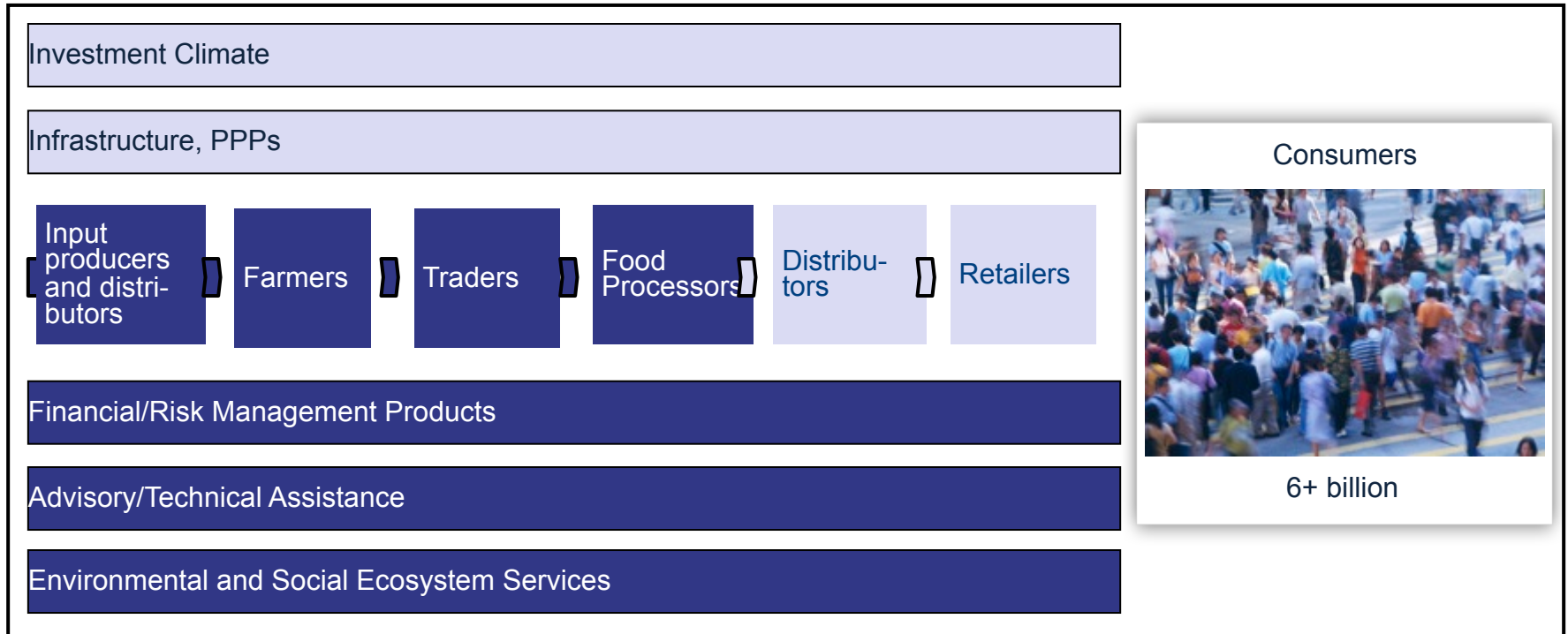


☐ Less focus ☒ More focus

Agri.
Client
Focused

- Focused on Core Agribusiness Area - directly supporting Farmers and Processors
- Gradually expanding product range (e.g., advisory) to enhance impact

To an Integrated Agribusiness Value Chain Approach



More focus

Most focus

Value Chain Focused

- Increased focus on interventions that enhance impact, e.g., Inputs, Warehouse Receipts Financing, Risk Management, Infrastructure
- Use expanded product range to improve value proposition for target clients
- Scale up investments in intermediaries, e.g. traders, distributors and retailers

Food Security and Agribusiness continue to be IFC's top strategic priority

- The Agribusiness Strategic Action Plan (ASAP) was launched in 2011 to: i) enhance Food Security; 2) promote inclusive economic development; and iii) make Environmental & Social standards a business driver
- An IFC-wide and World Bank-IFC integrated value chain approach have been adopted to help achieve these objectives
- In FY12, IFC invested US\$ 4.2 billion in the agribusiness value chain globally
- The Global Agriculture and Food Security Program became operational in 2011
- Addressing Food Security is IFC's #1 priority for FY13



III. The case for investing in Aquaculture



The Global Agri. Landscape: key challenges and opportunities

Demand for food and feed could increase by 70% by mid-century

Continued population growth

- Additional 2 billion people (34% growth) by 2050
- 70% increase in food production needed by 2050
- Additional investment of US\$83 billion p.a. needed, most of which would have to come from the private sector

Dietary shift

- Continued increased per-capita caloric consumption
- Major shift in caloric sources: doubling or more of per-capita protein consumption in China, India, and Africa by 2030

While supply is coming under pressure

Water scarcity

- Agribusiness accounts for 70% of freshwater consumption
- Forecasted 40% gap between water demand and supply by 2030 under business as usual conditions

Climate change

- Agribusiness and Forestry account for 30% of GHG emissions
- Negative impact on crops expected from shifting weather patterns in tropical and Mediterranean regions

And additional demand is put on land availability

Bioenergy demand

- Biofuels and bio-energy major component of most current climate change mitigation strategies
- Potential acceleration of biofuel demand from peak oil

Forest conservation

- Stopping deforestation critical to climate change mitigation and biodiversity preservation
- Risk of further deforestation, 80% of new tropical agricultural land in last decade came from clearing forests

The Aquaculture Industry: strong market pressure for growth

Continued strong growth in demand and production

Demographics and rising Income

- Demand for seafood products will continue to grow driven by population growth and increased per capita consumption
- Doubling or more of per-capita protein consumption is expected in China, India, and Africa by 2030

Capped wild seafood capture volumes

- The increase will come from aquaculture as wild catch volume is projected to remain at 1997 level
- Aquaculture to account for over 50% of production in few years

Comparative advantages

Nutrition quality

- Fish is a healthier alternative to other animal protein forms

Good economics

- Economics are good with an overall low feed conversion ratio compared to other animal proteins, and better affordability for lower income consumers (for selected species)

Geographies / Emerging Markets Potential

Consumption

- Increase in demand remains heavily concentrated in emerging markets
- The seafood market is global and trade continues growing

Production

- Over 91% of production are in emerging markets and no major shift in regional concentration is anticipated
- New higher value seawater species are being farmed

Enhanced Focus on Sustainability creates a role for development financiers

Pressure towards Intensification of production systems

Scarcity of land and sea space

- Intensification is driven by competition for use of coastal and in-land space
- It is expected to put increased pressure on ecosystems
- Production environments will be increasingly challenging

Disease risks

- If not properly managed, intensification can increase the risk of devastating disease outbreaks, even in more mature sub-sectors

Technology development and transfer are critically important

Role of technology

- Continued investment in improved technology is necessary to improve production efficiency and manage operational risks
- Technological changes are fast-paced

Disease control - Genetics

- Need for disease control solutions accessible to small-scale players
- Genetics advances have been made but have further potential

Greater emphasis on food safety and traceability

Food safety

- Increased consumer sensitivity and role of retailers
- Special need for distribution infrastructure in lower income markets

Need for certification

- Traceability across the value chain is critical for market access
- Proliferation of quality standards requires harmonization
- Need for management and certification at the level of the ecosystem

The Evolving Industry Structure creates opportunities for further value chain integration

Massive capital requirements

Greater capital investment level

- More capital needs for increased operating scale
- Additional investment of US\$ 50+ billion needed over next 20 years

Availability of capital

- Limited for second-tier and small scale operators requiring innovative market-based instruments and risk management solutions. Increasing interest of private equity in mature plays.

Consolidation vs. small scale

Global players

- Vertical integration along the value chain and cross-sector / cross-protein sector consolidation to achieve economies of scale
- Quid of China's potential as leading investor outside China

Small-scale actors

- Serving domestic markets and creating jobs
- How to better integrate them in the global value-chain?

More knowledge based

R&D and Roll-out of innovations

- More seed and early stage investment needed to support R&D activities and the ramp-up of promising pilot projects

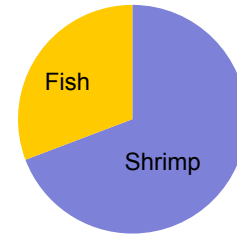
Dissemination of operational best practices

- The industry benefits from numerous platforms for sharing knowledge and best practices.

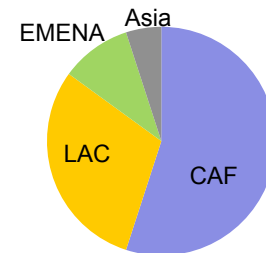
IFC's Past Experience in Aquaculture and Fisheries

- Early investor in the asset class, dating back to late 70s / early 80s
- Nearly US\$100 million invested and 20 transactions disbursed
- Primarily loans, some equity
- Fisheries projects have generally been underperformers, leading to a slowdown in investments in the early 2000s
- Asia, a dominant aquaculture producer, was grossly under-represented in IFC's investments

Products



Regions



Aquaculture vs. Agribusiness: comparing risks and leveraging lessons learned

Common Elements

- Global commodities price volatility
- Disease risk
- Weather risk / Climate change
- Development impact of outreach to small scale operators
- Environment compliance risks

Differences

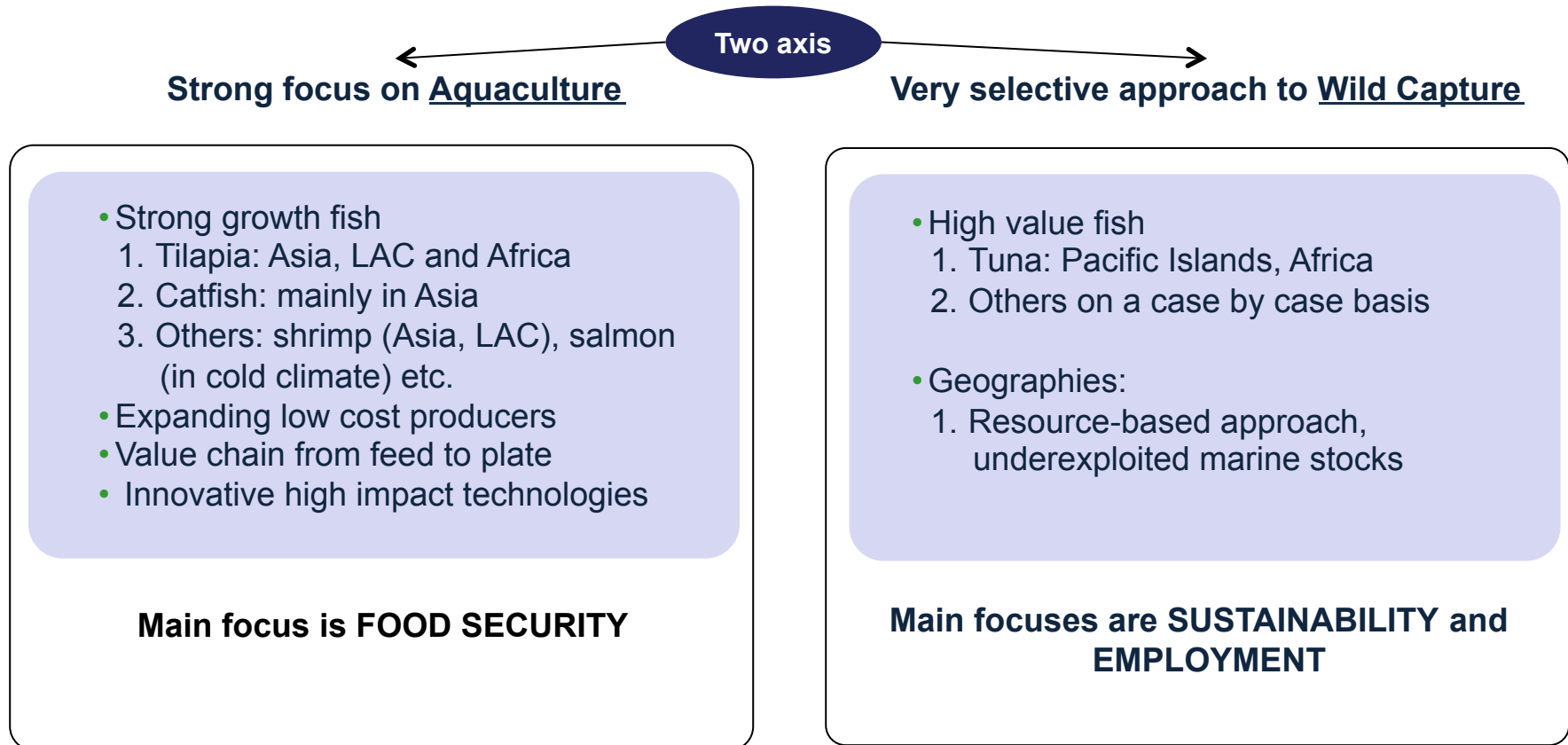
- Very strong growth of fisheries demand and supply can create even more volatility in prices.
- Enhanced disease risks
- Young R&D history and further potential for genetics break-through
- Rapid technological advances in a young industry
- More sensitive ecosystem issues with marine aquaculture



Opportunity for IFC

- Leverage lessons learned from IFC's agribusiness investments and value chain models to support the growth of the industry
- Value added by expanding access to long-term finance and helping mitigate sustainability issues

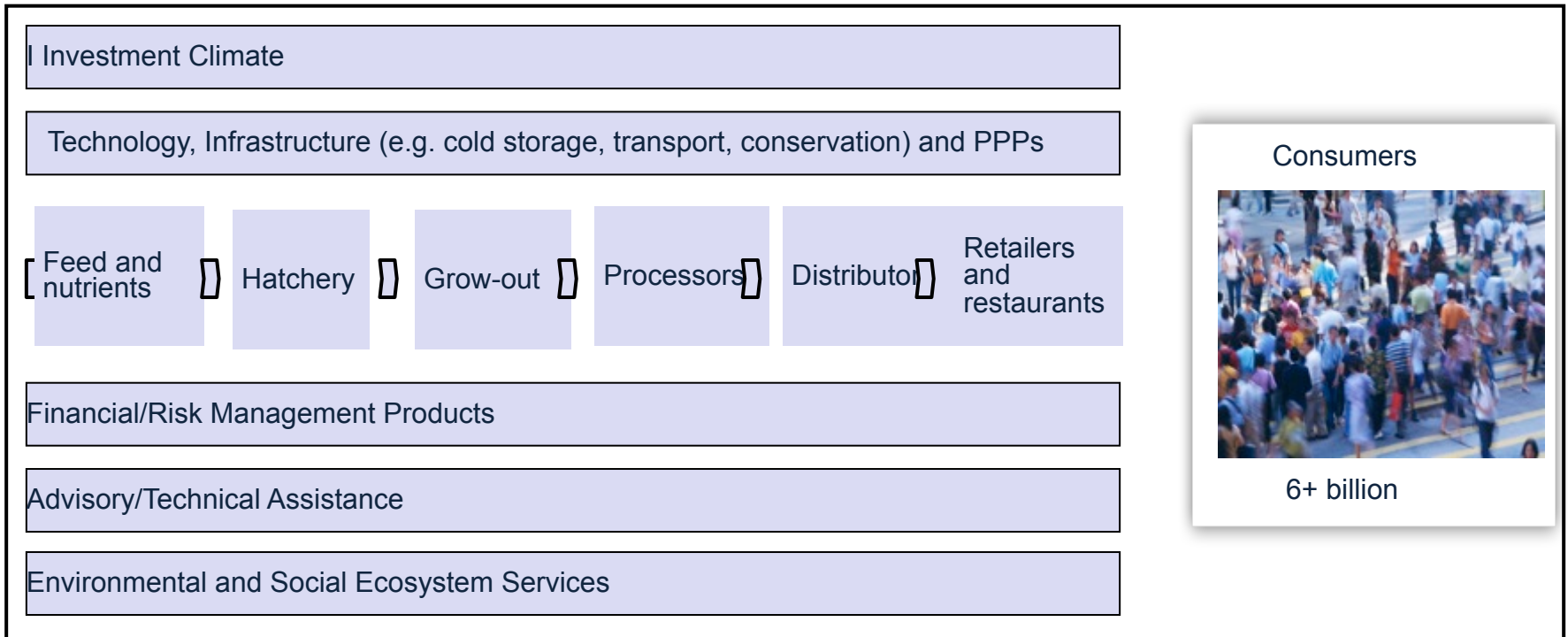
A Two-pronged Approach to fisheries sector investments



IDA countries continue to remain a strong priority for IFC



Applying the Integrated Value Chain Approach



More focus

Value Chain Focused

- Initial focus on supporting expansion of existing platforms, across the value chain
- Scale-up through programmatic approaches
- Partner with value chain and sustainability integrators such as distributors and retailers

Example of Supply Chain Integrator: Fulfilling the Demands for Sustainability of Leading Consumer Brands and Retailers



Producers get:

- Financing and technical support
- Access markets
- Improve livelihoods
- 300,000 more farmers reached (from 600,000)

Armajaro provides:

- Provides technical assistance & access to finance
- Quality control and link to socially responsible value chain

Processors need:

- Traceability
- Certification
- Quality/quantity
- Reliability
- Socially responsible value chain

IV. IFC Products And Value Added



Examples of IFC Funding Instruments and Services

INSTRUMENTS

- Greenfield project finance
- Debt refinancing
- Syndicated loans
- Trade finance/working capital lines
- Partial credit guarantees
- Acquisition financing
- Convertible loans

PROJECT TYPES

- Expansion of production / processing facilities
- Port/warehouse infrastructure (logistics)
- Rehabilitation of assets
- Farmer financing programs
- Supply Chain or Distribution integration
- Quality management / Safety certification
- New market entry / partner



IFC Value Addition in Agribusiness

Long-term Competitive Financing	Regional Knowledge	Global Sector Expertise	Country Risk Mitigation	Environmental & Social Risk Management	Sustainability Toolkit
<ul style="list-style-type: none"> ✓ Equity ✓ Fixed/Floating Rates, Local Currencies ✓ Up to 15 year Loan Maturity ✓ Flexible Amortization Profile ✓ Catalyst for other Investors and Lenders ✓ Equity Participation ✓ Capital Mobilization 	<ul style="list-style-type: none"> ✓ Extensive Local Office Network ✓ Local Transaction Experience ✓ Strong bank partnerships through client networks and B loan participants ✓ World Bank Synergies ✓ Joint Venture partnership management 	<ul style="list-style-type: none"> ✓ 40+ Years of Sector Expertise ✓ Industry Specialist Advice and Benchmarks ✓ Greenfield ✓ Expansion/Modernization ✓ Corporate Strategy ✓ Access to International Investors 	<ul style="list-style-type: none"> ✓ Government Relations ✓ Neutral broker Role ✓ Reduced Risk of Expropriation, Breach of Contract, Convertibility ✓ World Bank Synergies ✓ Withholding Tax Benefit 	<ul style="list-style-type: none"> ✓ Advice on Environmental and Social Best Practices ✓ Energy and Water Use Management / Cleaner Technologies ✓ Equator Principles Modeled after IFC Standards ✓ Local Consultation and Disclosure 	<ul style="list-style-type: none"> ✓ Supply Chain strengthening: supporting productivity and farmer income ✓ Environmental/ Social Standards ✓ Corporate Governance ✓ Community Investment

Are there particular roles that IFC is better placed to play to support private investment in Aquaculture in EM?

- Catalyzing Public Private Partnerships?
- Rolling out financing and technical assistance models for small scale farming?
- Special initiatives in Africa?
- Providing thought leadership?
- Which areas of focus within the GPO?

Your feedback is more than welcome!



Leveraging the WBG's extensive resources and partners

IFC Investment and Advisory Services

- IFC Global and Regional Agribusiness Network
- Public Private Partnerships Advisory Services
- Sustainable Business Advisory Services
- IFC Asset Management Company
- Climate Business Group - Early Stage Clean Technology Unit
- Global Agriculture Food Security Program

World Bank and MIGA

- PROFISH
- Global Partnership for Oceans
- Fisheries Industry Specialists
- MIGA Products

Network of Partners

- IFC Banking and Trade Finance Clients
- IFC Private Equity Clients
- DFIs and Syndication Network
- Partner Industry Organizations

Thank You

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