

# Public-Private Partnerships (PPPs) in Agriculture: International Lessons Learned & Prospects for Ukraine

Thursday, December 5, 2013

By

Ned White

International PPP Investment Specialist

# Session Overview

1. Definition & Forms of “Public-Private Partnership” Contracts
2. Goals & Objectives of PPPs & International PPP Investment Record
3. Review of Ukraine PPP Framework & Appraisal Methodology
4. International Case Studies Lessons Learned from PPPs in Agriculture
  - PPPs in the Irrigation Sector
  - PPPs in the Cold Chain Storage Sector
5. Discussion: Opportunities & Prospects for PPPs in Agriculture in Ukraine

# 1-Definition – “What ARE PPPs?”

- Definition:

*Public-Private Partnerships (PPPs) are a form of legally enforceable contract between the public sector and private sector, which requires new investments by the private contractor (money, technology, expertise/time, reputation, etc.) and which transfers key risks to the private sector (design, construction, operation, etc.), in which payments are made in exchange for performance, for the purpose of delivering a service traditionally provided by the public sector.*

# Range of PPP Structuring Options:

PPP Contract Instrument	Average Contract Term	Provides the Service or the Management	Provides the Working Capital	Receives the Net Income or Covers Net Loss	Provides Long-Term Finance	Legally owns the Assets	Provides Sectoral Planning & Regulates Services
Corporatization & Private Market Finance	in perpetuity	Public	Pub./Priv.	Public	Pub./Priv.	Public	Public
Service Contract	2-3 years	Private	Public	Public	Public	Public	Public
Management Contract	2-5 years	Private	Public	Public	Public	Public	Public
Lease/Affermage	7-15 years	Private	Private	Private	Public	Public	Public
Build-Operate-Transfer (BOT)	20 - 30+ years	Private	Private	Private	Private	Public	Public
Build-Own-Operate (BOO)	20 - 30+ years	Private	Private	Private	Private	Private	Public
Concession	20 - 30+ years	Private	Private	Private	Private	Public	Public
Divestiture & Asset Sales	in perpetuity	Private	Private	Private	Private	Private	Public

## 2-Goals & Objectives of PPPs

- **Improved Efficiency & Quality of Service, Compared to the Public Sector**
  - Higher quality of services & lower per unit costs. Better **“Value for the Public’s Money” (VfM)** over the whole-life of the project
  - “Contracted Outcomes”: The force of a contract with *clear output service standards*
- **Additional Investments:**
  - More key infrastructure assets and services (irrigation, agricultural marketplaces, cold storage facilities, grain elevators, grain terminals, etc.) can be provided to the economy WITH PPPs than without.
- **Avoided Public Borrowing:**
  - For Governments that are unable to borrow to finance new infrastructure projects, PPPs may be able to provide new private financing “off the Government’s Balance Sheet”
- **Access to New Technologies:**
  - Access to new technologies and experienced management not currently available through the public sector (ie logistics management)
- **Caution:** Do not assume that PPPs will always perform better than the public sector. Contracts with clear output performance standards are needed as well as rigorous comparisons of Public Sector vs. PPP costs and quality of service

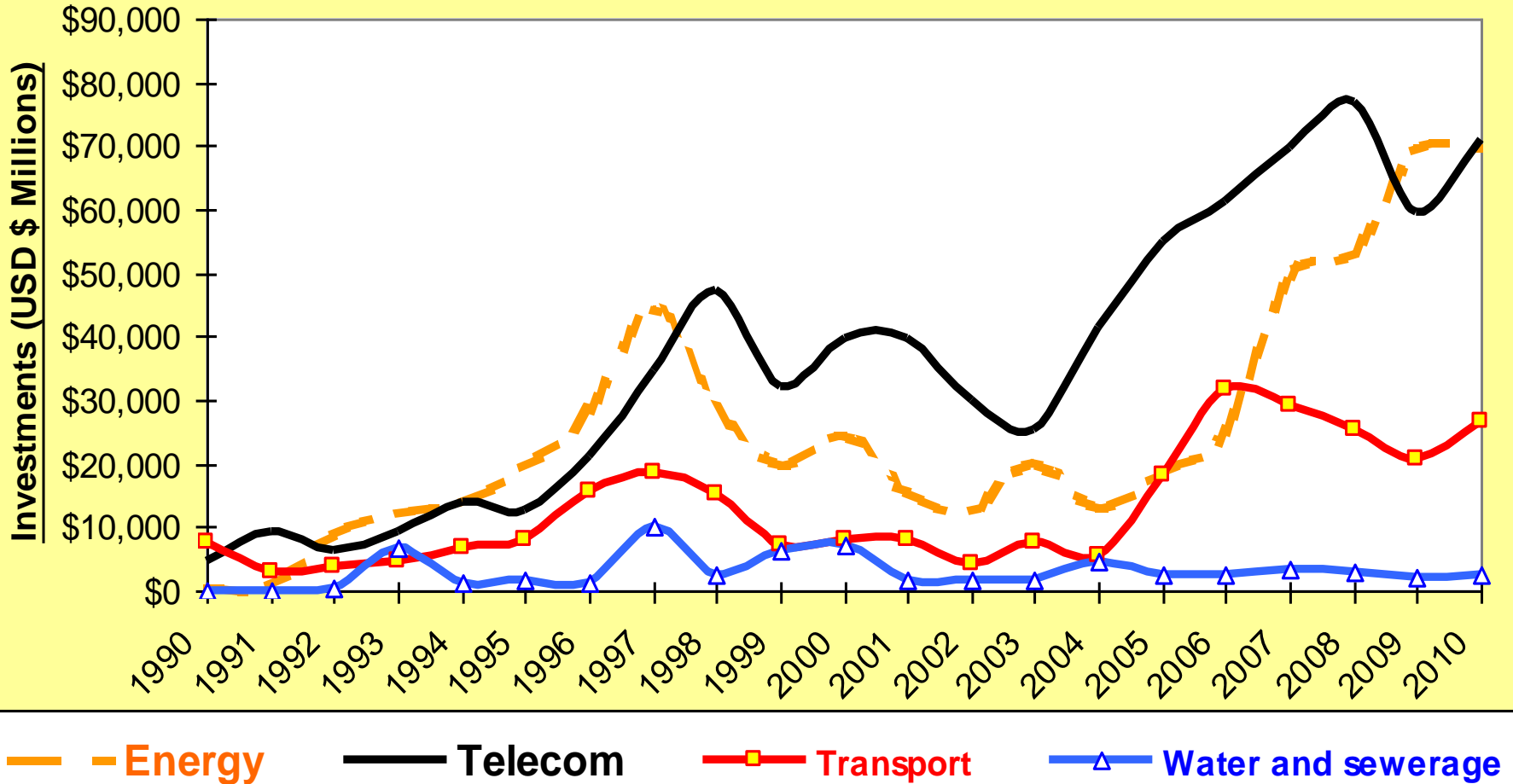
# PPP Risk Identification, Analysis & Allocation

(from Ministry of Economic Development and Trade's Order No. 255, "Public-Private Partnership Appraisal Methodology," February 27, 2012)

- ✓ Technical Design
- ✓ Financing
- ✓ Inflation
- ✓ Implementation
- ✓ Operating Activities
- ✓ **Demand & Level of Use**
- ✓ Regulatory Changes
- ✓ Technology Upgrades
- ✓ Dependence on a single private supplier
- ✓ Environmental Safety
- ✓ Residual Value
- ✓ Construction cost & timely completion

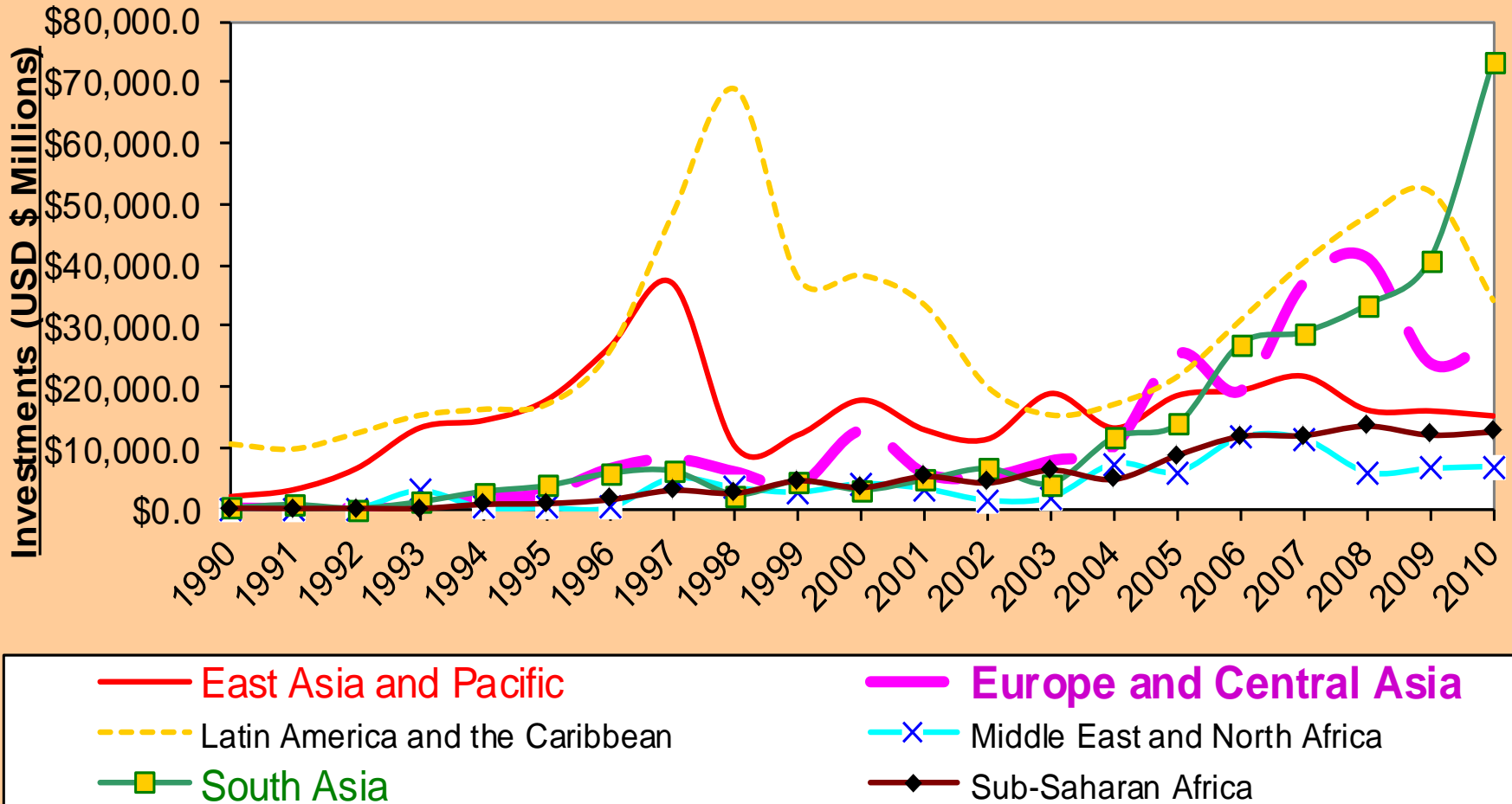
# International PPP Investment Record:

## Private Investments in Infra. in Developing Economies by Sector (1990 - 2010)



# International PPP Investment Record:

## Private Investments in Infra. by Region (1990-2010)





# Ukraine's PPP Legal & Regulatory Framework

- Law of Ukraine No. 2404-VI “On Public-Private Partnership,” July 1, 2011.
- Cabinet Resolutions and Ministerial Orders:
  - Resolution of the Cabinet of Ministers of Ukraine No. 384 “Certain Issues Related to Organizing Public-Private Partnerships,” April 11, 2011;
  - Resolution of the Cabinet of Ministers of Ukraine No. 81 “On Approving the Procedure for the Private Partner’s Reporting of the Fulfillment of an Agreement Executed within the Framework of Public-Private Partnership to the Public Partner, ” February 9, 2011;
  - Resolution of the Cabinet of Ministers of Ukraine No. 232 “On Approving the Methodology of Identifying the Risks Associated with Public-Private Partnerships, Assessing Such Risks, and Determining a Risk Management Approach,” February 16, 2011; and
  - Order No. 40 of the Ministry of Economic Development and Trade of Ukraine “On Approving the Formalities of Presenting Public-Private Partnership Proposals,” August 16, 2011

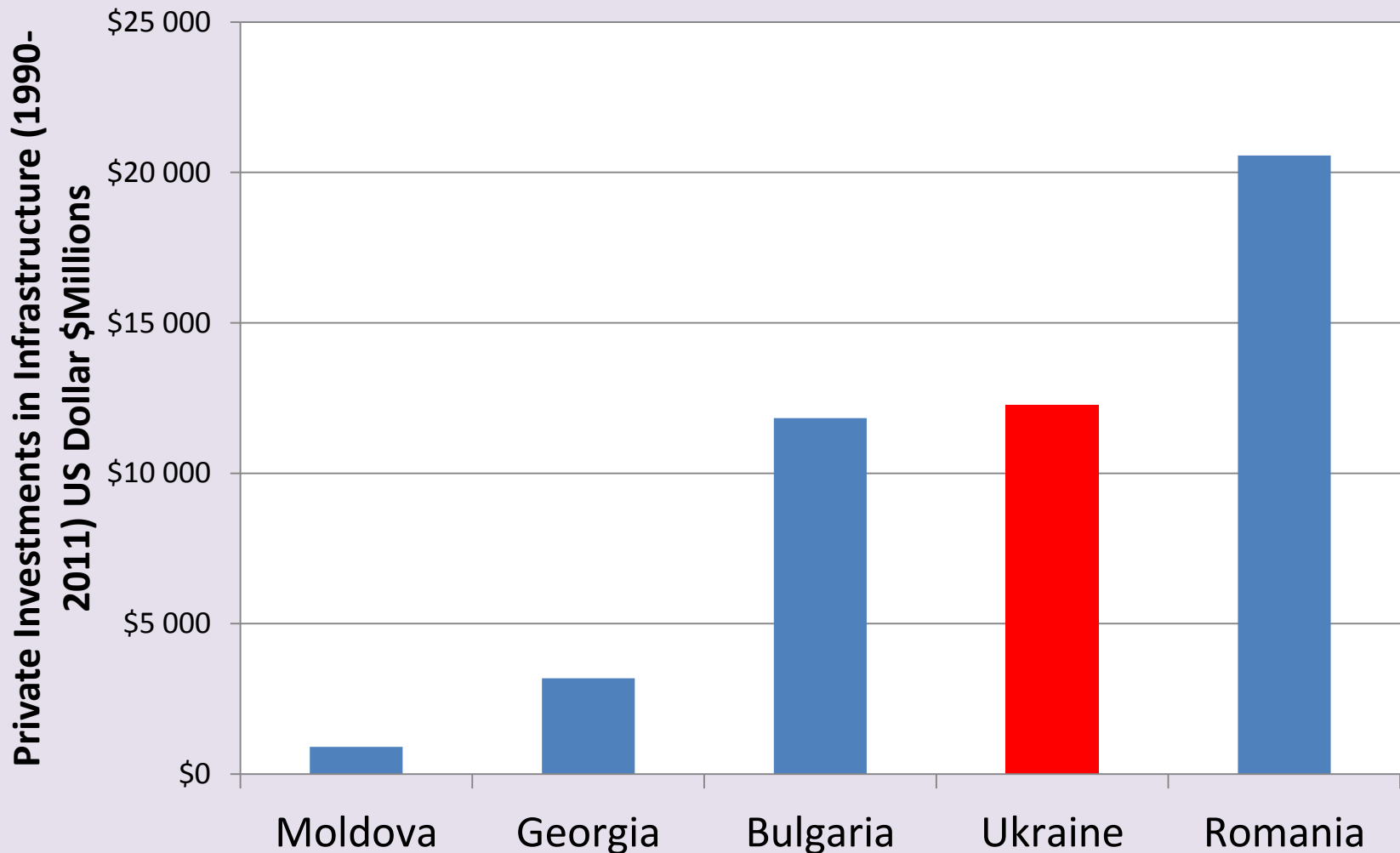
# Ukraine's PPP Legal & Regulatory Framework

## Ministry of Economic Development and Trade's Order No. 255, "Public-Private Partnership Appraisal Methodology," February 27, 2012.

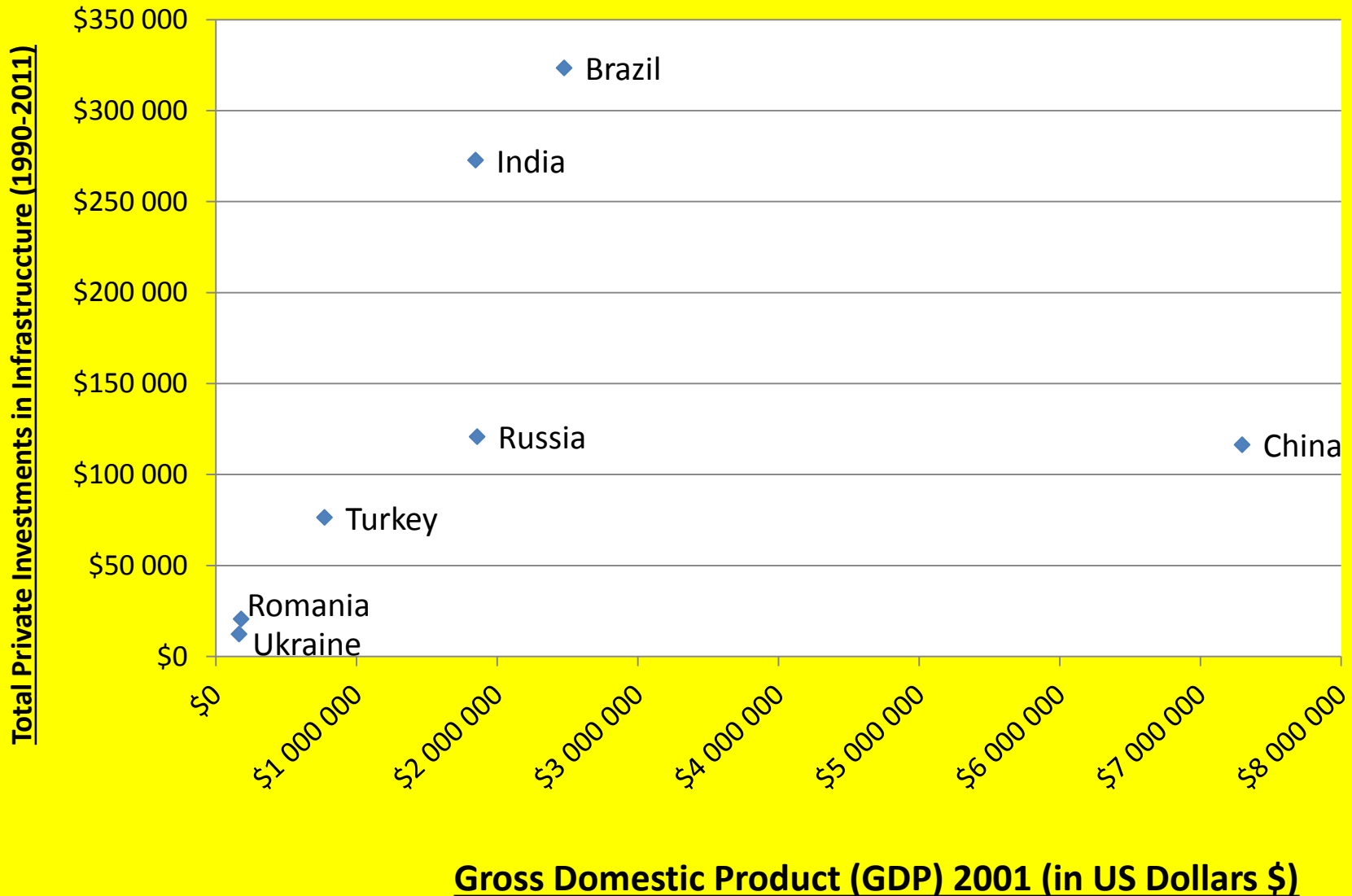
- Intended for effectiveness of PPP projects to be appraised by:
  - Executive authorities when evaluating PPP projects and preparing opinions on the PPP appraisal results;
  - The Ministry of Finance of Ukraine when making proposals regarding potential financial risks expediency of the state support envisaged in the PPP proposal; and
  - The Ministry of Economic Development and Trade of Ukraine when approving the PPP appraisal results
  
- PPP Appraisal Methodology is organized according the three key stages of the PPP project preparation phase:
  1. Stage 1 – Checking the general PPP characteristics, alternative ways of achieving the PPP goal, and market environment in which the PPP is to be carried out.
  2. Stage 2 – Checking the indicators of financial, economic, and risk analysis
  3. Stage 3 – Preparing the PPP appraisal opinion

# International PPP Investment Record:

## Total Private Investments in Infrastructure (1990-2011)

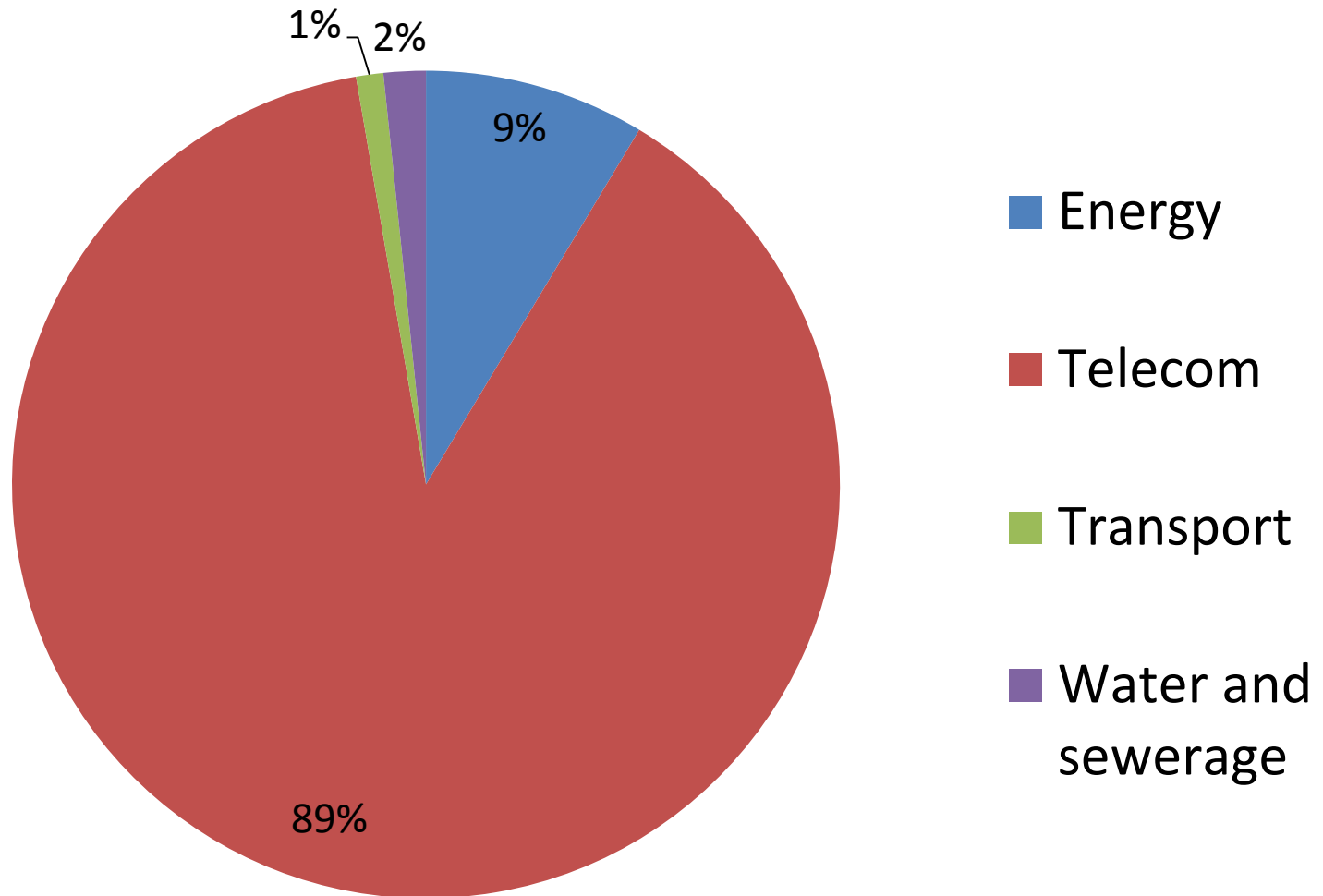


## GDP (2011) vs. Total Private Investments in Infrastructure (1990-2011) for Selected Countries (Source: World Bank PPI Database)



**Gross Domestic Product (GDP) 2011 (in US Dollars \$)**

# Ukraine: Private Infrastructure Investments by Sector (\$12.26 Billion Total)



# Examples of PPPs in Agriculture

- ✓ Construction, Operation & Management of **Irrigation Projects**: Brazil, India, Peru, Morocco, & Jordan
- ✓ Construction & Management of networks of **Cold Chain Storage Facilities**: Philippines, India, Mexico, & Pakistan
- ✓ Construction & Maintenance & Management of Marketplaces for fruit, vegetable, & local agriculture products: Philippines, Jordan, Philippines, etc.
- ✓ Construction & operation of grain terminals at maritime ports: Philippines
- ✓ Construction & operation of agricultural storage facilities (grain elevators, sugar refineries, fertilizer refineries)
- ✓ Recycling of Agricultural Wastes (Agro-waste Pelletization – Moldova; Pig Farm Waste Processing & Recovery-Slovenia; Sugar Cane Bagasse-generated electricity-Uganda, Mauritius, Brazil, etc.)

# PPPs in Irrigation

- Key Challenges to Irrigation Investments:
  - **Capital Intensive**: Very high levels of initial investment are required
  - **Limited Affordability & Cost Recovery**: Individual farmers cannot afford to pay tariffs that would cover the full costs of irrigated water
  - **Ineffective Stakeholder Management**: Traditionally implemented on a very large scale by public sector authorities with relatively little involvement & consultation with farmers/end-users regarding design, service levels offered, or pricing options.
  - **Deferred Maintenance**: Persistent inadequate spending on maintenance, causing deteriorating irrigation service & sustainability.

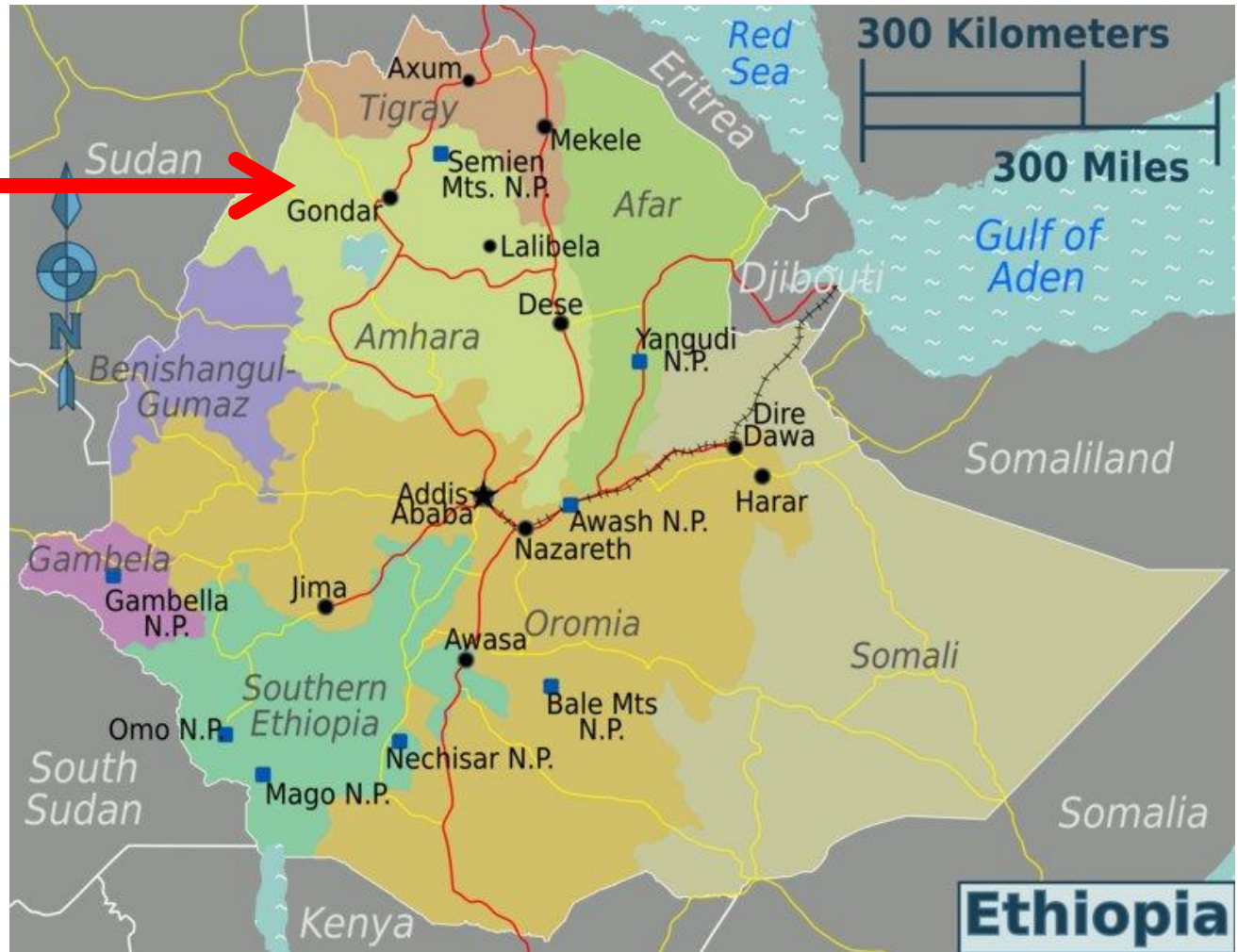
# Irrigation PPP Structuring Options

- **Operation, Management & Maintenance (OMM)**: Private operator maintains irrigation infrastructure according to PPP contract performance standards. Public finance funds the construction of network. Farmers & Water User Associations (WUAs), MAY be responsible for maintaining tertiary network
- **Infrastructure Concession**: Private partner raises finance and constructs, operates & maintains the entire system. Fees paid to private concessionaire by end-users and possibly by Govt. Key risk is Demand Risk. May require Government to guarantee minimum level of demand/revenue.
- **Farm Service Agreement**: The private-sector partners with smallholder farmers and communities for “on-farm,” planting, harvesting and water application; or “off-farm,” storing, processing and marketing. Can improve the agricultural performance of water users, and thus, the commercial viability of irrigation. Can be combined with OMM or Concessions.
- **Hub Farm Agreement**: A private-sector leases land owned by the government, third-parties, or under collective title, in return for a fee of share of revenues. Private capital funds on-farm investments. The private partner pays irrigation fees, which may reflect any or all related costs (e.g. OMM, investment and finance). Can be combined with OMM or with Concessions.



# Map of Ethiopia & Its Regions

**North  
Gondar  
Region**



- Ethiopia has an irrigation potential of about 3.7 million hectares
- Only around 5% of the arable land is currently irrigated.

# Irrigation in Ethiopia



# Ethiopia's Irrigation PPP

- 2006 Government of Ethiopia, with World Bank Technical Support, prepared an Action Plan to develop irrigation public-private partnerships (PPPs) in Megech, Ribb River, and Anger Valley.
- 2010: Govt prepares draft PPP bidding documents and the model transaction agreement for the Megech-Seraba Irrigation and Drainage Project in North Gondar.
- April 2012: the Government of Ethiopia signed a contract to engage French operator BRL Ingénierie to undertake operations and maintenance (O&M) services for the Megech-Seraba project.
- Financing for the construction from the Government of Ethiopia
- The \$8 million 8-year enhanced management contract is expected to increase water availability to over 6,000 landholdings over a 4,040 hectare irrigated area. Covers cost of maintenance

# Key Features of the Irrigation PPP Contract

- The enhanced management contract introduced features not normally present in traditional management contracts, and sought to:
  - incorporate oversight/commentary by the operator on the construction program;
  - ii) place responsibility for construction supervision on the operator (any savings would be shared between the construction company and the operator); and
  - iii) remunerate the operator on a key performance indicator basis, but without placing demand risk on the operator.
- The scheme included charging farmers an Irrigation Service Fee for the full cost of O&M of the irrigation system—including energy costs—thereby contributing to making the system financially sustainable.

# Proposed Irrigation PPP in Pontal, Pernanbuco, Brazil:

- Proposed PPP for common use irrigation infrastructure in an area of 7,717 hectares for commercial agriculture in the Pontal region of Brazil, State of Pernanbuco.
- The government will cede the land and the existing infrastructure, already covering a significant part of the target area.
- Private partner would operate and manage and further develop the infrastructure to ensure:
  - (1) the area is fully irrigated within six (6) years of the date of signature of the contract; and
  - (2) that at least 25% of the irrigated land is available for small farmers, who should be integrated into the production chain of the commercial producers that would occupy the remainder of the land.
- The private partner will be remunerated for the sale of water (through user tariffs) and a capacity payment by the government.

# PPPs in Cold Chain Storage (CCS)

- Temperature-controlled, uninterrupted chain of storage and distribution facilities that can maintain a specific temperature range. Ensures the shelf-life of perishable products, such as
  - Fresh Agricultural Produce
  - Seafood
  - Frozen foods
  - Film, Chemical, Pharmaceutical Drugs (Vaccines), etc.
- Requires a suitable fleet of refrigerated trucks, cars, ships, containers, etc. Usually provided by separate, private shipping and freight forwarding companies
- Requires a specific Quality Management System and Validation to ensure temperature standards are met throughout the entire network of CCS facilities

# Cold Chain Storage PPP – The Philippines



# Cold Chain Storage PPP - Philippines

- Construction and operation of Cold Chain Centers located in major production and consolidation areas of agri-fishery products of the Benguet-Manila cold chain route.
- Investment Cost: \$16.9 Million (USD)
- The PPP intends to reduce post-harvest losses and maintain an inventory of quality perishable goods, stabilize food prices, and promote food safety consciousness.
- Concession Contract to be awarded by Department of Agriculture. Review and Approval by National PPP Unit.



# Discussion:

- Are there clear project opportunities for improvements to sectors like Irrigation and Cold Chain Storage in Ukraine?
- Can Stakeholder Consultation & Participation be managed effectively to ensure a sustainable market & demand response for any PPP projects?
- Are public sector bodies prepared to offer the kinds of public sector support and risk-sharing that will likely be needed to ensure these PPPs are commercially and financially viable?