Overview of Focused Parts Master Plan of Guiyang Ecological Economy City

Outline

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   . Development and Investment in Key Areas
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         Development of the system of using recycled resources
         Development of Energy Facilities
         Development of transportation facilities
      2. Ecological Industry
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         Aluminum exploitation and processing
         Building materials industry of recycle economy
         Pharmaceutical Industry
      3. Ecological Agriculture
         3.1 Carry out reclamation utilization of waste
         3.2 Great efforts will be made to develop green agricultural products
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         2.2 Rely on the progress of science and technology to develop environment protection industry
         2.3 Rationally protect and utilize land, water and mineral resources
         2.4 Enhance building rules and regulation, improve the participating capacity of publicity
         2.5 Strengthen target management, increase fund-raising, focus on the construction of key projects.
      3. Other social policy
I. Problems and Challenges

Guiyang has made great achievements in economy and social development since 30 years following the implementation of reform and opening policies. With the high-speed development of economy, continuous progress of society and expansion of population mushroomed; it is at a critical stage of environmental protection and economic development. How can we protect environment and promote social harmony development while developing the economy? Currently Guiyang is keeping exploring and trying on the road of reform and development.

The problems and challenges we are facing as follows

• Low income level, low investment;
• Lack of human resources: technician, entrepreneur and managers.
• Ecological vulnerability and mountain landform
• Weak infrastructure;
• Heavy dependence on natural resources: phosphor and aluminum;
• Risks/threats of drinking water source;
• Awareness: less open, less aggressive and self-satisfied

. Strategy Consideration

Guideline framework
1. Efficiency improvement
2. Structure Change

1. Tax of Government increased
2. Enterprise strength enhanced
3. Increase of the residents’ income

Development of “Vein” Industry: swage treatment; garbage disposal; fuel gasification; Ecological Conservation

Ecological Conservation

1. Technological progress;
2. Human resources development
3. Capital accumulation and fund investment
4. System policy improvement

Economy development

Through some mechanism to ensure the transfer the sufficient resources to the construction and operation of the “Vein” Industry, which will be realized for example by measures of administrative rules and regulations, tax, charge, public financial transfer and payment and discharge permission and so on.

Framework for Guidelines

(Evein industry means waste being transformed into renewable resources)
1. **Ecological Economy’s Special Definition for Guiyang City**
   
   • Ecological awareness and culture;
   
   • Legal basis;
   
   • Mechanism for human development resources;
   
   • Improvement of resource efficiency and environmental quality and reaching certain levels;
   
   • Mechanism for application of environmentally sound approaches in major economic sectors;
   
   • Development of urban infrastructure and environmental industries and larger shares;
   
   • Sustainable urban and rural system (linking small towns and central city - roads; support from public finance; rural market tapping – farmers’ income; rural pollution)
   
   • From advantages of resources to economic advantages (avoid Dutch diseases, weather, landscape)

2. **Content of strategy consideration for Eco-economy city**

2.1 Give top priority to sustainable and rapid development and lies it as the fundamental solutions to the problems in the resources and environment for Guiyang. Rise above the traditional development pattern of social economy of heavy-pollution, high-cost and overdependence on the exploit of natural resources

2.2 The protection of the nature ecological system will be further enhanced

2.3 Strengthen infrastructure of traffic, energy, waster conservancy, utility services, tourism, and information, improve and upgrade function of cities to provide important basis for building a well-off society in an all-round way and realizing historic leaps of economy and social development.

2.4 With the aim of advancing by leaps and bounds of Guiyang, Upgrade industry quality and improve industry efficiency by optimizing industry structure.

2.5 Mainly support the pillar industry, increase the degree to industries related, and develop pillar industries that can greatly spur our economic growth.

2.6 Rationally develop and protect the basis of environment resources, gradually reduce the dependency of total economy growth on mining raw materials, promote the obvious
increase of comprehensive utilization ratio for whole social resources.

2.7 Speed the establishment of system, mechanism and laws system of resources-saving with the aim of saving energy, water, materials, land and comprehensive using of resources; fully promote clean production, and focus on the pilot projects in some parks and enterprises; relying on the progress of science and technology, enhancing the management, promoting full-scale construction of conservation-oriented society in the each level of decision-making, technical support, resources utilization and in the links of production, service and consumption.

2.8 Make efforts to Increase urban and rural employment, to improve social security system and social assistance system, to raise residents’ culture life level, to strengthen the building of socialist democracy, the legal system and spiritual civilization, and to build a socialist harmony society in an all-round way.

III. Development and Investment in Key Areas

1. Urban Infrastructure Construction

1.1 Development of Water Facilities

Wastewater treatment facilities, water control projects in rural areas, and drinking water safety are the primary concerns.

1.2 Development of the system of using recycled resources

Comprehensive and circular use of rural resources and by products shall be promoted. Focus shall be on the treatment facilities of phosphorous and aluminum wastes.

1.3 Development of Energy Facilities

Thermal power generation and hydro power generation shall be developed while taking hydro power as the priority.

1.4 Development of transportation facilities

The promotion of “Greater Guiyang” strategy shall be carried out on the basis of improved transportation system. Clean fuel shall be promoted for vehicles.
2. Ecological economy Industry

2.1 Phosphorous exploitation and phosphorous chemical industry
The phosphorous resources will be running out 16 years later if the growth rate of exploitation 11.6% is maintained, and will be running out 28 years later at a rate of 7%. In order to make best use of our advantage of resources, we shall try various means such as extending the product chains to slow down the exploitation speed.

2.2 Aluminum exploitation and processing.
Any resources, including aluminum, will be running out 10 or 20 years later at the present exploitation speed. Therefore various means such as extending product chains shall be adopted to cut down on the exploitation of resources.

2.3 Building materials industry of recycle economy
• Comprehensive and recycling utilization of rural resources and farm and sideline products linked by biogas
• Focus on building professional disposal system for industrial solid waste to mainly solve the problems of waste of phosphorus and aluminum industry
• Construct facility of collection, storage and delivery, disposal and comprehensive use of household garbage, especially focus on garbage separation.

2.4 Pharmaceutical Industry
We shall realize the localization of raw materials, modernization of manufacturing and concentration of production layout.

3. Ecological Agriculture
3.1 Carry out reclamation utilization of waste;
3.2 Great efforts will be made to develop green agricultural products
3.3 Promote marketing the eco-agricultural culture.

4. Ecological harmonious tertiary industry
4.1 Tourism industry
4.2 Modern logistic industry

IV. Key Projects
The key projects include construction of hardware and software as well. In accordance with “11th-Five-Year-Program” of Guiyang, the selected eco-economy city construction projects are 47 in 5 fields, including eco-agriculture, eco-industry, eco-service, urban infrastructure construction, social development and eco-economy concept training. The total investment is 97.08 billion yuan, the investment in 2005-2010 is 53.77 billion yuan.
### Eco-Agriculture Projects

<table>
<thead>
<tr>
<th>No.</th>
<th>Project</th>
<th>Type</th>
<th>Total investment (Yuan)</th>
<th>Investment in 2005-2010 (Yuan)</th>
<th>From-To</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>6-in-1 Eco-Agricultural Integrative Project</td>
<td>New</td>
<td>580 million</td>
<td>580 million</td>
<td>2006—2010</td>
</tr>
<tr>
<td>2.</td>
<td>Energy Construction Project in Countryside in Guiyang</td>
<td>New</td>
<td>621.29 million</td>
<td>621.29 million</td>
<td>2006—2008</td>
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<tr>
<td>3.</td>
<td>Integrative Desert reconstruction</td>
<td>New</td>
<td>6350 million</td>
<td>600 million</td>
<td>2006—2050</td>
</tr>
<tr>
<td>5.</td>
<td>Organic and Ecologic Vegetable Development</td>
<td>New</td>
<td>25 million</td>
<td>25 million</td>
<td></td>
</tr>
</tbody>
</table>

### Eco-Industrial Projects

<table>
<thead>
<tr>
<th>No.</th>
<th>Project</th>
<th>Type</th>
<th>Location</th>
<th>Total investment (Yuan)</th>
<th>Investment in 2005-2010 (Yuan)</th>
<th>From-To</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Waste Gas from Phosphorus Production Recycling Processing Project</td>
<td>New</td>
<td>Kaiyang County</td>
<td>120 million</td>
<td>120 million</td>
<td>2006—2008</td>
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<tr>
<td>2.</td>
<td>Wet-Process Phosphate Production</td>
<td>New</td>
<td>Kaiyang County</td>
<td>150 million</td>
<td>150 million</td>
<td>2006—2010</td>
</tr>
<tr>
<td>3.</td>
<td>Calcium Carbide Dreg Recycle and ethyne wastewater disposal project</td>
<td>New</td>
<td>Qingzhen Town</td>
<td>220 million</td>
<td>220 million</td>
<td>2006—2010</td>
</tr>
<tr>
<td>5.</td>
<td>Alumina Product Line</td>
<td>New</td>
<td>Xifeng County</td>
<td>188</td>
<td>188 million</td>
<td>2006—2010</td>
</tr>
<tr>
<td>6.</td>
<td>Coal Chemical Eco-industry Project</td>
<td>New</td>
<td>Qingzhen Town</td>
<td>37065 million</td>
<td>10000 million</td>
<td>2006-2015</td>
</tr>
<tr>
<td>7.</td>
<td>Coal Chemical Eco-industry base Project</td>
<td>Extending</td>
<td>Qingzhen Town</td>
<td>6600 million</td>
<td>6600 million</td>
<td>2006-2020</td>
</tr>
<tr>
<td>8.</td>
<td>Green Vegetable-Seed Oil</td>
<td>New</td>
<td>Kaiyang</td>
<td>159</td>
<td>159</td>
<td>2006—2010</td>
</tr>
</tbody>
</table>
### Eco-Service Projects

<table>
<thead>
<tr>
<th>No.</th>
<th>Project Type</th>
<th>Type</th>
<th>Location</th>
<th>Total investment (Yuan)</th>
<th>Investment in 2005-2010 (Yuan)</th>
<th>From-To</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>55461m² Londonbao Cargo Transportation Center</td>
<td>New</td>
<td>Nanming District</td>
<td>150 million</td>
<td>150 million</td>
<td>2006-2010</td>
</tr>
<tr>
<td>2.</td>
<td>43208 m² Fuyuan Leechdom Transportation Center</td>
<td>New</td>
<td>Nanming District</td>
<td>70 million</td>
<td>70 million</td>
<td>2006-2010</td>
</tr>
<tr>
<td>3.</td>
<td>15000 m² Labor Administrative &amp; Service Center</td>
<td>New</td>
<td>Nanming &amp; Yunyan District</td>
<td>150 million</td>
<td>150 million</td>
<td>2006-2010</td>
</tr>
<tr>
<td>4.</td>
<td>10000 m² Guiyang Public Hospital of Medical Insurance</td>
<td>Extending</td>
<td>Xiaohe District</td>
<td>50 million</td>
<td>50 million</td>
<td>2006-2010</td>
</tr>
<tr>
<td>5.</td>
<td>“Red Tourism” Scenery Construction</td>
<td>New</td>
<td>Xifeng County</td>
<td>1500 million</td>
<td>1500 million</td>
<td>2006-2010</td>
</tr>
<tr>
<td>6.</td>
<td>3000mu Guizhou Stone-forest Buyi Culture Tourism Zone</td>
<td>New</td>
<td>Xiuwen County</td>
<td>120 million</td>
<td>120 million</td>
<td>2006-2010</td>
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<tr>
<td>7.</td>
<td>Huaxi Eco-culture Tourism Zone</td>
<td>Extending</td>
<td>Huaxi District</td>
<td>150 million</td>
<td>150 million</td>
<td>2006-2010</td>
</tr>
<tr>
<td>8.</td>
<td>Tianhetan Tourism Zone Development</td>
<td>New</td>
<td>Huaxi District</td>
<td>60 million</td>
<td>60 million</td>
<td>2006-2010</td>
</tr>
<tr>
<td>9.</td>
<td>100mu Shitang Small</td>
<td>New</td>
<td>Wudang</td>
<td>50</td>
<td>50</td>
<td>2006-2010</td>
</tr>
<tr>
<td>No.</td>
<td>Project</td>
<td>Type</td>
<td>Location</td>
<td>Total investment (Yuan)</td>
<td>Investment in 2005-2010 (Yuan)</td>
<td>From-To</td>
</tr>
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</tr>
<tr>
<td>1.</td>
<td>Water Exploitation Project</td>
<td>New</td>
<td>All Counties</td>
<td>2400 million</td>
<td>2400 million</td>
<td>2006—2010</td>
</tr>
<tr>
<td>2.</td>
<td>City Waste Water Proposal Plant</td>
<td>Extending</td>
<td>Guiyang</td>
<td>1377 million</td>
<td>1377 million</td>
<td>2006-2010</td>
</tr>
<tr>
<td>3.</td>
<td>Fast-Rail Transportation</td>
<td>New</td>
<td>Guiyang</td>
<td>16293 million</td>
<td>16293 million</td>
<td>2006-2010</td>
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<tr>
<td>5.</td>
<td>Gas fuel instead of petroleum for Public traffic</td>
<td>New</td>
<td>Guiyang</td>
<td>300 million</td>
<td>300 million</td>
<td>2006—2010</td>
</tr>
<tr>
<td>6.</td>
<td>Harmful and Hospital Waste Disposal Center</td>
<td>New</td>
<td>Guiyang</td>
<td>365 million</td>
<td>365 million</td>
<td>2006-2010</td>
</tr>
<tr>
<td>7.</td>
<td>Urban Public Illuminant System Extending Project</td>
<td>Extending</td>
<td>Downtown Guiyang &amp; Lontongbao</td>
<td>543 million</td>
<td>543 million</td>
<td>2006-2010</td>
</tr>
<tr>
<td>8.</td>
<td>Guiyang South Suburb Garbage Bury-Site Project</td>
<td>New</td>
<td>Downtown Guiyang &amp; Lontongbao</td>
<td>220 million</td>
<td>220 million</td>
<td>2006-2010</td>
</tr>
<tr>
<td>9.</td>
<td>2nd Stage of Tele-Education Project</td>
<td>New</td>
<td>Guiyang</td>
<td>300 million</td>
<td>300 million</td>
<td>2006—2010</td>
</tr>
<tr>
<td>No.</td>
<td>Project</td>
<td>Type</td>
<td>Location</td>
<td>Total investment (Yuan)</td>
<td>Investment in 2005-2010 (Yuan)</td>
<td>From-To</td>
</tr>
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<tr>
<td>12.</td>
<td>Soil erosion Protection</td>
<td>Extending</td>
<td>Guiyang</td>
<td>300 million</td>
<td>300 million</td>
<td></td>
</tr>
</tbody>
</table>

**Social development and eco-economy concept training projects**

<table>
<thead>
<tr>
<th>No.</th>
<th>Project</th>
<th>Type</th>
<th>Location</th>
<th>Total investment (Yuan)</th>
<th>Investment in 2005-2010 (Yuan)</th>
<th>From-To</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>68605 m² Building and facilities in improvement schools</td>
<td>Extending</td>
<td>Guiyang</td>
<td>50 million</td>
<td>50 million</td>
<td>2006-2010</td>
</tr>
<tr>
<td>2.</td>
<td>1200000 m² Model high-school construction</td>
<td>New Extending</td>
<td>Guiyang</td>
<td>1550 million</td>
<td>1550 million</td>
<td>2006-2010</td>
</tr>
<tr>
<td>3.</td>
<td>50000 m² Teacher training base</td>
<td>New</td>
<td>Guiyang</td>
<td>60 million</td>
<td>60 million</td>
<td>2006-2010</td>
</tr>
<tr>
<td>4.</td>
<td>10000 m² Education source data bank and network construction</td>
<td>New</td>
<td>Guiyang</td>
<td>40 million</td>
<td>40 million</td>
<td>2006-2010</td>
</tr>
<tr>
<td>5.</td>
<td>74800 m² Sanitation projects in county levels</td>
<td>New</td>
<td>Guiyang</td>
<td>84 million</td>
<td>84 million</td>
<td>2005-2010</td>
</tr>
<tr>
<td>6.</td>
<td>13000 m² Culture Infrastructure Construction in countryside</td>
<td>New</td>
<td>Guiyang</td>
<td>50 million</td>
<td>50 million</td>
<td>2005-2010</td>
</tr>
<tr>
<td>7.</td>
<td>40000 m² Employment training</td>
<td>New</td>
<td>Huaxi District</td>
<td>500 million</td>
<td>500 million</td>
<td>2006-2010</td>
</tr>
</tbody>
</table>
### V. Policy and Measures

1. **Principles in compilation of the master plan**
   a. Based on the actual conditions of Guiyang, we should give full play to Guiyang’s advantages and make Guiyang’s features more prominent.
   b. take the scientific development approach as our guide, and work towards the human oriented development, and persist in the harmonious and interactive development among nature, economy and society.
   c. center around economic development and put development as our top priority.
   d. encourage all stake-holders to participate in all decision making process of the urban development.
   e. let enterprises take the main role while governments taking the regulating role.
   f. stick to the new industrial road and promote the adjustment of structural optimization.
   g. try everything in our power and should focus on priorities.
   h. overall planning should be in line with other plans.

2. **Environmental protection policy**
   2.1 Fully promote clean production and construction of ecological park.
   2.2 Rely on the progress of science and technology to develop environment protection industry
   2.3 Rationally protect and utilize land, water and mineral resources
   2.4Enhance building rules and regulation, improve the participating capacity of publicity
   2.5 Strengthen target management, increase fund-raising, focus on the construction of key projects.

3. **Other social policy**