It is, indeed, my great pleasure and honour to express, on behalf of the Board of Directors of the Lesotho Highlands Development Authority (LHDA), my sincere gratitude to Lesotho’s co-operating partners for their continued support of the Lesotho Highlands Water Project (LHWP) during the year under review.

The signing of the off-shore loans that took place in London in November 1991 marked yet another milestone in the nurturing of relations between the Project and the international financiers who have, through their foresight, supported the goals and objectives of the Lesotho Highlands Water Project. Two large Central Monetary Area (Rand) facilities which were signed in December 1991 were also of significant importance in as far as the acquisition of finance for the Project was concerned.

As I reported in the 1990/91 Annual Report, the LHDA has continued to address some social aspects that, in the main, redress the hardships encountered by the people who live in the Project area. It is the intention of the Authority to continue on this path as the Project will, in the end, be judged by the impact it has had on the affected people and their environment.

It is opportune, therefore, that I should once again extend my profound gratitude to all who have made it possible for the LHDA to proceed without hitches with the implementation of the Project. I would be remiss, however, if I did not single out the Government of Lesotho for its continued support and interest in the Project. Equally, I would like to thank my colleagues, members of the Board, and also the Joint Permanent Technical Commission (JPTC) for the excellent manner in which they have rendered their services to the Lesotho Highlands Water Project.

I look forward to the continued support and co-operation of all who are involved in the Project in the years ahead.
It is a great pleasure to report on the progress that the Lesotho Highlands Development Authority (LHDA) has achieved during the 1991/92 financial year.

You will recall that in the last report I mentioned that construction work on the major works of the Lesotho Highlands Water Project (LHWP), namely the Katse Dam and Transfer and Delivery Tunnels, commenced on 1 February, 1991.

All the necessary infrastructure was put in place to facilitate both the accommodation of the labour force and transportation of machinery and other essentials to various sites.

At Katse Dam, several aspects of the temporary works were completed such as the erection of major plant and tertiary crushing and screening plant; excavation of the aggregate reclaim tunnel and excavation for the washing and screening facility. Diversion Tunnel No. 1 on the Malibamats’o River holed through in March 1992 while Diversion Tunnel No. 2 was expected to hole through in April 1992.

On the Transfer and Delivery Tunnels, much progress was seen with the arrival and assembly of the Tunnel Boring Machines (TBMs). Four TBMs were going to be engaged on the tunnel route from Katse Intake to Caledon River Crossing.

The LHDA was very proud of the completion of the 96 km Northern Access Road (the main road from Pitseng to Katse) and the Malibamats’o Bridge which was officially opened on 15 November, 1991. The North End Access roads providing access to four tunnel construction sites were also completed during the year under review. The rehabilitation of existing paved roads in the Leribe and Butha-Buthe districts was underway and their completion was scheduled for August, 1992.
With regard to Hydropower, the LHDA engaged Lahmeyer MacDonald Consortium (Germany and UK) in September 1991 as consulting engineers for 'Muela Hydropower Preparation of Construction Drawings and Supervision of Construction. In November 1991, the 'Muela Hydropower Donors' Conference was held in Maseru with the interested donor agencies for the financing of the civil works of the 'Muela Hydropower Project.

The year 1991/92 was also important in that both telecommunications and construction power were made available to various construction sites of the Project. The Lesotho Highlands Water Project telecommunications system was commissioned in September 1991 while the construction of transmission lines and substations to eight construction sites was commissioned in November 1991.

The LHDA's usual concern for the plight of the affected communities was addressed through the distribution of compensation in the form of grain, replacement housing, fruit tree seedlings and cash. Public Health Teams, whose main responsibility is to monitor the impact of the Project on the health of the affected communities, were established. Plans were also prepared to extend assistance to the affected people so that they could improve their income-generating enterprises.

I cannot conclude my report without expressing my deepest gratitude to the Lesotho Government, the LHDA Board of Directors, the Joint Permanent Technical Commission, all members of staff, contractors and consultants who have once again exerted their efforts to make the Lesotho Highlands Water Project the success it is.
INTRODUCTION
As anticipated the Authority continued to grow in both scale and complexity during the 1991/1992 fiscal year. Expenditure exceeded that of all previous years combined. During the period under review, mobilisation of the contractors for the main construction works for Katse Dam, Transfer Tunnel and Delivery Tunnel went very well. To allow the dam and tunnel contractors to rapidly mobilise their production forces and start work, a considerable amount of infrastructure was required including roads, camps, construction power, telecommunications and medical facilities. All of these works were completed or near completion by 31 March 1992.

1. CONSTRUCTION

1.1 Major Water Transfer Contracts

Contract LHDA 123 — Katse Dam and Appurtenant Works

Technical Characteristics — Concrete Arch Dam, 180 metres high, crest length 710 metres, concrete volume 2 150 000 cubic metres.
Estimated Final Cost — M1 247 046 000
Value of Work Complete — M88 829 000
Financial Percent Complete — 7,1%
Contract Completion Date — 31 January 1997
Contractor — Highlands Water Venture

Significant Achievements — Since the Contractor mobilised in early 1991, the following has been achieved:

Temporary Works

The Contractor completed his accommodation and labour camp. The platform excavations for the primary and secondary crushers were completed and erection of plant onto the completed foundations commenced. Erection of major plant at the tertiary crushing and screening plant was completed although pipelines, conveyors and electrical installations are still in progress. Excavation of the aggregate reclaim tunnel was completed while excavation of the aggregate transport tunnel from the quarry was 70% complete. Excavation for the washing and screening facility was completed and the excavation for the cooling plant is in progress. Overall, work on establishment of the contractors’ labour camp is 70% complete.

At Hlotse, the Engineer’s offices and canteen were completed. The batch plant erection was also completed while establishment of the spoil handling facility was 30% complete. Assembly of the TBM was 10% complete. At ‘Muela, the water supply installation was 90% complete while the sewerage disposal system was 35% complete. The Engineer’s offices and Contractor’s offices and workshops were 95% complete. It is expected that assembly of the TBM will commence in early April 1992.

Permanent Works

At Katse Intake, all drill and blast excavation preparatory to excavation by TBM was completed. The Intake approach platform was also completed.

At Pelaneng, excavation of overburden to the adit access platform was completed and excavation of rock was 75% complete. Excavation of the ‘Muela Adit by drill and blast stopped on March 10, 1992 at chainage 1200 metres to prepare for introduction of the TBM in late April 1992.

Contract LHDA 124/125 — Transfer Tunnel

Technical Characteristics — 45 km long, 4.95 metre diameter tunnel to be excavated by three tunnel boring machines (TBM’s) through primarily basalt rock with a maximum rock cover of 1200 metres.
Estimated Final Cost — M991 396 000
Value of Work Complete — M153 345 000
Financial Percent Complete — 15.7%
Contract Completion Date — 30 September 1996
Contractor — Lesotho Highlands Project Contractors

Significant Achievements — Since the Contractor mobilised in early 1991, the following has been achieved:

Temporary Works

At Katse Intake, erection of facilities on the left bank has been completed and erection of the batch plant and aggregate bins is in progress. Construction of the Contractor’s labour camp, messing and recreational buildings is in progress. Assembly of the TBM was 40% complete and due to move into the tunnel in late April 1992. Overall, work on the establishment of Halejone Camp is 70% complete.

At Hlotse, the Engineer’s offices and canteen were completed. The batch plant erection was also completed while establishment of the spoil handling facility was 30% complete. Assembly of the TBM was 10% complete. At ‘Muela, the water supply installation was 90% complete while the sewerage disposal system was 35% complete. The Engineer’s offices and Contractor’s offices and workshops were 95% complete. It is expected that assembly of the TBM will commence in early April 1992.

At Butha-Buthe, all of the Contractor’s facilities were completed with the exception of roads which were 90% complete.

Permanent Works

At Katse Intake, all drill and blast excavation preparatory to excavation by TBM was completed. The Intake approach platform was also completed.

At Pelaneng, excavation of overburden to the adit access platform was completed and excavation of rock was 75% complete.

Excavation of the Hloutse Adit by drill and blast stopped on March 10, 1992 at chainage 1 200 metres to prepare for introduction of the TBM in late April 1992.

‘Muela Adit has been completed to chainage 678 metres from the portal by drill and blast. Construction of the approach platform is complete.

Contract LHDA 126 — Delivery Tunnel South

Technical Characteristics — 14 km long tunnel with 5.10 metre diameter section excavated using one TBM and two steel lined inverted siphons under rivers at 3.4 metres
diameter excavated by drill and blast method.

Estimated Final Cost — M421 619 000
Value of Work Complete — M95 942 000
Financial Percent Complete — 22.8%
Contract Completion Date — 31 December 1996
Contractor — Lesotho Highlands Project Contractors

Significant Achievements — Since the Contractor mobilised in early 1991, the following has been achieved:

Temporary Works
At Hololo, the TBM was assembled and moved into the adit in January 1992. The Engineer’s offices were completed in October 1991.

The batch plant was commissioned in February 1992 and is operating manually. Construction of the road to the dewatering shaft was substantially complete.

At ‘Muela Intake, construction of the office terrace was 40% complete and construction of the temporary access road to the Intake Shaft was 75% complete.

At Ngoajane, the Engineer’s offices were completed and occupied in November 1991. Manufacture of precast invert segments commenced in November 1991. Erection of spoil handling equipment was 90% complete.

Permanent Works
At Hololo, the TBM commenced excavation in the Hololo south adit in February 1992 at chainage 503 metres. By the end of March 1992, 630 metres of tunnel had been completed which is 35% of the originally scheduled drive to ‘Muela Intake.

At ‘Muela Intake, rock excavation for the access road to the Intake area was completed in March 1992. The excavation of the adit portal was complete with installation of rock support 25% complete. Mass excavation of overburden to the Intake Shaft was completed in March 1992, and mass rock excavation commenced.

At Ngoajane, the south adit was excavated to chainage 423 metres by drill and blast and this includes the launch chamber for the TBM. Preparation work in the launch chamber was 20% complete. Enlargement of the junction of the adit with the waterway tunnel was completed in March 1992. The construction of the north adit portal commenced in November 1991 and was completed.

1.2 Supervision of Main Construction Contracts

Contract LHDA 45 — Katse Dam and Transfer Tunnel
The Consultant submitted a revised staff planning schedule to conform with the requirements of the construction contractors’ work schedules. Discussions with the consultant in this regard were close to finalisation. The design review has been completed. Design work continues in accordance with the programme although considerable additional work has been carried out on special studies and alternative designs for Katse Dam in response to issues raised by the LHDA Panel of Experts. The issue of construction drawings has continued in accordance with the programme for both tunnel and dam.

Contract LHDA 46 — Delivery Tunnel South
The Consultant has submitted a revised staff planning schedule to conform with the requirements of the construction contractors’ work schedules and a modified version of this plan has been agreed and implemented. The design review has been completed. Design work continues in accordance with the programme. The issue of construction drawings has continued in accordance with the programme. All of the Consultants activities are on schedule.

1.3 Roads
The Northern Access Road (main road from Pitseng to Katse) was inaugurated by His Majesty on 15 November, 1991. This road of over 100 kms of paved surface was built under two contracts.

- Contract LHDA 103 Northern Access Road from Pitseng to Malibamats’o Bridge (which includes the aesthetic high level bridge over Malibamats’o River).
- Contract LHDA 104 Northern Access Road from Malibamats’o Bridge to Katse Village.

Both these two contracts were completed during the fiscal year.

Other major roads contracts included:

- Contract LHDA 108 North End Access Roads, providing access to four tunnel construction sites, was completed in December, 1991.

- Contract LHDA 113 Rehabilitation of existing paved roads in the Leribe and Butha-Butha districts, scheduled for completion in August, 1992.
1.4 Camps and other Structures
Katse Village and Butha-Buthe Village have been built as
permanent villages to initially house the LHDA consulting
engineers staff, and some of the contractors senior staff.
After the construction phase the villages will be used in the
operation and maintenance phases.

2. STUDIES AND
ENGINEERING DESIGNS

The year 1991/92 has seen the mobilisation of the main
contracts for construction and the need for construction
power and telecommunications to be completed in order
to service the construction work. Review of designs and
construction drawings for Katse Dam and the tunnels was
also undertaken. Activities in the hydropower engineering
intensified during the year with preparation for
construction contracts. While providing engineering
and economic services for Phase 1A, planning and
programming activities for Phase 1B were also started.

2.1 Hydropower
Lahmeyer MacDonald Consortium (Germany and UK)
were engaged on September 13, 1991 by letter of intent, as
the consulting engineers for Contract LHDA 51, 'Muela
Hydropower Preparation of Construction Drawings
and Supervision of Construction. The first task of the
Consultant was review of the design, contract conditions
and specifications for the hydropower contracts. The
review identified scope for both cost reductions and
technical improvements.

Following discussions and agreement with LHDA, the
consultant continued with the agreed design modifications
and preparation of the tender documents.

In November 1991, a Hydropower Donors' Conference
was held in Maseru with donor agencies interested in
financing the civil works of the 'Muela Hydropower
Project. Following the conference, detailed discussions
were held with the European Economic Community,
African Development Bank, European Investment Bank
and Commonwealth Development Corporation on the
contract packaging and procurement regulations for
the hydropower contracts.

For construction of the 'Muela Hydropower Project, the
work will be carried out under five contracts, whereas
previously ten separate contract packages were
contemplated. The five contracts are:

| LHDA 129A | Powerhouse Civil Works |
| LHDA 129B | Muela Dam, Infrastructure and Operations Building |

LHDA 134 Turbines, Generators and Ancillary Plant
LHDA 135 Transformers and 132kV Switchgear
LHDA 136 132kV Transmission Line and Substation Bays

Preparation of tender documents were started in the last
LHDA 129A and 129B are scheduled to be called in
September 1992 and the electro-mechanical Contracts

2.2 Water Transfer
With the construction contracts for the main works
underway in 1991, the design and construction drawings
prepared by the consulting engineers for Katse Dam,
Transfer Tunnel and Delivery Tunnel South were reviewed
during the year.

Two visits of the Engineering Expert Panel were arranged
in September 1991 and January 1992, to review the design
and construction for the major contracts. Most emphasis
was placed on the design and quarry materials for Katse
dam.

2.3 Construction Power
Construction of transmission lines and substations for
construction power was completed and commissioned by
November 1991, to meet the scheduled requirements for
the main civil works.

Under Contract LHDA 117, a 132kV transmission line
from Maseru to Maputsoe and the Maseru Ring was
completed by CEGELEC (France) in September 1991.
The Consultant is Sogreah (France).

Five Contracts LHDA 118/1/2/3/4/5 were awarded for
supply of construction power from substations at Maputsoe
and at Khukhune to eight construction sites. These
contracts were all completed at various times during the
fiscal year with the final commissioning in November 1991.
The contractors were Spie Batignolles (France), for civil
works, Brown Boveri Technologies (RSA) for 88/33kV and
33/11kV substations and Cullinan Power Projects (RSA)
for transmission lines and 132/66kV, 66/33kV and
66/11kV substations. The consultant is GH Marais and
Partners (RSA).

LHDA and LEC have agreed on an arrangement whereby
LEC is operating and maintaining the construction power
systems. A formal agreement is being prepared.

2.4 Telecommunications
Erection of the LHWP Telecommunications Systems was
completed and commissioned on 14 September 1991. The
system comprises telephone switching stations at eight
construction sites which tie into the LTC national network by radio-relay. The system was manufactured and installed by C. Itoh Company (Japan). The Consulting Engineer is British Telconsult (UK).

LHDA and LTC signed an agreement in November 1991 whereby LTC is operating and maintaining the telecommunications system.

2.5 Phase 1B
Preparation plans for Phase 1B were formulated during the 1991/92 fiscal year for implementation of the engineering programme and defining the finance requirements. The initial engineering will be the Planning Study. The scope of work which includes environmental protection has been defined; with the study scheduled to start in the fourth quarter of the 1992/93 fiscal year.

2.6 SACU Revenue Study
This study is a follow-up to the study on Use of Revenue from Royalties. The SACU Revenue Study was carried out for the Ministry of Planning under the supervision of LHDA. The study which was completed in March 1992, looked into the customs import records to determine the eligible revenues generated by the LHWP.

2.7 LHDA/LEC Interface Study
The terms of reference were prepared during the fiscal year and proposals received in February 1992, to carry out a study on the institutional requirements for LHDA and LEC to interface when 'Muela Hydropower Project comes on line in 1996.
Agreement was reached between LHDA and LEC on key policy issues relating to interfacing between the institutions. A paper on the policy issues was forwarded to Government for approval.

2.8 Water Resources
Two technical reports that deal with the reliability and consistency of flow information from gauge and weir together with the methodology for correcting the historical flow information from gauge for Senqunyane River at Marakabei were published.

Further the reliability of flow and rainfall information was improved by constructing a flow monitoring station on Nqoe River in the 'Muela catchment and nine (9) rainfall stations at about 2000 MASL in the country for the LHWP.

This information will be used intensively in the Planning Study for Phase 1B and the operation of Phase IA.

3. ENVIRONMENT

3.1 Compensation
In accordance with LHDA policy the following compensation was effected during the year:
- Seven hundred and forty five metric tons of grain were distributed to one thousand three hundred and twenty six households.
- Cash payments were made to 488 households affected by infrastructure contracts.
- Fifty households received a total of 1 640 fruit tree seedlings as compensation.
- Sixty four replacement houses were constructed.

3.2 Baseline Surveys
A baseline household income, consumption and expenditure survey of Phase 1A was completed. The main categories of expenditure were food, clothing, furniture and farm operations. Sources of cash income were remittances from South Africa, wages and sale of livestock.
Field work for a biology (flora and fauna) survey was completed.

A baseline water quality and aquatic communities study commenced to collect and analyse water and biological samples from rivers in the Phase 1A catchment.

A baseline health, nutrition and occupational hygiene study commenced in the project area.

3.3 Public Health
The Leribe Trauma and Intensive Care Unit was constructed and equipment was installed. Staff were recruited and the facility is now operational. Public Health Teams were established and are operational in the Katse, Lejone and Butha-Buthe areas.

3.4 Rural Development
Agreement was reached on cost responsibility between the Kingdom of Lesotho and the Republic of South Africa for individual projects in the Rural Development Plan.

Efforts were under way to prepare a funding and implementation plan for the Lesotho component of the Rural Development Plan.

Work on individual project plans is continuing to refine the scope of services and to prepare contract documents.
3.5 Cartography
The Section continued to produce maps as required. A request for proposal document was prepared for the aerial photography of the Mohale Dam catchment in Phase 1B.

3.6 Public Awareness
The Division held many public meetings with communities in the project area as follows:

<table>
<thead>
<tr>
<th>Subject</th>
<th>No. of Pittos/Villages</th>
<th>Attendance</th>
<th>Men</th>
<th>Women</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Health</td>
<td>9</td>
<td>74</td>
<td>347</td>
<td>421</td>
<td></td>
</tr>
<tr>
<td>Environment awareness</td>
<td>7</td>
<td>290</td>
<td>386</td>
<td>676</td>
<td></td>
</tr>
<tr>
<td>Compensation (Fodder)</td>
<td>6</td>
<td>345</td>
<td>440</td>
<td>785</td>
<td></td>
</tr>
<tr>
<td>Compensation in General (with MLHWEA)</td>
<td>5</td>
<td>1,050</td>
<td>1,965</td>
<td>3,015</td>
<td></td>
</tr>
</tbody>
</table>

Four schools were visited and 1,245 pupils addressed on road safety.

3.7 Contracts Monitoring
Site and monthly project meetings were attended in an effort to provide an environmental input into the design and construction engineering contracts.

4. HUMAN RESOURCES

4.1 Institutional Development
Three Departments were created and Deputy Chief Executives and counterparts were appointed to head the Departments.

The internal audit wing was created.

Human Resources Division was created as a result of a merger of the Personnel Section and the Training Section.

Handing-over of personnel duties from Administration Division to Human Resources Division was done.

The Training Section was also restructured.

4.2 Personnel
During the period of reporting, LHDA grew rapidly. Forty Seven (47) positions were filled by recruitment, thus bringing the total number of staff to two hundred and thirty two (232). The breakdown of the strength as at March 1992 is as follows:

<table>
<thead>
<tr>
<th>Division</th>
<th>Locals</th>
<th>Expatriates</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive</td>
<td>14</td>
<td>4</td>
<td>18</td>
</tr>
<tr>
<td>Treasury</td>
<td>8</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>Environment</td>
<td>60</td>
<td>2</td>
<td>62</td>
</tr>
<tr>
<td>Administration</td>
<td>28</td>
<td>—</td>
<td>28</td>
</tr>
<tr>
<td>Finance</td>
<td>16</td>
<td>2</td>
<td>18</td>
</tr>
<tr>
<td>Legal</td>
<td>5</td>
<td>—</td>
<td>5</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>6</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Human Resources</td>
<td>6</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Construction</td>
<td>12</td>
<td>11</td>
<td>23</td>
</tr>
<tr>
<td>Planning &amp; Design</td>
<td>19</td>
<td>6</td>
<td>25</td>
</tr>
<tr>
<td>Water Resources</td>
<td>9</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Public Relations</td>
<td>10</td>
<td>—</td>
<td>10</td>
</tr>
<tr>
<td>Information Systems</td>
<td>5</td>
<td>—</td>
<td>5</td>
</tr>
</tbody>
</table>

|                | 198 | 34 | 232 |

4.3 Training
The Construction Skills Training Centre produced 681 trainees on Basic Construction skills. An upgrading Training Programme was introduced at the end of the period of reporting, to meet the needs of the main contractors.

The “Training and Manpower Development Policy and Procedures” were revised to address all points related to training and to solve problems encountered at that time.

Counterpart Development Programme was introduced. Divisional Managers were consulted on all expatriate held positions and candidates were identified for Management Training.

Performance Appraisal System was designed and a pilot scheme was run in March in one of the Divisions. All staff, Managers, and Deputy Chief Executives attended seminars on the system and interviewing techniques.

Management Development Programme was prepared and approved for implementation.

Training conducted during the period of reporting stands as follows:

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of people</th>
<th>Number of courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management training</td>
<td>20</td>
<td>11</td>
</tr>
<tr>
<td>Engineering related</td>
<td>51</td>
<td>9</td>
</tr>
<tr>
<td>Legal related training</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Environment training</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Computer related training</td>
<td>78</td>
<td>19</td>
</tr>
<tr>
<td>Secretarial related training</td>
<td>45</td>
<td>3</td>
</tr>
<tr>
<td>Finance</td>
<td>40</td>
<td>6</td>
</tr>
<tr>
<td>Others</td>
<td>16</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>262</td>
<td>63</td>
</tr>
</tbody>
</table>
5. LOCAL PARTICIPATION PROGRAMMES

LHDA continued to strengthen its links with local business groups. During the fiscal year, Metsi Ford Food provided catering services at the National University of Lesotho, Lesotho Cooperative College and Thaba-Tseka Skills Training Project. First dividends of the company have been declared and each shareholder received an amount of money almost equal to capital investment.

Basotho Transport Company operated very well. All members were engaged by Lesotho Highlands Water Project Contractors. Their fleet has almost doubled.

Hatooha-Mose-Mosali, a mohair tapestry weaving company has performed satisfactorily during the year.

It purchased mohair from Basotho farmers worth more than M30 000 and has concluded a sales agreement with a US firm — Nova International.

6. PROJECT FINANCING

6.1 Water Transfer

The signing of the offshore loans took place on the 18th November 1991, in a ceremony in London at which the two Governments of Lesotho and South Africa were represented at a ministerial level. The total value of the loans, including the IBRD loan which had been signed earlier in September, is estimated at M2 billion and will be utilised to finance the foreign costs of both main construction and consultancy contracts.

The following legal documents were also signed at the same occasion to provide the necessary guarantee mechanism for the above loans:

— Trust Instrument
— Deed of Undertaking
— Protocol IV to the Treaty

Two large Central Monetary Area (Rand) facilities were signed in December 1991, with the following financial institutions to finance the local construction and administrative costs:

— Standard Bank of S.A. and First National Bank jointly provided an amount of M1,9 billion.

— Export credit loans under the auspices of the Credit Guarantee Insurance Corporation were signed for an amount of M1,5 billion.

Preparations were put in place to draw down from the offshore loans and reimburse to the CMA 2 facility all construction costs prior to the offshore loans becoming effective. It is estimated that an amount of M372 million will be involved in this process.

The up-dated financing plan for the Water Transfer component was issued during this period and circulated internally and to the lenders as a condition for the loans effectiveness.

A financing strategy for Phase 1B will be developed and presented to the Project authorities for approval. This is again expected to include both foreign and CMA facilities.

6.2 Hydropower

The 'Muela Hydropower Donor Conference was hosted by the Government of Lesotho in November, 1991, with the primary objective of confirming financing offers for the engineering and civil works component of the 'Muela Hydropower Project. The sources of finance were confirmed as follows:

<table>
<thead>
<tr>
<th>Source</th>
<th>USD Million</th>
</tr>
</thead>
<tbody>
<tr>
<td>European Economic Community</td>
<td>40</td>
</tr>
<tr>
<td>African Development Bank Group</td>
<td>53</td>
</tr>
<tr>
<td>European Investment Bank</td>
<td>24</td>
</tr>
<tr>
<td>Commonwealth Development Corporation</td>
<td>17</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>134</strong></td>
</tr>
</tbody>
</table>

Consultations continued during this period to agree with donor agencies procurement procedures that would apply in respect of various contracts.

Appraisal of the 'Muela Hydropower Project will be embarked upon by various donor agencies to confirm its viability before presenting it to their respective management boards for financing approval. It is expected that loan negotiations leading up to the signing will take place in the third quarter of the year. The loans are planned to be effective by June 1993 at the commencement of construction activity. A financing strategy similar to Phase 1A's where tenderers were invited to mobilise finance will be developed for the electro-mechanical equipment of the Project.

A funding plan is to be developed jointly with the relevant Government ministries for the Rural Development projects, following the agreement reached by the two governments to share costs of this component equally.

6.3 Property Development

It is intended that a new head office for LHDA will be constructed and that the required finance will be raised from financial institutions in Lesotho.
Lesotho Highlands Development Authority

Financial Statements for the year ended 31 March 1992

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DIRECTORS' APPROVAL

The financial statements which appear on pages II to X were approved by the Board of Directors on 6th August 1992 and are signed on its behalf by:

T. van Tonder
CHAIRMAN

M.E. Sole
CHIEF EXECUTIVE
Report of the Auditors to the Members of the Board of the Lesotho Highlands Development Authority

We have audited the financial statements set out on pages II to XII for the year ended March 31 1992 in accordance with generally accepted auditing standards.

To the best of our knowledge and belief and on information supplied to us, the financial statements reflect a true statement of the assets and liabilities of the Authority at March 31 1992.

PEAT MARWICK
CHARTERED ACCOUNTANTS (LESOTHO)
August 10, 1992
## Balance Sheet at 31 March 1992

<table>
<thead>
<tr>
<th>ASSETS EMPLOYED</th>
<th>Notes</th>
<th>31 March 1992</th>
<th>31 March 1991</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FIXED ASSETS</strong></td>
<td>4</td>
<td>1,486,429</td>
<td>703,982</td>
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<tr>
<td><strong>CURRENT ASSETS</strong></td>
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<tr>
<td>Advance Payments</td>
<td></td>
<td>307,461</td>
<td>198,673</td>
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<tr>
<td>Other Receivables</td>
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<td>1,090</td>
<td>6,390</td>
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<tr>
<td>Cash on Deposit at Bank</td>
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<td>17,713</td>
<td>16,719</td>
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<tr>
<td><strong>CURRENT LIABILITIES</strong></td>
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<td>326,264</td>
<td>221,782</td>
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<tr>
<td>Contracts Payables and Accruals</td>
<td></td>
<td>148,541</td>
<td>130,123</td>
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<tr>
<td>Retentions</td>
<td></td>
<td>39,104</td>
<td>15,247</td>
</tr>
<tr>
<td>Other Payables and Accruals</td>
<td></td>
<td>8,440</td>
<td>3,381</td>
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<tr>
<td>Short Term Loan</td>
<td></td>
<td>719,082</td>
<td>5,183</td>
</tr>
<tr>
<td><strong>NET CURRENT (LIABILITIES)/ASSETS</strong></td>
<td>8</td>
<td>(588,903)</td>
<td>67,848</td>
</tr>
<tr>
<td></td>
<td></td>
<td>897,526</td>
<td>770,946</td>
</tr>
<tr>
<td><strong>FINANCED BY:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAPITAL FUND</td>
<td>5</td>
<td>411,344</td>
<td>225,423</td>
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<tr>
<td>GOVERNMENT OF LESOTHO FUND</td>
<td>6</td>
<td>50,046</td>
<td>56,392</td>
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<tr>
<td>LONG TERM LIABILITIES</td>
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<td>436,136</td>
<td>489,131</td>
</tr>
<tr>
<td></td>
<td></td>
<td>897,526</td>
<td>770,946</td>
</tr>
</tbody>
</table>
Lesotho Highlands Development Authority

Statement of changes in Financial position for the year ended 31 March 1992

SOURCE OF FUNDS

Government of Lesotho .......................................................................................................................... 36 359
Government of Republic of South Africa ............................................................................................... 133 500
Increase in Term Liabilities .................................................................................................................. 660 904

USAGES OF FUNDS

Expenditure on Capital Work-in-Progress
  Administration ................................................................................................................................. 86 613
  Construction ................................................................................................................................. 505 168
  Engineering ................................................................................................................................. 67 924
  Environment ................................................................................................................................. 3 769
  Financing ..................................................................................................................................... 110 141
Increase in Net Current Assets ............................................................................................................ 57 148

INCREASE IN NET CURRENT ASSETS

Increase in Advance Payments ............................................................................................................ 108 788
Decrease in Other Receivables ............................................................................................................ (5 300)
Increase in Cash on Deposit and at Bank ............................................................................................. 994
(Increase) in Contract Payables and Accruals ....................................................................................... (18 418)
(Increase) in Retentions ....................................................................................................................... (23 857)
(Increase) in Other Payables and Accruals ......................................................................................... (5 059)

57 148
Notes to the Financial Statements for the year ended 31 March 1992

1. COMMENCEMENT OF OPERATIONS
The Authority was established with effect from 24 October 1986 by the Lesotho Highlands Development Authority Order (No. 23) of 1986, and commenced operations immediately.

2. DESCRIPTION OF ACTIVITIES
The Authority is entrusted with the responsibility for the implementation, operation and maintenance of the Lesotho Highlands Water Project as defined in the Treaty on the Lesotho Highlands Water Project signed by the Government of the Kingdom of Lesotho and the Government of the Republic of South Africa on 24 October 1986.

The Authority is also conferred with general functions in relation to water resources, electricity, education and training of its employees, monitoring activities and land transactions.

The Authority is presently in the initial stages of construction of Phase 1A of the Lesotho Highlands Water Project. Construction of this Phase is presently scheduled to be completed in 1996. The principal physical features of Phase 1A in Lesotho are as follows:

(a) A 182 metre high concrete arch dam on the Malibamat'so River at Katse.
(b) A 55 km transfer tunnel north from the Katse reservoir to the Hydropower complex at 'Muela.
(c) A 72 MW underground hydropower complex at 'Muela.
(d) A 15 km delivery tunnel north from 'Muela under the Mohokare (Caledon) River which forms the border between the Kingdom of Lesotho and the Republic of South Africa.
(e) Associated infrastructure, including construction of new roads, upgrading and rehabilitation of existing roads, two new bridges, upgrading of border crossing facilities and new river crossings, camps, communications, power supply etc.
(f) Associated conservation, environmental and rural development activities.

3. PRINCIPAL ACCOUNTING POLICIES
The financial statements are prepared on the historical cost basis and incorporate the following principal accounting policies:

3.1 Capital Work-in-Progress
Costs incurred on the implementation of Phase 1A of the Lesotho Highlands Water Project are capitalised and shown as fixed assets on the balance sheet of the Authority. As construction will not be completed before 1996, no depreciation is charged.

Cost comprises all attributable costs of bringing the asset or group of assets to working condition for their intended use, and includes inter alia:

(a) all costs of investigations, surveys, feasibility studies, engineering studies, preparation of designs, construction, construction supervision, procurement and commissioning;
(b) the establishment and administration costs of the Authority;
(c) the costs of any land or interest in land, and any improvements to such lands;
(d) the costs of measures taken in order to ensure that members of local communities in Lesotho are not adversely affected by Project related activities, including compensation paid;
(e) all finance charges (including interest payments, financing and foreign exchange cover charges and other charges) relating to finance raised to fund capital expenditure.

All costs incurred are apportioned to one or more of the following activities:

(i) generation of hydro-electric power in the Kingdom of Lesotho ("Hydropower")
(ii) delivery of water to South Africa ("Water Transfer")
(iii) ancillary developments in the Kingdom of Lesotho ("Ancillary Developments").

The Government of the Kingdom of Lesotho is, by way of Cost Related Payments, responsible for the costs of the Hydropower and Ancillary Development Activities. The Government of the Republic of South Africa is, by way of Cost Related Payments, responsible for the costs of the Water Transfer activities.

3.2 Pre-Establishment Costs
Costs incurred on the implementation of the Lesotho Highlands Water Project prior to the establishment of the Authority on 24 October 1986 have been included in Fixed Assets.
3.3 Foreign Exchange
Transactions in foreign currencies are converted to Maloti at the approximate exchange rates ruling at the date of the transaction. Assets or liabilities denominated in foreign currencies are converted to Maloti at the exchange rate ruling at the balance sheet date. Exchange differences are allocated to the cost of the related activity.

3.4 Cost Related Payments
Cost Related Payments from the Governments of Lesotho and South Africa are recognised and credited to the Capital Fund on the date due for payment.
Cost Related Payments become due when the relevant cost fails due for payment; provided that Cost Related Payments may be paid directly to contractors or consultants, or, where costs have been financed by way of loans shall be due for payment at the time such loans become redeemable.
Funds obtained on concessionary terms for the Water Transfer component shall, for the purpose of Cost Related Payments, be deemed to be loans at the interest rate and redemption terms applicable to loans of the International Bank for Reconstruction and Development.

3.5 Royalties
Royalties arising from the Lesotho Highlands Water Project, including advance royalty payments through the Southern Africa Customs Union, accrue to the Government of Lesotho and are therefore not reflected in the financial statements of the Authority.

3.6 Other Income
Other income arising, such as interest earned, exchange gains and miscellaneous income, is credited to the cost of the activity to which it relates.

4. FIXED ASSETS
Capital Work in Progress

<table>
<thead>
<tr>
<th></th>
<th>Balance 1/4/91</th>
<th>Increase During Year</th>
<th>Balance 31/3/92</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M'000</td>
<td>M'000</td>
<td>M'000</td>
</tr>
<tr>
<td>Hydropower</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administration</td>
<td>9658</td>
<td>833</td>
<td>15491</td>
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<tr>
<td>Construction</td>
<td>27489</td>
<td>33706</td>
<td>61195</td>
</tr>
<tr>
<td>Engineering</td>
<td>24797</td>
<td>8201</td>
<td>32998</td>
</tr>
<tr>
<td>Environmental</td>
<td>158</td>
<td>95</td>
<td>253</td>
</tr>
<tr>
<td>Financing</td>
<td>1868</td>
<td>4586</td>
<td>6454</td>
</tr>
<tr>
<td>Total</td>
<td>63970</td>
<td>52421</td>
<td>116391</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Balance 1/4/91</th>
<th>Increase During Year</th>
<th>Balance 31/3/92</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M'000</td>
<td>M'000</td>
<td>M'000</td>
</tr>
<tr>
<td>Water Transfer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administration</td>
<td>86791</td>
<td>80780</td>
<td>167571</td>
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<tr>
<td>Construction</td>
<td>375591</td>
<td>471462</td>
<td>847093</td>
</tr>
<tr>
<td>Engineering</td>
<td>113497</td>
<td>59723</td>
<td>173220</td>
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<tr>
<td>Environmental</td>
<td>2846</td>
<td>3674</td>
<td>6520</td>
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<tr>
<td>Financing</td>
<td>60403</td>
<td>115271</td>
<td>175674</td>
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<tr>
<td>Total</td>
<td>639128</td>
<td>730910</td>
<td>1370038</td>
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</table>

Total Fixed Assets

703098 783331 1486429

Included in financing fixed assets is M27 653 000 representing the finance costs attributable to funds obtained on concessionary terms of the Water Transfer Component, deemed to be loans with interest rates and redemption terms applicable to loans of the International Bank for Reconstruction and Development.
5. CAPITAL FUND

<table>
<thead>
<tr>
<th>Description</th>
<th>Hydro Power</th>
<th>Water Transfer</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance at 1 April 1991</td>
<td>63,970 M'000</td>
<td>161,453 M'000</td>
<td>225,423 M'000</td>
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<tr>
<td>Transfer from Government of Lesotho, representing Cost Related Payments on Hydropower</td>
<td>52,421</td>
<td></td>
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<tr>
<td>Cost Related Payments on Water Transfer paid directly by the Government of the Republic of South Africa</td>
<td>133,500</td>
<td></td>
<td>133,500</td>
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<tr>
<td>Balance at 31 March 1992</td>
<td>116,391</td>
<td>294,953</td>
<td>411,344</td>
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</table>
### 7. LONG-TERM LIABILITIES

(i) Development Bank of Southern Africa — (DBSA)

<table>
<thead>
<tr>
<th>In Respect of</th>
<th>Loan Amount M'000</th>
<th>Balance at 01/04/1991 M'000</th>
<th>Balance at 31/03/1992 M'000</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Southern Access Road</td>
<td>24 818</td>
<td>22 126</td>
<td>25 113</td>
</tr>
<tr>
<td>(b) Northern Access Road Northern Portion</td>
<td>154 429</td>
<td>154 912</td>
<td>160 750</td>
</tr>
<tr>
<td>(c) Katse Bridge</td>
<td>2 904</td>
<td>2 713</td>
<td>2 638</td>
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<tr>
<td>(d) Northern Access Road Southern Portion</td>
<td>67 483</td>
<td>42 059</td>
<td>58 135</td>
</tr>
<tr>
<td>(e) Border Crossing Facilities</td>
<td>8 470</td>
<td>6 263</td>
<td>8 235</td>
</tr>
<tr>
<td>(f) Infrastructure Management</td>
<td>3 380</td>
<td>231</td>
<td>335</td>
</tr>
<tr>
<td>(g) Katse Village Building Works</td>
<td>34 832</td>
<td>25 827</td>
<td>34 147</td>
</tr>
<tr>
<td>(h) North End Access Road</td>
<td>42 691</td>
<td>17 350</td>
<td>39 373</td>
</tr>
<tr>
<td>(i) Power Supply</td>
<td>70 348</td>
<td>19 031</td>
<td>61 859</td>
</tr>
<tr>
<td>(j) Katse Village Engineering Works</td>
<td>21 393</td>
<td>15 867</td>
<td>20 635</td>
</tr>
<tr>
<td>(k) Communication System</td>
<td>1 840</td>
<td>1 293</td>
<td>1 345</td>
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<tr>
<td>(l) Butha-Buthe Engineering Supervision Compensation</td>
<td>22 700</td>
<td>—</td>
<td>14 850</td>
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<tr>
<td>(m) Civil Construction Training Needs Preparation Costs and Accommodation</td>
<td>910</td>
<td>—</td>
<td>802</td>
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<tr>
<td>(n) Civil Construction Training Needs — Movable Assets</td>
<td>713</td>
<td>—</td>
<td>468</td>
</tr>
<tr>
<td>(o) Civil Construction Training Needs — Establishment Cost</td>
<td>248</td>
<td>—</td>
<td>221</td>
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<tr>
<td>(p) Upgrading of Border Crossing Facilities at Maputsoe and Caledonspoort</td>
<td>391</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>(q) Butha-Buthe Building Works</td>
<td>13 750</td>
<td>—</td>
<td>9 745</td>
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<tr>
<td>(ii) Trust Bank</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Trust Bank Facility</td>
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<td></td>
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<tr>
<td>(iii) CMA II Facility Barclays Bank of Swaziland Ltd</td>
<td>1 866</td>
<td>1 866</td>
<td>694</td>
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<td>(iv) CMA II Facility — ABSA Consortium</td>
<td>10 000</td>
<td>9 843</td>
<td>9 974</td>
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<tr>
<td>(v) CMA II Facility Nedbank</td>
<td>370 000</td>
<td>169 388</td>
<td>366 756</td>
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<td>(vi) Trans Caledon Tunnel Authority</td>
<td>370 000</td>
<td>—</td>
<td>333 596</td>
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<tr>
<td>(vii) Trans Caledon Tunnel Authority</td>
<td>5 545</td>
<td>5 545</td>
<td>5 545</td>
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Less: Current Portion

<table>
<thead>
<tr>
<th>Loan Amount M'000</th>
<th>Balance at 01/04/1991 M'000</th>
<th>Balance at 31/03/1992 M'000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>494 314</td>
<td>1 155 218</td>
</tr>
<tr>
<td></td>
<td>5 183</td>
<td>719 082</td>
</tr>
<tr>
<td></td>
<td>489 131</td>
<td>436 136</td>
</tr>
</tbody>
</table>
Notes to the Financial Statements for the Year Ended 31 March 1992 (Continued)

(i) All DBSA loans are guaranteed by the Government of the Republic of South Africa.
(a) Repayable over 20 years, including a 4 year grace period, and bearing interest at 8%.
(b) Repayable over 22,5 years, including a 2,5 year grace period, and bearing interest at 8%.
(c) Repayable over 20 years, including a 2 year grace period, and bearing interest at 8%.
(d) Repayable over 20 years, including a 2,5 year grace period, and bearing interest at 8%.
(e) Repayable over 20 years, including a 1 year grace period, and bearing interest at 11%.
(f) Repayable over 10 years, including a 3 year grace period, and bearing interest at 4%.
(g) Repayable over 20 years, including a 2 year grace period, and bearing interest at 16%.
(h) Repayable over 20 years, including a 1,5 year grace period, and bearing interest at 8%.
(i) Repayable over 20 years, including a 1,5 year grace period, and bearing interest at 15%.
(j) Repayable over 20 years, including a 2 year grace period, and bearing interest at 12%.
(k) Repayable over 10 years, including a 2 year grace period, and bearing interest at 4%.
(l) Repayable over 24 years, including a 2 year grace period, and bearing interest at 12%.
(m) Repayable over 13 years, including a 0,5 year grace period, and bearing interest at 8%.
(n) Repayable over 3 years, including a 0,5 year grace period, and bearing interest at 16%.
(o) Repayable over 10 years, including a 0,5 year grace period, and bearing interest at 4%.
(p) Repayable over 10 years, including a 2 year grace period, and bearing interest at 4%.
(q) Repayable over 20 years, including a 2 year grace period, and bearing interest at 15%.
(ii) Repayable between June 1991 and June 1992 and bearing interest at 20% per annum. This liability is secured against the
Assets financed by Trust Bank.
(iii) Repayable not later than 31 May 1992 and bearing interest at the lenders prime rate. This loan is guaranteed by the
Government of the Republic of South Africa.
(iv) Repayable not later than 31 January 1993 and bearing interest at various rates related to current commercial rates. This loan is
guaranteed by the Government of the Republic of South Africa.
(v) Repayable not later than 31 October 1992 and bearing interest at various rates related to current commercial rates. This loan is
guaranteed by the Government of the Republic of South Africa.
(vi) Payable in 10 semi-annual instalments commencing on 30 September 1992, bearing interest at 17,47%.

8. CAPITAL COMMITMENTS
Outstanding capital expenditure contracted for at 31 March 1992 amounted to M2 698 million. Finance has been secured as at
31 March 1992 to meet all of these commitments, including current liabilities.

9. TAXATION
In accordance with Section 29(1) of the Lesotho Highlands Development Authority Order (No. 23) of 1986, the Authority is not
liable to pay any sales tax payable under the Sales Tax Act 1982.

10. INCOME STATEMENT
An Income Statement has not been prepared as all expenditure and related income for the period has been charged to Capital
Work-in-Progress.