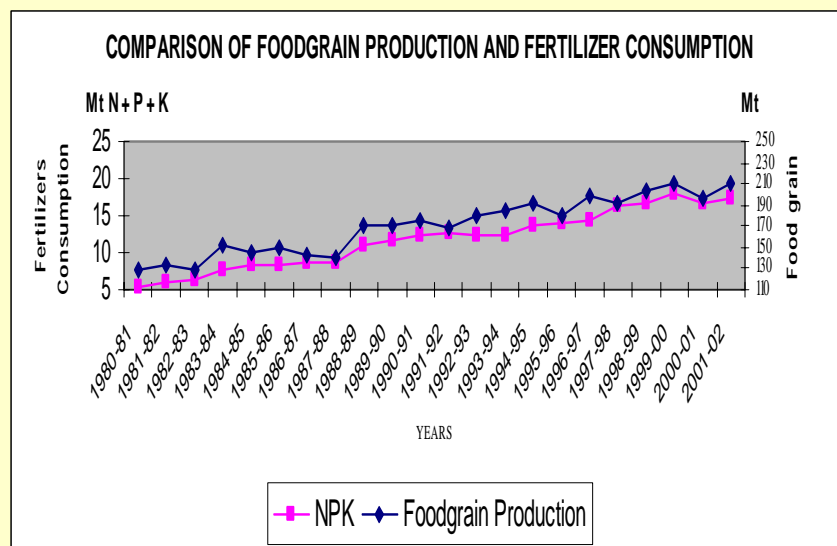


2002 IFA PRODUCTION AND INTERNATIONAL TRADE CONFERENCE
Quebec City (Canada), 16-18 October 2002

INDIA : PROSPECTS FOR FERTILIZER TRADE AND IMPACT OF LONG TERM FERTILIZER POLICY

by

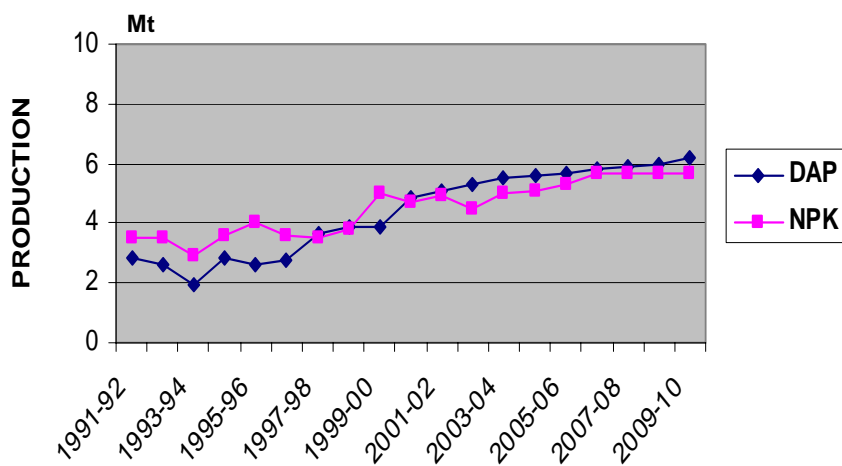
Akhil BHARDWAJ
VNB Consultants, India

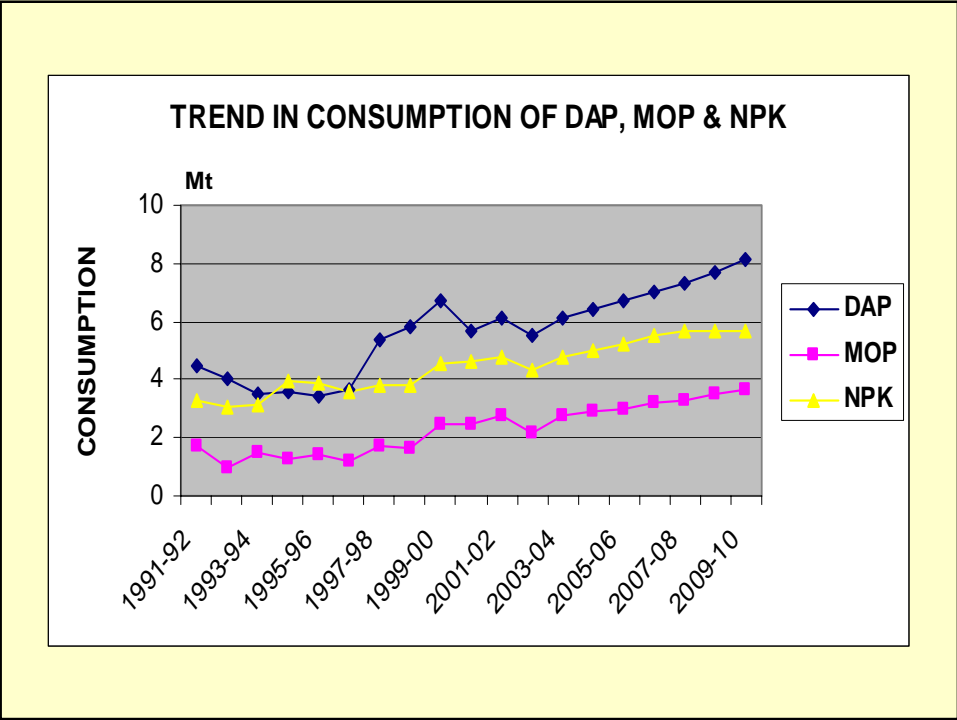
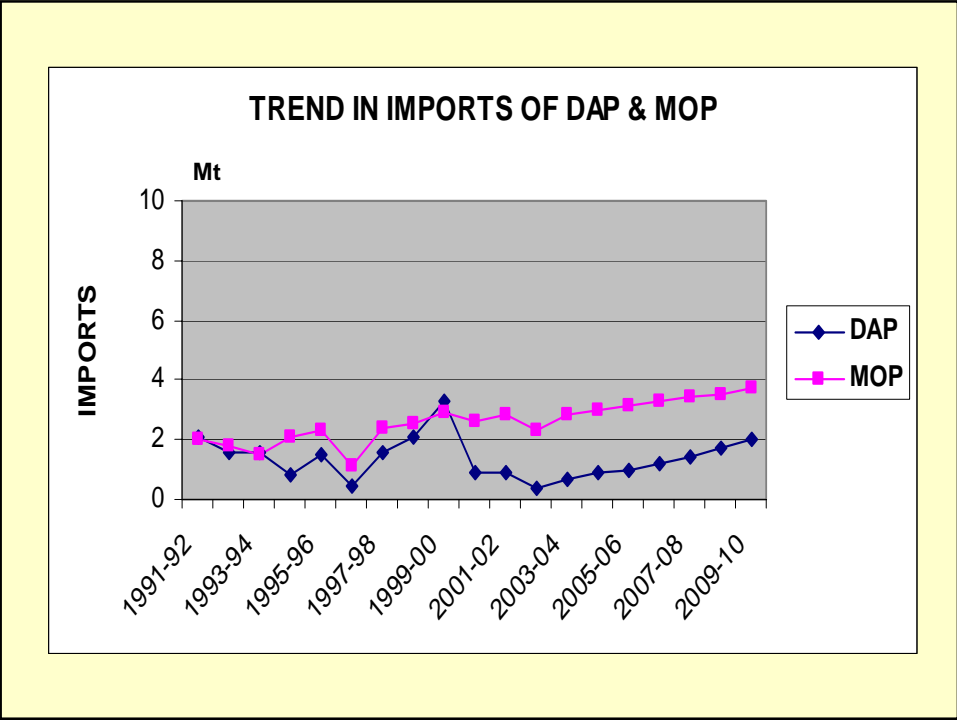


Location of DAP / NPK Plants in India



TREND IN PRODUCTION OF DAP & NPK





Location of Urea Plants in India



CAPACITY AND AVAILABILITY OF FEEDSTOCK
(‘000 t)

FEEDSTOCK	PRICES US\$/MMBtu	CAPACITY	ACTUAL PRODUCTION UREA (2001- 02)	(%)
1. NATURAL GAS	2 - 2.50	12,243	11,465	(59%)
2. NAPHTHA	6 - 6.50	6,013	5,441.7	(29%)
3. FUEL OIL	5.50 - 6.0	2,478	2,266.4	(12%)
TOTAL		20,734	19,173.5	(100%)

DOMESTIC GAS ALLOCATION VS AVAILABILITY

MMSCMD (Million Standard Cubic Meters per Day)

REGION	ALLOCATION	CURRENT SUPPLY (May 2002)	PROJECTION (2004-2005)
HBJ	48.50	39.9 (82%)	39.00 (80%)
GUJARAT	11.22	4.27 (38%)	5.02 (45%)
URAN	16.15	8.52 (53%)	9.35 (58%)
KG Basin	16.26	6.74 (42%)	6.96 (43%)

NATURAL GAS PROJECTS UNDER CONSIDERATION

Natural Gas from Iran – Land Pipeline – Deep Sea Pipeline	Uncertain
Unocal, USA proposes to bring 500 MMcfd of gas per day from Bangladesh to India.	Though project is viable and gas is likely to be available at around \$4.00 per MMBtu, Bangladesh government has so far not given clearance to the project.

LNG PROJECTS UNDER CONSIDERATION AND IMPLEMENTATION

PROJECT/PROMOTER/ SOURCE	LOCATION	CAPACITY Mt/a LNG	EXPECTED COMM. DATE	REMARKS
Petronet, India / Qatar	Dahej, Gujarat	5.0 (20 MMSCMD)	April 2004	Progressing
Petronet, India / Qatar	Cochin, Kerala	2.5	2005	Uncertain
Reliance, India / Iran	Jamnagar, Gujarat	5.0	2007	Possible
Enron, USA / Qatar	Dabhol, Maharashtra	5.0	-	Hold
Shell, USA	Hazira, Gujarat	2.5 (10 MMSCMD)	2007	Progressing

GROUP BASED CONCESSION SCHEME FOR UREA APPROVED BY GOM					
Group	Plants	R. P. Range	Estimated Production Capacity (000t)	Expected Production during (2002-03)	Estimated Subsidy in Each Group RPS - MRP
Gas Pre-92	6	R. P. Range =4942-6357 #Group Avg. R.P.=5273 (\$108)	4,981	4,481	\$108- \$100 = \$8
Gas Post-92	6	R. P. Range = 6140-7475 Group Avg. R. P.=6860 (\$141)	4,917	4,917	\$141- \$100 = \$41
Naphtha Pre-92	8	R. P. Range = 10679-12706 Group Avg. R. P.=11578 (\$238)	3,826	2,774	\$238- \$100 = \$138
Naphtha Post-92	2	R. P. Range = 10714-11574 Group Avg. R. P.=11144 (\$229)	1,728	1,728	\$229- \$100 = \$129
FO/LSHS	6	R. P. Range = 9883-11242 Group Avg. R. P.=10387 (\$213)	2,619	2,136	\$213- \$100 = \$113
Mixed Energy	4	R. P. Range = 7195-9185 Group Avg. R. P.=7877 (\$162)	2,996	2,996	\$162- \$100 = \$62
TOTAL	32		21,067	19,032	

Group Average R. P. = Weighted Average Retention Price of the Group

