

# Oil and Gas Projects Accelerating the Economy





Presented by:

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## Purpose and Objectives:

- To help Petroleum Industry and the Government to be aware of the benefits of putting oil and gas discoveries earliest on production.
- To let all stake holders be aware of and understand how oil and gas projects accelerate country's economy .
- To high light certain areas that may need attention and help from the Government to expedite production from discoveries which would result in:
  - substantial fiscal gains to the Government, and
  - help accelerate the country's economy

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# Stages of Oil & Gas Projects

There are three main stages of Oil and Gas Projects. These are:

## **Exploration Stage:**

- License area is worked to confirm presence of viable accumulation of oil and gas.

## **Appraisal Stage:**

- Quantity and quality of discovered oil and gas is evaluated for an optimum development plan of the field.

## **Development Stage:**

- Field development plan is executed to bring the field on production.



# Exploration & Appraisal stage



# Stages of Oil & Gas Projects --- Exploration

## Exploration Stage:

- Joint Venture makes efforts to timely complete the work program it had committed for getting the license.

## Typical Activity:

- Petroleum system and other related studies.
- Geological and Geophysical data acquisition, processing and interpretation.
- Generation of Leads, detailing of leads, generation of prospects.
- Evaluation of prospects (risking and economic analysis).
- Drilling and evaluation.

## Expenditure Level :

- Joint Venture (JV) typically spends \$ 10-20 million.



# Stages of Oil & Gas Projects --- Appraisal

## **Appraisal Stage:**

- Comes after discovery of oil and gas in the area.
- Joint Venture (JV) takes an Appraisal Area, and makes work commitment.

## **Typical Activity:**

- Appraisal drilling.
- Detail 2D or 3D seismic coverage.
- Geological and Geophysical studies.
- Extended Well Testing (EWT)

## **Expenditure Level:**

- JV Spends \$ 20-30 million in one to two years on the average. It depends on work area and work commitment.

# Positive Affects on Economy--- Exploration & Appraisal Stage

## Benefits to the Economy:

- Participation of local contractors in civil works, provision of supplies materials and machinery.
- Generation of employment of professionals, support staff, skilled and non skilled labor. It is on a larger scale in appraisal and much larger especially if the JV takes up EWT.
- Social Welfare obligation.
- Training obligation.
- Start of production (even in EWT) kicks in several obligations.

## Government Take:

- Very little in exploration stage, consists of area rental, half of training obligation.



# Development & Production Stage



# Stages of Oil & Gas Projects --- Development & Production

## **Development Stage:**

- JV decides on optimum way to exploit the discovered resource for bringing it on production for earliest cash flow.

## **Typical Activity:**

- Geological and Geophysical studies.
- Development drilling.
- Negotiation and execution of commercial agreements.
- Front End Engineering and Design (FEED).
- Award and execution of Engineering, Procurement, Construction and Commissioning (EPCC) contract.

## **Expenditure Level:**

- JV Spends \$ 40-200 million in one to three years on the average. It depends on size of the discovered field.



# Development & Production Stage Benefits

## Major benefits to the country's economy:

As an oil and gas project enters development and production phase, the benefits to the economy get a quantum jump.

**Start of revenue to the investor brings possibility of more investment.**

- Much increased employment opportunities. Almost all types of engineers (petroleum, civil, mechanical, chemical, electrical and electronics) get employment. Also skilled and non skilled workers get employed.
- Local contractors get contracts of larger work scope and longer duration.
- Procurement of supplies and materials increases many fold.
- Training and social welfare get increased allocation.
- Infra structure like roads, communications, means of transport, and local businesses get improved.
- Produced oil and gas is available for multiple uses. It saves the import bill to some extent.



# Development & Production Stage Benefits

*continued*

## Government Take:

With start of production Government Take increases many fold. **Increased availability of petroleum, especially gas gives the government political advantage as well.**

- Government Holdings has around 20-25% share in production and resultant revenues.
- Government takes 12.5% Royalty.
- Sales tax is paid at 16%.
- Producers pay 40% corporate income tax on their revenues. Ring fencing is however allowed to offset previous losses.
- Payment of production bonus gets due.
- All of the above gets into economy, benefits the government and should trickle down to benefit the people.



# Stand Out Points

- Working Interest owners (WIOs) are in investment mode till start of production. Naturally, they want to bring a discovery on production, earliest. They want to have a return on the investment in shape of revenue and cash flow.
- It is more in Government's interest to bring a discovered field on production earliest. It is the largest beneficiary of this phase and would also like to have political advantage.
- However, some times delays do occur.
- Let us see some examples, try to look at the frame work and try to see how can we improve so that all stake holders, the economy, and the people benefit.



# Development & Production Stage Milestones

## Major Regulatory Milestones:

- Submission of field Commerciality document and its approval by Director General Petroleum Concessions (DGPC).
- Preparation and submission of detailed Field Development Plan and its approval by DGPC.
- Grant of Development and Production Lease (D & P L).
- Allocation of oil and Gas by the concerned Regulators.
- Execution of commercial agreements such as Gas Sales Agreement (GSA) and Gas Pricing Agreement (GPA).



# Some Discoveries awaiting Production

## Zarghun:

Located near Quetta in Baluchistan. 25 MMCFD gas to be supplied to Quetta through a 65 kilometer pipeline. Economically a marginal field.

Delay in finalization of commercial agreements has resulted in cost increase and subsequent uncertainty.

- Development and Production Lease (D & P L) granted on 22<sup>nd</sup> January 2004.
- Gas Sales Agreement (GSA) was approved on 15<sup>th</sup> January 2008. It was executed on 28<sup>th</sup> April 2008.
- Pipeline Contribution Agreement (PLCA) was approved on 26<sup>th</sup> March 2008.
- Gas Pricing Agreement (GPA) is still awaiting approval.



# Some Discoveries awaiting Production

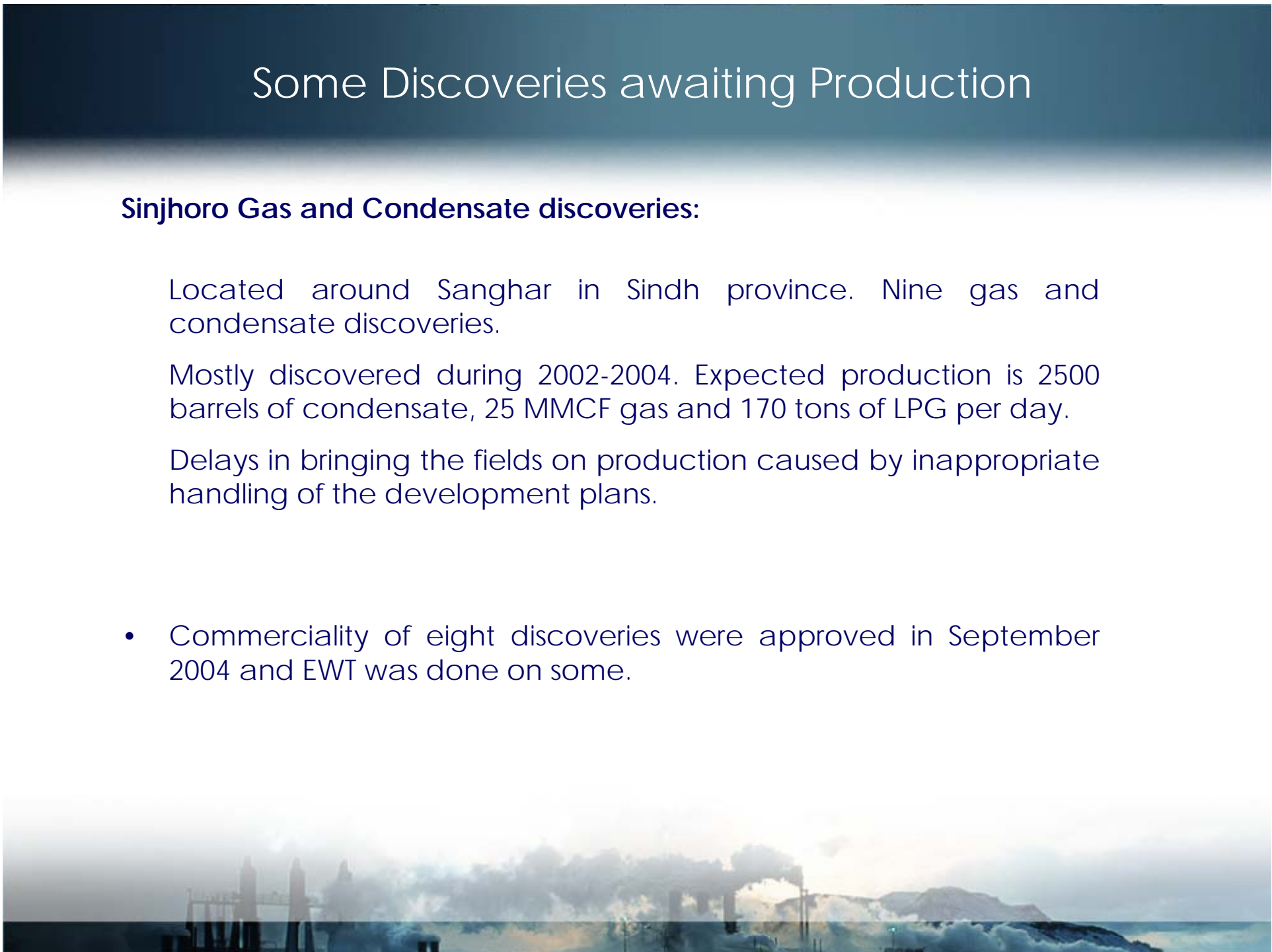
## **Sinjhero Gas and Condensate discoveries:**

Located around Sanghar in Sindh province. Nine gas and condensate discoveries.

Mostly discovered during 2002-2004. Expected production is 2500 barrels of condensate, 25 MMCF gas and 170 tons of LPG per day.

Delays in bringing the fields on production caused by inappropriate handling of the development plans.

- Commerciality of eight discoveries were approved in September 2004 and EWT was done on some.



# Possible Causes of Delays to bring a Field on Production

## Possible Causes of Delays:

- Regulatory procedures.
- Lack of capital or high cost of capital to develop a field.
- Economic indicators like NPVs, ROR, payback period are marginal.

## Consequences of delays:

- Tremendous loss to the Government.
- De-motivating, sends a wrong signal to investors.



# Possible Solutions

## **Regulatory Difficulties:**

- Simplify regulatory procedures. And may be introduce incentives for quick processing. A committee of industry professionals and regulators may deliberate and come up with a solution.
- It is more in Government's interest to bring a discovered field on production earliest. It is the largest beneficiary of this phase and would also like to have political advantage.
- Compensation (salary and perks) of regulators must match or be higher than professionals of similar qualification and experience in the industry. Compensation has to match authority otherwise it breeds arrogance or could be misused.

## **Capital and Economics related Difficulties:**

- JV partners may help each other or Farm-out some interest to help finance development.
- Government may improve gas price as special case like Kadanwari example. Zarghun and Kandra ought to have positive economics.

# Conclusion

No discovery should lie dormant. It is in everybody's interest, especially the government, to put all discovered oil and gas on production earliest.

Let us seriously look at the issues delaying production and solve them earnestly.

It would genuinely accelerate the country's economy.



Thanks for your patience.  
You may ask question now!

