Banda Aceh City GOING GREEN

By Bahagia
Urban Planning Development Agency Banda Aceh Municipality

PROVINSI ACEH

- 5 Cities
- 17 Municipalities
- 5,201,002 Inhabitants
- 56,500 km²
KOTA BANDA ACEH

- The capital city of Aceh
- Population: 223,446 inhabitants
- Area: 61.36 km²
- Located in the furthest west of Sumatera Island
- Divided into 9 districts and 90 villages
- Average elevation from sea surface is 0.80 m

VISION
BANDA ACEH AS MODEL OF “MADANI” CITY

MISSION

1. Improving the quality of religious practice towards the perfect implementation of syariah law
2. Reinforcing the good governance
3. Strengthening pro-poor economy
4. Establishing an intelligent, healthy, and prosperous community
5. Sustaining the infrastructure development for Islamic tourism
6. Improving the female participation in public sphere and children protection
7. Improving the role of young generation as the force of city development
### Economic Profile

<table>
<thead>
<tr>
<th>Economic Profile</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Economic development (%)</td>
<td>6.02</td>
</tr>
<tr>
<td>(Year 2011)</td>
<td></td>
</tr>
<tr>
<td>2. Inflation rate (%)</td>
<td>0.6</td>
</tr>
<tr>
<td>(Year 2012)</td>
<td></td>
</tr>
<tr>
<td>3. Gross Domestic Product (%)</td>
<td>3.241.173.560.000</td>
</tr>
<tr>
<td>(Year 2011)</td>
<td></td>
</tr>
<tr>
<td>4. Population (inhabitants)</td>
<td>234.971</td>
</tr>
<tr>
<td>(Year 2012)</td>
<td></td>
</tr>
<tr>
<td>5. Human Development Index (%)</td>
<td>78.0</td>
</tr>
<tr>
<td>(Year 2011)</td>
<td></td>
</tr>
<tr>
<td>6. Poverty (%)</td>
<td>9.08</td>
</tr>
<tr>
<td>(Year 2011)</td>
<td></td>
</tr>
<tr>
<td>7. Unemployment (%)</td>
<td>8.52</td>
</tr>
<tr>
<td>(Year 2011)</td>
<td></td>
</tr>
<tr>
<td>8. Regional Income (Rp)</td>
<td>85.560.269.620</td>
</tr>
<tr>
<td>(Year 2011)</td>
<td></td>
</tr>
<tr>
<td>9. Transfer from Central Government (Rp)</td>
<td>493.624.799.482</td>
</tr>
<tr>
<td>(Year 2011)</td>
<td></td>
</tr>
<tr>
<td>10. Other revenue (Rp)</td>
<td>131.001.844.383</td>
</tr>
<tr>
<td>(Year 2011)</td>
<td></td>
</tr>
</tbody>
</table>

### Governance, e-government

There are several applications that is already and currently developed in governmental field in Banda Aceh City, such as:

- Portal of Banda Aceh City Government ([www.bandaacehkota.go.id](http://www.bandaacehkota.go.id))
- Community Complain Service ([http://lpm.bandaacehkota.go.id](http://lpm.bandaacehkota.go.id))
- E-Kinerja (Jobs analysis and work load analysis) ([http://kinerja.bandaacehkota.go.id](http://kinerja.bandaacehkota.go.id))
- LPSE (Electronic Procurement Service) ([http://lpse.bandaacehkota.go.id](http://lpse.bandaacehkota.go.id))
- PPDB (Student Enrollment) ([http://ppdb.kemdikbud.go.id/bandaaceh](http://ppdb.kemdikbud.go.id/bandaaceh))
- E-Health (Hospital Management of RSUD Meuraxa)
- SIMSATU (Integrated Management Information System)
- CCTV Ulee Lheue Port (123.108.98.9:7402/m/live.htm)
- Email of Banda Aceh Government ([mail.bandaacehkota.go.id](http://mail.bandaacehkota.go.id))
- Tourism Information of Banda Aceh City ([http://bandaacehtourism.com](http://bandaacehtourism.com))
- Web GIS of Bappeda ([http://bappeda.bandaacehkota.go.id](http://bappeda.bandaacehkota.go.id))
- Website of Dishubkominfo ([http://perhubungan.bandaacehkota.go.id](http://perhubungan.bandaacehkota.go.id))
- Digital Map of Landmark in Banda Aceh ([http://peta.bandaacehkota.go.id](http://peta.bandaacehkota.go.id))
- Documentation and Law Information Network ([http://hukum.bandaacehkota.go.id](http://hukum.bandaacehkota.go.id))
Cyber City is a concept of modern city based on information technology. The implementation of Cyber City helps the community to utilize information technology. The installation of WiFi hotspot (Wireless Fidelity) in many places such as park, sport arena, airport, port, bus station, shopping center and tourism destination will facilitate the community to use the time more effectively. Every application in Banda Aceh Cyber City Program respects syaria rule.

- **Education**: The city consists of 68 unit of kindergartens, 92 public and Islamic elementary schools, 27 junior high schools, 25 high schools, Syiah Kuala University, Institute of IAIN Ar Raniry, Polytechnic of Aceh, and 22 private universities and academies.

- **Education Improvement Strategies**
  - Affordable education
  - Scholarship for poor students
  - Quality improvement of education personnel
  - 12 years compulsory study
  - Equality in education
  - Establishment of pre-school education
  - National Standard School Program (SSN)
  - International Standard School (RSNI)

- **Diniyah Program**: Other than regular education, the Government of Banda Aceh City also develops the Diniyah Program to increase the moral standard and build the student Islamic character. Recently, this program has encompassed all schools in elementary and junior high school level. It is expected that all public and private school will adopt this diniyah program in 2014.
Health

<table>
<thead>
<tr>
<th>No</th>
<th>Health Service</th>
<th>Amount (2011)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hospital (Public and Private)</td>
<td>13</td>
</tr>
<tr>
<td>2</td>
<td>Maternity Home</td>
<td>7</td>
</tr>
<tr>
<td>3</td>
<td>Community Health Center</td>
<td>11</td>
</tr>
<tr>
<td>4</td>
<td>Assisting Community Health Service</td>
<td>25</td>
</tr>
<tr>
<td>5</td>
<td>Village Polyclinic/Village Health Service</td>
<td>35</td>
</tr>
<tr>
<td>6</td>
<td>Integrated children care unit</td>
<td>113</td>
</tr>
<tr>
<td>7</td>
<td>Clinic</td>
<td>6</td>
</tr>
<tr>
<td>8</td>
<td>Mobile Health Service</td>
<td>18</td>
</tr>
</tbody>
</table>

Health Improvement Indicator

Infant Mortality Rate in 2011 is 4 per 1000 birth. Compared to MDG's target, which is 32 per 1000 birth in 2015, it can be concluded that the infant mortality rate in Banda Aceh is low.

Infant malnutrition percentage MDG’s target for infant malnutrition rate in 2015 is 19%. The infant malnutrition rate in Banda Aceh is only 1.3%. In the last five years, the percentage is always lower than 1 percent. In 2007, the percentage was 0.43% and in 2011 is 0.013% (3 infants).

Infrastructurke Development Achievement

Year 2012

- Drink water service coverage 88.8%
- Street in good condition 99.77%
- Ratio of settlement with sanitation 90.59%
- Ratio of livable settlement 90.59%
- 3 bus stations dan 1 port
Banda Aceh has become a member of Indonesia Green City Development Program initiated by the General Directorate of Urban Planning of Public Work Department, as a concrete joint strategy of provincial government and the city government to achieve the target required by National Urban Planning Regulation, which requires cities to possess at least 30% green open space, consisting of 20% public and 10% private.

The current total area of green space in Banda Aceh is 12%, which all belong to public.

The Mayor of Banda Aceh, Mawardy Nurdin, has signed the Charter of Green City Commitment at November 7th, 2011 in Jakarta, Indonesia.
**Green Planning & Design**

Green oriented planning and design

**Action Plan**

- Establishing a spatial plan adopting the green city principle and preserving the character of the city.

- Establishing a urban planning document which is oriented to high density and mixed use development, and human oriented planning (sidewalk, planning for dissabilities and bycicle).

- Legalize urban planning and design as a strong and binding law product, including city regulation and major regulation, such as open green space regulation.
The establishment of green city masterplan funded by National Budget Expenditure (APBN)

The establishment of green city urban design guideline

The government of Banda Aceh City has produced a Qanun (regulation) no. 4 in 2009 about the Masterplan of Banda Aceh City Year 2009-2029, regarding green open space in Banda Aceh.

The establishment of Building and Environmental Guideline adopting the green city principle.

The establishment of academic document and the city regulation for Green City.

**SUPPORTING ACTION**

- Improving the quality and quantity of green space and its network.

**ACTION PLAN**

- Improving the quantity of public and private green open space

- Developing a green open space which can be easily accessed by the community by developing green space network based on the character of the city/area.

- The conservation and preservation of critical habitat which is vulnerable to unsustainable development (such as mangrove, conservation area)

**GREEN OPEN SPACE**

Improving the quality and quantity of green space and its network.
SUPPORTING ACTION

- Land acquisition for new green open space
  - According to the city masterplan
    - Target in 2029: 20.52%
    - Realization in 2011: 12%
  - The city government has prioritized budget for land acquisition every year to achieve the target.

- Planting trees at existing barren open space

- The revitalization of forest and green park
  - Preservation of 74 parks and 10 cemeteries, breeding park (7.12 Ha), and city forest (6 Ha)

- The conservation of coastal area

- Riverfront planning

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Waterfront City - Konsep untuk Tepi Sungai Banda Aceh

Tujuan
Memperbaiki kualitas kota dan memberi kehidupan kota yang lebih hidup kepada masyarakat dengan menyediakan area-area rekreasi, fasilitas-fasilitas budaya, dan potensial identifikasi.

Usulan untuk Taman
- Taman yang menjadi zona hijau utama yang akan menjadi ikon desain arsitektur dan model pembiayaan.

Usulan untuk Plaza dan Area Hijau
- Plaza yang menjadi ikon yang akan menjadi pusat kegiatan dan kehidupan masyarakat.

Diagram Waterfront City

Sumber: [Diagram Image]
The improvement of community awareness, concern, and participation in green city program

**ACTION PLAN**

- Increasing the community awareness and concern to green city program
- Creating a creative and pro-active green community to implement green city agenda in a more concrete action
- Strengthening the government, private and public partnership in order to improve the green open space, including CSR initiative.

**SUPPORTING ACTION**

- The establishment of Green Community in city forest management
  - Involving the community of Tibang Village in planting and preserving the Tibang City Forest, followed by the establishment of Peulanggahan City Forest.
- Better cooperation with NGO and Private
  - CSR action from several state companies, such as PLN, BNI, Bank Mandiri, Taspen, BPD Aceh, BI and BPMD.
  - Cooperation with Bustanussalatin Foundation, Sahabat Ulu Masen, and Environmental Activist from University.
- The promotion of environmental management.
  - Community support to produce compost from domestic waste
- Initiating pilot project in environmental management
The utilization of efficient and environmental friendly energy sources

**ACTION PLAN**

- Efficient utilization of energy (diversion of load time, energy saving campaign)
- The implementation of renewable energy utilization policy.
- Preparing the carbon emission reduction plan from urban activity (industry, transportation, domestic, waste management)

**SUPPORTING ACTION**

- The utilization of energy saving public lamp.
- The infrastructure development in order to utilize biogas potential from waste treatment plant in Gampong Jawa landfill, the waste from soya/ tahu industry, and the waste from butchery business, and the waste from integrated waste treatment plant to produce anorganic fertilizer.
- The development of wind power plant in Banda Aceh
- Car free day on Sunday on several main streets.
- Regular carbon emission check on vehicle
The implementation of 3R principle (reduce, reuse, recycle)

**ACTION PLAN**
- Waste reduction program
- Waste recycle program
- Waste utilization as alternative energy source, land fertilization (compost, fertilizer) and creative economic development such as green economy.

**ACHIEVEMENT IN WASTE MANAGEMENT IN 2012**
- Waste collection coverage: 82%
- Waste transported 86%
- Street covered: 1000 km
- Establishing the macro scale composting plant for domestic waste and green waste composting in landfill.
- The rehabilitation of composting house in Ilie Village
- The expansion and development of domestic composting plant.
- The development of waste bank and composter plant.
- Promotion of hygiene initiative, waste retribution, hygiene community group, 3R promotion in school and village.
- The development of waste treatment plant Meuraxa Hospital
- Publishing the document of Sanitation Strategy of Banda Aceh as the reference for planning, funding, implementation and monitoring of Banda Aceh Sanitation Program.
With participation of the community, the Government of Banda Aceh City has won the Adipura Award for 4 years consecutively in 2009, 2010, 2011, and 2012.

Increasing the utilization efficiency and improving the water resources management.

**ACTION PLAN**

- Establishing the environmental friendly-water resources management system (to reduce surface and underground water pollution, reducing waste water).
- Establishing water resources management to fulfill the need of citizen.
- Assuring the water supply
**SUPPORTING ACTION**

- Reducing the water leakage 3-4% per year
- Improving water quality to the extent that it becomes drinkwater for people.
- Developing the wastewater treatment plant to maintain the quality of surface water.
- Establishing intake and raw water to assure the raw water supply.

**GREEN TRANSPORTATION**

Developing sustainable transportation system

**ACTION PLAN**

- Developing a public transportation system connecting urban centers and settlement area.
- Developing integrated and environmental friendly transportation system (bycicle route, river transport, polution-free car)
- Implementing the policy to reduce the traffic congestion in peak hour in city center and urban fringe.
The development of building for vehicle emission check.
The installment of vehicle emission check equipment
The removal of tsunami debris in Krueng Aceh river.
The development of river docks
The establishment of bycicle route
The development of parking lot in city center
The improvement of Ulee Lheue Port, Batoh Bus Station and Santan Truck Station to reduce traffic congestion and gas emission.
Initiate river transportation, by developing 5 docks in Pango, Panteriek, Kuta Alam, Nursery Krueng Aceh, and Keudah.
The development of busway public transportation system (Trans KutaRaja)
The implementation of green building (water saving, energy saving, green material etc)

**ACTION PLAN**

- Implementing the standard for energy and water saving building.
- Using the environmental friendly-local material
- Implementing the building coverage ratio and green coverage ratio based on environmental principle (assuring water infiltration, reducing the negative impact on environment)

**SUPPORTING ACTION**

- Based in the Masterplan of Banda Aceh 2009-2029, the goal for green open space is 20.52% of total area.
- For private, it is required that every building plot has to provide 30-50% green space.
- Supervision on the implementation of building permit.