



## Hubbert Linearization Analysis of the Top Three Net Oil Exporters

Posted by [Prof. Goose](#) on January 27, 2006 - 3:47pm

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**[ED: This is a guest post by westexas...]**

Let's assume that we have a world where all oil production is from one country--Export Land--that produces 20 mbpd, consumes 10 mbpd, and exports 10 mbpd to oil consuming countries around the world.

Export Land hits the 50% of Qt (URR) point, and over a five year period production drops by 25%. Over the same time period, Export Land's consumption increases by 20% to 12 mbpd.

This causes Export Land's net exports over the five year period to fall from 10 mbpd to 3 mbpd, a decrease of 70%--resulting from a combination of increasing domestic consumption in Export Land and a 25% drop in production.

Let's look at real world production with our hypothetical Export Land as a model.

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Based on the [EIA's list of top net oil exporters](#), those exporting at least one mbpd or more, the top three net oil exporters in 2004 were Saudi Arabia (8.73 mbpd), Russia (6.67 mbpd) and Norway (2.91 mbpd), a total of 18.31 mbpd. This is slightly less than half of the total net oil exports from the top exporters (38.31 mbpd). I suspect that total world net oil exports are probably on the order of 42 mbpd or less.

Stuart's [original Hubbert Linearization analyses for Saudi Arabia and Norway](#) indicate that Saudi Arabia is 55% depleted, [Russia is 88% depleted](#) and Norway is 67% depleted (thanks Khebab).

I believe that Saudi Arabia is on the verge of a long term decline in production. Texas, the former swing producer, with a similar P/Q intercept, showed a 29% drop in production over a 10 year period after its 1972 peak.

Russia peaked at a broad plateau around 53% of Qt, and production is down about 25% from its peak. Although production has been increasing recently, in all likelihood this was just compensation for the dramatic drop in the Nineties, [which was probably due to both natural depletion and political problems after the Soviet Union collapsed](#). If this assessment is correct, Russia is on verge of a dramatic collapse in production, almost certainly in the double digit percentage per year range.

Norway peaked at 55% of Qt, and has been following the predicted downward slope exactly as predicted.

As predicted by Hubbert Linearization, two of the three top net oil exporters are producing below their peak production level. The third country, Saudi Arabia, is probably on the verge of a permanent and irreversible decline. Both Russia and Saudi Arabia are probably going to show significant increases in consumption going forward. It would seem from this case that these factors could interact this year produce to an unprecedented--and probably permanent--net oil export crisis.



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