# Export Supply from North Africa

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# European Expectations

- As of 2005, a continuing decline of European industry’s competitiveness

**But**

- Availability of raw materials, intermediates and finished products at competitive prices in North Africa

**And therefore**

- Financing projects in North Africa to ensure survival/supply

# Nitrogen Projects Floated in Boom

**Algeria**

Ammonia (jv Fertiberia)
Ammonia/Urea (jv Fertiberia)
Ammonia/Urea (Fertalges)
Ammonia+Urea (jv OCI) √
2xUrea (jv Bahwan) √
Ammonia/Urea (various private equity groups, Indian producers)

**Egypt**

Ammonia/Urea (Helwan) √
Ammonia/Urea (Mopco) √ (Egyptian Nitrogen jv)
Ammonia/Urea (jv EAgrium)
Ammonia /AN/AS (Alexfert)
Ammonia/Urea (KIMA)
UAN (EFC) √

Ammonia & Ammonia/Urea (El Delta)
Ammonia/Urea (various private equity groups, Indian producers [e.g. Birla, FACT])

# Phosphate Projects Floated in Boom

| Algeria | Egypt | Morocco | | Tunisia | |
|---|---|---|---|---|---|
| PA/DAP/NPK (jv Ferphos, Engro) | SSP/TSP (local) | PA/DAP (jv Fauji) | √ | PA (jv CIL) | √ |
| NPK (jv Fertiberia) | SSP/TSP (local) | MAP/TSP (jv Bunge) | √ | PA/TSP | √ |
| | PA/NPK (local) | PA/DAP (OCP) | √ | PA/DAP (jv) | |
| | PA (IFFCO/El Nasr/ IFC funding) | JPH (10xPA/DAP; OCP or jv ) | √ | | |

# The Status Quo

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# Nitrogen Status Quo

- Europe has become used to a steady increase in nitrogen from North Africa over 10 years
- The main source has been Egypt's private sector producers
- Exports have extended from urea to ammonia, AN, AS and UAN

# North African Nitrogen Capacity: Existing

| | Net Urea | Net AN | UAN | AS | Total N |
|---|---|---|---|---|---|
| **Current Capacity (million t/a)** | **6.1** | **2.0** | **1.2** | **0.4** | **4.0** |
| **Production 2009/10 (million tonnes)** | **6.0** | **1.3** | **0.2** | **0.2** | **3.3** |
| Algeria | | 0.1 | - | | |
| Egypt | 5.4 | 1.1 | 0.2 | 0.2 | |
| Libya | 0.6 | | | | |
| Tunisia | | 0.2 | | | |

**Source: FCC, IFA, Company Statistics**

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# North Africa Urea (Historical)

| | 2000 | 2005 | 2010e |
|---|---|---|---|
| **Production (MM t)** | | | |
| **World Total** | **109.1** | **130.0** | **155.2** |
| **North Africa** | **2.7** | **3.2** | **5.8** |
| **Share** | **3%** | **2%** | **4%** |
| Egypt | 1.9 | 2.4 | 5.0 |
| Libya | 0.9 | 0.8 | 0.8 |
| | | | |
| **Exports (MM t)** | | | |
| **World Total** | **26.2** | **29.8** | **40.5** |
| **North Africa** | **1.4** | **1.4** | **3.9** |
| **Share** | **5.4%** | **4.8%** | **9.6%** |
| **Share (Excl. China)** | **5.6%** | **5.1%** | **11.8%** |
| Egypt | 0.6 | 0.8 | 3.2 |
| Libya | 0.8 | 0.7 | 0.7 |

Source: FCC/IFA

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# Phosphate Status Quo

- Europe has been adapting to the loss of phosacid capacity over many years.
- Greater ammonium phosphate imports and shrinking demand have smoothed the transition.
- OCP and GCT have been the traditional North African suppliers and remain so. They are joined by Russia.

# North African AP/TSP Capacity (thousand t/a)

| | | APs | TSP |
|---|---|---|---|
| **Total** | | **6,360** | **2,062** |
| Morocco | Safi,Jorf Lasfar | 4,775 | 770 |
| Tunisia | Sfax, Mdhilla, Gabes | 1,585 | 1,292 |

# The Medium Term

# Key Issues

A number of global issues are relevant

- The end of oversupply
- Old industries
- Raw materials
- Infrastructural investment
- Investment costs
- Availability of finance
- Political fragilities and uncertainties
- Government involvement

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# Nitrogen Supply to 2015

- Availability of natural gas? No new projects are currently being floated.
- In Egypt - optimization and rationalization. No new export project.
- The outcome of current Algerian projects will determine the future .
- Libyan priority to re-start existing plants: mid-2012?

# North African Urea/UAN Capacity: Under Construction

| | | Net Urea | UAN | Total N |
|---|---|---|---|---|
| **Total** | | **4.8** | **0.5** | **2.4** |
| **Algeria** | | **3.5** | **-** | **1.6** |
| Sorfert (Orascom/Sonatrach) | Arzew | 1.1 | | 0.5 |
| Sharkia (Bahwan/Sonatrach) | Arzew | 2.3 | | 1.1 |
| **Egypt** | | **1.3** | **0.5** | **0.8** |
| EFC/OCI | Ain Sukhna | | 0.5 | 0.2 |
| Egyptian Nitrogen (MOPCO/Agrium) | Damietta | 1.3 | | 0.6 |

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# Phosphate Supply to 2015

- New export supply will be available only from Morocco .
- A part of the new supply at Jorf will come from jvs serving their own markets outside Europe.
- Developments in Egypt will be partly aimed at the domestic market .

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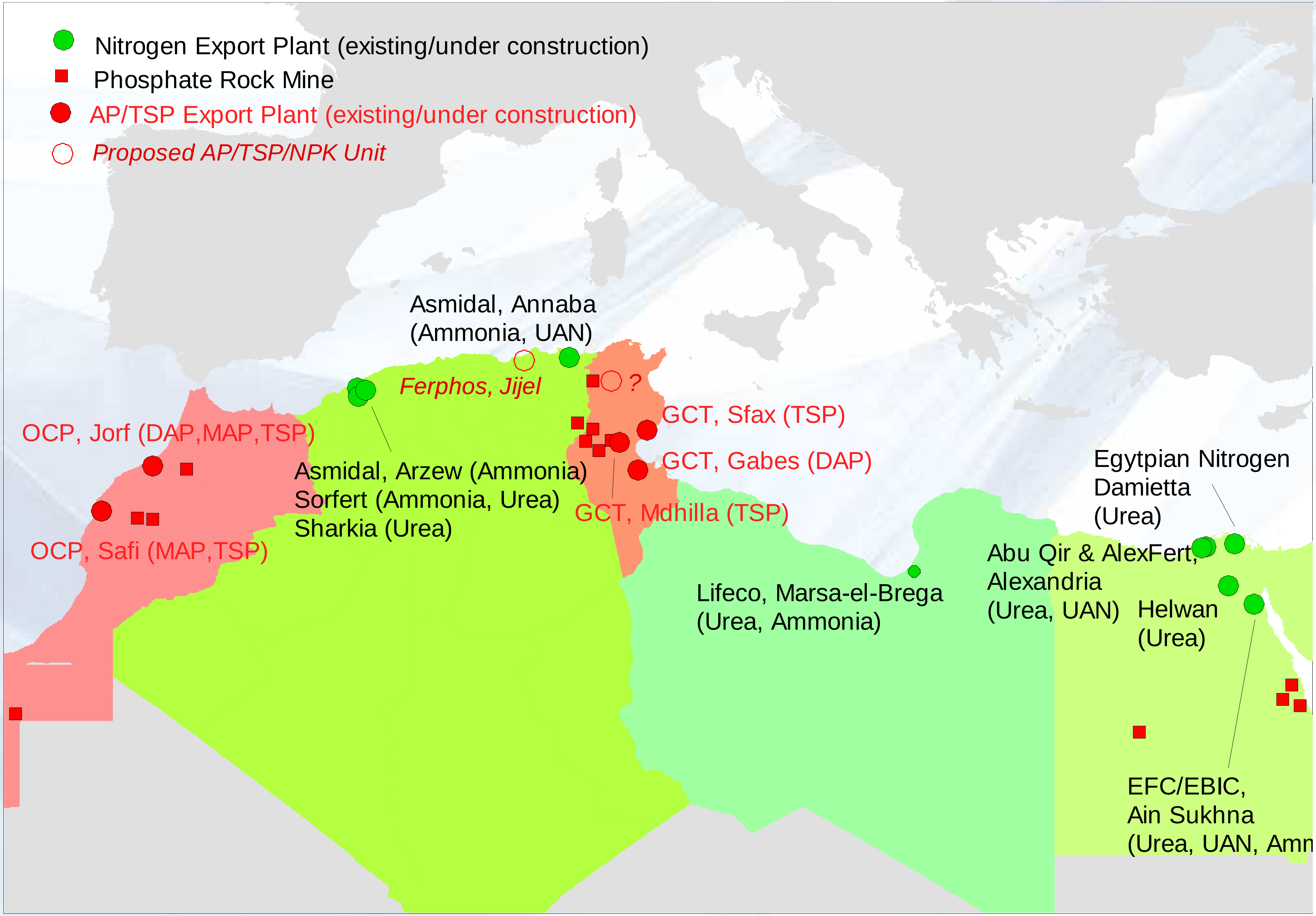
# North African New Medium-term AP/TSP Capacity (thousand t/a)

| | | APs | TSP |
|---|---|---|---|
| **Total North Africa** | | **3,670** | **500** |
| Morocco | Jorf Phosphate Hub | 4,000 | |
| Tunisia | Mdhilla | | 500 |
| Closures? | Sfax | - 330 | |

# North African Fertilizer Export Facilities



# Conclusions

# Changing Patterns

- European industries are unlikely to be foremost in jvs in North Africa- except the Yara Libyan link.
- European industries are unlikely to distribute product  from North Africa.
- OCI, Agrium and Yara lead the way in establishing marketing position in Europe to move products from North African plants.

# Interdependence

In 2009:

50% of N. African urea exports to Europe

55% of imports into Europe from N. Africa

20% of N. African AP/TSP exports to Europe

50% of imports into Europe from N. Africa

We already have an integrated market with export supply due to grow.

# West Europe Raw Material Imports, 2009

| | Ammonia (MM t ) | Gas/LNG (BCM) | Phosphate Rock (MM t ) | Phos Acid (MM t P2O5) |
|---|---|---|---|---|
| Total | 4.0 | 397 | 4.5 | 0.6 |
| N.Africa | 0.8 | 63 | 1.6 | 0.3 |
| Share | 20% (27% excl. intra-regional) | 16% (Spain/Italy 45-50%) | 36% | 50% |

**Source: FCC/IFA/BP**

# The Afcome Question

- Afcome's invitation to speak on Mediterranean supply come in May 2011

- At that time political uncertainty ruled.

**What this analysis shows is the mutual dependence of North Africa and Europe in our sector. A serious dislocation of supply from North Africa would not be easily replaced.**

# Thank you for your attention

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