

## IRAQ'S MEGA PROJECTS

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Mr Chairman,  
Distinguished participants,  
Ladies and gentlemen

It is a great pleasure for me to be present among this distinguished gathering, as we discuss what projects Iraq will be carrying out in the next few years and over the long term, in order to fulfill its objectives of fully monetizing its hydrocarbon resources.

We are talking about mega projects that are similar to what have taken place in oil producing countries over the past decades, except that the scope of work and the timeline we are trying to apply to the development of Iraq's oil and gas industry, are unprecedented.

Let me start by explaining why we are embarking on this huge task. Then, I will identify the most significant of the projects we are dealing with here. And finally, I will give you a quick summary of the progress to date.

- Why are the MEGAPROJECTS NEEDED

The big opening that Iraq witnessed in the past few years is dictated by economic necessity. The country needs huge revenues to develop the economy, improve the standard of living, and provide the badly needed services to the people. In the past three decades, those services, together with the standard of living, have declined considerably compared to neighboring countries. Long were gone the days when Iraq was leading the region in the 1970's and 1980's.

It is well known that Iraq has lost opportunities, as well as a fair share of the market, due to wars and sanctions. It is now the duty of a democratically elected government, to alleviate poverty, improve services, and raise the standards of living in the shortest time possible.

According to our national plan, about \$360 billion are required over the next few years to introduce a significant improvement to the basic services provided and to invest in the various economic sectors, in order to convert our economy into a productive economy. Of course, the main source of income is the oil and gas sector.

The national development plan for 2010-2014 estimates that there is a need for about \$186 billion for investment in infrastructure in order to provide for those basic services. Even with this expected major increase in revenues, it was found that revenues alone, will not be sufficient to finance this requirement. Foreign Direct Investment as well, will be required to address this shortage.

But, as Foreign Direct Investment has been slow to enter, there is a much bigger demand on the state to deliver. This is combined with a weak development of the private sector, and ever increasing dependency on public budget and revenue, as a main provider of jobs. The Iraqi population is young. There's an influx of 800,000 new entrant into the job market every year. This clearly shows that there is, and will be, a need for a bigger call on hydrocarbon resources to provide the much needed financing in order to sustain this development.

So no doubt, the opening of the oil and gas sector to foreign investment has been unseen, in terms of scale and time. We need to provide for the people in term of services, jobs, healthcare, education, food rations and fuel in the shortest time possible. This, while having to cope with environmental challenges, such as the shortage of water supply, inadequate sewage system, and housing. To give you a brief idea, the country will need between 2-3 million housing units within the next 10 years.

- What are those MEGAPROJECTS

So what are those projects that will cater for this kind of demand on the state? Let's start with the oil sector. Here is what we will need:

- First, in terms of oil field development, there is a huge demand on surface facilities for both crude and gas treatment; the drilling of thousands of wells; hundreds of kilometers of pipelines, both infield and from fields to storage and export facilities. To give you an idea of the scale I'm talking about here, just for the three already producing oil fields undergoing further development on contracts awarded in BR1, and according to the initial plans submitted by IOCs, there will be more than **300 new wells** drilled during the three-year rehabilitation period starting in 2010. Over the life time of those contracts, there could be up to **650 new wells** drilled just in West Qurna-phase1. Some 5,000 sq km of 3-D seismic surveys will be conducted in the three-year initial period of rehabilitation. As for investment in this short term, we expect some **\$7 billion** to be directed towards Rumaila fields. But taken on the long term, no less than **\$100 billion** will be spent on those fields. West Qurna-phase 1 alone would require some **\$50 billion** over the first 20 year of the term of the contract. These are figures just for the three fields in BR1. Add to that another 4 fields in the south and 3 in the north from BR2, and the figures will multiply further.
- Second: The need for water injection projects is huge and will go up as field development continues in several giant fields at the same time. We expect there will be a need for up to 12 million barrels of water per day to cater for this. An integrated system is currently being designed to use and treat sea water from the Gulf and provide it to the different operators of the fields in question.
- Third: an integrated system of depots, pumps and transfer pipelines with onshore and offshore export facilities in the Arabian Gulf, will be constructed. This is combined with a network of Trans- Iraq pipelines that would carry new crude for export through the neighboring countries of Syria and Turkey. In addition, an integrated domestic network will cater for domestic consumption needs.
- Fourth: together with the development of this number of oil fields, we will be producing big volumes of associated gas that would require gathering, treating and processing into dry gas, ready for use as fuel in power generation, as well

as industrial feed for petrochemical and fertilizer plants. Liquids will be directed towards domestic use or export.

- How is the progress in their implementation

The implementation of these big projects has been proceeding steadily, albeit with some hiccups at the start, due to the need to mobilize huge resources for all projects at the same time, and within a short time limit. But crude production has increased steadily and output recently hit 2.9 million b/d, a first since the fall of the previous regime, and it could reach a new record of 3 million b/d by the end of October. The next phases of development will witness big and rapid increases in crude production. We expect to see an increment of up to 500,000 b/d coming on stream at the end of 2012.

Progress on the export infrastructure expansion is also progressing, I'm happy to report that in the new year, Iraq will have an additional operational export capacity of 900,000 b/d. This is part of a grand scheme to add an additional export capacity of 3.6 million b/d to the existing Basrah offshore oil terminal of 1.6 million b/d, or 1.9 million b/d when we count Khor Al Amaya terminal, though the latter has some restrictions on loading. The current expansion consists of a whole system of export that engulfs large diameter offshore pipelines, 5 SPMs – of which one will be on standby - and control systems to go with it. This will grant Iraq over 5 million b/d of total export capacity from the south. The whole system should be ready and fully operational in 2013, just in time when the production capacity from the southern fields reaches more than 4 million b/d.

Another big project currently underway is the expansion of the storage capacity in Fao. This is a huge project that is being carried out in phases by Scop and SOC. It will provide the south with storage capacity of more than 7 million bbl, compared to 3-4 million bbl of current infield storage. It will also add flexibility to the system, which would allow Iraq to export more than one type of crude.

As we move ahead to achieve the objectives I laid down earlier, it is important to remember that achieving those goals is not without challenges. The biggest challenge, of course, is that our fields are of the giant type and developing several of those at the same time is not a small feat. Yet, I'd like to point out here that despite this, they are less challenging than other similar fields in neighboring countries. The nature of the topography, as well as the high productivity of Iraqi oil fields, add to that their proximity to infrastructure, whether it is roads or export terminals, as well as the fact that we have engaged so many IOCs at the same time, offers a counter weight to the challenges of trying to reach high plateau in relatively short period of time.

The expansion of the infrastructure is another challenge that we are facing, especially in relation to storage and export capacities, as output is being ramped quickly. Although small restraints have been imposed on production this year due to the lack of sufficient storage and export capacity, the pressure is expected to ease from the beginning of the year. The government of Iraq, as a whole, is engaged in the effort to find quick responses to those infrastructure challenges. This has been stressed in meetings of the PM with the senior management of the oil sector, as well as in his meetings with IOCs representatives over the past weeks.

In the current circumstances, and since the decision-makers in the MoO decided to go down that road in terms of field development, regardless of whether one agrees with this approach or not, it falls now on the government to give a clear indication of what the ultimate production capacity should be in the medium and long terms. I expect this decision to be taken in due time. The ground work to support that decision is currently under way, as we are in the process of preparing a national energy strategy, which will shed light on the different scenarios Iraq will be facing on the short and long terms. We will be hearing more about those scenarios during the seminar on Thursday. Though factors like world economic growth, the forecast for oil demand and the call on Opec producers to respond to this demand, will be taken into consideration, I would say, as far as Iraq is concerned, these factors are not of immediate concern. We expect that there will be a substantial call on Iraqi crudes.

There are three internal challenges that I would like to point out that are more related to the politics of the country, as opposed to the oil sector per se, that I've just mentioned.

One is the legal environment and Iraq's pursuit of legislation that would regulate the oil and gas sector. As you know there are four laws that have been discussed under the previous government and have been taken up by the current one. One is the now-famous Hydrocarbon law (or Oil & Gas Law as it's sometimes called), the other is the INOC law, the third is related to revenue sharing – this one is in fact split into two related legislations on allocation of revenues and monitoring of revenue sharing – and finally, the oil ministry restructuring law. I expect that the obstacles that have withheld those laws, especially in relation to reservations by the Kurdish coalition, which is a partner in the current government, those obstacles will be dissolved eventually, especially after reaching an interim agreement, early this year, that allowed crude produced from Iraq's federal region of Kurdistan to be exported via the national export network.

The second is the political environment where, as some of you know, in a nascent democracy, it takes some time before institutions are laid out on strong foundations. But here again, political leaders are working towards the establishment of that foundation, though I admit, the pace is actually slow.

Security, which is the third point related to the internal situation I wanted to bring up, is given priority. There are improvements on that front but we all acknowledge that there are still issues to be dealt with, that are the legacy of the past period. The security question is one that is important to the oil sector. And although this sector has lately been exposed to some threats, these threats are being dealt with, in a way to insure the safety of people and installations.

At the end, I would like to thank you all for taking an interest in Iraq's projects, and oil projects in particular, and I'm looking forward to welcoming you next in Iraq.