

Public-Private Partnerships in Agriculture: International Lessons Learned and Opportunities for Ukraine

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Public-Private Partnerships (PPPs), which have long been applied in the traditional economic infrastructure sectors (energy, ICT, transportation, and water & sewerage) have been applied more recently, with increasing frequency, to the agriculture sectors. These recent international experiences have demonstrated that PPPs can be structured to provide significant, new, and innovative investments that can boost agricultural output, improve sector efficiency and cost-competitiveness, and even expand transportation and storage capacity at key facilities. Common examples of PPPs in developing and emerging market economies have included:

- ✓ Agricultural Waste-to-Energy Projects
- ✓ Irrigation Network Development and Operation
- ✓ Agricultural Storage and Transfer Facilities

Ukraine's historic agriculture resources as well as its current legal and regulatory framework for PPPs, provide an important foundation for the country to expand and improve its agricultural competitiveness through PPPs. However, it will be important that the practitioners and managers of PPPs in Ukraine understand the unique challenges to making PPPs in agriculture viable as well as the lessons learned from other emerging market economies. This article assesses the experiences of developing and emerging market economies in structuring PPPs in Agriculture and provides some recommended strategies and lessons learned for Ukraine regarding its opportunities for PPPs in agriculture.

I. Defining PPPs – “What Are They”?

While there are numerous forms of cooperation and joint activities by public and private sector institutions around the world, not all of these fit the definition of a “Public-Private Partnership.” In fact, confusion about what a PPP actually *is*, continues to hinder many potential PPP transactions worldwide, as different stakeholders bring their own, often conflicting assumptions about what a PPP is and what they expect it to achieve. Briefly, a PPP can be defined as:

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.

PPPs, therefore, differ from other forms of public-private cooperation, such as Corporate Social Responsibility (CSR) projects, which feature voluntary donations and contributions from private corporations, but lack binding, long-term contracts. The reasons why Governments have pursued PPPs have varied from simply seeking new sources of financing (for projects that Governments have been unable to finance on their own) to seeking to ensure better quality, reliability, and “value” in terms of the performance of key infrastructure assets, networks, and public services.

II. Ukraine’s Policy, Legal, and Institutional Framework for PPPs:

While PPPs are relatively new to Ukraine, there is a policy, legal, and regulatory framework in place that explicitly allows for PPPs, including in the Agriculture sectors. The foundation for Ukraine’s PPP framework is provided by the Law of Ukraine No. 2404-VI “On Public-Private Partnership” dated July 1, 2011. The general principles of this Law are described in further detail and practical procedures through a series of Cabinet Resolutions and Ministerial Orders, including:

- Resolution of the Cabinet of Ministers of Ukraine No. 384 “Certain Issues Related to Organizing Public-Private Partnerships,” dated 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,” dated 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,” dated 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,” dated August 16, 2011.¹

One of the more practical components of Ukraine’s PPP framework is the Ministry of Economic Development and Trade’s Order No. 255, “Public-Private Partnership Appraisal Methodology,” dated February 27, 2012, and designed and drafted by the USAID-sponsored P3DP Project. This methodology is 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

Although several of these PPP regulations are being revised, updated, and strengthened – Ukraine has demonstrated that it does have an adequate framework in place for implementing PPPs, including PPP projects in agriculture.

¹ The source of this summary comes from an unofficial English translation of the Ministry of Economic Development and Trade’s Order No. 255, “Public-Private Partnership Appraisal Methodology” dated February 27, 2012.

III. Types of PPP Contracts Employed in the Agriculture Sector

PPP contracts range in both their duration as well as the size of the new private sector investment they bring. They can be as short as a 2-year management contract to simply operate and maintain an existing publicly-owned asset or facility, such as an existing irrigation network or a grain storage silo, to a 30-year concession contract to finance-construct-and-operate a new agricultural waste-to-energy incinerator. Today, most Governments, including Ukraine's are primarily interested in these larger PPP transactions that seek to bring in new long-term financing from the private sector to provide new projects and sector services that the public sector has been unable to provide on its own.

- **Management Contracts:** The private partner operates and manages an existing public asset or network, such as an irrigation network, in exchange for a management fee. The private partner must meet specific performance standards and ensure the asset is available to provide its services, as defined in the contract. This form of PPP can be very effective at ensuring that key assets are properly maintained and that service performance standards remain high. However, this form of PPP requires that the public sector, rather than the private sector, continue to provide the long-term financing for the assets.

- **Leases:** The private partner leases an existing public sector asset, such as grain terminal at a maritime port for a specified term and pays a lease-fee (or "rent") to the public sector, as the owner. The private operator now takes on the Commercial risk of the level of demand for the facility's services from customers including shipping companies, agricultural commodity investors, and others. The private partner is responsible for all operating and maintenance functions, including the replacement of short-term assets, The public sector, as the owner, is responsible for all long-term decisions for the facility, including financing any long-term investments in assets. Leases can be very effective at improving the commercial performance of specific facilities that have to compete with other service providers (such as the competition-in-the-market that exists for different maritime ports). However, they do not bring-in the new long-term financing for new facilities, which many Governments continue to seek.

- **BOTs:** Build Operate Transfer contracts require private partners to provide the new long-term financing to construct new facilities as well as to operate them for term long enough to recover their investments. A key defining characteristic of BOTs is that there is a single public sector customer, or "off-taker" who purchases all the private partner's services. One example, could be an agricultural waste-to-energy facility, which would incinerate agricultural waste products within a specific jurisdiction and sell its electricity to a single, public sector off-taker, such as a State-Owned electricity transmission and distribution authority. The terms of these off-take agreements require that all of the demand risk is taken by the public sector off-taker, who commits to buy enough of the PPP project's services to ensure that it take pay all of its long-term fixed costs, including its fixed operating & maintenance costs, and especially its fixed capital costs (ie all debt service payments as well as the private investors' return on equity). While BOTs provide a key benefit that many Governments seek today (the private

partner provides new long-term financing to construct new facilities and the critical, long-term services they provide), it typically comes at the cost of Governments having to make long-term off-take commitments and agree to buy of the new project's services, whether they are actually needed or not.

• **Concessions:** Under concessions, the public sector transfers the legal right to the private partner to provide specific public services for end-users (such as irrigated water, the collection of certain wastes, the distribution of electricity or heat, etc.). Unlike a BOT project, which has a single, public sector off-taker – under a concession the private partner may have dozens, or even tens of thousands of individual customers to serve as well as to collect payments from. Concessions may feature the transfer of some existing public sector assets to the private partner, who is typically required by the contract to invest in their expansion and improvement, or it may be for entirely new, “Greenfield” facility or network that will serve end-users. Concessions are often the most interesting form of PPPs to Governments, due to the fact that the private partner provides the new long-term financing, and that it is end-users, and not the public sector, that pay for the services. However, such concessions are often difficult to structure successfully, as private investors are understandably cautious about taking on such high levels of demand risk and collection risks. Additionally, for many public services, such as irrigated water, it can be difficult for consumers (ie farmers and growers) to afford to pay tariffs that would cover the private concessionaire's full costs of service.

IV. International Examples of Agriculture PPPs and Lessons Learned for Ukraine

IV.1 AGRICULTURE WASTE-TO-ENERGY PPPs

Projects in this sector can be especially attractive when they offer the opportunity to generate new energy from the waste bi-products of large scale agriculture as well as animal husbandry projects.

The Rakican Pig Farm Manure Waste-to-Energy Project, Izakovci, Slovenia

One example a small-scale PPP in this sector from Eastern Europe is the Rakican Pig Manure Waste-to-Energy PPP in Slovenia, completed in 2006. Located in northeastern Slovenia, the region of Rakican has been home to two large-scale pig farms: Nemscak and Jerezo. These farms faced the important challenge of how to sustainably dispose of 240 tons per day of animal wastes. The solution, structured through a partnership contract with a private company, was to construct a wastewater treatment plant that was also able to both collect biogas1.5 MW plant to generate electricity.

For this project, the owners of the pig farms, the Slovenia Panvita Group, established a new special-purpose company – KG Rakičan–Ekoteh – in order to undertake the construction and operation of the new biogas PPP plant. The facility produces approximately 11,700 m³ of biogas per day, which is burned in the 1.5 MW plant generating both heat, which is consumed on-site by the farm, and electricity, which is sold to Slovenia's national grid. Total capital investments provided by the private sector was 8.3 million Euros. The project company received a loan from the Republic of Slovenia's Eco Fund to finance most of these initial investment costs. The project is able to recover both these capital costs, as well as regular operating and maintenance costs due to a long-term Power Purchase Agreement

with Slovenia's national electricity authority, Elektro-Slovenija, d.o.o. (ELES), which adopted a feed-in tariff of 10,4 c€/kWh. In addition to earning a acceptable rate of return for its investors, this project provides the important economic and environmental benefits of avoiding the additional costs of disposing of these animal wastes, as well as reducing the greenhouse gas emissions from methane. Additionally, approximately 13,000 tons per year of fertilizer is produced from the residual waste products.

Uganda's first Sugar Cane Waste ("Bagasse")-Fired Independent Power Project

Uganda has an annual GDP per capita of just \$547, compared to Ukraine's \$3,867. However, despite the clear risks of making long-term private investments in the economy, Uganda was able to attract \$30 million of new private investment into an agricultural waste-to-energy generation PPP project. Straddling the equator in East Africa, Uganda's climate is well-suited to the cultivation of sugar cane, with farms able to grow and harvest multiple crops in a single year. When sugar cane is processed at refineries, and the refined molasses is extracted from the cane, large quantities of dry, pulverized "Bagasse" are produced as a waste bi-product. Traditionally, these wastes were simply disposed of at dumping sites. However, since the 1960's some sugar cane-growing economies, like the small island nation of Mauritius in the Indian Ocean, have invested in the use of bagasse as fuel for the generation of electricity.

In 2000 in Uganda, the Kakira Sugar Works, a long-standing private grower and refiner of sugar cane invested in its own feasibility study for generating electricity from its own supplies of bagasse. The study indicated that while approximately 60 % of the new 30MW facility's output would be needed by the Kakira Refinery for its own needs, the remainder could be available for sale to the State-owned Uganda Electricity Transmission Company, Ltd. (UETCL). UETCL was facing its own power generation shortage. This first bagasse-fired Independent Power Project encountered many delays in part because UETCL had no familiarity with the technology nor did the Government have a policy that specifically promoted renewable energy. The power purchase agreement required 20 months to negotiate using local advisors, and was signed in 2003. The 6 cents/kwh price for this bagasse plant compared favorably to the estimated 11 cents/kwh from the large 250MW Bujagali hydroelectric plant then under constructions and especially with the 24 cents/kwh being paid the 50MW emergency power plants that were brought in 2004-2005 to address Uganda's power crisis. The long delays in approvals required for this project finally forced the developer to finance the \$15 million in debt for the new generation facility on its own balance sheet, rather than raising the usual project-backed financing relied on by most stand-alone generation projects. As a result of this project, Uganda now has a standardized model power purchase agreement for smaller, renewable projects such as bagasse and mini-hydros.

Other examples of Agricultural Waste-to-Energy PPPs

In addition to these cases, other examples of agriculture waste-to-energy projects include:

- Moldova, with technical support from the EU and UNDP, is currently preparing a biomass PPP project to produce pellets from agricultural wastes in its Leova region that will then be sold on the local market for heating fuel.
- The island nation of Mauritius, in the Indian Ocean, which has long-dependended on its sugar industry, has signed over 7 PPP contracts for the private financing, construction and

operation bagasse-fired Independent Power Projects (IPPs) providing over 17% of the nation's electricity.

Summary of Key Lessons Learned from Agricultural Waste-to-Energy PPPs

- Clear, long-term feed-in tariffs are needed: Often, due to the relatively smaller scale of agro waste-to-energy projects and the current technologies available, the cost of energy produced by such renewable cannot compete with current prices of larger scale oil, gas, and coal-fired generation. As with almost all other renewable generators, feed-in tariffs are clearly needed to attract private investment into these agro waste-to-energy generators.

- Model power purchase agreements are required from electricity off-takers: Because agro waste-to-energy projects are typically smaller in scale than base-load fossil-fuel generating facilities, they present a special challenge to power authorities in terms of adding these small projects into their generation mix. Additionally, some agro waste-to-energy generators are seasonally-based and therefore not available to generate all 12 months of the year. For PPPs to succeed,

- PPPs in this sub-sector depend heavily on the role of the agro-waste producing industries themselves. Stakeholder management and communication must focus on the specific needs of these industries, recognizing that while they may be interested in the new business opportunities that waste-to-energy operations represent, it is almost always a distinctly different industry from their parent company. Therefore, such industries should be expected to prefer to incorporate new, stand-alone companies (ie Special Purpose Vehicles, or “SPVs”) to undertake these PPPs. New sources of project financing should be made available to these new SPVs rather than requiring agricultural investors to finance this on their own balance sheets

IV.2 PPPs in IRRIGATION

Irrigation is commonly regarded as the single most important factor in increasing agricultural intensification and productivity, boosting food availability, incomes, investments in rural infrastructure, and can lead to unprecedented growth in agrarian-based economies. However, due the large upfront investments required as well as the limited ability of end-users (ie individual farmers or cooperatives) to pay for irrigated water, there have been significantly less PPP investments in irrigation as its potential benefits would suggest.

Morocco's \$85 million Irrigation Concession in Guerdane

Located in southwestern Morocco, the Guerdane region of Taroudant Province, covers just 10,000 hectares but produces 50 percent of the country's citrus crops. However, after years of over-pumping water from the region's underground aquifer, groundwater levels had dropped by some 2.5 meters per years. Some of these citrus farms were abandoned, while those that remained faced much higher costs of drilling deeper and pumping water. If conditions were left to continue, Morocco's citrus industry faced an inevitable collapse. In 1995 the Government approved a regional watershed management plan that allocated 45 million m³/Year of water for Guerdane from the Mohamed Mokhtar Soussi-Aoulouz dams, located some 70 kilometers away. This then raised the issue of how best to finance, build and maintain the new 300 km irrigation network needed to transport and distribute the water.

The Government embarked upon a 30-year concession structure with significant levels of public sector risk-sharing and support. Under the terms of the PPPs, the private concessionaire contributed

approximately \$35 million of its own capital to the project, while the Government contributed \$25 million as a capital grant and another \$25 million as a subsidized loan. Feasibility analysis on the project revealed that if a private concessionaire charged farmer's for the full costs of irrigated water, it would be more expensive than if farmers continued to pump from the underground acquire. Therefore the \$25 million capital grant was proposed to reduce these tariffs and ensure they would be affordable to end-users. Such grants, designed to ensure that end-user tariffs from PPPs remain affordable to end-users are called Viability Grant Funds (VGFs), and are critical for projects like agriculture, health care, and education which produce high social and economic returns, but which do not offer high enough financial returns to attract private investment.

A common risk in such irrigation concessions is the risk that too few farmers will actually sign-up for and agree to purchase the irrigated water. The Guerdane concession addressed this by agreeing that the concessionaire would not be obligated to build the new network until at least enough subscription agreements were signed by farmers to cover 80% of the total volume of water available from the new network. As with all PPP contracts, the concession agreement clearly allocated long-term performance, operational, and network management and maintenance risks onto the private concessionaire. This includes specific output performance standards which the private concessionaire must meet or face financial penalties. This ensures that the project is adequately maintained throughout its life and that end-users do not face the risks of unavailable water.

An international tender was floated, and, after pre-qualification, two final bids were submitted, with the winning bid coming from with Omnum Nord-Africain. The clear selection criteria was based upon which bidder proposed the lowest per unit tariff for farmers over the life of the 30-year concession, on a present value basis. The results of the competitive tender revealed that the winning bidder proposed tariffs that were significantly lower than the price that farmers in Guerdane had typically paid for groundwater supplies. Overall benefits from this project included boosting Morocco's citrus production, which directly and indirectly employed and estimated 100,000 people, it made surface water available to the industry's farmers at an affordable price, and it significantly reduced the depletion of limited groundwater resources.

Ethiopia's Megech-Seraba PPP in Irrigation:

Long regarded one of the poorest countries in the world, Ethiopia, with an annual GDP per capita of just \$454, was able to complete one of the first irrigation sector PPPs in the developing world. In 2006 Government of Ethiopia, with technical support from the World Bank, prepared an Action Plan to develop irrigation public-private partnerships (PPPs) in its Megech, Ribb River, and Anger Valley regions. By 2010 the Government had drafted PPP bidding documents and a model transaction agreement for the Megech-Seraba Irrigation and Drainage Project in North Gondar. Signed in April, 2012, the PPP contract required the new private partner, BRL Ingénierie from France, to operate and maintain the soon-to-be-constructed Megech-Seraba irrigation project for a term of 8 years.

The new irrigation project, which was designed to provide water to over 6,000 landholdings over a 4,040 hectare irrigated area, had a construction cost estimate of \$30 million. Financing for the project was provided by the Government of Ethiopia through a sovereign-guaranteed sector loan provided by the World Bank. The PPP contract was designed to ensure that the new network would be properly maintained and perform as planned. The expected management fee to be paid to the private operator

over the 8-year term of the contract is \$8 million. However, this enhanced management contract introduced features not normally present in traditional management contracts, and sought to:

- incorporate oversight/commentary by the private operator on the network's construction program;
- Place responsibility for construction supervision on the private operator (any savings would be shared between the construction company and the operator); and
- Remunerate the private operator on a key performance indicator basis, but without placing demand risk on the operator.

Once again, the structure of the PPP depended on a significant level of public sector support. To ensure that the costs of irrigated water remained affordable to the project's end-users, farmers were charged an Irrigation Service Fee, which covered the full cost of O&M of the irrigation system—including energy costs.

Summary of Lessons Learned from PPPs in Irrigation:

• **Public sector financial contributions are often needed.** In most cases to date, farmers and end-users have been unable to afford irrigation tariffs that would cover the full costs, including regular operations & maintenance, life cycle renewal & replacement costs, as well as capital costs (including the repayment of debts and a reasonable return on equity). Such public sector support and participation has come in forms including capital contributions (such as Viability Gap Funding contributions), or public sector financing of the new irrigation network itself.

• **Public Sector Sharing of Demand-Related Risks:** Irrigation projects cannot cover their costs unless a large enough group of end-users commit to consume and pay for irrigated water over the long-term. While private sector operators of networks can control the risk that water is available for farmers, they cannot control whether individual farmers will choose to subscribe to the network. To mitigate this risk, Governments often provide a guaranteed minimum level of consumption, or else take the lead in active stakeholder management programs to better ensure that a minimum target level of subscriptions are reached.

• **Capable stakeholder management is needed.** In many countries the level of effective dialog and two-way communication between Governments and farmers has been ineffective. As a result, often when Governments propose new irrigation projects, the farmers expected to subscribe to the project lack accurate information about the project, its requirements, pricing, and the arrangements under which they would be expected to participate as consumers. It is not uncommon therefore, that proposed irrigation projects face delays, or never get implemented due to inadequate stakeholder communication and management. For irrigation PPPs to succeed, therefore, often more resources and more public sector leadership are required to manage relations and communications with stakeholders.

IV.3 PPPs in Agricultural Storage & Transfer Facilities:

PPPs have also been implemented in a number of facilities for the transportation, transfer, as well as the storage of key agricultural products. These have included PPPs for networks of cold chain storage

facilities, grain elevators and storage silos, grain terminals at maritime ports, as well as the construction and operation of agricultural marketplaces and exchanges.

Cold Chain Storage PPPs

Cold Chain Storage (CCS) facilities are integrated, uninterrupted networks of temperature-controlled, storage and distribution facilities that must be able to maintain a specific temperature range to ensure the shelf-life of perishable products, such as fresh agricultural Produce; seafood; frozen foods; as well as film, chemicals, and pharmaceutical drugs such as vaccines. While such CCS projects provide the backbone of the network, they operate together with other licensed private operators, shipping, freight forwarding, and logistics companies who provide the suitable fleet of refrigerated trucks, cars, ships, containers, etc. A key requirement of such cold chain networks is their specific quality management system and validation procedures to ensure temperature standards are met throughout the entire network of CCS facilities

The Philippines, which was one of the very first emerging market economy to pass a BOT Law and establish a dedicated BOT Center, back in 1990, is currently preparing to tender for a PPP for the construction and operation of cold chain centers located in major production and consolidation areas of agri-fishery products of the country's central Benguet and Manila regions. This PPP intends to reduce post-harvest losses and maintain an inventory of quality perishable goods, stabilize food prices, and promote food safety consciousness. The concession contract, to be awarded by the Department of Agriculture is expected to require almost \$17 million in new private investment.

PPPs in CCS are also being developed in rapidly growing economies, like India's. India's PPP framework includes the well-know Viability Gap Fund (VGF) for PPP investments. The VGF institutionalizes the process of analyzing proposed concessions, determining what the maximum affordability limit is for end-users and consumers, and then making explicit public sector contributions to PPP projects to ensure that the PPP tariffs can both recover the private investor's full costs as well as remain affordable to end-users. India has also been analyzing VGF options to help ensure that the prices charged by CCS concessionaires remain affordable to the industry's customers.

Agricultural Storage Silo and Transfer Facility PPPs

In response to the growing global demand by Governments to develop strategic reserves of food supplies, many Governments have look to PPPs to provide the new facilities as well as to operate and maintain them. The Indian State of Punjab has entered into a 30-year concession contract for the private financing, construction, and operation of 50,000 metric ton grain storage silo. The PPP has provided approximately \$8 million in new private investment and is expected to achieve higher standards of quality and reliability than is currently available in region. The private concessionaire receives an annual rental payment from the State Government to enable to meet all of its costs, as the project's prices are set by the Government at levels determined to be affordable to farmers. Other PPPs for agricultural storage silos and facilities include the \$100 million PPP being prepared in Pakistan's Sindh and Punjab Provinces, with transaction advisory assistance provided by the IFC.

V. Next Steps: Opportunities for PPPs in Agriculture in Ukraine:

This review of the international record demonstrates that there is a clear potential for viable and bankable PPP transactions to be prepared in the agriculture sector across many different countries. In this context, Ukraine not only has tremendous and historic agricultural resources, but it also has the

major components of its PPP legal and regulatory framework in place. However, PPPs are still a new instrument of public policy in Ukraine and thus far Ukraine there have been relatively few cases where they have been implemented in the traditional economic infrastructure sectors of energy, transportation, communications, water, etc.

Despite these challenges there is an important level of potential for PPPs to be used to help Ukraine expand the productivity, efficiency, and the marketability of its agricultural products. As Ukraine continues to seek expanded trade relations with its neighbors, including recent announcements to expand grain exports to China, PPPs can become an increasingly important option to achieve these strategic, economic goals.

In terms of next steps, there are several strategies with key policy-makers and leading stakeholders should consider to expand the potential benefits of PPPs in agriculture:

✓ **Identify and Prepare more Candidate PPP Projects in Agriculture:** The Government of Ukraine should take the lead in both identifying new candidate PPP projects in agriculture and in sponsoring the feasibility analysis and risk-allocation structuring. Donor agencies are often very willing to fund these efforts for pilot PPP projects. A portfolio of candidate PPPs in agriculture could be identified and studied to include agro waste-to-energy projects, irrigation networks, as well as for grain transfer, transportation, and export facilities.

✓ **Public sector Contributions & Risk-sharing Options will be Needed:** As most of the international examples of agriculture PPPs have shown, public sector risk-sharing is commonly needed. Often this is needed in order to ensure that the fees charged to farmers or other end-users are affordable. For example, agro waste-to-energy projects require clear feed-in tariffs, irrigation projects often require “availability payments” to the private concessionaire – in addition to the collection of irrigation fees from farmers; and agricultural storage facility PPPs require fixed rental payments from Governments. The Government of Ukraine should be prepared to offer similar, specific forms of risk-sharing for PPPs in its agriculture sectors.

✓ **Clear Public Sector Leadership is needed for Effective PPP Stakeholder Management:** Historically, one of the most challenging requirements of PPPs has been the effective management and coordination of stakeholder groups, especially the different stakeholders that make up the public sector and end-users. PPPs in agriculture can be even more challenging (compared to PPPs in other, traditional economic infrastructure sectors) due the key roles played by farmers and agro-industries. To prepare for this, the Government should commit to playing the leading role in the entire process of communicating with these key stakeholders on PPP issues and on the options for how individual, specific projects are structured to ensure they are acceptable to the interests of all key stakeholders.

✓ **Facilitate the Process of Making Financing Available to Private Partners:** One constraint facing potential private investors in Ukraine is the high interest rates and limited availability of commercial bank financing available domestically. As part of a strategy to make PPPs a viable option for the agriculture sector, the Government should pursue options with international financial institutions to make available the kinds of long-term financing that new agro PPPs will require.