

# Management of Iraq's Oil and Gas Sector, By Dr Thamir Al-Uqaili \*

## Introduction

The Iraqi Hydrocarbon File has always been linked with the independence and stability of Iraq. Management of the oil sector due to its speciality and diversity requires effective management, security and strong central government. Unfortunately several factors played destructive parts in all life aspects during the time of Saddam's rule and since the change April 2003. The successive failures of the governments and the parliament in resolving the problems of the country after the change struck the infrastructure, the economy and the stability of Iraq. The core of the problem has been 'AL Muhasasa' basically.

Ineffective inexperienced management of the government including the Oil Sector overshadowed the plans of ministry of oil in absence of strategy that should have been pre-requisite to signing the oil contracts. The outcome ten years after the 2003 occupation has been modest gain in oil production and continued bottlenecks in the refining and gas sectors.

This paper discusses the different elements of Hydrocarbon File and attempts to present guidelines for integrated strategy

## 1: The 2005 Iraqi Constitution

The absence of clarity of assigning authority to provinces/ governorates in managing their local hydrocarbon wealth has somehow contributed to the current conflict. A review of the oil industry implications of articles 109, 110 and 111 shows the following:

- Article 111 of the constitution states that oil and gas are owned by all people of Iraq in all the regions and governorates. The implication of this is straight forward to many but seemingly not so to KRG?

Article 112 is in two parts. The first assigns the management of the producing oil and gas fields to the federal government while the second states that the federal government, with the producing regional and governorate governments, shall together formulate strategic policies to develop the oil and gas wealth in a way that achieves the highest benefit to the Iraqi people using the most advanced techniques of the market principles and encouraging investment.

- Article 110 (Exclusive Federal Powers<sup>13</sup>) has missed out mention of 'Green Fields: exploration and not yet developed fields' which motivated the Kurds to take that as their rights irrespective of the implication of Articles 111 and 112 that are enough to cover management of all oil and gas activities .

While there is no conflict about the leading role of MoO concerning the first issue and because the constitution does not explicitly mention 'Exploration & not yet developed field', KRG is insisting that related activities are within their local powers. That way they are in conflict with both articles 111 and 112. Many believe that the relatively vague definition of the two articles was imposed deliberately by the Kurdish Leadership when the 2005 constitution was prepared, as price for the Kurds support to the Federal Government. The subject now is a national issue

urging a call to amend several articles in the constitution including the above mentioned and Article 140 (Kirkuk status). Production from governorates/ provinces will gradually build up giving more power to the local governments over the federal government. Without INOC and integrated national plan for the oil and gas industry in Iraq both upstream and downstream sectors will be in chaos. Political instability and disorder will very much spread.

## **2: Hydrocarbon Laws**

Several unsuccessful attempts have been made by the Cabinet and Parliament to issue the Federal Hydrocarbon Law but looks that the parliamentary Kurdish Coalition and the “Muhasasa” have been the main factors preventing the passage of a Federal Law. Kurdistan passed their own law in 2007 without consulting the federal government or MoO. That law facilitated signing over 50 PSAs since then.

## **3: Performance**

### 3.1: Ministry of Oil

Ten years have passed since the occupation of Iraq and the successive government have failed in:

- Resolving major shortages of oil products due to insufficient refining
- Constructing new depots, pipelines and export facilities
- Achieving noticeable increase in oil production compared to pre-2003 level
- Stopping gas flaring from southern fields
- Expansion and upgrading the different companies of the ministry of oil

Iraq used to export four kinds of products before 2003, gasoline, diesel oil, kerosene and fuel oil to Turkey, Syria, Jordan and through the Arabian Gulf. The country since occupation has been importing products spending about \$30 billion sufficient to build over six new refineries. The refining capacity is about %70 of the designed capacity and not a single new refinery has been built despite completion of the FEEDs of 4 refineries about two years ago.

About 1000 mmscfd of associated gas from the southern fields is still being flared in addition to burning some 50,000 b/d crude oil to generate electricity.

It is over three years since awards to Bid Round-2 were made while increase in production and export is rather modest.

Improvement in export capacity has been limited to two out of four contracted SBMs in Basra Terminal operating at reported % 50 compared to 850,000 b/d designed capacity.

### 3.2: The Parliament

The Iraqi Parliament, masked by Muhasasa and personnel MPs interest, has failed in discussing and passing vital laws concerning oil Hydrocarbon and other aspects. It needs to be dissolved and replaced by new MPs hopefully with a clear majority to one party or allied group. Muhasasa should disappear and replace by a setup of Government and Opposition representation.

### 3.3: Kurdistan- KRG and MNR

The behavior and actions of KRG is of typical separate state, not only in the hydrocarbons sector but in other sectors too. The relation with the federal government seems to be worsening with time. Only amending the Constitution will resolve it whether directly or by abandoning it through a national referendum. Such a decision will require the following missing conditions:

- Strong federal government
- Better security environment
- Political stability

### 4: Regional geopolitics

The regional politics characterised by the following has major effects on the problems of Iraq whether through direct interference in Iraq's internal affairs or indirectly as results of the political situation of the neighbouring states:

- Iran interests in the Iraq, Syria and Lebanon
- Israel interests in keeping weak and divided Iraq
- Fear of the Gulf States from true stable and democratic Iraq
- Turkey political interests in Iraq especially Kurdistan
- KRG desire and persistence to separate from Iraq

### 5: Iraq strategy for oil and gas

Iraq needs long term well integrated national plan based on clear strategy in the oil, gas and refining sectors:

#### 5.1: Upstream Sector

i- Revision of current OOIP and recoverable reserves

ii- Revision of current field development plans for the awarded and national fields

- a- Include all reservoirs in each field. Revise optimum plateau production target (PPT) in all awarded contract to be within %5 of the reserve during the PPT.
- b- Assume contribution of Kurdistan to production of 500,000 b/d and export of 350,000 b/d by year 2017. Field development plan must be coordinated with the federal plan if agreement is reached with KRG. Until then no recognition of the legality of their contracts will be granted by MoO
- c- Aim at total Iraq production of 8 million b/d including surplus capacity of 2 million b/d
- d- Start Pilot Production in dormant green fields to assess reservoir performance. The oil may be utilised locally in Skid mounted small refineries

iii- Expedite the preparation of the FEED for the mega water injection project considering water supply from AlMassab Al'aam.

iv- Aggressive 5 year exploration plan is needed for during years 2014-2017 for seismic data acquisition followed by two years of exploration drilling to evaluate leads and structures in:

- a- Western desert
- b- Jezira Area
- c- Dyala Governorate

The exploration plan should target free gas prospects including Khuff accumulation in southern large fields

## 5.2: Downstream sector

### 5.2.1: Refining

- a- Upgrade refining process in Baiji and Basra refineries after necessary maintenance. Current products are below international standards.
- b- Speed up construction of the planned four refineries and dismantle the mobile skid mounted small refineries gradually. The latter can be used as part of Pilot packages in green fields.
- d- Production of lube oil needs to be increased
- e- Large reserves heavy crude oil of Qaiyara Complex requires processing to lighter crude before transporting and mixing with Kirkuk crude. A way out, previously thought of by MoO is to install a thermo cracking refinery in the area. Out from Qaiyara and Najma fields is planned to be 230,000 b/d.

### 5.2.2: Gas

- a- Immediate action is to be taken to stop gas flaring and to increase local gas utilisation
- b- Immediate action is to be taken to construct the national gas pipeline with enough branch-off manifolds to supply power stations and industrial units in Iraq
- c- National gas production, local utilisation and export plan is needed to include contribution from free gas fields (existing and new discoveries). The plan is to include expanding the national gas network and LPG facilities.

### 5.2.3: Products distribution

New depots and products lines are needed

## 5.3: Role of the private sector

The announced Basra forum by MoO is the first of its kind in Iraq. Part of the evaluation in the Forum should be viewing the performance of the existing private companies/ contractors. In well service, there is already a local company operating in Kurdistan and South Iraq. KAR private company has been successful in several aspects including refining. That company offers an example of success that should be noticed and encouraged.

Basic requirements to move to the next step will be:

- Passing a new law to allow and support the locally formed companies/ contractors
- Revision of the Investment Laws

- Top specialists need to be hired to manage the private companies/ contractors when they are formed

Emergence of new successful companies will not be seen before few years to come

## **6: Reorganisation of the oil sector**

The Iraqi experience prior to April 2003 and the failures in Iraq's oil industry since then assured the immediate need to:

- Re-organise Ministry of oil with duties linked to:
  - Political, Economic issues and Legal
  - Hydrocarbon Conservation Law
  - Federal Hydrocarbon Law
  - Long term planning
  - R&D
- Re-establish INOC to include
  - All National Operators (SOC, NOC, MOC and Midland OC) in addition to expanding and upgrading OEC and IDC); each with Training Department
  - Central department of Planning, Field development, Contracting
- Expand and upgrade SCOP
- Establish and back up Iraq National Refining Company 'INRC' to include current local refining companies
- Establish a central Iraqi National Gas Company 'INBC' similar to INOC
- Fill in the post of Deputy Oil Minister (Upstream) with a potential experienced recruit immediately. Take necessary actions to replace many of the current DGs and members of the JMCs (weak management capabilities and modest experience in general are prevailing in MoO and other ministries).

The immediate challenges/bottlenecks are:

### Upstream:

- Storage capacity of crude oil depots
- Pipelines Rumaila-Fao, strategic line, 2<sup>nd</sup> Iraq-Turkey Export Line
- Storage at Fao land terminal to substitute direct pumping from the fields to marine terminals
- Absence of adequate separation facilities to produce three categories of Basra oil, light, medium and heavy; also three North Crudes (NOC and Kurdistan)
- Giant Water Injection in the southern fields in preparation to increase oil production
  - Design not done yet
  - Would ESPs be used temporarily in case of delay in project construction?
  - Absence of effective body to coordinate between the different users and monitor project performance

### Downstream:

- Insufficient production of oil products and Lube Oil
- The responsibility of gas gathering, processing and utilisation is a government responsibility in all field awards contracts of MoO and KRG.

- Gas networks including compressors stations and the National Gas Pipeline “NGP”, the same for Kurdistan. The design and construction of the NGP will take few years while gas is badly needed to source planned 14 power generation stations during 2012-2015

## **7: Conclusions**

Iraq revenue is almost totally dependent on oil and gas that requires effective management and constructive economic measures.

Many conclusions can be derived from this paper. The guidelines presented here may be used by the MoO, the Parliament and concerned organisations.

**\*) Consultant in hydrocarbon exploration & field development. Paper presented for the Iraq Economic Forum 2013, Beirut March 30th- April 1st 2013**