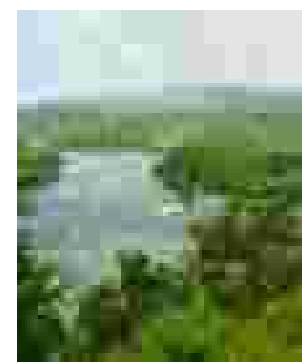
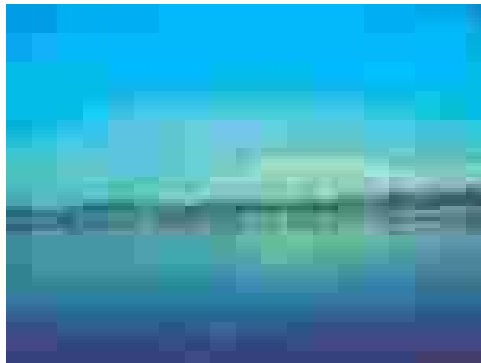


The Egypt's West Delta Project

“Pioneering Public-Private-Partnership in Irrigation”



The West Delta Area!

- n Located on both the East and West side of the Cairo-Alexandria Desert Road, between km 45 and km 80.
- n Reclaimed Desert Area due to urbanization in encroachment in Delta.
- n 255,000 Net Feddans, of which 47% is already cultivated.
- n Agriculture economy dependant on groundwater usage currently estimated at over 1 billion m³ per year.
- n Supports economy of \$300 MM to half billion annually employing 250,000 in agricultural sector alone.
- n Important producer of high value fruit and vegetables, much of it destined for export markets.



The Project Concept!

- n GOEs Response to Halt Groundwater Depletion
- n Project Will Provide Surface Water to Area
- n Adopt Full Cost Recovery through Volumetric Charge
- n Involve Private Operator in Financing and Management through DBO Contract
- n Allow for Conjunctive Use of Groundwater Source – Effectively Cannot Restrict
- n Demand, Commercial and Planning Risks Transferred to Private Operators.
- n GOE Assumes Large Share of Financing Risk.



The West Delta Project

Redefining Norms in Irrigation Management



Participatory Approach To Determine System Size and Characteristics

Technically-Based
Study Approach



Demand-Based
Approach Based on
Willingness to Connect



The Process Determines the Result!

Conventional

1. Development of Physical Requirements Based on Demand Forecasts
2. Design of Most Technically Feasible Option Based on Established Criteria
3. Financial Feasibility
4. Detailed Design and Construction of System
5. Orders for Connections

Demand-Based

1. Assessment of Ability and Willingness to Pay of Area Farmers
2. Conceptual Design of Various Technical and Financially Sustainable Options With Corresponding Tariffs
3. Consultations with Farmer Groups Preferred Option
4. Execution on Willingness to Connect Agreements
5. Detailed Design, Construction and Connection Program



Willingness to Connect Survey



Preference For Piped System

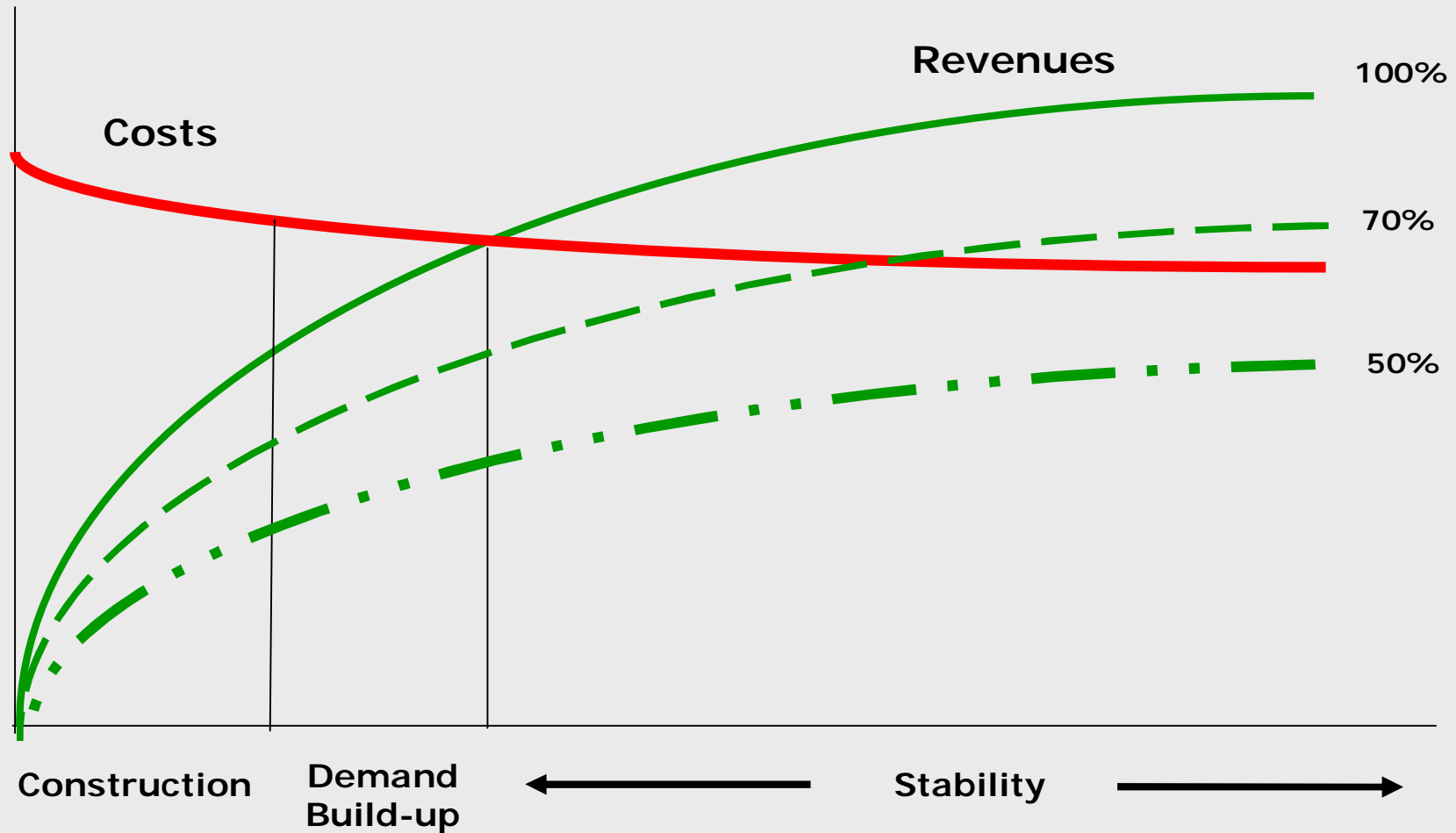
Feature	Piped	Open Channel
Cost	Generally more costly per unit	Traditional low cost solution but high fixed cost element
Implementation	Highly flexible. Can adjust system to actual demand	Not adaptable to large variances in demand. Susceptible to oversizing
Land Acquisition	Minimal	Substantial. Can reduce agricultural area substantially
Commercial Control	High control for water theft, metering UFW, and disconnection	Lower distribution efficiency, higher commercial risks
Environmental	Minimal	If not supervised closely, channels can become dump sites



Financially Sustainable System Modules



Two Part Tariff Structure Deal With Demand Risk



Involving the Private Sector


“Aligning Incentives Towards Cost Recovery”



A Matter of Allocating Risks Between the Public and Private Sector!

Risks Taken up By the Private Party

	Public Company	Mgmt. Contract	Design-Build-Operate	Concession BOT
Demand Risk			●	●
Planning & Design			●	●
Construction Risk	○	○	●	●
Operational & Commercial		○	●	●
Foreign Currency Risk				●
Regulatory Risk			●	●
Financing Risk				●
Credit Risk				●

 Total
  Partial
  Limited



Relevancy of PPP Approaches

Cost Recovery	Plausible PPPs	When Used
Operating Subsidies	Service Contracts, User Group Association	Efficiency Improvements Govts. to shore up payments to private op.
Full O&M	Service and Performance Contracts, User Group Association	Efficiency Improvements
O&M Plus	DBO with Capital Subsidies from Govt.	Operating Improvements and Some Financing
Full Cost Recovery	Full Concessions in Addition to Other PPPs at Lower Tiers	Operating Improvements and Some Financing



Other Innovative Features

- n The West Delta Model Provides the Opportunity for New Thinking on Past Norms and Practices in Irrigation Sector.
- n Contemplating PPP is Really About “Introducing Reforms”, the Most Important of which, is the “Pay for Service Concept”. This means introducing connect and disconnect policies and other commercial practices.
- n The West Delta approach proposes to carry out essentially all of the procurement prior to going to WB loan approval, essentially streamlining implementation.
- n Procurement will be “output based” premised on lowest tariff on a lump sum contract, thus greatly simplifying construction supervision procedures.



What We Have Also Learned

- n Farmers' inputs in all aspects of the project implementation are essential.
- n Traditional technical designs may not work for PPP schemes, where private operators require greater flexibility in implementation, higher efficiencies, more control of commercial policies, and tighter security against theft.
- n While not explicitly subsidized, the Government's efforts to mobilize financing will have an important draw for prospective private operators. Later, private operators can assume full risks of financing.
- n Opens Up "Out-of-the-Box" Thinking such as "land for infrastructure swaps" or "agricultural parks" which could be introduced in other new areas in Egypt..





Thank You!

