

Title: GOVERNMENT-TAKE ON NATURAL GAS FIELDS. THE CASE OF TANZANIA

Name: AHMED DAU



Introduction:

The study looked at the government take from Natural gas fields in Tanzania

Tanzania Fiscal System:

1. Production Sharing Agreement
2. Bonuses
3. Royalty rates
 1. Onshore – 12.5%
 2. Offshore – 7.5%

Tax regimes also considered in this project

1. Resource Rent Tax
2. Brown Tax

Research Questions:

- a. To investigate the government-take from the current fiscal arrangement between the government and Gas companies
- b. To investigate other fiscal tools that can be used by the government to collect Gas revenues
- c. Critically assess between the fiscal tools and see which ones benefit the government the most
- d. To run a risk analysis on the current agreement and investigate the expected value for both parties when uncertainties of price and development costs are taken into consideration

Data:

Field data

FIELD	RESERVES, tcf	SIZE	LOCATION	YEAR OF DISCOVERY
JODARI	3	Large	Offshore	2010
PAPA	2	Medium	Offshore	2012
CHAZA-1	0.5	Low	Offshore	2010

Methodology:

Capital Budgeting analysis through

1. Net Present Value (NPV)
2. Payback period
3. Internal Rate of Return

Model:

Gross Revenues (t)= Production (t) X Price (t)

Net Revenues (t)=Gross Revenues (t) - Total costs (t)

Total Costs(t) = Facilities Cost (t)+ Drilling costs (t)+ Abandonment Costs (t) + OPEX (t)

Assumptions:

Discount Rate: 10%

Inflation Rate: 6.4%

Price: \$13.5 per MmBtu

Base year: 2014

Results:

Main drivers of government and investor takes:

1. Price of natural gas
2. Development costs

1. OPEX

FIELD	GOVERNMENT-TAKE, million \$	INVESTOR-TAKE, million \$	(INTERNAL RATE OF RETURN) IRR	PAYBACK PERIOD, years
JODARI	15,897	4,347	42%	6
PAPA	12,306	3,485	37%	6
CHAZA - 1	1,803	904	38%	5

Field	Brown Tax		Resource Rent Tax	
	Government-take, million \$	Investor-take, million \$	Government-take, million \$	Investor-take, million \$
JODARI	10,339	2,957	12,868	5,515
PAPA	2,055	3,408	3,003	1,287
CHAZA-1	1,727	1,723	2,205	945

large
and
take

Conclusion:

1. The current agreement is lucrative for and medium gas field size
2. Natural Gas price, development costs OPEX largely affect the government

Recommendations:

1. Resource Rent Tax for Low field size
2. Close monitoring of development costs to avoid possible tax evasion