







## Program

Time	Program	Speaker
14:45-15:00	Registration	
15:00-15:05	○ Opening	Dr. Lee, Daeseob (KREI)
15:05-15:35	○ Presentation 1. Climate Finance for Agriculture (30')	Dr. Kim, Sungwoo (KPMG)
15:35-16:00	○ Discussion 1	
16:00-16:30	○ Presentation 2. Agricultural PPP Projects for Regional Development (30')	Dr. Kim, Yong Bin (Development Marketing Institute)
16:30-16:55	○ Discussion 2	
16:55-17:05	Break time (10')	
17:05-17:35	○ Presentation 3. PPP Cases Financed by Korea Eximbank and Lessons Learned (30')	Dr. Kim, Youngkee (Export-Import Bank of Korea)
17:35-18:00	○ Discussion 3	
18:00- Closing		



# Contents

## Presentation

1. Climate Finance for Agriculture / 1

■ **Dr. Kim, Sungwoo** (KPMG)

2. Agricultural PPP Projects for Regional Development / 17

■ **Dr. Kim, Yong Bin** (Development Marketing Institute)

3. PPP Cases Financed by Korea Eximbank and Lessons Learned / 33

■ **Dr. Kim, Youngkee** (Export-Import Bank of Korea)



2017 KAPEX Forum for  
International Agricultural Partnership

Presentation 1

# Climate Finance for Agriculture

---

■ Dr. Kim, Sungwoo  
(KPMG)

**KREI**







# Climate Finance(GCF) for Agriculture

2017. 08. 21

**Sungwoo Kim**  
Regional Head of Climate Change &  
Sustainability in KPMG Asia Pacific



## Sungwoo Kim

- Regional Head of Climate Change & Sustainability in KPMG Asia Pacific
- GCF External Technical Expert on Accreditation
- Adjunct Professor of Seoul National University in Global Environment Business
- Ex POSCO(Global Steel Maker) Business Development & Investment Task Leader
- Contact: 02-2112-3200, [ssungwoo@snu.ac.kr](mailto:ssungwoo@snu.ac.kr)/[ssungwoo@chol.com](mailto:ssungwoo@chol.com)
- Degrees: PhD in Business Administration, aSSIST  
Masters in Civil & Environmental Engineering, Duke University

### ■ Activities and Awards

- KOICA External Committee Member, 2014~
- High-level advisor for the Korean government, 2008~
- President Award for developing new energy business, 2015
- Prime Minister Award for Hosting the GCF in Korea, 2013
- Climate Change Forum of Parliament, Executive Committee, 2012~
- Donga Business Review, Guest Editor, 2012

### ■ Publication and Lecture

- Climate Change and Stakeholder Analysis, 2010
- Carbon Management, Samsung Loss Control Center, 2013
- Climate Change & Business Strategy, 2015
- HBR Korea(Sustainability), 2014 / Devex(Clean Tech) ,2015
- KAIST, Seoul National University, Korea Univ. Executive CEO Forum, 2009~







# KPMG Climate Change & Sustainability (CC&S) Practice



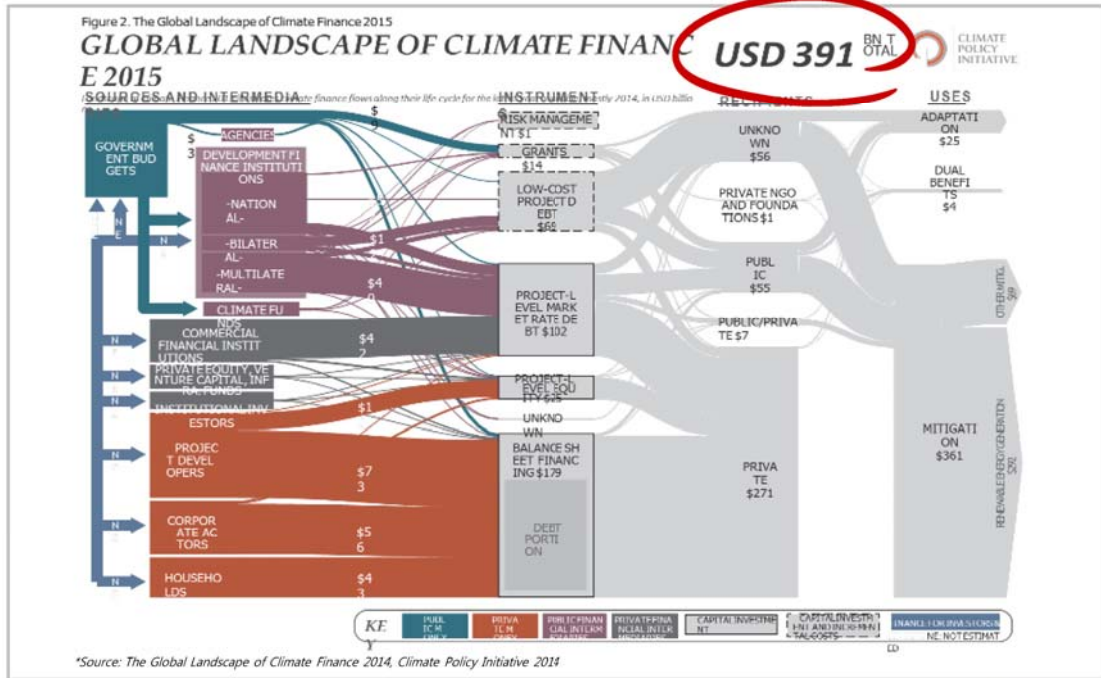
4  
© 2017 KPMG Sanjong Accounting Corp., the Korean member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. All rights reserved. Printed in Korea.



## CF Landscape



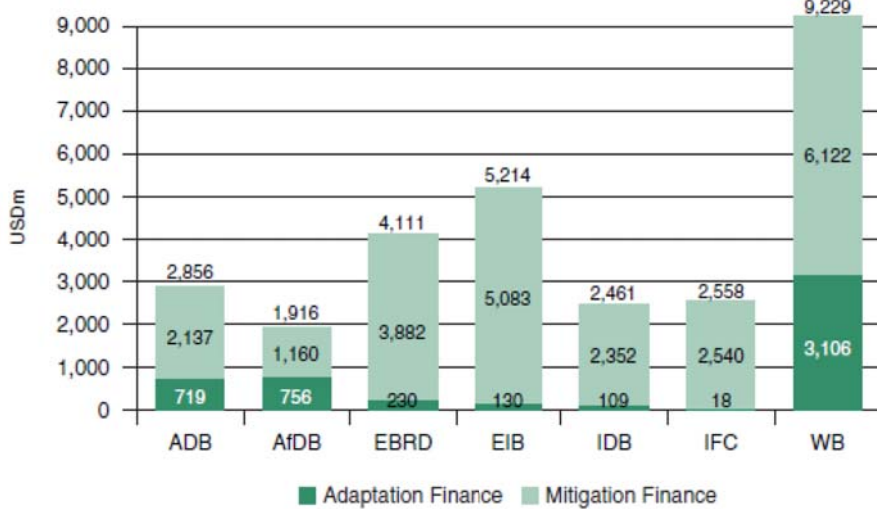
# Climate Investment



© 2017 KPMG Sanjong Accounting Corp., the Korean member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. All rights reserved. Printed in Korea.



# Multilateral Development Banks in Climate Finance

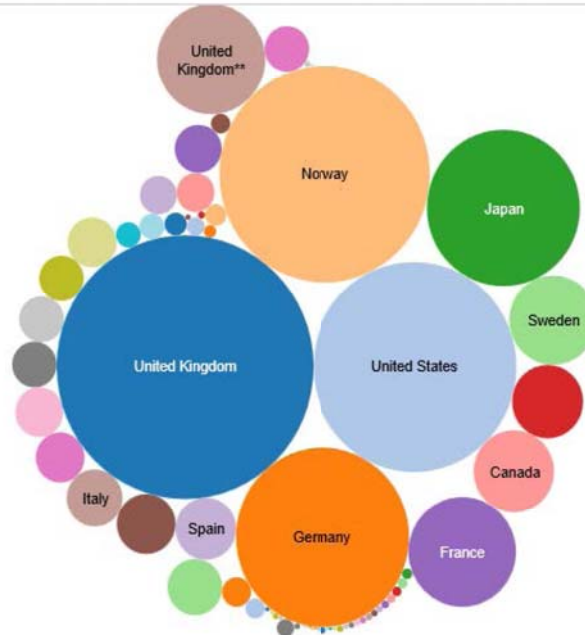


\* ADB: Asian Development Bank, AfDB: African Development Bank, EBRD: European Bank for Reconstruction and Development, EIB: European Investment Bank, IDB: Inter-American Development Bank, IFC: International Finance Corporation, WB: World Bank  
 •Source: Joint Report on MDB Climate Finance 2014, KPMG analysis

© 2017 KPMG Sanjong Accounting Corp., the Korean member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. All rights reserved. Printed in Korea.



## Donors



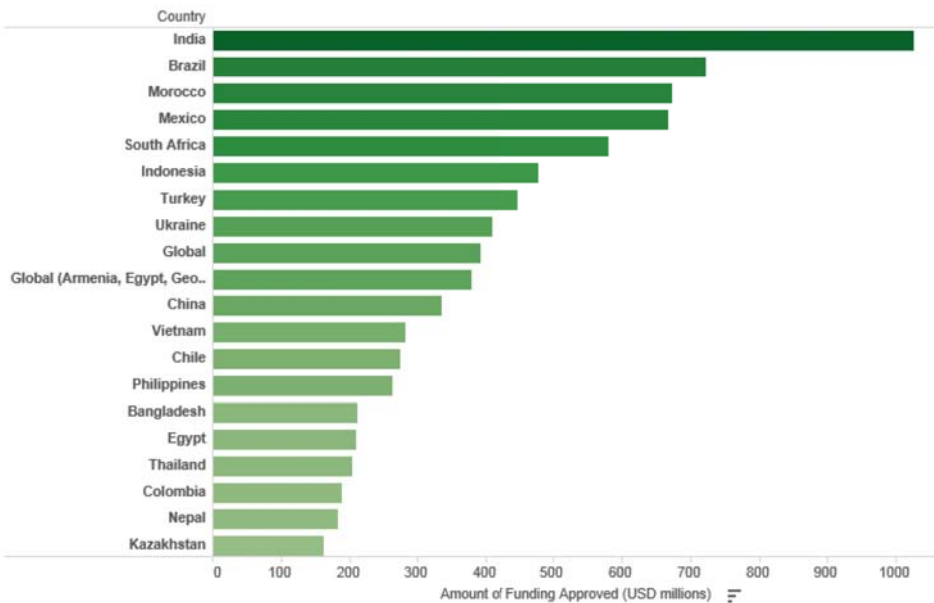
Source: Climate Funds Update

8

© 2017 KPMG Sanjong Accounting Corp., the Korean member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. All rights reserved. Printed in Korea.



## Beneficiaries by Multilaterals



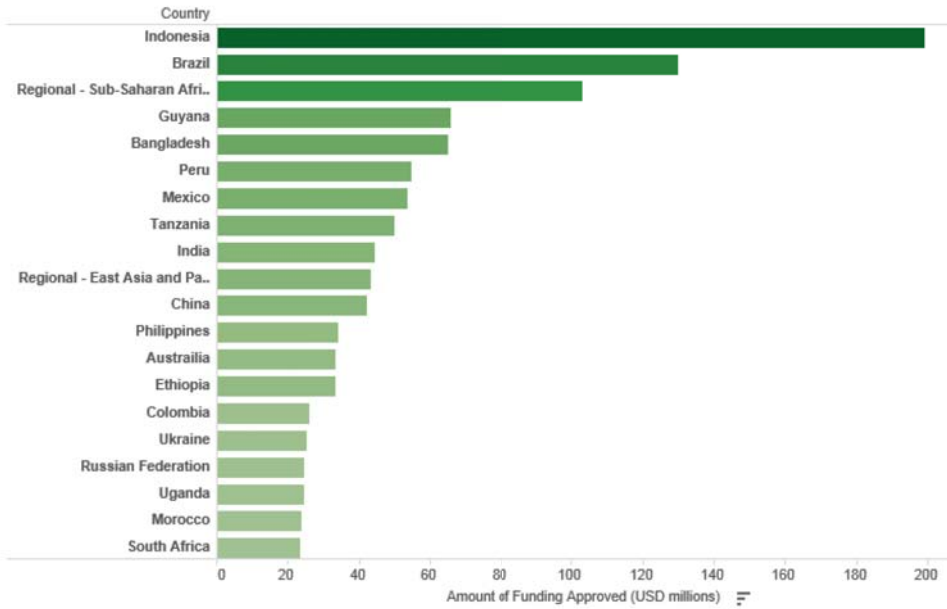
Source: Climate Funds Update

9

© 2017 KPMG Sanjong Accounting Corp., the Korean member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. All rights reserved. Printed in Korea.



## Beneficiaries by Bilaterals



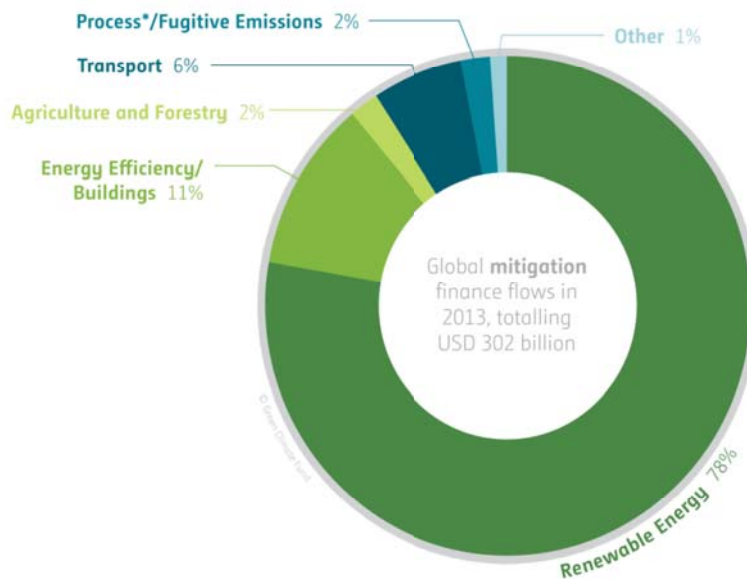
Source: Climate Funds Update

10

© 2017 KPMG Sanjong Accounting Corp., the Korean member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. All rights reserved. Printed in Korea.



## Mitigation



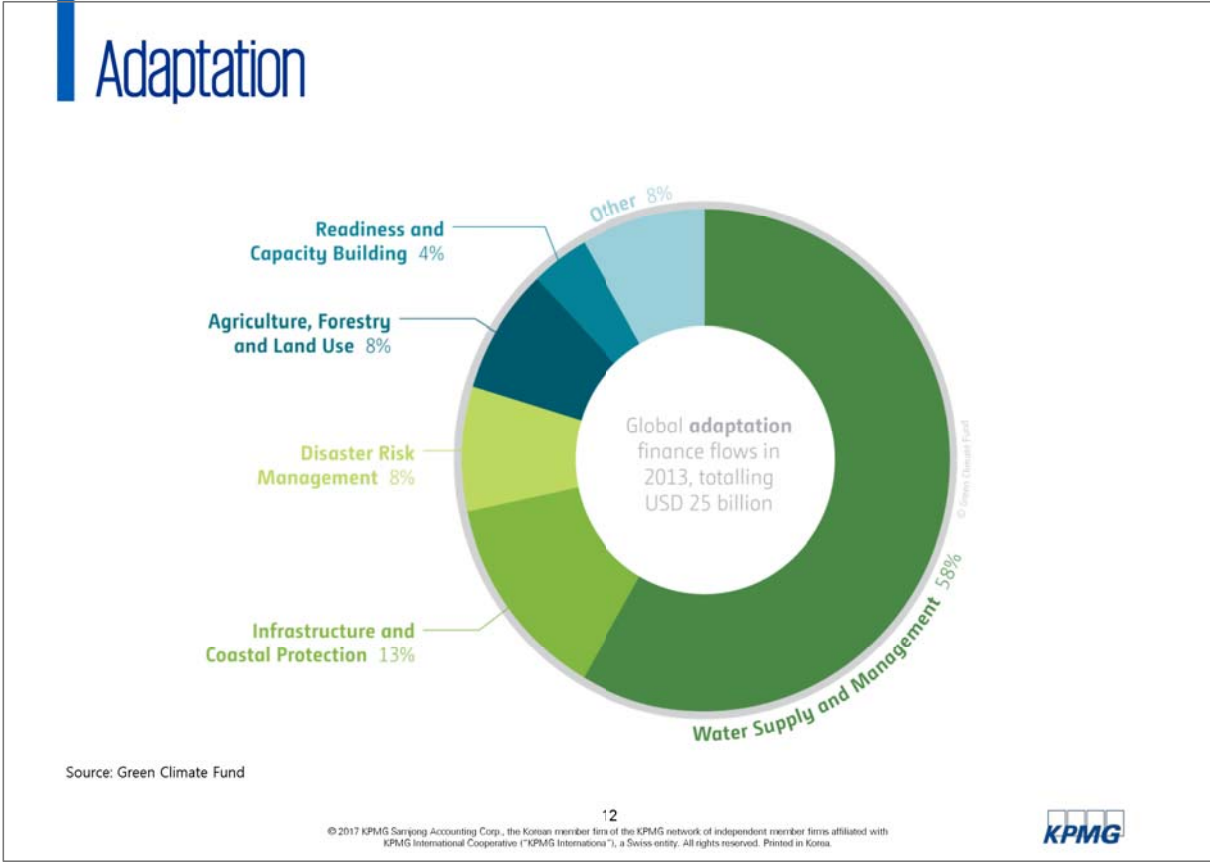
Source: Green Climate Fund

11

© 2017 KPMG Sanjong Accounting Corp., the Korean member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. All rights reserved. Printed in Korea.







## GCF Opening Week\_2013.12



14

© 2017 KPMG Sanjong Accounting Corp., the Korean member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. All rights reserved. Printed in Korea.



## Green Climate Fund (GCF)

### Objective

### Key Points

- Support developing countries to reduce greenhouse gas emissions (Mitigation) and to build resilience to climate change (Adaptation) by utilizing financing from developed countries

### Role

- Intended to be the centerpiece of efforts to raise **Climate Finance of 100 billion USD a year by 2020**
- Offer balanced support to climate change adaptation and mitigation

### Points of Differentiation

- The Secretariat was officially established in Songdo, Republic of Korea in December 2013
- Establish **Private Sector Facility (PSF) and accredit private financial institutions, to promote private sector investment**
- Encourage developing countries' NDA/FP participation and government entities accreditation



Source: Green Climate Fund, KPMG Analysis

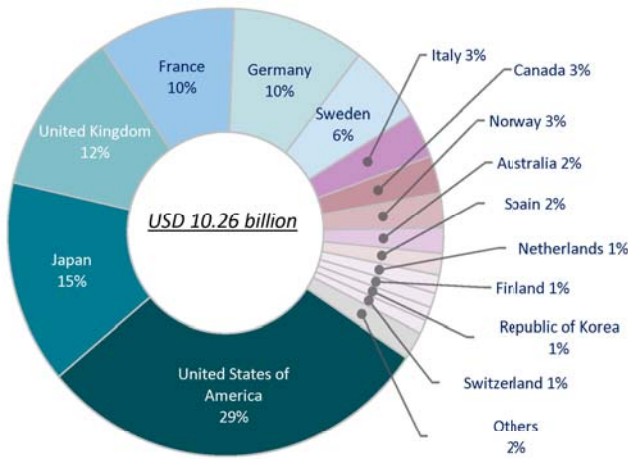
15

© 2017 KPMG Sanjong Accounting Corp., the Korean member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. All rights reserved. Printed in Korea.





## Status of Resource Mobilization for '14-'18 Funding



Contributor	Amount (million USD)
United States of America	3,000.00
Japan	1,500.00
United Kingdom	1,210.98
France	1,035.40
Germany	1,003.29
Sweden	581.19
Italy	334.43
Canada	277.02
Norway	257.86
Australia	186.94
Spain	160.53
Netherlands	133.77
Finland	107.02
Republic of Korea	100.00
Switzerland	100.00
Others (27 countries and 3 municipalities)	272.30

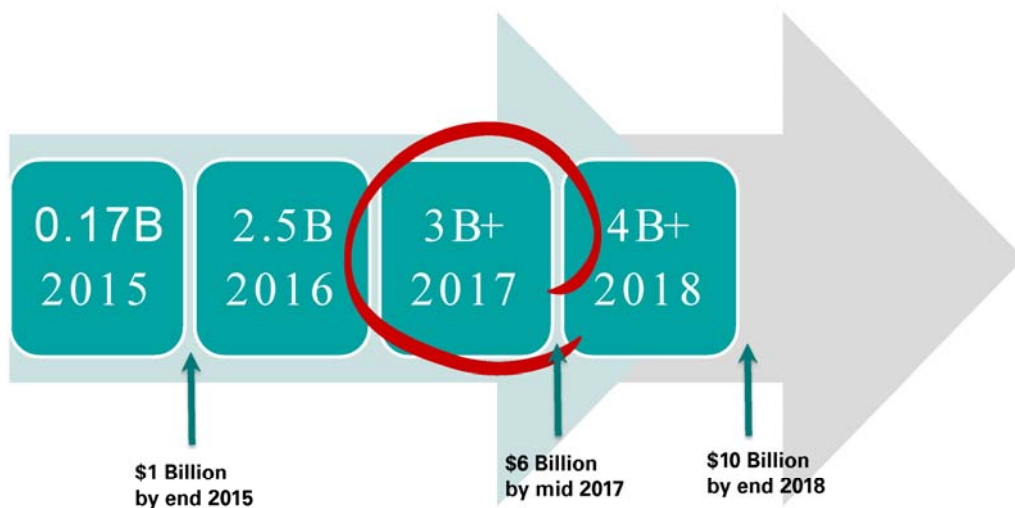
Source: Green Climate Fund, KPMG Analysis

16

© 2017 KPMG Sanjong Accounting Corp., the Korean member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. All rights reserved. Printed in Korea.



## Investment Plan (2015~2018)



17

© 2017 KPMG Sanjong Accounting Corp., the Korean member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. All rights reserved. Printed in Korea.



## Areas of Strategic Investment - Mitigation

**Low Emissions Energy and Electricity**  
e.g. Alternative Energy – Wind, Solar



**Low Emissions Modes of Transport**  
e.g. Public Transportation – Bus, Rail, Metro



**Buildings, Cities, Industries and Appliances Energy Intensity**  
e.g. Smart Buildings & City Grids – Buildings, Traffic Systems, Public Lighting



**Land Use and Agriculture, Forestry**  
e.g. Land & Water Efficiency, Crop Diversification, Pulp and Paper Forest Farms, Eco Tourism



Source: Green Climate Fund, KPMG Analysis

18

© 2017 KPMG Sanjong Accounting Corp., the Korean member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. All rights reserved. Printed in Korea.



## Areas of Strategic Investment - Adaptation

**Protecting Livelihoods of People in Climate Vulnerable Zones**  
e.g. Sea Walls to Defend Ports



**Food and Water Security**  
e.g. Irrigation Systems, Diversification



**Making Infrastructure Resilient to Climate Change**  
e.g. Road Security for Disaster Risk Reduction



**Preserving Ecosystems**  
e.g. Coral Reefs



Source: Green Climate Fund, KPMG Analysis

19

© 2017 KPMG Sanjong Accounting Corp., the Korean member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. All rights reserved. Printed in Korea.

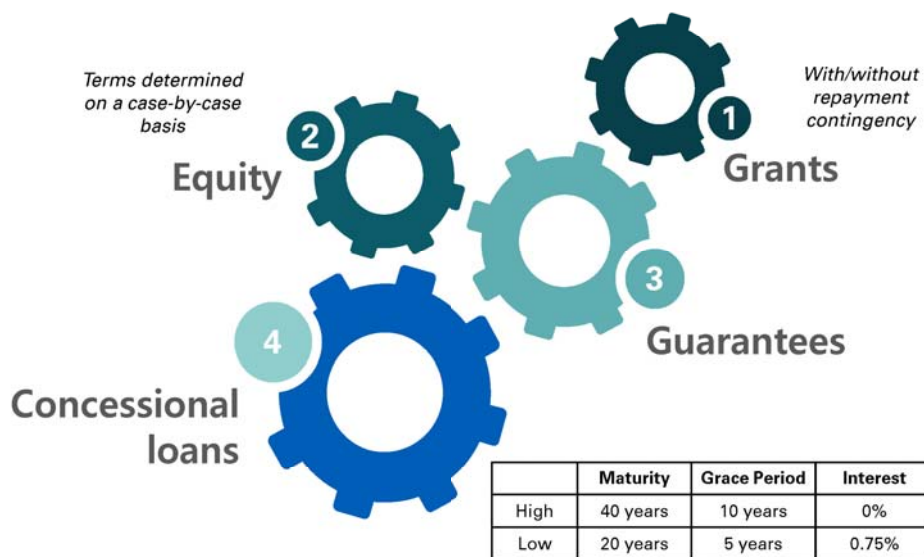


## Funding Criteria

Impact Potential	<ul style="list-style-type: none"> <li>Potential to achieve the <b>Fund's objectives and result areas</b></li> </ul>
Paradigm Shift Potential	<ul style="list-style-type: none"> <li>Potential to <b>catalyse impact beyond a one-off project or programme investment</b></li> </ul>
Sustainable Development Potential	<ul style="list-style-type: none"> <li>Potential to provide <b>wider benefits</b> and priorities</li> </ul>
Needs of Recipient	<ul style="list-style-type: none"> <li><b>Vulnerability and financing needs</b> of the beneficiary country and target groups</li> </ul>
Country Ownership	<ul style="list-style-type: none"> <li>Beneficiary <b>country ownership of and capacity to implement</b> funded activities</li> </ul>
Efficiency & Effectiveness	<ul style="list-style-type: none"> <li><b>Economic and financial soundness</b> of project/programme; <b>appropriateness of concessionality</b></li> </ul>

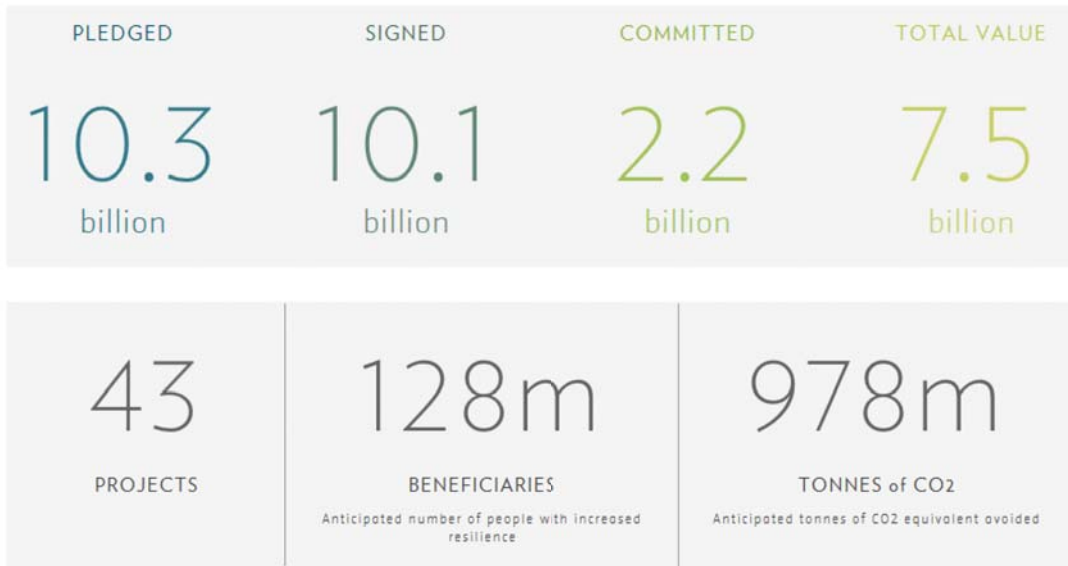
Source: Green Climate Fund

## GCF Financial Instruments



Source: Green Climate Fund, KPMG Analysis

## GCF Funding #1



Source: Green Climate Fund

22

© 2017 KPMG Sanjong Accounting Corp., the Korean member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. All rights reserved. Printed in Korea.



## GCF Funding #2



\* Micro: 1,000만 달러 이하, Small: 1,000만 달러 이상 5,000만 달러 이하, Medium: 5,000만 달러 이상 2억 5,000만 달러 이하, Large: 2억 5,000만 달러 이상 사업  
Source: Green Climate Fund

23

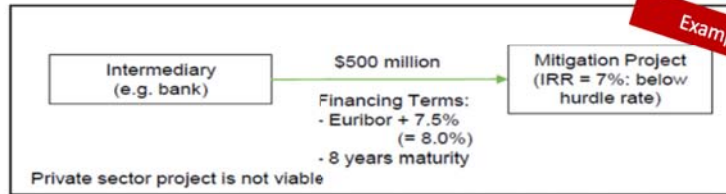
© 2017 KPMG Sanjong Accounting Corp., the Korean member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. All rights reserved. Printed in Korea.





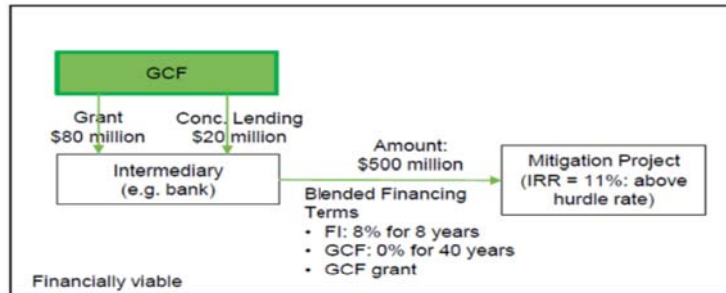
## Role in Private Sector Project/Programme

Without GCF



**Example**

With GCF



Providing 1)Grant, 2)Concessional loan, 3)Equity, 4)Guarantee for Revenue Support and Risk Reducing

Source: Green Climate Fund, KPMG Analysis

© 2017 KPMG Sanjong Accounting Corp., the Korean member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. All rights reserved. Printed in Korea.



# Case of Agriculture





# Thank you

**KPMG**

**KIM, Sungwoo**

Regional Head of Climate Change & Sustainability  
in KPMG Asia Pacific (Partner of SAMJONG Accounting Corporation)

[sungwookim@kr.kpmg.com](mailto:sungwookim@kr.kpmg.com) / [ssungwoo@snu.ac.kr](mailto:ssungwoo@snu.ac.kr)

[ssungwoo@chol.com](mailto:ssungwoo@chol.com) / 82-2-2112-3200

© 2016 KPMG Samjong Accounting Corp., the Korean member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. All rights reserved. Printed in Korea.

The KPMG name and logo are registered trademarks or trademarks of KPMG International.

The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavour to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

2017 KAPEX Forum for  
International Agricultural Partnership

Presentation 2

# Agricultural PPP Projects for Regional Development

---

■ Dr. Kim, Yong Bin  
(Development Marketing Institute)

**KREI**





# Agricultural PPP Projects for Regional Development

The 2nd Public-Private  
Partnership (PPP) Forum  
on the Agriculture and  
Fishery Sectors among  
ASEAN and Korea

2017. 8. 21.

 **개발마케팅연구소**  
Development Marketing Institute

## Introduction



### Carlos Y.B. Kim

Ph.D. in Development Cooperation

- 2014 ~ Managing Director, Development Marketing Institute
- 2011 ~ 2014 General Manager, GS Engineering & Construction
- 2000 ~ 2011 Manager, Samsung Corporation
- 1993~ 1999 Captain, Korean Army

## Contents



1. Development & Agriculture
2. Korean Needs to Agro-Investment
3. Agriculture Supply Chain & Biz Opportunity
4. Structuring PPP models
5. Conclusion

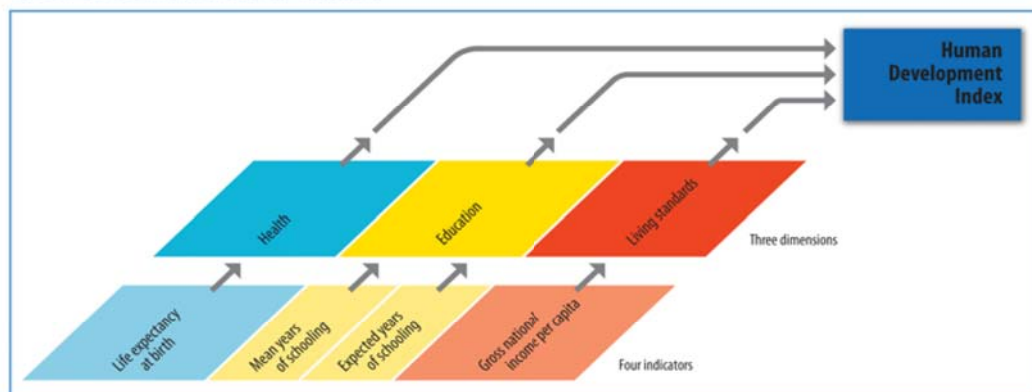
## Mal-defined 'Development'



### Human Development Index (HDI)

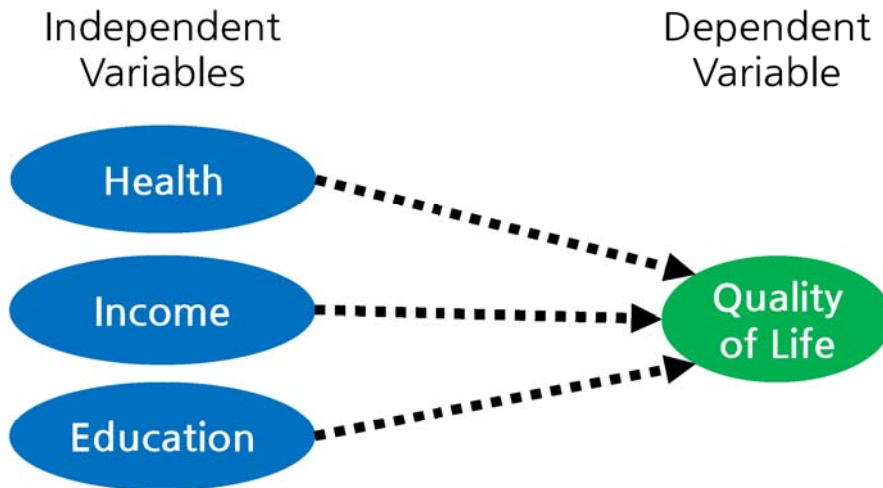
#### Components of the Human Development Index

The HDI—three dimensions and four indicators

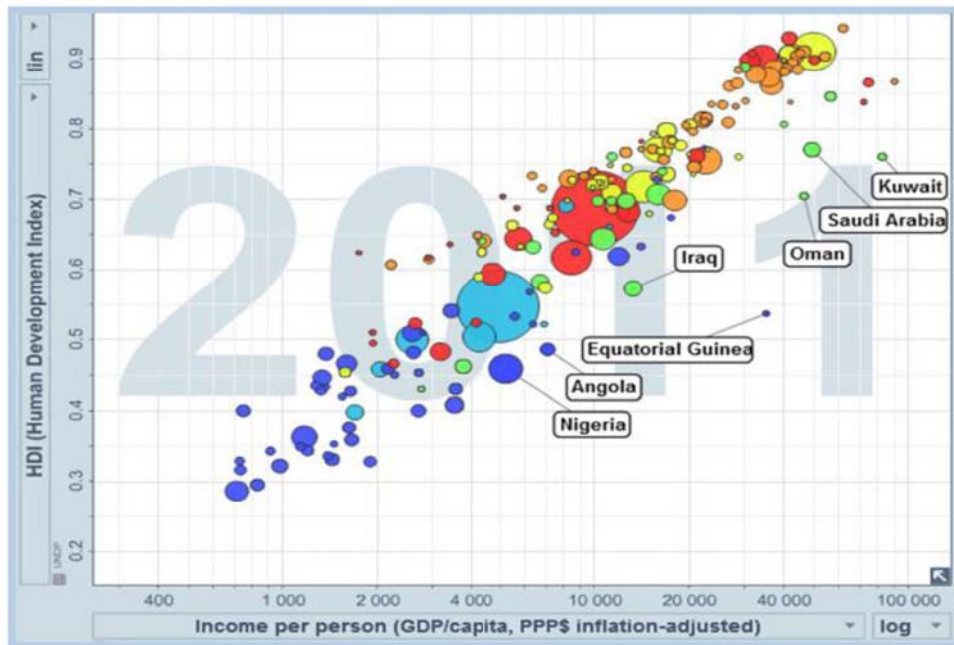


Source: HDRO, UNDP

## Struggle to eradicate the cause of poverty?



## HDI vs. GDP/capita

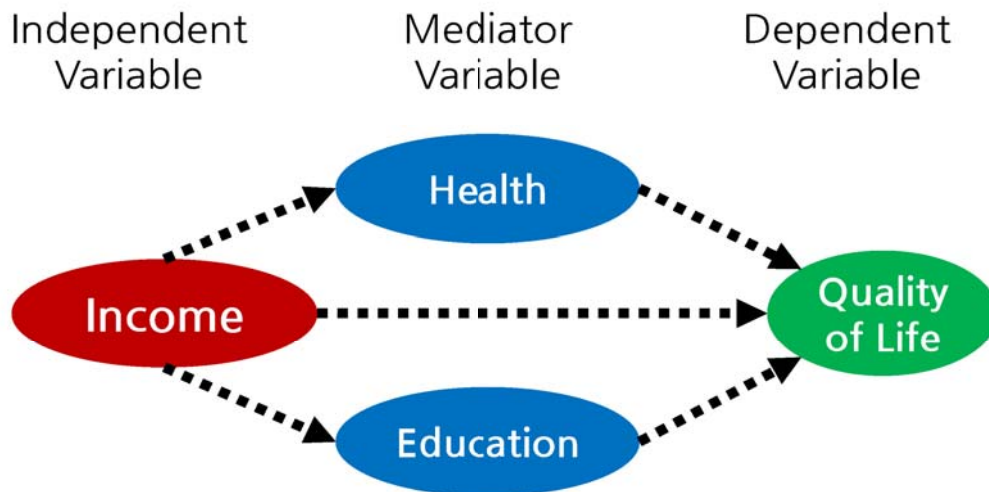


Source: <http://gapminder.org>

## Why Development focus on Agriculture?



### Struggle for Income Generation!



개발마케팅연구소

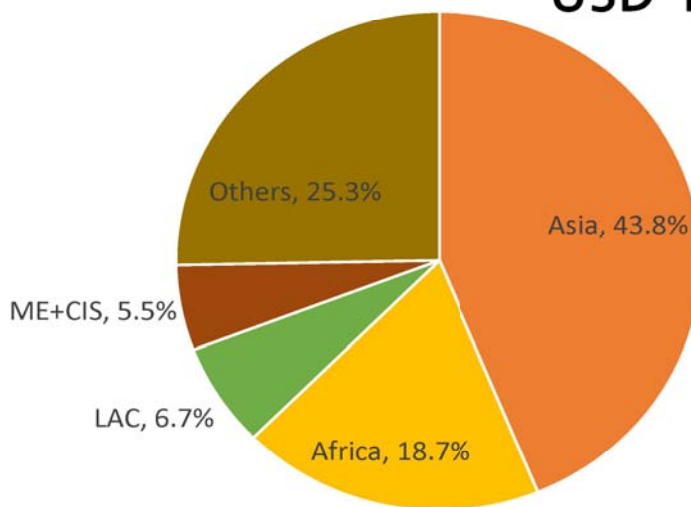
Copyright 2017. Development Marketing Institute. All Rights Reserved.

7

## Korean ODA



USD 1,915 Million  
(FY 2015)



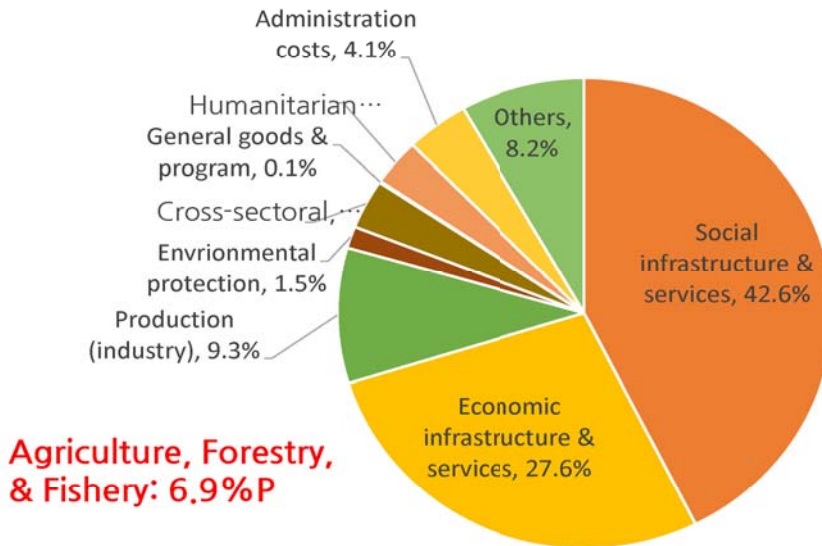
Source: <http://odakorea.go.kr>

개발마케팅연구소

Copyright 2017. Development Marketing Institute. All Rights Reserved.

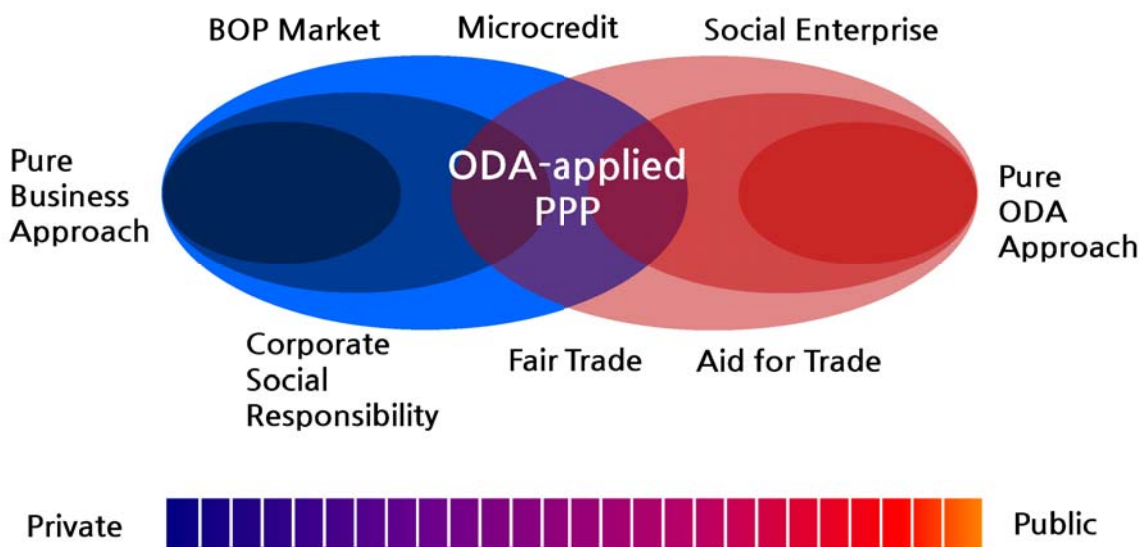
8

## Korean ODA



Source: <http://odakorea.go.kr>

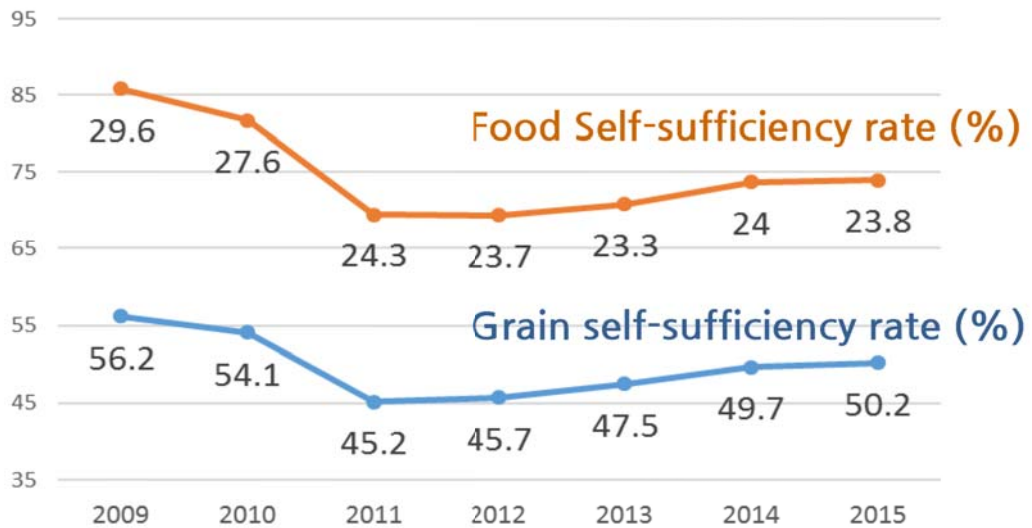
## ODA's Expansion & Convergence



Source: Development Marketing Institute

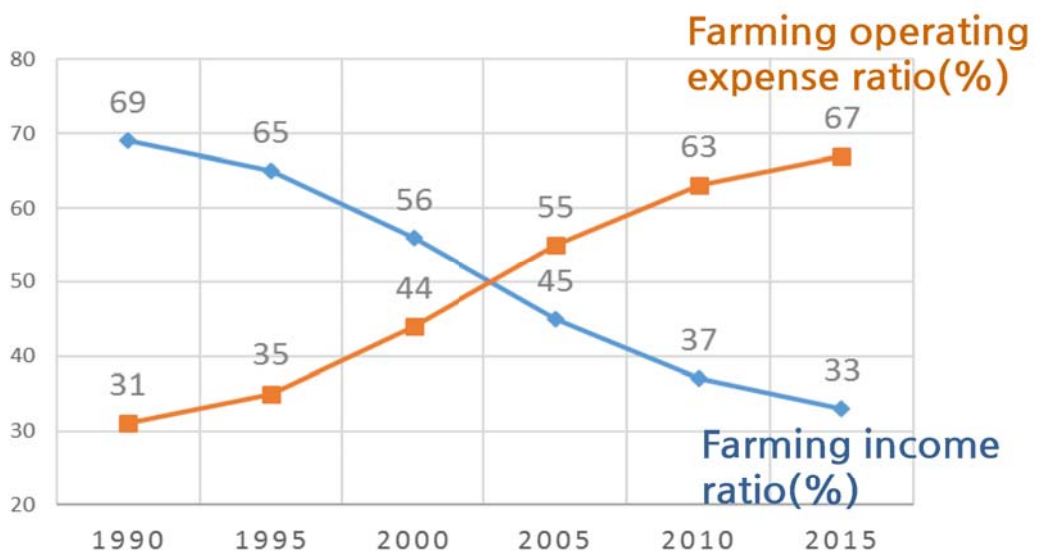


## Korean Agricultural Situation - Production



Source: KREI's data

## Korean Agricultural Situation - Profitability

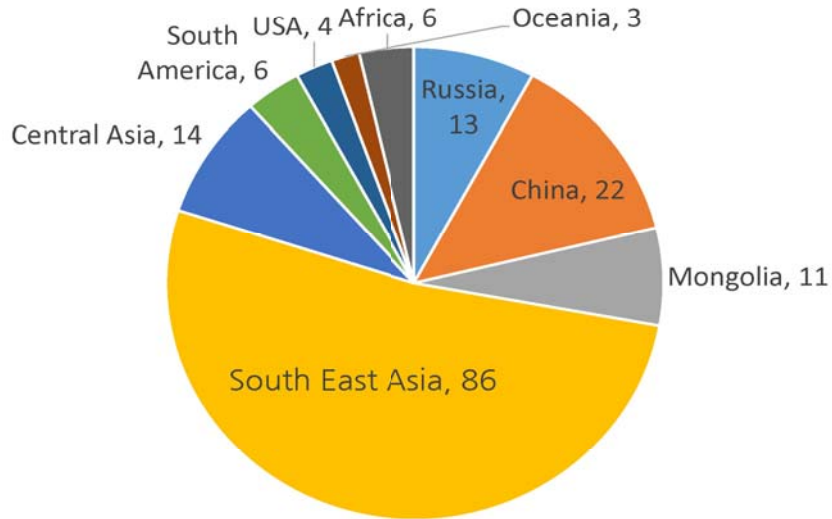


Source: KREI's data

## Korean Overseas Agro-investment Cases



\* number of investing enterprises

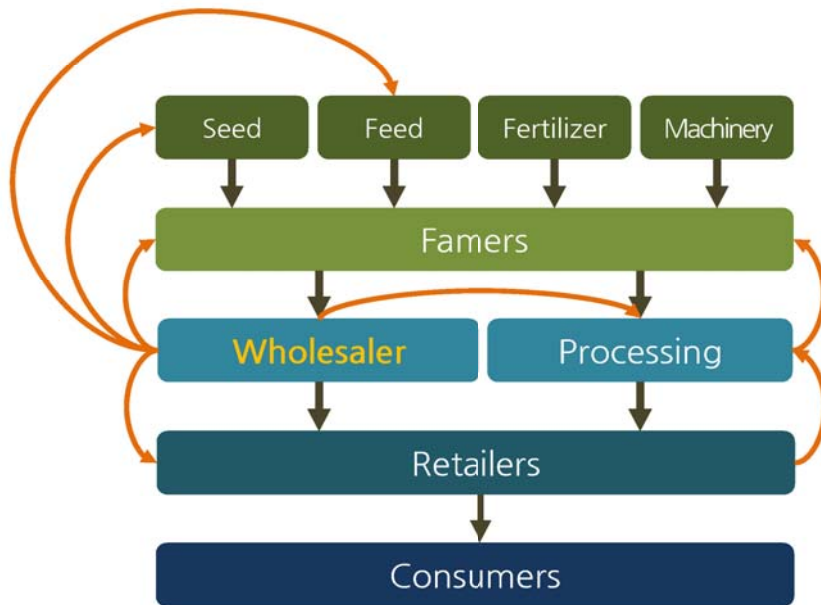


Source: Korea Rural Corporation's data

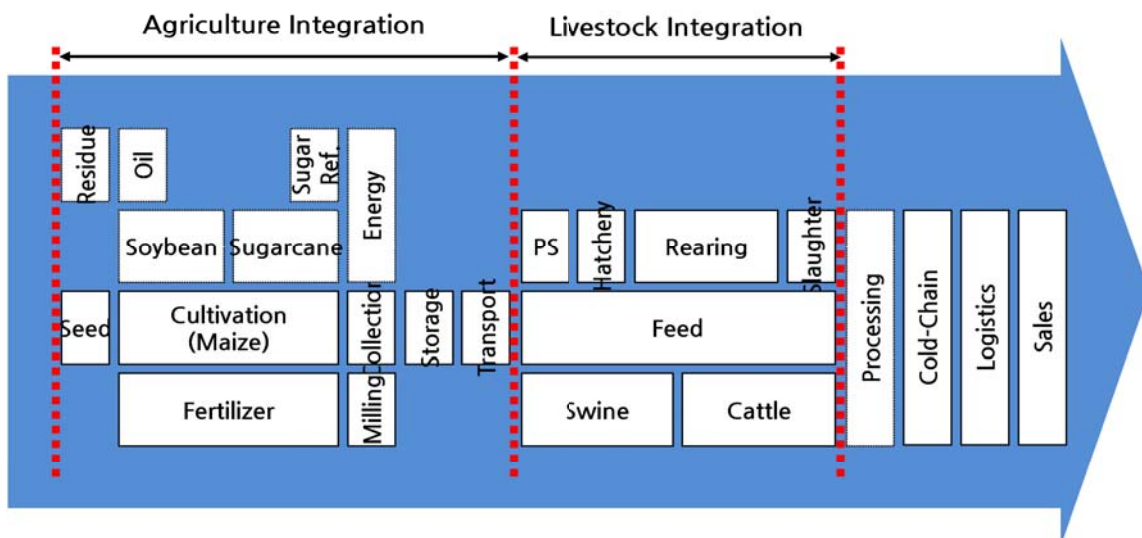
## Global Supply Chain - Major Players



## Supply Chain & Investment Flow



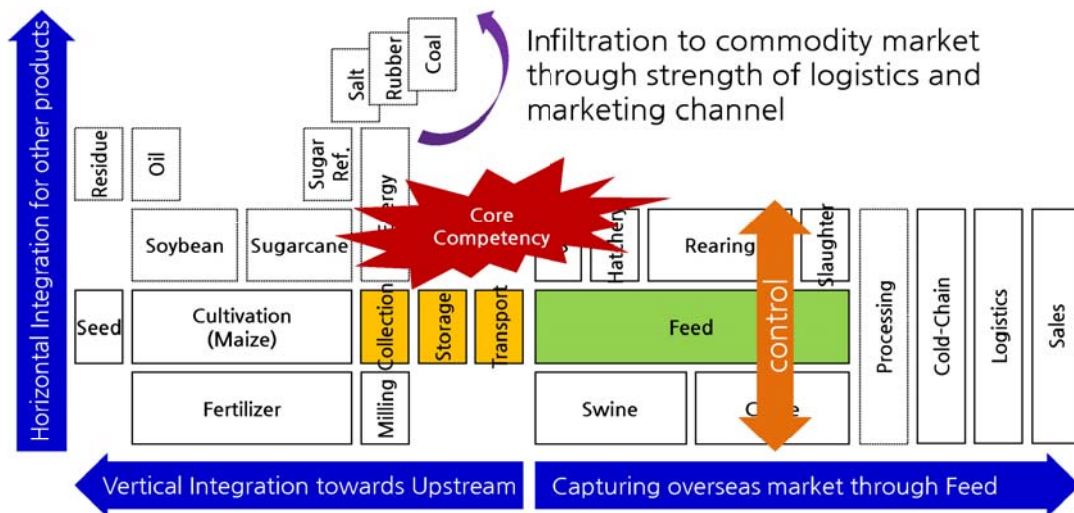
## Agro-Livestock Integration Model



Source: Development Marketing Institute



## Case Study: 'Cargill' - Invisible Giant



Source: Development Marketing Institute

## Definition of Agro-PPP



“Formalized partnerships between public institutions and private partners designed to address sustainable agricultural development objectives...

- where the public benefits anticipated from the partnership are clearly defined,
- investment contributions and risk are shared,
- active roles exist for all partners at various stages throughout the PPP project lifecycle”

Source: <http://www.fao.org/ag/ags>



## Who are the Partners?

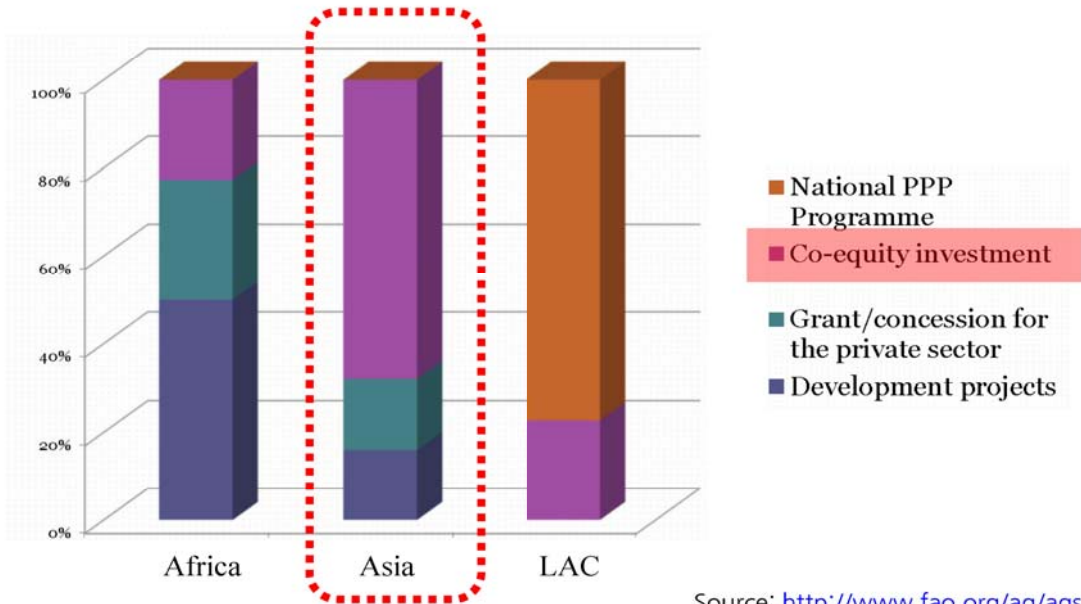
Public	Private
<ul style="list-style-type: none"> <li>• Central and local government</li> <li>• State banks and rural finance corporations</li> <li>• State-owned enterprises</li> </ul>	<ul style="list-style-type: none"> <li>• Global/domestic food companies</li> <li>• Input supply and agro-processing companies</li> <li>• Financial institutions</li> <li>• SMEs and producer associations</li> <li>• 3rd party contractors</li> </ul>



## Partners in Development Context

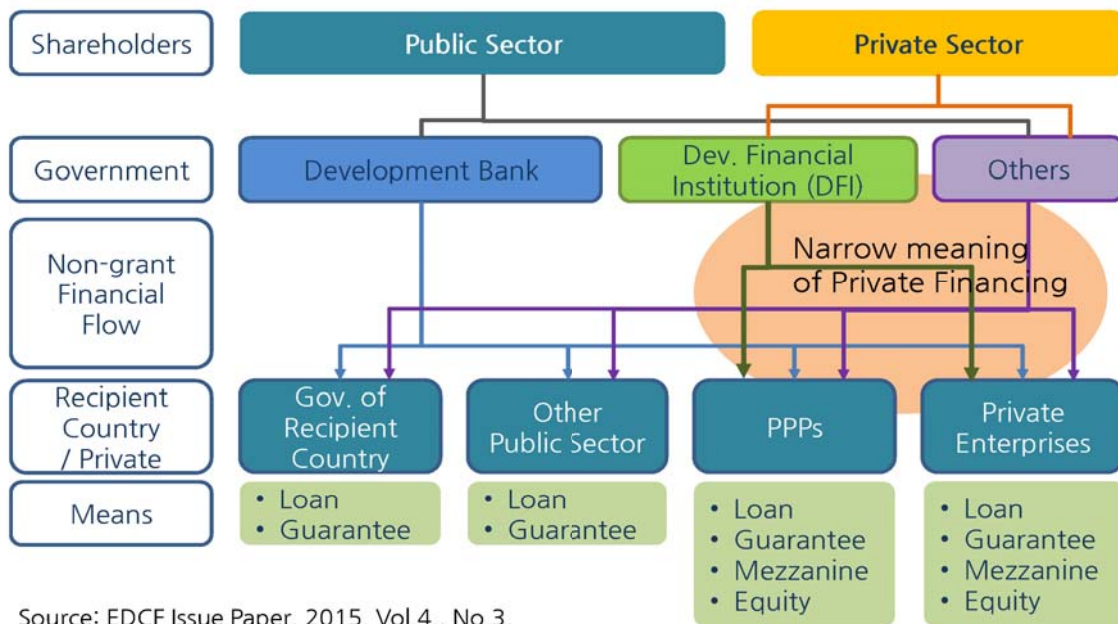
	Host Country	Investor Country
Public	<ul style="list-style-type: none"> <li>• Central and local government</li> <li>• State banks and rural finance corporations</li> <li>• <b>State-owned enterprises</b></li> <li>• Marketing boards</li> </ul>	<ul style="list-style-type: none"> <li>• Central and local government</li> <li>• State banks</li> <li>• <b>State-owned enterprises</b></li> </ul>
Private	<ul style="list-style-type: none"> <li>• Domestic food companies</li> <li>• Input supply and agro-processing companies</li> <li>• Financial institutions</li> <li>• <b>SMEs and producer associations</b></li> <li>• 3rd party contractors</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Global and domestic food companies</b></li> <li>• Input supply and agro-processing companies</li> <li>• Financial institutions</li> <li>• 3rd party contractors</li> </ul>

## PPP Financing Structure



Source: <http://www.fao.org/ag/ags>

## Diversified Financing Sources



Source: EDCF Issue Paper. 2015. Vol.4., No.3.

## Korean Agri-PPP Case: Uganda



### Rice

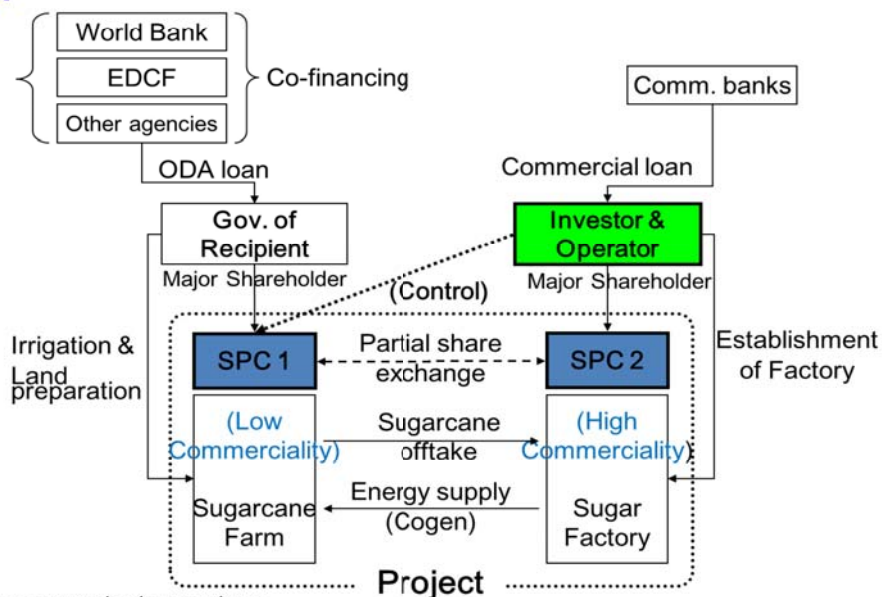


Source: <http://www.oads.or.kr>

## Multiple Participants' Model: Mali



### Sugar



Source: Development Marketing Institute

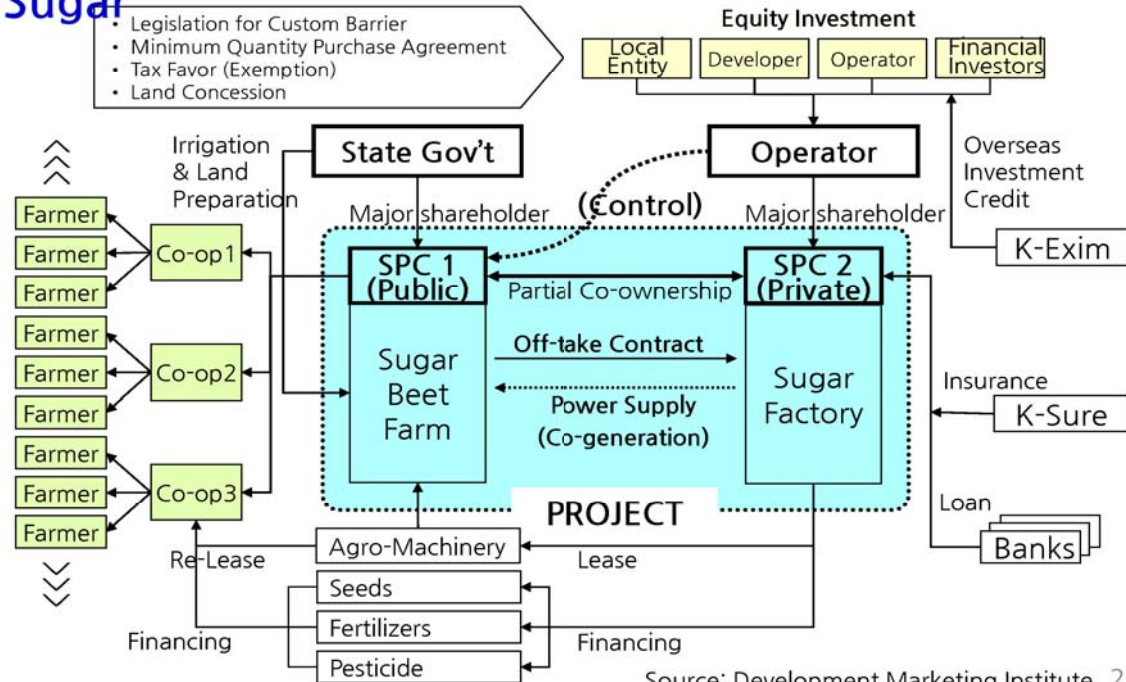


## More Comprehensive Model: Central Asia



### Sugar

- Legislation for Custom Barrier
- Minimum Quantity Purchase Agreement
- Tax Favor (Exemption)
- Land Concession



개발마케팅연구소

Source: Development Marketing Institute 25

Copyright 2017, Development Marketing Institute. All Rights Reserved.

## Conclusion



1. Recognize Strategic Investor(SI), and structure SI-oriented project
2. Utilize diversified financing sources including ODA
3. Establish market-driven business plan
4. Challenge the current market ruler
5. Build sustainable Win-Win model

개발마케팅연구소

26

Copyright 2017, Development Marketing Institute. All Rights Reserved.



# Thanks!

Contact: [kimcarlos@dmf.or.kr](mailto:kimcarlos@dmf.or.kr)  
#82-10-4753-7262

2017 KAPEX Forum for  
International Agricultural Partnership

## Presentation 3

# PPP Cases Financed by Korea Eximbank and Lessons Learned

---

■ Dr. Kim, Youngkee  
(Export-Import Bank of Korea)

**KREI**





## PPP CASES FINANCED BY KOREA EXIMBANK & LESSONS LEARNED

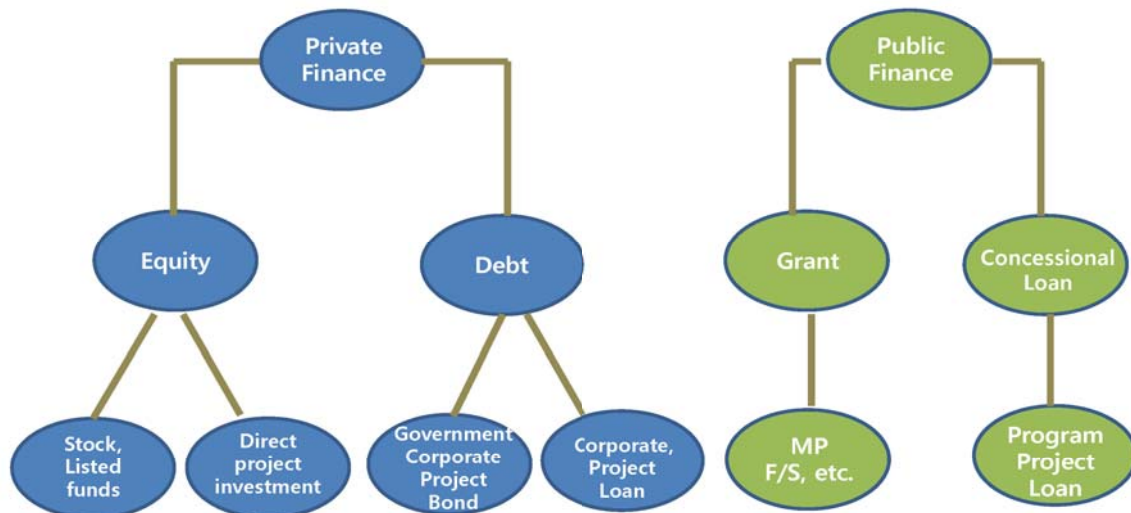
KIM, YoungKee  
Senior Financial Advisor  
Korea Eximbank

### ISSUES TO DISCUSS

---

- **PPPs & SDGs**
  - Focusing on PPP as an effective investment modality for infrastructure development in the context of SDGs
  
- **Cases of KEXIM financing on infrastructure and Lessons learned**
  - Eurasia tunnel project in Turkey
  - Xepian Hydropower in Laos
  
- **Applying PPPs to agriculture**

## Sources of infrastructure financing



Y.K. KIM

3

## What is PPP?

- **Long-term contract between public authority & private sector for:**
  - the design, construction, financing, and operation of public infrastructure (the 'Facility') by the private party
  - with payments over the life of the PPP Contract to the private-sector party for the use of the Facility
- **Key differences with public sector procurement**
  - Major project-related risks are transferred to the private sector
    - Construction risk, market risk, operation risk, etc.
- **Two models of PPP**
  - "Concession Model" = user fee payment
    - e.g. toll road, water distribution
  - "PFI Model" = availability payment
    - e.g. school, hospital

Y.K. KIM

4

## Why use PPPs?

- Limited fiscal resources and constraints of the public sector in developing and operating infrastructure
- On time + on budget completion
- Risks are allocated to the party best able to manage the risk
- Public sector only pay when services are delivered (focusing on outputs with affordability)
- Better VfM over the lifetime of the project
- Better asset utilization and social and economic benefits
- Sustainable development and improved regulation

Y.K. KIM

5

## PPPs on Poverty Reduction and Development

- PPP in infrastructure significantly improves access to infrastructure
- PPP can have a dual impact on poverty reduction and the SDGs:
  - directly, by improving the living conditions of the poor, and
  - indirectly, by stimulating economic growth.
- Sustainability
  - Embedded environmental and social safeguards
  - Focus on longer time scales
  - Public, business and government working in partnership  
→ “partnership” most important out of 3Ps

Y.K. KIM

6



## Turkey Eurasia Tunnel – Project Background

Case: Turkey Eurasia Tunnel

- **Istanbul is a unique metropolis, spread across two continents, Europe and Asia, separated by the Bosphorus strait, located in the heart of the city with a population of 13 million.**
  - Istanbul is characterized by the fact people have to commute regularly between the two “continents”.
  - In order to meet the rapidly growing demand for crossing the two sides of the continents, the Turkish MOT determined to invest an underwater car tunnel under a BOT procurement procedure.
  
- **Project development process**
  - A tender for the DBOT for the Istanbul Strait Road Tube Crossing (the “Eurasia Tunnel”) was announced in 2008.
  - The Turkey Korea Joint Venture, formed by Yapi Merkezi, SK E&C and other Koeran firms (“TKJV” consortium) was announced by the Authority as the winning bidder for the Project.
  - On 13 January 2009, the Implementation Contract (the “IC”) was initiated by the MoT and TKJV and Avrasyatuneli Joint Stock Company (“ATAS”), a SPC was formed
  - The Implementation Contract (IC) between MoT and the SPC signed to specify the tolls with various conditions.

Y.K. KIM

7

## Project Route

Case: Turkey Eurasia Tunnel



- Part 1, on the European side:
  - widening of Kennedy Caddesi from Kazlıçesme to the Bosphorus, from 3x2 lanes to 2x4 lanes, over a length of approximately 5.4 km, including 5 U-turn underpasses and seven pedestrian footbridges.
- Part 2, under the Bosphorus:
  - construction of a double-deck tunnel with two lanes at each level over a length of 5.4 km, together with a toll plaza and operations building at the western entrance, and ventilation shafts and electrical buildings at both ends.
- Part 3, on the Asian side:
  - widening the existing D100 road leading to the Ankara-Istanbul State Highway at Göztepe, from 2x3 and 2x4 lanes to 2x4 and 2x5 lanes, over a length of approximately 3.8 km, including two interchanges, one underpass, one overpass and three pedestrian footbridges.

Y.K. KIM

8

Case: Turkey Eurasia Tunnel

## Project Program

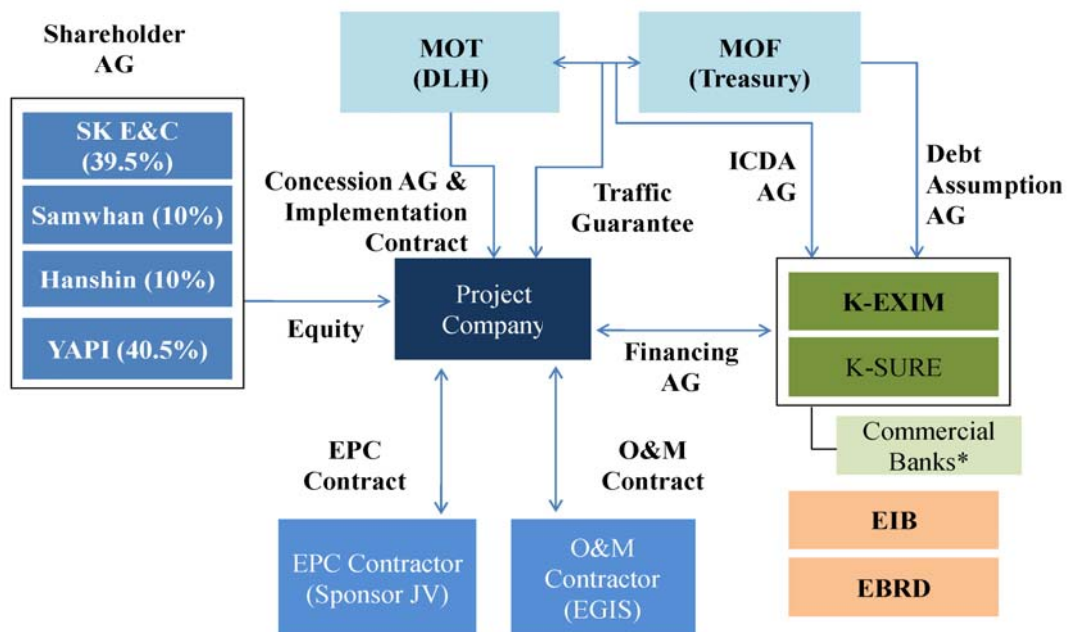
	Description
Project Scope	Construction of an underwater tunnel connecting the east side and the west side of Istanbul and Operation for 26 years (under BOOT concession contract)
Contracting Authority	General Directorate of Railways, Seaports and Airport Construction (DLH) of the Turkish of Transportation, Maritime and Communications
Project Company	ATAS
Sponsors	SK E&C (47.25%), YAPI(47.75%), others (5%)
Project cost	USD 1.22 billion (D:E = 79 : 21)
EPC	Contractor: Korea & Turkish Consortium (SK E&C, YAPI) Cost: U\$814 million
O&M	EGIS (France)

Y.K. KIM

9

Case: Turkey Eurasia Tunnel

## Contractual Structure



\* SMBC, Standard Chartered, and Mizuho

Y.K. KIM

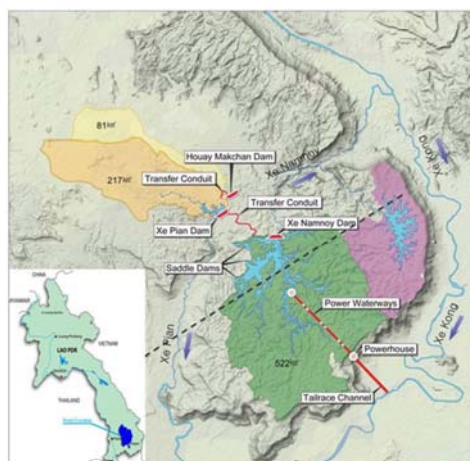
10

## Key features/lessons

- **The first-ever large-scale greenfield transport investment with limited-recourse financing in Turkey involved various government authorities**
  - Led to extensive legal due diligence and lengthy negotiations on such agreements as IC, ICDA, DDA, VAT Support, etc..
- **Multi-sourced financing consisting of ECA, MDB, and commercial banks was instrumental in filling the huge financing gap.**
- **The project sites perch on seismic area and have fishery markets nearby**
  - Brought about additional issues such as rigorous technical due diligence, insurance, protests by local residents, and relocation issues
- **Among others, the negotiation with inexperienced sponsors and the host government caused significant delay in financial closing**
  - Need to get prepared for material changes in the financial terms and conditions as key assumptions change
- **Strong commitment and support from the Prime Minister played a pivotal role in resolving key deal-break issues**

## Laos XE-PIAN XE-NAMNOY Hydropower – Project Background

- **The Lao PDR has the potential to build more than 70 hydropower plants (Dams) with a total installed capacity of about 28,000 MW.**
- **In the Lao National Energy Policy, it is important to maintain and expand affordable, reliable and sustainable electricity production and supply in order to support a positive economic and social development in the country.**
- **Project development process**
  - Xepian-Xenamnoy Power Company (PNPC), a SPC, was established in March 2012
  - Concession contract was signed in October 2012, followed by a PPA between the SPC, EGAT, and EDL
  - The 1st Phase financing was signed among Thai Exim and Thai commercial banks in November 2013.
  - ESIA was completed by Korea Exim in December 2014
  - On March 2015 lender kick-off meeting was held and board approval achieved in May 2015 by KEXIM



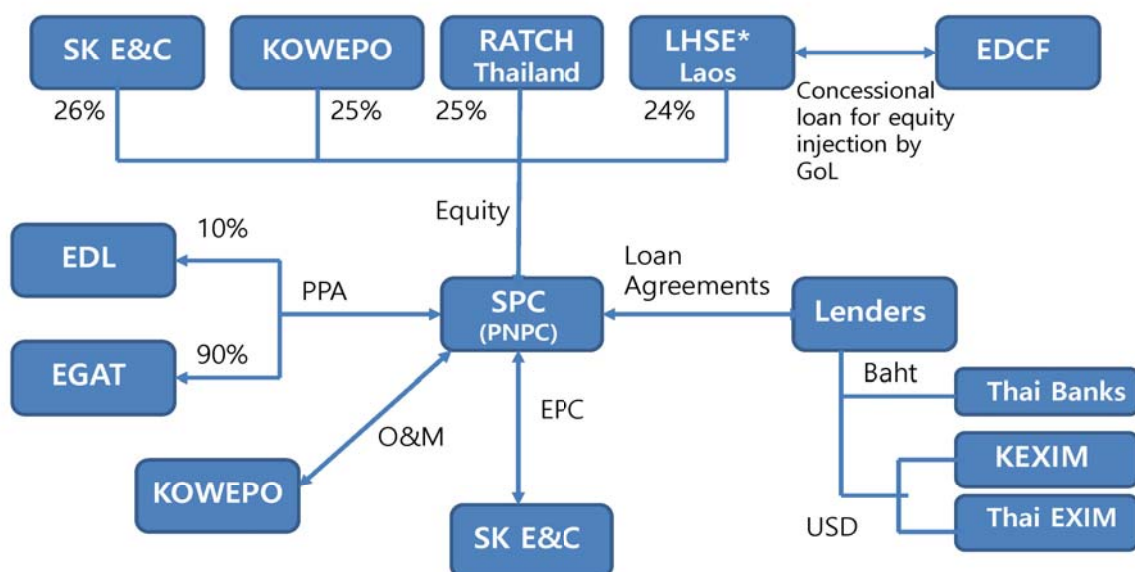


## Project Program

	Description
Project Scope	<ul style="list-style-type: none"> <li>• 410 MW river diversion hydropower under BOT for 27 years</li> <li>• Main structural components consist of a large storage reservoir impounded by a dam on the Xe Namnoy River, long underground tunnels and shaft waterways and an open-air powerhouse containing four generator units (three Francis turbines and one Pelton turbine).</li> </ul>
Contracting Authority	Electricité du Laos (EDL, 10%) and EGAT (Thailand, 90%)
Project Company	Xepian-Xenamnoy Power Company (PNPC)
Project Cost	USD 1.02 bil. (debt to equity; 70:30)
Sponsors	SK E&C (Korea, 26%), KOWEPO (Korea, 25%), Ratchaburi( Thailand, 25%), LHSE(Laos, 24%)
EPC	SK E&C (USD 680 mil.)
O&M	KOWEPO

Source: Project Finance International Asia-Pacific Report March 2014

## Project & financing structure of Xepian Hydropower



\* Lao Holding State Enterprise 100% owned by GOL

## Key features/lessons

- **PNPC marked an important milestone for the project finance market in Laos, Thailand and South-East Asia generally.**
  - With more than US\$700m of loan commitments with a door-to-door tenor of 20 years, it is the largest limited-recourse financing in Laos since 2011.
- **Take-out mechanism**
  - The financing arrangements contain a bespoke accession mechanism that permits the project company, subject to the consent of the lenders, to replace some of US dollar loans from Thai banks with new loans from KEXIM during a three-year period from the signing date of the project.
  - KEXIM (and ADB) had a significant early involvement in the financing, but at signing had not committed to providing financing to the project due to ongoing environment issues
  - Thai banks signed in November 2013. with phase II financing provision
- **Shared transmission facilities**
  - PNPC is the first power project to close in Laos with a contractual requirement to provide access to its transmission facilities to neighboring power plants seeking to export energy to Thailand.
  - This shared transmission facilities requirement presented a unique set of issues for PNPC, the sponsors and the lenders when structuring the development and financing.
- **Hydropower is not just a means of combating GHG emissions; water storage also supports adaptation to climate changes.**
  - The development of hydropower can be a vital and important part of the answer.
  - Not only providing reliable supply of electricity, the project laid out favorable conditions for improving irrigation and drinking water in the affected areas

## PPP in Agriculture

- **Relatively a new concept as a development modality**
- **With the backdrop of the constraints in government intervention and market failure, PPPs may provide a solution**
  - Limited government resources and expertise
  - Rural area-low population densities, remote locations and weather-dependent production systems - highly risky
  - Developing competitive agriculture is costly and increasing budget constraints
- **PPP approach provides various options tailored for peculiarity embedded in the sector and laying out agricultural sustainability**



## Areas of agriculture for PPP application

- **Building infrastructure**
  - Road (farm to market), irrigation facilities, electricity, etc.
- **Improving productivity**
  - Seed industry, farming modernization and agricultural machinery, breed improvement (R&D), etc.
  - Processing facilities
- **Marketing**
  - Restructuring whole sale market, minimizing loss to both producers and consumers by streamlining long supply chain
  - Expanding domestic and overseas distribution network
- **Ultimately, establishing a competitive value chain leading to increased income for farmers and fishermen**

Y.K. KIM

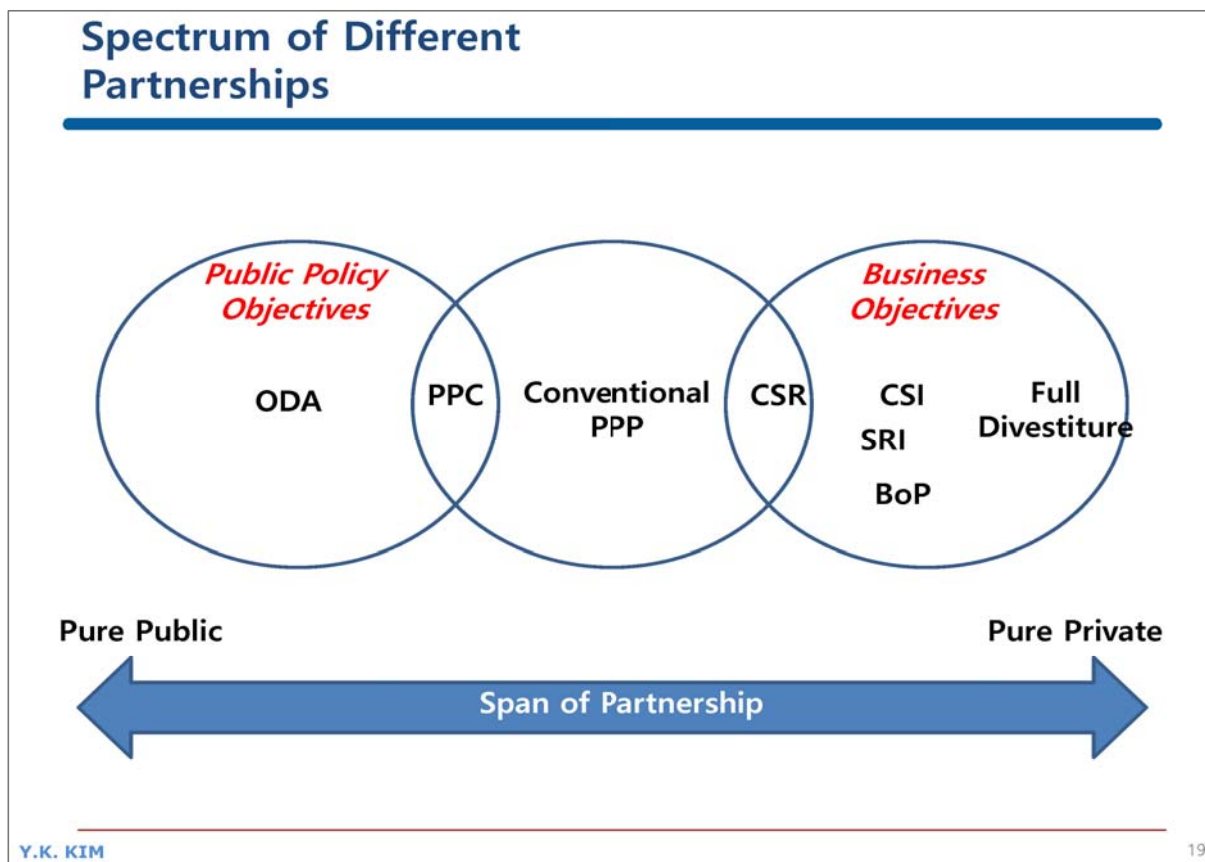
17

## Approaches of PPP application to agriculture-related sectors

- **Conventional PPP approach:**
  - Construction and operation of agriculture-related Infrastructure (multi-purpose dam, irrigation facility, etc.)
  - Private investment and financing on limited recourse basis
  - Limited to large-scale investment given high transaction cost
- **New approaches customized for agriculture**
  - CSR as a broader form of PPP driven by businesses
    - Increase investment, profitability or reduce risk
    - Positive societal impacts
  - Public-Private Cooperation (PPC) led by public sector/donors
    - Mobilizing additional financial resources and expertise from the private sector
    - Linking CSR to development impact

Y.K. KIM

18



### Cases in CSR

Entity	Country	Main target/activities
Wal-Mart	PUERTO RICO	A sale agreement between Wal-Mart and the Department of Agriculture in order to create more agriculture businesses and increase the local production.
Coca-Cola	Turkey, Jordan, Azerbaijan, Kazakhstan	Water recycling and reuse
Honda	Vietnam	<ul style="list-style-type: none"> <li>To plant forests on barren and grassy land in Cao Phong District, Hoa Binh Province (north-western region of Vietnam)</li> <li>To have forestation cover 310 hectares of land that has become dilapidated due to forest cutting to create farmland</li> <li>JICA provided grant to cover costs for operation and forestation</li> </ul>
Aid by Trade Foundation	Benin, Zambia, Burkina Faso, Mozambique	<ul style="list-style-type: none"> <li>Agricultural training, community project, adult literacy program</li> <li>Partners: NGOs, Bill &amp; Malinda Gates foundation, BMZ, DEG, GTZ;</li> <li>Business partners: PUMA, OTTO, Tom Tailor, C&amp;A, etc.</li> </ul>
FAO	15 countries, 3 regions	70 cases during 2011-2013

Y.K. KIM 20

## Policy considerations

- **PPPs are not a panacea but can be an interesting option for both the public and the private**
- **The public should not be prescriptive about PPPs, but provide incentives that attract the private participation**
  - Be aware that the cost for PPP should be efficient
- **There's no single right answer, more important to focus on:**
  - developing shared goals and including all partners as early as possible
  - creating a sustainable business case with well-defined public objective and private interest

Y.K. KIM

21

## QUESTIONS AND COMMENTS



For inquires: [youngkee.kim@gmail.com](mailto:youngkee.kim@gmail.com)  
82-10-9481-0429











