Case Studies of Integrated Regional Solutions

A Recent Practical Example: The Mtwara Development Corridor

(Tanzania, Mozambique, Malawi and Zambia)
MTWARA Development Corridor... Its Time Has Arrived?

“Colonial development was very largely territorial in conception to the limited extent that the relatively neglected regions of the Mtwara Development Corridor experienced it. The most spectacular effort placed into development, the Groundnut Scheme, was visionary in terms of its imperial imperatives but poorly conceived in terms of realities on the ground. The Mtwara SDI suggests moving finally into a definitively post-colonial era. While the core elements may remain at first sight territorial, the whole thinking behind the SDI projects is trans-territorial, trans-national development. It suggests the way that pan-African development can proceed, not on the basis of rhetoric and willpower but of practical building blocks allowing for African integration. Transport links become nodes, which will create a networked grid, hopefully paid for by the renewal of mineral prosperity, but allowing for systematic regional development that can knit together different countries. River basins and lakes can become, as to some extent they have been in the past under far more restricted circumstances, avenues of interaction rather than barriers.”

(Prof. William Freund, Emeritus Professor, Department of Economic History, University Of KwaZulu-Natal, Durban, South Africa: Concluding Comments On A Paper Commissioned By The RSDI Unit On “An Economic History Of The Mtwara Development Corridor”, January 2006; p.47)
Political Set Up Of MTWARA Corridor

• Mtwara Development Corridor Agreement:
  – Signed by Heads of State, On 14<sup>th</sup> December 2004, In Lilongwe, Malawi
    • Republic Of Malawi (Minister of Transport + Public Works as political champion)
    • Republic Of Mozambique (Minister of Transport + Communications as political champion)
    • United Republic Of Tanzania (Minister of Works, as political champion)
    • Republic Of Zambia (Minister of Communications + Transport as political champion)

  – Agreement Supported By Complementary Agreements:
    • Songwe River Development Project Agreement Signed By Minister of Lands and Human Settlements Development, Tanzania and Minister of Water Development, Malawi On 1<sup>st</sup> July 2001, In Karonga, Malawi;
    • Unity Bridge 1 Agreement Signed By Presidents Of Mozambique And Tanzania On 8<sup>th</sup> January 2005, In Pemba, Mozambique; and,
    • Memorandum of Understanding (MoU) To Promote A Heavy Capacity Ferry Service from Mbamba Bay in Tanzania To/From Nkhata Bay In Malawi, Signed At Ministerial Level On 15<sup>th</sup> August 2003 In Dar es Salaam Tanzania.

MTWARA Corridor... Covers a large area with a significant population but in remote locations

<table>
<thead>
<tr>
<th>Country</th>
<th>Area %</th>
<th>Km²</th>
<th>Pop</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malawi</td>
<td>70%</td>
<td>49,000</td>
<td>5,910m</td>
</tr>
<tr>
<td>Mozambique</td>
<td>25%</td>
<td>50,068</td>
<td>2,044m</td>
</tr>
<tr>
<td>Tanzania</td>
<td>41%</td>
<td>160,785</td>
<td>8,433m</td>
</tr>
<tr>
<td>Zambia</td>
<td>35%</td>
<td>94,667</td>
<td>3,340m</td>
</tr>
<tr>
<td>Total</td>
<td>38%</td>
<td>354,520</td>
<td>19,727m</td>
</tr>
</tbody>
</table>

The Regional Spatial Development Initiative Programme (RSDIP) is sponsored by the South African Department of Trade and Industry (DTI) and hosted at the Development Bank of Southern Africa (DBSA).
SYNCHRONISING INVESTMENT

Viable Investment Clusters And Trade Flows

Addresses Four Market Failures:
✓ Infrastructure Economies Of Scale
✓ Synchronise Infrastructure Users
✓ Configure Cross-Border Projects
✓ Overcome Information And Data Constraints

Required Infrastructure With Revenue Stream
MTWARA Development Corridor...
Interlocking Infrastructure Sub-Systems
Mtwarana SDI Strategy: Original ‘Business Case’
Activities To Support A Pre-Feasibility Study (PFS) For The Malawi – Tanzania Industrial Development Cluster (MTIDC) Project Is To Be Anchored By An Inter-State Multi-Sector Project Task Team Led By The MNREE (Malawi) and MOME (Tanzania) With The NDC (Tanzania) As Secretariat.

Support From DBSA-PPFS/RSDIP To Assist In The Procurement Of A Strategic Investor For The Integrated Mchuchuma-Liganga Project Has Been Guided By A Multi-Sector Project Task Team Chaired By The Ministry of Minerals And Energy With The NDC (Tanzania) As Secretariat.
CHINA TO BUILD $500M, 1,000 MW PLANT IN MALAWI

Lilongwe: China Gezhouba Group Corporation plans to build a $500 million, 1,000 megawatts thermal plant in Malawi, which suffers from frequent power shortages, the minister of energy and mining said on Thursday. "Construction of the power plant, which is expected to cost around $500 million, is scheduled to start next year and will be completed between 2014 and 2015," Cassim Chilumpha told Reuters.

Malawi's hydro power plants produce a total of about 280 MW per day, compared with rising demand of around 300 MW, which has resulted in daily power cuts costing the country an estimated $215 million per year in lost output. The coal-fired plant will be built in the central province along a railway line Brazil's Vale is rehabilitating to transport coal from Mozambique via Malawi to the ports at the coast. Part of that coal will be used to fire the plant.

In 2010, Malawi had 63 days of power outages, the worst out of 24 sub-Saharan countries (from TMSA Digest 24th August 2012).
What Is The Proposed Technology (XTL) To Be Used In MTIDC Project?

- Coal
- Gasifier
- Fischer Tropsch / Pyrolysis
- Separation
- Polymers
- Power Generation
- Electricity
- Urea Plant
- Urea / Ammonia
- Petrol Diesel
- Oils and Lubricants
- Sulphur
- Building Aggregate / Clinker
<table>
<thead>
<tr>
<th>Facility</th>
<th>Location</th>
<th>Products</th>
<th>Capital (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMS Separator</td>
<td>Malawi</td>
<td>Ilmenite, Rutile, Zircon</td>
<td></td>
</tr>
<tr>
<td>HMS Smelter</td>
<td>Malawi</td>
<td>Ilmenite, Pig Iron, TiO₂</td>
<td>$ 622,600,000</td>
</tr>
<tr>
<td>XTL</td>
<td>Malawi</td>
<td>Diesel, Naphtha, Wax, Ash - Clinker substitute, Sulphur, Electrical Power</td>
<td>$ 613,140,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$ 207,530,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$ 2,766,255,000</td>
</tr>
<tr>
<td>Urea Fertilizer</td>
<td>Malawi</td>
<td>Ammonia, Urea, Ammonium Nitrate</td>
<td>$ 46,200,000</td>
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<tr>
<td>XTL</td>
<td>Tanzania</td>
<td>Diesel, Naphtha, Wax, Ash - Clinker substitute, Sulphur, Electrical Power</td>
<td>$ 3,065,000,000</td>
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<tr>
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<td></td>
<td>$ 3,688,300,000</td>
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<tr>
<td>Urea Fertilizer</td>
<td>Tanzania</td>
<td>Ammonia, Urea, Ammonium Nitrate</td>
<td>$ 154,000,000</td>
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</tbody>
</table>
Envisaged Benefits To Malawi

- **Malawi**: The following figures give some idea of the extent of benefits Malawi could receive from the MTIDC project comprising of the **XTL Project** and the **Heavy Mineral Sand (HMS) Mine, Separation Plant and Smelter Projects**.
  
  - Power: up to 265MW/year (incl. Smelter project)
  - Diesel: 150,000 tons/year
  - Urea: 80,000 tons/year
  - Sulphur: 30,000 tons/year

- **Heavy Mineral Sand (HMS) Mine, Separation Plant and Smelter Projects** will provide unlock one of the most valuable untapped mineral resources in the country and if the project proceeds to a Smelter will constitute, by far the biggest investment the country has witnessed. The key aspects of this genuinely catalytic project are:
  
  - Zircon and Rutile Production: 100,000 tons/year
  - Titanium Dioxide (TiO2) Production: 562,000 tons/year
  - Fe (Pig Iron) Production: 625,000 tons/year
  - HMS/Smelter Project Employment: 2,075 permanent jobs
  - Lake Transport: approx. 2.40 million tons/year
  - Rail Transport: approx. 1.21 million tons/year
  - Road Transport: approx. 300,000 tons/year

- The above excludes other industries that would be develop, which is estimated to generate an additional 8,000 jobs and these additional industries will create further taxes and revenues for government.
Envisaged Benefits To Tanzania

- **Tanzania**: The following figures give some idea of the extent of benefits Tanzania could receive from the *XTL Project*, which will avail products for exports and for domestic use, for products that are currently imported thus saving foreign exchange.
  - Diesel Production: 150,000 tons/year plus 480,000 tons/year
  - Light and Heavy Naphtha Oil Production: 780,000 tons/year
  - Power Production: Up To 350 MW/year
  - Urea Production: 300,000 tons/year
  - Sulphur Production: 105,000 tons/year
  - XTL Project Employment: 2,810 permanent jobs
  - Lake Transport (Coal Barges): approx. 1,200,000 tons/year
  - Rail Transport: approx. 675,000 tons/year
  - Road transport: approx. 950,000 tons/year

- The above excludes other industries that would be develop, which is estimated to generate an additional 10,500 jobs and these additional industries will create further taxes and revenues for government.
RSDIP Program Management Unit

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