Environmental Protection
Investment in Hunan

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I. Components & sources

II. Investment analysis

III. Investment effect

IV. Problems & recommendations
I. Components and sources of environmental protection investment

Environmental protection components

- Investment on industrial pollution control
- Investment on urban environmental infrastructure
- Investment on environmental supervision improvement
- Investment on ecological functional areas and nature reserves
- Investment on rural environmental protection
<table>
<thead>
<tr>
<th>Investment direction</th>
<th>Investment source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial pollution prevention and control</td>
<td>Finance from Central, provincial, municipal levels, enterprises, foreign funds</td>
</tr>
<tr>
<td>Urban environmental infrastructure construction</td>
<td>Finance at all levels, social capital, foreign funds</td>
</tr>
<tr>
<td>Ecological functional areas and nature reserves</td>
<td>Mainly from Central and provincial finances</td>
</tr>
<tr>
<td>Environmental supervision improvement</td>
<td>Finance at all levels</td>
</tr>
<tr>
<td>Rural environmental protection</td>
<td>Mainly from Central and provincial finances</td>
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</tbody>
</table>
II. Environmental protection investment analysis

Environmental protection investment increases along with the increase of GDP and financial revenue.

![Graph showing the increase in environmental protection investment with GDP and financial revenue over the years from 2001 to 2008. The graph includes lines for GDP, fiscal income, and environmental protection investment.]
Environmental protection investment grows faster than the growth rate of GDP, more slowly than the growth rate of financial revenue.

<table>
<thead>
<tr>
<th>项目</th>
<th>GDP (亿元)</th>
<th>财政收入 (亿元)</th>
<th>环保投入 (亿元)</th>
<th>环保投入占GDP的比例（%）</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001年</td>
<td>3983</td>
<td>205.4</td>
<td>27.8</td>
<td>0.70</td>
</tr>
<tr>
<td>2006年</td>
<td>7493</td>
<td>891.2</td>
<td>75.58</td>
<td>1.01</td>
</tr>
<tr>
<td>2006年较2001年增长%</td>
<td>88</td>
<td>334</td>
<td>172</td>
<td></td>
</tr>
</tbody>
</table>
Main investment classification & analysis

Original pollution control investment continued to grow 2006 years ago, but dropped in recent two years.

Urban wastewater and waste treatments investments grow slowly 2006 years ago but grow rapidly in recent two years.
III. Significant effect of environmental protection investment

- Industrial pollution control facilities are improved continuously.
- The pace of infrastructure construction in urban environment is accelerated.
- Environmental supervision is enhanced.
- Total discharge of major pollutants is under effective control.
- With rapid growth in the economy, environment quality becomes stable and local indicators in some areas has been improved.
During the Eleventh Five-Year Plan:

- 287 emission reduction projects of sulfur dioxide are completed;
- 379 emission reduction projects of chemical oxygen are completed;
- 34 emission reduction projects of arsenic are completed;
- 38 emission reduction projects of cadmium are completed.

These projects do not include structural and management emission reduction, such as pollution control campaign in paper industry in Dongting Lake, in which the provincial finance invested on 75 million yuan in three phases to support the withdrawal of more than 200 papermaking enterprises from Dongting Lake.

There were 526 pollution prevention projects scheduled by the Central and provincial levels where the Central arranged 8 million yuan and provincial finance arranged 650,000 yuan to support Shuikoushan Non-ferrous Group to invest over 40 million yuan on the project of heavy metal pollution control by introducing technologies from the U.S. to build the world’s largest electrical flocculation processing device of heavy metal waste water, from which treated water quality is higher than national standards and offers a new technology option for advanced treatment of heavy metal wastewater.

Industrial pollution control facilities are improved continuously.
The pace of infrastructure construction in urban environment is accelerated.
Since “Eleventh Five-Year” Plan:
  Standardized capacity-building was completed in 1 provincial-level environmental monitoring central station and 14 municipal-level environmental monitoring stations;
  117 vehicles and 3598 sets of equipments were deployed for environmental monitoring and supervision.
  1 provincial and 14 municipal-level pollution source monitoring centers were built;
  600 complete sets of state-controlled automatic pollution monitoring facilities were built;
  With financial support, online monitoring facilities in pollution sources were operated by third parties.

Environmental supervision is enhanced
Total discharge of major pollutants is under effective control.

During the Eleventh Five-Year Plan:
- Sulfur dioxide discharge declined by 8.57% than that in 2005;
- Chemical oxygen discharge declined by 1.15% than that in 2005;
- Arsenic discharge decreased by 29.2%;
- Cadmium discharge dropped by 22.55%.
Environment quality becomes stable

Passing rate of cross-section functional areas across the province

Urban air pollution general index across the province
IV. Problems & recommendations

💡 Problems

—— Investment shortage on environmental protection investment

Investment on key environmental protection in the province
Recommendations on improving environmental protection investment

— Improve financial investment
— Innovate financing platform
— Broaden investment fields
— Reform financial policies of fiscal and tax
— Diversify investment subjects
— Activate investment methods
Thank You