



Bangkok, Thailand

Local progress report on the implementation of the 10 Essentials for Making Cities Resilient (2013-2014)

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Essential 1

Put in place organization and coordination to understand and reduce disaster risk, based on participation of citizen groups and civil society. Build local alliances. Ensure that all departments understand their role to disaster risk reduction and preparedness.

How well are local organizations (including local government) equipped with capacities (knowledge, experience, official mandate) for disaster risk reduction and climate change adaptation?

Level of Progress achieved: 2

Description of Progress & Achievements:

Bangkok is one of two special administrative areas in Thailand (the other being Pattaya) in which citizens vote to choose their Governor, unlike in Thailand's 75 other provinces (changwat). One of the mandates is to be responsible for disaster prevention and mitigation in different districts (Bangkok is subdivided into 50 districts (khet, also sometimes called amphoe as in the other provinces) which are further subdivided into 154 kwaeng (sub districts). Each district is managed by a district chief, appointed by the governor. District councils, elected to four-year terms, serve as advisory bodies to their respective district chiefs. There is also an elected Bangkok Metropolitan Council, which has power over municipal ordinances and the city's budget.

Currently, BMA's Disaster Prevention and Mitigation Plan B.E. 2553-2557 has been in enforcement for disaster preparedness and response to cover 3 disaster phases, that is, pre, during and post disaster phases. Besides, it is used as a guidance to solve problems systematically, effectively and in timely manner. The BMA's Disaster Prevention and Mitigation Plan B.E. 2553-2557 has been in harmony with National Disaster Prevention and Mitigation Plan B.E. 2553-2557 in which indicates 2 levels of the responsible bodies within Bangkok: district level and Bangkok level. The mandate, organizational structure and other duties are also set in the National Plan. In terms of human resource, staffs from BMA will be the major resource in both normal and disaster times with the support of staffs from governments; particularly from DDPM's staff, state enterprises and private sectors.

BMA has established the department of disaster prevention and mitigation of which fire stations cover all 50 districts. The firemen are well-trained with the average timing for firemen to be in the scene is around 10 minutes. However, there is no any training center to build capacity of staffs who are responsible for rescue and response. There is a need to have a training center established in order that staff can gain knowledge

and practice in the stimulation setting. In addition, BMA lacks the experts on hazardous substances and dangerous goods which needs to acquire a support from other relevant agencies.

To what extent do partnerships exist between communities, private sector and local authorities to reduce risk?

Level of Progress achieved: 2

Description of Progress & Achievements:

Progress

- No direct department working solely on disaster risk reduction for all 14 hazard categories. The authority in disaster risk reduction is distributed into respective departments (Disaster Prevention and Mitigation Department has responsibility for fire, Health Department is looking after pandemic, hazardous substances and dangerous goods, Drainage Department will take care of flooding and Medical Service Department is responsible for pandemic)
- Still need a good PR plan to publicize the scope of work and how to follow BMA's plan
- The cooperation exists in certain groups and mainly among the government bodies
- Well cooperation among other departments from central government
- Work with neighboring provinces in order to prevent disaster which may have a trans-boundary impact

How much does the local government support vulnerable local communities (particularly women, elderly, infirmed, children) to actively participate in risk reduction decision-making, policy making, planning and implementation processes?

Level of Progress achieved: 1

Description of Progress & Achievements:

- The vulnerabilities have yet taken part in the plan.

To what extent does the local government participate in the national DRR planning?

Level of Progress achieved: 3

Description of Progress & Achievements:

- There is a Disaster Prevention and Mitigation Plan B.E. 2553-2557
- Perform duty following to National Plan with clear role and responsibility

Essential 2

Assign a budget for disaster risk reduction and provide incentives for homeowners, low-income families, communities, businesses and public sector to invest in reducing the risks they face.

How far does the local government have access to adequate financial resources to carry out risk reduction activities?

Level of Progress achieved: 2

Description of Progress & Achievements:

BMA has their own budget which can be utilized in various development aspects. The focus is on strengthening public safety and enhancing disaster management system to be prompt, comprehensive and efficient in time of disasters.

Sources of funding allocated to BMA are from annual budget from revenue collection in Bangkok itself, additional budget from government and donations from private sector from which BMA plans to use for disaster preparation as the following:

(1) Bangkok Governor as the director of Bangkok will follow the existing plans/projects/activities indicated in Bangkok Action Plan (B.E. 2009-2012) and allocate both annual and additional budget accordingly for efficient disaster preparedness in the responsible areas.

(2) Budget Department of BMA will also distribute budget during emergency time from which Bangkok Governor, acting as the director of Bangkok, can disburse for disaster administration and management to alleviate difficulties for those facing disasters and to support any expense incurred based on department missions as deemed necessary.

- Unable to identify the actual amount of budget appropriated for disaster risk reduction since it is included in the budget of infrastructure investment and training budget.

To what degree does the local government allocate sufficient financial resources to carry out DRR activities, including effective disaster response and recovery?

Level of Progress achieved: 1

Description of Progress & Achievements:

BMA supports communities resided in Bangkok by providing vehicles, tools and equipment used for disaster prevention and mitigation so that they can respond and encounter disaster with timely and efficient manner i.e. putting in place the early warning tower, providing equipment adequately for disaster monitoring, early warning and rescue including vehicles provision for disaster recovery in communities and to allocate budget to train officials and volunteers to be ready to tackle and respond during disaster.

What is the scope of financial services (e.g. saving and credit schemes, macro and micro-insurance) available to vulnerable and marginalised households for pre- disaster times?

Level of Progress achieved: 1

Description of Progress & Achievements:

-- not complete --

To what extent are micro finance, cash aid, soft loans, lone guarantees etc available to affected households after disasters to restart livelihoods?

Level of Progress achieved: 1

Description of Progress & Achievements:

- BMA exercises and allocates budget for response and recovery for those stricken by disaster.

How well established are economic incentives for investing in disaster risk reduction for households and businesses (e.g. reduced insurance premiums for households, tax holidays for businesses)?

Level of Progress achieved: 1

Description of Progress & Achievements:

-- not complete --

To what extent do local business associations, such as chambers of commerce and similar, support efforts of small enterprises for business continuity during and after disasters?

Level of Progress achieved: 1

Description of Progress & Achievements:

-- not complete --

Essential 3

Maintain up-to-date data on hazards and vulnerabilities, prepare risk assessments and use these as the basis for urban development plans and decisions. Ensure that this information and the plans for your city's resilience are readily available to the public and fully discussed with them.

To what degree does the local government conducted thorough disaster risk assessments for key vulnerable development sectors in your local authority?

Level of Progress achieved: 4

Description of Progress & Achievements:

- BMA has a baseline information including risk statistics but still incomplete to analyze the degree of disaster
- Provide a baseline improvement every year
- One-way communication and lack of unity when announcing any news information relating to disaster and also not giving a limitation of time for preparedness.
- Data connection between central and district divisions; twining or grouping districts in nearby area in order to help one another and to synergize their operations effectively [4]
- Any baseline information system will be use to determine operational plan in each area under supervision and responsibility of respective departments

To what extent are these risk assessments regularly updated, e.g. annually or on a bi-annual basis?

Level of Progress achieved: 4

Description of Progress & Achievements:

-- not complete --

How regularly does the local government communicate to the community, information on local hazard trends and risk reduction measures (e.g. using a Risk Communications Plan) including early warnings of likely hazard impact?

Level of Progress achieved: 1

Description of Progress & Achievements:

-- not complete --

How well are local government risk assessments linked to, and supportive of, risk assessments from neighbouring local authorities and state or provincial government risk management plans?

Level of Progress achieved: 4

Description of Progress & Achievements:

-- not complete --

How well are disaster risk assessments incorporated into all relevant local development planning on a consistent basis?

Level of Progress achieved: 4

Description of Progress & Achievements:

-- not complete --



Essential 4

Invest in and maintain critical infrastructure that reduces risk, such as flood drainage, adjusted where needed to cope with climate change.

How far do land use policies and planning regulations for housing and development infrastructure take current and projected disaster risk (including climate related risks) into account?

Level of Progress achieved: 4

Housing	No
Communication	No
Transportation	No
Energy	No

Description of Progress & Achievements:

BMA is now enhancing a collective Bangkok City Plan for the use as guidance for Bangkok development and sustainability. We plan to maximize the use of property, transportation, and infrastructure including civil service and environment which will be improved to meet the standard and high efficiency. With all attempt, Bangkok will be built as a livable city, the center of economy and innovation in the country and in the region together with the center of national administration and governance.

Being the city of unique culture, tradition and arts, Bangkok will also continue to promote and keep all those characteristics. In the relation to good environment, Bangkok will be an exemplary city on environment conservation and energy consumption reduction to mitigate the impact from climate change. Moreover, BMA has identified empty areas for flood prevention and also stipulate the measure of urban planning to utilize it for the public use e.g. FAR Bonus.

In terms of law enforcement, BMA has strongly enforced all relevant people and individual to follow and conduct Building Code to increase the efficiency and effectiveness of security system especially in terms of fire prevention and vibration resistance of building and ground support when constructing in earthquake areas. BMA regularly monitor and evaluate including preparing risk prone areas index categorized by types of disaster and also allocate and distribute the annual budget to respective districts for the purpose of infrastructure improvement.

Related links

> [Bangkok Plan](#)

How adequately are critical public facilities and infrastructure located in high risk areas assessed for all hazard risks and safety?

Level of Progress achieved: 2

Description of Progress & Achievements:

-- not complete --

How adequate are the measures that are being undertaken to protect critical public facilities and infrastructure from damage during disasters?

Level of Progress achieved: 4

Description of Progress & Achievements:

-- not complete --

Essential 5

Assess the safety of all schools and health facilities and upgrade these as necessary.

To what extent have local schools, hospitals and health facilities received special attention for "all hazard" risk assessments in your local authority?

Level of Progress achieved: 3

Schools	Yes
Hospitals/ health facilities	Yes

Description of Progress & Achievements:

- Disaster preparedness has been strictly scrutinized in accordance with the standard of HCA ; however, it has yet taken completely for all hospitals.
- Many schools in Bangkok have been used as temporary evacuation center when disaster comes

How safe are all main schools, hospitals and health facilities from disasters so that they have the ability to remain operational during emergencies?

Level of Progress achieved: 4

Schools	Yes
Hospitals/ health facilities	Yes

Description of Progress & Achievements:

- Health facilities and hospitals can operate during emergency time.
- For safety reason, schools will be out of service during disaster, instead it will be established as temporary evacuation centres for communities

To what degree do local government or other levels of government have special programs in place to regularly assess schools, hospitals and health facilities for maintenance, compliance with building codes, general safety, weather-related risks etc.?

Level of Progress achieved: 4

Schools	Yes
Hospitals/ health facilities	Yes

Description of Progress & Achievements:

- Health facilities and hospitals are always kept in good condition for risk reduction Standard Operational Manual is in place and people can do a satisfaction survey for improvement and enhancement

How far are regular disaster preparedness drills undertaken in schools, hospitals and health facilities?

Level of Progress achieved: 4

Schools	Yes
Hospitals/ health facilities	Yes

Description of Progress & Achievements:

- Health facilities and hospitals regularly exercise emergency drills and SRRT has

been established for effective disaster monitoring and emergency response. The frequency of drill will be depending on each situation.

Essential 6

Apply and enforce realistic, risk compliant building regulations and land use planning principles. Identify safe land for low-income citizens and develop upgrading of informal settlements, wherever feasible.

How well are risk-sensitive land use regulations and building codes, health and safety codes enforced across all development zones and building types?

Level of Progress achieved: 3

Description of Progress & Achievements:

- Using Bangkok City Plan as a mandatory in land utilization determination
- Enforcement of Building Code , Public Health Act, and Environmental Quality Improvement Act covering all 50 districts

How strong are existing regulations (e.g. land use plans, building codes etc) to support disaster risk reduction in your local authority?

Level of Progress achieved: 3

Description of Progress & Achievements:

- Although laws has been in control of aspects and areas, it still lacks the effective enforcement

Essential 7

Ensure education programmes & training on disaster risk reduction are in place in schools and communities.

How regularly does the local government conduct awareness-building or education programs on DRR and disaster preparedness for local communities?

Level of Progress achieved: 1

Programs include cultural diversity issues	Yes
Programs are sensitive to gender perspectives	Yes

Description of Progress & Achievements:

- Still no actions in raising awareness in building safety culture in communities.

To what extent does the local government provide training in risk reduction for local officials and community leaders?

Level of Progress achieved: 3

Description of Progress & Achievements:

- There is a volunteer training for civil defence volunteer which frequency and topic depends on various situations.

To what degree do local schools and colleges include courses,

education or training in disaster risk reduction (including climate related risks) as part of the education curriculum?

Level of Progress achieved: 1

Description of Progress & Achievements:

- DRR and climate related risks are not in any part of the education curriculum.

How aware are citizens of evacuation plans or drills for evacuations when necessary?

Level of Progress achieved: 2

Description of Progress & Achievements:

- Only certain communities has been notified of evacuation plans and drills ; however, it does not cover 14 types of disasters

Essential 8

Protect ecosystems and natural buffers to mitigate floods, storm surges and other hazards to which your city may be vulnerable. Adapt to climate change by building on good risk reduction practices.

How well integrated are local government DRR policies, strategies and implementation plans with existing environmental development and natural resource management plans?

Level of Progress achieved: 1

Description of Progress & Achievements:

- Strategies have been made in order to protect all mangrove area in Bangkok from coastal erosion based on the participation of the community and schools through the Learning Center.

To what degree does the local government support the restoration, protection and sustainable management of ecosystems services?

Level of Progress achieved: 4

Forests	Yes
Coastal zones	Yes
Wetlands	Yes
Water resources	Yes
River basins	Yes
Fisheries	Yes

Description of Progress & Achievements:

- Ecotourism has been promoted and publicized especially in areas nearby rivers and mangrove forests through indigenous people in communities.

How much do civil society organizations and citizens participate in the restoration, protection and sustainable management of ecosystems services?

Level of Progress achieved: 5

Description of Progress & Achievements:

- To encourage people in communities of planting vetiver grass together with doing an integrated farming following Royal Initiatives and promote Ecotourism. The key channel of communication with people in communities is doing through youth and volunteer camping.

How much does the private sector participate in the implementation of environmental and ecosystems management plans in your local authority?

Level of Progress achieved: 2

Description of Progress & Achievements:

- Private sector has implemented a wide range of CSR activities but not covering all areas and lack of project continuity.

Essential 9

Install early warning systems and emergency management capacities in your city and hold regular public preparedness drills.

To what degree do local institutions have access to financial reserves to support effective disaster response and early recovery?

Level of Progress achieved: 2

Description of Progress & Achievements:

- No financial reserves to support effective disaster response and early recovery. In case of disaster, Central Government has to announce the disaster declaration of disaster stricken areas and then will allocate a relief contingency fund. [2]

To what extent are early warning centres established, adequately staffed (or on-call personnel) and well resourced (power back ups, equipment redundancy etc) at all times?

Level of Progress achieved: 3

Description of Progress & Achievements:

- In normal time, there is an emergency operations center (call 1555) will be at service on 24-hour basis, and if disaster is imminent like flood, BMA will set up a temporary commanding center as a coordination body and information distributor from central to local parts.
- BMA's Information Management Center and Drainage and Sewerage Department will gather all information and distributed for flood warning

How much do warning systems allow for adequate community

participation?

Level of Progress achieved: 3

Description of Progress & Achievements:

- BMA has a radio communication center covering in all 50 districts so disaster warning messages can be transmitted through radio communication system to volunteers in 50 districts so that they can prepare and cope with disaster in timely manner.

To what extent does the local government have an emergency operations centre (EOC) and/or an emergency communication system?

Level of Progress achieved: 5

Description of Progress & Achievements:

- In times of emergency, Emergency Operations Center will be established both in central and in disaster stricken areas. It will use two communication systems that is networking/mobile phone and radio communication system through BMA's center (Amarin Center) which is integrated with external departments such as police, military and other charity organizations , etc.

How regularly are training drills and rehearsal carried out with the participation of relevant government, non-governmental, local leaders and volunteers?

Level of Progress achieved: 4

Description of Progress & Achievements:

- All departments of which mandates related to disaster prevention and mitigation have to practice a drill every year e.g. BEST under supervision on Drainage and Sewerage Department, Fire and Rescue Department (fire and first aid drill) including Traffic and Transportation Department (evacuation and rescue drill). Moreover, there is a yearly volunteer training on the activities they are volunteering in, such as assisting the official in disaster emergency operations, etc.

How available are key resources for effective response, such as emergency supplies, emergency shelters, identified evacuation routes and contingency plans at all times?

Level of Progress achieved: 2

Stockpiles of relief supplies	Yes
Emergency shelters	Yes
Safe evacuation routes identified	Yes
Contingency plan or community disaster preparedness plan for all major hazards	Yes

Description of Progress & Achievements:

- A contingency and emergency plan has been put in place including keeping a stockpile for medical equipment and emergency supplies. In the crisis, all key resources for effective response will also be given from external organizations like from Bureau of the Royal Household, Military, private sector and charity organizations
- School, Academic Institutes and temples will be used as evacuation centers due to their ample of space and restrooms which can accommodate a large number of affected people. They are also known for people in the communities and accessible.

Essential 10

After any disaster, ensure that the needs of the survivors are placed at the centre of reconstruction with support for them and their community organizations to design and help implement responses, including rebuilding homes and livelihoods.

How much access does the local government have to resources and expertise to assist victims of psycho-social (psychological, emotional) impacts of disasters?

Level of Progress achieved: 4

Description of Progress & Achievements:

Social Development Department will be responsible for helping and curing those with psycho-social (psychological, emotional) impacts as the post – disaster recovery plan. The department designates a restoration plan with corporation of health facilities situated in different areas whereas Traffic and Transportation Department will organize a wide range of recreation activities in evacuation centers to entertain those who affect disaster.

How well are disaster risk reduction measures integrated into post-disaster recovery and rehabilitation activities (i.e. build back better, livelihoods rehabilitation)?

Level of Progress achieved: 2

Description of Progress & Achievements:

The respective departments will be responsible for the basic infrastructure e.g. Public Work Departments, Drainage and Sewerage Department will be responsible for road maintenance and improvement, traffic light system, ditch, flood gate, pumping machine throughout the elevation of dam in order to cope with flood in the future.

To what degree does the Contingency Plan (or similar plan) include an outline strategy for post disaster recovery and reconstruction, including needs assessments and livelihoods rehabilitation?

Level of Progress achieved: 2

Description of Progress & Achievements:

There exists the contingency plan but lack of the exercise among the relevant departments.