

## How are businesses affected by disasters and what impact does this have on communities

ACDR 2013 Kobe

 Mitsubishi Corporation Insurance Co., Ltd.

 Asian Disaster Reduction Center (ADRC)

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1

### Public Sector's Role ~ Expressway



11 days  
later



Emergency recovery operation of Tohoku Expressway (the longest expressway in Japan) had done on 22 March, just 11 days later of the occurrence of the disaster.

- Contributed delivery of the relief goods and supplies to the affected area and also recovery of the economy in Japan.
- But on the other hand, **this quick recovery has been accomplished from the quick resumption of private sector's labor and services** ( construction).

## Private Sector's Role

### Ordinary Time:

Secure Employment and Maintaining the Local Economy and Regional Sustainability.

### Emergency Time: Become more Important in each phase of DRR (Mitigate, Response, Recovery and Reconstruction)

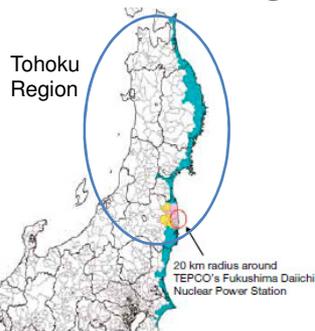
- Provide evacuation shelters and relief goods
- Provide labor, services, and products essential for the quick resumption of social functions
- Secure employment for the early recovery of the livelihoods of affected victims

Resilient and sustainable civil society

- The society need support from disaster-resilient private sector players.
- To be a disaster resilient private sector, public sector's support and assistance is needed.

3

## Regional Economic Impact



120,000 SMEs were located (99.9% of all enterprises)  
40,000 SMEs : Severely affected area

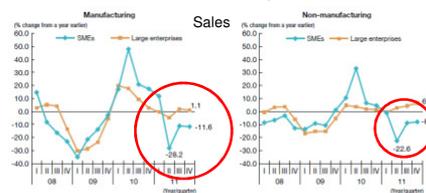
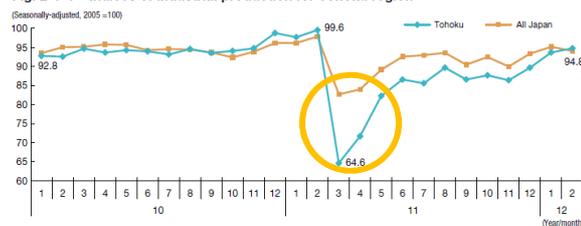


Fig. 2-1-4 Indices of industrial production for Tohoku region



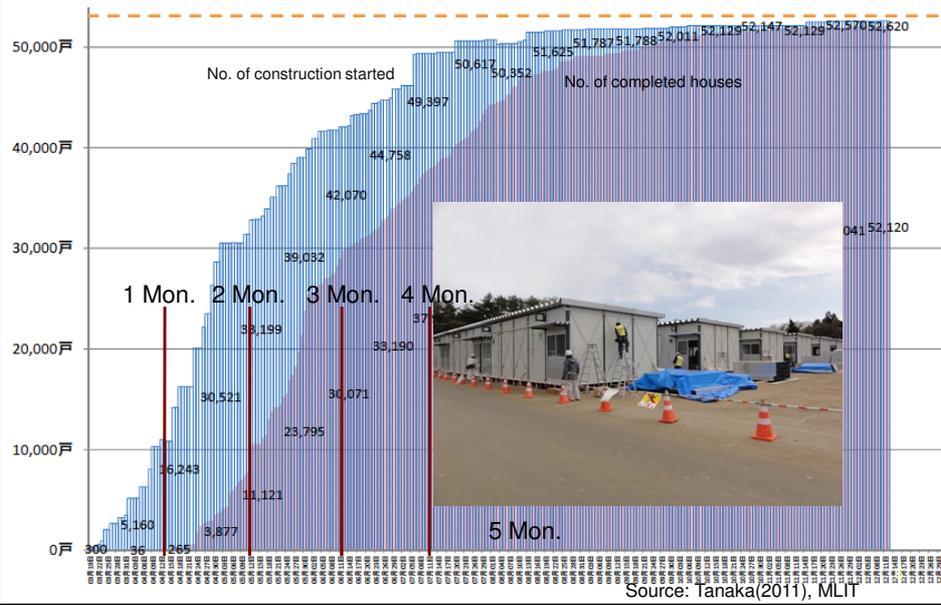
4

# Dysfunction of Public Services

237 out of 352 local governments lost function



# Temporary Houses

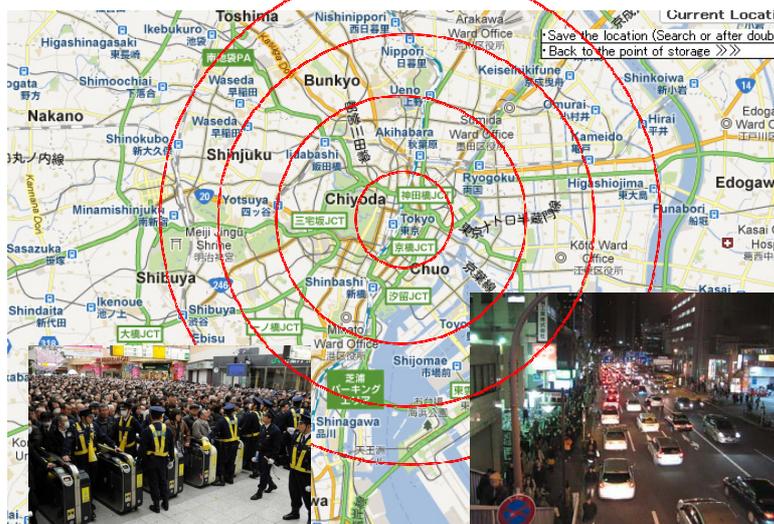


## Recovery Progress of Public Services

	Kobe Earthquake	Great East Japan Earthquake
Electricity	Power outage 2.6M houses Totally Resumed after 6 days	Outage 4.7 M houses Resumed 80% ( 3 days ) 94%( 8 days )
Telecom	Switch board 0.3M lines (1day) Home Devise 0.2M lines (2wks)	1M lines down Resumed 80% (1wk) 90%(2wks)
Gas	0.9M houses disrupted Totally Resumed (85days)	0.46M houses stopped Resumed 80%(1month) 90%(2 months)
Water Supply	1.3M houses disrupted Initially Resumed ( 42days) Totally Resumed ( 92days )	1.6M houses disrupted Resumed 80% (20days) 94% (40days)
Sewer System	Damaged pipeline 180km Initially Resumed ( 42days) Totally resumed ( 92days )	Damaged 960km 48 treatment facility damaged 30 recovered after 3months

7

## Mega City's Case March 11 in Tokyo: 90,000 people unable to get home

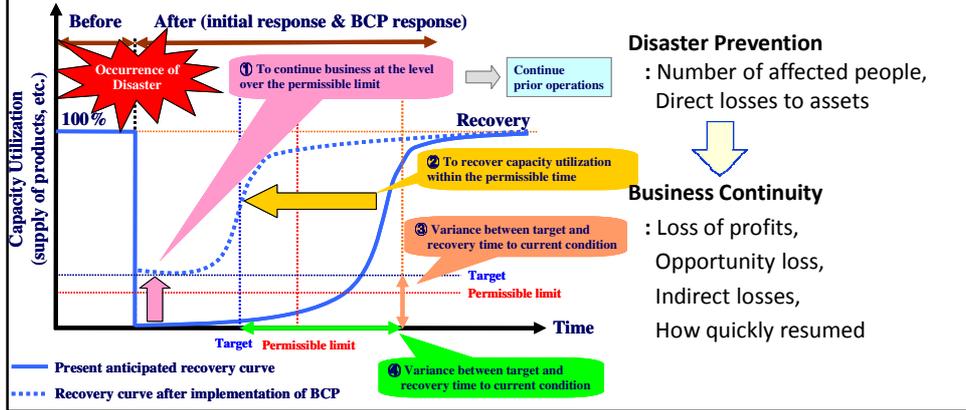


# Business Continuity Plan (BCP) / Management

## BCP is Holistic survival plan

- Identify the potential impacts and critical operations
- Prepare the effective response and quick recovery measures
- Continue its operations at acceptable levels and recover within specified period of time.

## Business Continuity Management (BCM)



# Economical Damage / Loss

	Tokyo Met Inland	Kobe E 1995	Gr. E Japan E 3.11 2011
Dead Missing	11,000	6,437	20,000
(Tsunami)	0%	0%	90%
(Fire)	56%	12%	1%
Injury	210,000	43,792	5,714
Building Collapse	195,000	104,906	112,703
Building Burn out	650,000	7,036	263
<b>Economic Loss</b>	<b>112 T Yen</b>	<b>9.6 T Yen</b>	<b>16.9 T Yen</b>
<b>Direct Loss</b>	<b>Tokyo Met Inland</b>	<b>Kobe E 1995</b>	<b>Gr. E Japan E 3.11 2011</b>
Building House Factory Machinery Stock	55.2	6.3	10.4
Lifeline: Water, Electricity, Gas, Tele com		0.6	1.3
Infra: Road, River, Port, Airport, Rail		2.2	2.2
Facility for Agriculture and Fishery	11.4	0	1.9
Public facility Hospital, School		0.5	1.1
	<b>66.6 T Yen</b>	<b>9.6 T Yen</b>	<b>16.9 T Yen</b>

Indirect Loss 45.2 Trillion Yen

Consequence Loss: Low productivity, Income, Opportunity Loss by the supply chain disruption

## Government Strategy 2005-2015

### ◆ Reduce the number of death (▲50%) and economic loss (▲40%)

✓ Number of death : 11,000 → 5,600

- Earthquake resistant houses and buildings 75% → 90%
- Fix household furniture 30% → 60%
- Improve initial fire extinguish ratio 72% → 96%

✓ Economic damage : 112 trillion yen → 70 trillion yen

- Measures for restoring transportation networks quickly by reducing debris which interrupt transportation.
- Raise Business Continuity Planning adoption ratio
  - Large scale 18.9%(2007) → 100%
  - Medium scale 12.4%(2007) → 50%



Cabinet Office published several guidelines

“BC Guideline (2005) “

“BC(Operational Continuity) Guidelines for Ministry and Agency (2007) “

“BC (OC) Guidelines for Local Government(2010) “

SME Agency published

“BC Guideline for SMEs(2005)”

## Public Sector National Government



経済産業省  
Ministry of Economy, Trade and Industry

## Operational Continuity Plan / Management

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Top > Press Releases > Back Issues > June 2008

### METI Business Continuity Plan formulated

The Ministry of Economy, Trade and Industry (METI) formulated its business continuity plan to prepare itself for potential major earthquakes, such as one beneath the metropolitan Tokyo area.

1. The Policy Framework for Tokyo Metropolitan Earthquakes (approved by the Central Disaster Prevention Council in September 2005) requires every central government office in Tokyo to formulate its own business continuity plan (BCP). The Central Government Business Continuity Guidelines (issued by the Cabinet Office in June 2007) stipulate that BCPs should be drawn out by the first quarter of FY 2008. To meet these requirements, METI has formulated its BCP.

2. Pursuant to the Central Government Business Continuity Guidelines, the crisis assumed in METI's BCP is the occurrence of an earthquake beneath the metropolitan Tokyo area (a northern Tokyo earthquake of a magnitude 7.3, with a maximum intensity of upper 6 [on the Japanese seismic scale] registered within the 23 wards of Tokyo). The following damage is assumed to be caused in this earthquake.

#### Assumed damage

Disruption in train services for three days; a tremor with an intensity of upper 6 in the area around METI, restrictions on communications via public telephone lines; mobile-phone text messaging available with some delay; a two-day power outage; a three-day suspension of water supply

3. The BCP evaluates the impacts that the assumed disaster would have on people's lives and socioeconomic activities, identifies priority tasks that METI should perform and shows measures to ensure the continuity of these tasks.

4. Having completed its BCP, METI will take a number of additional measures in normal times in order to improve its capability to ensure business continuity, such as designating staff who should come to the office and perform priority tasks in the event of disaster; enhancing tools for information sharing (e.g., an emergency message broadcast system, a system to confirm the safety of employees); stockpiling food and portable toilets; formulating measures to deal with employees who would have no means of returning home after a disaster; and being ready to free people trapped in elevators by defining procedures and conducting drills.

#### Division in Charge

Policy Planning and Coordination Division, Minister's Secretariat

#### Release Date

June 13, 2008

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# Public Sector Local Government Tokyo

東京都防災ホームページ  
Disaster Prevention Information

東京都

ホーム | 防災時のページ | 携帯電話版 | English(英語版) | サイトマップ | ダウンロード | 文字サイズ 大 中 小

東京都のBCP(事業継続計画)

東京都のBCP(事業継続計画)

■ 都政のBCP(事業継続計画)  
震災など予期せぬ事態が発生した場合でも、都民の生命・財産を守り、生活の早期復旧を図ると同時に、行政サービスの提供を維持する必要があります。このため、都は全庁的な体制を構築し、都政のBCP(事業継続計画※1)を策定し、迅速かつ的確な応急対応を講じつつ、災害発生時に行政機能を確保し、短期間で平常業務へ復帰する体制を構築してまいります。

※1:BCP・・・Business Continuity Planの略。事業継続計画。災害発生時に短期間で重要な機能を再開し、事業を継続するために準備しておく対応方針。

■ 都政のBCP(事業継続計画) <地震編> (平成20年11月策定)

■ 都政のBCP(東京都事業継続計画) <地震編>の概要 (PDF:179KB)

■ 都政のBCP(東京都事業継続計画) <地震編>の計画書本文 (PDF:6.97KB)

■ 加筆の巻頭言 (PDF:75KB)

■ 目次 (PDF:85KB)

■ 第1部 都政のBCP(事業継続計画)の基本的な考え方 第1章(第1章から第3章) (PDF:1,309KB)

■ 第1章 計画決定の目標と方針 (PDF:1,017KB)

■ 第2章 前提とする地震と被害想定 (PDF:678KB)

■ 第3章 計画の対象となる非常時優先業務 (PDF:977KB)

■ 第II部 事業継続のための課題と対策 第II部(第1章から第3章) (PDF:6,249KB)

■ 第1章 事業継続のための業務執行体制づくり (PDF:935KB)

■ 第2章 事業継続のための業務執行環境の整備 (PDF:1,800KB)

■ 第3章 主な非常時優先業務の課題と対策 (PDF:4,872KB)

■ 第III部 今後の取組み 第III部(第1章から第4章) (PDF:690KB)

■ 第1章 協定による執行体制の確保 (PDF:622KB)

■ 第2章 広域支援窓口用に入れるための体制づくり (PDF:489KB)

■ 第3章 区市町村への支援第1章 協定による執行体制の確保 (PDF:625KB)

■ 第4章 教育・訓練・計画の見直し (PDF:481KB)

このページのトップへ

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東京都総務局 Tokyo Metropolitan Government  
Bureau of General Affairs

このページに関するお問い合わせは、東京都防災総合防災対策推進課へ  
TEL:03-3238-2424 FAX:03-3238-2424

# The Tokyo Chamber of Commerce & Industry

- ✓ Business Continuity Planning Manual v2 (2009)
- ✓ Series of Planning Seminar ( each year )
- ✓ BCP Brochure (2012)

事業継続計画 BCPを作って信頼を高めよう

BCPとは何かを確かめよう

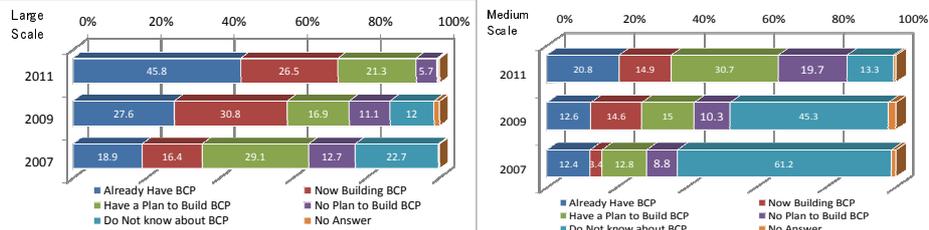
なぜBCPが必要かを考えてみましょう

防災計画書をBCPと混同していませんか

Business Continuity Plan (BCP) seminar which included preparations for natural disasters (Jul. 2010)

http://www.tokyo-cci.or.jp/english/our\_main\_missions\_and\_commitments/business\_support/

Due to the efforts made by multi channel approach,  
 .....achieved a certain result

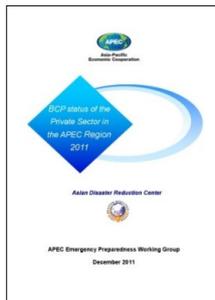


And from the lessons, for better Disaster Management ( Business Continuity ),  
 Each actor should

- ✓ Be individually strong and healthy
  - Facility Management >>> Strategy
  - Cost >>> Investment
- ✓ Cooperate with regional actors
  - Communities, Local Government , Industrial Estates
- ✓ Think about supply chain
  - Suppliers, Vendors, Competitors
- ✓ Think on SMEs

15

### Study in the APEC region



1. Understand current situation of BCP of Private Sector in the region
2. Identify and clarify the bottlenecks and problems for the development and implementation of BCP
3. Gathering the information needed for future enhancement strategy to policy makers

[http://publications.apec.org/publication-detail.php?pub\\_id=1234](http://publications.apec.org/publication-detail.php?pub_id=1234)

APEC High Level Policy Dialogue on Disaster Resiliency Honolulu, Hawaii November 11, 2011

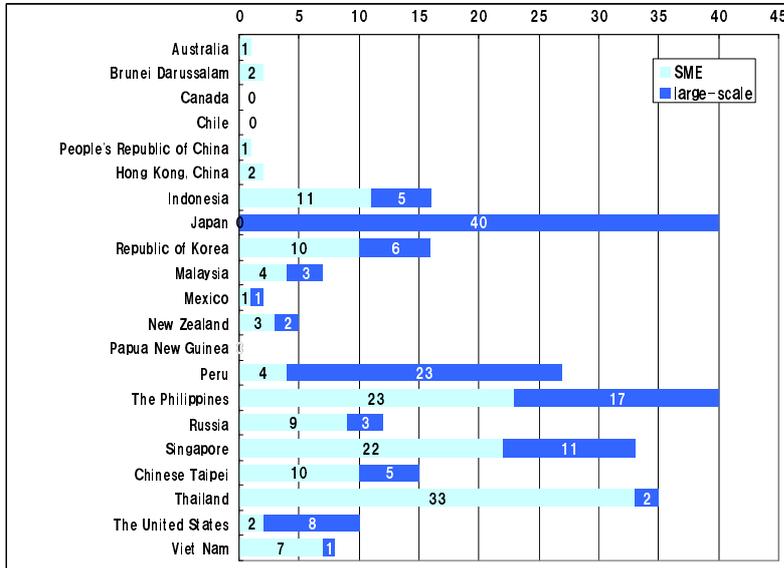
**Provide businesses with tools to help them prepare**

- Promote voluntary standards for private sector preparedness to help businesses evaluate their own readiness and provide incentives for taking steps to prevent and mitigate the risks they face;
- Promote standards and indicators for measuring the effectiveness of disaster risk reduction at both the economy-wide and regional levels to guide public and private sector investments and improve quality and consistency in implementation;
- Promote and facilitate the use of Business Continuity Plans (BCPs), especially for SMEs, by appropriate means, including legal, market-oriented and social measures;
- Promote financial instruments that help to respond and recover from disasters, as well as to transfer risk;

**SME**  
 90% of businesses  
 50% of employee  
 50% of sales and added value

16

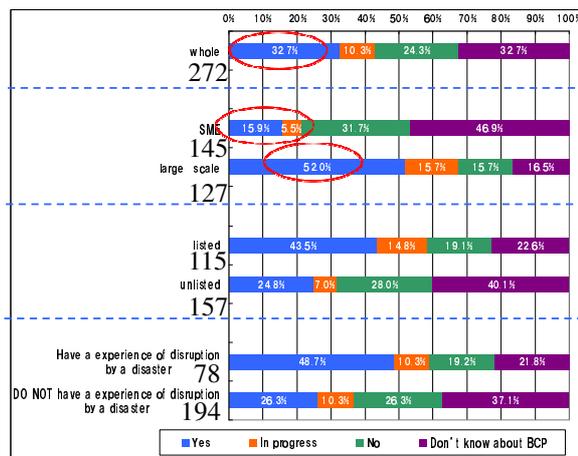
## Responses from 18 Economies



17

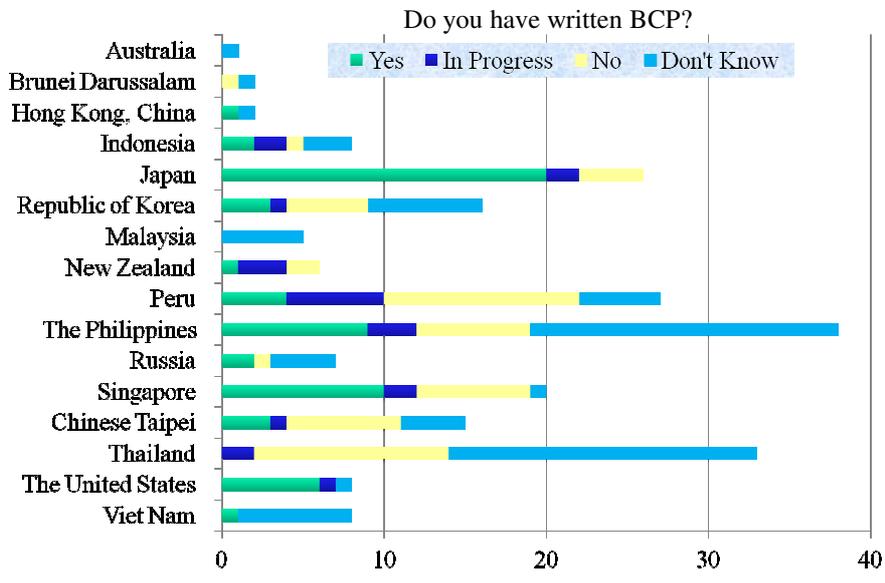
## Adaptation and Awareness Situation

Do you have written BCP?



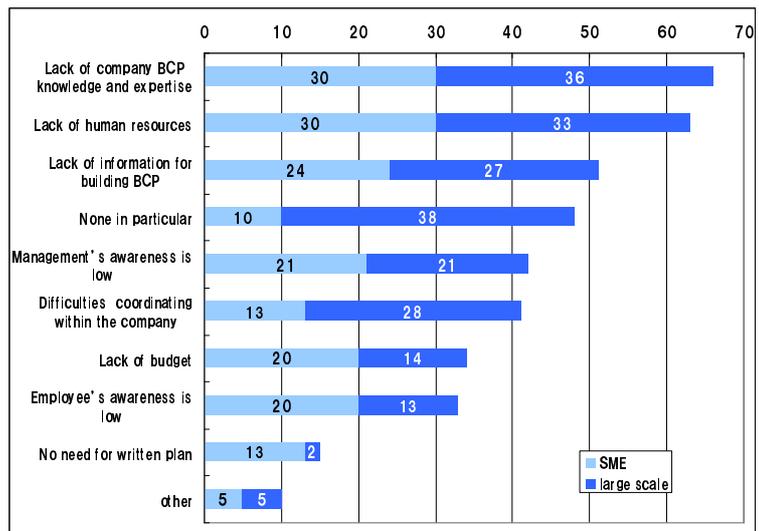
18

### Adaptation and Awareness Situation



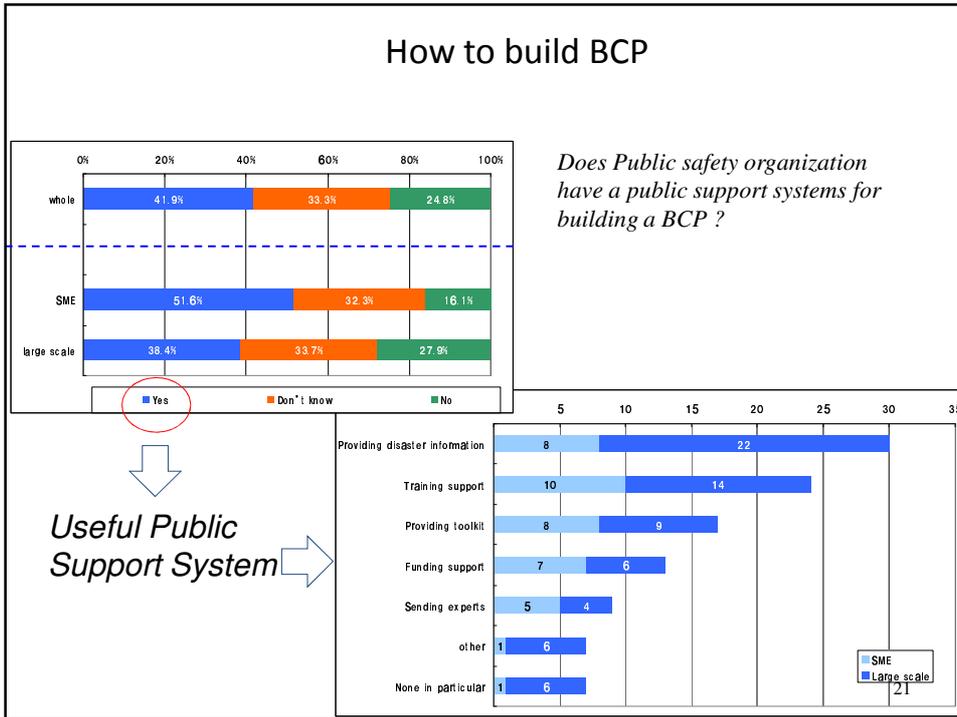
19

### Obstacles for building BCP



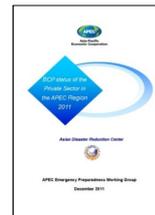
20

## How to build BCP



## Key Findings from the Survey

- ◆ Raise public awareness and fill up the gaps
- ◆ Mobilize government support system
- ◆ Remove the bottlenecks identified for developing BCP
  - Lack of knowledge and expertise for BCP development
  - Difficult to secure proper human resources etc
- ◆ Promote the concept of coordination with suppliers and communities



## Summary

