



ACCELERATED INFRASTRUCTURE DELIVERY FOR THE SE

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Infrastructure Concession Regulatory Commission

ENYIMBA ECONOMIC CITY





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Outline

- **Vision**
- **Current Infrastructure Reality**
- **Infrastructure Master Plan & Sectoral Priorities**
- **Financing**
- **Implementation Strategy**
- **Transformation Possibilities**

Vision

To be the Most Prosperous and Globally Competitive Region Within the Emerging MINT Economies by The Year 2035

There is a mysterious cycle in human events. To some generations much is given. Of other generations much is expected. This generation of South East have a rendezvous with destiny....

Modified speech of Franklin Delano Roosevelt US President 1936

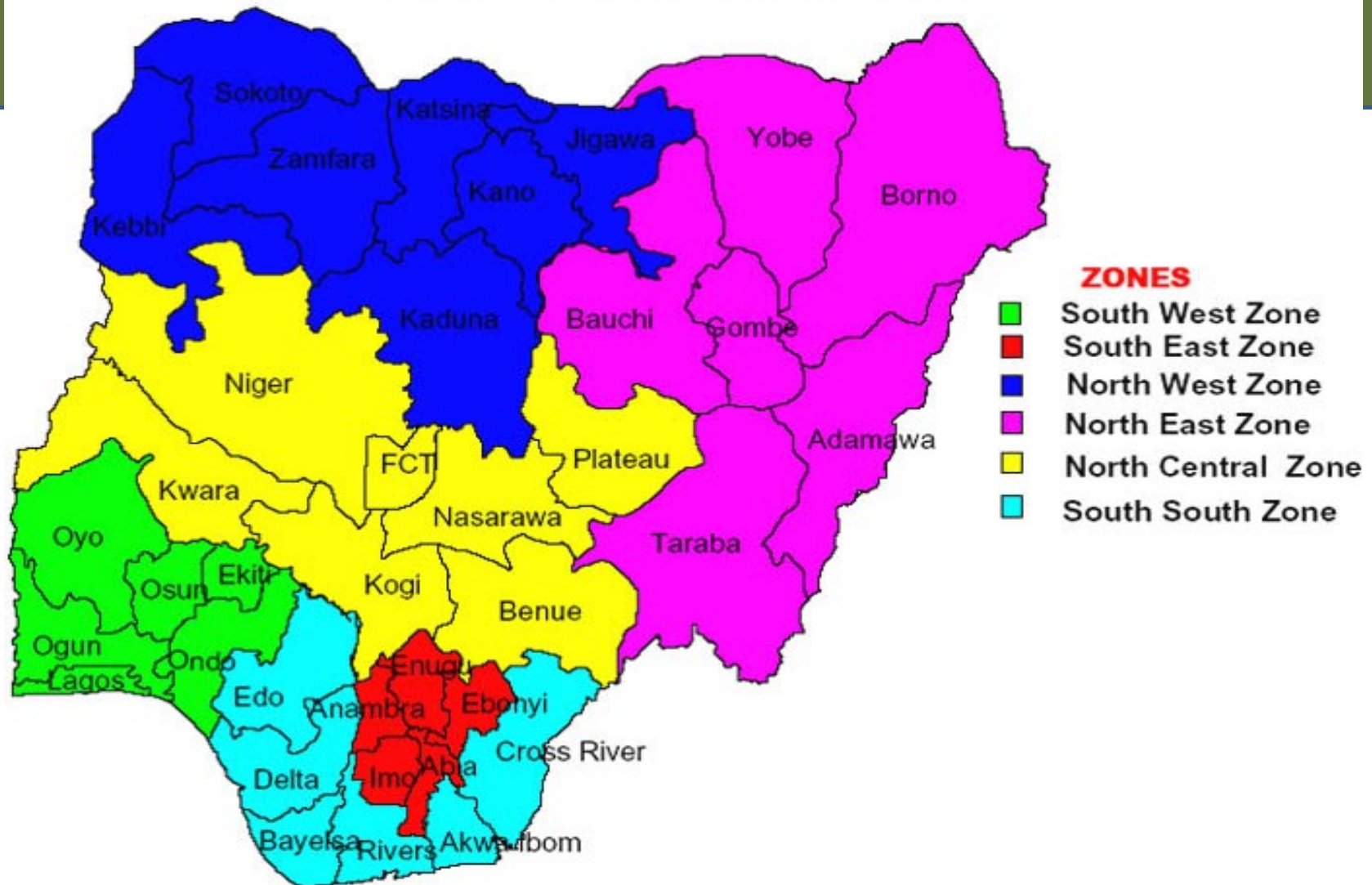
Economic Pillars

- **Energy (Oil and Gas)**
- **Industrialization (SMME, SME, Corporate)**
- **Tourism**
- **Agriculture**

Political

The SE Needs a united objective position on all issues....that objective position must be organically seen as linked to our Economic Agenda

NIGERIA GEO-POLITICAL ZONES



**IT HAS BEEN DONE IN THIS
NEIGHBOURHOOD.....BEFORE**

**The Easter Nigerian Economic
Reconstruction Plan 1954 to 1964 –
Visioned by Zik, Written by Mbonu Ojike
and Implemented by MI Power.....Lead
to Eastern Nigeria being declared the
fastest growing region in the Harvard
University Research Work in 1964**

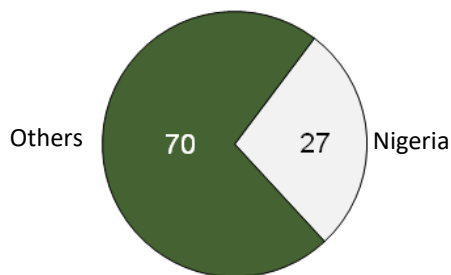
Do You Remember !!!!!!!



The Igbo Nation's lost glory in the world trade of palm oil – fastest growing economy in the 50s and early 60s

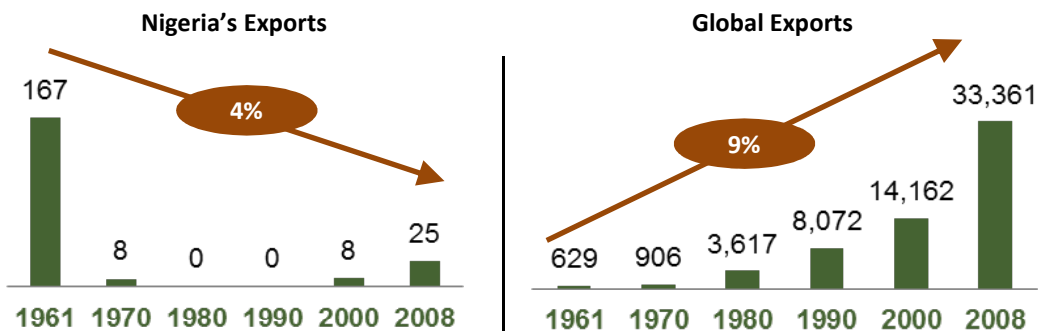
Our former glory in global trade of palm oil – Circa 1961

Share of world's palm oil exports in 1961*
Measure: % of world trade



Nigeria's dominance was eclipsed by Indonesia and Malaysia

Nigeria's export volumes compared to global export volumes 1961 – 2008**
Measure: Thousands of metric tons

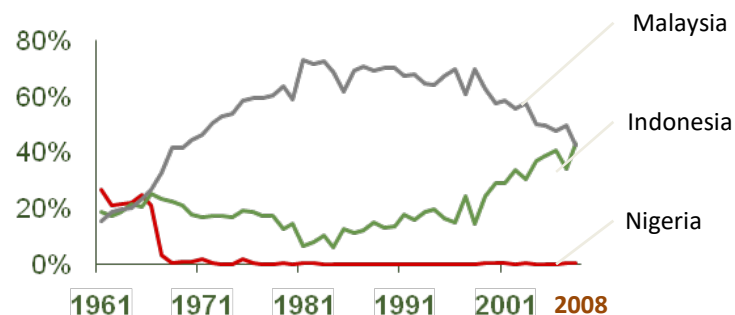


■ **90% of Pre Independence Palm Oil came from the Igbo Nation – reason for the largest concentration of railway stops and stations of any part of Nigeria.**

■ **Malaysia today controlling 40% of the world trade of Oil Palm products valued at over US\$18 Billion**

■ **Palm trees are alive, demand is there..we can rebuild our palm oil prosperity**

Global market-share trend of palm oil among key producers**
Measure: Percent of global trade of palm oil



Yes We Can – Igwebuike !!!!

- *.....the Igbos wiped out their handicap in one fantastic burst of energy in the twenty years between 1930 and 1950....Chinua Achebe*
- *With unparalleled rapidity, the Igbos advanced fastest in the shortest period of time of all Nigeria's ethnic groups. Like the Jews, to whom they have frequently been likened, they progressed despite being a minority in the country, filling the ranks of the nations educated, prosperous upper classes...it was not long before the educational and economic progress of the Igbos led to their becoming the major source of administrators, managers, technicians, and civil servants for the country occupying senior positions out of proportion to their numbers...Paul Anber*
- *Even the bitterest adversaries of the Igbo cannot but admit that, as a people, they are very resourceful and ingenious. Indeed, this has often been the cause of their envy and dislike by others. However, more enlightened non-Igbo Nigerians see this as a cause for celebration....Femi Aribisala*

WE CAN DO IT....WE CAN CHANGE OUR FORTUNES...WE HAVE DONE IT BEFORE !!!!!!! IN A VERY SHORT TIME

**LET SET SOME BOLD VISIONARY.....ALMOST IMPOSSIBLE
DEVELOPMENT & INFRASTRUCTURE TARGETS**

4TH NIGER BRIDGE....A GLOBALLY COMPETITIVE
SESS....World Class Infrastructure, Good
Governance, Industrial Power House with an
educated workforce



SE CITIES OF OUR DREAMS



World Class Road Networks



WORLD CLASS MEDICAL FACILITIES





Current Infrastructure State



Expressway !!!



State of our Infrastructure



WATER SUPPLY



CROSS-CUTTING PICTORIAL REPRESENTATIONS

Rail Length Across The Federation

Zone	Rail Length (KM)	Percentage
North East	769	21.1
North West	1031	28.3
North Central	1122	30.8
South West	370	10.0
South South	37	1.0
South East	318	8.7

Source:

Source: Computed from NBS Statistics

Regional Distribution of Rail Infrastructure

Total Length of Federal Government Roads Across Region (Kilometres)

						Percentage (2009)
Zone	2005	2006	2007	2008	2009	
FCT Abuja	236.6	236.6	244.6	244.6	244.6	0.7
North East	7803.4	7803.4	7850.4	7850.4	7850.4	21.7
North West	6668.9	6668.9	6876.4	6876.4	6876.4	19.0
North Central	7831.5	7831.5	7874.2	7874.2	7874.2	21.8
South West	4528.26	4528.26	4848.5	4848.5	4848.5	13.4
South South	4150.89	4150.89	4846.9	4846.9	4846.9	13.4
South East	3121.7	3121.7	3642	3642	3642	7.3

Source: Computed from NBS Annual Abstract of Statistics

Regional Distribution of Road Infrastructure

Arrivals at Domestic Airports across geo-political zones

	2005	2006	2007	2008	2009	Percentage (2009)
North East	171614	300769	350908	246333	326453	1.3
North West	795596	887034	1010242	1052367	1370959	5.3
North Central	1138824	1488572	1712058	1545033	2023865	7.9
South West	2106034	2676375	3073208	2843733	3721277	14.4
South South	4212068	5352750	6146416	5687466	7442554	28.9
South East	6318102	8029125	9219624	8531199	11163831	43.3
Total						

Source: Computed from NBS Statistics

Departure at Domestic Airports across Nigeria Geo-Political Zones

	2005	2006	2007	2008	2009	Percentage (2009)
North East	164484	300769	343093	234803	317065	1.6
North West	328968	601538	830178	638276	847172	4.2
North Central	657936	1203076	1660356	1276552	1694344	8.5
South west	1151388	2105383	2833627	2149631	2858581	14.3
South South	2302776	4210766	5667254	4299262	5717162	28.6
South East	3454164	6316149	8500881	6448893	8575743	42.8

Source: Computed from NBS Statistics

Airport Departures and Arrivals Regional Distribution

Igbo Nation: Interesting Facts

- Igbo land area of 29,385 km² is only **3.2%** of Nigeria's total land mass of 923,768 km²
- Upto 50% of Igbo extraction people live outside Igbo land
- Over 75% of Igbo graduates and professionals work outside Igbo land
- Today, almost 95% of Igbo children outside Igbo land do not speak Igbo and have no plans to work or return to Igbo land on a permanent habitation basis, *unless we do something!*
- Igbo land ranks first in skills migration and economic resource migration to other places
- Gross State Product for SE less than SS

“If SE Nigeria were a three legged stool I would say its stability and future prosperity depends on how well and how fast we tackle the infrastructure problem – the shaky leg of the stool”

**Dr. Ngozi Okonjo-Iweala –
HMF/CME**



1% increase in infrastructure stock results in a 1% increase in GDP – World Bank

Key Conclusions and Take Away's

- We have an infrastructure emergency in the SE. This needs urgent and immediate action to prevent a major social disorder and associated problems (**Poverty any where is a threat to security everywhere**).
- Public and Private Sector Players in the SE need to work out a reliable win win road map to address our huge infrastructure deficit.
- We need to commence urgent capacity building at all levels to ensure a pool of competent personnel in the public and private sector that can fully develop and implement our development & infrastructure master plan.
- We must urgently create the institutional framework at the macro regional levels to kick start and drive our development agenda & infrastructure master plan development and implementation.



Development & Infrastructure Master Planning

IMPORTANCE OF INFRASTRUCTURE - 1

- Infrastructure forms the foundation of all development in a country.
- The existence of infrastructure in a society raises the quality of life by creating amenities, providing consumption goods and contributing to macroeconomic stability.
- The building of the major highway system, for instance, immediately provides jobs for construction labour, engineers, architects, masons, artisans, and a whole range of other professionals.
- It increases the demand for such construction materials as bitumen, granite, cement, and the like, and for the services for all manner of construction sub-contractors and project managers.
- It also increases the scale and depth of a whole range of financial services involved in the funding of the construction.
- In other words, it will create wage, salary and fee incomes for labour and services, interest fees for financiers, profit for equity investors and at the same time increase aggregate demand, which acts as short term stimulus to the economy. This same argument applies to other infrastructure.
- The impact of infrastructure on economic development does not stop there. Its mere existence reduces the cost of production.
- When the highway is in place, a faster and cheaper evacuation of goods and provision of services is ensured. Infrastructure contributes to the diversification of the economy by bringing into production such factors that would have been uneconomical to employ in their absence.

Infrastructure and the SE Economy – Key Take Aways



- Infrastructure promotes development by:
 - Improving labor productivity/ competitiveness, Reduces production costs and reducing poverty
 - Providing jobs and contributing to macroeconomic stability
 - Contributing to economic diversification and growth in GDP
 - Improving security
 - Improving in healthcare and education
- Better infrastructure leads to economic development

RELATIONSHIP BETWEEN INFRASTRUCTURE & ECONOMIC DEVELOPMENT

SE Critical Infrastructure List

- **Roads**
- **Power**
- **Rail**
- **Inland Waterways**
- **Health**
- **Industrial Clusters**
- **Oil and Gas**
- **Pipelines**
- **Education**
- **Aviation**
- **Agriculture**

Roads and Bridges

- **Enugu to Port Harcourt, Ring Roads for all Major Cities**
- **Enugu to Onitsha**
- **2nd 3rd and 4th Niger Bridges**
- **PH to Owerri to Onitsha to Asaba Benin Ore Shagamu Super Highway**
- **East West Super Highway (Calabar to Warri)**
- **ND Coastal Road (Calabar to Lagos)**
- **Ninth Mile – Obollo Afor – Otukpo**
- **Local Government Roads**

State Road PPP – Ahmedabad Mehsana Toll Road Company Limited (AMTRL); Gujarat India

- ❑ Private Partner – AMTRL and Public Partner – PWD GoG
- ❑ Scope BoT Ahmedabad to Mehsana
 - Widening & Strengthening of Existing 51.6 km long road from two lanes to four lanes divided carriageway and construction of continuous service roads on either side.
 - Widening & Strengthening of Existing 11.5 km long two lanes Kadi - Kalol Spur road.
 - Bypass of 2.3 km long at Sertha village on left side of the existing road.
 - 2 Nos. Main Toll Plazas one Ahmedabad side and other Mehsana side at Km 20+000 and Km 65+500 respectively and two intermediate toll plazas at Chhatral and Nandasan respectively.
 - 2 Nos. Road over Bridges (RoB) & 2 Nos. Minor Bridges, 1 No. Road under Bridge (RuB) and 5 Nos. Underpasses of minimum size of 5 m x 3 m and 5 Nos. Cattle Crossings of minimum size 3 m x 2.1 m.
 - Provision of retro-reflective signboards to improve road safety with very good riding quality to enhance user comfort.
 - Toll Rates are based on road user benefits including savings in Vehicle Operating Costs, Fuel and Time.
 - Round-the-clock Highway Patrolling
 - 24 hours Ambulance services
 - Extensive tree plantation and transplantation of 1500 nos. trees.
- Provision of roadside arboriculture and landscaping.
- Completed 8 months ahead of schedule and under budget



Aviation

- **Uyo International**
- **PH International**
- **Enugu International**
- **Asaba**
- **Anambra**
- **Owerri**
- **Abia Trade Port**
- **Regional International Aviation College – Enugu or Uli??**

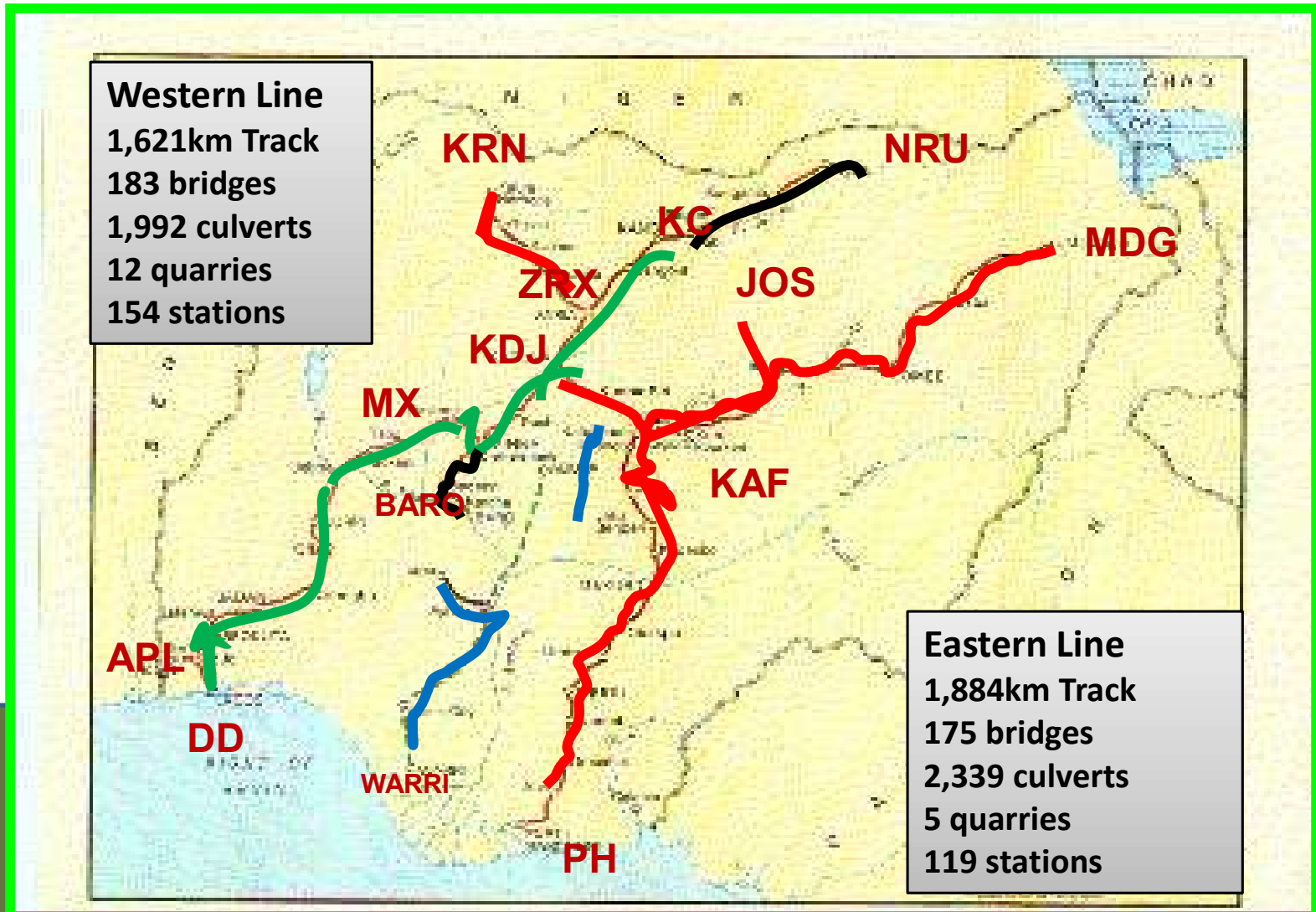
Ports and ICDs

- **Expansion of Onne Oil and Gas Free Zone**
- **Bonny Deepsea Port**
- **Ibom Deepsea Port**
- **Onitsha, Oguta, Owerrinta, Ethiope, Orashi and Obuaku River Ports**
- **Inland Container Deports – 1 per State**
- **Dredging for all year Navigation of Waterways in the SE**

Rail

- **Port Harcourt to Makurdi Narrow Gauge Rail Line**
- **Upgrade of Stations**
- **Lagos Benin Onitsha Enugu Owerri Port Harcourt Std Gauge**
- **Obuaku Uyo Calabar Standard Gauge Line**
- **Rail Link to Ports**
- **Urban Transit – Light Rail and Mono rail for all Major SE Cities**

TRACK NETWORK



Rehabilitated Line



Lines Under Rehabilitation



Standard Gauge Line under construction



Lines yet to be rehabilitated

STATION REMODELING AND REDEVELOPMENT

ENUGU STATION CURRENT



PROPOSED

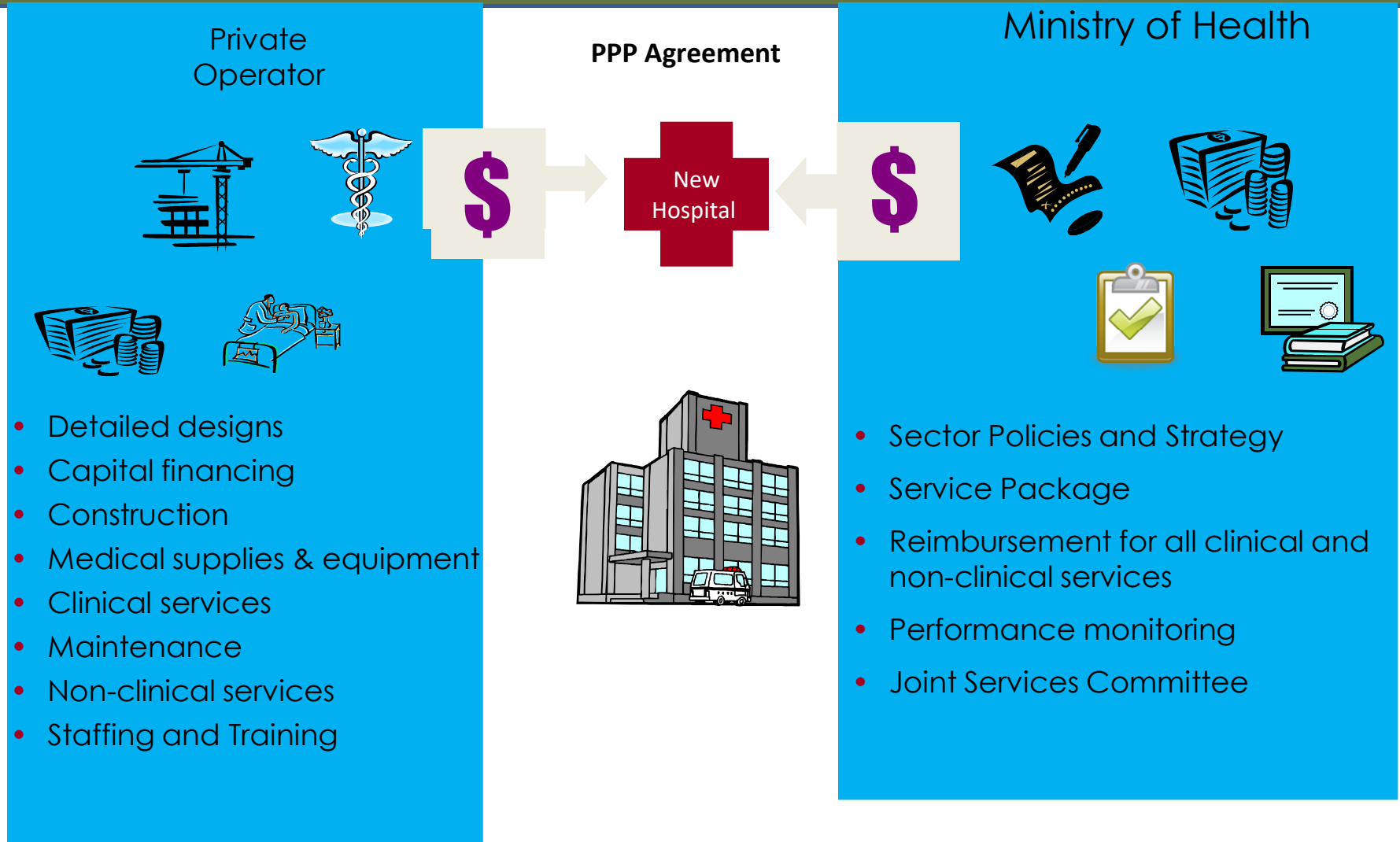


Health Care

- **Regional Super speciality Hospitals (Heart, Kidney, Trauma, Burns, Mother and Child, Orthopaedic, Geriatric)**
- **Quaternary Care Hospital in Each State Capital**
- **Upgrade of Tertiary Hospitals (2 per State)**
- **Secondary Care Hospital per LG**
- **PHC Filter Clinic per ward**
- **Pharmaceutical Manufacturing**
- **Teaching Hospitals**
- **SE Regional Medical Insurance Scheme**
- **Mobile Hospitals**



Typical Hospital PPP Framework



Agriculture

- **Utilize Hub & Spoke System to Establish a University of Agriculture per state linked to Songhai Farm Model in in Every LG in SE very similar to Farm Settlement Experience of Eastern/Midwestern Regions**
- **High Value Production – Rice, Rubber, Cashew, Cassava, Palm Oil, Aquaculture (Partner with private sector to establish world class farms and processing)**
- **Establish Agriculture Equipment Centre PPP in Every LG in SE**
- **Staple Crop Processing Zones**

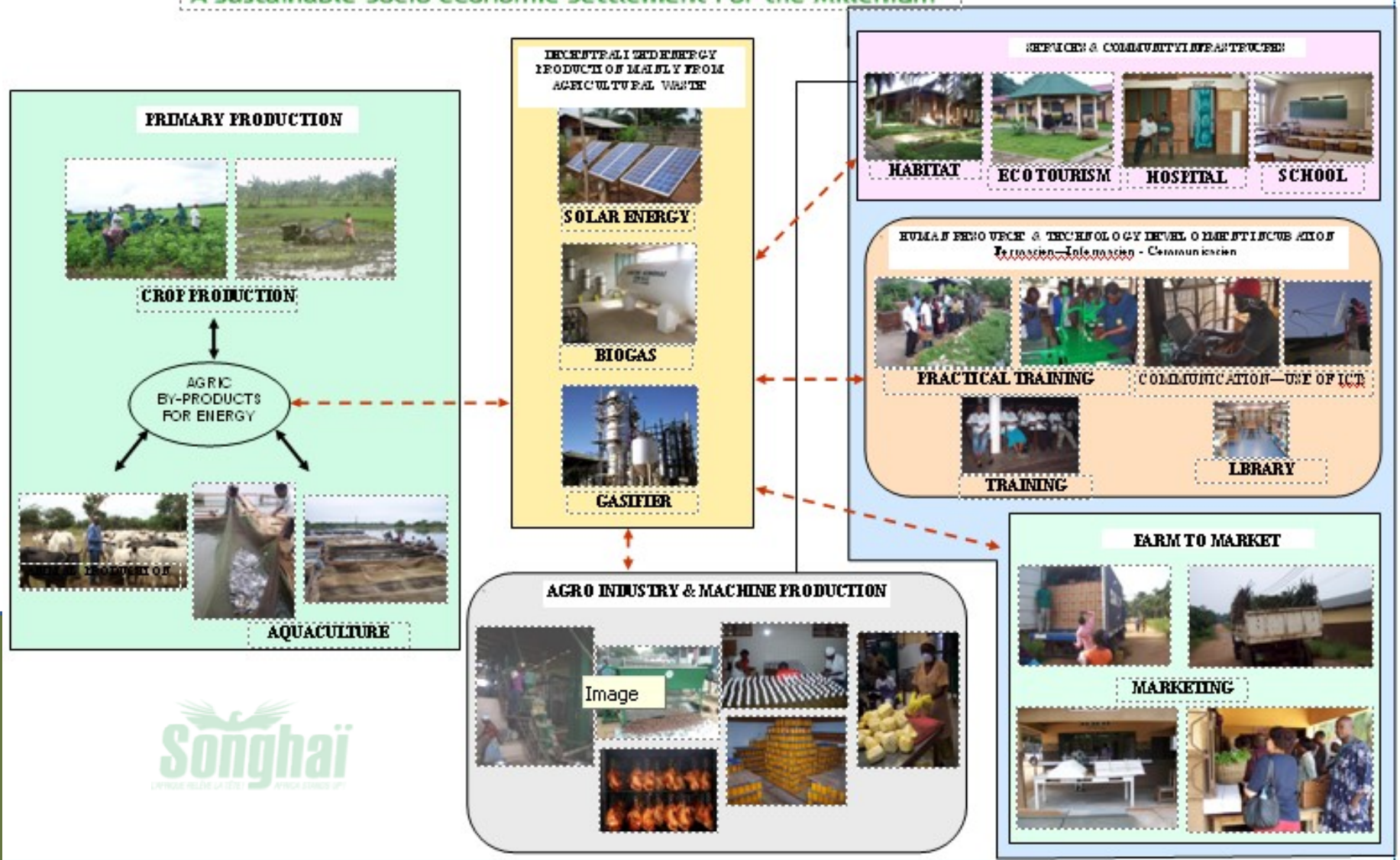
AGRIC EQUIPMENT MODEL PPP GUJARAT INDIA – ESTABLISHMENT OF AGRICULTURAL TRACTOR AND IMPLEMENTS RESOURCE CENTRES

- ❑ **Objective – Facilitate Farm Mechanization and Productivity**
- ❑ **Public Partner – Government of Gujarat India**
- ❑ **Private Partner – John Deere Tractors India/USA**
- ❑ **Role of Private Partner**
 - Establish centres with 500 tractors and 13 different implements per centre.
 - Provide Trained Operators and Mechanics
 - Provide Extension Support Services
 - Train 1000 locals as tractor operators and 500 as mechanics.
- ❑ **Role of Government**
 - Provide land and revenue guarantees on minimum guarantees **(Note if utilization exceeds minimum by agreed percentage excess revenue is 50/50 with government).**
- ❑ **Role of Farmers – Use tractors and pay only for operating and maintenance costs. Provide via cooperatives provide individuals to be trained as tractor operators and mechanics.**



Songhai Model

SONGHAII GREEN RURAL CITY MODEL
 A Sustainable Socio economic Settlement For the Millenium





USE OF WATER HYANCINTH FOR WATER PURIFICATION AND ENERGY GENERATION





GASIFIER



OFF GRID ENERGY PRODUCTION



BIOGAS





CABBAGE



TOMATO



PAPAYA





CORN





PINEAPPLE





INTENSIVE RICE PRODUCTION





ONION





LETTUCE



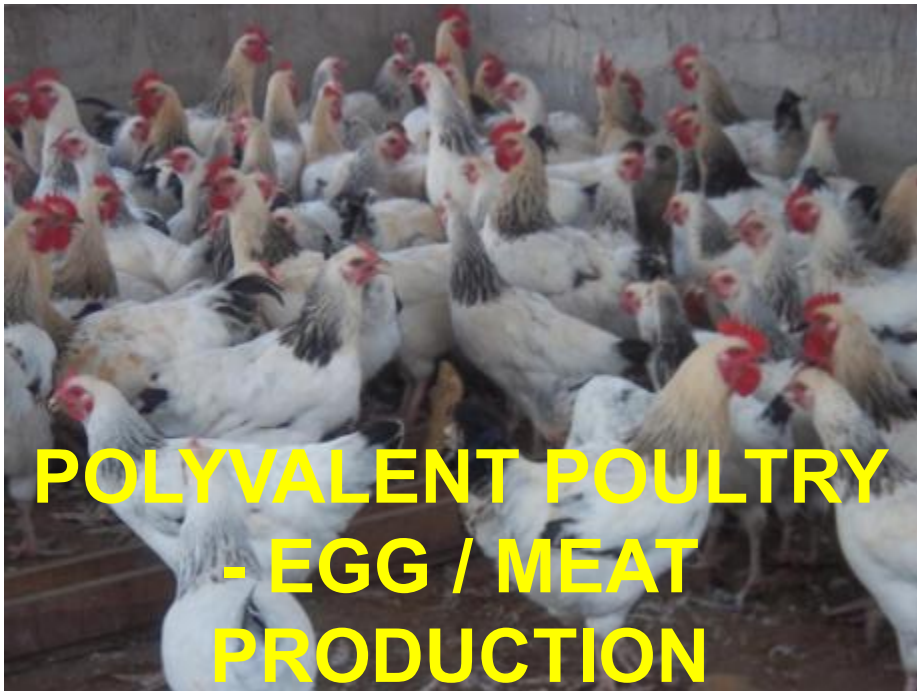
INTEGRATED PEST MANAGEMENT



POULTRY



**EXTENSIVE / FREE RANGE
GEESE PRODUCTION**



**POLYVALENT POULTRY
- EGG / MEAT
PRODUCTION**



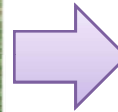
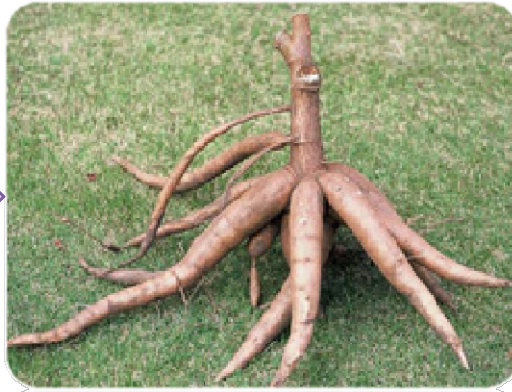
PIGS



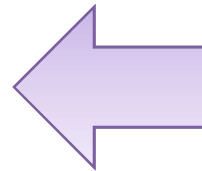
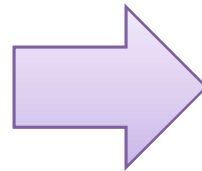
AQUACULTURE



Cassava



Cassava Value Addition PPP Process Flow



Industrialization

- **Industrial Clusters – Nnewi, Emene, Port Harcourt, Calabar, Ibom Energy City**
- **Gas Based Industrial Cities like Jubail**
- **Establish Local Industrial Development Authorities to Manage Clusters (Aba Leather and Textiles, Nnewi Auto etc)**
- **Linkage Logistics and Power Infrastructure**
- **Establish Industrial Free Zone eg. Empower per State etc like old Factory Road**
- **Village Industrialization Centres**
- **Exploit Coal and Other Solid Minerals**
- **SE SME Development Bank and Institute**
- **SE Microfinance Bank Network**

IBOM DEEP SEA PORT & ENERGY CITY



Education

- **1 World Class University per Senatorial Zone – Focused on Comparative Advantage**
- **Specialized Poly and Mono technic's per Senatorial Zone**
- **All Primary and Secondary Schools to be privately operated by qualified Mission's and Private Investors – Government to Provide viability grants and quality assurance**
- **Each Ward to have secondary and primary schools**
- **Education and Human Development to be seen as an industry requiring significant investment**

Power Generation Trans & Dist.

- **Argue for Power Devolution to States with Federal Regulator**
- **Coal to Power**
- **Industrial Power Generation Centres (IPPs – 1MW to 20MW locations – Asa Nnewi Egbema Aba etc**
- **Rural Power via Solar and Biomass**
- **Establish a SE Gas Pipeline PPP to distribute NGas to SE**
- **Flared Gas to Power**

POWER PPP - AKUTE/ADIYAN WATER WORKS – 12.15MW IPP



- 12.15 MW provided by 4 x 3 MW GE Jenbacher gas engines
- 13km natural gas pipeline connected to existing natural gas infrastructure
- \$25.5 million total installed cost
- 12 month construction period and commenced operations in January 2010
- 10 year PPA with LWC
- Facility Agreement

Benefits to LWC

- Constant, reliable, affordable power for LWC (40% savings)
- Improvement in water delivery – (85% vs 32%)
- Service level coverage increased by 95%

Samsung Africa Solar Power Generator



Tourism

- **Museum of Colonial History, Aba**
- **National War Museum Umuahia**
- **Azumini Blue River**
- **Long Juju of Arochukwu**
- **Ogbunike Cave**
- **Awhum Water Fall**
- **Ojukwu Bunker**
- **Many Undeveloped Tourist Sites in SE
(Internal Tourism Championed by
Governors)**
- **Leaders Mausoleum – Zik, Akanu Ibiam**



PUBLIC-PRIVATE PARTNERSHIP: The Cagayan de Oro Experience

COGON MARKET AFTER REDEVELOPMENT



PPP for Truck Stop Facility @ Malaysia



Currently trucks stop at will on the Federal Highways near cities, denying throughput of essential traffic – the economic arteries of the States and Nation; potential PPP project could develop income streams from service provision



PUNJAB INFRASTRUCTURE DEVELOPMENT BOARD,
GREATER MOHALI AREA DEVELOPMENT AUTHORITY &
DEPARTMENT OF TRANSPORT, GOP



PPP Development of Bus Terminal-cum-Commercial Complex
at Mohali

Project....'Envision'

Mohali Bus Terminal-cum-
Commercial Complex



Financing

- **Public Financing – Allocation & IGR**
- **Private Debt and Equity (PPP)**
- **Diaspora and Development Finance Sources**
- **Capital Market Debt Instruments – Bonds**
- **Sovereign Wealth Fund**

Implementation Strategy

- Create SE Development Agency (SEREDEC)
- Recruit Competent Leadership
- Finalize detailed SE Infrastructure Development Master Plan with Financing and Implementation Strategy
- Develop Regional & State PPP law and provide capacity building
- Provide Guidance on delivery of PPPs (broad principles, framework for identification, structuring, awarding and managing PPPs; Model Documents
- Create a Project Development Fund to provide seed capital for preparing and taking projects to market or **SE Development & Infrastructure Fund** – Fund project development cost for regional PPP projects and provide counter party funds for PPPs where necessary.
- Support our Entrepreneurs with Government Balance Sheet

•

PPPs Definition and Introduction

A Public-Private Partnership is a contractual agreement between a public agency (federal, state or local) and a private sector entity. Through this agreement, the skills and assets of each sector (public and private) are shared in delivering a service or facility for the use of the general public. In addition to the sharing of resources, each party shares in the risks and rewards potential in the delivery of the service and/or facility.

Wide
Infrastructure
Gap

Growing
demand for
private sector
participation in
infrastructure

Small and
depleting
Government
resources

Urgent need for
alternative funding
of Infrastructure

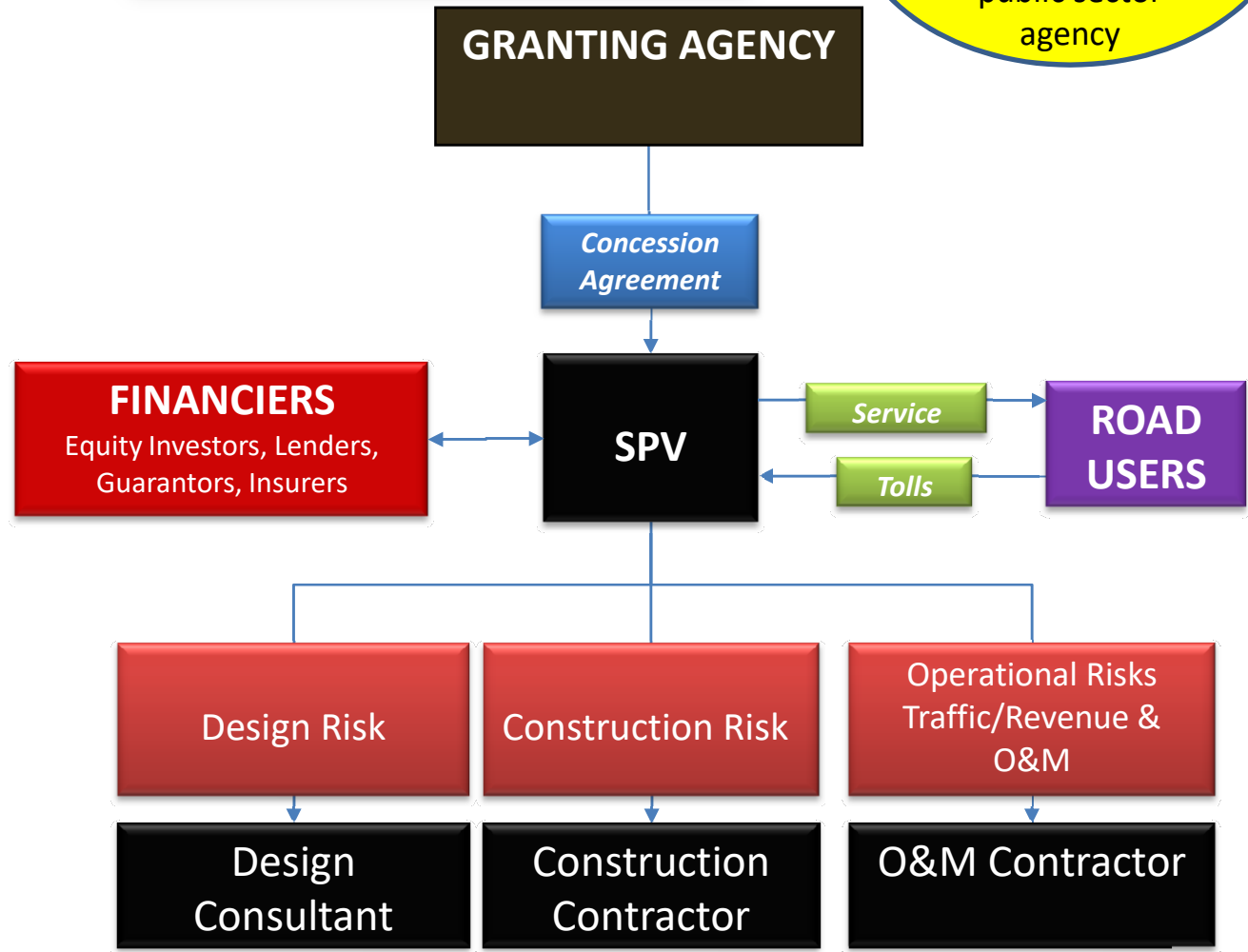
The goal is to combine the best capabilities of the public and private sectors for mutual benefit

7 Essential Conditions That Define Public Private Partnerships

- 1 **Arrangement**
Between public & private
- 2 **Provision**
Of services for public benefit by private partner
- 3 **Investments**
In and/or management of public assets by private partner
- 4 **Time Period**
For a specified time
- 5 **Risk Sharing**
Optimally between contracting parties
- 6 **Standards**
Focus on quality of service / performance
- 7 **Payments**
Linked to performance

BOT-Toll Road Project

The final responsibility for service delivery continues to remain with the public sector agency

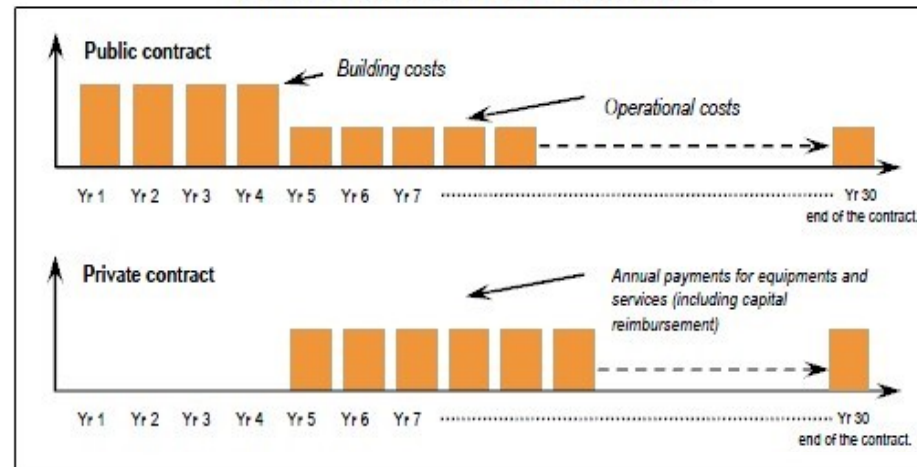


Public versus PPP Procurement Costs & Phasing

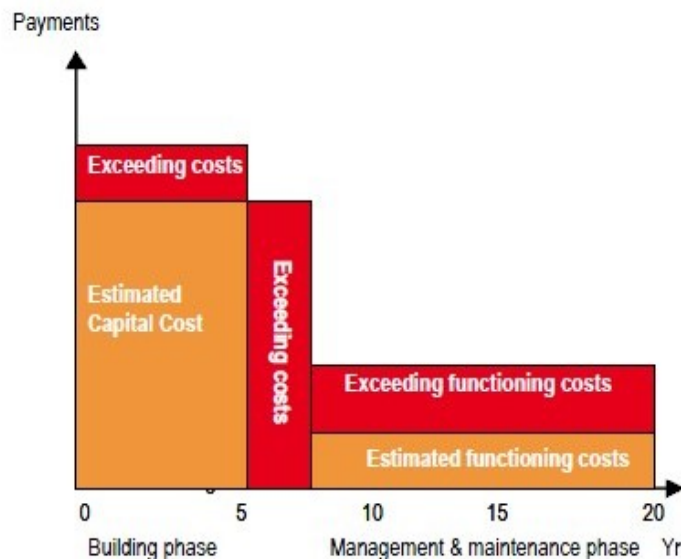
The need for:

- ✓ A comparative analysis between several financing options.
- ✓ A risk matrix as a management tool;
- ✓ A Test of the "value for money"
- ✓ Models and simulation of offers.

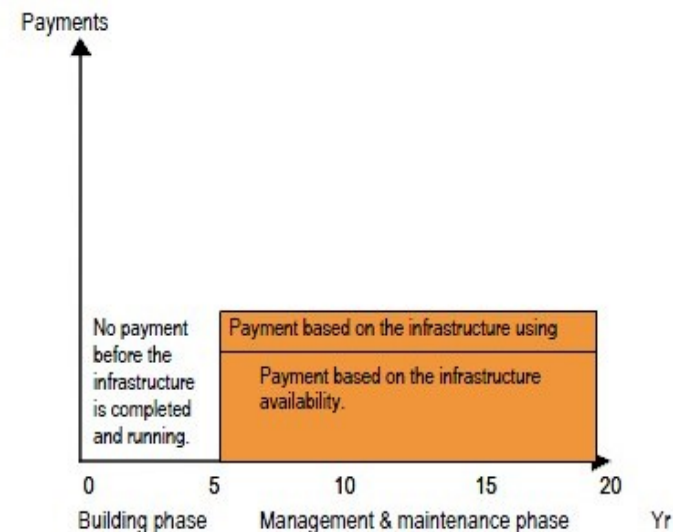
Public versus Private contracts.



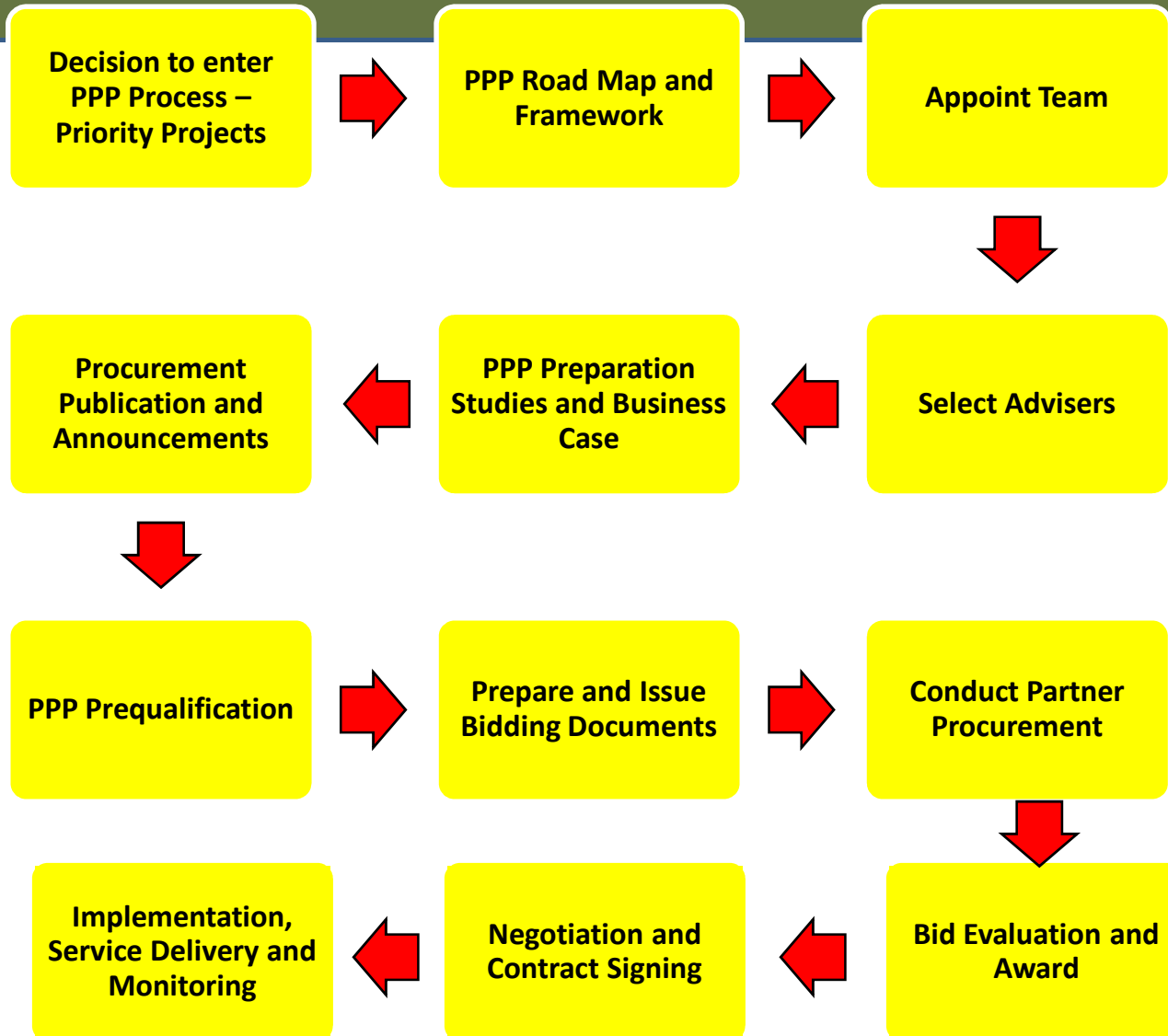
Classical public contract – profil of payments:



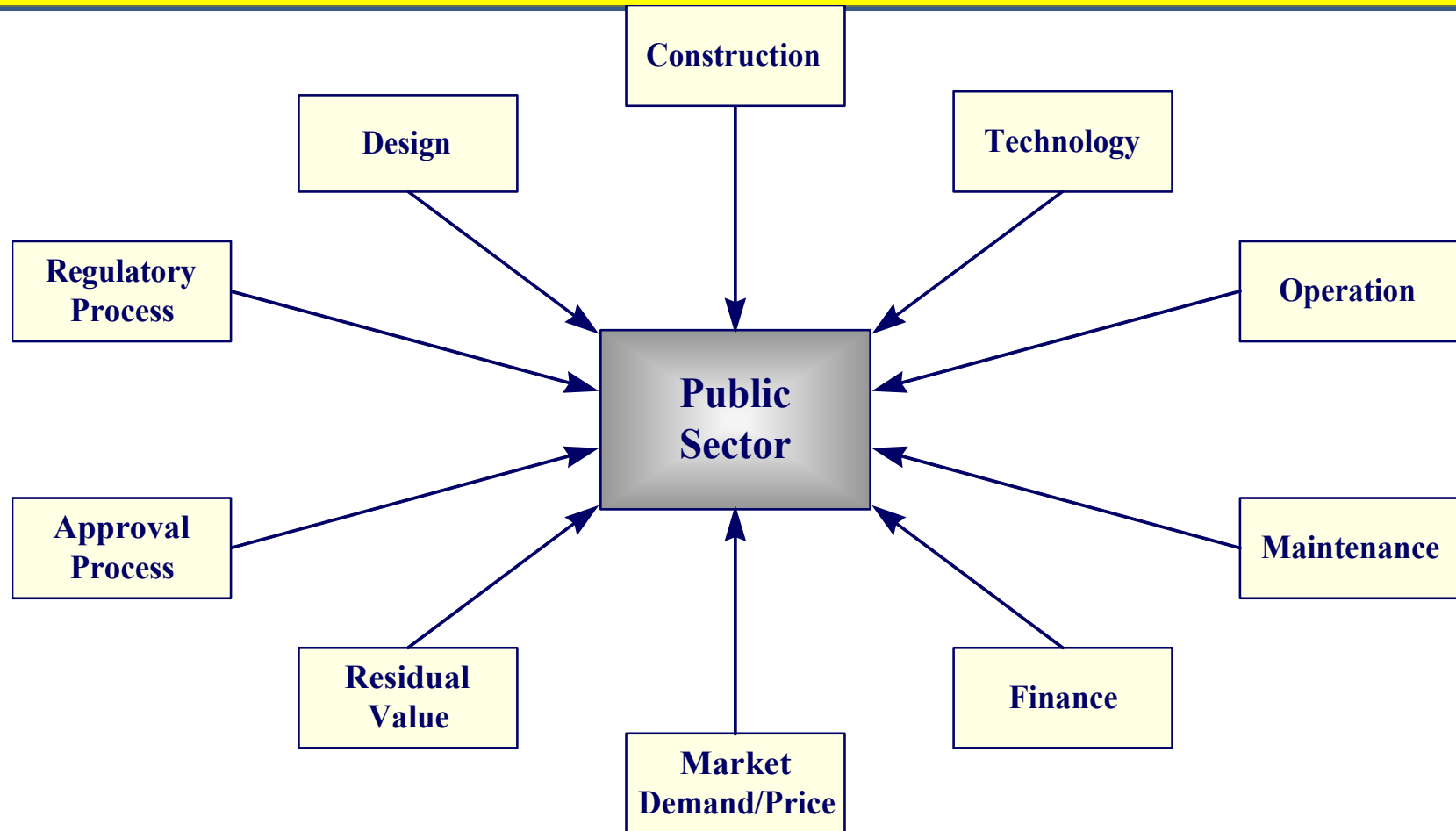
PPP contract – profil of payments



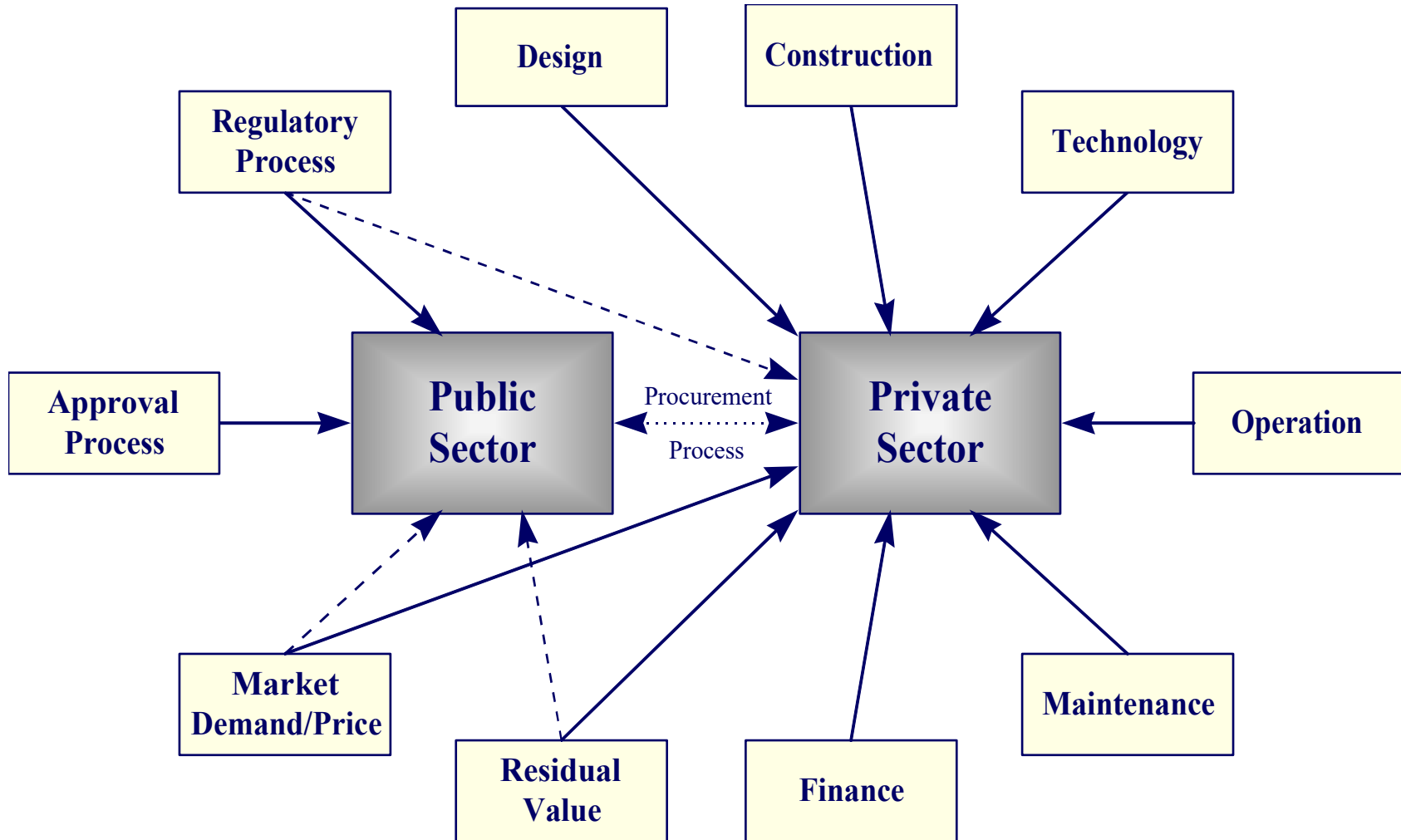
Classical Major PPP Transaction Steps



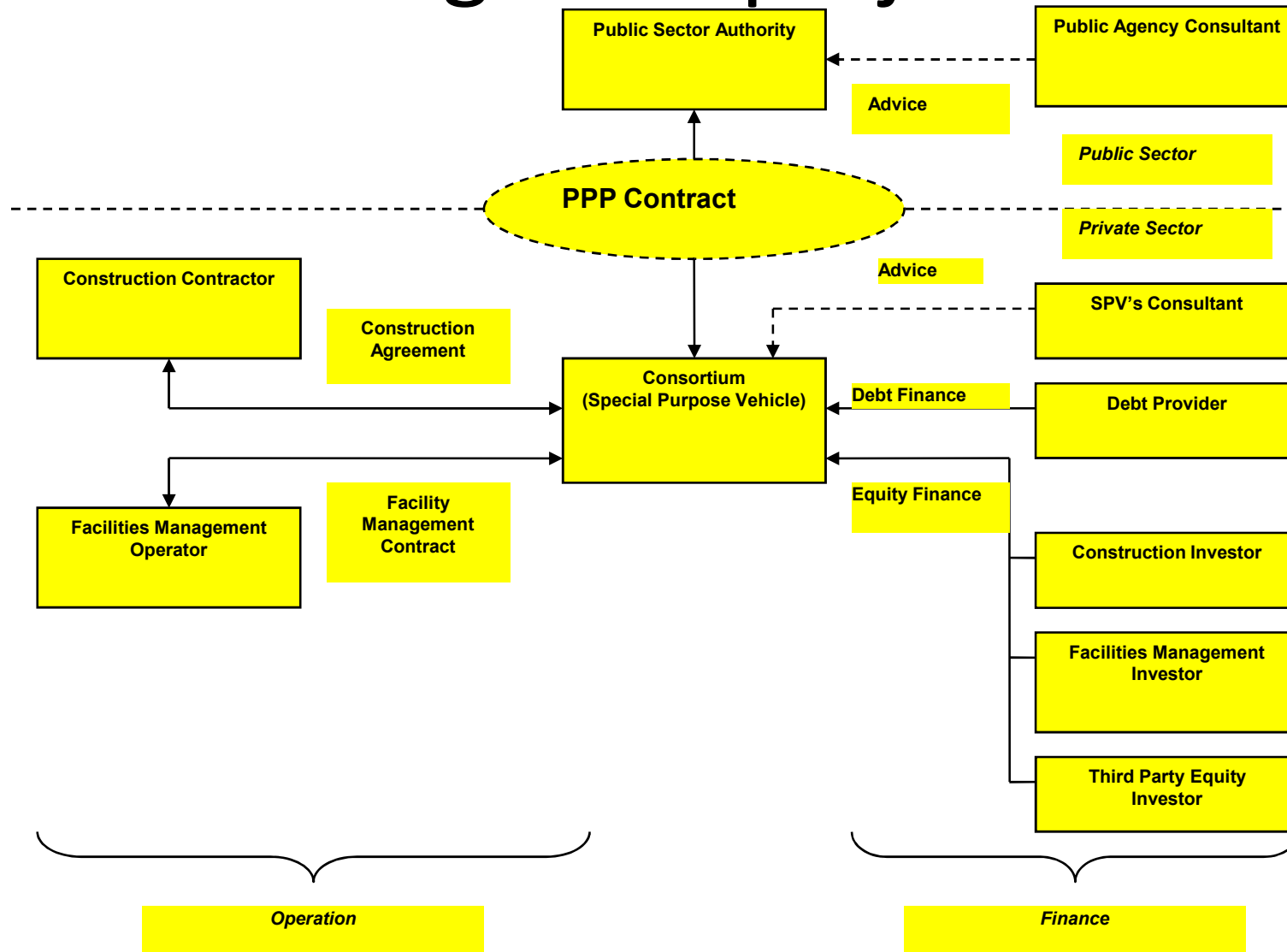
Traditional Risk Allocation



PPP- Risk Allocation



...structure of a Typical Nigerian Large PPP project





TRANSFORMING

THE SE IS

POSSIBLE AND DOABLE

DUBAI 1990



SAME STREET IN 2003



GOOD OLD LAGOS – OSHODI (2008)



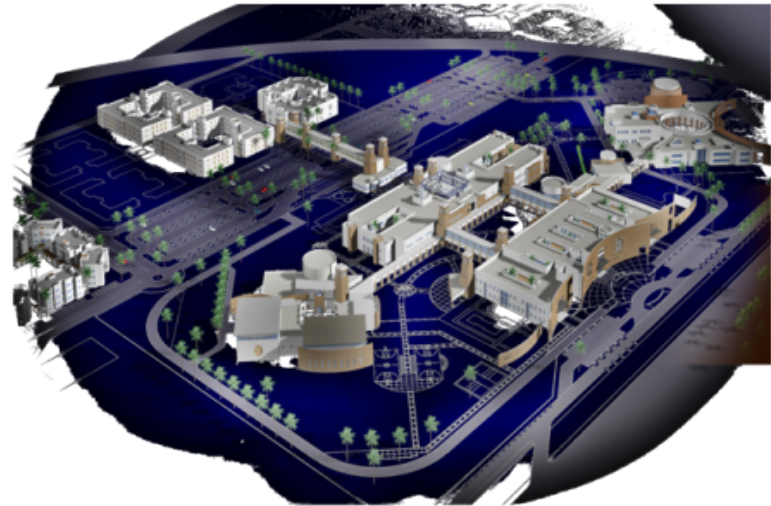
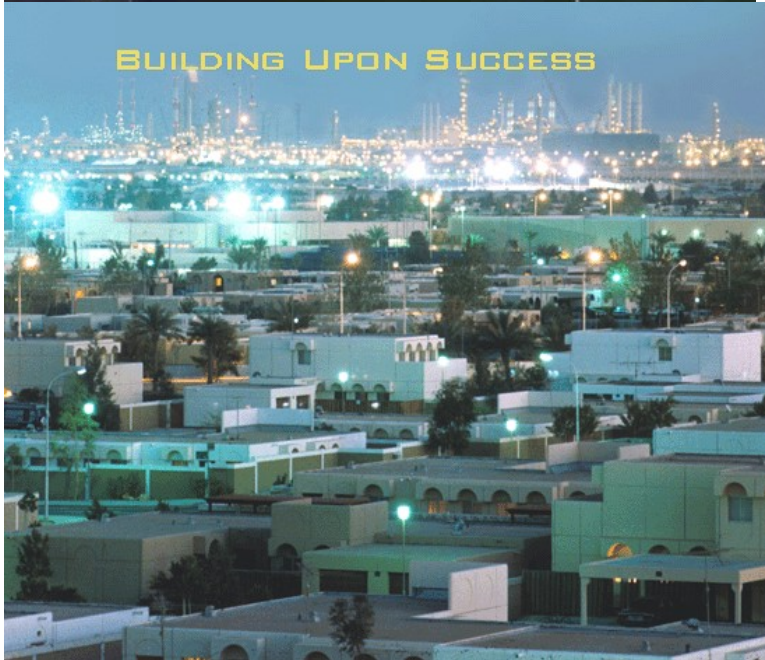
THE NEW LAGOS – OSHODI (2009)



SAUDI JUBAIL FISHING VILLAGE – 1970s



SAUDI JUBAIL INDUSTRIAL CITY 1980s



Wise Sayings !!!!

My advice to any leader, whether of a country, a company, team or anything else, is to unite hearts before uniting efforts – Sheik Maktoum Ruler of Dubai (Lesson.... Igbos must unite hearts)

Agriculture is 95% science and 5% effort – Shimon Peres

Israel is great because it behaves in all like a start up company. Challenging conventional wisdom with amazing self belief and can do mentality – Dan Senor and Saul Singer in Start Up Nation

Adversity...Donkey in a Well !!!!



Adversity...Donkey in a Well !!!!

One day a farmer's donkey fell down into a well. The animal cried piteously for hours as the farmer tried to figure out what to do. Finally, he decided the animal was old, and the well needed to be covered up anyway; it just wasn't worth it to retrieve the donkey.

He invited all his neighbours to come over and help him. They all grabbed a shovel and began to shovel dirt into the well. At first, the donkey realized what was happening and cried horribly. Then, to everyone's amazement he quieted down.

A few shovel loads later, the farmer finally looked down the well. He was astonished at what he saw. With each shovel of dirt that hit his back, the donkey was doing something amazing. He would shake it off and take a step up.

As the farmer's neighbours continued to shovel dirt on top of the animal, he would shake it off and take a step up. Pretty soon, everyone was amazed as the donkey stepped up over the edge of the well and happily trotted off!

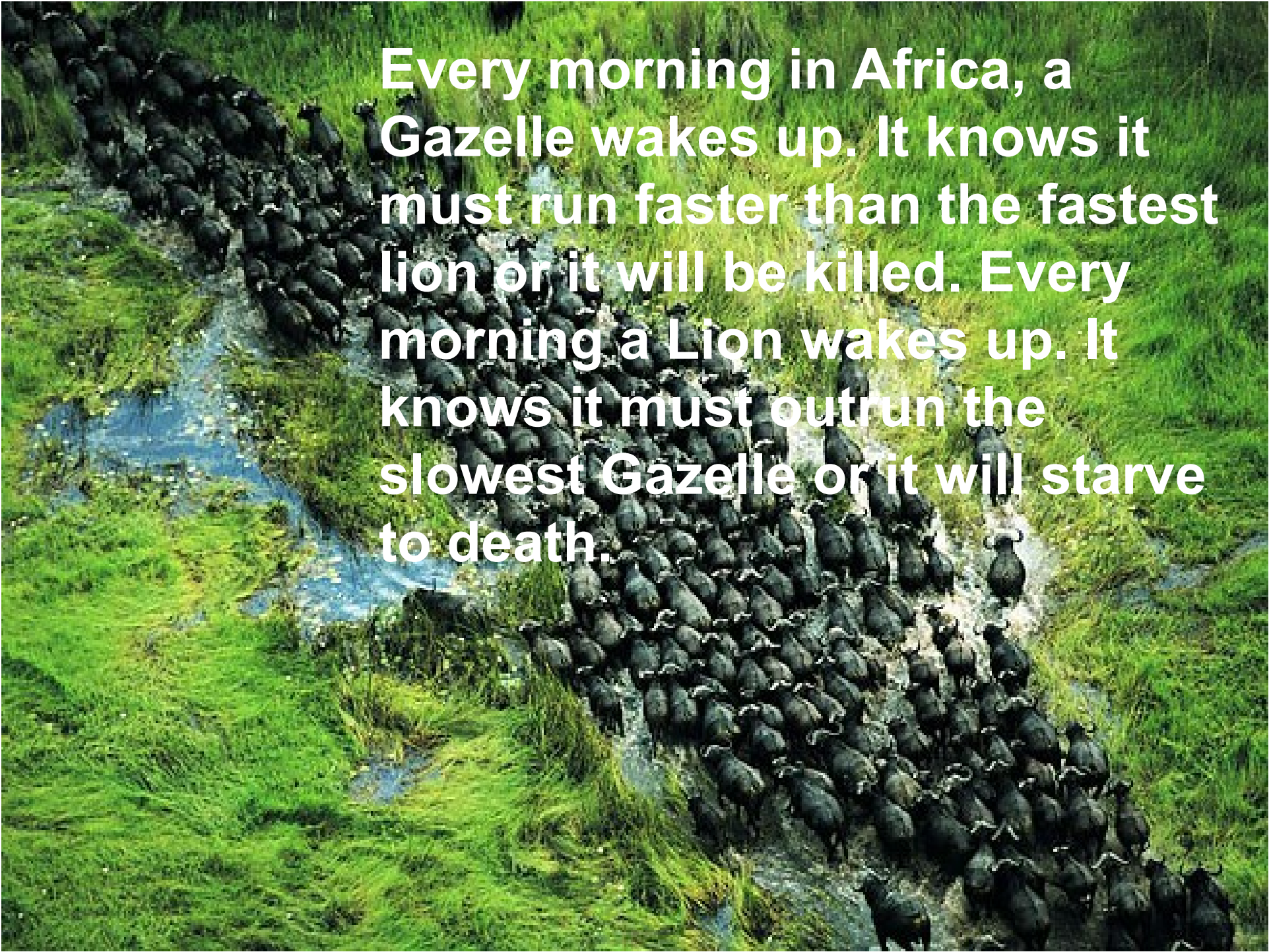
NDIGBO THE MORAL IS :

Life and Nigerians are going to shovel dirt on us, all kinds of dirt.

The trick to getting out of the well is to shake it off and take a step up.

Each of our troubles is a steppingstone.

We can get out of the deepest wells just by not stopping, never giving up! Shake it off and take a step up Ndigbo.

A large herd of wildebeest is crossing a river in a savanna landscape. The herd is moving from the top left towards the bottom right, with many animals in the water and others on the banks. The background is a lush green savanna with scattered trees.

Every morning in Africa, a Gazelle wakes up. It knows it must run faster than the fastest lion or it will be killed. Every morning a Lion wakes up. It knows it must outrun the slowest Gazelle or it will starve to death.

**It doesn't matter whether
you are a Lion or a
Gazelle... when the sun
comes up, you'd better
be running.**

