



## World Oil Exports [01] Angola

Posted by [Luis de Sousa](#) on July 1, 2008 - 10:00am in [The Oil Drum: Europe](#)

Topic: [Supply/Production](#)

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Angola is one of the few oil producing countries with a bright future ahead. Decades of war prevented the country from developing its energy resources properly, but is now becoming one of the largest world oil exporters in a period of rampant prices. Just as if Fortune decided to compensate Angola for its misfortunes during the XX century.

Becoming an OPEC member just recently, Angola is set to build one of the strongest economies in Africa, with its GDP growing over 30% 15% annually (numbers [here](#)), one of the highest rates in the world. Hopefully Oil will be just the trigger of a golden era in a country that possesses other important natural resources.



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## Some History

To read a not so short History of Angola, click [here](#).

## Production

Colin Campbell first assessed Angola in December of 2003 in ASPO's [newsletter 36](#). Back then it was already clear that the Regular Oil cycle was approaching peak (if not already past it). It was also clear that Deep Water fields were coming strongly on stream promising to more than double the country's production. Using 10 Gb for both Regular Oil and Deep Water ultimates, the best estimate was resulting in a total production peak by 2020 just under 2 Mb/d.

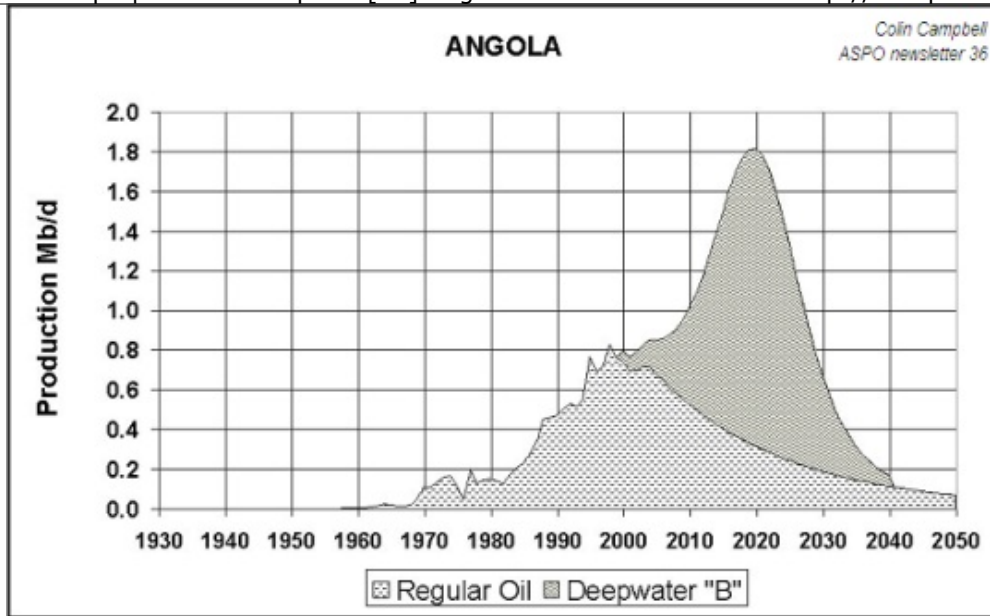


Figure 1 - Colin Campbell's Angola forecast in 2003. [Click to enlarge.](#)

Acknowledging the difficulty of estimating the Deep Water cycle shape at such an early stage, Colin Campbell put forward three different scenarios. The first (A) modelled the hypothesis of the country using all productive capacity as soon as it became available, the other two (B and C) considered a different approach in which the resource would be explored in a slower fashion, extending the economic income in time. These last two scenarios resulted in later and lower peaks. Scenario B would be the one chosen for the forecast this time.

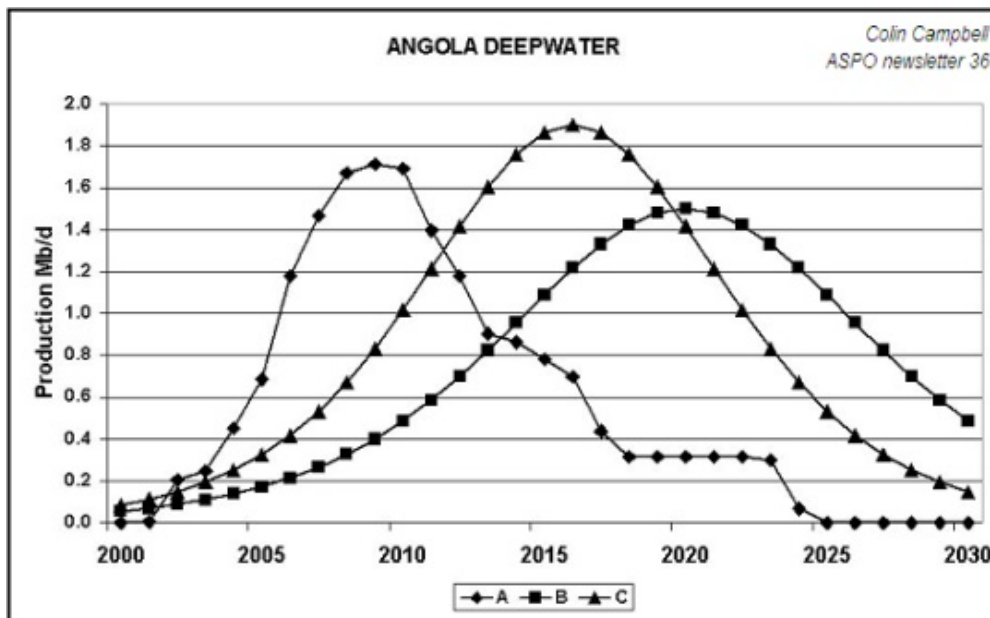


Figure 2 - Colin Campbell's Deep Water scenarios for Angola in 2003. [Click to enlarge.](#)

Production in Angola would rise steeply, more than doubling from 2003 to 2007. Meanwhile, by the end of 2006 it was announced that [Angola was joining OPEC](#). Without a quota attributed, Colin Campbell would reissue his forecast for Deep Water ([newsletter 73](#)), this time preferring scenario A, and extending the previous ultimate to 12 Gb, allowing for a possible later cycle of discovery.

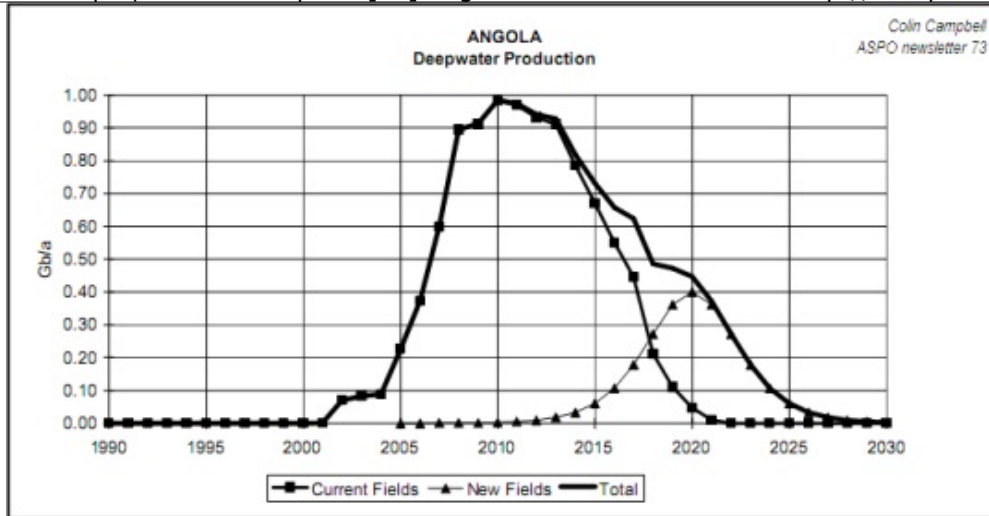


Figure 3 - Colin Campbell's Deep Water forecast for Angola in 2007. [Click to enlarge.](#)

And finally in December of 2007 OPEC announced Angola's quota: 1.9 Mb/d. Official reactions were scarce, but at the time, with the country already producing close to that figure, [some disappointment](#) was ventilated in the press:

Some oil companies have expressed concern about an OPEC quota potentially putting the brakes on Angola's rising oil prospects.

[...]

An Angolan oil official recently said his country would be happy with a quota of 2.5 million barrels a day, a figure which industry analysts say would be about 500,000 barrels a day above real output capacity.

But a few months later Syanga Abílio (Sonangol's vice-president) would assure that the country's policy [was in line with the given quota](#):

"It's possible to reach that production [2 Mb/d] still this year ... this for sure may occur in the last quarter of this year,"

[...]

"We are doing our best to maintain our plateau of 2 million barrels, probably until 2014. Our production profile does indicate normal decline (after 2014) which we will be fulfilling with our exploration programme,"

Also countering Colin Campbell's later assessment is the fact that new production capacity coming on stream in 2008, 2009 and 2010 is not enough to fulfil the expected jump from 1.6 Mb/d to 2.7 Mb/d in Deep Water production up to 2010. New projects coming on stream listed by the [Oil Megaprojects](#) page and the [EIA](#) are in the following table. A chart of Angola's concessions blocks can be found [here](#); only blocks 0 and 14 are in Cabinda's waters.

Table 1 – Oil Megaprojects planned for Angola.

Year	Field	Peak output (kb/d)
2008	Block 4 Gimboa	50
2008	Block 15 Kizomba C (Mondo)	100

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2009	Block o (Area A Mafumeira)	30
2009	Block 14 (Landana; Tombua)	100
2009	Block 14 (Negage)	75
2010	Block 17 (Pazflor)	200
After 2010	Block 31 NE	130
After 2010	Block 31 SE	130
After 2010	Block 18W	100
After 2010	Block 15 (Kizomba D )	120
Planned	Block 17 (Clov )	150
Planned	Block 32	130

In light of the information gathered here, an alternate forecast for Deep Water Oil is used, more in line with Colin Campbell's original B scenario, but this time with an ultimate of 12 Gb. Production is forecast to reach 1.5 Mb/d by late 2009 and from there slowly growing to support a total production (Regular + Deep Water) of 2 Mb/d. This plateau is maintained up to 2016 with Deep Water topping 1.6 Mb/d; at this time depletion sets in at 9% per annum, a characteristic figure for this kind of reservoirs.

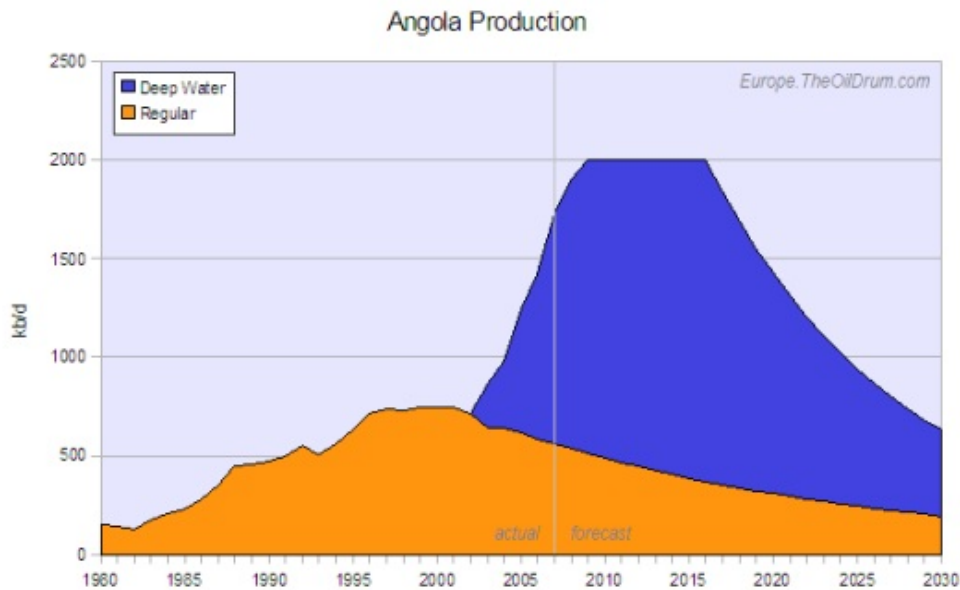


Figure 4 – Angola Oil Production forecast. [Click to enlarge.](#)

It is likely that with rising oil prices countries like Angola start feeling pressure from consuming countries to increase their production. Hence a quota hike or even an unilateral move to break the 2 Mb/d plateau remain open possibilities. In such case an earlier peak and unfolding decline are to be expected.

### Cabinda

Much of the Regular Oil produced in Angola still comes from Cabinda, and in spite of having just two concession blocks in its sea, it is also from here that the lion share of Angola's Deep Water production is coming. Hard figures don't seem to be available but at least two thirds of Angola's present oil output are coming from Cabinda.

Cabinda is a short piece of land north of the Congo River, cut off from the main territory in 1885. Early in the 1960s several independence groups joined to form [FLEC](#). In the summer of 1975 FLEC created a provisional government and declared independence from Portugal. Early in 1976 MPLA (aided by Cuban troops) invaded the territory, gaining control of the territory and pushing FLEC to a guerilla war. FLEC would receive help from UNITA years later, but struggle inside the movement between different ideological veins would break it apart in several organizations.

In the 1990s with the first peace agreements in Angola's mainland, it became clear that the independence of Cabinda wasn't a priority. FLEC reorganized, with FLEC-Renovada (FLEC-Renewed) congregating the political arm and FLEC-FAC (FLEC-Cabinda Armed Forces) the military, that continued the armed actions. After the death of Jonas Savimbi the Angolan Armed Forces concentrated in Cabinda, dwarfing FLEC's power. FLEC turned into kidnapping actions that cost them much of the already dwindling international support. In 2006 peace was settled between FLEC-Renovada and the MPLA's government, a move that wasn't followed by FLEC-FAC, casting doubts over its legitimacy.

The present situation in Cabinda was assessed by Jeff Vail [here](#). An example of the current restless felt in the territory happened weeks ago when [Isaiás Samakuva \(the present leader of UNITA\) visited Cabinda \[portuguese\]](#). While discoursing Samakuva referenced peace as a fundamental instrument of development in Angola, the crowd answered claiming “Cabinda is at war!”.

At the moment FLEC-FAC doesn't seem to have visible armed power; actions are sporadic and so far haven't targeted oil facilities. The heavy military presence of Angolan troops (that has fostered the nationalist sentiment among civilians) allied to FLEC-FAC's international isolation makes it unlikely for a more serious situation to develop (e.g. similar to that in Nigeria).

As seen from the megaprojects list above, Cabinda is loosing its importance in Angola's oil production. With elections months way a policy change towards the territory might take place if the political balance in mainland Angola turns more into UNITA's side. But in the end it all comes down to social equity, if the Cabindese people come to feel that Oil exploration is bringing them development and its wealth not ending in Luanda's elites, the situation will likely improve.

## Consumption

Angola's population presently stands at around 17 million and has been growing around 3% yearly. According to the [UN's forecast](#) the country is still far from completing its population transition and this growth rate should endure for some decades. By 2020 the country is forecast to have 24 million people and reach 30 million by 2030.

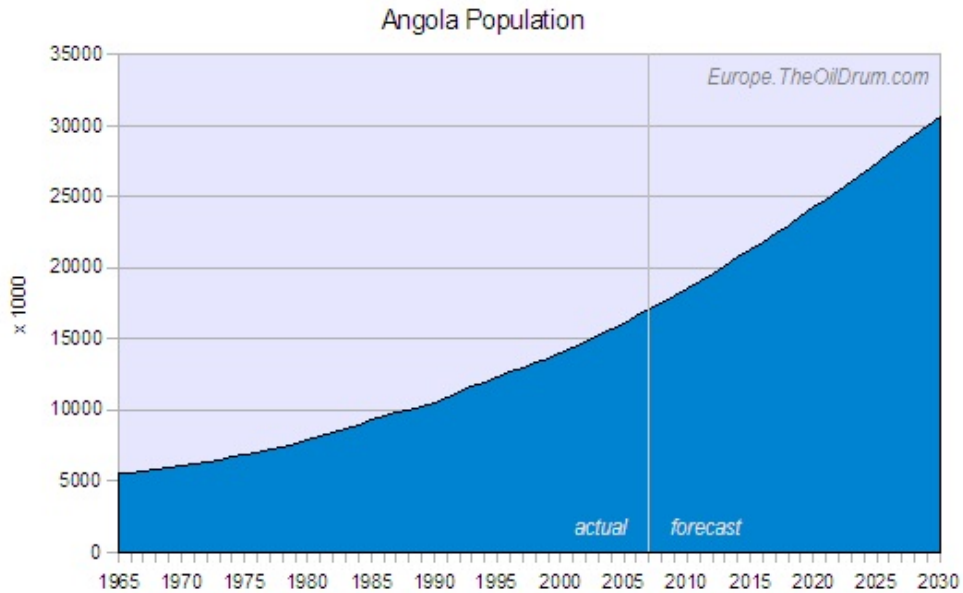


Figure 5 – Angola Population forecast, according to UN's forecast.

Data on Angola's energy consumption is scarce, the only institution keeping record of it seems to be the EIA. The country profiles database indicates very low values, which although cannot be cross check with other datasets, shouldn't be far from the truth.

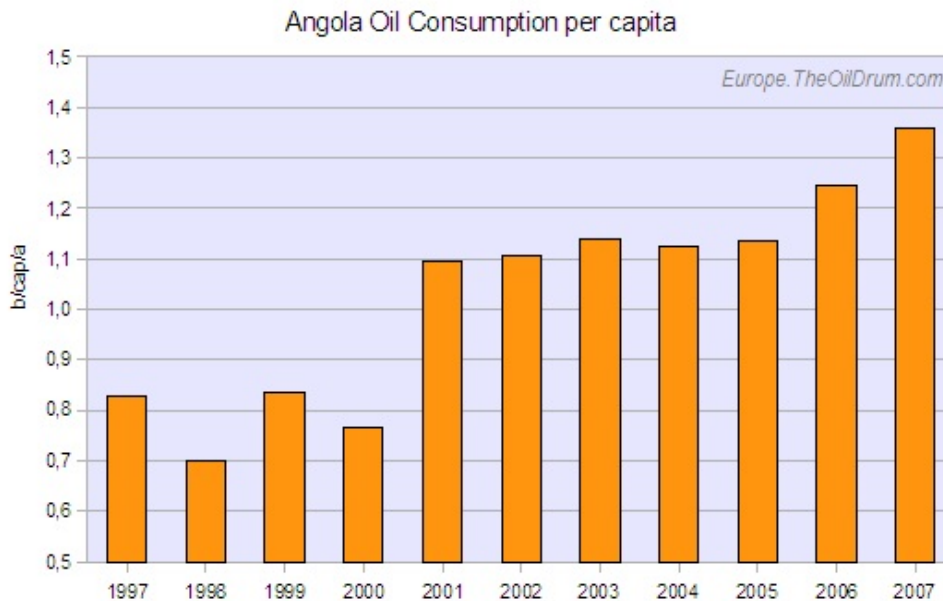


Figure 6 – Past Angola Oil Consumption per capita.

These are very low numbers, about one fourth of the world's average in 2006. Demand was erratic until 2000, but with the onset of deep water exploration and the country's political stabilization, things started to improve. Although erratic, growth averaged 9% per annum from 2000 to 2005, it was almost 10% in 2006 and about 9% again in 2007. With international companies entering the country's service sector and economic development reaching other regions outside Luanda, this high rate of growth should continue for some time.

The internal oil demand forecast for Angola is as follows: consumption per capita should continue to grow along present lines, until about 2015 when depletion should start being a concern. From then onwards consumption growth per capita starts easing, reaching the world average only after

2020 and stabilizing around 6 b/cap/a by 2030 (a comparable figure with 3.6 b/cap/a today in Namibia and 8.5 b/cap/a in South Africa).

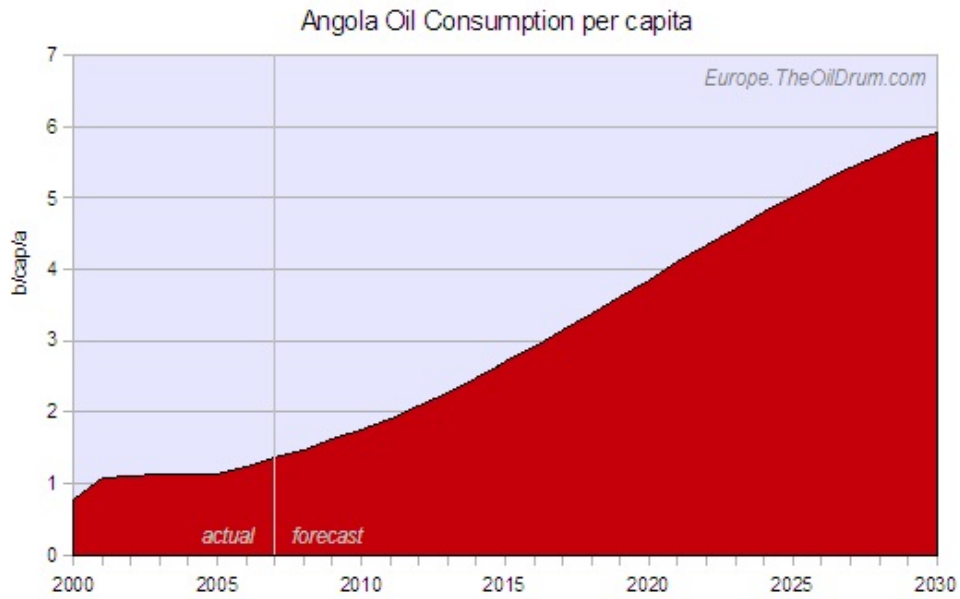


Figure 7 – Angola Oil Consumption per capita forecast.

Combining this forecast with UN's population figures results in a rapid growth of internal demand, topping 200 kb/d before 2020 and approaching 500 kb/d by 2030.

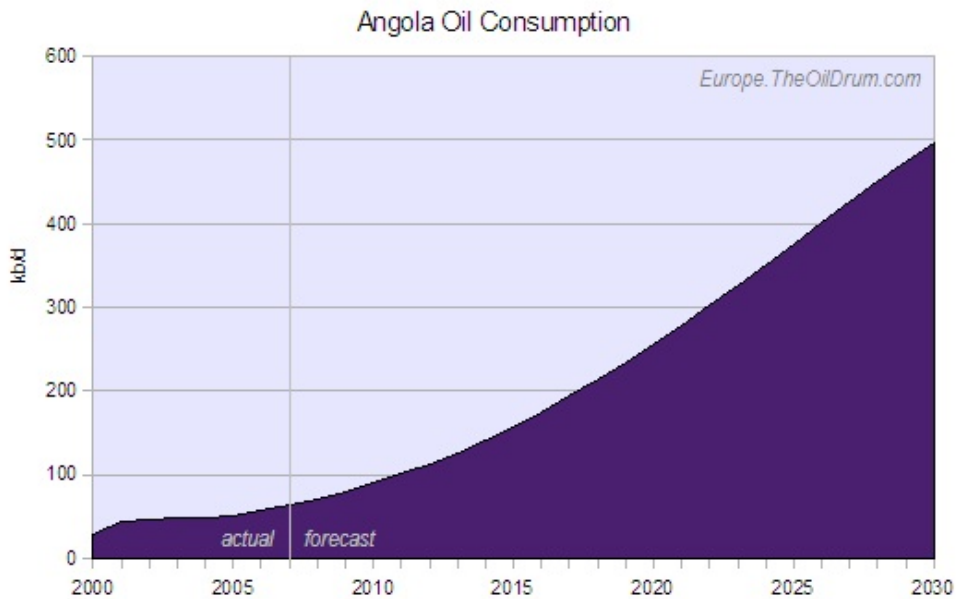


Figure 8 – Angola Oil Consumption forecast.

How likely is this forecast? The main driver of consumption is population growth itself, hence it relies heavily on UN's figures. By 2030 this forecast projects Angola almost doubling its population and becoming one of the wealthiest nations of the region, similar to South Africa today. Such an outcome is indeed possible, Oil is not the only economic activity in Angola, with Diamond extraction and Fisheries already important sectors and Agriculture having considerable potential. The main issue for the country is how to grow in an equitable fashion, an enduring problem in many oil production nations (especially in Africa). Above everything else, social inequity could be

the determining factor undermining the foundations of this possible growth.

## The Macroscopic View

In spite of the strong consumption growth and declining production forecast, Angola remains as a net oil exporter for many years to come, presenting a surplus up to the end of the period considered.

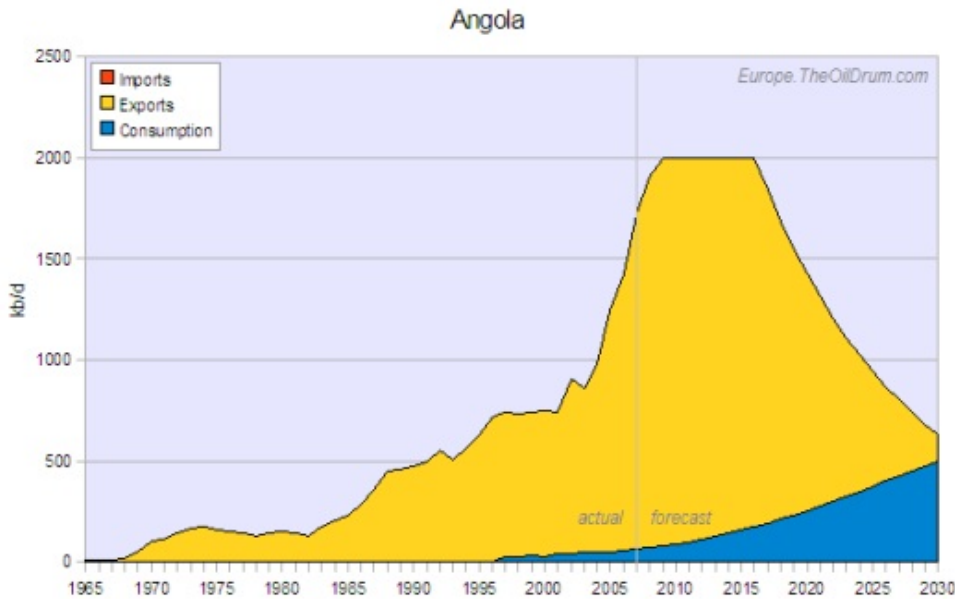


Figure 9 – Angola Oil Exports forecast. Click to enlarge.

Adding this forecast to the previously assessed countries yields no major changes, except for higher yearly totals. Peak continues to stand in 2005, with a gentle decline forming, that by 2011 starts accelerating.

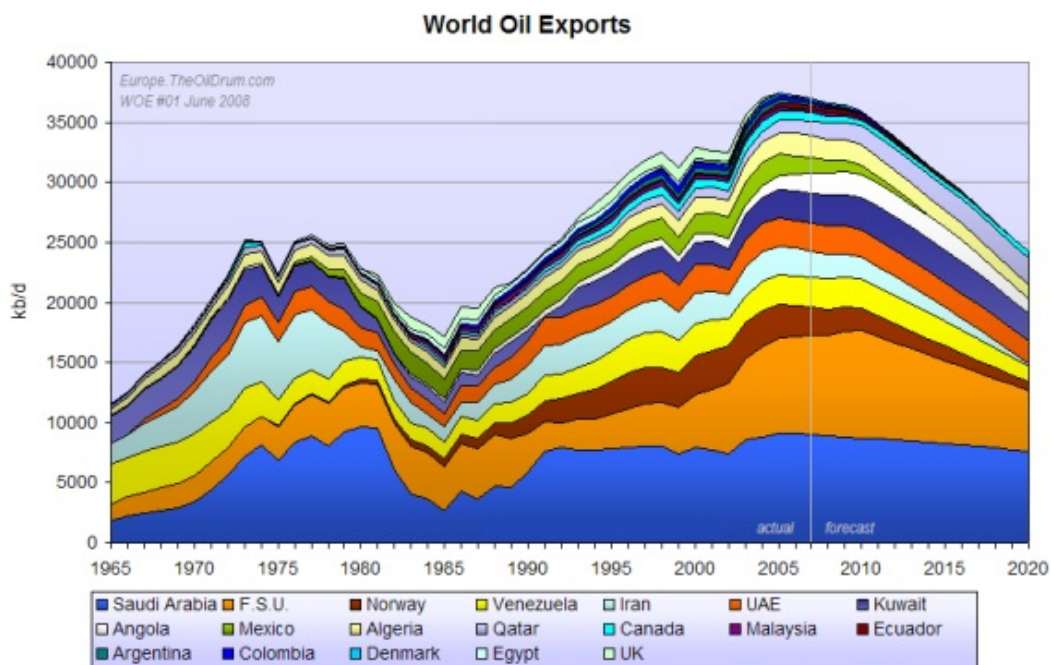


Figure 10 – World Oil Exports as of June 2008. Click to enlarge.



Previous numbers of WOE:

[WOE \[oo\] Introduction](#)

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*The Oil Drum : Europe*



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