

Global Urea Trade to 2013

Frances Wollmer
Director

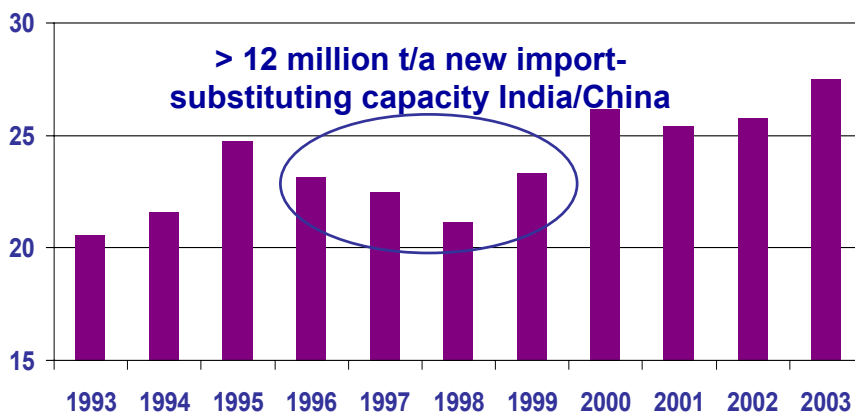
Fertilizer & Chemical Consultancy Ltd

IFA Production & International Trade Conference, Dubai
3-5 October, 2004

FCC FERTILIZER & CHEMICAL
Consultancy Limited

An FMB joint venture

Growth in Urea Trade, 1993-03 (million tonnes)



Source: IFA; FCC estimates

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Demand Drivers to 2013

- Population Growth
- Non-fertilizer demand - urea for DeNox (SCR) systems
- The threat to ammonium nitrate

Supply Drivers to 2013

- New projects focused on low-cost regions with (mostly) limited domestic markets
- Note: 1x1.1 million t/a project = 4% urea trade
- Limited import substitution capacity
 - Continued closures of old high-cost capacity in major consuming regions

Urea Supply

World-Scale Urea Projects, 2004-08

2004

Fudao II, China (Operational late-2003)
PIM II, Indonesia (Operational late 2003)
Phu My, Vietnam (Operational)
Qafco IV, Qatar (Operational)

2005

OMIFCO, Oman
NPC I Assaluyeh, Iran

2006

Kermanshah, Iran
Kujang, Indonesia
EFC II/ AlexFert, Egypt
Tianji/Fengyou, China
Safco IV, Saudi Arabia

2007/08

Kuche, China
Helwan, Egypt
NPC II Assaluyeh, Iran
SIUCI, Oman (?)

Total: 14.8 million t/a (1999-03=10.3)

Arab Gulf/Egypt Export Capacity: 9.0 million t/a

World-Scale Projects, 2009-13: Unfirm

East of Suez:

Qafco V, Safco V, Other Arab Gulf, Egypt (Red Sea), China, Malaysia, Vietnam, Australia/Brunei
(Indonesia unlikely!)

West of Suez:

Egypt (Med.), Trinidad, Fertinitro II, Nigeria, Brazil?

Closures

Arab Gulf Granular Urea Prices to 2013: 'Normal' Market Cycle



Source: FMB weekly price data; FCC 'The World Nitrogen Market: Key Issues and Pricing'

Floor Prices and Production Costs, 2008 (US\$/t urea)

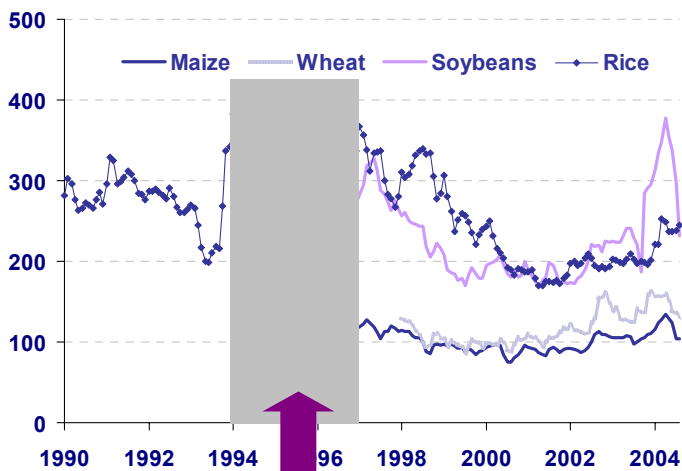
Floor (fob)			
Granular		Prilled	
AG/Egypt/Caribbean		AG	Black Sea
115-120		108	98

	Capacity (million t/a)	Feedstock (US\$/MMBtu)	Ex-Factory Costs*	Logistical Savings
Arab Gulf (fob)	18.3 (2008)	0.5-0.8	45-65	
US	6.8	4.5-6.5	135-185	20-50
India	19.8	3.5-6.0	110-200	20-30
-naphtha/fuel oil	7.0			
W. Europe	8.4	3.5-6.0	110-170	20-30

* Excluding debt service

Urea Demand

Next Crop Cycle: FAO Export Prices (US\$/t)



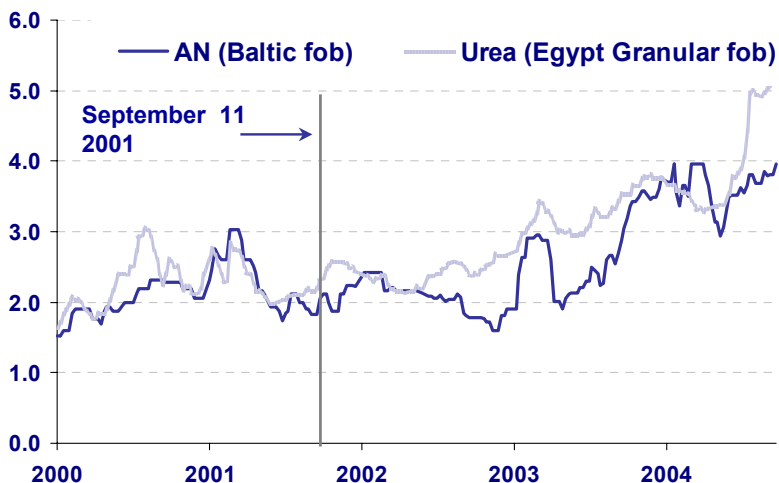
Last Crop Up-Cycle: Solid fertilizer urea demand growth = 16.5 million tonnes (Data: IFA)

Ammonium Nitrate Demand, 2001/02 (million tonnes)

	Total N	AN	Share
World	82.4	6.8	8.2%
<i>Of which:</i>			
Europe	11.7	2.7	23.4%
Former USSR	2.7	1.7	62.9%
North Africa	1.5	0.6	39.6%
North America	12.5	0.6	4.5%

Source: IFA; FCC estimates

AN versus Urea Prices (US\$/10kg N)



Source: FMB, FCC

Urea for DeNox to 2013

Diesel Engines (Trucks)

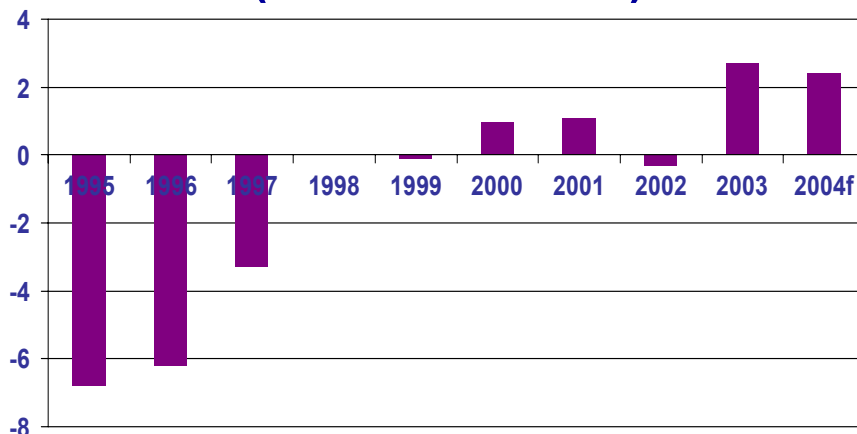
- West Europe focus (AdBlue)
- 1.0-1.3 million tonnes niche activity (high purity requirement; logistics to fragmented market)
- Impact on imports? Limited

Power Stations

- US focus
- Current US market 0.2-0.3 million tonnes increasing to 1.0-1.3 million tonnes by 2013
- Impact on Imports? Yes

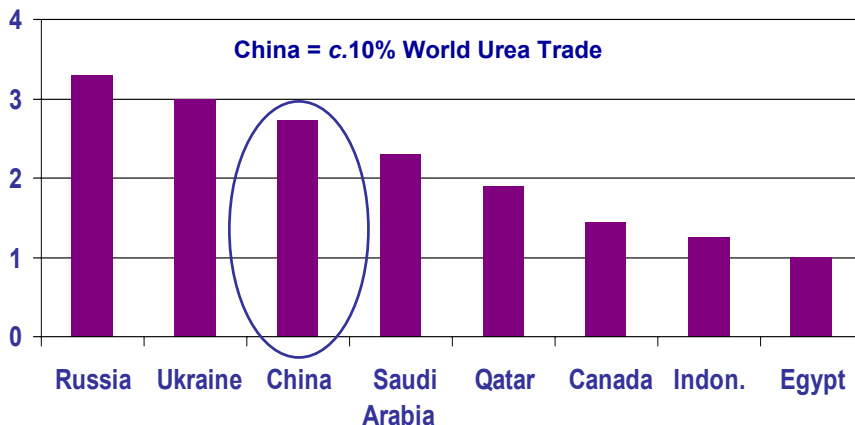
China: Net Trade Outlook

China: Net Urea Exports, 1995-04 (million tonnes)



Source: IFA, FCC estimates
f: FCC forecast

Top-8 Urea Exporters, 2003 (million tonnes)



Source: IFA; FCC estimates

China Urea Outlook, 2004-13

New Urea Capacity to 2008 (4.5-? million t/a)

But

Export Competitiveness:

- Why export energy? China **is** a high cost urea producer
- Renminbi:US Dollar peg

Rising Domestic Demand:

- New ag. policies (2004), ABC decline

China will remain a volatile factor in the short-term, but gradual move to net imports

Conclusions

- The market will absorb new capacity **currently** under construction (e.g. global nitrogen fertilizer use +6.2 million tonne N 2004-2007, IFA)
- Urea trade in 2013 = 43-45 million t
- Increase in traded tonnage relative to total consumption
- Shifting trade pattern

**But expect a roller coaster ride...
.... hold on tight!**