

AREA BUSINESS CONTINUITY MANAGEMENT, A NEW APPROACH FOR SUSTAINING LOCAL ECONOMY

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ABSTRACT :

Flood of Chao Phraya River in Thailand and the Great East Japan Earthquake and Tsunami, both occurred in 2011, reminded us the risks of business disruption and further impacts on national, regional and global economies through the global supply chains and trading networks.

Considering the increasing economic losses by disasters, the fourth session of the Global Platform for Disaster Risk Reduction (2013) summarized to promote resilience and fostered new opportunities for public-private partnerships as part of an overall improved risk governance. Furthermore, it also highlighted how a growing world requires a new approach to development action, by emphasizing the private sector's role in managing disaster risks.

One of the most significant contributions by the private sector toward disaster risk management is Business Continuity Plan/Planning (BCP) or Business Continuity Management (BCM) system which was standardized as ISO22301 and disseminated in many business enterprises around the world.

However, the BCP or BCMS has not been formulated nor implemented yet in most of the local enterprises in many of the industry agglomerated areas even though located in vulnerable conditions against disasters.

Moreover, in case of large scale disasters, the business enterprise's capacity is too limited to mitigate damages and maintain operation by their own efforts only even if BCPs are prepared. Main reason is the disruption of the public infrastructure and services.

In order to minimize the negative economic impacts or economic losses particularly on by large scale disaster that disrupt fundamental infrastructure in certain areas, it is important to conduct risk assessment at a proper scale and to prepare scenario based disaster management plans for area-wide damage mitigation. In addition, it is essential to have integrated resource management and strategic recovery plans which could support each enterprise's BCM actions in coordination with the public sector's activities.

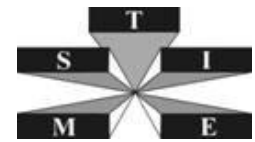
Considering these backgrounds, the Japan International Cooperation Agency (JICA) jointly with the ASEAN Coordination Center for Humanitarian Assistance on Disaster Management (AHA Center) has launched a project "Natural Disaster Risk Assessment and Area Business Continuity Plan Formulation for Industrial Agglomerated Areas in the ASEAN Region" since February 2013.

The project introduced a new concept of Area Business Continuity Plan (Area BCP) which, based on the risk assessment of the area, designates a framework and direction of coordinated damage mitigation measures and recovery actions of stakeholders including individual enterprises, industrial area managers, local authorities and administrator of the infrastructures in order for business continuation of the industrial area as a whole. The project also established Area Business Continuity Management (Area BCM) as a cyclic process of risk assessment, sharing risk and impact information, determining common strategy of risk management, developing the Area BCP, implementing and monitoring the planned actions to continuously improve the Area BCM system, in coordination among stakeholders, in order to improve the capability of effective business continuity of the area.

This paper aims to evaluate the progress of the project and to explore lessons from the applied process of Area BCM and its benefit.

KEYWORDS:

Disaster risk assessment, Business Continuity Plan, Business Continuity Management, Area BCP, Area BCM, risk management



1 INTRODUCTION

Despite the efforts of saving lives and successful disaster responses that reduced the number of casualty in many cases by laudable practices of improved preparedness, economic damages and losses are remarkably increasing and impacting to local societies. As industries are connected by supply chains and trading networks, the damage affects beyond borders. And its impact may spread throughout the world.

The Great East Japan Earthquake and Tsunami in 2011, for example, put an incredible strain on the national economy and also had global impacts through the supply chains of industry. The disaster severely disrupted the supply of Japanese-made vehicle parts to automobile assembly plants, forcing Toyota, GM and major automotive manufacturers around the world to shut down production for a lengthy period of time (Ando and Kimura 2012).

When an industrial agglomerated area suffer from catastrophe, it has significant impact on the local economy, employment and population outflow, and the socio-economic change spread throughout the nation. In rehabilitation and reconstruction phase, the local and national governments need to intensively invest for early regeneration of local industry which is essential for restoration of people's living environment and normalization of socio-economic activities. Private sector's participation in area-wide disaster risk reduction initiative is hence one of the newly arising agenda we need to discuss.

On 21-23 May 2013, the Fourth Session of the Global Platform for Disaster Risk Reduction (GPDRR, organized by UNISDR) was held in Geneva. It was the first ever occasion where the Chair's Summary highlighted the importance of private sector's intervention in disaster risk reduction as actor and partner. To follow up the Chair's Summary, the "Guidance on Hyogo Framework for Action (HFA) Core Indicators Thematic Research" was issued, indicating "Private Investment in Disaster Risk Management" as one of the three emerging research areas to preliminary develop the input papers to the successor to the HFA.

The Idea is come up from an understanding that increasing disaster risks represent a growing problem for the economic and business community and business investments that aimed to strengthen competitiveness and productivity may have paradoxically and inadvertently contributed to increasing risk. Economic globalization has enabled critical gains in business productivity and efficiency, but those gains have been at the expense of an over accumulation of disaster risk in many business locations and in the global economy as a whole. The successor to the HFA should therefore reflect on the role and diversity of private sector engagement in reducing risk and building resilience and, more specifically, clearly identify and reflect a commonly understood coordination framework with other stakeholders and management mechanism.

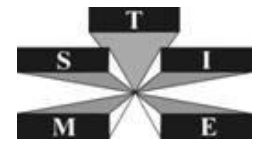
Interaction between the risk management of public sector and that of private sector should be integrated in local disaster management plan that designate the roles of public organizations to secure the safety level of infrastructure and utilities for sustaining community lives and businesses and, in turn, the role of private sector to secure the worker's safe environment and resilient local economy. In addition, the private sector is expected to participate to inclusive coordination system of resilient society by sharing disaster relevant resources and information not only as a partner but also as an actor.

2 AREA BUSINESS CONTINUITY MANAGEMENT

2.1 *What we learned from recent catastrophes*

Once a natural disaster has hampered or damaged a business, a certain amount of time will be required for that business to recover and to return to a level of production sufficient for trading to take place. The recovery process may be disrupted due to the loss and lack of business resources such as personnel, machinery, electricity, gas and water. Other indirect effects may include increased expenses, lack of demand, short-term loss of market share, travel difficulties, involvement in recovery operations, loss of production efficiency, loss of supplies, withdrawal of licenses, as well as loss of quality accreditation or approved standards. For many businesses, these impacts can be catastrophic.

The most significant contribution by the private sector for economic resilience has been the development of business continuity plan/planning (BCP) or the business continuity management (BCM) system. BCMs refer to any effort that aims to achieve business continuity by engaging in whatever is considered necessary to protect a company's production, information, equipment, and employees. The BCP or BCM systems are standardized as ISO22301 (ISO, 2012) and disseminated through many business enterprises around the world.



The limitations of that BCPs or BCM systems were really self-evident following the Great East Japan Earthquake and the flood of the Chao Phraya River in Thailand (Okada 2011). Some prearranged BCPs/BCMs in private enterprises helped them survive to some extent but overall, the plans failed to provide a sufficient basis for continuation of business or quick recovery from damage (Sato and Bessho 2011). This was due mainly to disruption of area-wide installed common resources such as energy, water, transportation and communications that are essential for business operations (Special Study Team 2011). With these circumstances, it is expected to develop a new guidance as to how this might be more effectively represented in the successor framework to the HFA.

2.2 Area Business Continuity Management, a new opportunity for improving economic resilience

Based on the background, Japan International Cooperation Agency (JICA) developed a new concept of Area Business Continuity Plan (Area BCP) and Area Business Continuity Management (Area BCM) to improve the continuity in the local economy in times of disaster. The feasibility of the concept was tested and confirmed in a project, which JICA launched in February 2013 in collaboration with the ASEAN Coordination Centre for Humanitarian Assistance (AHA Centre) (Baba et al. 2013). Area BCP/BCM refers to the efforts of an area that aims to prevent economic stagnation of the targeted area regardless of the circumstances. To achieve this goal, cooperation between the private sector, national government, municipalities, operators of infrastructure and utilities in the area is necessary. Area BCM also requires a process of scientific assessment, as a part of the management cycle, in order to develop a common understanding of risks and impacts in the area which should be based on a multi-hazard, multi-scenario and probabilistic analysis. The initiative intends to strengthen the resilience of local economies, as well as regional and ultimately global economies.

Area BCM is a cyclic process of understanding risks and impacts, determining common strategy of risk management, developing the Area BCP, implementing the planned actions and monitoring to continuously improve the Area BCM System, in coordination among stakeholders including individual enterprises, industrial area managers, local authorities and administrator of the infrastructures as well as communities, in order to improve the resilience of local economy to disasters (Figure 1). Area BCP then designates a framework and direction of coordinated damage mitigation measures and recovery actions of stakeholders in order for business continuation of the industrial area as a whole.

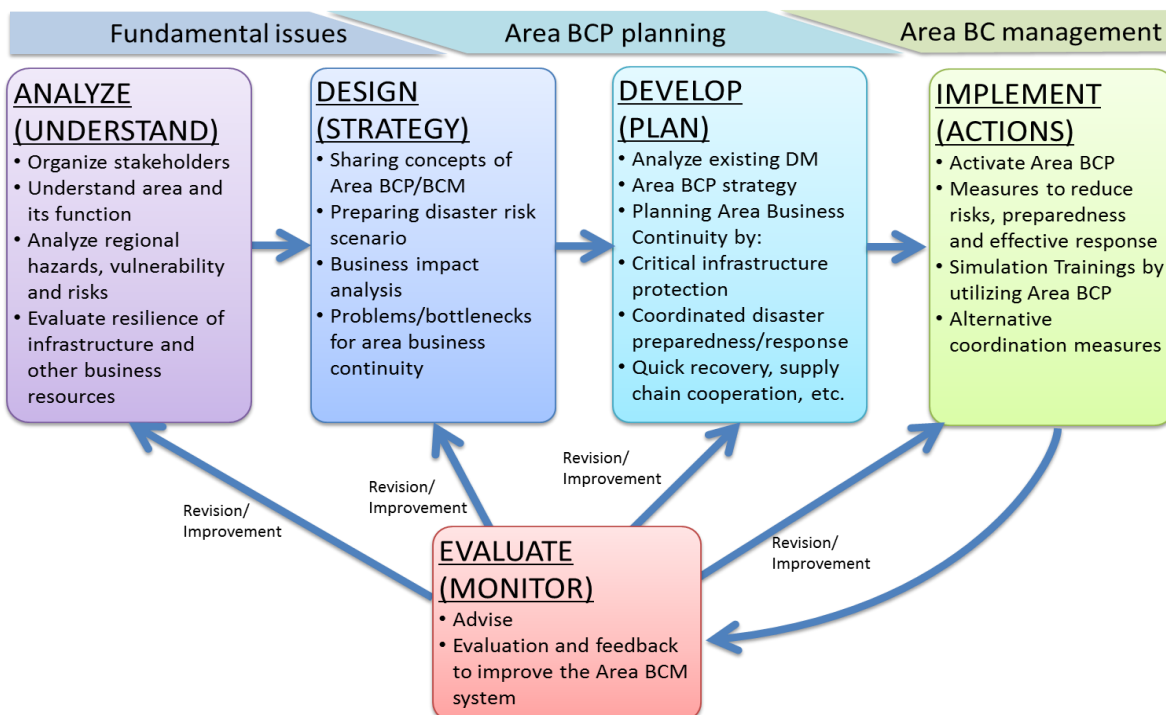
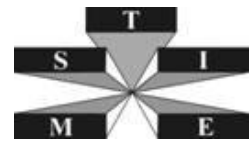


Figure 1 Process of the Area BCM



2.3 Process of the Area BCM

The first step of developing an Area BCM is that private companies, local governments, infrastructure and utility operators should sit down together. The size of the area should be determined based on the interest of organized stakeholders, who should have a common understanding of the potential weaknesses of the area in times of disaster. In the process meetings, the stakeholders should work to identify possible bottlenecks that may lead to the disruption of business, and generate measures that will lead to a plan for business continuity of the area. Measures that are implemented can then be monitored and evaluated for better management of business continuity.

In order to create common understanding of disaster risks and impacts among all parties involved in the Area BCM process, it is essential to have a scientific analysis of probable hazards, existing vulnerabilities and the resulting risks to business interruption. Ideally, the analysis should be based on a multi-hazard (natural, Na-tech, manmade), multi-scenario and probabilistic methodology. This would include the potential hazards based on an assessment of the probabilities of them occurring.

The result of the risk analysis should be followed by a business impact analysis on an area-wide scale as well as within each of the participating organizations. Discussion of the impacts will then expose the problems and bottlenecks of the area. Creation of risk scenarios can provide the basis for discussing the risk management strategies, plans and measures by stakeholders as part of the basic structure of the Area BCP.

3 APPLICATION OF THE AREA BCM

Considering the recent rapid economic growth of ASEAN nations and increasing disaster risks particularly in industrial agglomerated areas in coastal vulnerable locations, JICA selected three pilot areas in Indonesia, the Philippines and Vietnam for the first Area BCM application. In each area, many enterprises, government agencies, infrastructure managers and utility operators have participated to the project of Area BCM.

The discussions of participants under the established framework of Area BCM were facilitated by the study team of the project. A series of meetings and workshops were held to share information and improve knowledge needed to formulate the Area BCP. Sessions were structured to promote interaction between the study team and the participants.

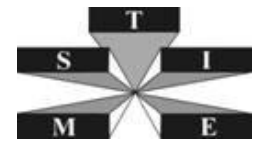
The entity that takes the initiative towards developing an Area BCM and leads the discussion differs according to country and local conditions. In the three areas, the prefecture level of government in Indonesia, the municipality in Vietnam, and an authority overseeing the economic sector in the Philippines took the lead intensely. And some of those are now considering establishment of legal framework under their administration for the Area BCM system in the respective area.

Participants to the applied framework can be classified into 1) advisory group such as governmental agencies from local and central, 2) private sector including major enterprises and SMEs (small and medium enterprises), 3) infrastructure group such as road authority and river basin organization, 4) lifeline group such as water resource manager, electric company, and 5) observer including research agencies. Through a series of workshops, they have discussed about fundamental policy of the business continuity, critical hazards to be considered in the Area BCP/BCM, current problems for business continuity, impact to local community and industry, and bottle necks for business continuity.

The drafted first edition of the Area BCP, in each pilot area, contains 1) Purpose of the Plan, 2) Scope, 3) Hazard and vulnerability of the area, 4) Analyzed business impact, 5) Strategies for industry continuity, 6) Measures and activities to improve capacity of industry continuity, and 7) Implementation and evaluation of the Area BCM. Various types of measures and activities including hazard prevention, damage mitigation, quick response and effective recovery were proposed in the end.

4 BENEFIT OF AREA BCM, EVALUATED FROM THE PILOT CASE STUDY

The Area BCM process unifies the efforts of stakeholders of the area, directs them toward a common goal, and allows the area to achieve recovery and reconstruction quickly, efficiently and effectively. Through the range of measures, for example, the method selected, can help to encourage each business continuity manager to consider how to secure available business resources. They also develop ways of cooperating through enhanced



communication with other partners by sharing information among related parties in the area, as well as the clients of each enterprise. Furthermore, these considerations can promote expanded coordination with other industrial agglomerated areas and other strategically critical areas. Coordination through the supply chain is also enhanced by preparing an alternative supply chain network.

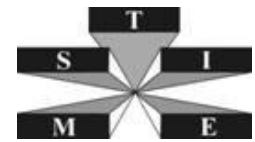
Each organization's efforts were enhanced due to the increase in responsibility following the development and coordination of the Area BCM. Even companies that currently have no BCP/BCM may still start developing their own BCP/BCMs. Moreover, cross-industry cooperation resulting from Area BCP/BCMs can further promote cooperation among line industries. It automatically distributes the concept of the Area BCMs to other areas. Another benefit of Area BCP/BCMs is that they can give private companies the incentive to prepare plans for each stage of the disaster management cycle (prevention and mitigation, preparedness and response, restoration and rehabilitation), rather than following the usual tendency to prepare only the plans for a response due to their financial constraints and lack of experience.

Private parties will be involved more deeply in planning structural measures of risk reduction on an area-wide scale for example. In disaster risk reduction, it is understood that some extent of redundancy in measures and functions is important in order for taking backup measures and alternative actions effectively. The combination of different schemes under the Area BCM, consisting of sharing resources, investing in measures to minimize the effects of disasters while transferring risks, will add more redundancy to the area's resilience. The public sector is also encouraged to invest in developing more robust infrastructure. Since the regeneration of local jobs, the reconstruction of people's living environments and normalization of socio-economic activities are essential for the earliest rehabilitation of the locality, it is important for both public and private parties to increase their capacities in the area surrounding disasters. Linking individual efforts of companies and public organizations, opportunities under the Area BCM can enhance strategic operations in normal businesses to avoid unexpected business risks and eventually contribute to disaster prevention as well as sustainable growth for all concerned parties.

Although it is premature to evaluate the total benefit of the Area BCM, the enhancement of resiliency may encourage other enterprises to transfer their operations to the target area, where disaster risks are rather low compared to the other areas. The increased resilience of the area would also be reflected in the asset value as for investment environment, which could pull down the disaster insurance costs of local enterprises. If the cost reduction follows, it will attract more investment to the industry area. Enhanced continuity of the business in the area as a result could foster the local economy and employment, which may have huge impact to the nation. Enhanced continuity of business in the area could result in fostering vital economy, which may then bring substantial benefits to the nation. The process of Area BCP/BCM promotes all the engaged parties to be aware of the connections (Figure 2) to other members and helps the private sector to prepare well-balanced and standardized plans for all the stages in the disaster management cycle.



Figure 2 Connectivity of stakeholders and benefit of Area BCM



5 CONCLUSIONS

Economic losses as a result of disasters – particularly of catastrophic disasters in industry agglomerated areas – have extensive economic impacts for nations and to the global economy. As noted earlier, loss of employment and population outflow from the area can also have irreversible social impacts. The private sector can play a significant role in promoting resilient continuation of area business and early regeneration of local industry. In addition, the public sector also needs to pay attention to industrial agglomeration areas in order to avoid catastrophic impacts on the national economy by developing strategies for area-wide disaster management and involving the private sector in the system of the management.

To encourage contributions by both private and public sectors, the preparation of area-wide coordinated systems of disaster risk reduction such as Area BCP/BCM, as introduced in this paper, is becoming an increasingly important means of enhancing area resiliency to disasters or other threats of business disruption. The Area BCM enables all the stakeholders of private and public sectors to create mutual links and connectivity to avoid unexpected risks of losing assets and benefits. Two important questions here concern who will first take the leading initiative of the Area BCM in the area of industry agglomeration. And who will need to do what?

As the case study revealed, the entity that takes the initiative in developing the Area BCM and leads the discussion of strategies and actions may differ according to country and local conditions. In some cases, local government will be the leader. In recent years, authorities in the industrial and economic fields have become more interested in taking on initiatives and developing the concepts of area-wide resilience to disasters. While the private sector is definitely a part of the area-wide framework, it is not usually at the center of the management system. However, it is not an easy task for private enterprises to implement the scientific risk and impact analysis, which is based on an area-wide, multi-hazard, multi-scenario and probabilistic methodology, as mentioned. As this comprises one of the essential steps of the Area BCM, some public organizations should take the central role of implementing the Area BCM.

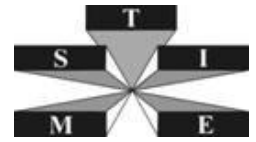
However, the role of private sector remains important. First, participation of all key stakeholders in the Area BCM System is essential to ensuring effective coordination. Private-public cooperation will provide the basis for generating the Area BCM process. Moreover, the private sector, as an actor in implementing disaster management plans in the actual location, should be able to provide coordination between the entities in the areas concerned and those in the external regions through inter-regional networks, industrial chains and supply chain cooperation.

Second, it needs to recognize that general management in private organizations may not take the process as seriously as they should. Conversely, after participating in an Area BCM process, private enterprises then have the responsibility of linking their own BCPs to the Area BCP. For example, to share the risk information, all parties would need to disclose information related to business resources, current capacities and any hazardous materials obtained in the area. This will effectively be reflected in the Area BCP formulation. The individual BCP will then interactively be reviewed by each private enterprise with serious concern. Constant dialogue and simulation exercises can also be effective in revealing the risks and difficulties that each stakeholder faces. It enables them to prepare a well-balanced and coordinated initial response capacity for catastrophic disasters with effective and efficient use of existing resources.

Learning from recent large-scale disasters that disrupted common business resources, which were essential for each enterprise's business continuity, the private sector as a group of enterprises should also encourage the public sector to strengthen the common resource's resilience to disaster through a framework of area-wide cooperation. Since the industrial function of any specified area depends on critical common resources and infrastructure, including the ones outside the area, the concerned private enterprises should create a capacity as a coordination framework with the public sector including local and national governments to secure the local economy.

The first application of such framework, the Area BCP/BCM in industrial agglomerated areas, has been introduced in ASEAN. Since the concept of Area BCP/BCMs is still new, the experienced members of the private sector are expected to disseminate the lessons and knowledge of Area BCP/BCMs in other industry agglomerating areas and nations. Also, this concept of area-wide resiliency will be applicable not only to industry agglomeration but also for urbanization. To foster sustainable urban development, together with vital economic growth of each locality, private and public cooperation needs to be strengthened through the new opportunities presented by coordinated risk management.

The recent efforts of the private sector indicate what can be achieved and what challenges remain. The private



sector can promote disaster resilience by developing BCPs and establishing BCM systems, as well as strengthening supply chain networks to ensure backup of business operations. The concept of shared resource management is also becoming better understood. In some companies, the BCM plans have included concepts of corporate social responsibility in emergency events, by incorporating plans for helping affected people. However there is still more progress to be made. Area-wide disaster management with significant participation of stakeholders is one area where further progress is necessary in order to scale up the coordination system of resilient society. In this, the private sector can provide one key to success.

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