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Second Follow-up Subregional Meeting on the Promotion of Intra-African Industrial Co-operation within the Framework of the Industrial Development Decade for Africa (IDDA)*

Kampala, Uganda, 13-15 March 1991

REVISED INTEGRATED INDUSTRIAL PROMOTION PROGRAMME
FOR THE EASTERN AND SOUTHERN AFRICAN SUBREGION

PROPOSALS FOR THE SUBREGIONAL PROGRAMME FOR THE SECOND IDDA

PROJECT PROFILES

Background document No. 2**

Prepared by
the UNIDO Secretariat

* This meeting is being organized by UNIDO, in co-operation with the Government of Uganda.

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This document has not been edited.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTRODUCTION.</td>
<td>1</td>
</tr>
<tr>
<td>LIST OF PROJECTS INCLUDED IN THE REVISED INTEGRATED</td>
<td>2 - 7</td>
</tr>
<tr>
<td>INDUSTRIAL PROMOTION PROGRAMME FOR THE EASTERN AND</td>
<td></td>
</tr>
<tr>
<td>SOUTHERN AFRICAN SUBREGION, PROPOSALS FOR THE</td>
<td></td>
</tr>
<tr>
<td>SUBREGIONAL PROGRAMME FOR THE SECOND IDDA</td>
<td></td>
</tr>
<tr>
<td>PROJECT PROFILES: CORE/INVESTMENT PROJECTS.</td>
<td>8 - 59</td>
</tr>
<tr>
<td>PROJECT PROFILES: SUPPORT PROJECTS.</td>
<td>60 - 101</td>
</tr>
</tbody>
</table>
INTRODUCTION

This document presents the profiles of the projects included in background paper No. 1: Revised Integrated Industrial Promotion Programme for the Eastern and Southern African Subregion, Proposals for the Subregional Programme for the second IDDA (PPD.183(SPEC)).

The revision of the previous integrated industrial promotion programme, and the projects presented here as an input for the preparation of the subregional programme for the second IDDA, have been prepared by the UNIDO Secretariat. This revision is based on information and documents available at UNIDO Headquarters, and on data and other information collected during four preparatory missions fielded by UNIDO in the member countries of the subregion. These missions visited representatives of governmental institutions and research centres concerned with economic development and industrial co-operation, as well as industrial enterprises and leading subregional organizations. Some of the countries visited were not in a position to provide the members of the mission with all the necessary information on the status of projects included in the previous programme or they were not able to propose new projects for possible incorporation in the new subregional programme. Therefore, the list of projects and the project profiles should be considered tentative for the purpose of examination at this subregional meeting.

The document does not include the project profiles of the projects included in the industrial co-operation programmes of the Southern Africa Development Coordination Conference (SADCC) and of the Indian Ocean Commission (IOC). These projects have been tentatively included in the IDDA programme for discussion at the subregional meeting, and only after approval of their inclusion in the IDDA programme will project profiles be elaborated for them as well. The profiles of the projects identified in the Integrated Industrial Development Programme for the Preferential Trade Area for Eastern and Southern States (PTA) have not been incorporated here either because that programme is being revised by the PTA Secretariat and by the meeting of the PTA sub-committee on the the Integrated Industrial Development Programme for the PTA, being held immediately preceding the IDDA Subregional Meeting in Kampala, Uganda. The PTA revised Integrated Programme will be distributed for information and discussion at the IDDA meeting.
<table>
<thead>
<tr>
<th>No.</th>
<th>Project Description</th>
<th>Country</th>
<th>Date</th>
<th>Status</th>
<th>Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Upgrading and Diversification of products from ZISCOSTEEL</td>
<td>Zimbabwe</td>
<td>1983</td>
<td>B</td>
<td>MET</td>
</tr>
<tr>
<td>2.</td>
<td>Expansion of iron and steel mill</td>
<td>Uganda</td>
<td>1983</td>
<td>B</td>
<td>MET</td>
</tr>
<tr>
<td>3.</td>
<td>Integrated iron and steel mill</td>
<td>Kenya</td>
<td>1983</td>
<td>C</td>
<td>MET</td>
</tr>
<tr>
<td>4.</td>
<td>Manufacture of diesel engines for tractors, trucks and buses</td>
<td>Zimbabwe</td>
<td>1983</td>
<td>B</td>
<td>ENG</td>
</tr>
<tr>
<td>6.</td>
<td>Manufacture of electric motors</td>
<td>Zambia</td>
<td>1983</td>
<td>B</td>
<td>ENG</td>
</tr>
<tr>
<td>7.</td>
<td>Manufacture of electric transformers</td>
<td>Zambia</td>
<td>1983</td>
<td>B</td>
<td>ENG</td>
</tr>
<tr>
<td>8.</td>
<td>Ethiopian potash</td>
<td>Ethiopia/Libya</td>
<td>1983</td>
<td>B</td>
<td>CHEM</td>
</tr>
<tr>
<td>9.</td>
<td>Establishment of iron and steel mill</td>
<td>Tanzania</td>
<td>1983</td>
<td>C</td>
<td>CHEM</td>
</tr>
<tr>
<td>10.</td>
<td>Phosphate fertilizer plant</td>
<td>Uganda</td>
<td>1983</td>
<td>B</td>
<td>CHEM</td>
</tr>
<tr>
<td>11.</td>
<td>Production of phosphate fertilizers</td>
<td>Burundi</td>
<td>1983</td>
<td>C</td>
<td>CHEM</td>
</tr>
<tr>
<td>12.</td>
<td>Production of caustic soda</td>
<td>Kenya/India</td>
<td>1983</td>
<td>B</td>
<td>CHEM</td>
</tr>
<tr>
<td>13.</td>
<td>Sheet-glass production unit</td>
<td>Madagascar</td>
<td>1983</td>
<td>B</td>
<td>CHEM</td>
</tr>
</tbody>
</table>

**PROJECTS IDENTIFIED IN THE FIRST INTEGRATED PROGRAMME (1983)**

<table>
<thead>
<tr>
<th>No.</th>
<th>Project Description</th>
<th>Country</th>
<th>Date</th>
<th>Status</th>
<th>Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.</td>
<td>Establishment of integrated iron and steel mill</td>
<td>Madagascar</td>
<td>1988</td>
<td>B</td>
<td>MET</td>
</tr>
<tr>
<td>15.</td>
<td>Establishment of a steel re-rolling mill</td>
<td>Zambia</td>
<td>1988</td>
<td>B</td>
<td>MET</td>
</tr>
<tr>
<td>17.</td>
<td>Manufacture of low-cost vehicles</td>
<td>Ethiopia</td>
<td>1988</td>
<td>C</td>
<td>ENG</td>
</tr>
<tr>
<td>18.</td>
<td>Spare parts and engineering hand tools factory</td>
<td>Ethiopia</td>
<td>1988</td>
<td>C</td>
<td>ENG</td>
</tr>
<tr>
<td>21.</td>
<td>Tractor- and animal-drawn farm implements factory</td>
<td>Ethiopia</td>
<td>1988</td>
<td>B</td>
<td>ENG</td>
</tr>
<tr>
<td>22.</td>
<td>Truck-trailer and bodies factory</td>
<td>Ethiopia</td>
<td>1988</td>
<td>B</td>
<td>ENG</td>
</tr>
<tr>
<td>23.</td>
<td>Multi-purpose Engineering workshop</td>
<td>Ethiopia</td>
<td>1988</td>
<td>B</td>
<td>ENG</td>
</tr>
<tr>
<td>24.</td>
<td>Establishment of salt refining and packaging plant</td>
<td>Somalia</td>
<td>1988</td>
<td>C</td>
<td>CHEM</td>
</tr>
<tr>
<td>25.</td>
<td>Expansion of a Berbera gypsum factory</td>
<td>Somalia</td>
<td>1988</td>
<td>A</td>
<td>CHEM</td>
</tr>
<tr>
<td>26.</td>
<td>Rehabilitation of urea fertilizer plant</td>
<td>Somalia</td>
<td>1988</td>
<td>B</td>
<td>CHEM</td>
</tr>
<tr>
<td>27.</td>
<td>Manufacture of carbon black</td>
<td>Kenya</td>
<td>1988</td>
<td>C</td>
<td>CHEM</td>
</tr>
<tr>
<td>29.</td>
<td>Rehabilitation of copper oxychloride plant</td>
<td>Zambia</td>
<td>1988</td>
<td>B</td>
<td>CHEM</td>
</tr>
<tr>
<td>30.</td>
<td>Rehabilitation of copper oxochloride plant</td>
<td>Zimbabwe</td>
<td>1988</td>
<td>B</td>
<td>CHEM</td>
</tr>
<tr>
<td>31.</td>
<td>Integrated chlor-alkali and PVC plant</td>
<td>Zimbabwe</td>
<td>1988</td>
<td>C</td>
<td>CHEM</td>
</tr>
<tr>
<td>32.</td>
<td>Chrome tanning salts</td>
<td>Zimbabwe</td>
<td>1988</td>
<td>B</td>
<td>CHEM</td>
</tr>
<tr>
<td>33.</td>
<td>Production of caustic soda</td>
<td>Tanzania</td>
<td>1988</td>
<td>B</td>
<td>CHEM</td>
</tr>
<tr>
<td>34.</td>
<td>Lake Natron soda ash project</td>
<td>Tanzania</td>
<td>1988</td>
<td>B</td>
<td>CHEM</td>
</tr>
<tr>
<td>35.</td>
<td>Mbagala sheet glass project</td>
<td>Tanzania</td>
<td>1988</td>
<td>C</td>
<td>CHEM</td>
</tr>
<tr>
<td>36.</td>
<td>Production of cement in Indian Ocean Island countries</td>
<td>Madagascar/IOC</td>
<td>1968</td>
<td>B</td>
<td>BUIL</td>
</tr>
<tr>
<td>37.</td>
<td>Cement blending and packaging plant (and extension of the existing railway line)</td>
<td>Lesotho</td>
<td>1988</td>
<td>B</td>
<td>BUIL</td>
</tr>
<tr>
<td>38.</td>
<td>Edible oil production</td>
<td>Lesotho</td>
<td>1988</td>
<td>B</td>
<td>AGRO</td>
</tr>
<tr>
<td>39.</td>
<td>Coconut processing programme</td>
<td>Comoros</td>
<td>1988</td>
<td>C</td>
<td>AGRO</td>
</tr>
<tr>
<td>40.</td>
<td>Fish-processing facilities</td>
<td>Uganda</td>
<td>1988</td>
<td>A</td>
<td>AGRO</td>
</tr>
<tr>
<td>NO</td>
<td>PROF. PROJECT</td>
<td>COUNTRIES</td>
<td>DATE</td>
<td>STATUS</td>
<td>SECTOR</td>
</tr>
<tr>
<td>----</td>
<td>---------------</td>
<td>-----------</td>
<td>------</td>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td>39</td>
<td>Production of galvanized steel wire and light structural products</td>
<td>Lesotho/PTA</td>
<td>1991</td>
<td>B</td>
<td>MET</td>
</tr>
<tr>
<td>41</td>
<td>Establishment of a joint-venture for bicycles assembling</td>
<td>SWA/MOZ</td>
<td>1991</td>
<td>B</td>
<td>ENG</td>
</tr>
<tr>
<td>43</td>
<td>Expansion of existing production of pumps for irrigation and rural water supply</td>
<td>SWA/ZIM</td>
<td>1991</td>
<td>B</td>
<td>ENG</td>
</tr>
<tr>
<td>44</td>
<td>Expansion of Lesotho Pharmaceuticals factory</td>
<td>Lesotho/PTA</td>
<td>1991</td>
<td>B</td>
<td>CHEM</td>
</tr>
<tr>
<td>45</td>
<td>Revitalization of cement formulation plant</td>
<td>SWA/MOZ</td>
<td>1991</td>
<td>B</td>
<td>CHEM</td>
</tr>
<tr>
<td>46</td>
<td>Expansion of Swaziland textile industries</td>
<td>Namibia/Botswana</td>
<td>1991</td>
<td>B</td>
<td>AGRO</td>
</tr>
<tr>
<td>48</td>
<td>Establishment of an animal glue factory</td>
<td>Botswana/PTA</td>
<td>1991</td>
<td>B</td>
<td>AGRO</td>
</tr>
<tr>
<td>49</td>
<td>Establishment of an integrated textile complex</td>
<td>Lesotho/ZAM/ZIM</td>
<td>1991</td>
<td>B</td>
<td>AGRO</td>
</tr>
</tbody>
</table>

NEW PROJECTS INCLUDED IN THE NEW INTEGRATED PROGRAMME (1991)

- 41.
- 42.
- 43.
- 44.
- 45.
- 46.
- 47.
- 48.
- 49.

PROJECTS NOT RETAINED IN THE NEW INTEGRATED PROGRAMME (1991)

1. (6) Irrigation equipment plant Zambia 1983 NO ENG
2. (7) Copper fabrication plant for Eastern and Southern Africa Zambia 1983 NO ENG
3. (27) Cotton Weaving plant Lesotho 1988 NO AGRO
4. (28) Blanket manufacture Lesotho 1988 NO AGRO

SUPPORT PROJECTS IDENTIFIED IN THE FIRST INTEGRATED PROGRAMME (1983)

1. S1. Transformation of Severe research station into a subregional R & D centre Uganda/ECA-MULPOC 1983 C IB
3. S3. Inventory of subregional training facilities SADCC 1983 C DS
7. S7. Improvement and development of the cement industry SADCC 1983 C IB

SUPPORT PROJECTS IDENTIFIED IN THE REVISED INTEGRATED PROGRAMME (1988)

9. S2. Upgrading of Ethiopian Management Institute into a subregional centre Ethiopia 1988 C IB
10. S3. Regional Sugar Cane Training Centre for Africa (RSCICA) Mauritius 1988 B IB
11. S4. Upgrading of Management Training and Advisory Centre (MTAC) into a subregional centre Uganda 1988 C IB
12. S5. Upgrading of training and design facilities of the spare parts manufacturing plant into a subregional centre Ethiopia 1988 C IB
14. S7. Upgrading the Mogadishu Industrial Vocational Training Centre (IVTC) into a subregional centre Somalia 1988 C IB
15. S8. Establishment of a Metallurgical Technology Centre for PTA countries Zimbabwe 1988 B IB
17. S10. Tanzania Institute of Leather Technology Tanzania 1988 C IB
<table>
<thead>
<tr>
<th>NO</th>
<th>PROF. PROJECT</th>
<th>COUNTRIES</th>
<th>STATUS</th>
<th>SECTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>21.</td>
<td>Study to assess the potential for adding value to commodities passing through Namibia from neighbouring countries</td>
<td>SADCC</td>
<td>C</td>
<td>DS</td>
</tr>
<tr>
<td>22.</td>
<td>Study on the impact of the construction of the Trans-Kalahari Road to generate industrial ventures projects with countries in the subregion</td>
<td>BOT/SUBREGION</td>
<td>C</td>
<td>DS</td>
</tr>
<tr>
<td>23.</td>
<td>Assistance in exploring and establishing links (e.g. SADCC) to project information registers, import agencies and trade organizations which could put Namibian exporters in contact with an increasing number of customers</td>
<td>NAM/SADCC</td>
<td>C</td>
<td>DS</td>
</tr>
<tr>
<td>24.</td>
<td>Assessment of the potential spin-off of the SUA PAN soda ash project and possible partnerships and complementarities with countries in the subregion to process by-products</td>
<td>BOT/SUBREGION</td>
<td>C</td>
<td>DS</td>
</tr>
<tr>
<td>25.</td>
<td>Establishment of diamonds cutting facilities and training centre</td>
<td>NAM/BOT</td>
<td>C</td>
<td>IB</td>
</tr>
<tr>
<td>26.</td>
<td>Update a feasibility study to exploit coal reserves as alternative source for energy production to be exported to neighbouring countries</td>
<td>BOT/ZIM/ZAM</td>
<td>C</td>
<td>DS</td>
</tr>
<tr>
<td>27.</td>
<td>Strengthen the capabilities for monitoring, follow-up and control of trade protocols and agreement of the PTA Secretariat</td>
<td>PTA</td>
<td>C</td>
<td>IB</td>
</tr>
<tr>
<td>28.</td>
<td>Processing of semi-precious stones (SSI)</td>
<td>LES/SUBREGION</td>
<td>C</td>
<td>DS</td>
</tr>
<tr>
<td>29.</td>
<td>Feasibility study for the exploitation of phosphate reserves in the Barren islands</td>
<td>MAG/IOC</td>
<td>B</td>
<td>DS</td>
</tr>
<tr>
<td>30.</td>
<td>Market study for the production of fishing nets</td>
<td>MAG/SUBREGION</td>
<td>B</td>
<td>DS</td>
</tr>
<tr>
<td>31.</td>
<td>Promotion of co-operation among SSI in IOC countries</td>
<td>IOC</td>
<td>C</td>
<td>IB</td>
</tr>
<tr>
<td>32.</td>
<td>Programme and fund to support the establishment of joint-ventures between partners in the subregion</td>
<td>ICC</td>
<td>C</td>
<td>IB</td>
</tr>
<tr>
<td>33.</td>
<td>Programme for the promotion of export of industrial products and assistance to the packaging industry</td>
<td>IOC</td>
<td>B</td>
<td>DS</td>
</tr>
<tr>
<td>34.</td>
<td>Programme for standardization, quality control and metrology in IOC countries</td>
<td>IOC</td>
<td>A</td>
<td>IB</td>
</tr>
<tr>
<td>35.</td>
<td>Establishment of a textile technology centre</td>
<td>IOC/SUBREGION</td>
<td>B</td>
<td>IB</td>
</tr>
<tr>
<td>36.</td>
<td>Expansion of an existing marine resources training and research centre</td>
<td>IOC/SUBREGION</td>
<td>C</td>
<td>IB</td>
</tr>
<tr>
<td>No.</td>
<td>PROF.</td>
<td>PROJECT</td>
<td>COUNTRIES</td>
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<tr>
<td>-----</td>
<td>-------</td>
<td>--------------------------------------------------------------------------</td>
<td>--------------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>1.</td>
<td>MET/01</td>
<td>Initiation of activities of the PTA Metallurgical Technology Centre</td>
<td>PTA</td>
<td>B</td>
</tr>
<tr>
<td>2.</td>
<td>MET/02</td>
<td>Product rationalization and upgrading in iron and steel plants/rolling mills in the PTA subregion</td>
<td>PTA/ETH/MOZ/MAU/KEN/TAN</td>
<td>C</td>
</tr>
<tr>
<td>3.</td>
<td>MET/03</td>
<td>Rehabilitation and expansion of the East African Steel Corporation Mill in Uganda</td>
<td>UGANDA/PTA</td>
<td>B</td>
</tr>
<tr>
<td>4.</td>
<td>MET/04</td>
<td>Development of a programme for the production of sponge iron in the PTA subregion</td>
<td>PTA/MOZ/TAN/UGA/ZAM/ETH</td>
<td>C</td>
</tr>
<tr>
<td>5.</td>
<td>MET/05</td>
<td>Integrated Development Programme for metal surface treatment in PTA countries</td>
<td>PTA</td>
<td>C</td>
</tr>
<tr>
<td>6.</td>
<td>ENG/01</td>
<td>Initiation of a CAD/CAM demonstration network for the PTA</td>
<td>PTA/ETH/KEN/MAW/TAN</td>
<td>B</td>
</tr>
<tr>
<td>7.</td>
<td>ENG/02</td>
<td>PTA programme for the production of spare parts</td>
<td>PTA/KEN/MAW/MAU/SOM/TAN/UGA/ZAM/ZIM</td>
<td>C</td>
</tr>
<tr>
<td>8.</td>
<td>ENG/03</td>
<td>Feasibility study on the expansion and development of machine tool production for PTA countries</td>
<td>PTA/Tanzania</td>
<td>C</td>
</tr>
<tr>
<td>9.</td>
<td>ENG/04</td>
<td>Metal fabrication unit for the building industry</td>
<td>PTA/Lesotho</td>
<td>C</td>
</tr>
<tr>
<td>10.</td>
<td>ENG/05</td>
<td>Policy analysis and feasibility evaluation of the indigenous subregional prod. of hospital equipment and its maintenance</td>
<td>PTA</td>
<td>C</td>
</tr>
<tr>
<td>11.</td>
<td>ENG/06</td>
<td>Pilot development of a regional network of industrial sub-contracting exchange</td>
<td>PTA/KEN/ZIM/MAU/TAN</td>
<td>C</td>
</tr>
<tr>
<td>12.</td>
<td>ENV/01</td>
<td>Preparation and dissemination of a model environment Impact Statement</td>
<td>PTA</td>
<td>C</td>
</tr>
<tr>
<td>13.</td>
<td>ENV/02</td>
<td>Safer pesticide formulation/application technology</td>
<td>PTA/RWA/KEN/SOM</td>
<td>C</td>
</tr>
<tr>
<td>14.</td>
<td>ENV/03</td>
<td>Establishment of a demonstration plant for the production of non-persistent, non-chlorinated insecticides</td>
<td>PTA</td>
<td>P</td>
</tr>
<tr>
<td>15.</td>
<td>ENV/04</td>
<td>Small-scale industrial waste water treatment Pilot testing installation</td>
<td>PTA</td>
<td>P</td>
</tr>
<tr>
<td>16.</td>
<td>ENV/05</td>
<td>Industrial safety and accident prevention system</td>
<td>PTA</td>
<td>C</td>
</tr>
<tr>
<td>17.</td>
<td>CHEM/01</td>
<td>Industrial chemicals from indigenous carbohydrate in PTA</td>
<td>PTA</td>
<td>C</td>
</tr>
<tr>
<td>18.</td>
<td>CHEM/02</td>
<td>Building a regional essential oil industry</td>
<td>PTA/ETH/KEN/MAW/RWA/ZAM</td>
<td>C</td>
</tr>
<tr>
<td>19.</td>
<td>CHEM/03</td>
<td>Consumption/production survey of industrial surfactants in the PTA countries</td>
<td>PTA</td>
<td>C</td>
</tr>
<tr>
<td>20.</td>
<td>CHEM/04</td>
<td>Diagnostic survey of plastic transformation industries in the PTA countries</td>
<td>PTA</td>
<td>C</td>
</tr>
<tr>
<td>21.</td>
<td>CHEM/05</td>
<td>Situation analysis of the development of the petrochemical industry in the PTA countries</td>
<td>PTA</td>
<td>C</td>
</tr>
<tr>
<td>22.</td>
<td>CHEM/06</td>
<td>Establishment of a regional inorganic Salts Technology Development Centre (ISTOC)</td>
<td>PTA</td>
<td>C</td>
</tr>
<tr>
<td>23.</td>
<td>CHEM/07</td>
<td>Establish. of a subregional centre for the development and production of Plant Medicinal Prod. for pharmaceutical use</td>
<td>PTA</td>
<td>C</td>
</tr>
<tr>
<td>24.</td>
<td>CHEM/08</td>
<td>Prefeasibility study for a fertilizers formulation plant</td>
<td>Lesotho/PTA</td>
<td>C</td>
</tr>
<tr>
<td>25.</td>
<td>CHEM/09</td>
<td>Pilot demonstration scheme for more efficient phosphatic fertilizers solubization and absorption by a crop plant</td>
<td>PTA/Burundi/PTA</td>
<td>C</td>
</tr>
<tr>
<td>26.</td>
<td>CHEM/10</td>
<td>Rehabilitation of the urea ammonia plant in Somalia</td>
<td>Somalia/PTA</td>
<td>C</td>
</tr>
<tr>
<td>27.</td>
<td>CHEM/11</td>
<td>Inter-regional approach for the development of pesticides of botanical origin</td>
<td>PTA/ASIA</td>
<td>C</td>
</tr>
<tr>
<td>28.</td>
<td>CHEM/12</td>
<td>Development of prototype mobile seed dressing applicators</td>
<td>PTA/ASIA</td>
<td>C</td>
</tr>
<tr>
<td>29.</td>
<td>AGRO/01</td>
<td>Sugar Industry Regional Training Centre</td>
<td>Mauritius/PTA</td>
<td>C</td>
</tr>
<tr>
<td>NO</td>
<td>PROF.</td>
<td>PROJECT</td>
<td>COUNTRY</td>
<td>STATUS</td>
</tr>
<tr>
<td>----</td>
<td>-------</td>
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<td>---------</td>
<td>--------</td>
</tr>
<tr>
<td>30.</td>
<td>AGRO/02</td>
<td>Training strategy for human resources in food processing testing and quality control</td>
<td>PTA/Mauritius</td>
<td>C</td>
</tr>
<tr>
<td>31.</td>
<td>AGRO/03</td>
<td>R&amp;D Programme for food technologists</td>
<td>PTA/Tanzania</td>
<td>C</td>
</tr>
<tr>
<td>32.</td>
<td>AGRO/04</td>
<td>Identification of the opportunities of establishing fish processing plants</td>
<td>PTA/Zambia</td>
<td>C</td>
</tr>
<tr>
<td>33.</td>
<td>AGRO/05</td>
<td>Blanket manufacturing plant in Lesotho</td>
<td>Lesotho</td>
<td>C</td>
</tr>
<tr>
<td>34.</td>
<td>AGRO/06</td>
<td>Regional Centre for Textile Industry</td>
<td>PTA</td>
<td>C</td>
</tr>
<tr>
<td>35.</td>
<td>AGRO/07</td>
<td>Training strategy for the Development of an integrated Production and Technology management system for textile industry in Kenya for PTA countries</td>
<td>PTA/Kenya</td>
<td>C</td>
</tr>
<tr>
<td>36.</td>
<td>AGRO/08</td>
<td>Establishment of a Leather Research and Technology Centre for PTA subregion</td>
<td>PTA/Ethiopia</td>
<td>C</td>
</tr>
<tr>
<td>37.</td>
<td>BUILD/01</td>
<td>Rehabilitation and rationalization of cement production in the PTA subregion (second phase)</td>
<td>PTA</td>
<td>C</td>
</tr>
<tr>
<td>38.</td>
<td>BUILD/02</td>
<td>Assessment of rehabilitation requirements of glass plant in Tanzania and the development of a glass programme for the PTA subregion</td>
<td>TAN/BUR/PTA</td>
<td>C</td>
</tr>
<tr>
<td>39.</td>
<td>HRS/01</td>
<td>Training Strategy for the development of human resources for the promotion and management of SSI in the PTA subreg.</td>
<td>PTA/Tanzania</td>
<td>C</td>
</tr>
<tr>
<td>40.</td>
<td>HRS/02</td>
<td>Industrial Management Development Programme for the PTA</td>
<td>PTA/USA/ZIM</td>
<td>C</td>
</tr>
<tr>
<td>41.</td>
<td>HRS/03</td>
<td>Assistance to PTA member states in the promotion of standardization and quality control systems</td>
<td>LES/SWA/RWA/SOM/DJI/COM</td>
<td>C</td>
</tr>
<tr>
<td>42.</td>
<td>HRS/04</td>
<td>Promotion and commercialization of small-scale industrial/rural technologies in the PTA subregion through the development of technology centre</td>
<td>PTA/Zimbabwe</td>
<td>C</td>
</tr>
<tr>
<td>43.</td>
<td>HRS/05</td>
<td>Programme for the promotion and development pf small-medium-scale industrial activities in the PTA subregion with particular emphasis on women in industrial development</td>
<td>PTA/SEDCO/Zimbabwe</td>
<td>C</td>
</tr>
<tr>
<td>44.</td>
<td>HRS/06</td>
<td>Programme for the development of manpower capabilities for project identification, formulation monitoring and evaluation</td>
<td>PTA/Zimbabwe</td>
<td>C</td>
</tr>
<tr>
<td>45.</td>
<td>HRS/07</td>
<td>Pilot study on the development of an industrial R&amp;D Progr.</td>
<td>PTA</td>
<td>C</td>
</tr>
<tr>
<td>46.</td>
<td>HRS/08</td>
<td>Industrial services Register and Development of an industrial services clearing house</td>
<td>PTA/Rwanda</td>
<td>C</td>
</tr>
<tr>
<td>47.</td>
<td>HRS/09</td>
<td>A manufacturing investment trust for the PTA</td>
<td>PTA</td>
<td>C</td>
</tr>
<tr>
<td>48.</td>
<td>HRS/10</td>
<td>Regional Centre for standardization and quality control with emphasis on packaging materials</td>
<td>PTA/Malawi</td>
<td>C</td>
</tr>
<tr>
<td>49.</td>
<td>HRS/11</td>
<td>Intra-regional co-operation for small-scale industry promotion</td>
<td>PTA/Zambia</td>
<td>C</td>
</tr>
<tr>
<td>50.</td>
<td>EMY/01</td>
<td>Power plant rehabilitation</td>
<td>PTA</td>
<td>C</td>
</tr>
<tr>
<td>51.</td>
<td>EMY/02</td>
<td>Industrial energy conservation and auditing programme for the PTA countries</td>
<td>PTA</td>
<td>C</td>
</tr>
<tr>
<td>52.</td>
<td>EMY/03</td>
<td>Programme for the utilization of woodwastes from existing forest plantation and forest industries for more efficient charcoal production in PTA subregion</td>
<td>PTA</td>
<td>C</td>
</tr>
</tbody>
</table>
### SADCC Industry and Trade Projects

<table>
<thead>
<tr>
<th>No</th>
<th>Project</th>
<th>Countries</th>
<th>Status</th>
<th>Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Support to SADCC Industry and Trade Co-ordination Division</td>
<td>SADCC</td>
<td>A</td>
<td>IB</td>
</tr>
<tr>
<td>2</td>
<td>Standardization and quality control</td>
<td>SADCC</td>
<td>A</td>
<td>IB</td>
</tr>
<tr>
<td>3</td>
<td>Engineering Design and Product Development</td>
<td>SADCC</td>
<td>A</td>
<td>DS</td>
</tr>
<tr>
<td>4</td>
<td>Establishment of Information Exchange Centre</td>
<td>SADCC</td>
<td>A</td>
<td>IB</td>
</tr>
<tr>
<td>5</td>
<td>Development Small/medium scale industries (study/workshop)</td>
<td>SADCC</td>
<td>B</td>
<td>DS</td>
</tr>
<tr>
<td>6</td>
<td>Research and Development (Study)</td>
<td>SADCC</td>
<td>A</td>
<td>DS</td>
</tr>
<tr>
<td>7</td>
<td>Management and skills Development</td>
<td>SADCC</td>
<td>B</td>
<td>OT</td>
</tr>
<tr>
<td>8</td>
<td>Study on the improvement of the investment climate</td>
<td>SADCC</td>
<td>B</td>
<td>DS</td>
</tr>
<tr>
<td>9</td>
<td>A system of Direct Trade Measures including bilateral trade agreements</td>
<td>SADCC</td>
<td>B</td>
<td>DS</td>
</tr>
<tr>
<td>10</td>
<td>General System of Preference Study</td>
<td>SADCC</td>
<td>A</td>
<td>DS</td>
</tr>
<tr>
<td>11</td>
<td>Trade Directory</td>
<td>SADCC</td>
<td>B</td>
<td>DS</td>
</tr>
<tr>
<td>12</td>
<td>Participation of SADCC firms in SADCC projects</td>
<td>SADCC</td>
<td>B</td>
<td>DS</td>
</tr>
</tbody>
</table>

### IOC Industry and Trade Projects

<table>
<thead>
<tr>
<th>No</th>
<th>Project</th>
<th>Countries</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Exchange of information and strengthening of co-ordination facilities</td>
<td>IOC</td>
<td>B</td>
<td>IB</td>
</tr>
<tr>
<td>2</td>
<td>Establishment of a common system for foreign purchasing</td>
<td>IOC</td>
<td>B</td>
<td>DS</td>
</tr>
<tr>
<td>3</td>
<td>Strengthening of export promotion structures</td>
<td>IOC</td>
<td>B</td>
<td>IB</td>
</tr>
<tr>
<td>4</td>
<td>Strengthening of marketing capabilities for agriculture and</td>
<td>IOC</td>
<td>B</td>
<td>DS</td>
</tr>
<tr>
<td></td>
<td>non-agriculture products</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Reduction and harmonization of tariff/non-tariff barriers</td>
<td>IOC</td>
<td>B</td>
<td>DS</td>
</tr>
<tr>
<td>6</td>
<td>Establishment and accreditation of a union for on industrial</td>
<td>IOC</td>
<td>B</td>
<td>DS</td>
</tr>
<tr>
<td></td>
<td>development and co-operation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Establishment of a Committee for the promotion of industrial</td>
<td>IOC</td>
<td>B</td>
<td>IB</td>
</tr>
<tr>
<td></td>
<td>co-operation</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>8</td>
<td>Preliminary study for the establishment of a regional shipping line</td>
<td>IOC</td>
<td>B</td>
<td>IB</td>
</tr>
<tr>
<td>9</td>
<td>Feasibility study for the establishment of a regional</td>
<td>IOC</td>
<td>B</td>
<td>DS</td>
</tr>
<tr>
<td></td>
<td>shipping line (if necessary)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Inventory of the to the free movements of persons</td>
<td>IOC</td>
<td>B</td>
<td>DS</td>
</tr>
<tr>
<td>11</td>
<td>Inventory of the obstacles to the free movements of capital</td>
<td>IOC</td>
<td>B</td>
<td>DS</td>
</tr>
<tr>
<td>12</td>
<td>Study import duties</td>
<td>IOC</td>
<td>B</td>
<td>DS</td>
</tr>
<tr>
<td>13</td>
<td>Comparative study of investments codes and regulations</td>
<td>IOC</td>
<td>B</td>
<td>DS</td>
</tr>
<tr>
<td>14</td>
<td>Preliminary study of industrial branches</td>
<td>IOC</td>
<td>B</td>
<td>DS</td>
</tr>
<tr>
<td>15</td>
<td>Study on the testing and quality control laboratories</td>
<td>IOC</td>
<td>B</td>
<td>DS</td>
</tr>
</tbody>
</table>
### PROJECT PROFILE NO. 1

**DATE OF PROPOSAL:** 1982  **LAST UPDATE:** 1988  **SUBSECTOR:** Metallurgical industry (iron and steel)

1. **Project Title:** Upgrading and diversification of products from ZISCO (Zimbabwe)

2. **Objective:** To upgrade or rehabilitate most of the major production equipment at ZISCO.

3. **Promoter/ sponsor**

4. **Location**

5. **Project status**

6. **Immediate follow-up**

7. **Raw materials**

8. **Energy**

9. **Physical infrastructure**

10. **Projected demand by product**

11. **Market**

12. **Capacity by product**

13. **Total investment**

14. **Additional information** including collaboration arrangements already made and type of participation sought by Member States

#### ZISCO and subsidiary companies
- BIMCO and LANCASHIRE STEEL.

- **Pre-feasib. studies completed.** Overall project consultants appointed and will soon start work.

- **Subregion to assist in the promotion of the utilization of the products.** UNDP/UNIDO, ADB and other funding organizations will assist in raising the finances.

- **Iron ore, coke, limestone, diesel fuel/oil.**

- **All available as per ZISCO current programme.**

- **ZISCO and subsidiary infrastructure available.**

#### Redcliff, Midlands Province, Zimbabwe.

- **Capacity of ZISCO of about 1 million tons liquid steel will not change,** but efficient plants will contribute to more consistent production and better quality.

- **At about Z$1 billion, 50 per cent of which will be foreign exchange.**

- **Overall capacity of ZISCO of about 1 million tons liquid steel will not change, but efficient plants will contribute to more consistent production and better quality.**

- **Existing equipment is very old and therefore becoming inefficient.** The upgrading involves the following set of projects:
  1. Iron-ore restructuring, including burden-preparation.
  2. Sinter plant.
  3. Recline of blast furnace number 4.
  4. Desulphurizing plant.
  5. Replacement and modernization of LD vessels.
  6. Slab caster.
  7. Cold strip mill.
  8. Bar/rod mill modification.
  9. Rebuilding of battery 3 or 4.
  10. Benzol refining and tar distillation plant.
  11. Steel centre.

**Details in sub-projects.**

**Both local and subregional markets, details of which are outlined in the sub-projects listed under 14.**
**PROJECT PROFILE NO. 2**

**DATE OF PROPOSAL:** 1983  |  **LAST UPDATE:** 1991  |  **SUBSECTOR:** Metallurgical industry (iron and steel)

1. **Project Title:** Expansion of iron and steel mill (Uganda)

2. **Objective:** To exploit known iron ore deposits for use in expanded steel plant.

3. **Promoter/sponsor**

4. **Location**

5. **Project status**

6. **Immediate follow-up**

7. **Raw materials**

8. **Energy**

9. **Physical infrastructure**

10. **Projected demand by product**

11. **Market**

12. **Capacity by product**

13. **Total investment**

14. **Additional information including collaboration arrangements already made and type of participation sought by Member States**

15. **Information not available.**


- **Conceptual stage.**
- Feasibility study to establish viability, including detailed study of market and future demand in terms of volume and product mix.
- Existing steel plant utilizes imported billets/ingots and local scrap at present, but expanded plant will utilize locally extracted iron.
- Energy required is available (630-700 million kWh/p.a.)
- Steel plant in operation but requires expansion.
- Primary metal facilities still to be developed.
- Transport facilities between the iron ore beds and the steel/iron plant still to be developed.

### 4. Uganda.

- **Steel plant in operation but requires expansion.**
- Primary metal facilities still to be developed.
- Transport facilities between the iron ore beds and the steel/iron plant still to be developed.

### 10. Projected demand by product

1. **(a) Present**
   - 25,000 p.a.: steel intermediates (rods, bars, sections and strips).
   - 100,000 tons p.a.: current steel intermediates and additional unspecified items.

2. **(b) Expanded**
   - Estimated at $600 million, excluding costs of infrastructure.
c) The Government and local private sources could provide up to 30% of the estimated total investment, the balance coming from multilateral sources: the structure of ownership flexible.

d) Terms of co-operation are subject to negotiation between Government and potential partners.

e) Information about manpower requirements not available, but training of local personnel necessary.

15. Remarks:

Project also included in Integrated Industrial Development Programme for the PTA as MET/03, "Rehabilitation and expansion of the East African Steel Corporation mill in Uganda". The mill has been assisted through several short-term UNIDO projects. A major current problem is a shortage of working capital.
<table>
<thead>
<tr>
<th>PROJECT PROFILE NO. 3</th>
</tr>
</thead>
</table>

1. **Project Title:** Integrated iron and steel mill (Kenya)

2. **Objective:** To establish a new corporation for the manufacture of basic iron and steel raw materials, including hot rolled coils and billets.

3. **Promoter/sponsor:**

4. **Location:**

5. **Project status:**

6. **Immediate follow-up**

7. **Raw materials**

8. **Energy**

9. **Physical infrastructure**

10. **Ministry of Industry, Kenya.**

11. **Mombasa, Kenya.**

5. **Feasibility study** was prepared in June 1982 by Austroplan and reviewed by Commonwealth Secretariat in October 1984.

6. **Feasibility study needs updating in the light of change in the project concept.**

7. **Iron ore, manganese ore and coking coal are to be imported. Limestone fluor spar and scrap are locally available.**

8. **Energy requirements to be worked out in new study.**

9. **Available.**

10. **Projected demand by product**

11. **Market**

12. **Capacity by product**

13. **Total investment**

14. **Additional information including collaboration arrangements already made and type of participation sought by Member States**

10. 524,600 tons in 1990; 735,800 tons in 1995; and over 1 million tons in 2000.

11. **Mainly geared to domestic market, but export opportunities to neighbouring countries exist.**

12. **Proposed production programme:**

   a) **Non-flat products:**

   - 103,650 tons in 1995
   - 241,250 tons in 2000.

   b) **Flat products:**

   - 316,400 tons in 1990;
   - 445,000 tons in 1995;
   - 611,400 tons in 2000.

13. **Needs to be worked out in the light of the new project concept.**

14. (a) No collaboration arrangement entered into yet.

   (b) Participation and assistance sought in respect of:

   i) Preparation of a feasibility study;

   ii) External loan and credit financing for the project;

   iii) Supply of necessary technology.

15. **Remarks:** Project still has high Government priority. Requires geological surveys to determine quantity and quality of domestically available iron ore and limestone, as well as comprehensive study of iron and steel sector in Kenya to facilitate decision-making. Feasibility study of 1982 no longer appears adequate.
**PROJECT PROFILE NO. 4**

**DATE OF PROPOSAL:** 1983  
**LAST UPDATE:** 1988  
**SUBSECTOR:** Engineering industry (engine manufacture)

1. **Project Title:** Manufacture of diesel engines for tractors, trucks, lorries and buses (Zimbabwe)

2. **Objective:** To develop manufacture of road transport equipment and agricultural machinery.

3. **Promoter/sponsor**

4. **Location**

5. **Project status**

6. **Immediate follow-up**

7. **Raw materials**

8. **Energy**

9. **Physical infrastructure**

10. **Second meeting of Intergovernmental Committee of Experts on Engineering Industries for Eastern and Southern Africa following the recommendations of the Sixth Meeting of the Lusaka-based MULPOC Council of Ministers.**

11. **Zimbabwe.**

12. **Capacity by product**

13. **Total investment**

14. **Additional information including collaboration arrangements already made and type of participation sought by Member States**

<table>
<thead>
<tr>
<th>10. Projected demand by product</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. Market</td>
</tr>
<tr>
<td>12. Capacity by product</td>
</tr>
<tr>
<td>13. Total investment</td>
</tr>
<tr>
<td>14. T.A Holdings Ltd of Zimbabwe has entered into a joint venture with a company to reassemble diesel engines and to repower, refurbish repair and service of all makes of trucks. Output would include stationary diesel engines and marine engines as well.</td>
</tr>
</tbody>
</table>
PROJECT PROFILE NO. 5


1. Project Title: Manufacture of low-cost standard multi-purpose vehicles (Madagascar)

2. Objective: To develop manufacture of road transport equipment suited to rural needs.

3. Promoter/sponsor

4. Location

3. Institut Malgache d'Innovation (IMI).

4. Fianarantsoa, Madagascar.

5. Project status

6. Immediate follow-up


6. Expansion to cover the subregional market.

7. Raw materials

8. Energy

9. Physical infrastructure

10. Projected demand by product

11. Market

10. Not known.

11. Domestic.

12. Capacity by product

13. Total investment

12. 300 light cars (5-seaters) (present production per year).

13. FMC3,670 million.

14. Additional information including collaboration arrangements already made and type of participation sought by Member States

14. Promoter looking for local or subregional partner to market the vehicles in the subregion.

15. Remarks: The current production is very low: less than 300 vehicles per year, for the domestic market only. From information gathered during the preparatory missions it seems that the promoter is not any longer looking for a subregional partner or to export to the subregion. Therefore the meeting is requested to decide whether to retain or withdraw the project from the IDDA subregional programme.
**PROJECT PROFILE No. 6**

**DATE OF PROPOSAL:** 1983  **LAST UPDATE:** 1991  **SUBSECTOR:** Engineering industry (energy equipment)

1. **Project Title:** Manufacture of electric motors (Zambia)
2. **Objective:** To manufacture electric motors.

3. **Promoter/sponsor**
   - IMDECO Ltd, Zambia.
4. **Location**
   - Lusaka, Zambia.

5. **Project status**
   - Negotiations for implementing the project have reached an advanced stage.
6. **Immediate follow-up**
   - PTA/UNIDO to assist in securing finance.
7. **Raw materials**
   - Copper wire from Zambia Metal Fabricators Ltd. (ZAMEFA)
   - Casting to be manufactured in existing foundries and later in the new central engineering factory currently being developed, other materials will initially be imported and later domestically produced.
8. **Energy**
   - Available.
9. **Physical infrastructure**
   - Other infrastructure available, but buildings to be constructed.

10. **Projected demand by product**
11. **Market**
12. **Capacity by product**
13. **Total investment**
14. **Additional information** including collaboration arrangements already made and type of participation sought by Member States

<table>
<thead>
<tr>
<th>Year</th>
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</tr>
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<tbody>
<tr>
<td>1-2</td>
<td>1000</td>
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<tr>
<td>3-4</td>
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</tr>
<tr>
<td>5-6</td>
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</tbody>
</table>

15. **Remarks:** Projects 6 and 7 were originally conceived as one integrated project with electric motors as phase one and transformers as phase two. Government now intends to implement 2 separate projects with 2 different foreign partner firms.
### Project Profile No. 7

**DATE OF PROPOSAL:** 1983  
**LAST UPDATE:** 1991  
**SUBSECTOR:** Engineering industry (energy equipment)

1. **Project Title:** Manufacture of electric transformers (Zambia)

2. **Objective:** To manufacture electric transformers.

3. **Promoter/sponsor:** INDECO Ltd, Zambia.

4. **Location:** Lusaka, Zambia.

5. **Project status:** Negotiations for implementing the project have reached an advanced stage.

6. **Immediate follow-up:** PTA/UNIDO to assist in securing finance.

7. **Raw materials:** Rolled and drawn copper rods and copper strips available locally. Steel channel sections and angles available in the subregion; other raw materials to be imported from the subregion.

8. **Energy:** Available.

9. **Physical infrastructure:** Other infrastructure available, but buildings to be constructed.

10. **Projected demand by product:**
    - **Domestic demand:** Estim. 1500 p.a.
    - **Total demand for Eastern and Southern Africa:** Estim. 4000 p.a.
    - **Estim. increase 7 per cent p.a.**

11. **Market:**
    - **Domestic demand:** Estim. 1500 p.a.
    - **Total demand for Eastern and Southern Africa:** Estim. 4000 p.a.
    - **Estim. increase 7 per cent p.a.**

12. **Capacity by product:**
    - **Year 1-2:** Prod. 200  
      Serv. 150
    - **Year 3-4:** Prod. 300  
      Serv. 200
    - **Year 5-6:** Prod. 450  
      Serv. 250

13. **Total investment:**
    - **1989 estim. total investment:** for both projects 6 and 7 (electric motors and transformers) ZMK 150m, of which foreign cost ZMK 60m (exchange rate used ZMK 18 = US$1)

14. **Additional information:**
    - **including collaboration arrangements already made and type of participation sought by Member States**

15. **Remarks:** Projects 6 and 7 were originally conceived as one integrated project with electric motors as phase one and transformers as phase two. Government intends to implement 2 separate projects with 2 different foreign partner firms.
**Project Profile No. 8**

**Date of Proposal:** 1983  
**Last Update:** 1988  
**Subsector:** Chemical industry (fertilizers)

1. **Project Title:** Ethiopian potash (Ethiopia/Libya)

2. **Objective:** To exploit potash deposits and meet multicountry/subregional demand.

3. **Promoter/sponsor**

4. **Location**

5. **Project status**

6. **Immediate follow-up**

7. **Raw materials**

8. **Energy**

9. **Physical infrastructure**

10. **First phase of feasibility study completed in 1987 by PEC engineering France and reviewed by an independent consultant.**

11. **Sylvinite: 160 million tons. The total potential reserves of potash could be several billion tons.**

12. **Potentially available: geothermal.**

13. **Completion and evaluation of feasibility study.**

14. **Additional information including collaboration arrangements already made and type of participation sought by Member States.**

15. **First phase of study concluded that the project was technically feasible, but that an economic study was also needed. Consultants recommended the underground, open pit and solution method of mining.**

16. **Second phase of studies temporarily suspended owing to logistical problems in project area.**

17. **Government submitted project to PTA Secretariat in October 1987 with request to arrange transfer of technology for mining, processing and developing a potash-based chemical industry, as well as financing the project and marketing the product.**

**Potassious Chloride and Potassium Sulphate**

- **Location:** Dallol, Ethiopia.
- **Promoter/Sponsor:** Ethio-Libyan Joint Mining Co.
- **Flotation:** 2.5 million tons of potassium chloride from underground mining of sylvinite ore.
- **Investment:** $500 million, including outlay for harbour and rail facilities.

**Market**

- **Combined demand for potassium chloride and potassium sulphate in the subregion is expected to rise to 133,000 tons K₂O in 1990 and 232,000 tons by 2000, as against 50,000 tons in 1979.**
- **Principal markets for Ethiopian potash are outside Africa, since nature of African soil is unsuitable for potassic fertilizers.**
**Project Profile No. 9**

**Subsector:** Chemical industry (fertilizers)

**1. Project Title:** Tanzania multinational ammonia/urea project (Tanzania)

**2. Objective:** Using natural gas reserves to produce ammonia/urea and meet multicountry/subregional demand.

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Government of Tanzania</td>
<td></td>
<td>National gas reserves one trillion ((10^{12})) cubic feet, enough to supply the plant for 60 years at a rate of 16 million cubic feet/year. None of the four plants currently operational in the PTA countries use natural gas; they preferred feedstock.</td>
</tr>
</tbody>
</table>

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</thead>
<tbody>
<tr>
<td>On Kilwa Masoko shoreline, 150 miles south of Dar-es-Salaam, Tanzania.</td>
<td>Long-term purchase agreement with countries in the subregion. There is need to investigate the concerns of Malawi.</td>
<td>Hydroelectric power supply from national grid.</td>
</tr>
</tbody>
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<tbody>
<tr>
<td></td>
<td>11. Market</td>
<td>13. Total investment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>14. Additional information including collaboration arrangements already made and type of participation sought by Member States</td>
</tr>
</tbody>
</table>

| 10. No information available. | 12. 1,150 ton/day ammonia and 1,750 ton/day urea. | 14. Action has been taken to mobilize financial assistance, particularly pledges, some of which have been outstanding for 4 years. Definitive courses of action need to be taken on the basis of a well-articulated strategy for implementing the project, to which the Government has accorded priority. |
| 11. Domestic and SADCC subregion, initially export-oriented. | 13. $425 million, local component $20 million. |  |
1. Project Title: Phosphate fertilizer plant (Uganda)
2. Objective: To establish new facilities incorporating existing fertilizer plant.

3. Promoter/sponsor
4. Location
4. Uganda (Tororo).

5. Project status
6. Immediate follow-up
5. Company being formed with Government of Uganda playing leading role in collaboration with prospective investors and PTA Secretariat.

7. Raw materials
8. Energy
9. Physical infrastructure
7. Phosphate rock and pyrites, and imported sulphur. Phosphate reserves are estimated at 230 million tons (12.8 per cent P2O5).
8. Hydroelectric power from electric grid.

10. Projected demand by product
11. Market
10. Based on past trends, subregional demand is estimated at 1.3 million tons by 2000.
11. Extends beyond subregion to other countries in the Central African subregion. 20 to 30 per cent of the planned capacity could be absorbed by Uganda.

12. Capacity by product
13. Total investment
12. Triple super phosphate

14. Additional information including collaboration arrangements already made and type of participation sought by Member States
14. (a) The Government of Uganda is willing to involve other Member States in the sub-region in technical services, marketing and equity.
(b) TICAF plant closed since 1978.
(c) Consultant to draw up tender documents to be appointed early 1991.
(d) Technical partners to be identified and agreement to be concluded by March/April 1991, with assistance of ADB in consultation with Government of Uganda or its agency and PTA.
(e) Construction planned to begin by September 1991.

15. Remarks: As stated at the PTA Committee on Industrial Co-operation meeting in Nairobi in September 1990, international financing institutions, including the African Development Bank (ADB), have announced their willingness to participate. Ugandan equity participation has been secured from both the public and private sector and Kenyan private sector participation has also been agreed. Other investors from both within and outside the subregion have shown serious interest.
DATE OF PROPOSAL: 1983  LAST UPDATE: 1988  SUBSECTOR: Chemical industry (fertilizers)

1. Project Title: Production of phosphate fertilizers (Burundi)

2. Objective: Manufacture of fertilizers using phosphate.

3. Promoter/sponsor

4. Location

5. Project status

6. Immediate follow-up

7. Raw materials

8. Energy

9. Physical infrastructure

10. Projected demand by product

11. Market

12. Capacity by product

13. Total investment

14. Additional information including collaboration arrangements already made and type of participation sought by Member States

10. CEPGL demand estimated at 29,000 tons a year.

11. Will be determined on basis of market survey which covered countries outside the CEPGL.

12. 20,000 tons of super phosphate per annum based on the pre-feasibility study. This figure will be confirmed by the market survey indicated under 11 above.

13. $40 million according to the feasibility studies.

---

It was agreed to include this project in the project for the Eastern and Southern African subregion on account of the fact that the project, which had also been retained in the revised subregional programme for Central Africa (see document ID/WG.456/3/Rev.1, 4 March 1986, page 47, profile No. 4), was fully integrated within the PTA programme and served Burundi, Rwanda and Tanzania.

b/ Reserves: 9,297,175 tons with a phosphate content of 7 per cent (weighted average of 13.3 per cent P₂O₅). 13,718,350 tons with a phosphate content of 5 per cent (weighted average of 11.5 per cent P₂O₅). These reserves are minimal.
1. **Project Title:** Production of caustic soda (Kenya)

2. **Objective:** To establish a caustic soda production enterprise.

3. **Promoter/sponsor:**
   - Alkali Industries (K) Ltd.
   - Kajiado district, Kenya.

4. **Location:**
   - Alkali (K) Ltd have revised the study in 1968 and propose to implement it.
   - The proposal has been approved by the Ministry which is waiting to see whether the proposers implement the project.
   - Rail and tarmac road set up to facilitate exploitation of natural soda ash in the district.

5. **Feasibility study:**
   - carried out in 1978. Alkali (K) Ltd have revised the study in 1968 and propose to implement it.

6. **Immediate follow-up:**
   - Per ton of caustic soda: steam at 8.5 ATA, 3,300 kg; electricity for lighting only: 250 kWh; and coke for lime-burning: 300 kg (approximate figures).

7. **Raw materials**
   - (a) Locally available: Limestone and soda ash.
   - (b) Imported: Sodium nitrate, sulphur and hydrochloric acid.

8. **Physical infrastructure**
   - Estimated at $5.8 million, including land, buildings, machinery, equipment, shake-down costs, contingencies and working capital.

9. **Capacity by product**
   - Estimated at 40,000 tons.

10. **Projected demand by product**
    - Local: 12,000 tons.
    - Region: 30-40,000 tons.

11. **Total investment**
    - Estimated at $5.8 million, including land, buildings, machinery, equipment, shake-down costs, contingencies and working capital.

12. **Market**
    - 12. 40,000 tons.

13. **Additional information**
    - including collaboration arrangements already made and type of participation sought by Member States.

14. **Remarks:** Modalities for implementing joint venture with Binla Technical Services still under discussion, including questions regarding technology, costs etc.
PROJECT PROFILE


1. Project Title: Sheet-glass production unit (Madagascar)

2. Objective: To promote local production of sheet-glass, an essential building material currently imported by countries in the subregion.


4. Location: Toamasina, Madagascar.


6. Immediate follow-up: (i) Consultations with other countries of the subregion for their participation in the project; (ii) Feasibility study; (iii) Mobilization of investment.

7. Raw materials: Sand, quartz, dolomite and felspar locally available. Other raw materials (soda ash, sodium sulphate, borax fluor spar and cryolite) to be imported.


9. Physical infrastructure: Working of sand pit and mining of quartz and felspar will have to be developed.

10. Projected demand by product:

   - 13,500 tons p.a. sheet-glass and 11,200 tons p.a. hollow glass in the Indian Ocean islands.

11. Market:

   - Madagascar and other Indian Ocean islands in the subregion.

12. Capacity by product:

   - Sheet-glass:
     - local: FMG3,450 mill.
     - foreign: FMG17,383 mill.

   - Hollow glass:
     - local: FMG1,956 mill.
     - foreign: FMG1,861 mill.

   - Grand total: FMG24,650 million (including civil works).

13. Total investment: 16,740-20,385 tons of crude glass of both types per year.

14. Additional information including collaboration arrangements already made and type of participation sought by Member States.

15. Remarks: A preliminary market study carried out by the project evaluation unit of the Ministry of economy and Planning has indicated that the project will be viable only if is set up for the subregion market. Therefore it would be necessary to undertake a full subregional market study and a comparative study of other similar production units in the subregion. The outcome of these analyses are to be submitted to other countries of the subregion to enable them decide jointly on a possible optimal location.
1. Project Title: Establishment of integrated iron and steel mill (Madagascar)

2. Objective: To establish a new enterprise to manufacture metallurgical products.

3. Promoter/sponsor

4. Location

5. Project status

6. Immediate follow-up

7. Raw materials

8. Energy

9. Physical infrastructure

10. Projected demand by product

11. Market

12. Capacity by product

13. Total investment

14. Additional information including collaboration arrangements already made and type of participation sought by Member States

15. Remarks: Decision on the viability of this potential multinational project can be taken only after completion of the ongoing geological survey.
<table>
<thead>
<tr>
<th>Project Profile No. 15</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DATE OF PROPOSAL:</strong> 1988</td>
</tr>
</tbody>
</table>

1. **Project Title:** Establishment of a steel re-rolling mill (Zambia)

2. **Objective:** To manufacture wire rods, channels, angles, square, flat and round reinforcing bars.

3. **Promoter/sponsor:** INDECO.

4. **Location:** Lusaka, Zambia.

5. **Project status:** Feasibility study completed. Promoter looking for sources of finance.

6. **Immediate follow-up:** PTA, UNIDO and ADB to assist in securing finance.


8. **Energy:** Available.

9. **Physical infrastructure:** Complete plant to be set up.

10. **Projected demand by product:** 120,000 metric tons by 1990. 165,000 metric tons by 1995.

11. **Market:** Local.

12. **Capacity by product:** Initially 30,000 tons billets p.a. After expansion, 60,000 tons p.a.

13. **Total investment:** $40 million.

14. **Additional information:** Including collaboration arrangements already made and type of participation sought by Member States.

15. **Remarks:**

Project being actively pursued: joint venture partner identified; financing still being sought; project manager appointed; site being prepared.

Project MET/02, "Product rationalization and upgrading in iron and steel plants/rolling mills in the PTA subregion" of the IIDP also intends to review the likely impact of this project.
1. Project Title: Establishment of multinational sponge iron plants in PTA countries (Mozambique/Tanzania/Uganda/Zambia)

2. Objective: To augment and supplement the production of iron and steel, presently based on metal scrap, in the subregion.


4. Location: Through UNIDO technical assistance project (RP/RAF/85/611), a survey of the iron and steel industry of the PTA and SADCC countries was carried out. This study also included supply and demand projections up to the year 1995 and beyond. Together with the assistance of the Commonwealth Secretariat, UNIDO assisted PTA in conducting an in-depth assessment of small steel plants/rolling mills/re-rolling mills in the subregion.

5. Project status: As a result of these studies, PTA initiated supply/purchase arrangements for ZISCOSTEEL billets with various national steel plants. However, in order to meet fully the requirements of the subregion, it is considered desirable to promote the development of sponge-iron production in the subregion.

6. Immediate follow-up: The PTA subregion is well-endowed with mineral resources such as iron ore, coal, chrome ore, nickel, cobalt, titanium, copper and refractory materials/fluxing minerals such as silica, magnesite, limestone, fluospar, etc. The coal resources of the subregion is estimated at approximately 54,604 million tons with Zimbabwe accounting for the largest share, followed by Botswana and Mozambique. Large deposits of iron ore are to be found in several countries, notably Angola, Madagascar, Mozambique, Zambia and Zimbabwe.

7. Raw materials: Varies according to project.

8. Energy: Varies according to project.

9. Physical infrastructure: Varies according to project.
10. Projected demand by product

12. Capacity by product

14. Additional information including collaboration arrangements already made and type of participation sought by Member States

11. Market

13. Total investment


12. Varies according to project.

14. The UNIDO survey estimated the iron and steel demand for the subregion would, at best, amount to about 3.13 million tons per year by the year 1995, while the total consumption of iron and steel in the subregion amounted to only 1.2 million tons per year during the period 1981-1983. Moreover, very little commercial exploitation of some of these resources is carried out and the processing of iron ore in particular is at an elementary stage. Prospects for the development of sponge iron are particularly favourable in Mozambique, Tanzania, Uganda and Zambia. Zambia has already taken concrete action in this direction and formulated a project for possible implementation with a major donor country.

11. Subregional.

13. Varies according to project.

15. Remarks: Project included in Integrated Industrial Development Programme as MET/04, "Development of a programme for the production of sponge iron in the PTA subregion". The outputs of that project would be a set of feasibility studies covering production possibilities in the different locations.
1. Project Title: Manufacture of low-cost vehicles (Ethiopia)

2. Objective: To produce bicycles, motorcycles, side-cars, three-wheelers, and animal drawn carts suitable for rural areas to meet local and subregional demand.


6. UNIDO assistance sought for market study for bicycles, motorcycles and three-wheelers in the subregion, for which terms of reference are available.

7. 50 per cent local; 50 per cent imported.
8. Electricity (available).
9. Building of 10,000 m² required.

10. Projected demand by product

<table>
<thead>
<tr>
<th>Product</th>
<th>Demand (p.a.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bicycles</td>
<td>17,500</td>
</tr>
<tr>
<td>Bicycle trailers</td>
<td>500</td>
</tr>
<tr>
<td>Motorcycles</td>
<td>14,000</td>
</tr>
<tr>
<td>Three-wheelers</td>
<td>1,200</td>
</tr>
<tr>
<td>Side-cars</td>
<td>500</td>
</tr>
<tr>
<td>Horse carts</td>
<td>400</td>
</tr>
<tr>
<td>Rural carts</td>
<td>2,100</td>
</tr>
</tbody>
</table>

11. Market

Primarily domestic, but exports (mainly bicycles and motorcycles) to countries in the subregion would make it economic to manufacture more parts locally.

12. Capacity by product

<table>
<thead>
<tr>
<th>Product</th>
<th>Capacity (p.a.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bicycles</td>
<td>17,500</td>
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</tr>
<tr>
<td>Horse carts</td>
<td>400</td>
</tr>
<tr>
<td>Rural carts</td>
<td>2,100</td>
</tr>
</tbody>
</table>

13. Total investment

$10 million.

14. Additional information including collaboration arrangements already made and type of participation sought by Member States

1) Negotiations underway with Government of China for collaboration in financing and know-how.
2) The first phase of project is manufacture of bicycles and three-wheelers. Designs for other low-cost vehicles will be prepared by the factory, and metal production would be left to local artisans.
### Project Profile No. 18

**DATE OF PROPOSAL:** 1988   **LAST UPDATE:** 1988   **SUBSECTOR:** Engineering industry (machine tools and allied machinery)

1. **Project Title:** Spare parts and engineering hand tools factory (Ethiopia)

2. **Objective:** To manufacture various types of cast, machined and forged industrial spare parts, engineering hand tools and stainless steel cutlery.

3. **Promoter/sponsor:**

4. **Location:**

5. **Project status:**

6. **Immediate follow-up:**

7. **Raw materials**

8. **Energy**

9. **Physical infrastructure**

10. **Commissioning to be completed in first quarter of 1989.**

11. **UNIDO assistance required for market study for factory products in the subregion. Upgrading of training centre.**

12. **Capacity by product:**

13. **Total investment:**

14. **Additional information including collaboration arrangements already made and type of participation sought by Member States**

### Projected demand by product

<table>
<thead>
<tr>
<th>Product</th>
<th>Domestic Demand</th>
<th>Export Demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spare parts</td>
<td>2,000 tons p.a.</td>
<td></td>
</tr>
<tr>
<td>Engineering tools</td>
<td>4,500 tons p.a.</td>
<td></td>
</tr>
<tr>
<td>Cutlery</td>
<td>180,000 pieces p.a.</td>
<td>200,000 pieces p.a.</td>
</tr>
</tbody>
</table>

**Total: $86 million.**

**Local scrap and other imported iron and steel. Basic products, chemicals, etc.**

**Electricity and gas available locally.**

**Development area: 250,000m².**

**Covered area: 30,000m².**
# Project Profile No. 19

**Date of Proposal:** 1988  
**Last Update:** 1988  
**Subsector:** Engineering Industry  
(agricultural machinery and equipment)

## 1. Project Title: Water Pump Factory (Ethiopia)

## 2. Objective:  
To produce centrifugal pumps (2-8 inches) and hand pumps for irrigation, water supply and construction applications.

## 3. Promoter/Sponsor

## 4. Location

## 5. Project Status

## 6. Immediate Follow-Up

## 7. Raw Materials

## 8. Energy

## 9. Physical Infrastructure

## 10. Projected Demand by Product

## 11. Market

## 12. Capacity by Product

## 13. Total Investment

## 14. Additional Information Including Collaboration Arrangements Already Made and Type of Participation Sought by Member States

- 500 centrifugal pumps and 2,000 hand pumps.  
- 1,500 centrifugal pumps/year and 3,300 hand pumps/year.  
- $8 million.

- Initially estimated domestic demand was not realistic.  
- Plan to expand plant to produce 24-inch section diameter pumps already completed, but implementation suspended at present.
<table>
<thead>
<tr>
<th>PROJECT PROFILE NO. 20</th>
</tr>
</thead>
</table>

1. Project Title: **Machine-tool factory (Ethiopia)**

2. Objective: To produce various types of universal machine tools and small presses.

3. Promoter/sponsor

4. Location

5. Project status

6. Immediate follow-up

7. Raw materials

8. Energy

9. Physical infrastructure


11. Akaki, Ethiopia.

12. Feasibility study completed. Negotiations with Italian suppliers under way as project is to be financed by Italian Government Credit.

13. Survey of subregional market and promotion of products required.

14. Additional information including collaboration arrangements already made and type of participation sought by Member States

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<table>
<thead>
<tr>
<th>10. Projected demand by product</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. Market</td>
</tr>
<tr>
<td>12. Capacity by product</td>
</tr>
<tr>
<td>13. Total investment</td>
</tr>
<tr>
<td>14. If going into subregional market proves successful, plant shall be expanded in terms of both quantity and type of machine tools. Need is recognized for close co-ordination and effective project harmonization through such organizations as PTA, SADCC and UNIDO, with related projects in Tanzania and Zimbabwe.</td>
</tr>
</tbody>
</table>

- About 200 pieces per year of lathes, milling machinery and drilling machinery as well as 35 pieces per year of small presses.

- 350 units lathes, milling and drilling machinery.

- 60 units small presses (40-120 tons).

- $24 million.
PROJECT PROFILE NO. 21


1. Project Title: Tractor- and animal-drawn farm implements factory (Ethiopia)

2. Objective: To produce tractor-drawn farm implements such as disc ploughs and harrows, as well as animal-drawn implements such as mouldboard ploughs and planters.

3. Promoter/ sponsor
4. Location

5. Project status
6. Immediate follow-up
5. Project detail design 6. Assistance in surveying subregional market required.

7. Raw materials
8. Energy
9. Physical infrastructure
7. Imported plates, sheets and long products.
8. locally available.
9. Compound area: 250,000m². Built-up area: 30,000m².

10. Projected demand by product
11. Market
10. About 2,000 tons of nine types of tractor-drawn implements and 1,000 tons of 14 types of animal-drawn implements per year.
11. Initially oriented to domestic market, with possibility of export to neighbouring countries.

12. Capacity by product
13. Total investment
12. Annual capacity working two shifts: 6,000 tons of animal- and tractor-drawn farm implements.
13. $35 million.

14. Additional information including collaboration arrangements already made and type of participation sought by Member States
14. Since major efforts will be required, especially in the initial year, to promote domestic market exports to neighbouring countries will contribute greatly to economic operation of plant.
### PROJECT PROFILE NO. 22

**DATE OF PROPOSAL:** 1988  |  **LAST UPDATE:** 1988  |  **SUBSECTOR:** Engineering industry (road transport)

1. **Project Title:** Truck-trailer and bodies factory (Ethiopia)

2. **Objective:** To manufacture locally truck bodies as well as animal- and semi-trailers for both solid and liquid cargoes.

3. **Promoter/sponsor**

4. **Location**

5. **Project status**

6. **Immediate follow-up**

7. **Raw materials**

8. **Energy**

9. **Physical infrastructure**

10. **Ministry of Industry/Calabrese of Italy.**

11. **Addis Ababa, Ethiopia.**

12. **Project feasibility study completed and approved for implementation. Negotiations on joint venture contract with foreign partner currently under way.**

13. **Steel plates and sheets as well as long products - hollow and solid, mostly imported.**

14. **Electricity available.**

9. **Compound area: 30,000m². Built-up area: 10,000m².**

10. **Projected demand by product**

11. **Market**

12. **Capacity by product**

13. **Total investment**

14. **Additional information including collaboration arrangements already made and type of participation sought by Member States**

12. **Same as indicated in 10 above.**

13. **$20 million.**

14. **Products envisaged to be more competitive as against imports from outside Africa because of possible advantages through lower transport costs.**


11. **Initially oriented towards the domestic market, but excess capacity during early years of market penetration and additional shift capacities could serve subregional market.**

1. Project Title: Multi-purpose engineering workshop (Ethiopia)

2. Objective: To manufacture simple fabricated metal goods (vessels, conveyors, concrete mixers, boilers, etc.) needed for storage, material handling, transport and processing, and to build up engineering capability.

3. Promoter/sponsor

4. Location

5. Project status

6. Immediate follow-up

7. Raw materials

8. Energy

9. Physical infrastructure


4. Akaki, Electricity locally Ethiopia.

5. Project feasibility study completed and approved for implementation. Negotiation for project design contract with foreign partner currently under way.

6. Assistance in subregional market survey for plant products required.

7. Imported steel sheets and bars, prime movers, locally cast components.


9. Compound area: 20,000m². Built-up area: 10,000m² to be developed.

10. Projected demand by product

11. About 2,000 tons of vessels material handling equipment, boilers, heat exchangers, etc.

12. Capacity per year per shift: about 3,500 tons comprising boilers, heat exchangers, column mixers and agitators, vessels and material handling equipment.

13. $35 million, of which about 23 million in foreign currency.

14. Additional information including collaboration arrangements already made and type of participation sought by Member States

15. Products envisaged to be more competitive in the subregion, as against imports from Europe or Far East, because of possible advantages through lower transport costs.
<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Project Title:</td>
<td>Establishment of a salt refining and packaging plant (Somalia)</td>
</tr>
<tr>
<td>2.</td>
<td>Objective:</td>
<td>To enhance export earnings.</td>
</tr>
<tr>
<td>3.</td>
<td>Promoter/sponsor</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Location</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Project status</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Immediate follow-up</td>
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</tr>
<tr>
<td>7.</td>
<td>Raw materials</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Energy</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Physical infrastructure</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Projected demand by product</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Market</td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Capacity by product</td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Total investment</td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>Additional information</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Additional information including collaboration arrangements already made and type of participation sought by Member States</td>
</tr>
</tbody>
</table>

- **DATE OF PROPOSAL:** 1988  
- **LAST UPDATE:** 1988  
- **SUBSECTOR:** Chemical industry (basic chemicals)

**1. Project Title:** Establishment of a salt refining and packaging plant (Somalia)

**2. Objective:** To enhance export earnings.

**3. Promoter/sponsor**

**4. Location**

**5. Project status**

- Project completed in 1981.

**6. Immediate follow-up**

- Updating of study.

**7. Raw materials**

- Available locally in abundance.

**8. Energy**

- Group of diesel engines with 350HP total capacity.

**9. Physical infrastructure**

- Infrastructure not developed.

**10. Projected demand by product**

- 80,000 tons (domestic).

**11. Export-oriented.**

- 3.8 million tons/year.

**12. Capacity by product**

- $140 million.

**13. Total investment**

- The pre-feasibility study concludes that the project was technically feasible and economically viable. Total investment figure includes interest during the period of construction, infrastructure costs and operating capital. Government is looking for equity participation, know-how and technology.
PROJECT PROFILE NO. 25

DATE OF PROPOSAL: 1988         LAST UPDATE: 1988         SUBSECTOR: Chemical industry (basic chemicals)

1. Project Title: Expansion of Berbera gypsum factory (Somalia)

2. Objective: To help import substitution and exploit natural resources.

3. Promoter/sponsor

4. Location

5. Project status

6. Immediate follow-up

7. Raw materials

8. Energy

9. Physical infrastructure

10. Projected demand by product

11. Market

12. Capacity by product

13. Total investment

14. Additional information including collaboration arrangements already made and type of participation sought by Member States

10. Not known.

11. No information available, but domestically oriented.

12. 1,620 tons of calcined gypsum a year.

13. No information available.

**PROJECT PROFILE NO. 26**

**DATE OF PROPOSAL:** 1988  **LAST UPDATE:** 1988  **SUBSECTOR:** Chemical industry (fertilizers)

1. **Project Title:** Rehabilitation of urea fertilizer plant (Somalia)

2. **Objective:** To increase agricultural production.

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Mogadishu, Somalia.</td>
<td>Investigation of technical problems.</td>
<td>6MW supplied by factory, an additional 3.2MW needed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Domestic, 15,000 tons p.a.</td>
<td></td>
<td></td>
<td>Factory with all necessary equipment available; easily accessible.</td>
</tr>
</tbody>
</table>

<table>
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<tr>
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</thead>
<tbody>
<tr>
<td>35,000 tons of urea to be exported annually.</td>
<td>50,000 tons p.a.</td>
<td>$16 million.</td>
<td>Initial investment in the plant was $70 million. Factory has some technical problems. Participation sought in trouble-shooting, loan, know-how and management. Factory established in 1983, but has been operating at low level (1,405 tons in 1984, 1,953 tons in 1985 and 840 tons in 1986). Factory closed since 1986.</td>
</tr>
</tbody>
</table>
**PROJECT PROFILE NO. 27**

**DATE OF PROPOSAL:** 1988  
**LAST UPDATE:** 1991  
**SUBSECTOR:** Chemical industry (ancillary products)

### 1. Project Title:
**Manufacture of carbon black (Kenya)**

### 2. Objective:
To establish a new plant to produce carbon black, an essential raw material for the manufacture of tyres and printing ink.

### 3. Promoter/sponsor

<table>
<thead>
<tr>
<th>5. Project status</th>
<th>7. Raw materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Immediate follow-up</td>
<td>8. Energy</td>
</tr>
</tbody>
</table>

### 4. Location

<table>
<thead>
<tr>
<th>5. Feasibility study carried out in 1987.</th>
<th>6. Market study needs to be carried out.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information not available.</td>
<td>Information not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>10. Projected demand by product</th>
</tr>
</thead>
<tbody>
<tr>
<td>12. Capacity by product</td>
</tr>
<tr>
<td>13. Total investment</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>10. Information not available.</th>
</tr>
</thead>
<tbody>
<tr>
<td>12. 20,000 tons p.a. (minimum economic size)</td>
</tr>
<tr>
<td>13. $5 million.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>11. Market</th>
<th>14. Additional information including collaboration arrangements already made and type of participation sought by Member States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local: 8,000 tons p.a.</td>
<td>Government looking for a private promoter.</td>
</tr>
<tr>
<td>Export: 12,000 tons p.a.</td>
<td></td>
</tr>
</tbody>
</table>

### 15. Remarks:
Project is still considered an interesting possibility, both for import substitution and exports within PTA subregion, where carbon black is not yet produced. Nevertheless, a feasibility study still needs to be made.
<table>
<thead>
<tr>
<th><strong>PROJECT PROFILE NO. 28</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DATE OF PROPOSAL:</strong> 1988</td>
</tr>
</tbody>
</table>

1. **Project Title:** Hollow glass manufacturing plant (Somalia)

2. **Objective:** To encourage import-substitution and give impetus to cottage-level producers.

3. **Promoter/sponsor**

4. **Location**

3. **Government of Somalia.**

4. **Mogadishu, Somalia.**

10. **Projected demand by product**

11. **Market**

12. **Capacity by product**

13. **Total investment**

14. **Additional information including collaboration arrangements already made and type of participation sought by Member States**

<p>| | |</p>
<table>
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<tbody>
<tr>
<td>3.</td>
<td>5. Project status</td>
</tr>
<tr>
<td>4.</td>
<td>6. Immediate follow-up</td>
</tr>
<tr>
<td>3.</td>
<td>5. Pre-feasibility.</td>
</tr>
<tr>
<td>4.</td>
<td>6. Further study to confirm market demand and analyze profitability.</td>
</tr>
<tr>
<td>10.</td>
<td>12. Capacity by product</td>
</tr>
<tr>
<td>11.</td>
<td>13. Total investment</td>
</tr>
<tr>
<td>10.</td>
<td>12. 3,000-4,500 tons p.a. (minimum economic size).</td>
</tr>
<tr>
<td>11.</td>
<td>13. $8.1 million.</td>
</tr>
</tbody>
</table>

- **Projected demand by product:**
  - 1990: 3,210-5,712 tons p.a.

- **Oriented towards domestic market.**

- **Government of Somalia.**
  - Silica sand available locally.

- **Mogadishu, Somalia.**
  - A tarmac road links the proposed factory site to the raw material deposits.

- **Promoter/sponsor**

- **Location**

- **Immediate follow-up**

- **Pre-feasibility.**

- **Further study to confirm market demand and analyze profitability.**

- **Total investment**

- **Capacity by product**

- **Total investment**

- **Additional information including collaboration arrangements already made and type of participation sought by Member States**
## PROJECT PROFILE No. 29

**DATE OF PROPOSAL:** 1988  
**LAST UPDATE:** 1991  
**SUBSECTOR:** Chemical industry  
(pesticides)

1. **Project Title:** Rehabilitation of copper oxychloride plant (Zambia)

2. **Objective:** To expand production of copper oxychloride.

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Marana Chemicals Ltd.</td>
<td>Ndola, Zambia.</td>
<td>Feasibility study for the rehabilitation under preparation.</td>
<td>Completion of feasibility study and promotion among potential investors and financing institutions.</td>
<td>Copper wires/scrap, hydrochloric acid, fuel oil. Estim. 51 per cent local, 49 per cent imported</td>
<td>Hydroelectricity available.</td>
<td>Available</td>
</tr>
</tbody>
</table>

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</tr>
</thead>
<tbody>
<tr>
<td>To be determined in the feasibility study.</td>
<td>3000 mt p.a.</td>
<td>30% domestic and 70% exports</td>
<td>Estim. US$779,000 of which US$710,000 foreign currency component</td>
<td>N/A</td>
</tr>
</tbody>
</table>

15. **Remarks:**  
Updated project profile 1991.
**PROJECT PROFILE NO. 30**

**DATE OF PROPOSAL:** 1988  
**LAST UPDATE:** 1988  
**SUBSECTOR:** Chemical industry (pesticides)

1. **Project Title:** Rehabilitation of copper oxychloride plant (Zimbabwe)

2. **Objective:** To contribute to production of pesticides, thus reducing pre-harvest crop losses and increasing food output.

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Zimbabwe.</td>
<td></td>
<td>8. Coal-generated power available.</td>
</tr>
</tbody>
</table>

4. **Location**

5. **Immediate follow-up**

6. **Raw materials**

7. **Energy**

8. **Physical infrastructure**

9. **Completed by product including collaboration arrangements already made**

10. **Projected demand by product**

11. **Market**

12. **Capacity by product**

| 10. Local demand by 1990: more than 2,000 tons a year. Other countries in the subregion: 500 tons. | 12. 3,000 tons. |
| 11. Domestic and subregional. |

13. **Total investment**

14. **Additional information including collaboration arrangements already made and type of participation sought by Member States**

| 14. Commonwealth Secretariat carrying out feasibility study and supply/purchase arrangements to be worked out with neighbouring countries. | 13. To be determined in feasibility study. |
PROJECT PROFILE NO. 31

DATE OF PROPOSAL: 1988  LAST UPDATE: 1988  SUBSECTOR: Chemical industry (basic chemicals)

1. Project Title: Integrated chlor-alkali and PVC plant (Zimbabwe)

2. Objective: Manufacture of chlor-alkali products (NaOH, Cl₂, HCl, NaOCl) and PVC resins for both the domestic and subregional markets.

3. Promoter/sponsor

4. Location

5. Project status

6. Immediate follow-up

7. Raw materials

8. Energy

9. Physical infrastructure

5. Requests for technical offers.

6. Final investment appraisal and requests for final offers.

7. Salt imported from the subregion; calcium carbide to be manufactured in Zimbabwe; process water made available locally; sodium carbonate imported from the subregion; and process chemicals imported.

8. Electricity from the national grid (ZESA) at 11kV. There is to be a centrally located medium-voltage sub-station and a transformer-rectifier for the chlorine/caustic soda unit.

9. The complex is to be located close to a source of raw water and fuel. The scope of off-sites and utilities is to include: electrical power sub-station; water supply and treatment; storage facilities and workshops; effluent treatment and disposal units; fire station; laboratories; medical centre and other personnel facilities.

10. Projected demand by product

11. Market

12. Capacity by product

13. Total investment

14. Additional information including collaboration arrangements already made and type of participation sought by Member States

10. PVC: 15,000 tons p.a.


11. Domestic and subregional markets.

11. Domestic and subregional markets.

12. Chlorine: 13,563 tons

14. Project expected to be a joint venture between IDC and Zimbabwe private sector companies. Issues of participation by Member States not yet decided. Total manpower requirement for the project is 362, of whom 75 engineering and technical staff.
**Project Profile No. 32**

**Date of Proposal:** 1988  
**Last Update:** 1988  
**Subsector:** Chemical industry (basic chemicals)

1. **Project Title:** Chrome tanning salts (Zimbabwe)

2. **Objective:**  
   Manufacture of sodium dichromate solution (leather tanning salt) for the domestic and subregional markets.

3. **Promoter/sponsor**

4. **Location**
   Shurugwi, Midlands.

5. **Project status**  
   UNIDO team of experts to carry out final techno-economic feasibility study.

6. **Immediate follow-up**
   Final investment appraisal.

7. **Raw materials**
   Chromite and limestone available in Zimbabwe; soda ash imported from the subregion; sulphuric acid available in Zimbabwe.

8. **Energy**
   Electrical power from the national grid (ZESA).

9. **Physical infrastructure**
   Off-sites and utilities to be close to supply of main raw material (chromite ore).

10. **Projected demand by product**

11. **Market**

12. **Capacity by product**
   2,000 tons p.a. sodium dichromate.

13. **Total investment**
   Z$12 million ($6.3 million).

14. **Additional information**
   Including collaboration arrangements already made and type of participation sought by Member States.

10. Tons p.a. by 1990:  
   - Zimbabwe: 960  
   - Botswana: 400  
   - Zambia: 100  
   - Malawi: 100  
   - Other SADCC countries: 100  
   - 1,660

11. **Domestic and subregional markets.**

14. Interested parties so far are the Industrial Development Corporation of Zimbabwe (IDC), the Botswana Development Corporation, Rio Tinto, Ciba, Bata Shoe Company, Imponente Tanning and Belmont Leather. Apart from Botswana, participation by subregional Member States not yet considered. Total manpower requirement is expected to be in the region of 35.
### Project Profile No. 33

**DATE OF PROPOSAL:** 1988  
**LAST UPDATE:** 1988  
**SUBSECTOR:** Chemical industry (basic chemicals)

1. **Project Title:** Production of caustic soda (Tanzania)

2. **Objective:** To ensure regular supply of basic chemicals urgently needed in priority industries, such as soap and detergents, textile and pulp and paper processing.

3. **Promoter/sponsor**

4. **Location**

5. **Project status**

6. **Immediate follow-up**

7. **Raw materials**

8. **Energy**

9. **Physical infrastructure**

10. **National Chemical Industries, Dar-es-Salaam, Tanzania.**

11. **Arusha, Tanzania.**

12. **Pre-feasibility study** conducted by promoters.

13. **Feasibility study** to be undertaken by future partner, covering such areas as:
   - (i) Techno-economic feasibility study;
   - (ii) Demand analysis and pricing;
   - (iii) Technical aspects;
   - (iv) Raw materials;
   - (v) Manpower and training requirements;
   - (vi) Utilities and essential services;
   - (vii) Financial and economic analysis; and
   - (viii) Schedule of implementation.

14. **Soda ash:** at first from Lake Magadi, and later on from Lake Natron.

15. **Lime:** from limestone quarried in coastal areas.

16. **Readily available from Tanzania Electrical Supplies Company.**

17. **Provisional site selected in industrial area at Arusha, well served with essential facilities such as water and passable roads.**

18. **Capacity by product**

19. **Total investment**

20. **Local demand is estimated at 25,000-30,000 metric tons p.a. Regional demand is estimated to be 50,000-60,000 metric tons p.a.**

21. **To be determined in the feasibility study.**

22. **25-30,000 tons of caustic soda per annum.**

23. **The project requires a feasibility study by a partner who could actively participate in its preparation, provide technical know-how, supply machinery and possibly take share of the equity. Loan will be sought from such institutions as the EADB. Training in general will also be required.**

24. **Additional information including collaboration arrangements already made and type of participation sought by Member States.**

25. **Upon expanding the plant at a later stage, it is expected that the products will sell in Burundi, Kenya, Rwanda, Uganda and Zambia.**

26. **Total investment to be determined in the feasibility study.**
1. Project Title: Lake Natron soda ash project (Tanzania)

2. Objective: Exploitation of soda ash.

3. Promoter/sponsor

4. Location

5. Project status

6. Immediate follow-up

7. Raw materials

8. Energy

9. Physical infrastructure

3. State Mining Corporation (STAMICO), Dar-es-Salaam, Tanzania.


5. Between 1974 and 1976, three Japanese companies (Toyo Soda, Toyo Menka Kaisha and Nippon Koei) carried out a feasibility study for a larger project proved to be too costly. However, given increasing domestic demand of soda ash, a smaller project was initiated and a new feasibility study was conducted by UNIDO experts in 1982/1983. Labour camp to accommodate 30-40 workers established and the construction of solar evaporation pans (reservoirs, condensers and crystallizers) is under way.

6. Purchase of the calcining plant, brine pumps, transport vehicles and other equipment required.

7. 109 million tons of soda ash reserves in crust and over 27 million tons in brine with annual replenishment through springs.

8. Solar evaporation process (with calcination) used.

9. Available for smaller project.

10. Projected demand by product

11. Market

12. Capacity by product

13. Total investment

14. Additional information including collaboration arrangements already made and type of participation sought by Member States

10. Demand adequate and continually growing.

11. Local and subregional markets.

12. 30,000 tons of soda ash p.a. to be expanded to 60,000 tons p.a. in the second phase.

13. Capital cost: $10.7 million, of which $6.4 million is local component.

15. Remarks: The viability of the project and its inclusion in the IDDA subregional programme should be reconsidered taking into account the establishment of the SUA PAN Soda Ash project in Botswana.
**PROJECT PROFILE E.O. 35**

**DATE OF PROPOSAL:** 1988  
**LAST UPDATE:** 1988  
**SUBSECTOR:** Chemical industry (non-metallic mineral products)

1. **Project Title:** Mbagala sheet glass project (Tanzania)

2. **Objective:** To promote the local production of sheet glass and serve both local and subregional markets.

3. **Promoter/sponsor**

4. **Location**

5. **Project status**

6. **Immediate follow-up**

7. **Raw materials**

8. **Energy**

9. **Physical infrastructure**

<table>
<thead>
<tr>
<th>Tanzania Saruji Corporation, through its subsidiary company MbagalaSheet Glass Ltd, Dar-es-Salaam, Tanzania.</th>
<th>Rehabilitation required prior to final commissioning.</th>
<th>Silica sand: locally available some 15km from project site.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Dolomite: locally available some 160km from project site.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Limestone: locally available 400km from project site.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Soda ash: imported from Kenya.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Salt cake: imported from Europe.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Alumina: imported from Europe.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Available.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A 15km tarmac road in need of repair connects the plant to Dar-es-Salaam harbour and railway station. Water supply from city centre is inadequate. Telecommunication networks available.</td>
</tr>
</tbody>
</table>

4. **Dar-es-Salaam, (15km south of city centre) Tanzania.**

- Mobilization of foreign currency for rehabilitation.
- Rehabilitation and infrastructural improvements require $2 million (DM4 million), while initial raw materials and working capital call for an additional $500,000. (Total cost of rehabilitating the plant amounts to $2.5 million).
<table>
<thead>
<tr>
<th>10. Projected demand by product</th>
<th>12. Installed capacity:</th>
<th>14. Additional information including collaboration arrangements already made and type of participation sought by Member States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local demand is about 4-5,000 tons p.a., while exports are expected to reach 10,000 tons p.a.</td>
<td>15,000 tons of sheet glass p.a.</td>
<td>$20,000,000.</td>
</tr>
</tbody>
</table>

11. Potential markets include Uganda, Zambia, Kenya, Madagascar, Rwanda and Burundi. The first three have rail links with Tanzania and enjoy traditional trading ties.

14. Tanzania Saruji Corporation awarded a turnkey contract to Basse Sambre Eri of Belgium in 1979 to construct the plant. Development Consultants International of India were the overall consultants. Physical implementation of the project started in May 1981, and was completed in 1984. Additional facilities for the treatment of raw materials, particularly sand beneficiation, were completed in July 1985 and commercial production was expected to start immediately. However, owing to power supply problems, the plant could not be commissioned. Adequate electricity was only made available in April 1987. After lying idle for so long, some of the machinery and equipment, particularly the electronic equipment, as well as the furnace were inoperable making it necessary to rehabilitate the plant before commissioning it. The Belgian Government, which financed the original loan, was unable to fund the essential rehabilitation and commissioning of the plant which a contractor is willing to undertake. The Tanzanian Government has decided to proceed with plant rehabilitation, and is soliciting funds from elsewhere as well as drawing on its own resources. The Tanzania Industrial Studies and Consulting Organization (TISCO) have been hired as project consultants, and their study on rehabilitation needs shows a total foreign component requirement of D2900,000 (about $450,000).
1. Project Title: Production of cement for Indian Ocean island countries (Madagascar)

2. Objective: To establish a new enterprise to produce cement for the Indian Ocean island countries.

3. Promoter/sponsor

5. Project status

7. Raw materials

8. Energy

9. Physical infrastructure

4. Location

6. Immediate follow-up


7. Limestone, clay, charcoal, iron ore locally available. 19,200 tons of gypsum to be imported per annum.

8. Thermal based on charcoal (48 million kWh p.a.).

9. Need to develop infrastructure for exploiting coal deposits some 200km from project site.

10. Projected demand by product

12. Capacity by product

14. Additional information including collaboration arrangements already made and type of participation sought by Member States

13. Total investment

11. Market

10. In year 2000

Portland cement: 120,000 tons (1992)
773,900 tons.
Clinker: 263,700 tons.
Special cement: 139,200 tons.


13. FF467.2 million.

11. Indian Ocean islands.

In 1985, cement consumption totalled 647,000 tons, of which 97,000 tons were produced locally.

14. Government prefers to import the 90,000 tons p.a. of coal from the subregion rather than incur high costs of infrastructure associated with exploiting local coal deposits. This alternative would improve viability of project (rate of return 13.56 per cent) and make the cement more competitive in the subregion.

15. Remarks:
An opportunity study carried out by the Ministry of Economy and Planning has been recently submitted to the other IOC countries, and an ad-hoc committee has been set up within the subregional industrial development committee of IOC. The government of Madagascar has been informed by UNIDO that a Japanese cement company is interested in equity capital participation to set up a plant with a capacity of 600,000 tons/year, after a proper feasibility study has been done. After an agreement on the Terms of Reference for such a feasibility study, UNIDO would take all the necessary action to secure funds for the study to be jointly carried out by Japanese and Malagasy consulting companies and UNIDO.
|----------------------|-------------------|----------------------------------|

1. **Project Title:** Cement blending and packaging plant (Lesotho) and extension of the existing railway line

2. **Objective:** Production of cement to substitute present imports.

3. **Promoter/sponsor**
   3.1 Lesotho National Development Corporation (LNDC) and Anglo Alpha.

4. **Location**
   4.1 Mafutsane, Lesotho.

5. **Project status**
   5.1 Under negotiation.

6. **Immediate follow-up**
   6.1 LNDC to investigate other possible joint venture partners.

7. **Raw materials**
   7.1 Bulk cement and slag: 50,000 tons p.a. Source: regional.

8. **Energy**
   8.1 Electricity and water adequate.

9. **Physical infrastructure**
   9.1 Well developed road and air facilities. Lesotho linked to RSA road and rail network. Local companies provide international road haulage services.

10. **Projected demand by product**
    10.1 90,000 tons (domestic) increasing to 856,000 tons p.a. during phase 1A of the Lesotho Highland Water Scheme.

11. **Market**
    11.1 Total investment
    11.2 M(Maloti)3.5 million.

12. **Capacity by product**
    12.1 Initial capacity will be 50,000 metric tons p.a. and building up as demand increases.

13. **Additional information**
    13.1 Including collaboration arrangements already made and type of participation sought by Member States.

14. **Remarks:** Most of the output of this plant would be produced to meet demand of the ongoing Lesotho Highland Water Project (LHWP) to build its dams and tunnels. The plant could also serve the needs of the rest of the construction industry in Lesotho. Clinker and gypsum could be imported from other PTA countries as a regional component. Moreover, this project includes the extension of the existing railway line that at present passes close to the border with RSA but does not have a spur into Mafutsane.
PROJECT PROFILE NO. 38


1. Project Title: Edible oil production (Lesotho)

2. Objective: Production of edible oil from locally produced sunflower.

3. Promoter/ sponsor
4. Location
3. Lesotho National Development Corporation (LNDC), Elangeni Oil and Cake Mills, and Chesterland Holdings Inc. (UK).

5. Project status
6. Immediate follow-up
6. Not applicable at present, but product range will be extended.

7. Raw materials
8. Energy
7. Sunflower seed: 14,000 tons p.a. Source: Lesotho.
8. Electricity and water adequate.

9. Physical infrastructure
14. Additional information including collaboration arrangements already made and type of participation sought by Member States

10. Projected demand by product
11. Market
10. 300,000 tons p.a. (PTA).
11. SADCC, Zaire, India and PTA.

12. Capacity by product
13. Total investment
12. 4,000 tons in year one, building up to 8,000 by year four.
13. M(Maloti) 6,940,000.

14. By-products will include oil cake (high protein animal feed), sunflower husks which can be used for stoking steam engines. Product extensions will include margarine, soap detergents, industrial oils and textured vegetable protein. The domestic and subregional demand for edible vegetable oils is appreciable, with a large proportion of the market still being supplied by sources outside the subregion.

15. Remarks: There is a large demand for edible oil in Lesotho and generally in the PTA subregion. It could be produced locally from sunflowers which could be grown in Lesotho. The establishment of the edible oil mill is currently under active consideration, with an expected investment of US$7.5 million. The foreign contribution is sought in terms of an investment equity loan.
1. Project Title: **Coconut processing programme (Comoros)**

2. Objective: Production of coconut oil for food purposes.

3. Promoter/sponsor: 

4. Location: 

5. Project status: 

6. Immediate follow-up: 

7. Raw materials: 

8. Energy: 

9. Physical infrastructure: 

3. Government of the Comoros: 

4. Comoros: 

5. Conceptual stage: 

6. Feasibility study being commissioned: 

7. Locally grown coconuts: 

8. Requirements to be determined in feasibility study: 

9. Requirements to be determined in feasibility study: 

10. Projected demand by product: 

12. Capacity by product: 

13. Total investment: 

14. Additional information including collaboration arrangements already made and type of participation sought by Member States: 

10. Requirements to be determined in feasibility study: 

12. Requirements to be determined in feasibility study: 

14. The programme comprises four sub-projects: 

(a) production of coconut oil for human consumption; 

(b) manufacture of coir mattresses and mats; 

(c) use of coconut husks for the manufacture of furniture; and 

(d) possible extraction of alcohol and sum-tan oil for export. 

11. Market: 

13. Requirements to be determined in feasibility study: 

15. Remarks: From discussions held during preparatory missions it has emerged that the project should focus on (i) edible oil; (ii) coir mattresses and mats; (iii) soap. For each of these products local promoters have been identified and potential partners are sought in the subregion. The overall project is also related to the establishment of a French/Seychelles pilot plant to produce coconut cream as an input for cosmetic and food products. The project may also include the use of coconut trees in the construction sector and should be revised to enhance the potential for subregional co-operation.
## Project Profile No. 40

**Date of Proposal:** 1988  
**Last Update:** 1991  
**Subsector:** Agro- and agro-related industries (food-processing)

### 1. Project Title: **Fish-processing facilities (Uganda)**

### 2. Objective:  
Production of fish fillets and by-products.

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Government of Uganda</td>
<td>Agreement reached between Italian/ Chinese Governments and Uganda Government</td>
<td>Fish from Lake Victoria and other lakes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Jinja/Entebbe, Uganda</td>
<td>Market survey in the subregion with a view to reaching purchase/supply agreement</td>
<td>From national grid</td>
<td>Available</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>To be determined.</td>
<td>To be provided later</td>
<td>N/A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>11. Market</th>
<th>13. Total investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTA subregion and other island countries.</td>
<td>To be provided later</td>
</tr>
</tbody>
</table>

### 15. Remarks:  
Production started in 1990. Currently selling to domestic market and exporting to Europe.
<table>
<thead>
<tr>
<th><strong>1. Project title:</strong></th>
<th>Production of galvanized steel wire and light structural products (Lesotho)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2. Objective:</strong></td>
<td>To provide local inputs for engineering construction and components for distribution and electric power transmission lines</td>
</tr>
<tr>
<td><strong>3. Status of implementation:</strong></td>
<td>under discussion</td>
</tr>
<tr>
<td><strong>4. Partner/sponsor/institution:</strong></td>
<td>to be determined</td>
</tr>
<tr>
<td><strong>5. Location:</strong></td>
<td>Lesotho</td>
</tr>
<tr>
<td><strong>6. Estimated cost:</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>7. Estimated duration:</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>8. Action required/recommendations:</strong></td>
<td>to be determined</td>
</tr>
<tr>
<td><strong>9. Project description and additional information:</strong></td>
<td>This project is related to and may replace the PTA project ENG/04. It is included in the draft Lesotho National programme for the second IDDA. Light structurals can be manufactured from billets in small rolling mills with facilities for coal-fired heating furnaces. Light structurals such as rods, angles, flats, and tees can be used for various structural requirements in reinforcement, fabrication, window grills, security fencing and for various types of engineering and construction works. The greatest demand is for light galvanized structurals used for the construction of electric poles and pylons for electric power distribution and transmission lines. Another line of production uses rods as inputs to draw wires, from which a variety of wire products (galvanized and black) can be made, including welded mesh, and various construction and fencing requirements. If a galvanizing complex with modern technology is set up, it should be possible to add the manufacture of sheet products, both plain and corrugated, at a later stage. As a subregional component of the project, there is a large market for all these products in RSA and in the PTA countries.</td>
</tr>
</tbody>
</table>
PROJECT PROFILE NO. 42


1. Project title: Establishment of a joint-venture for bicycle assembly (Swaziland/Mozambique)

2. Objective: To integrate regionally the present production of bicycles and possibly to produce other cheap forms of rural transport

3. Status of implementation: Negotiation stage

4. Partner/sponsor/institution: Mozambican bicycle producer and Swaziland private companies

5. Location: Mozambique/Swaziland

6. Estimated cost: N/A

7. Estimated duration: N/A

8. Action required/recommendations: to be determined

9. Project description and additional information:

The existing enterprise, based in Mozambique, works at only 10 per cent of its capacity due mainly to the limited size of the domestic market. A recent agreement has been signed for after-sales services and negotiations are under way for establishing a joint-venture. The EEC Centre for Industrial Development (CDI) is expected to finance and support the feasibility study for the joint-venture.
PROJECT PROFILE NO. 43


1. Project title: Expansion of existing production of pumps for irrigation and rural water supply (Swaziland/Zimbabwe)

2. Objective: To expand existing local production of agricultural equipment in the subregion

3. Status of implementation: Commercial collaboration already in place

4. Partner/sponsor/institution: Private enterprises in Swaziland and Zimbabwe

5. Location: Swaziland and Zimbabwe

6. Estimated cost: N/A

7. Estimated duration: N/A

8. Action required/recommendations: to be determined

9. Project description and additional information:

Swaziland and Zimbabwean producers have established commercial collaboration. Further co-operation in the areas of production and maintenance and operation is envisaged.
1. Project title: Expansion of Lesotho Pharmaceutical factory

2. Objective: To expand existing capacity and diversify production of the Lesotho Pharmaceutical factory to supply the PTA market.

3. Status of implementation: Under discussion

4. Partner/sponsor/institution: Lesotho/PTA

5. Location: Lesotho

6. Estimated cost: N.A.

7. Estimated duration: N.A.

8. Action required/recommendations:
   To assess PTA demand for pharmaceuticals and existing PTA standards for pharmaceutical products.

9. Project description and additional information:
   Lesotho already has one pharmaceutical plant. Production could be diversified and the plant could be expanded so as to export to PTA countries, provided that a PTA policy is agreed on rationalization and harmonization of standards etc.
1. Project title: Revitalization of a cement formulation plant

2. Objective: To reactivate an existing cement formulation plant

3. Status of implementation: under discussion

4. Partner/sponsor/institution: to be determined

5. Location: Swaziland

6. Estimated cost: N.A.

7. Estimated duration: N.A.

8. Action required/recommendations:

   To investigate the possibility and the viability of importing raw materials/inputs from Eastern and Southern African countries.

9. Project description and additional information:

   A cement formulation plant in Swaziland previously imported clinker from Mozambique; but it is no longer in operation, due to managerial and operational problems, as well as difficulties in obtaining raw materials.
PROJECT PROFILE NO. 46


1. Project title: Expansion of Swaziland textile industry

2. Objective: To expand existing high quality production and product-mix.

3. Status of implementation: idea stage

4. Partner/sponsor/institution: N.A.

5. Location: Swaziland

6. Estimated cost: N.A.

7. Estimated duration: N.A.

8. Action required/recommendations:
   To survey existing expertise in African-style designs and patterns in other countries such as Zimbabwe, Mozambique, Malawi, etc.

9. Project description and additional information:
   The project aims at expanding the existing high-quality textile production in Swaziland. An option with high development potential is given by the possibility to diversify the current production with involvement of the informal and small-scale sectors, to manufacture fabric and garments using African-style designs and pattern for the African market.
   
   At present some small-scale women-run enterprises are producing women's garments for the local markets and for export to neighbouring countries.
<table>
<thead>
<tr>
<th>1. Project title:</th>
<th>Meat processing joint-venture</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Objective:</td>
<td>To integrate meat processing industries in Eastern and Southern African countries</td>
</tr>
<tr>
<td>3. Status of implementation:</td>
<td>under discussion</td>
</tr>
<tr>
<td>4. Partner/sponsor/institution:</td>
<td>Botswana Meat Commission (BMC) and other similar bodies in other Eastern and Southern African countries</td>
</tr>
<tr>
<td>5. Location:</td>
<td>SADCC countries</td>
</tr>
<tr>
<td>6. Estimated cost:</td>
<td>N.A.</td>
</tr>
<tr>
<td>7. Estimated duration:</td>
<td>N.A.</td>
</tr>
<tr>
<td>8. Action required/recommendations:</td>
<td>To undertake a survey at the subregional level to identify the potential for co-operation and integration of meat-processing and other by-products following an integrated approach</td>
</tr>
<tr>
<td>9. Project description and additional information:</td>
<td>To assess existing production capabilities and facilities and co-operation potential for meat-processing, canning, and processing other products such as raw hides, wet blue hides, bone and blood meal, tallow, animal vaccines, disease control, etc. An interesting opportunity for regional co-operation would be the creation of subsidiaries and/or related joint-ventures in other SADCC/PTA countries, based on Botswana Meat Commission (BMC) expertise, finance, market and quality control know-how.</td>
</tr>
</tbody>
</table>
### PROJECT PROFILE NO. 48

**Date of proposal:** 1991  
**Last update:** 1991  
**Subsector:** Agro- and agro-based

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<table>
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<tbody>
<tr>
<td><strong>1. Project title:</strong></td>
<td>Establishment of an animal glue factory (Botswana)</td>
</tr>
<tr>
<td><strong>2. Objective:</strong></td>
<td>To establish a factory for the manufacture of glues, using cattle by-products from Botswana, Zimbabwe and other SADCC countries.</td>
</tr>
<tr>
<td><strong>3. Status of implementation:</strong></td>
<td>Funds to carry out a market study sought</td>
</tr>
<tr>
<td><strong>4. Partner/sponsor/institution:</strong></td>
<td>N.A.</td>
</tr>
<tr>
<td><strong>5. Location:</strong></td>
<td>Botswana</td>
</tr>
<tr>
<td><strong>6. Estimated cost:</strong></td>
<td>N.A.</td>
</tr>
<tr>
<td><strong>7. Estimated duration:</strong></td>
<td>N.A.</td>
</tr>
<tr>
<td><strong>8. Action required/recommendations:</strong></td>
<td>To undertake a subregional market study</td>
</tr>
<tr>
<td><strong>9. Project description and additional information:</strong></td>
<td>A UNIDO project US/BOT/87/149, is ongoing, however, a cost-sharing arrangement has not been finalized with the either the Botswana Government or with the private sector. The project might be extended to become a subregional project covering other SADCC countries.</td>
</tr>
</tbody>
</table>
PROJECT PROFILE NO. 49


1. Project title: Establishment of an integrated textile complex (Lesotho)

2. Objective: To establish a modern integrated textile industry in Lesotho to take advantage of its market preferences and raw materials.

3. Status of implementation: under discussion

4. Partner/sponsor/institution: N/A

5. Location: Lesotho

6. Estimated cost: N/A

7. Estimated duration: N/A

8. Action required/recommendations: Pre-feasibility study

9. Project description and additional information:

This project replaces project no. 27 of the IDDA Revised Integrated Industrial Promotion Programme of 1988: Cotton weaving plant.

The country's comparative advantages were identified as transport, availability of foreign exchange and no quota restrictions for Lesotho on exports of textiles to EC, USA and Canada. Wool and mohair are available in the country, while cotton, polyester, viscose, and other raw materials are available in RSA and in other PTA countries. In addition, there is a sufficient market in the subregion for textile products and blankets made from woolen and acrylic yarns.
SUPPORT PROJECT PROFILE NO. 1 (IDDA)

Date of proposal: 1983  Last update: 1991  Type: Institutional Building

1. Project Title: Transformation of Serere research station into a subregional R & D centre (Uganda)

2. Objective: To assist countries in improving food supplies in the subregion by increasing the production of indigenous cereals, root crops and legumes and their utilization in traditional, new and modified food products.

3. Promoter/sponsor: Council of Ministers of the Lusaka-based MULPOC.

4. Location: Uganda.

5. Estimated total cost: $1,095,000.

6. Project description and additional information:

   At its fifth meeting, March 1982, the Lusaka-based MULPOC Council of Ministers endorsed the progress made on composite flour development programmes and adopted a resolution on converting Serere research station into a subregional institution for research and development of composite flours from sorghum, millet and other cereals and cassava. These crops grow well in the subregion and could reduce dependence on imported wheat. Bakery products made from composite flour as against 100 per cent wheat flour offer many advantages to African countries which import wheat in increasing quantities, yet grow non-wheat cereals, roots and tubers suitable for use in composite flour.

   These benefits are as follows:

   (a) Reduction of dependence of local bakeries and associated industries on wheat imports, thus leading to foreign exchange savings;
   (b) Increased utilization of indigenous products, thus providing production incentives;
   (c) Increased industrial investment, thus generating employment;
   (d) Increased food self-sufficiency;
   (e) Convenience as a 'vehicle' for improved nutrition through the addition of flour(s) from high-protein legumes.

   The centre would also give demonstrations of industrial-scale processing of these materials, root crops and legumes and provide training in that field. There has been little progress in the development of the station as a subregional R & D centre because of the changes in the political situation in Uganda in recent years. In fact, research activities have been transferred to Arapai Agricultural College, 28 miles from Serere.

   Recommendation: The project should be kept in abeyance until such time as normal activities are resumed at the station.

7. Remarks: Project still to be kept in abeyance until normal activities can be resumed at the Serere research station.
1. Project Title: Assistance to the African Regional Organization for Standardization (ARSO) and the African Institute for Higher Technical Training and Research (AIHTTR)

2. Objective: To enhance and strengthen the capacity of both institutions to assist countries in improving; (a) national standards, quality control; and (b) services of African technicians, technologists and engineers through producer-oriented training.

3. Promoter/sponsor: ECA/OAU/UNIDO/ARSO/AIHTTR.

4. Location: Nairobi, Kenya.

5. Estimated total cost: (a) $100,000 for ARSO; (b) $200,000 for AIHTTR.

6. Project description and additional information:

(1) ARSO: (a) The immediate project objective is to: (i) harmonize or introduce national standards for priority areas in the subregion; (ii) harmonize or introduce certification marking schemes in the subregion; (iii) assist the countries of the subregion in establishing and operating national metrology programmes; (iv) establish a technical standards documentation and information service at the ARSO secretariat; (v) train technical staff in the field of standardization, quality control, certification marking and metrology; (vi) assist countries of the subregion in strengthening their national standards bodies (NSB); and (vii) involve the countries of the subregion in the activities of international organizations concerned with standardization, quality control, certification marking and metrology; and (b) Project outputs: (i) Review of standardization, quality control, certification marking and metrology; and (ii) Establishment of technical committees in priority fields; (iii) Preparation of standards of particular interest to the subregion; (iv) Collection and dissemination of data on standardization and related activities in the subregion; and (v) Survey of legal and industrial metrology practices in the countries of the subregion. This project is being implemented.

(2) AIHTTR: This project aims at: (i) Producing cadres in specific technical fields of importance to industry and R & D; (ii) Re-training of technical trainers, emphasizing the technological reorientation of education and training schemes; and (iii) Clearing-house activities, including comparisons/consensus on technical educational standards/qualifications, manpower profiles and data base, and collection and dissemination of information on industrial and technical training. This project is being implemented. ARSO received assistance from UNIDO. Further assistance is approved by UNDP. Both ARSO and AIHTTR have co-operated with ECA and UNIDO in carrying out a number of activities. The Directory for SADCC countries has been prepared.
1. Project Title: Inventory of subregional training facilities

2. Objective: To prepare an inventory of industrial training facilities in the subregion and strengthen a limited number thereof in order to improve industrial manpower training in the subregion.

3. Promoter/sponsor:
   SADCC.

4. Location:
   SADCC Industrial Co-ordination Unit, Dar-es-Salaam, Tanzania.

5. Estimated total cost:
   Information not available.

6. Project description and additional information:

   The project is designed to provide a complete survey of all training facilities/schemes in the subregion on the basis of which comprehensive subregional training programmes can be prepared and implemented. Although the project is being promoted by the SADCC, it is planned to expand its scope to include the other countries in the subregion and to involve AIHTTR and other relevant institutes. In carrying out the survey, information which would contribute to the preparation of an inventory of the industrial structure of the subregion should also be collected.

   The directory has been prepared by the SADCC Secretariat for SADCC countries. However, it needs to be extended to cover other countries in the subregion. UNIDO has also extended assistance to some of the institutions in the subregion, such as the ZISCO Training Centre and is considering further assistance to other centres to strengthen their capabilities to become centres of excellence.
SUPPORT PROJECT PROFILE NO. 4 (IDDA)

Date of proposal: 1983   Last update: 1988   Type: Direct Training

INDUSTRIAL SUPPORT AREA: Industrial manpower development

1. Project Title: Managerial and technical personnel training

2. Objective: To train the managerial and technical personnel required for subregional industrial development.

3. Promoter/sponsor: SADCC.

4. Location: SADCC Industrial Co-ordination Unit, Dar-es-Salaam, Tanzania.

5. Estimated total cost: Further information on costs to be furnished by SADCC.

6. Project description and additional information:

(a) Background: A project idea discussed during a UNIDO programming mission to certain SADCC countries, whereafter SADCC undertook a feasibility study and some training has started at ESAMI.

(b) Immediate objective: To plan and implement training programmes for managerial and technical personnel at the Eastern and Southern African Management Institute (ESAMI), Dar-es-Salaam, in such areas as: (i) small-scale industries development and management; (ii) Project planning, evaluation and management; (iii) Production management; (iv) Stock control and warehouse management; (v) Financial management; (vi) Planning, evaluation and management of transport projects.

(c) Project activities: Although the SADCC has already undertaken a preliminary study relating to the project and ESAMI is already providing some training for managerial skills, there is a need for UNIDO, in co-operation with ECA and OAU, to assist SADCC in conducting a more comprehensive survey to determine the training needs of the subregion. On the basis of that survey training programmes could be drawn up for implementation during the second phase, within the framework of the IDDA and UNIDO's technical co-operation programme in Africa. Considerable assistance is also being extended to the countries and organizations in the subregion in the training of industrial technical and managerial skills.

(d) The scope of the project will be expanded to include other countries in the subregion.
1. **Project Title:** Development of industrial consultancy and management capabilities

2. **Objective:** To develop or strengthen industrial management and consultancy institutions and policies in order to improve industrial management and consultancy in the subregion.

3. **Promoter/sponsor:** SADCC.

4. **Location:**
   SADCC Industrial Co-ordination Unit/Tanzania Industrial Studies and Consultancy Organization (TISCO), Dar-es-Salaam, Tanzania.

5. **Estimated total cost:**
   $891,000.

6. **Project description and additional information:**
   (a) **Background:** A project idea discussed during a UNIDO programming mission to certain SADCC countries.

   (b) **Immediate objective:** To develop or strengthen industrial management and consultancy institutions and policies designed to contribute to the effective implementation of the subregional industrial development programme. To utilize the services of TISCO in Tanzania and in Zimbabwe:

   - All Metal Founders - foundry and general
   - Conolly - foundry and general
   - Kornkarni (Pvt) Ltd - consultancy firm.
   - Morewear Industries - wagons and rolling stock
   - Neil Cochrane - boilers and water pumps
   - NIMR and Chapman - foundry and general
   - Samuel Osborne - mining equipment
   - Tinto Industries - agricultural implements and trailers
   - W.S. Craster - foundry and general
   - Zimplow - agricultural implements ox-drawn

   (c) **Project activities/cost/duration:** Project activities are still to be defined: total costs are estimated at $891,000. It is proposed that the project last two years. The SADDC Industrial Co-ordination Unit has already prepared a directory of industrial consultancy firms in SADCC countries.

   (d) **Suggestion:** The scope of the project will be expanded to include other countries in the subregion.
SUPPORT PROJECT PROFILE NO. 6 (IDDA)

Date of proposal: 1983  Last update: 1991  Type: Direct Support

INDUSTRIAL SUPPORT AREA: Industrial manpower development

1. Project Title: Development of local entrepreneurship (Directory of small-scale industrial project profiles)

2. Objective: To upgrade entrepreneurial capabilities in the small-scale industry subsector thereby promoting the establishment of the small-scale and manufacturing industries required during the second Industrial Development Decade for Africa (1991-2000).

3. Promoter/sponsor:
   IOC, SADCC and PTA; ECA/OAU/UNIDO.

4. Location:

5. Estimated total cost:
   a) Project personnel $300,000
   b) Training workshops and study tours for African entrepreneurs $300,000
   c) Equipment $300,000

6. Project description and additional information:

   The project aims at assisting African countries in laying the foundation for the accelerated, rational and integrated development of the small-scale industry subsector with a view to satisfying basic consumer needs and development needs in rural and urban areas. The directory of project profiles is expected to provide local small-scale industrial entrepreneurs with the detailed information and guidance they require for initiating, preparing and implementing small-scale industrial projects, with or without the help of extension services. It is envisaged that the directory of project profiles will be developed into a handbook for entrepreneurs and African investors interested in small-scale industrial promotion units and also may lead to the establishment of an Information Management System (IMS).

   ECA undertook an initial project in this field (Ref: ECA/IMR/SSI/WP/2 - Directory of Project Profiles on Small-Scale Industries in Africa). The first edition of the directory has already been completed and distributed by ECA. Furthermore, UNIDO has produced and distributed a study on "How to start manufacturing industries" containing project profiles for small-scale industries.

   The importance of this project has been reiterated during preparatory mission by representative of the small-scale sector and of several small-scale development corporations. The project should also enable exchange of information and expertise on appropriate technologies.
SUPPORT PROJECT PROFILE NO. 7 (IDDA)

Date of proposal: 1983    Last update: 1988    Type: Institution Building

1. Project Title: Improvement and development of the cement industry

2. Objective: To provide assistance to the SADCC member countries in developing and improving their cement and allied products industries.

3. Promoter/sponsor:
   SADCC.

4. Location:
   SADCC Industrial Co-ordination Unit, Dar-es-Salaam, Tanzania.

5. Estimated total cost:
   Project costs still to be established.

6. Project description and additional information:

   A project idea discussed during a UNIDO programming mission to certain SADCC countries.

   Immediate objective: To establish a network of national institutions (co-ordinated by the SADCC Industrial Co-ordination Unit), which will: (i) gather and disseminate technical information related to cement and allied products; (ii) initiate and co-ordinate subregional R & D programmes on cement and allied products, including feasibility studies; (iii) provide consultancy and advisory services; and (iv) organize training programmes, study tours, fellowships as well as meetings and workshops on various aspects of cement and cement-related industries.

   Project activities: Assistance has been extended by UNIDO to the countries of the subregion in the preliminary assessment of their cement industries. A follow-up project has been approved for financing from the UNDP regional IPF for the fourth programming cycle so as to enable UNIDO to undertake further, more detailed studies.
<table>
<thead>
<tr>
<th><strong>Date of proposal:</strong> 1988</th>
<th><strong>Last update:</strong> 1991</th>
<th><strong>Type:</strong> Institution Building</th>
</tr>
</thead>
</table>

1. **Project Title:** Upgrading of Kenya Textile Training Institute (KTTI) into a subregional training centre (Kenya)

2. **Objective:** To provide training in textile manufacturing to countries in the African region.

3. **Promoter/sponsor:** Ministry of Technical Training and Applied Technology, Kenya.

4. **Location:** Nairobi, Kenya.

5. **Estimated total cost:** US$950,000

6. **Project description and additional information:**

   KTTI runs six-month courses for apprentices and six-week courses for skills-upgrading in all stages of textile manufacturing. It has modern textile machinery and laboratory equipment, as well as boarding facilities for 120 trainees. KTTI is keen to receive trainees from other African countries.

7. **Remarks:**

   Project included in Integrated Industrial Development Programme for the PTA as AGRO/07, "Training Strategy for the Development of an Integrated Management System for the Textile Industry in Kenya for PTA countries".
1. Project Title: Upgrading of Ethiopian Management Institute into a subregional training centre (Ethiopia)

2. Objective: To provide management training and consultancy services to the subregion.

3. Promoter/sponsor:
   Government of Ethiopia/EMI.

4. Location:
   Debrezeit, Ethiopia.

5. Estimated total cost:
   To be determined.

6. Project description and additional information:

   EMI was established in March 1985, as an autonomous public organization, accountable to the Ethiopian Council of Ministers. EMI has a staff of 50 full-time national lecturers, all post-graduate degree holders with 7-10 years experience, and assisted by 5 international experts provided by UNDP/ILO.

   EMI runs short-term programmes (ranging from a few weeks to 6 months), diploma courses of 6 to 12 months duration, and degree courses of one-and-one-half to two years. The areas of training include general management, organization and methods, finance and accounting, production management, marketing, materials management, construction and transport management, management information systems, management of training, project analysis and management, etc.

   The Management Training Centre of EMI, located 50 km from Addis Ababa, has 6 lecture halls, a conference hall (120 seats) and a library, as well as board and lodging facilities to international standards (200 beds). EMI is ready to extend its training courses to participants from other African countries and to organize seminars and specific courses at the request of international organizations.
# SUPPORT PROJECT PROFILE NO. 10 (IDDA)

<table>
<thead>
<tr>
<th>Date of proposal: 1988</th>
<th>Last update: 1988</th>
<th>Type:</th>
<th>Institution Building</th>
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</thead>
</table>

1. **Project Title:** Regional Sugar Cane Training Centre for Africa (RSCTCA) (Mauritius)

2. **Objective:** To provide training in technology of all aspects of sugar production and utilization of sugar cane by products.

3. **Promoter/sponsor:**
   RSCTCA/UNDP.

4. **Location:**
   Reduit, Mauritius.

5. **Estimated total cost:**
   To be determined.

6. **Project description and additional information:**

   Established in 1980, RSCTCA runs four three-month courses alternately in English and French, in sugar manufacture, sugar cane agronomy, analysis of sugar products and chemical control of sugar factories, and sugar engineering. Designed primarily to provide training for African students, the activities of the centre have been extended to cover the Asian and Arab regions. Thus, at the end of 1987, 350 students from 36 developing countries had followed the courses on a full-time basis.

   The Mauritius Sugar Industry Research Institute provides the centre with laboratories, library, lecture rooms, experiment stations and most of the lecturers from its professional staff. The centre is subsidized by UNDP, which has also provided equipment to augment the laboratories of the institute and supplement the centre's own teaching equipment. The centre is willing to arrange special courses and group training programmes for fellows sponsored by UNIDO, but these have to be negotiated in advance through the UNDP Representative in Mauritius. The ability of the centre to serve the subregion is also contingent upon an assessment of the needs of the countries in the subregion.

7. **Remarks:**

   A project to promote and further develop the centre is being studied by UNIDO following the recommendation of an Expert Group Meeting for the development of co-operation of African countries in the sugar industry recently organized by UNIDO.
**Support Project Profile No. 11 (IDPA)**

<table>
<thead>
<tr>
<th>Date of proposal: 1988</th>
<th>Last update: 1991</th>
<th>Type: Institution Building</th>
</tr>
</thead>
</table>

1. **Project Title:**
   - Upgrading of Management Training and Advisory Centre (MTAC) into a subregional centre (Uganda)

2. **Objective:**
   - To provide management training services, consultancy and advisory services, as well as research and information services to the subregion.

3. **Promoter/sponsor:**
   - Government of Uganda/MTAC.

4. **Location:**
   - Kampala, Uganda.

5. **Estimated total cost:**
   - PTA project HRS/02 estimates a total cost of US$1,880,000 for both MTAC and Zimbabwe Institute of Management (ZIM).

6. **Project description and additional information:**

   MTAC is a parastatal body under the Ministry of Industry and Technology. It was established in 1965 by UNDP/ILO, and offers training programmes for the lower, middle and top management in the areas of general management, management development, functional management (e.g. accounting, marketing, production personnel etc.), and sectoral management (e.g. small enterprise). Seminars and training in specialist areas are also organized at the request of client organizations. MTAC also provides consultancy services to public and private enterprises in the areas of corporate planning, general management, business appraisal, marketing and sales management, production management and engineering, financial control, project management and small-scale entrepreneurship development. The Centre's capacity is as follows:

   - Training: 300 man/weeks per year, including top, middle and supervisory management seminars in various functional areas and entrepreneurial development.
   - Management consultancy: 200 man/weeks per year.
   - Research and information services: 100 man/weeks per year.

   MTAC has an administration building containing 48 offices and a large store room; a training building containing five classrooms and two conference halls; an engineering workshop for entrepreneurial training and demonstration in carpentry, metalwork, automotive repairs, and electrical repairs; and a small library and audio visual aids unit. Its total land area is three hectares built up and six hectares still free. The Centre still lacks lodging (and boarding) facilities and up-to-date training facilities. MTAC receives about 800 students for the 50 short-term training courses (1-5 weeks duration) it organizes every year. Currently the MTAC has 15 full-time professionals (i.e. trainers, consultants, researchers), plus a variety of administrative and technical support personnel, many of whom also carry out professional work. In addition, the Centre engages the services of some part-time
professionals as the need arises. Arrangements are under way for the professional development of some MTAC staff by association of management and training institutions of Eastern and Southern Africa. Currently, MTAG is carrying out agricultural management training (AMTA) in collaboration with African Development Bank (ADB) and Pan African Institute for Development. MTAC is ready to receive students from the subregion, as it used to do in the past.

Follow-up:

The nature and cost of additional facilities required to upgrade the Centre will have to be assessed and arrangements made for the related financing. These facilities would include hostel for course participants, related catering facilities, new professional services building, additional library facilities, additional audio visual facilities, computer unit, additional staff houses, additional administrative support facilities, additional professional staff, programme for professional development of MTAC staff, etc.

7. Remarks:

Project included in Integrated Development Programme for the PTA as HRS/02, "Industrial Management Development Programme for the PTA Subregion", a project to assist both MTAC and the Zimbabwe Institute of Management (ZIM), in collaboration with other management training institutes in the subregion.
SUPPORT PROJECT PROFILE NO. 12 (IDDA)

Date of proposal: 1988    Last update: 1988    Type: Institution Building

1. **Project Title:** Upgrading of training and design facilities of the spare parts manufacturing plant into a subregional centre (Ethiopia)

2. **Objective:** (i) To upgrade the plant into a design and prototype fabrication centre as well as an information and training centre; (ii) to provide consultancy services for the design and fabrication of spare parts in local workshops of other African countries; and (iii) to supply manufactured industrial spare parts as well as hand tools and cutlery.

3. **Promoter/sponsor:** Ministry of Industry Ethiopia.

4. **Location:** Akaki, Shoa Province, Ethiopia.

5. **Estimated total cost:** To be determined.

6. **Project description and additional information:**

   The spare parts manufacturing plant is now under construction with the financial assistance of the Government of Italy. The total investment cost is $85 million of which $57.6 million is in foreign exchange. It is due to be completed in February 1989. It will supply spare parts to the food, textiles, building materials and metal-working industries of Ethiopia. It will also produce various types of hand tools and cutlery for the domestic and export markets. At full capacity, the plant will produce 3,600 types of spare parts and 2.2 million pieces of hand tools and cutlery, per year. It is equipped with a foundry with a yearly capacity of 4,450 tons, forging and machine shop units, a design centre and a training centre.

**Follow-up:**

UNIDO's assistance is being sought in developing the factory's links with industries in the subregion and in carrying out a market study on the possibility of exporting mass-produced hand tools and cutlery to countries in the subregion.
SUPPORT PROJECT PROFILE NO. 13 (IDDA)

Date of proposal: 1988  Last update: 1988  Type: Institution Building

1. Project Title: Establishment of a subregional cement institute at the Mugher cement plant (Ethiopia)

2. Objective: To assist countries in the subregion in all aspects of cement production.

3. Promoter/sponsor:
   Ministry of Industry Ethiopia.

4. Location:
   Mugher, Ethiopia.

5. Estimated total cost:
   $3.4 million in foreign exchange.

6. Project description and additional information:

   Project ongoing since September 1984, at full capacity of 300,000 tons of clinker per annum. Expansion underway to double plant production capacity and due to be completed by end of 1989.

Follow-up:

   UNIDO to mobilize funds and take all necessary steps to set up a subregional cement institute under the management of the Mugher cement plant.
SUPPORT PROJECT PROFILE NO. 14 (IDDCA)

Date of proposal: 1988  Last update: 1988  Type: Institution Building

1. Project Title: Upgrading the Mogadishu Industrial Vocational Training Centre (IVTC) into a subregional centre (Somalia)

2. Objective: To enlarge the existing facility in terms of machinery/equipment and personnel.


4. Location: Mogadishu, Somalia.

5. Estimated total cost: To be determined.

6. Project description and additional information:

Located on the periphery of Mogadishu, the Centre was established in June 1985 to train the industrial workforce of governmental, parastatal and private enterprises for the betterment of the economy and industry of Somalia. The Centre is an institution of the Ministry of Labour and Sports of Somalia, and it is assisted by the Federal Republic of Germany through the offices of GTZ. Training is offered in the mechanical, electrical and automative trades. The Centre can accept 128 trainees at any one time.
Establishment of a Metallurgical Technology Centre for PTA countries (Zimbabwe)

To promote the development of the iron and steel industry in the PTA countries through the establishment of a Metallurgical Technology Centre.

PTA secretariat and Government of Zimbabwe.

Redcliff, Zimbabwe.

As reported to Second Meeting of PTA Ministers of Industry, 27-28 September 1990, Nairobi (Document PTA/MIN/IND/II/2),:

"The budget proposals were prepared in accordance with overall activity – prioritization planned for during first five years. The budget also reflected the phased recruitment of personnel and procurement of equipment. A total sum of US$5.5 million had been earmarked for construction of the buildings and infrastructural development and US$21.5 million for equipment and utilities. The recurrent costs were estimated at US$0.8 million, 1.6 million and 2.8 million for the years I, II and III respectively. These would include salaries and wages for personnel, utilities and maintenance, costs of equipment etc. It was envisaged that the Centre, when fully-fledged, would be able to earn some revenues through consultancy in various technical services (viz preparing information on plant operations, material specification, industrial failures, geological and mineralogical data: as well as through the various applied Research and Development on indigenous ores and raw material) and commercial services (viz consultancy in offering market and survey feasibility reports). The Centre would however, have to depend on the PTA member countries to meet a large portion of its operating costs in the world."

The PTA subregion is well-endowed with mineral resources such as iron ore, coal, chrome ore, nickel, cobalt, titanium, copper and refractory materials/fluxing minerals such as silica, magnesite, limestone, fluoropur, etc. The coal resource of the subregion is estimated at approximately 54,604 million tons with Zimbabwe accounting for the largest share, followed by Botswana and Mozambique. Large deposits of iron ore reserves are to be found in several countries, notably Angola, Madagascar, Mozambique, Zambia and Zimbabwe. However, very little commercial exploitation of some of these resources is carried out and the processing of iron ore in particular is at an elementary stage.
The subregion has a total of about 23 steel plants/rolling mills capable of melting ferrous metallic raw materials in a furnace for casting semis or processing semis into finished products. The largest and only integrated steelworks is the Zimbabwe Iron and Steel Company (ZISCO STEEL), Redcliff, Zimbabwe. ZISCO STEEL is equipped with blast furnace and oxygen converters and has a finished steel production capacity of 850,000 tons per year. The subregion has a liquid steel-making capacity of 1.2 million tons per year. Nevertheless actual capacity utilization in the production of steel in the region is only about 25 per cent.

The subregion however lacks well-equipped laboratories to test the quality of raw materials, semi-manufactured and manufacture products. Research work on iron ores, coal and other mineral and refractory materials are very elementary and limited to the immediate needs of a particular steel plant/rolling mill. To promote iron and steel development, it is necessary to encourage and develop applied research and development in raw material inputs, process and production technology in various branches of metallurgy including testing and beneficitation of minerals, metal refining, fabrication, etc.

The proposed Metallurgical Technology Centre is envisaged as a centre of excellence, undertaking R & D work on various aspects of iron and steel and ferrous metallurgy industries development. The Centre could provide technical services through its data bank and library documentation facilities as well as assist in the transfer, adaptation and development of technology. It would be basically divided into three main departments: (i) scientific and research department; (ii) technical services; and (iii) a design department.

The PTA secretariat has already approached some donor countries to assist in the preparation of a project document for the establishment of the Centre and to consider providing technical and financial assistance for its implementation. One of those donor countries has submitted a proposal whose total cost is estimated at $32,950,000. The Member States have decided to establish a Steering Committee consisting of experts from Ethiopia, Tanzania and Zimbabwe as well as PTA, UNIDO and the ECA secretariats, to determine the required facilities and prepare a work programme for the Centre, due account being taken of the experience already gained in other developing countries/regions.

7. Remarks:

Project included in Integrated Industrial Development Programme for the PTA as MET/01, "Initiation of activities of the PTA Metallurgical Technology Centre". Project discussed at tenth meeting of PTA committee on Industrial Co-operation (Nairobi, 20-25 September 1990) and second meeting of PTA Ministers of Industry (Nairobi, 27-28 September 1990), and it was agreed that the Centre would be established in a phased manner over a five-year period, and that for a start, it would be housed at the Institute of Mining Research at the University of Zimbabwe until the construction of the building of the PTA MTC at the site provided by the Government of Zimbabwe was completed. This would mean that the services of MTC would be available to member states immediately.
1. Project Title: Promotion of spare parts production in PTA countries (Kenya/Malawi/Mauritius/Somalia/Tanzania/Uganda/Zambia/Zimbabwe)

2. Objective: To assist the consumers of spare parts in PTA countries to establish a regional centre for the promotion of cast and machined spare parts.


4. Location:

Selected countries of PTA. The following countries possess the potential for spare part production: Kenya, Tanzania and Zimbabwe. The eventual location of the centre will be decided upon by the Member States on the basis of the results of preparatory work. Current project expanded to cover more PTA countries. See "Remarks" below.

5. Estimated total cost:

US$80 - 120 million total for all countries.

6. Project description and additional information:

One of the major constraints on industrialization in the PTA subregion and Africa as a whole is the inadequate development of technology. Africa relies on foreign sources for technology, machinery and equipment and spare parts. Africa's heavy reliance on imported machinery and equipment is a veritable source of foreign exchange leakage. According to the ECE Bulletin of Statistics on World Trade in Engineering products, the region's bill for engineering products, mainly machinery and transport equipment, was $40 billion FOB in 1981, of which $4.1 billion was for spare parts. During the period 1980-1985, it is estimated that imports of spare parts was approximately $25 billion. Eastern and Southern Africa is believed to have spent approximately $6 billion FOB on imported spare parts.

In the light of the above and given the gross shortage of spare parts for industrial plants, machinery and equipment, there is a growing tendency in the PTA subregion to encourage the domestic manufacture of spare parts within the existing forging, heat treatment and machine shop facilities. In Kenya, for example, the Kenyan Railway Workshop in Nairobi produces spare parts for the railways and sugar mills and other orders on specification; Margat Singh Engineering works produces spare parts such as gears and rollers. Ndume Ltd concentrates on the production of spare parts for agricultural implements. In Tanzania, the Tanzania-Zambian Railway Authority manufactures essential spare parts for the railway. The main products of the National Engineering Co. Ltd range from road pullies, roll bodies for sisal and sugar factories to wheels for mining wagons. Zimbabwe, on the other hand, has a good number of engineering firms, integrated foundry, forging and machine shop facilities capable of producing a wide range of spare parts for industrial plants,
agricultural machinery and implements, transport equipment, mining and quarrying equipment, etc.

There is, however, a need to harmonize these activities in an integrated subregional programme with the aim of promoting the production of spare parts of the right quality and quantity to meet the needs of consumers. It is estimated that with proper specifications and careful analyses, design and manufacturing parameters, the prices of locally produced spare parts could be 40–50 per cent lower than imported spare parts. In order to do this, it is necessary to establish the local technological base on a centre necessary to advise and orientate both consumers and producers and through which technical assistance and training could be given to both consumers and producers of spare parts in the subregion. Such a centre would also specify materials, production processes and engineering data, and offer technical assistance to consumers and manufacturers of spare parts.

7. Remarks:

Project included in Integrated Industrial Development Programme for the PTA as ENC/02, "PTA programme for the production of spare parts". That project foresees capital investments of US$10 to US$15 million per country for the establishment of a centralized, integrated spare parts manufacturing complex on a country level basis.
1. Project Title: Tanzania Institute of Leather Technology (Tanzania)

2. Objective: To provide training facilities for both domestic and subregional leather industries.

3. Promoter/sponsor: Tanzania Leather Associated Industries, P.O. Box 5640, Dar-es-Salaam, Tanzania.

4. Location: Mwanza, Tanzania.

5. Estimated total cost: $1.2 million.

6. Project description and additional information: The leather and leather products industries sector in Tanzania is considered to be one of the country's major processing industries catering for the people's basic needs in footwear and other leather products. Export of semi-processed leather and leather products from the existing production units contribute to the economy as an important source of foreign exchange revenue.

   The efficient running of the leather and leather products industries depends not only on the top management of the enterprises but also (and above all) on the availability of efficient middle and lower technical personnel and management executives. With this objective in mind, it was decided to establish the Institute of Leather Technology in Mwanza. Implementation of the project started in 1980. It was financed through the Government and through contributions from UNIDO which supplied the equipment under project US/URT/79/240 and supervised its installation. In addition to training, the Institute will provide research and development facilities. It will also undertake such work as to assist the overall development of the subsector.

   Construction work was completed at a cost of ShT34 million. The equipment supplied by UNIDO under project US/URT/79/240 is valued at $500,000. However, the Institute is not yet operational for lack of expatriate tutors and teaching aids during the initial operational phase. Mobilization of resources amounting to $1,224,000 (ShT118,728,000) is needed to finance expatriate tutors, train local tutors and provide text books and other teaching equipment that is being sought from external sources. The project is included in a regional project on hides and skins, leather and leather products improvement scheme being implemented with the assistance of UNIDO.

   The Institute is located on a site easily accessible by air, road and rail. Water and electricity are available. Given the major demand for training opportunities in Tanzania and in neighbouring countries, the Institute is expected to serve all the SADCC and PTA countries. At present, its capacity is 48 graduates in leather technology per annum (30 at the diploma level and 18 at the certificate level). However, consultations between the various leather technology institutes in the subregion should be held under the auspices of SADCC and PTA, with the assistance of UNIDO and ECA.

7. Remarks: During the discussion of the project for establishing a PTA Leather and Leather Products Institute in Addis Ababa, at the tenth meeting of the PTA Committee on Industrial co-operation and the second meeting of PTA Ministers of Industry in Nairobi (Kenya) 20-28 September 1990, it was proposed that the Tanzania Institute of Leather Technology, along with other leather institutes in PTA countries, be part of the LLPI network in the subregion.
1. Project Title: Consolidation of the Institute of Cement Technology (Tanzania)

2. Objective: To meet the fast growing technological requirements in the fields of cement, glass ceramics and clay associated products.

3. Promoter/sponsor:
   Tanzania Saruji Corporation, Dar-es-Salaam, Tanzania.

4. Location:
   Klazo Hill, Dar-es-Salaam, Tanzania.

5. Estimated total cost:
   To be determined.

6. Project description and additional information:

   Saruji Training Institute was established to serve the companies belonging to the Tanzania Saruji Corporation, a holding parastatal for companies engaged in the production of building materials and allied products. These are: Tanzania Portland Cement Company, Tanga Cement Company, Mbeya Cement Company, Tanzania Sheet Glass Company, Morogoro Ceramics Wares Ltd, Nyanza Glass Works, Tanzania Clay Products, Saruji Trucking Company, Tanzania Gypsum Company and Pre-fabricated Concrete Manufacturing Plant.

   The Institute consists of the following centres:

   1. Training centre.
   2. Research and Development centre.
   3. Central workshop.

   The training centre is fully established, while the other two centres pertain to future plans. The training centre offers courses in the areas of production, mechanical and electrical engineering, and maintenance of transport and quarry machinery in the cement industry. The Institute can accommodate up to 80 participants at a time. Some of the course pertaining to cement production include: general introduction course for technical personnel, mill operators' course, quality control testers' course, quality control analysis, chemical industrial technicians' course and in-plant training. Graduates of the Saruji Training Institute are awarded a professional certificate on successful completion of specific series of course and final examinations. The Institute requires strengthening in the field of staff development, including provision of teaching materials and equipment. It has the potential to fulfill training needs pertaining to the cement industry in the subregion.
Date of proposal: 1988  Last update: 1988  Type: Pilot

1. Project Title: Establishment of a pilot and demonstration physical manufacturing facilities at TEMDO (Tanzania)

2. Objective: To provide essential support service facilities to the engineering and allied metalworking industries on a national and subregional basis.


4. Location: Arusha, Tanzania.

5. Estimated total cost: $3.9 million.

6. Project description and additional information:

The activities of the engineering and allied metalworking industries subsector have been affected and retarded by the non-availability of precision parts, dies, moulds, tools, jigs, fixtures, simple and special purpose tools, gauges and large number of engineering items that cannot be manufactured owing to lack of urgently needed support service facilities in the country. TEMDO is a national centre for engineering design and manufacturing that is expected to be well equipped with physical facilities in order to assist local industries in:

- Adapting designs best suited for local manufacture.
- Supplying prototype machinery, equipment and spare parts.
- Providing trained manpower, particularly practical designers for local manufacture and improvement.
- Supplying precision parts and component tools, dies, moulds, etc.
- Undertaking applied R & D in metal and engineering development aspect.
- Supplying technical information on design and manufacturing and providing consultancy services for general promotion of the industrial sector.

The existing facilities at TEMDO, which is accessible by air, road and rail, include office block and workshop premises with a total floor area of 5,039m². The office block is ready and about 60 per cent of the workshop has been completed for installation of machinery and equipment. Electricity and water are available.

The existing administrative and design support service structure consists of:
- A design department with six design engineers and three draughtsmen.
- A prototype development and testing section (without machinery and equipment).
- A technical extension services and consultancy section with four engineers.
- An administrative and finance section with 12 staff, headed by the Director-General as the Chief Executive of TEMDO.

The activities of TEMDO have been slowed down by the non-provision of machinery, equipment and physical facilities. The project proposal involves provision of: (a) a pilot and demonstration forge and heat treatment shop; and pilot and demonstration toolroom.
Sponsor is to follow-up resource mobilization for the supply of the machinery and equipment etc., and completion of the civil works. Furthermore, TEMDO is to contribute the local component cost of the project amounting to $102,950 to cover national staff, land and building, furniture and fittings, office equipment and facilities, common service facilities, internal travel, operating funds, storage facilities and miscellaneous expenses. Technical assistance amounting to $3.8 million to pay for international staff and training, as well as some machinery and equipment are being sought from subregional, regional and international organizations.

The provision of these facilities will provide local industries with inputs to facilitate the improvement of capacity utilization as envisaged in the Government's economic recovery programme. Furthermore, the services to be offered are in great demand by all engineering and allied metalworking industries, and the Centre is expected to serve all the industries in the country and SADCC/PTA member countries.
1. Project Title: Establishment of a pilot demonstration toolroom and engineering design centre (Zimbabwe)

2. Objective: To contribute to self-sufficiency in engineering design and local tool supply to local industries.

3. Promoter/sponsor:
   Ministry of Industry and Technology, Zimbabwe.

4. Location:
   Bulawayo, Zimbabwe.

5. Estimated total cost:
   Z$7,659,000 (Government inputs) and $5,000,000 (UNDP inputs).

6. Project description and additional information:

   The pilot and demonstration toolroom and engineering design centre will be the focal point institution for the development of indigenous capability in engineering design for capital goods, intermediate goods, durable consumer goods and local manufacture of precision spare parts for the Zimbabwean industries, and production of highly skilled designers and operatives for the multisectoral needs in the engineering and allied industries sectors, agricultural machinery and equipment industries, transport industries and mining. It will also contribute to establishing local design standards and enhancing local consultancy services.

   Establishment of the centre will contribute to resolving some of the institutional, engineering, technological, management and manpower constraints on local industries. It will also help create a self-sustained engineering base as well as provide scope for considerable savings in terms of foreign exchange that would otherwise be spent on toolroom products from abroad.
SUPPORT PROJECT PROFILE NO. 21 (IDDA)

Date of proposal: 1991 Last update: 1991 Type: Direct Support

1. Project title: Study to assess the potential for adding value to commodities passing through Namibia from neighbouring countries

2. Objective: To identify possible industrial-venture projects with high potential to add value to commodities passing through Namibia from neighbouring countries

3. Status of implementation: Idea stage

4. Partner/sponsor/institution: Namibian authorities, UNIDO, SADCC

5. Location: Namibia

6. Estimated cost: US$ 150,000

7. Estimated duration: six months

8. Action required/recommendations: To elaborate a project concept

9. Project description and additional information:

This project idea emerged during discussion between UNIDO staff and the Permanent Secretary of the Ministry of Planning (National Planning Commission) in Windoeck. The project is expected to:

- Assess natural resources available in the subregion
- Assess commodities that could be exported through Namibia and those with potential for processing
- Analyse possible complementarities in terms of raw materials and expertise between Namibia and Eastern and Southern Africa countries that may use Namibia as a channel/outlet to external markets and possible joint ventures between Namibian and Eastern and Southern Africa enterprises
- Assess available expertise and skills needed for the provision of services for the transit of commodities through Namibia (impact on least developed areas)
- Establishment of service and training centres for Namibia and partners countries
- Analyse the impact of existing custom and trade regulations
- Analyse the possibility of using trucks bringing in goods to be exported from Namibia to export goods to the countries of origin.
This viability of the project seems to be justified by the considerations given below:

(i) comparative advantage of Namibia: better infrastructure than many other ES countries and access to external markets;

(ii) recent examples of transit though Namibia of Zambian copper and potential for processing;

(iii) recent example of services provided to Angola and Zambia (provision of operation and management services for sewage and water supply systems to Angola, power supply to Zambia and Angola, training and maintenance services for locomotives to Angola and Zambia, etc.);

(iv) better quality of servicing capabilities for mining (maintenance, repair and production of spare parts) in Namibia;

(v) the expected implementation of projects to establish and improve road and air linkages with neighboring countries (see: Namibia. Development and Investment, FMDC, Department of Economic Affairs, Rev. Ed., Oct. 1990);

(vi) poor condition of exporting and processing facilities of other ES outlet harbors;

(vii) availability of energy, communication infrastructure, expertise;

(viii) possible complementarities between infrastructural, human and natural resources available in Namibia and commodities that could pass through Namibia (copper, timber, chrome, meat, hides and skins, etc.) and potential for processing and manufacturing;

(ix) possible impact of the transit routes (Namibia, Namibia/Botswana) on the establishment of small-scale service, repair, maintenance and spare part production units. (This would fulfill the development objective of decentralization of production and services in the rural or least developed areas).
### SUPPORT PROJECT PROFILE NO. 22 (IDDA)

Date of proposal: 1991  
Last update: 1991  
Type: Direct Support

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<table>
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<tr>
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<tbody>
<tr>
<td><strong>1. Project title:</strong></td>
<td>Study on the impact of the construction of the Trans-Kalahari Road to generate industrial venture projects with countries in the subregion</td>
</tr>
<tr>
<td><strong>2. Objective:</strong></td>
<td>To identify possible industrial joint-venture projects in relation to the construction of the Trans-Kalahari Road</td>
</tr>
<tr>
<td><strong>3. Status of implementation:</strong></td>
<td>idea stage</td>
</tr>
<tr>
<td><strong>4. Partner/sponsor/institution:</strong></td>
<td>to be defined</td>
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<tr>
<td><strong>5. Location:</strong></td>
<td>Botswana</td>
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<td><strong>6. Estimated cost:</strong></td>
<td>US$150,000</td>
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<td><strong>7. Estimated duration:</strong></td>
<td>six months</td>
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<tr>
<td><strong>8. Action required/recommendations:</strong></td>
<td>To elaborate a project concept</td>
</tr>
<tr>
<td><strong>9. Project description and additional information:</strong></td>
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</table>

This project idea emerged during discussion between UNIDO staff and officials from the Ministry of Finance and Development Planning. The aim of the project is to assess the impact of the construction of the 220 million Pula Trans-Kalahari road on industrial development and trade. This project could also be linked with the IDDA support project no. 21.
Support Project Profile No. 23 (IDDA)

Date of proposal: 1991  Last update: 1991  Type: Direct Support

1. Project title: Assistance in exploring and establishing links (e.g. SADCC) to project information registers, import agencies and trade organizations which could put Namibian exporters in contact with an increasing number of customers.

2. Objective: To increase export capabilities of Namibian exporters.


4. Partner/sponsor/institution: To be determined.

5. Location: Windhoek.

6. Estimated cost: N/A.

7. Estimated duration: N/A.

8. Action required/recommendations:

   The project has been included in the Terms of Reference of the local expert in charge of preparing the Namibian national programme for the second IDDA.

9. Project description and additional information:
**Support Project Profile No. 24 (IDDA)**

**Date of proposal:** 1991  **Last update:** 1991  **Type:** Direct Support

<table>
<thead>
<tr>
<th>1. Project title:</th>
<th>Assessment of the potential spin-off of the SUA PAN soda ash project and possible partnerships and complementarities with countries in the subregion to process by-products</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Objective:</td>
<td>To identify possible by-products of the SUA PAN soda ash factory which could be processed by countries in the subregion according to existing complementarities.</td>
</tr>
<tr>
<td>3. Status of implementation:</td>
<td>Indications of possible by-products of the SUA PAN are given in the feasibility studies undertaken for the establishment of the factory</td>
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<tr>
<td>4. Partner/sponsor/institution:</td>
<td>N/A</td>
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<td>5. Location:</td>
<td>Botswana and other Eastern and Southern African countries</td>
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<td>6. Estimated cost:</td>
<td>N/A</td>
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<td>7. Estimated duration:</td>
<td>N.A.</td>
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<td>8. Action required/recommendations:</td>
<td>to be determined</td>
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</tbody>
</table>

**Project description and additional information:**

The Sua Pan Soda Ash is by far the largest single investment project ever undertaken in Botswana. The project will provide direct employment for about 550 people and over 1,000 workers will be employed during its construction. In addition, the project has the potential to generate other economic activities. The project is at the construction stage, with most of the steel work finished. The possible activities related to the construction and operation phases, as well as for the use of by-products are: (i) crushed stones; (ii) Portland pozzolana cement (PPC); (iii) plastic bags; (iv) carbon dioxide; (v) foundry; (vi) potash/fertilizers; (vii) detergent; (viii) glass manufacturing; (ix) chlorine and caustic soda.
1. Project title: Establishment of diamond cutting facilities and training centre

2. Objective: To share know-how and possibly to establish links between Namibia and Botswana to process diamonds and other precious stones

3. Status of implementation: Idea stage

4. Partner/sponsor/institution: to be determined

5. Location: Botswana and Namibia

6. Estimated cost: N/A

7. Estimated duration: N/A

8. Action required/recommendations: To be determined

9. Project description and additional information:

Namibia and Botswana are at present major exporters of rough gems but do not process them. Recently, the government of Botswana and Lazare Kaplan International (LKI), a US jewellery firm, signed a long-term agreement (5 December 1990) for the establishment of a diamond cutting and polishing factory in Botswana. In this perspective, possible co-operation with Namibian producers could be envisaged.
SUPPORT PROJECT PROFILE NO. 26 (IDDA)

Date of proposal: 1991  Last update: 1991  Type: Direct Support

1. Project title:
   Update a feasibility study to exploit coal reserves as alternative source for energy production to be exported to neighbouring countries

2. Objective:
   To assess the economic viability to exploit coal reserves in Botswana.

3. Status of implementation:
   idea stage

4. Partner/sponsor/institution:
   to be determined

5. Location:
   Botswana

6. Estimated cost:
   N/A

7. Estimated duration:
   N/A

8. Action required/recommendations:
   To be determined

9. Project description and additional information:

   The project is under discussion, and its viability is related to economies of scale and demand forecasts mainly in Zambia and Zimbabwe, and on oil prices.
SUPPORT PROJECT PROFILE NO. 27 (IDDA)

Date of proposal: 1991  Last update: 1991  Type: Institution Building

1. **Project title:** Strengthening the capabilities for monitoring, follow-up and control of trade protocols and agreements of the PTA Secretariat

2. **Objective:** To improve the implementation of trade protocols and agreements in the PTA countries.

3. **Status of implementation:** Idea stage

4. **Partner/sponsor/institution:** PTA Secretariat

5. **Location:** PTA Secretariat

6. **Estimated cost:** N/A

7. **Estimated duration:** N/A

8. **Action required/recommendations:** To be determined

9. **Project description and additional information:**
   
   During preparatory mission in the subregion, the need to strengthen the capability at the PTA Secretariat level to monitor the implementation of existing trade protocols and agreements. This project needs to be further elaborated by the PTA Secretariat.
**SUPPORT PROJECT PROFILE NO. 28 (IDDA)**

<table>
<thead>
<tr>
<th>Date of proposal: 1991</th>
<th>Last update: 1991</th>
<th>Type: Direct Support</th>
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</table>

1. **Project title:** Processing of semi-precious stones (SSI)

2. **Objective:** To improve technical and marketing capabilities of SSI engaged in processing of ornamental semi-precious stones

3. **Status of implementation:** idea stage

4. **Partner/sponsor/institution:** to be determined

5. **Location:** Namibia, Botswana, Lesotho

6. **Estimated cost:** N/A

7. **Estimated duration:** N/A

8. **Action required/recommendations:**

   to survey existing production facilities, and skills, as well as availability of raw material and demand

9. **Project description and additional information:**

   The project has been conceived to provide assistance to small-scale industries in the subregion to establish contacts which may lead to exchange of information, training and marketing capabilities and facilities.
Date of proposal: 1991  Last update: 1991  Type: Direct Support

1. Project title: Feasibility study for the exploitation of phosphate reserves in the Barren islands

2. Objective: To assess the viability of exploiting phosphate reserves in Madagascar

3. Status of implementation: Opportunity study completed

4. Partner/sponsor/institution: Ministry of Economy and Planning, Madagaskar

5. Location: Barren Islands, Madagascar

6. Estimated cost: N/A

7. Estimated duration: N/A

8. Action required/recommendations:

To carry out a mineral testing survey of the existing reserves and a study of the infrustructural facilities needed for the commercial exploitation of the phosphate deposits.

9. Project description and additional information:

An opportunity study has been undertaken by two consulting companies in Madagascar under the supervision of the project evaluation unit of the Ministry of Economy and Planning. The study indicated the necessity to carry out studies on infrastructural needs and geological surveys.
Date of proposal: 1991  Last update: 1991  Type: Direct Support

1. Project title: Market study for the production of fishing nets

2. Objective: To assess existing production and demand of fishing nets in IOC countries

3. Status of implementation: under discussion

4. Partner/sponsor/institution: N/A

5. Location: IOC

6. Estimated cost: N/A

7. Estimated duration: N/A

8. Action required/recommendations:

   To carry out a market study of fishing nets demand and existing production capability in IOC countries.

9. Project description and additional information:
**Support Project Profile No. 31 (IDDA)**

| Date of proposal: 1991 | Last update: 1991 | Type: Institutional Building |

1. **Project title:** Promotion of co-operation among small- and medium-scale industries in IOC countries

2. **Objective:** To establish mechanisms for co-operation and information exchange among small- and medium-scale industries in IOC countries

3. **Status of implementation:** Idea stage

4. **Partner/sponsor/institution:** Small Business Development Corporations, Associations of Industrialists, Chambers of Industry, etc.

5. **Location:** IOC

6. **Estimated cost:** N/A

7. **Estimated duration:** N/A

8. **Action required/recommendations:**

9. **Project description and additional information:**

   In the context of this project, the World Bank has financed in the past a programme for the "Jeune Chambre Economique" including fellowships and study tours for the promotion of joint venture projects. Moreover, UNIDO in 1984 and 1985 has organized an exchange programme for business development offices employed in small- and medium-scale promotion offices and other similar institutions in the IOC countries.

   In consideration of the development of policies for the promotion of SSI in the subregion and of the establishment of appropriate facilities and bodies the need to formulate an overall project arose. The project should, therefore, provide assistance to the institutions concerned. Moreover, a project concerning co-operation among chambers of commerce, industry and agriculture is under discussion.
1. Project title: Programme and fund to support the establishment of joint-ventures between partners in the subregion

2. Objective: To support and finance joint ventures among IOC countries

3. Status of implementation: idea stage

4. Partner/sponsor/institution: to be determined

5. Location: IOC

6. Estimated cost: N/A

7. Estimated duration: N/A

8. Action required/recommendations: Investment promotion activities

9. Project description and additional information:

A preliminary list of potential joint ventures was identified during the preparatory mission to IOC countries. For all of these projects, which are at different stages of implementation, promoters have already been identified. However, several actions would be required such as technical, financial, market, procurement studies, identification of technical or financial partners, establishment of a partnership protocol, legal assistance, training, technology transfer negotiation, etc. Against this background, a fund should be created, for supporting and financing all the pre-investment activities needed, and mechanisms for co-financing should be defined. This project should also consider the potential opportunity to cover also other Eastern and Southern African countries.
**1. Project title:** Programme for the promotion of export of industrial products and assistance to the packaging industry

**2. Objective:** To promote export of industrial products outside IOC countries

**3. Status of implementation:** under discussion

**4. Partner/sponsor/institution:** IOC

**5. Location:** N/A

**6. Estimated cost:** N/A

**7. Estimated duration:** N/A

**8. Action required/recommendations:** To prepare a project concept/document

**9. Project description and additional information:**

The project concerns the elaboration and implementation of a programme for the promotion of exports of industrial products, covering international trade aspects, standardization, packaging, etc., for products manufactured by two or more countries in the area.

A UNIDO consultant during a mission in September/October 1990 has identified some of these products with high export co-operation potential such as fine leather articles and accessories, textiles, garments, copra, essential oils, tropical fruit juices, aromatic essences, wood products and furniture. Moreover, in order to compete in the international markets, a packaging centre could be established in Madagascar. The centre should aim at: (i) training personnel of producers and users of packaging materials; (ii) technical and economic study of the need and potential for the packaging industry; (iii) analysis of quality control and standard packaging.
SUPPORT PROJECT PROFILE no. 34 (IDDA)

Date of proposal: 1991  Last update: 1991  Type: Institution
Building

1. Project title:
   Programme for standardization, quality control and metrology in IOC countries

2. Objective:
   To improve the quality of industrial products in IOC countries through strengthening and/or setting up new institutions such as standardization and quality control bureaux and metrology and testing laboratories

3. Status of implementation:
   Preliminary assessment undertaken by UNIDO expert (UC/G20/89/274)

4. Partner/sponsor/institution:
   UNIDO/ISO

5. Location:
   IOC countries

6. Estimated cost:
   N/A

7. Estimated duration:
   N/A

8. Action required/recommendations:
   to compare existing programmes for standardization, quality control and metrology in other developing countries

9. Project description and additional information:

   According to UNIDO's Project Proposal dated 10 October 1989, the objective of UNIDO's endeavour is twofold:

   * To assist industrialists to assure the quality of production. This includes strengthening and/or setting up new institutions such as standardization and quality control bureaux and metrology and testing laboratories. These institutions prepare standards and provide advisory, training, testing and calibration services to local industries.

   * To assist Government authorities in developing countries to ensure the quality of locally produced or imported goods through national and sectoral institutions.

   To achieve these objectives regional co-operation between Indian Ocean Islands should be strengthened.
Based on the above mentioned goals the consultant has designed the scope of the mission as follows:

* To check in the various visited countries what is available in matters such as standardization, metrology, quality control and quality assurance.

* To find out which are the relations existing between Governmental bodies dealing with quality matters and local industries.

* To determine the co-operation level on quality matters between the visited countries.

* To determine how to strengthen the regional approach in the above mentioned areas of interest.

A preliminary report of the UNIDO consultant with the main findings and recommendations is available.
SUPPORT PROJECT PROFILE NO. 35 (IDDA)

Date of proposal: 1991  Last update: 1991  Type: Building

1. Project title: Establishment of a textile technology centre
2. Objective: To assist Mauritius and the other IOC countries in developing and upgrading the textile industry
3. Status of implementation: under discussion
4. Partner/sponsor/institution: Ministry of Industry and Applied Technology, Mauritius and Ministries of Industry of the other IOC countries
5. Location: Mauritius
6. Estimated cost: N/A
7. Estimated duration: 6 m/a
8. Action required/recommendations: To be determined
9. Project description and additional information:
   In view of the economic stagnation and unemployment due to increasing demographic pressure, the Government of Mauritius enacted in 1970 an "Export processing Zone Act" to sustain export-oriented enterprises. That law has largely contributed to the industrialization of the country, with employment in the EPZ increasing from 844 in 1971 to 90,590 in 1987, representing about 90 per cent of the employment in manufacturing. The textile branch accounts for 70 per cent of the industrial unit of the EPZ and 91.2 per cent of the employment in 1990. Against this background the Government of Mauritius' strategy is to modernize and further develop the textile industry and the related facilities and technical infrastructure through the establishment of a textile technology centre to improve the quality of products in order to increase international competitiveness.

   The centre's main functions have been identified as follows: (i) to collect and disseminate information (raw materials, markets, styles, design, etc); (ii) to promote, co-ordinate and carry out research programmes on new technologies to increase productivity; (iii) to identify new market gaps; (iv) to assist in the elaboration of feasibility studies and the use of services and consultancies; (v) to co-ordinate activities of standardization and quality control; (vi) to identify training needs and to organize training programmes, study tours, seminars, etc.

   The centre should be structured with, at a minimum, the following units:
   (a) quality control and testing laboratory;
   (b) operational research unit;
   (c) department for information and documentation;
   (d) training department.

   The modality for implementation should be as follows:
   (1) an opportunity study for the establishment of the centre;
   (2) a fully-pledged feasibility study covering technical, economic and financial factors;
   (3) a technical implementation study.
1. Project title:
   Expansion of an existing marine resources training and research centre

2. Objective:
   To carry out an inventory of the capabilities for the processing and valorization of sea products and to create a regional training unit to teach industrial techniques for the processing of sea products

3. Status of implementation:
   Project document available

4. Partner/sponsor/institution:
   "Centre de recherches et de formation halieutique", Toliary (Madagascar), IOC countries, UNIDO

5. Location:
   Madagascar

6. Estimated cost:
   US$393,000

7. Estimated duration:
   36 m/m

8. Action required/recommendations:
   Finalization of project documents and implementation

9. Project description and additional information:

   The fisheries industry has high potential for subregional co-operation. In order to add value to the available resources, a programme of activities will be required to establish new production units, and to rehabilitate and modernize existing enterprises. Against this background, two projects have been identified: (i) inventory of capabilities for the processing and valorization of sea products in the Indian Ocean countries; (ii) establishment of a regional training unit to teach industrial techniques for the processing of sea products within the Centre du Recherches et de Formation Halieutique, Toliary, Madagascar. The first project aims at enabling IOC countries to jointly decide common actions and to harmonize investment plans and programmes, as well as to elaborate optimal location policies. The objective of the second project is to assist the countries concerned to acquire know-how on new technologies for the processing of sea products in order to become more competitive on the international markets. In particular, the project aims at establishing a regional structure to provide high level training for technicians and food technologists.
Second Follow-up Subregional Meeting on the Promotion of Intra-African Industrial Co-operation within the Framework of the Industrial Development Decade for Africa (IDDA)
Kampala, Uganda, 13-16 March 1991

REVISED INTEGRATED INDUSTRIAL PROMOTION PROGRAMME
FOR THE EASTERN AND SOUTHERN AFRICAN SUBREGION
PROPOSALS FOR THE SUBREGIONAL PROGRAMME FOR THE SECOND IDDA

PROJECT PROFILES

Background document No. 2

Corrigendum

Cover page

The date of the Meeting should read as above.