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City Report

(Draft)

< Baguio City, Philippines >

This city report was prepared by Baguio City, Philippines as an input for the Special Event of Asian Mayors of the Eighth Regional EST Forum in Asia. The views expressed herein do not necessarily reflect the views of the United Nations.

BAGUIO CITY, PHILIPPINES

Geographical Location, Territorial Jurisdiction

Baguio City, approximately 250 kilometers north of Manila, is situated in the Province of Benguet. It has an area of 57.49 square kilometers enclosed in a perimeter of 30.6 kilometers. The developed portion of the city corresponds to a plateau that rises to an elevation of 1,400 meters. Most of it lies in the northern half of the city.

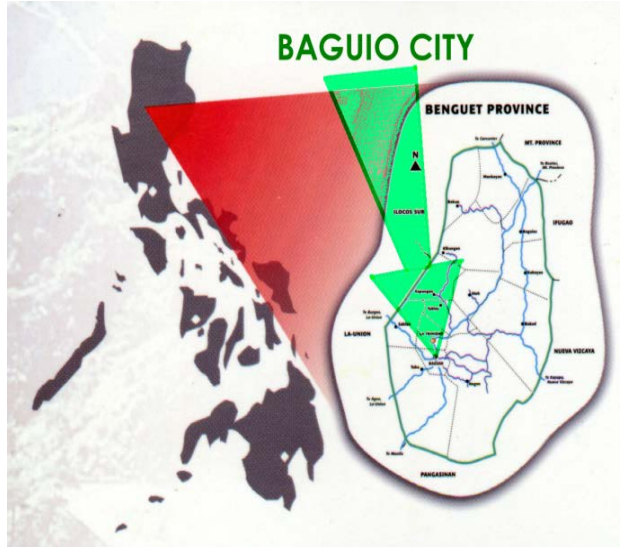
The City is landlocked within the province of Benguet, thus bounding it on all sides by its different municipalities, on the North by the capital town of La Trinidad, on the East by Itogon and to the South and West by Tuba.

With City Hall as reference point, it extends 8.2 kilometers from East to West and 7.2 kilometers from North to South. It has a perimeter of 30.98 kilometers. The City has twenty administrative districts among where its 129 barangays are divided.

As a major urban center in the North, there must be a smooth flow of goods and people. Public transport is relatively convenient with at least sixteen (16) bus companies are operating in the city. These provide transport services mostly in Metro Manila, Ilocos Region, Cordilleras and Cagayan Valley to as far as Zambales and Quezon Province. Licensed public utility vehicles that operate specific intra municipality and intercity routes complement existing bus lines. Within the city, the usual route is from a specific neighborhood or Barangay to the Central Business District and vice versa. Out of town destination reach as far as La Trinidad and other adjoining towns of Itogon, Sablan, Tuba and Tublay all in Benguet.

Minibuses and vans for hire have regular schedules mostly to Pangasinan, La Union and recently extending to as far as Ilocos and Abra provinces. Taxicabs and rent-a-car companies are also available. They provide a more convenient mode of transportation within and outside of the city. They offer various car types and models with competitive rates.

As of year 2012, the city's road system total 320.924 kilometers, of which 29.709 percent are classified as national roads and bridges, 70.291 percent are city/barangay roads (please note that the road and streetlight inventory of city and barangay roads being implemented by the City Engineering Office is still in its finalization stage as of June 2013).



Road Network, 2012

TYPE OF ROAD	TYPE OF PAVEMENT (in kilometers)			TOTAL (in kilometers)	PERCENT
	CONCRETE	ASPHALT	GRAVEL / EARTH		
National/Bridge	73.353	21.991	-	95.344	29.709
City/Barangay*	153.691	71.889	-	225.580	70.291
TOTAL	227.044	93.880	-	320.924	100.000
PERCENT	70.747	29.253	-	100.000	

Data Source: DPWH -Baguio City District Engineering Office. *City Engineer's Office: The Road and Streetlight Inventory of City and Barangay Roads is still in its finalization stage as of June 2013.

New Registrations by Type of Vehicle, 2008-2012

TYPE	2008	2009	2010	2011	2012
CARS	7,075	3,904	6,892	7,350	6,874
UTILITY VEHICLE	17,407	15,206	18,346	17,869	21,197
SPORTS UV	1,695	3,631	2,390	2,903	2,801
TRUCKS	1,687	2,954	2,049	2,589	2,142
BUSES	123	236	85	104	131
MOTORCYCLE	2,899	5,551	3,574	4,550	4,790
TRAILERS	20	86	58	49	64
TOTAL	30,906	31,568	33,384	35,414	37,999

Data Source: DOTC-CAR

Registrations of Vehicles as Inspected, Registered and by Registration Cases, 2008-2012

TYPE	2008	2009	2010	2011	2012
MV INSPECTED	32,423	30,612	43,886	33,543	39,400
MV REGISTERED	30,906	31,568	33,384	35,414	37,999
REGISTRATION CASES	41,534	48,152	48,502	49,172	45,126

Data Source: DOTC-CAR

Q1 - What are the major challenges and constraints faced by Baguio City in implementing sustainable transport policies and measures?

There are major challenges and constraints Baguio City has to consider in implementing the sustainable transport policies and measures, these are the following:

1. Road and Traffic Facilities:

- Insufficient road network of roads (links, hierarchy)
- Capacity is insufficient due to narrow roads
- Lack of traffic facilities at critical points
- Worsening traffic congestion, smoke pollution and pedestrian-motorists conflicts
- The development of alternate routes is constrained by Road-Right-of-Way problems and environmental concerns (e.g. passing thru critical watersheds)
- Location of schools, hospitals and other commercial establishments along the Central Business District contributing to traffic congestion
- Lack of traffic enforcers to direct traffic especially along the CBD during peak hours in the morning and afternoon
- Problems on law enforcement (City Ordinance 7-84 entitled "An Ordinance Adopting a Comprehensive Transportation and Traffic Regulations for the City of Baguio, needs updating to fit present traffic conditions)

2. Public Transport:

- Too many jeepneys/vehicles on the road
- Too many existing franchises on public utility vehicles (PUV)
- Duplicated lines of service routes
- Lack of off-street loading/unloading stations for PUVs
- Airport not fully operational to cater to foreign and domestic customers

3. Motorization:

- Rapid increase of motor vehicles
- High volume of pedestrians using the sidewalks, overpasses and crossing the roads

4. Sidewalk and Parking:
 - Encroachment of vendors and businesses
 - Uneven sidewalks due to uncoordinated design and lay-out
 - Lack of parking spaces
5. Lack of discipline:
 - Undisciplined drivers and pedestrians on the streets

Q2 - What is the mode share (%) in public transport system? What action you have taken to promote public transport system such BRT, MRT and LRT in your City:

Based on the 2012 data by the Land Transportation Office/Land Transportation Franchising Regulatory Board (LTFRB), the public transport system tallies 56.12% of the over-all registered vehicles in the City. This data believe to increase in the succeeding years. The idea of putting up of a monorail transit system within the central business district (CBD) is progressing so well. The idea is to decongest motor vehicles in the CBD and pave the way for the pedestrianization in order to minimize the pollution from GHG mostly generated by motor vehicles.

The City Mayor has created a study group from among the different sectors of the community to conduct study on the feasibility of monorail transit to run in the central business district of the City. This is to further enhance the mass transit in the city rather than promoting private vehicle ownership for limited capacity and passengers.

Q3 - Is NMT (Non-Motorized Transport) and integral part of your transport policy, planning and development? What action have you taken to promote NMT (safe bicycle and pedestrian facilities) in your cities?

Based on the limited area of Baguio City, NMT is an integral part of transport policy planning and development as integrated in the Comprehensive Land Use Plan (CLUP) of the City. This is an additional strategy to support the promotion of walking and cycling as effective modes of transport for better air quality, physical exercise and wellness.

As a result, the City Government of Baguio has implemented “**carless weekends**” project along Session Road, being the prime road within the Central Business District during weekends. This is a prelude to the total “pedestrianization” of Session Road and nearby roads at the CBD to minimize GHG emission and for the physical wellness of the population.

Simultaneously, through partnership with the College of Engineering and Urban Department of the University of Saint Louis, further research and development for the total pedestrianization is being undertaken.

Q4 - Is you city implementing or in a process of developing any transport Master Plan? If so how far the transport Master Plan is people and environment-friendly, with special attention to the needs of those vulnerable situations, women, children, persons with disabilities and older persons?

Based on the 2013-2023, Comprehensive Land Use Plan (CLUP) of the City of Baguio, it has been identified and considered among the programs under the CLUP is the formulation of an Environmentally Sustainable Transport Plan for Baguio City. The Baguio City Transport and Traffic Management Committee (BTTC) were organized to spearhead the research and development for the eventual promulgation of the transport master plan. In the 2010 transport summit, all sectors of the community were represented including the PWD, senior citizen and other vulnerable sectors of the community.

Q5 - What are the current parking policies and traffic restraint measures of your city?

The City of Baguio has allocated parking spaces in the parks, market area, slaughter house area, Burnham Parking area, Gov. Pack Road, Kagitingan Barangay and along major roads and streets. Big establishments like malls, restaurants and hotels are mandated through their Building permits to provide adequate parking spaces within their premises for their customers.

Parking is allowed in Burnham Park main parking area and along major roads/ streets for private vehicles only. Parking along major road and streets of the city for private vehicles is limited i.e. from 9:00 in the morning to 4:00 in the afternoon on daily basis. This effort is pegged in order not to aggravate the constricted roads and streets of Baguio during rush hours.

Parking of public utility vehicles (PUVs) is allowed in the Gov. Pack Road(where the bus terminals are located), market area and Kagitingan Barangay.

Cargo trucks and similar vehicles are allowed to park and unload cargoes at the market area and slaughter house from 12:00 midnight to 5:00 in the morning.

Vehicles found parking in non-designated parking area; the traffic enforcers will automatically remove the plate numbers. It will be returned only after paying the corresponding penalty of PhP 300.00 for the first offense. For the second time, aside from the penalty, the owners or drivers have to undergo 1 day seminar on decorum/rules and other policies on traffic.

Person with disabilities (PWD), Senior citizens, i.e. (60 years old and above) are given 20% discount on parking fees either in private parking spaces or government parking areas.

Q6 - How does your city implement road safety policies and measures? Is there any improvement in traffic safety since Kyoto Declaration (2007)?

Before a driver will be given a driver's license, a written test is administered by the Land Transportation Office. Once he/she passed the examination, an actual driving test will be administered. After passing, he/she will be subjected to a drug test, neuro-psychiatric test and physical, medical examinations.

Yes, there are some improvements instituted by the City of Baguio in relation to Kyoto Declaration of 2007.

The City of Baguio is on the point of entering into a Public-Private Partnership (PPP) project for the conversion of an area at the Burnham Park as centralized parking terminal without sacrificing the greenery of the park and other natural environmental considerations. This has been the offshoot

of an unsolicited proposal from an Australian Company who has been in the business of parking development and management through Build Operate Transfer scheme. At present, the City Mayor has created a Technical Working Group (TWG) headed by the head of the City Engineering Office of Baguio. So far so good, they have conducted series of meetings and public hearings among cross-section of the community.

“Carless” weekends along Session Road is being pursued by all sectors for better quality in the CBD.

“King of the Road” Ordinance was passed recently by the Baguio City Council to require all motorists to mandatorily stop for 5 seconds before a pedestrian lane for the safety of the pedestrian. Similarly requiring the City of Baguio to install crossing lanes painted with blue paint for PWD and senior citizens totally separate from the abled/regular pedestrians.

Strictly enforcing the wearing of helmets for all motorist using motorcycles in the City. The penalty has been increased to PhP 1,000.00 or equivalent to USD 23.00.

The City of Baguio through its partners, the Environmental Management Bureau(EMB-DENR) has installed several PM 10. and PM 2.5 measuring equipment in strategic areas in the City. This is for air quality monitoring purposes and as baseline source and data used for the health management planning and for traffic and transport rerouting.

Baguio City is the only city in the Philippines banning the operation and existence of motorized tricycles in all its streets and roads through a City Ordinance.

In 2009, the City of Baguio has institutionalized the Road Side Inspection, Testing and Monitoring Teams (RITMT) under the City Environment and Parks Management Office (CEPMO) through a Clean Air Ordinance. (Please see below charts/records):

Summary of the Roadside Inspection, Testing and Monitoring Team (RITMT) Operation

Particulars	2009	2010		2011		2012		2013		Total (2009 = August 2014)	
	Diesel	Diesel	Gas/LPG	Diesel	Gas/LPG	Diesel	Gas/LPG	Diesel	Gas/LPG	Diesel	Gas/LPG
No. of Operation	33	118	28	423	9	708	123	347	185	1904	633
Total No. of Flagged Vehicles	1,204	3,230	436	8,143	55	8,804	1,687	3,754	2,108	28,792	9,394
Total No. of Flagged Vehicles Tested	1,188	3,196	433	8,008	55	8,648	1,675	3,681	2,092	28,253	6,088
No. of Vehicles Failed	751	2,181	243	4471	29	3,423	902	1,667	1,028	13,620	2,843
No. of Vehicles Passed	437	1,015	190	3,537	26	5,225	773	2,014	1,064	14,633	3,245
No. of Vehicles Not Tested	16	34	3	135	0	156	13	73	16	539	111

Breakdown of Vehicles Tested

Particulars	2009	2010	2011	2012	2013	Total (2009 = August 2014)
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		Diesel	Diesel	Gas/LPG	Diesel	Gas/LPG	Diesel	Gas/LPG	Diesel	Gas/LPG	Diesel	Gas/LPG
Government Vehicles	Total Tested	15	51	3	211	0	181	9	43	14	553	49
	Passed	4	14	1	92	0	114	3	25	11	287	30
	Failed	11	37	2	119	0	67	6	18	3	266	19
Private Vehicles	Total Tested	596	1,411	237	3,757	38	4,505	1,166	1,638	1,749	13,351	4,673
	Passed	229	459	108	1,770	20	2,928	501	1,013	879	7,464	2,516
	Failed	367	952	129	1,987	18	1,577	665	625	870	5,887	2,257
Motorcycle	Total Tested	0	0	12	0	0	0	37	0	33	0	122
	Passed	0	0	9	0	0	0	25	0	20	0	86
	Failed	0	0	3	0	0	0	12	0	13	0	36

Source: City Environment and Parks Management Office- Baguio

Public Utility Vehicles

Particulars	2009	2010		2011		2012		2013		Total (2009 = August 2014)		
	Diesel	Diesel	Gas/LPG	Diesel	Gas/LPG	Diesel	Gas/LPG	Diesel	Gas/LPG	Diesel	Gas/LPG	
Taxi	Total Tested	210	556	180	2,072	17	1,991	457	1,044	293	7,022	1,137
	Passed	81	113	72	675	6	914	244	396	153	2,828	612
	Failed	129	443	108	1,397	11	1,077	213	648	140	4,194	522
Jeep	Total Tested	357	1,098	1	1,689	0	1,645	6	859	3	6,467	10
	Passed	118	407	0	841	0	1,043	0	523	1	3,530	1
	Failed	239	691	1	848	0	602	6	336	2	2,937	9
Van	Total Tested	1	55	0	143	0	150	0	32	0	395	0
	Passed	0	17	0	87	0	106	0	20	0	243	0
	Failed	1	38	0	56	0	44	0	12	0	152	0
Bus	Total Tested	9	15	0	80	0	88	0	24	0	237	0
	Passed	5	5	0	43	0	64	0	15	0	149	0
	Failed	4	10	0	37	0	24	0	9	0	88	0
School Service	Total Tested	0	10	0	30	0	33	0	14	0	98	0
	Passed	0	0	0	8	0	20	0	8	0	45	0
	Failed	0	10	0	22	0	13	0	6	0	53	0
Others	Total Tested	0	0	0	26	0	55	0	27	0	130	0
	Passed	0	0	0	21	0	36	0	14	0	87	0
	Failed	0	0	0	5	0	19	0	13	0	43	0

Source: City Environment and Parks Management Office, Baguio

Among others, the following policies and strategies have been integrated in the Comprehensive Land Use Plan (CLUP) of the City in the over-all support to achieve Better Air Quality and Environmentally Sustainable Transport. Please find broad strokes statements to wit:

To achieve efficient and effective infrastructure support facilities and utilities.

- Promote the use of public instead of private transport to reduce congestion and save on fuel.
- Establish pedestrian walkways in all roads in the city to encourage walking and healthy lifestyle.
- Provide efficient and effective circulation/access within the city with the aim of shortening travel, reducing traffic & congestion and lowering transport cost.
- Locate urban development services in strategic areas to influence development and reduce congestion/ traffic.
- Provision of equitable distribution/allocation of urban services/facilities/ utilities in all areas following their functional roles to the overall city development
- Develop new environmental friendly transportation system that will reduce travel time and save on energy.

For Better Air Quality of the City

- Promote the use of alternative fuels through partnerships with the transport sector.
- Promotion on the use of clean fuels in the City.
- Establish more greenbelts or green corridors to increase CO2 sequestration in the CBD.
- Mandatory conversion of building rooftops into green patches/urban garden,
- Support the declaration of the BLIST as an Airshed as well as the policies that will be formulated by the governing board of the BLIST.
- Rationalize traffic scheme in the City to reduce pollution load at the Central Business District.

Transportation

- ✓ Formulation of an Environmentally Sustainable Transport Plan for Baguio City through:
 - Strengthening Road Side Air Quality Monitoring and Assessment
 - Traffic Noise Management
 - Vehicle Emission Control, Standards and Inspection and Maintenance
 - Cleaner Fuels
 - Public Transport Planning and Travel Demand Management
 - Non-Motorized Transport
 - Environment and People Friendly Infrastructure Development
 - Social Equity and Gender Perspective
 - Road Safety and Maintenance
 - Land Use Planning
 - Traffic Impact Assessment as a requirement in zoning and rezoning applications for high impact projects (private and government).

In the 2012 CLUP, the City of Baguio has come up the following targets to support the Kyoto Declaration of 2007

GOAL : To establish an Environmentally Sustainable Transport for Baguio City starting 2013

OBJECTIVES/TARGETS

1. To develop and mainstream Environmentally Sustainable Transport strategies that are sensitive to future development scenarios such as vehicle growth, level of urbanization, population density and urban growth.
2. To attain an environment and friendly city.

STRATEGIES/POLICIES

1. Decongest the CBD. Identify growth nodes outside the CBD.
2. Promotion of public transport, particularly mass transport, underlines Travel Demand Management inclination against private car usage.
3. Promotion of walking and cycling as effective modes of transport.

4. Provision of facilities for walking and cycling.
5. Need for rationalized non-motorized public transport services.
6. Education of road users, enforcement (and enactment) of regulations, as well as proper road/vehicle design and engineering.
7. Efficient public transport system, traffic congestion management and good work-home matching.
8. Designation of vehicle-free zones.
9. Incorporate green architecture principles in the design of transportation infrastructure
10. Incorporate transport principles in transportation infrastructure and vehicle design.
11. Promote effective, accessibility and efficient mobility for all (elderly, children, women, persons with disabilities, poor).
12. Promote the use of green fuels or energy sources for vehicles.
13. Promoting efficient use of idle lands.
14. Coordination of implementing agencies in the implementation of projects.
15. Improve, enhance enforcement of traffic rules and regulations
16. Promote mixed use development.
17. Integration of Environmentally Sustainable Transport in the CLUP/CDP preparation and other planning guidelines.
18. Traffic Impact Assessment as a requirement in zoning and rezoning applications for high impact projects (private and government).

PROGRAMS / PROJECTS / ACTIVITIES

1. Formulation of an Environmentally Sustainable Transport Plan for Baguio City
 - Preparation of a Comprehensive Traffic and Transportation Master Plan
 - Strengthening Road Side Air Quality Monitoring and Assessment
 - Traffic Noise Management
 - Vehicle Emission Control, Standards and Inspection and Maintenance
 - Cleaner Fuels
 - Public Transport Planning and Travel Demand Management
 - Non-Motorized Transport
 - Environment and People Friendly Infrastructure Development
 - Social Equity and Gender Perspective
 - Road Safety and Maintenance
 - Land Use Planning
 - Traffic Impact Assessment as a requirement in zoning and rezoning applications for high impact projects (private and government).
 - Road Traffic Geometric Designs and Improvements (Experimental Traffic Schemes)
 - Replacement of Cross Drain Cover from Steel Grates Cover to Perforated Concrete Cover at various city roads, Baguio City
 - Slope Protection projects
 - Drainage projects
 - Roads Development Program
 - Establish South Bound Bus Terminal

2. Modernization and Intensive Marketing Program of the Baguio Loakan Airport.
 - Construction of additional facilities of the Baguio Loakan Airport
 - Installation of Navigation Facilities
 - Site Acquisition
 - Construction of Access Road at Runway 09
 - Conduct of a feasibility study on Marketability of the airport to Commercial Flights

- Conduct Intensive Marketing Program (i.e. TV Guestings, Ads, Promotional Materials, etc.)
- Conduct of an aeronautical study on the appropriate instrument landing system to ensure safety during inclement weather.

3. Establishment of a Traffic and Transportation Management Office (TTMO)

Functions:

- Formulation of transportation policies, plans and programs in relation to public transport utility and supply development;
- Preparation of development plans and investment projects to improve transportation and traffic control and enforcement including the testing of their applicability to various conditions;
- Planning, designing and upgrading of roads, traffic channels, intersections and other infrastructure facilities as well as providing and maintaining traffic control devices in coordination with other related agencies;
- Formulation of codes and other legislation measures to ensure efficient and effective transportation and traffic management in coordination with the City Council (Sangguniang Panlungsod); and
- Development and maintenance of a responsive and effective management information system through the establishment of a computerized data bank to support planning, implementation, monitoring and other programs of activities in relation to transportation and traffic development.

In the performance to the foregoing functions, the TTMO shall be authorized to consult with and engage the services of persons on entities from both the government and private sectors.

**Traffic Accident Report (2007 -2014)
Baguio City, Philippines**

YEAR	TOTAL NUMBER OF TRAFFIC ACCIDENTS	NUMBER OF INJURED PERSONS	NUMBER OF PERSONS KILLED/DIED
*2014	1,647	253	4
2013	2,096	568	11
2012	1,926	591	14
2011	1,813	504	18
2010	1,504	325	13
2009	1,714	543	7
2008	1,713	506	4
2007	1,880	63	3

*January – September 2014

Source: Baguio City Police Office

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