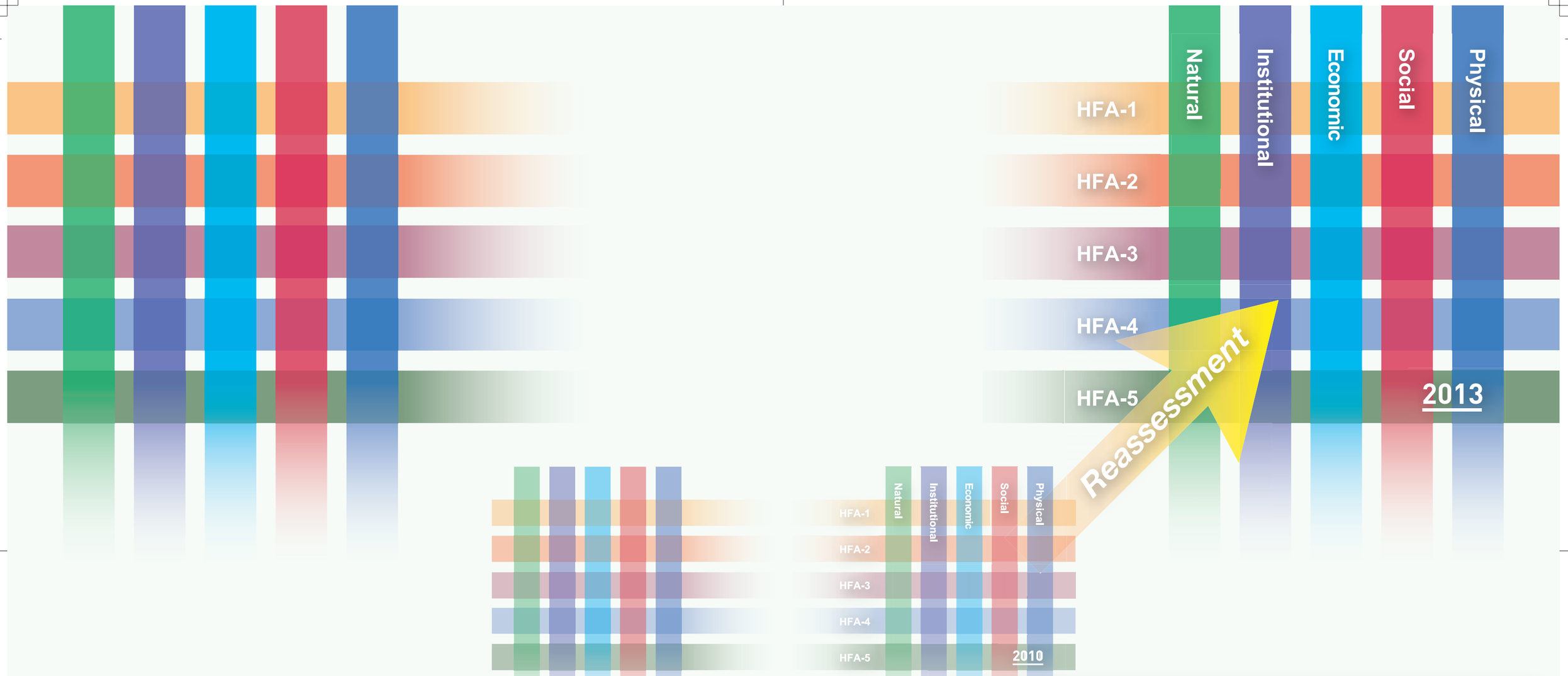

Climate and Disaster Resilience Initiative 2

Capacity-building Program

International Environment and
Disaster Management Laboratory
Graduate School of Global
Environmental Studies
KYOTO UNIVERSITY
Yoshida Honmachi, Sakyo-ku,
Kyoto 606-8501, JAPAN
http://www.iedm.ges.kyoto-u.ac.jp

Inter-Graduate School Program for Sustainable
Development and Survivable Societies,
KYOTO UNIVERSITY
Centro Culturale Italo Giapponese di Kyoto
4 Ushinomiya-cho, Yoshida, Sakyo-ku,
Kyoto 606-8302, Japan
http://www.gss.sals.kyoto-u.ac.jp

CITYNET
5F International Organizations Center
Pacifico-Yokohama,
1-1-1 Minato Mirai, Nishi-ku,
Yokohama 220-0012, JAPAN
http://www.citynet-ap.org

TOKYO DEVELOPMENT LEARNING CENTER
The World Bank
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Tokyo 100-0011, JAPAN
http://www.jointokyo.org/

Table of Contents

Resilience Mapping

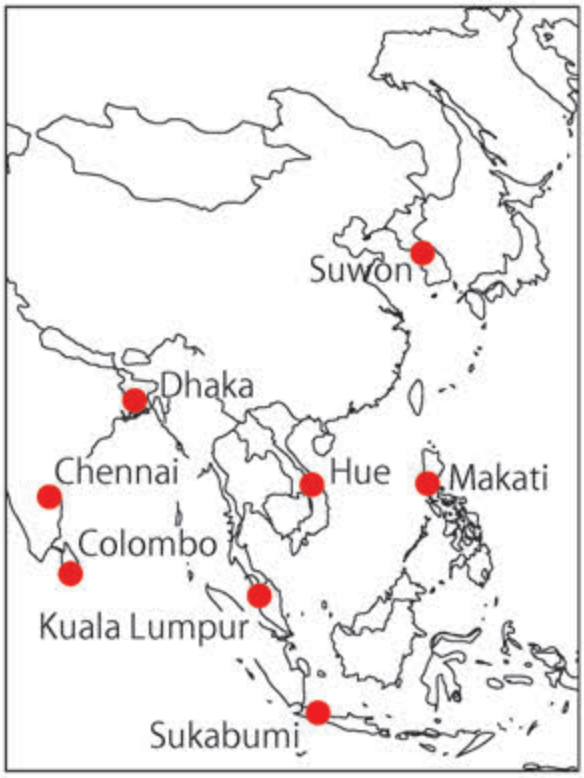


Table 1. Demographics of the eight participating cities

	Location	Estimated Age (years)	Population (2012 estimate)
Chennai	Coastal	300	4,703,195
Colombo	Coastal	150	752,933
Dhaka	River-based	400	11,664,093
Hue	River-based	350	313,922
Kuala Lumpur	River-based	140	7,816,050
Makati	River-based	340	540,000
Sukabumi	Hilly	200	309,198
Suwon	Hilly	1800	1,097,669

Reference: 2012 Estimated Population from http://world-gazetteer.com/

The CDRI Capacity-building Program

Introduction

A capacity-building program with blended learning methods under the Climate and Disaster Resilience Initiative (CDRI) was designed and implemented from February to April, 2010 in collaboration with Kyoto University Graduate School of Global Environmental Studies, CITYNET, Tokyo Development Learning Center (TDLC) The World Bank, SEEDS, UN International Strategy for Disaster Reduction (UNISDR), and Asia Regional Task Force on Urban Risk Reduction (RTF-URR).

Taking into consideration needs for promoting HFA implementation that will be customized for local governments, the importance of enhancing and materializing urban communities' action planning process in an organized manner for increasing number of urban communities to associate with future incidence of climate-induced disaster, a comprehensive action-oriented learning and training program was required to meet those needs. In this regard, the program package was divided into 3 stages:

Stage 1: Capacity-building of city government officials, to complete a CDRI Questionnaire for creation of overall resilience mapping
Stage 2: Training and Action Workshop, to design a self-evaluation matrix and to initiate Climate Action Planning
Stage 3: Initiating development of the Climate Action Plan (CAP) and implementation process

Goals and Objectives

The program helps city government officials become more aware and is able to communicate more easily on the current and potential future risks which their cities face. It helps in the development of comprehensive plans to address these issues. Also, distance learning methodologies used in the program ensure that local government officials are able to get continued support and feedback, over the long term, with much more reasonable expenditure. The overall goals of this program are to motivate and enable city government officials to become aware of current and future potential risks of climate-related disasters, and to initiate the development and implementation of the CAP in their own context in order to build resilience of their urban systems and communities.

Learning method

Multi-country blended learning which uses a mix of learning technologies to bring about optimal learning outcomes in each stage is the major methodology of this program. The major learning contents especially for Stage 1 contained learning content directly related to helping with the CAP writing for target audience group who are quite busy on their daily works. In addition, available external resources were also be utilized as references to support the learning activities of participants. The major delivery mode of the program varied according to the objectives of each stage.

Resilience Mapping

Specific Objectives

Capacity-building of city government officials, to complete a CDRI Questionnaire for the creation of overall resilience mapping

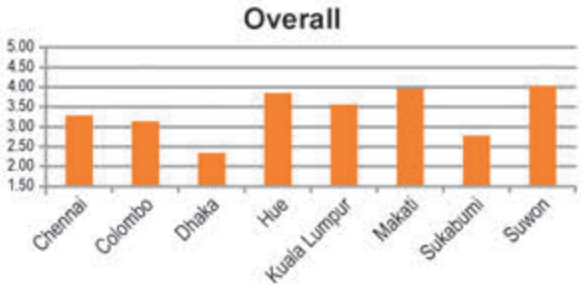
- **To learn the basic concept and methodology of CDRI (Climate and Disaster Resilience Initiative) Analysis**
- **To understand how to fill out the CDRI Questionnaire, and**
- **To assign tasks in order to complete the CDRI Questionnaire by the end of Stage 1**

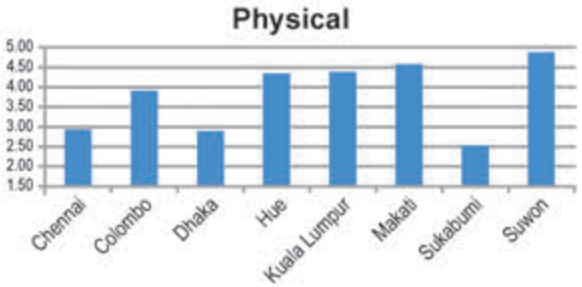
Table 2: Dimensions and Parameters of CDRI

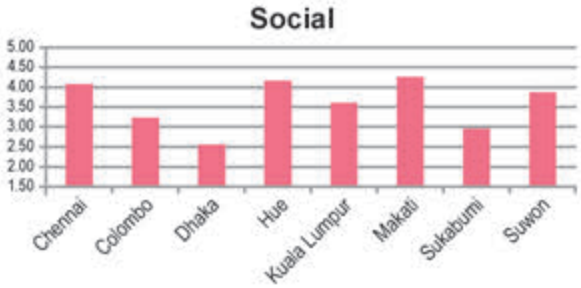
Physical	1. Electricity (access, availability, supply, dependence on external supply, alternative capacity) 2. Water (access, availability, supply, dependence on external supply, alternative capacity) 3. Sanitation and solid waste disposal (access to sanitation, toilets, collection of wastes, waste treatment, recycling) 4. Accessibility of roads (transportation network, paved roads, accessibility during normal and catastrophic flooding, roadside covered drains) 5. Housing and land-use (building codes, non-permanent structures, houses above water logging, house ownership, population living in proximity to polluted industries)
Social	1. Population (annual growth rate, population under 14 and above 65, population of informal settlers, population density) 2. Health (population suffering from waterborne/vector-borne diseases, access to health facilities, functionality and capacity of health facilities, preparedness for disasters) 3. Education and awareness (literacy rate, awareness of disasters, availability of public awareness programs/disaster drills, access to the Internet, functionality of schools after disasters) 4. Social Capital (participation in community activities and clubs, ability of communities to build consensus and to participate in city's decision-making process, mixing and interlinking of social classes) 5. Community preparedness during a disaster (preparedness in terms of logistics, materials, and management; participation in relief works; provision of shelter for affected people; support from NGOs/CBOs; population evacuating voluntarily)
Economic	1. Income (population below poverty line, number of income sources, households dependent on only one income source, income disparity, income derived from informal sector) 2. Employment (unemployment in formal sector, youth unemployment, women employment, workers coming from outside the city; employment in the informal sector) 3. Household assets (households with television or radio, phone, motorized vehicle, non-motorized vehicle, basic furniture) 4. Finance and savings (availability of credit facility to prevent disasters, accessibility of credit facility to urban poor, savings of households, household's insured properties, existence of disaster risk financing instruments) 5. Budget and subsidy (city' annual budget for DRR and CCA, availability of subsidies to rebuild houses, alternative livelihood, health care after a disaster)
Institutional	1. Mainstreaming of DRR and CCA (mainstreaming in city's land-use plans, housing policies, school education curriculum, transport policies, environmental plans) 2. Effectiveness of city's crisis management framework (existence of disaster management plan, incorporation of climate change uncertainties, effectiveness of emergency team during and after a disaster, readiness of alternate decision-making personnel) 3. Effectiveness of city's institutions to respond to a disaster (formal and informal institutions, trained emergency workers, disaster training programs, learning from previous disasters) 4. Institutional collaboration with other organisations and stakeholders (dependence on external institutions; collaboration with neighbor cities, national government, NGOs, private organizations) 5. Good governance (implementation of DRR plans, accountability and transparency of city government, implementation of building codes, effectiveness of early warning systems, frequency of disaster drills
Natural	1. Intensity/severity of natural hazards (floods, typhoons, rainfall-induced landslides, heat waves, droughts) 2. Frequency of natural hazards (floods, typhoons, rainfall-induced landslides, heat waves, droughts) 3. Ecosystem services (quality of urban biodiversity, soil, air, and water; urban salinity) 4. Land-use in natural terms (area vulnerable to climate-related hazards, urban morphology, settlements in hazard-prone areas, available urban green space, loss of urban green space in last 50 years) 5. Environmental policies and food security (compliance to environmental policies, existence of environmental preservation policies, waste management system, reduction of air pollution, food supply during disasters)

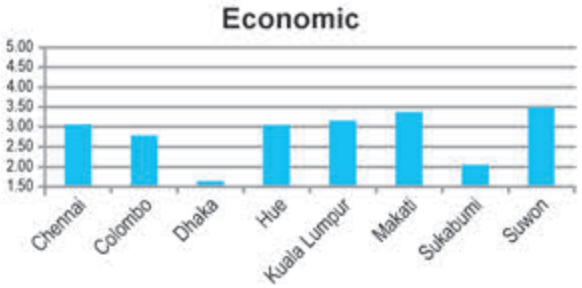
Overall CDRI Analysis / 2010

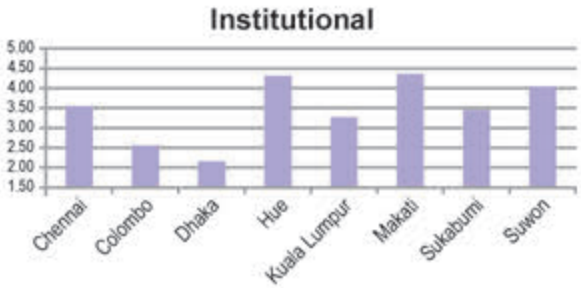
Based on the CDRI computed from the questionnaires filled out by eight participating cities, on the average the cities have moderate physical (3.80), social (3.59), institutional (3.47), and natural (3.18) resilience and low economic (2.83) resilience. The average overall CDRI is 3.37 out of a perfect score of 5. Below are the overall CDRI of each of the 8 cities and their score in each of the five dimensions assessed in this study.

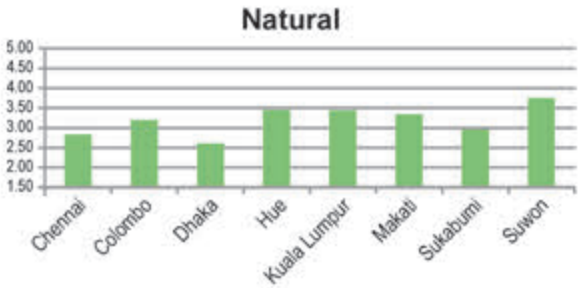








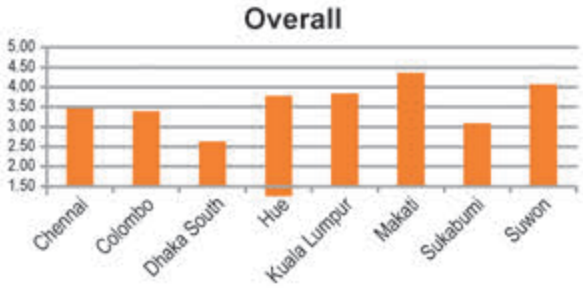


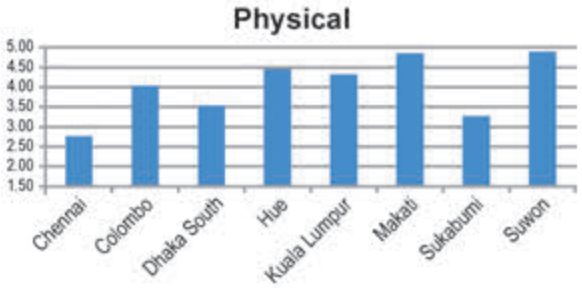


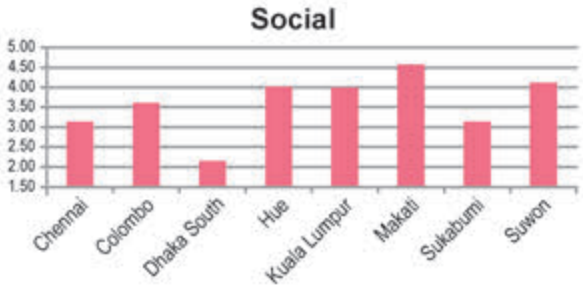
City name	Overall		Physical		Social		Economic		Institutional		Natural	
	2010	2013	2010	2013	2010	2013	2010	2013	2010	2013	2010	2013
Chennai	3.29	3.44	2.92	2.74	4.08	3.11	3.06	3.52	3.56	3.70	2.83	4.15
Colombo	3.14	3.37	3.91	4.02	3.23	3.58	2.77	2.48	2.57	3.29	3.20	3.47
Dhaka	2.35	2.61	2.90	3.53	2.56	2.14	1.64	2.58	2.15	2.65	2.51	2.16
Hue	3.87	3.75	4.35	4.44	4.18	4.01	3.04	3.60	4.31	3.90	3.45	2.81
Kuala Lumpur	3.57	3.81	4.38	4.30	3.60	3.98	3.16	3.65	3.26	3.46	3.44	3.64
Makati	3.98	4.33	4.58	4.84	4.25	4.55	3.38	4.02	4.36	4.71	3.33	3.54
Sukabumi	2.79	3.07	2.51	3.25	2.96	3.11	2.05	2.35	3.46	3.38	2.96	3.26
Suwon	4.01	4.04	4.88	4.88	3.87	4.10	3.50	3.44	4.06	4.04	3.75	3.75

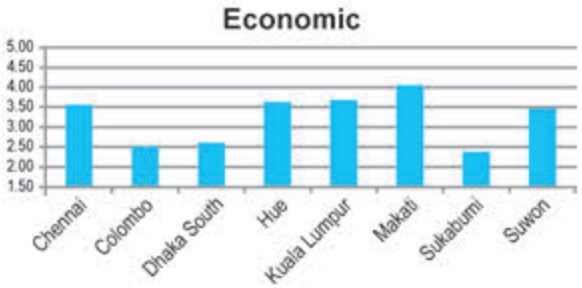
Overall CDRI Analysis / 2013

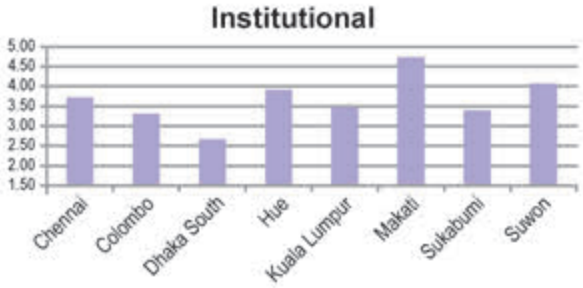
In 2013, on the average the cities now have high physical (4.00) resilience and moderate social (3.57), economic (3.21), institutional (3.64), and natural (3.35) resilience. The average overall CDRI is 3.55 out of a perfect score of 5. Below are the overall CDRI of each of the seven cities and their score in each of the five dimensions reassessed in this study. Overall, CDRI experiences modest increase of 0.18, with significant improvement in economic resilience (2.83 in 2010 to 3.21 in 2013). All dimensions have improved, except social which shows a very small decrease.

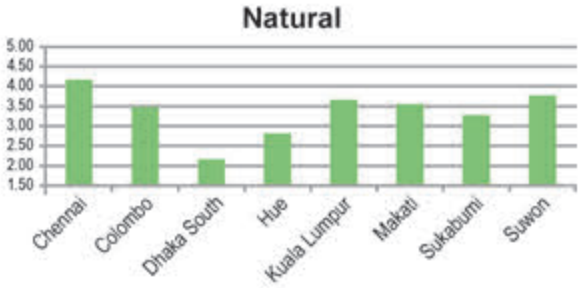












Comparing Progress from 2010 till 2013

- 5 out of 8 cities showed improvement in their Physical dimension score.
  Sukabumi and Dhaka South exhibited biggest improvement.
- 5 out of 8 cities showed improvement in their Social dimension score.
  Chennai showed the largest decrease.
- 6 out of 8 cities showed improvement in their Economic dimension score.
  Only Colombo and Suwon did not experience improvement.
- 5 out of 8 cities showed improvement in their Institutional dimension score.
  Colombo and Dhaka South showed the largest improvement.
- 5 out of 8 cities showed improvement in their Natural dimension score.
  Chennai showed the largest improvement while Hue and Dhaka South showed significant decrease.

Strengths and Weaknesses of the Cities / 2010

From the completed questionnaires, it is observed that there are variables consistently rated either very high or very low by the cities. The variables with the high ratings (with average greater than 4.50 out of 5) can be considered as the strengths of the cities while those with low ratings (with average less than 2.15 out of 5) as the weaknesses of the cities.

Table 3. Variables rated **VERY HIGH** by the cities **(strengths of the cities)**

	Variable	Rating
6.1.3	Low severity of rainfall-induced landslides	4.86
3.1.3	Low percentage of city's population below 65 years old	4.86
3.2.1	Low percentage of city dwellers suffer from waterborne or vector-borne diseases every year	4.71
3.3.1	High literacy rate of city's population	4.71
6.1.4	Low severity of heat waves	4.71
2.1.2	Continuous availability of electricity	4.57
2.4.2	High percentage of city accessible by paved road (asphalt or concrete roads)	4.57
2.5.5	Low percentage of city's population living in proximity of pollutive industries, landfills, and garbage dumpsites	4.57
6.2.4	Low frequency of heat waves	4.57

Table 4. Variables rated **VERY LOW** by the cities **(weaknesses of the cities)**

	Variable	Rating
4.3.4	Low percentage of city's households have non-motorized vehicle (e.g., bicycle)	1.43
4.4.4	Low percentage of city's household's properties under any sort of insurance scheme	1.57
6.4.2	High intensity of land-use – urban morphology (high level of urbanization)	1.86
4.4.5	Poor access to catastrophe risk financing framework/instrument	2.14
4.2.1	High percentage of labor unemployed in formal sector	2.14
4.2.5	High percentage of labor employed in informal sector	2.14

Similarly, it is observed that there are variables consistently ranked either very high or very low, according to their perceived importance to the cities. The variables with high ranking (with average greater than 4.40 out of 5) are the variables that are most important to the cities while those with low ranking (with average less than 1.60 out of 5) the variables that are least important to the cities.

Table 5. Variables ranked **VERY HIGH** by the cities **(most important to the cities)**

	Variable	Rating
3.4.1	Extent of city's population participate in community activities	4.57
2.1.5	Extent of capacity of alternative emergency electric supply system (may include on-site backup generation, uninterruptible power supplies, etc.) to keep emergency services functioning (e.g., hospital, evacuation centers, etc.)	4.57
5.5.1	Integration and implementation of disaster risk management plans/policies	4.57
2.2.5	Extent of capacity of alternative emergency safe water supply system (water purification system, stored water, etc.)	4.43
5.1.1	Mainstreaming of disaster risk reduction and climate change adaptation	4.43
6.1.1	Severity of floods	4.43
6.2.1	Frequency of floods	4.43

Table 6. Variables ranked **VERY LOW** by the cities **(least important to the cities)**

	Variable	Rating
3.4.5	Extent that social classes mix and interlink with each other (opposite: social segregation)	1.43
6.3.5	Level of urban salinity (e.g. high water table → high risk)	1.43
6.5.5	City is supplied with food after a disaster (food availability is secured; city has sufficient supply)	1.43
5.2.5	Existence and readiness of alternate/back-up decision making personnel during a disaster (e.g., the head decision-maker is out of the country)	1.57
6.1.4	Severity of heat waves	1.57

Strengths and Weaknesses of the Cities / 2013

In this 2013 re-evaluation of the cities' CDRI, it can be observed that the set of variables considered as the strengths and weaknesses of the cities is not the same as that in 2010. More than half of the variables rated either very high or very low are new (the variables in **red** are those also found in 2010).

Table 7 . Variables rated **VERY HIGH** by the cities **(strengths of the cities)**

Variable		Rating
2.1.1	High percentage of city population with legal access to electricity	4.75
2.1.3	Electricity supply authority capable to supply the city's demand for electricity	4.75
2.5.5	Low percentage of city's population living in the proximity of pollutive industries, landfills, and garbage dumpsites	4.75
6.1.4	Low severity of heat waves	4.75
2.3.1	High percentage of city population with hygienic access to sanitation	4.63
2.3.2	High percentage of city population with access to toilets	4.63
3.5.2	High extent of city's population participate in relief works after a disaster (volunteering)	4.63

Table 8. Variables rated **VERY LOW** by the cities **(weaknesses of the cities)**

Variable		Rating
4.3.4	Low percentage of city's households have non-motorized vehicle (e.g., bicycle)	1.75
4.4.4	Low percentage of city's household's properties under any sort of insurance scheme	1.88
3.1.5	High maximum urban population density (day or night) per square kilometer, weighted throughout the city	2.50
3.5.1	Low extent households are prepared for a disaster in terms of logistics, materials, and management	2.50
4.1.2	Low average number of sources of income per household	2.50
4.2.3	Low percentage of all women employed in formal sector	2.50
6.4.2	High intensity of land-use (high level of urbanization)	2.50
6.4.5	High loss of urban green space (parks, trees, forests) over the last 50 years	2.50

In a similar way, it can be seen that the variables consistently ranked either very high or very low according to their perceived importance to the cities in 2013 are completely different from those in 2010.

Table 9. Variables ranked **VERY HIGH** by the cities **(most important to the cities)**

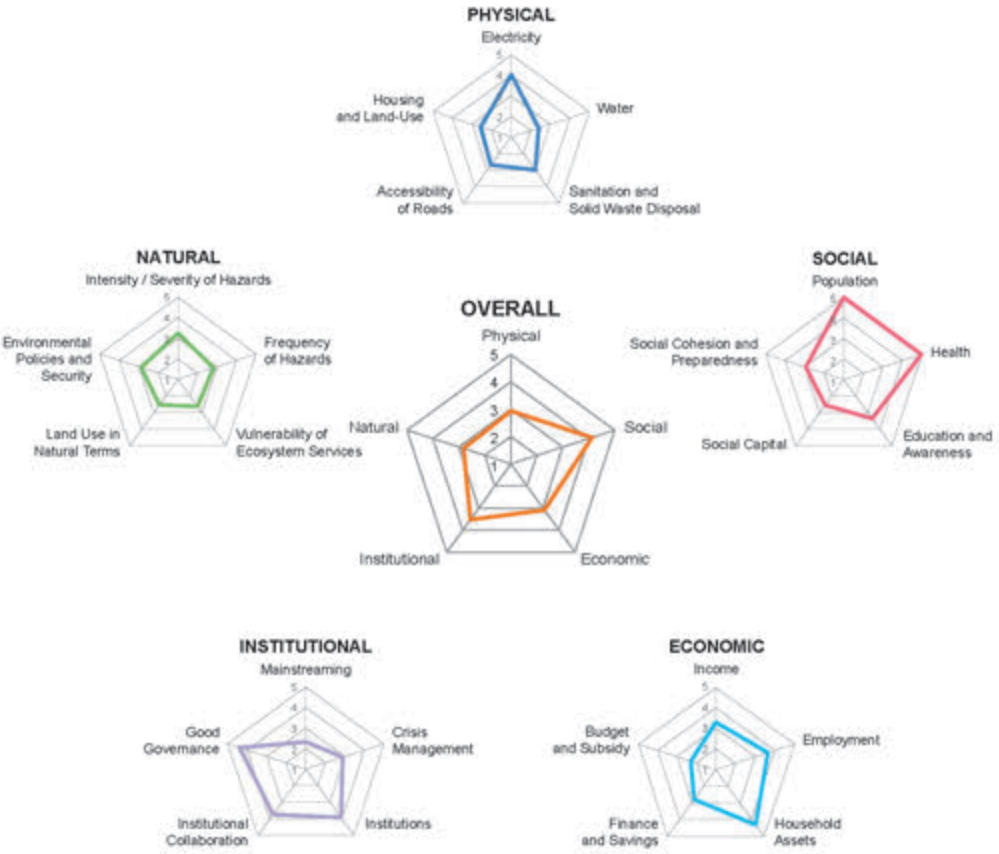
Variable		Rating
6.5.3	Existence and efficiency of waste management system (Reduce, Reuse, Recycle)	4.13
3.4.2	Extent of city's population participate in a club or social activity group	4.00
5.4.1	Extent of dependency to external institutions/support during and after a disaster	3.88
3.1.3	Percentage of city's population over 65 years old	3.75
3.5.1	Extent households are prepared for a disaster in terms of logistics, materials, and management	3.75
4.1.4	Extent of income disparity between the lowest 10% and the highest 10% of income	3.75
5.3.1	Effectiveness of city's formal organizations/institutions during and after a disaster	3.75

Table 10. Variables ranked **VERY LOW** by the cities **(least important to the cities)**

Variable		Rating
5.4.4	City's institutional collaboration with NGOs during and after a disaster	1.75
2.5.5	Total percentage of city's population living in the proximity of pollutive industries, landfills, and garbage dumpsites	1.88
3.1.4	Percentage of city's population live in slum area/urban informal settlement/urban poor areas	1.88
4.3.5	Percentage of city's households have basic furniture	2.00
5.3.5	Effectiveness to learn from previous disasters	2.00

CHENNAI , INDIA / 2010

Chennai, formerly known as Madras, is a coastal city situated on the Bay of Bengal. It is the capital city of the state of Tamil Nadu and is the fourth largest city in India in terms of population, after Mumbai, Delhi, and Kolkata.



Policy Implications in Relation to the Hyogo Framework for Action (HFA) Priorities for Action

1. Making disaster risk reduction a priority

The state of Tamil Nadu already has a Disaster Management policy since 2004-05. The key components of this policy include: convergence of disaster management and development planning, formulation of disaster management plans at all levels taking into account the local conditions, fostering a culture of prevention among the communities and various organs of government through training and awareness campaigns, etc. As what is true for most cities, what remains to be done is to turn existing policies into action.

2. Improving risk information and early warning

According to the Red Cross's World Disaster Report 2009, the decline in injuries, loss of livelihoods, and deaths from disasters over the past 30 years can be attributed to the establishment and improvement of early warning systems. To be effective in Chennai, establishment and maintenance of early warning systems need to actively involve the communities at risk to facilitate public education and awareness of risks and ensure there is constant state of preparedness.

3. Building a culture of safety and resilience

To promote participation in community DRR activities, existing volunteer te ams in every ward should constantly be given encouragement to lead in coming up with and improving local disaster preparedness and mitigation measures. As an entry point to the community, the volunteer team can be trained in specific areas like early warning, emergency response, disaster education, CBDRM, etc. and the team will be the one to pass on the knowledge they gained to the other community members.

4. Reducing the risks in key sectors

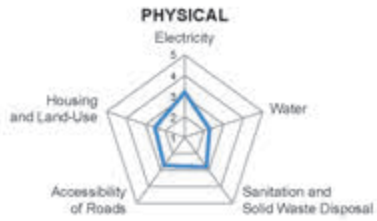
The rapid increase in urban population coupled with the unsafe construction subject cities like Chennai to greater levels of risk to life and property in the event of natural hazards like massive floods. Building codes and regulations should be strictly enforced to reduce urban vulnerability.

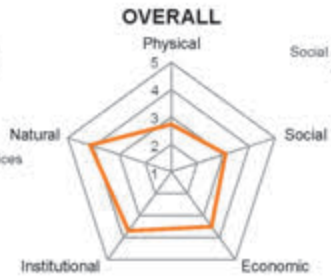
5. Strengthening preparedness for response

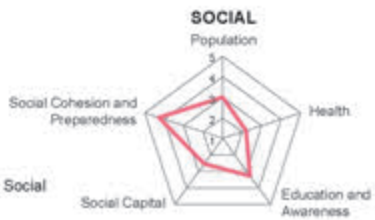
Pre-disaster preparedness plans should be periodically reviewed and updated. Conducting regular skill upgrade, strengthening of local coping mechanism, and conducting mock drills are important components of the city's preparedness strategy. Chennai's relief centers with their excellent cooking facilities and the city's good fleet of emergency response vehicles are useful assets for the city during disasters.

CHENNAI , INDIA / 2013

Chennai, formerly known as Madras, is a coastal city situated on the Bay of Bengal. It is the capital city of the state of Tamil Nadu and is the fourth largest city in India in terms of population, after Mumbai, Delhi, and Kolkata.







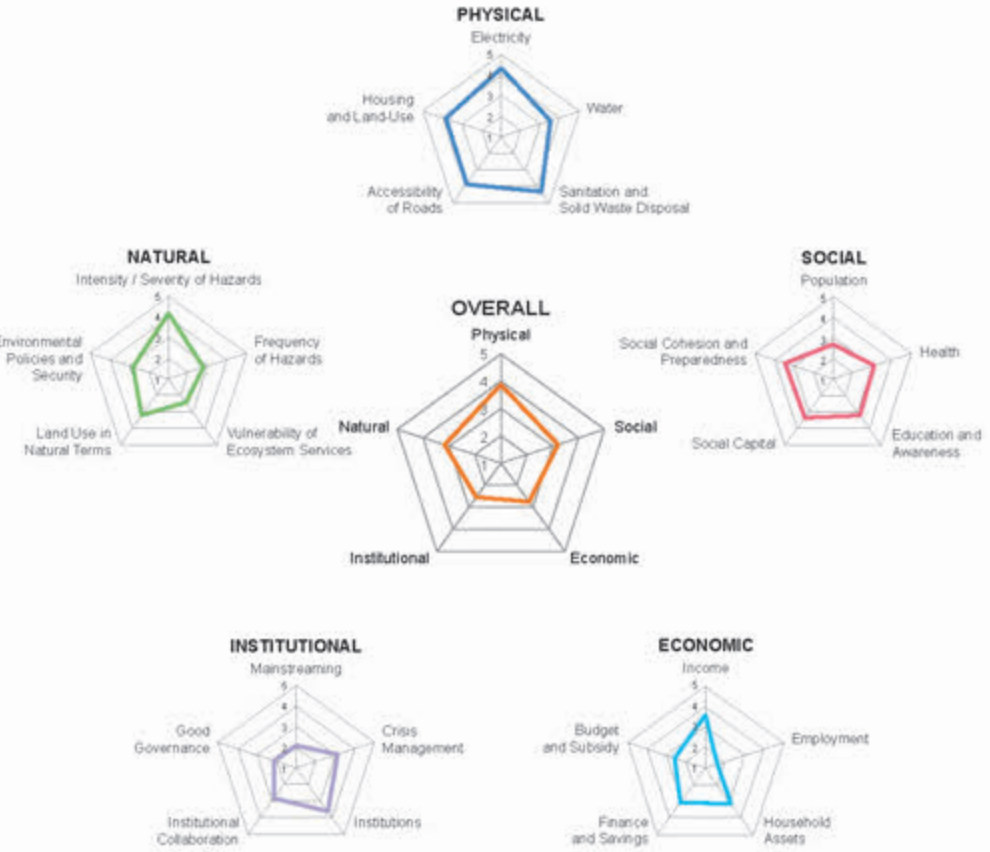
Highlights

- In 2011, the area of Chennai City Corporation was increased by 243% (from 175 sq m to 426 sq m).
- Chennai registered about 5% increase in overall CDRI (from 3.29 in 2010 to 3.44 in 2013), mainly due to increases in the Natural Dimension and Economic Dimension scores.
- There has been slight decline in the Physical Dimension. The Electricity parameter goes down by 20% and a slight decrease is seen in the Water and Sanitation parameters.
- The Social Dimension score of Chennai lowers by 24% from 2010 to 2013, the highest decrease observed among the eight cities included in this report. With the expansion of Chennai's area of jurisdiction, the Population and Health parameters declined drastically, by 39% and 55%, respectively.
- While the Economic Dimension shows positive results (up by 15% in 2013), this is mainly from improvement in only one of five parameters (Budget and Subsidy for DRR). Other areas such as Income, Employment, and Household Assets still needs attention to further produce a better Economic Dimension score.
- The Institutional Dimension also improves from 2010, because of efforts to mainstream DRR and CCA and because of the effectiveness of the city's crisis management framework. However, institutional collaboration with other organizations and stakeholders still needs to be pursued further.
- The Natural Dimension score increased by 47% from 2010 to 2013, the highest improvement observed among the eight cities. With larger city boundaries, the Intensity of Natural Hazards, Frequency of Natural Hazards, and Land Use parameters improved markedly by 53%, 64%, and 32%, respectively. This can also be attributed to reduction in frequency of flood and drought events in the recent past. What needs more attention is the compliance to environmental policies.

Source: L.vivian.richard at en.wikipedia

COLOMBO, SRI LANKA / 2010

Colombo is the commercial capital of Sri Lanka. The city has the largest and busiest seaport in the country. The city has gradually become vulnerable to heavy floods and cyclones which make roads impassable and making a large number of citizens homeless.



Policy Implications in Relation to the Hyogo Framework for Action (HFA) Priorities for Action

1. Making disaster risk reduction a priority

Even starting in 1999, Colombo had already set up a Crisis Management Committee (now known as the Emergency Management Committee). The main objectives of the committee are: to establish a system with preparedness to act immediately, efficiently, and effectively after a disaster; to establish a mechanism for reduction of damages to lives, property, and the economy; to develop skills and plan for risk reduction for multiple hazard situations; and to assess capabilities in Disaster Management and develop strategies. The city should prepare updated DRR action plans and regularly renew the commitment of support from the Central Government, NGOs, private sector, and the business community.

2. Improving risk information and early warning

Cities have considerable knowledge of the hazards to which their communities are exposed. Local governments must actively involve the residents in the design and maintenance of early warning systems. Identification of the areas affected by floods of different return periods is an important initial step. This will help to establish escape routes and locate evacuation centers. Hazard maps can be overlain on infrastructure maps and can be useful as a multi-purpose tool in land-use decision making.

3. Building a culture of safety and resilience

When disasters do not occur very frequently people tend to forget about them and their destructive impacts. City officials must make sure that public consciousness on disaster preparedness remains high all the time. This can be done through different awareness campaigns including photo exhibits on previous disasters, trainings and workshops for different sectors of society, clean-up and tree-planting activities, etc. The city should collaborate with local universities on disaster education projects.

4. Reducing the risks in key sectors

Unplanned urban development increases the vulnerability of cities like Colombo to disasters. As the commercial center of Sri Lanka, a major disaster in Colombo can lead to a disruption of the economic activity of the entire country. Colombo must therefore ensure that critical infrastructures and services always remain operational. The seriousness of the flood situation in the city has already prompted the improvement of its drainage system and road networks.

5. Strengthening preparedness for response

The city should make sure that continuous training is provided to its Search and Rescue Team, Health Team, Water/Drainage/ Rehabilitation/Transportation Teams, Social Welfare Team, Decentralized District Teams, etc. Community participation and voluntarism should also be enhanced.

COLOMBO, SRI LANKA / 2013

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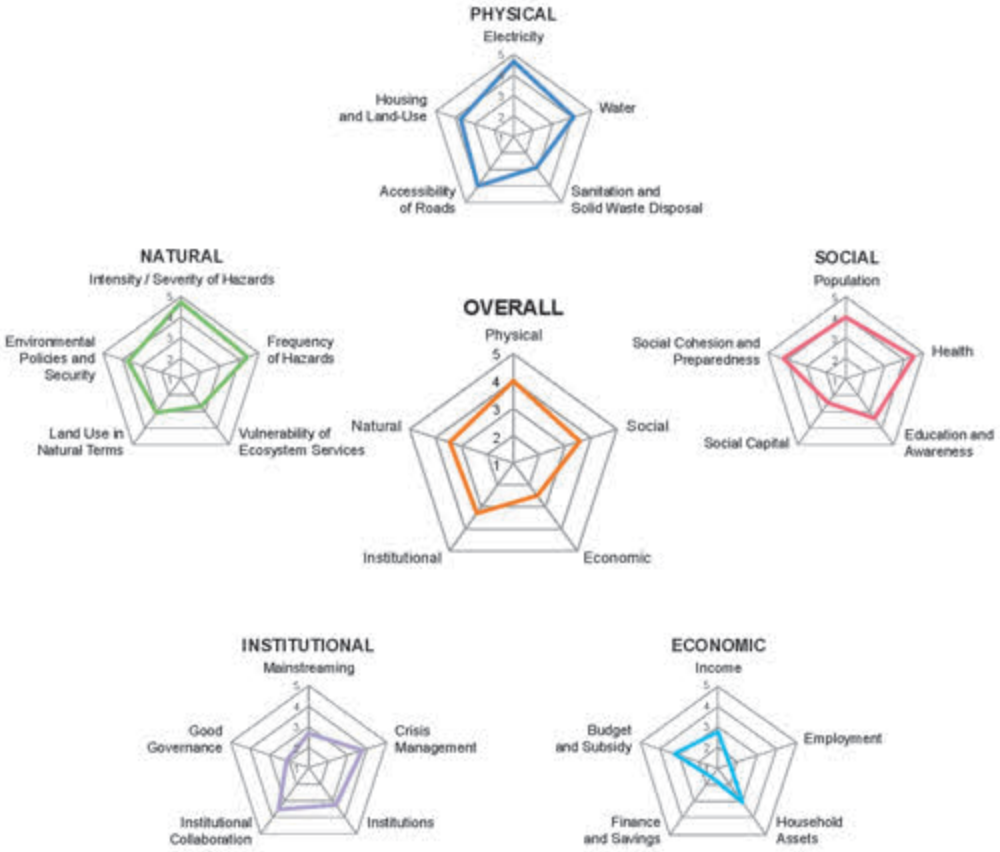


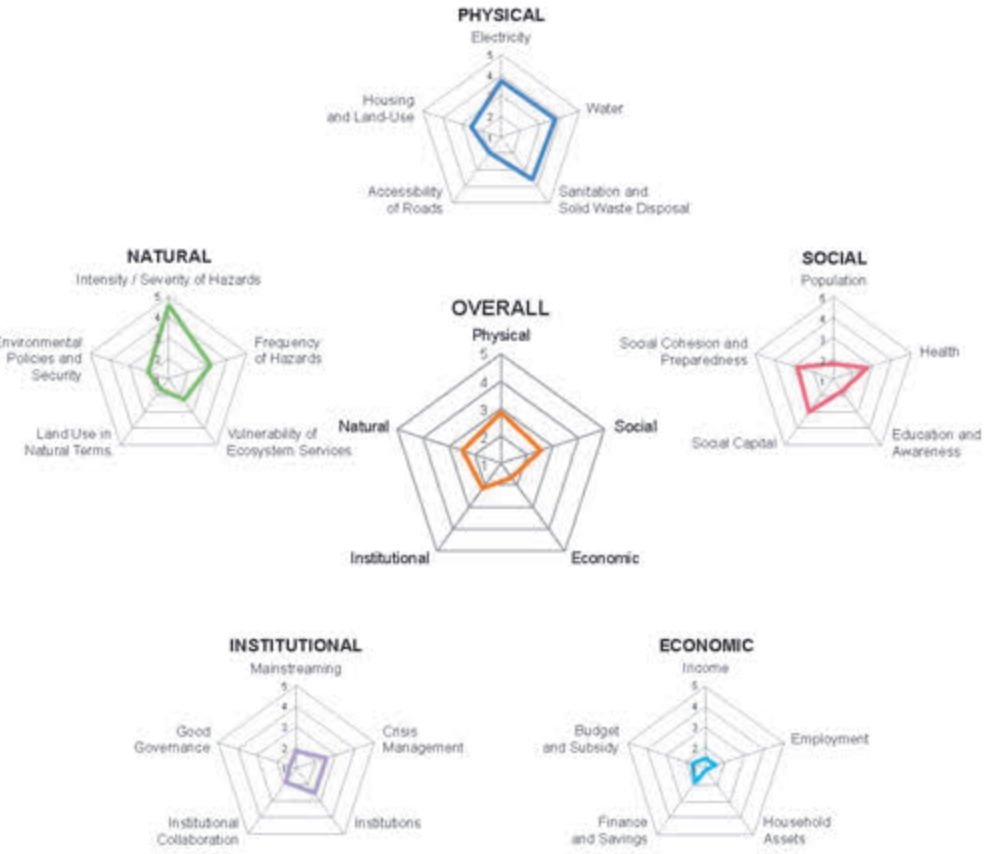
Highlights

- The 2013 CDRI of Colombo (3.37) is 7% higher than its 2010 CDRI (3.14).
- The Physical Dimension score of Colombo has improved from moderate (3.91) to high (4.02). However, the Sanitation and Solid Waste Disposal parameter decreases by 34% so possible actions to remedy this situation should be considered.
- Four out of five parameters in the Social Dimension experiences significant advance. The Social Capital parameter declined by 27% and needs to be looked into by the city.
- Out of the five parameters in the Economic Dimension, three are lower in 2013 compared to the 2010 level. The decrease is particularly pronounced in the Income and Finance and Savings parameters (24% and 50% decline, respectively).
- The Institutional Dimension score of Colombo increases by 28% from 2010 to 2013, the highest improvement seen among the eight cities in this dimension. Major contributing factors are mainstreaming of DRR and CCA and institutional collaboration which are improved by 29% and 23%, respectively.
- There is commendable improvement in the Environmental Policies parameter in the Natural Dimension. The score increased by 33%. Colombo also experienced less natural hazard events so the Natural Dimension score is raised to 3.47 in 2013 from 3.20 in 2010.

Source: Mayakaru at en.wikipedia

DHAKA, BANGLADESH / 2010

Dhaka is situated at the center of Bangladesh. Due to its good connection to five rivers and the Bay of Bengal, Dhaka has been an important hub for business. Dhaka is now one of the fastest growing mega-cities in the world. Based on the latest census the population of Dhaka is approximately 12 million.



Policy Implications in Relation to the Hyogo Framework for Action (HFA) Priorities for Action

1. Making disaster risk reduction a priority

Without adequate protection, Dhaka's resident and transient populations will be continuously exposed to risks from floods, water logging, tropical cyclones, and storm surges. The high vulnerability of Dhaka to various hazards is a serious problem that needs urgent attention. Dhaka City is yet to formulate its own specific disaster risk management plan, as it is still using the national level plans that are not very relevant to the city, given its mega-city characteristics.

2. Improving risk information and early warning

Local communities, particularly those most vulnerable to natural hazards, are central to people-centred early warning systems. Their input to system design and their ability to correctly respond to warnings can significantly reduce disaster casualties and damages. City officials must be able to simplify the hazard mapping/assessments that had been undertaken by several stakeholder agencies so they can be understood and used by ordinary citizens.

3. Building a culture of safety and resilience

Improving the residents' knowledge of threats and impacts of disasters is necessary. This can be done through regular and continuous disaster awareness programs, including emergency drills, seminars, workshops, lectures, photography and poster-making contests, radio and TV programs, newspaper articles, etc. The people should know that disaster preparedness is not the responsibility of any particular government agency or organization but is everyone's responsibility.

4. Reducing the risks in key sectors

A disproportionately large concentration of industrial, financial, institutional, education, cultural, and various public sector investments have been made in Dhaka. Considering the severity of urban floods, effective flood control measures such as retention ponds around the city, should be established. Land use should be controlled within the flood plain designated areas in order to avoid obstructions to water flow, which might lead to devastating effects.

5. Strengthening preparedness for response

Dhaka should allocate more resources for capacity building. Effective disaster response requires skilled human resources and well-coordinated efforts from all concerned stakeholders, who are knowledgeable of their roles and responsibilities. The large population of Dhaka represents a potentially large pool of emergency volunteer workers.

DHAKA, BANGLADESH / 2013

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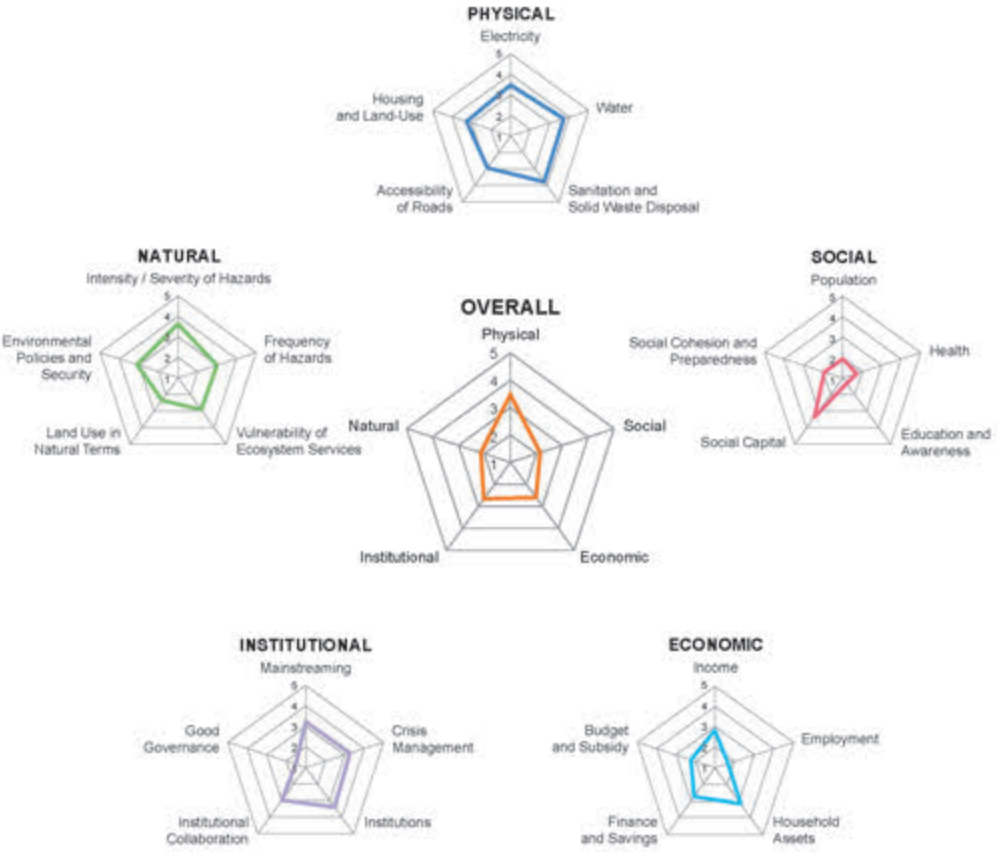


Highlights

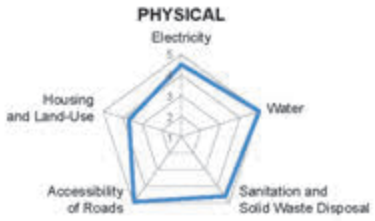
- One of the major developments that happened in December 2011 at the local government level in Dhaka is that earlier 'Dhaka City Corporation,' which used to the sole responsible local agency for the entire city, is bifurcated into 'Dhaka North City Corporation' and 'Dhaka South City Corporation.'
- In 2013, only Dhaka South responded to the CDRI questionnaire survey. However, for the purpose of analysis and comparison from 2010, this study considers Dhaka South as representative of the entire city of Dhaka.
- The 2013 CDRI of Dhaka South (2.61) is higher by 11% compared to its 2010 CDRI (2.35). This is the largest improvement in overall CDRI among the eight participating cities. However, although much improved, Dhaka South's CDRI is still lower than that of the other cities so more work still needs to be done to enhance the climate disaster resilience of the city.
- The Physical Dimension score of Dhaka South is 22% improved than that of 2010, particularly due to two parameters: Accessibility of Roads (higher by 47%) and Housing and Land Use (higher by 29%).
- For the Social Dimension, there is improvement in the Education and Awareness parameter (up by 23%) while there is decline in the Health (down by 37%) and Social Cohesion and Community Preparedness (down by 31%) parameters.

  The Economic Dimension score of Dhaka South reveals 57% increase from 2010 because of better performance in 4 out of 5 parameters: Income (higher by 87%), Household Assets (213%), Finance and Savings (46%), and Budget and Subsidy for DRR (31%).
- The Institutional Dimension score of Dhaka South is also up by 23%. Interestingly, all 5 parameters showed improvement, although at varying levels: Mainstreaming DRR and CCA (75%), Effectiveness of the City's Crisis Management Framework (29%), Effectiveness of the City's Institutions in Responding to Disasters (34%), Institutional Collaboration (61%), and Good Governance (15%).
- Three out of five parameters in the Natural Dimension report significant increases: Ecosystem Services (29%), Land Use (40%), and Environmental Policies (52%).

Source: Tanweer drmc at en.wikipedia

HUE, VIETNAM / 2010

Hue is the provincial capital of Thua Thien Hue. Between 1802 and 1945, Hue served as the imperial capital of the Nguyen Dynasty. Hue is now best known for its historic monuments, which have earned it a place in the UNESCO's World Heritage Sites. The average annual rainfall of 3,000mm makes Hue one of the wettest Asian cities.



Policy Implications in Relation to the Hyogo Framework for Action (HFA) Priorities for Action

1. Making disaster risk reduction a priority

The Vietnamese government have been paying serious attentions to flood prevention and mitigation. In November 2007, the prime minister approved the national strategy for disaster prevention and mitigation up to 2020. The strategy includes non-structural solutions for disaster prevention and mitigation, like policies to promote technological and scientific activities, international cooperation and resources mobility, and increasing community awareness, etc. Government budget is allocated to projects of disaster preparedness and mitigation and for post-disaster recovery.

2. Improving risk information and early warning

Flood hazard maps are effective tools in minimizing the flood disaster in the Huong river basin. The maps are very useful in establishing safe and fast way to evacuation areas. Non-governmental organizations play a critical role in raising public awareness of early warning systems, particularly at the community level. In addition, they play an important advocacy role to help ensure that early warning stays on the agenda of government policy makers.

3. Building a culture of safety and resilience

Hue should enhance approaches in disaster education and community awareness-raising on disaster preparedness and mitigation. Basic knowledge of disaster preparedness can be embedded in education programs at school so that young students will learn how to minimize disaster risks and how to respond to various disaster situations and can share this knowledge with their family and community. Develop training programs for people directly involved in disaster preparedness and mitigation activities, focusing on management staff, plan development staff, specialized staff, and core staff is recommended.

4. Reducing the risks in key sectors

In 2009, the theme of the International Disaster Risk Reduction Day was Safe Hospitals. In the celebration made in Hue, it was stressed that apart from causing increased suffering and loss of life, the failure of health facilities during an emergency can provoke a public outcry, especially when shoddy construction or violations of building codes are thought to be at fault. In order to prevent human loss and economic impact, everyone must work together to make hospitals/health facilities safe during emergencies. This work is not just the responsibility of health sector.

5. Strengthening preparedness for response

There are many ways to improve the disaster preparedness capacity of Hue. Activities include training for local authorities to develop disaster preparedness plans, public forums, workshops, livelihood diversification, mock drills and information exchange. The city should aim to integrate disaster mitigation into the long term development and poverty reduction plans of local communities, benefitting from the resulting synergies.

HUE, VIETNAM / 2013

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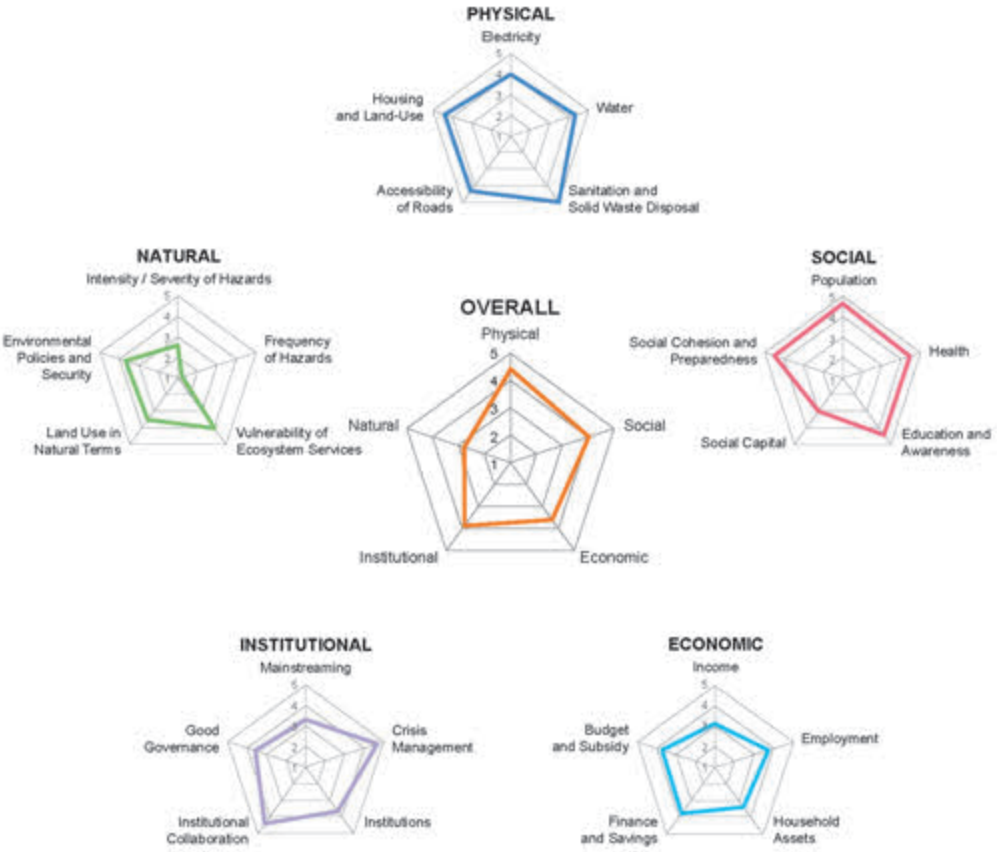


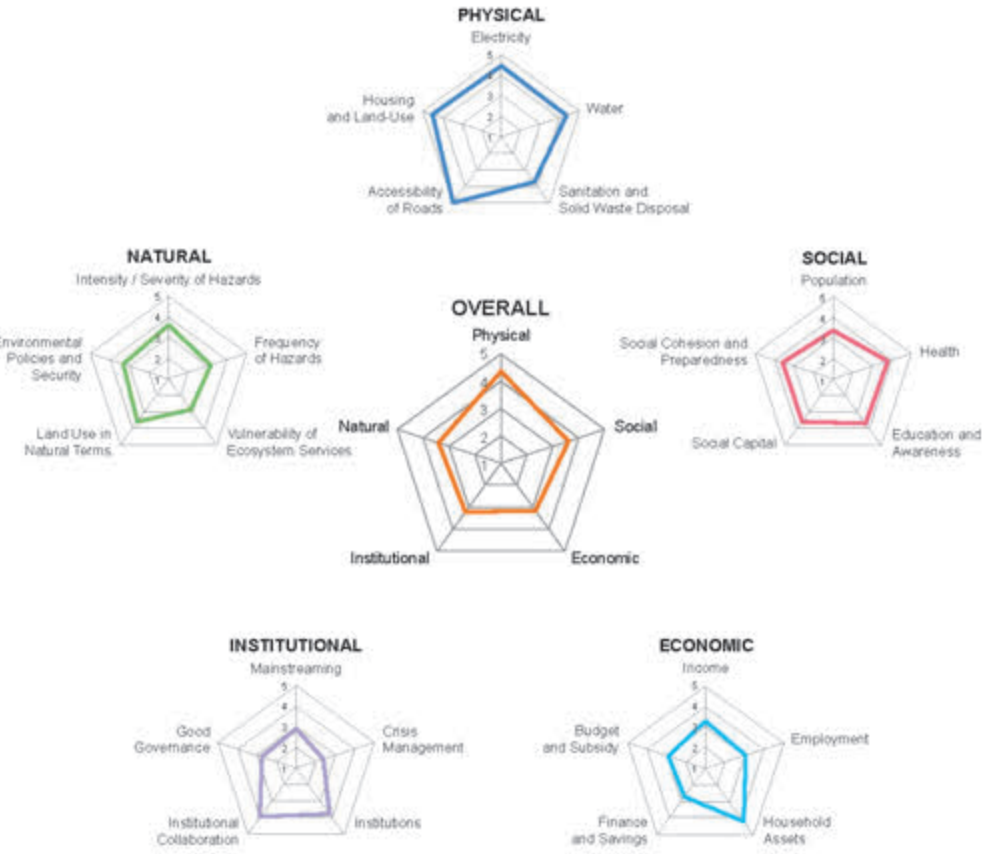
Highlights

- There has been decrease in overall CDRI of Hue from 3.87 to 3.75. Decline in social, institutional, and natural resilience and improvement in physical and economic resilience are observed.
- In the Physical Dimension, all five parameters have high score. The biggest improvement can be seen in the Housing and Land Use parameter (increased by 20% from 3.67 in 2010 to 4.40 in 2013).
- The area that needs the most improvement in the Social Dimension would be Social Capital (3.60 in 2010 but only 3.00 in 2013). This is the only parameter with a moderate score. The city should encourage more participation from the citizens in community activities as well as in the city's decision making process.
- The Economic Dimension score of Hue increased by 18% on account of two parameters in particular: Employment (30%) and Budget and Subsidy for DRR (22%).
- Overall, the Institutional Dimension score decreases by 9% from 4.31 in 2010 to 3.90 in 2013. However, the Mainstreaming DRR and CCA score improved by 25% from 2010 to 2013. But more work needs to be performed in the Effectiveness of City's Institutions in Responding to Disasters parameter as it declines by 27% in the three-year period.
- The Natural Dimension score of Hue decreased by 19%, the largest deterioration reported by any of the eight cities. The score in two parameters dropped significantly: Intensity of Natural Hazards (the score decreased by 39%) and Frequency of Natural Hazards (the 2013 score is lower by 53% compared to the 2010 score). Recently, Hue is experiencing frequent flash floods and typhoons. Therefore the city needs to further intensify its efforts in improving early warning, disaster preparedness, and emergency response.

Source: http://myeggnoodles.com/images/09/q1/hue-vietnam/hue-vietnam-7.jpg

KUALA LUMPUR, MALAYSIA / 2010

Kuala Lumpur is located in the river basin where the initial settlement was established at the confluence of two rivers, the Kelang and Gombak Rivers. The reason for the settlement at Kuala Lumpur was the mineral wealth that lay beneath the soil. The 1960s and 1970s saw a period of tremendous growth as Kuala Lumpur expanded to become a major Asian city.



Policy Implications in Relation to the Hyogo Framework for Action (HFA) Priorities for Action

1. Making disaster risk reduction a priority

Kuala Lumpur should work on incorporating DRR and CCA measures in the city's land use plans, housing policies, school curriculum, transport regulations, and environmental plans. Adequate resources should be mobilized to implement these measures at different administrative levels. Community participation in DRR efforts should also be targeted to ensure that local needs are met.

2. Improving risk information and early warning

Since floods are the most frequent hazards faced by Kuala Lumpur, flood early warning systems should be in place at the community level. The early warning system should generate and disseminate warnings in a timely manner and in a format understood by those at risk. Investments in scientific, technical, and institutional capabilities to observe, record, research, forecast, and map hazards are necessary to reduce the communities' vulnerability.

3. Building a culture of safety and resilience

Public awareness and education are necessary starting points for all DRR initiatives. School curriculum should include DRR elements and teachers should be given training in DRR. The city must also formulate public awareness strategies and engage the local mass media in increasing coverage on DRR.

4. Reducing the risks in key sectors

Being the economic center of Malaysia, disruption in the economic activities in Kuala Lumpur will affect the entire country. To protect critical facilities and to reduce damage to lives and properties, the city should strictly enforce land-use zoning and plans, building codes, and safety standards. Sectoral development plans (health, tourism, water resources, environment, industry, etc.) should incorporate DRR elements. A procedure should be in place and rigorously followed to assess the disaster risk implications of major infrastructure projects.

5. Strengthening preparedness for response

The city must ensure that at the community level disaster preparedness plans and contingency plans are in place and regular trainings and drills are held to test disaster response programs. All government and non-government organizations, personnel, and volunteers should be properly equipped and trained. Procedures to undertake post-event reviews should be available to generate feedback and facilitate continuous improvement.

KUALA LUMPUR, MALAYSIA / 2013

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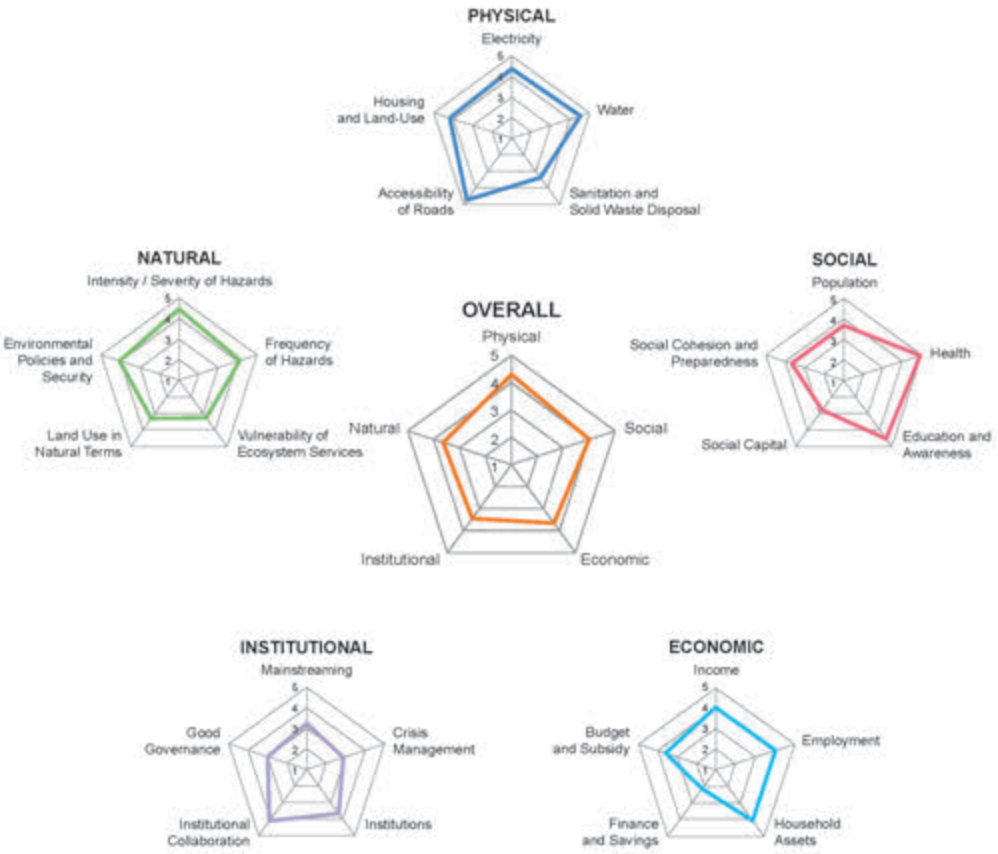


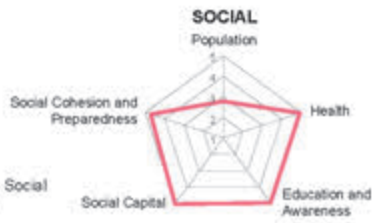
Highlights

- There has been an increase in the overall CDRI from 3.57 to 3.81 (7% improvement). Most of the scores of the five dimensions did not change significantly. Although the Physical Dimension decreases slightly, the remaining four dimensions have shown improvement.
- In the Physical Dimension, four out of five parameters have high score. Sanitation and solid waste disposal remains a problematic area that needs further attention.
- The Social Dimension score of Kuala Lumpur improves by 11% from 3.60 in 2010 to 3.98 in 2012. The Social Capital parameter score experiences a large decrease from 3.60 in 2010 to only 2.80 in 2013. The participation of citizens in community activities remains a major challenge.
- The Economic Dimension score of Kuala Lumpur increases by 15% on account of three parameters which exhibits notable improvement: Income (22%), Employment (33%), and Budget and Subsidy for DRR (23%). The city should exert effort to encourage citizens to improve their finances and savings to shield them effectively from the impacts of disasters.
- In the Institutional Dimension, the score for collaboration with other organizations and stakeholders is maintained at a high level, reflecting the numerous partnerships Kuala Lumpur has with a variety of actors in the fields of DRR and CCA. Overall, the Institutional Dimension score rises to 3.46 in 2013 from 3.26 in 2010, indicating that there is still room for further improvement.
- Four out of five parameters in the Natural Dimension exhibits remarkable change for the better. The natural hazard events Kuala Lumpur experienced in the past three years were less frequent and less severe than in previous years. The vulnerability of ecosystem services has also been addressed and environmental policies have been in place and implemented. The overall Natural Dimension score is 3.64 in 2013 and remains in the moderate range, awaiting further actions in the future.

Source: Cmglee at en.wikipedia

MAKATI, PHILIPPINES / 2010

Makati is one of the 17 local government units that make up Metro Manila. The night time population for 2008 is projected at 550,392 while during daytime is estimated to reach 3.7 million because of the constant influx of workers, businessmen, tourists, and other transient travellers.



Policy Implications in Relation to the Hyogo Framework for Action (HFA) Priorities for Action

1. Making disaster risk reduction a priority

The city is a model of urban risk reduction and has been featured in different local and international publications. Makati is fortunate to have the financial resources to fund its DRR and CCA activities. Other local government units in the Philippines and in other countries can learn from Makati's example.

2. Improving risk information and early warning

Its very high day-time population causes the city to have high vulnerability. Due to the frequency of floods and typhoons that hit the city, the city must be able to inform its residents and transients of road conditions (which ones are flooded and impassable, what are alternative routes, etc.). It helps that several TV and radio stations are giving continuous traffic advisories whenever there are typhoons and torrential rains.

3. Building a culture of safety and resilience

As a model city, Makati should regularly collate its best practices in urban risk reduction and disseminate these to other cities. These should include the various activities done by the city in observance of the National Disaster Consciousness Month every July. The city should keep up its very high literacy rate and community participation as they contribute significantly to building a culture of safety and resilience.

4. Reducing the risks in key sectors

Over-crowded housing and squatting, especially for the poor residents of the city, remain a serious problem that needs to be addressed for long-term results. Due to its very high day-time population density, Makati should be able to have good traffic management to prevent a huge number of stranded commuters. As prime properties are concentrated in the city, establishments must be encouraged to get insurance. Residents and non-residents alike must be made aware of hazard-prone areas and evacuation centers. The city should also extend, strengthen, and broaden community-based savings accumulation and income-generating activities

5. Strengthening preparedness for response

The effectiveness of the city's institutions to respond to a disaster is high, as expected of the country's premier commercial business district. Continuous training of emergency workers should be done to prepare them well as the large transient population can add overwhelmingly to their responsibilities. Makati is endowed with a lot of resources. Because of this, a wide range of opportunities are open to the city to enable it to spur further economic development and improve the total well being of its residents.

MAKATI, PHILIPPINES / 2013

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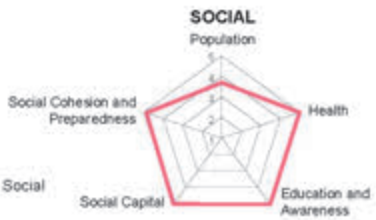
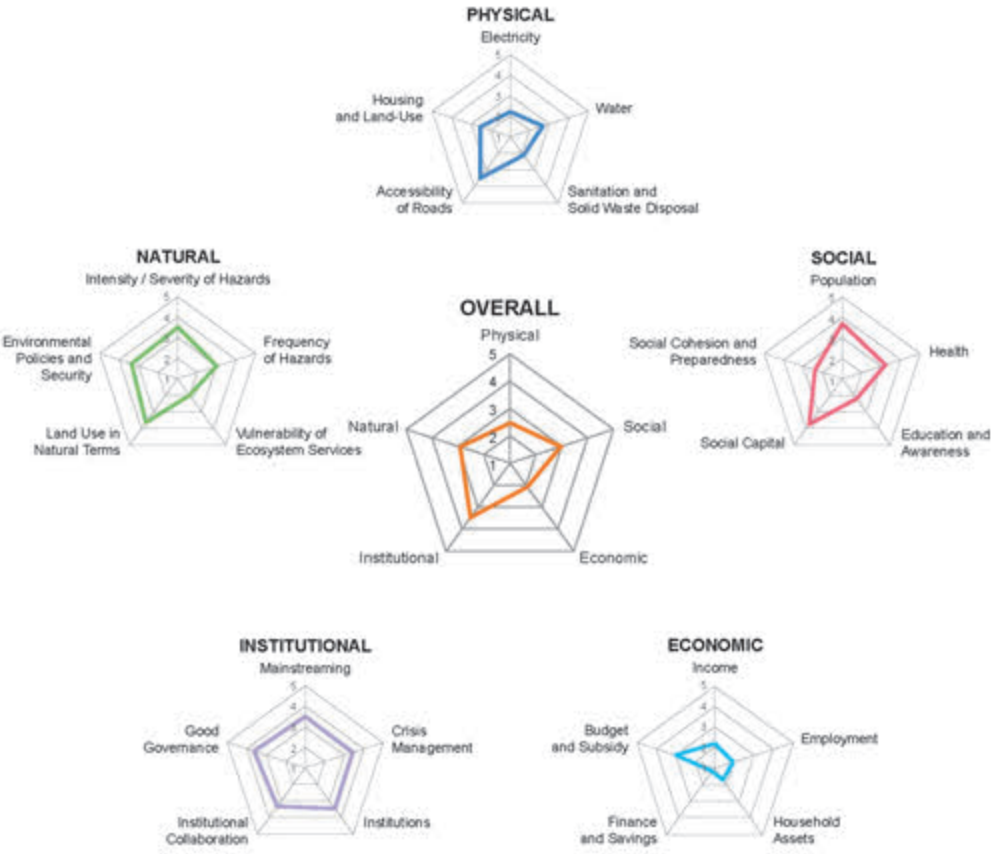


Highlights

- There is a 9% improvement in the overall CDRI of Makati, which moves it one notch up from moderate in 2010 (3.98) to high in 2013 (4.33). Makati is the only city to report improvement in all five dimensions. Among the eight cities, Makati has the highest score in the Social, Economic, and Institutional dimensions.
- Makati has a very high Physical Dimension score of 4.84 in 2013, higher by 6% from 2010. Major improvement comes from the Electricity parameter, which now has a perfect score of 5.
- Except for Population, all parameters in the Social Dimension have a high score: Health, Education and Awareness, and Social Capital each have a perfect score of 5 while Social Cohesion and Community Preparedness has a score of 4.87. Overall, Makati has an admirable Social Dimension score of 4.55 in 2013.
- The Economic Dimension score of Makati increased by 19% from 3.38 in 2010 to 4.02 in 2013. Two parameters show large increase in their score: Finance and Savings (24%) and Budget and Subsidy for DRR (23%). The federation of youth councils in Makati recently passed a resolution allocating 5% of their annual funds for DRR initiatives.
- In the Institutional Dimension, Makati is the only city with a high score in all five parameters. The biggest improvement can be observed in the parameter on the effectiveness of the city's crisis management framework, which is higher by 29% (from 3.67 in 2010, this increases to 4.73 in 2013).
- The Natural Dimension is the weakness of Makati. The city, like most parts of Metro Manila, is prone to floods and typhoons. The intensity of land use due to its very high level of urbanization has led to severe loss of urban green space. These are some areas that Makati should address in the future in order to further enhance its climate disaster resilience.

SUKABUMI, INDONESIA / 2010

Sukabumi is located in the highlands of West Java, Indonesia, about 80 km south of the national capital, Jakarta. Since 1700, Sukabumi had experienced of volcanic earthquakes from Gede Mountain and tectonic earthquakes from the Indian Ocean. Gede Mountain is an active volcano. In recent years, Sukabumi had experienced some tectonic earthquakes.



Policy Implications in Relation to the Hyogo Framework for Action (HFA) Priorities for Action

1. Making disaster risk reduction a priority

Adequate resources are needed to implement DRR plans. Since Sukabumi is short on resources, it must work on increasing the city's collaboration with internal and external stakeholders. The city must continue mainstreaming DRR and CCA in the city's land use plans, housing policies, education curriculum, transport rules, and environmental regulations.

2. Improving risk information and early warning

Identifying at-risk communities to different hydro-meteorological hazards should be a priority of the city. Sukabumi can perform this with the assistance of international, national, and local disaster management agencies; meteorological and hydrological organizations; geophysical experts; social scientists; engineers; land use & urban planners; and researchers and academics.

3. Building a culture of safety and resilience

In order to mitigate the effects of future disasters such as drought on the local communities, the city should work with community organizations to build local capacity and to raise awareness about disasters. Sukabumi can study the good practices in awareness campaigns implemented by other cities. Regular consultation with other key actors like technical experts, national agencies, and community leaders will be helpful in the process of disaster education.

4. Reducing the risks in key sectors

Vulnerability reduction can be accomplished by helping people find sustainable livelihoods. The city can provide the residents with the training, tools, and support they need to make an income, like from setting up a shop, running a small business, or growing drought-resistant crops. The people should also be encouraged to have multiple sources of income.

5. Strengthening preparedness for response

Sukabumi's emergency teams should be ready to respond to disasters in the shortest possible time. The aim should be to provide as many disaster victims as possible with basic necessities like food, water, temporary shelter, and medical treatment. It will help if the city government can adopt a community partnership-based approach, encouraging community involvement, understanding, and ownership of disaster preparedness projects. Disasters usually come without warning but sometimes their impact can be mitigated if those living in high-risk areas are prepared for what may happen. Key actors that can be included are community-based and grassroots organizations; schools; universities; informal education sector; media (print, radio, television, on-line); technical agencies with specialised knowledge of hazards; organizations and community representatives involved in front-line disaster management; international organizations involved in humanitarian affairs and disaster reduction. Officials and residents should strive to make Sukabumi safer before disasters strike.

SUKABUMI, INDONESIA / 2013

Sukabumi is located in the highlands of West Java, Indonesia, about 80 km south of the national capital, Jakarta. Since 1700, Sukabumi had experienced of volcanic earthquakes from Gede Mountain and tectonic earthquakes from the Indian Ocean. Gede Mountain is an active volcano. In recent years, Sukabumi had experienced some tectonic earthquakes.

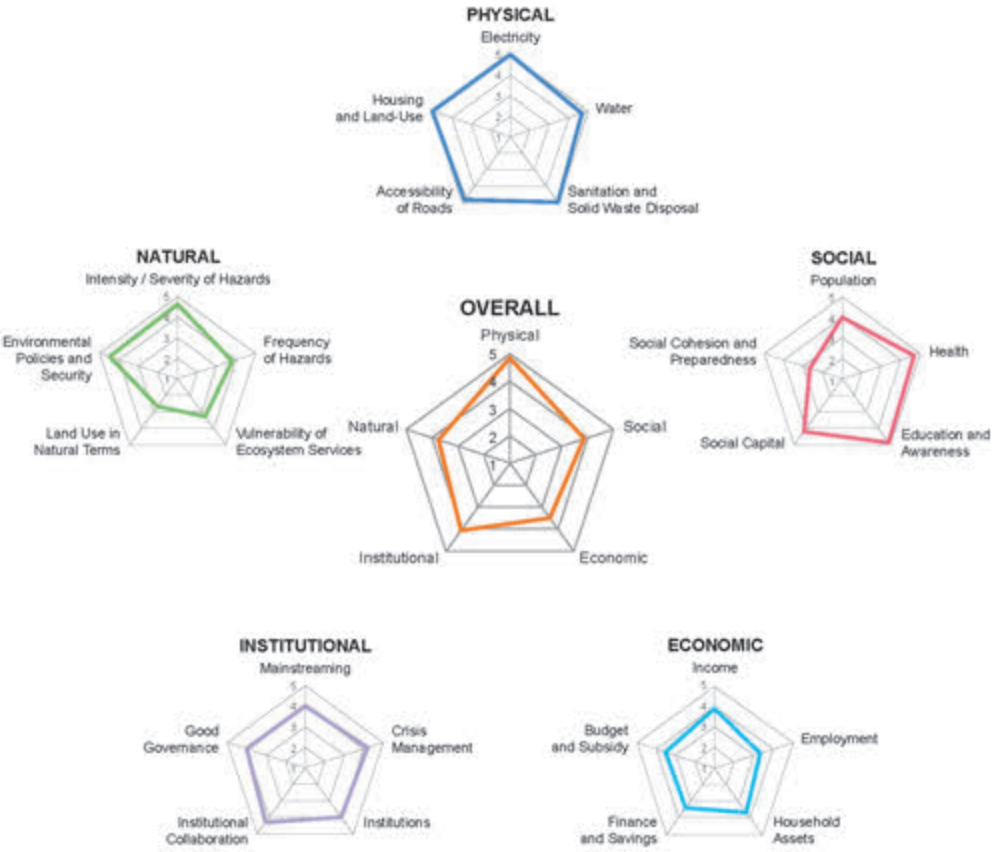
Highlights

- After Dhaka, Sukabumi exhibits the next highest improvement in CDRI, a 10% increase from 2.79 in 2010 to 3.07 in 2013. Most of the positive changes are seen in the Physical, Economic, and Natural dimensions.
- The Physical Dimension score of Sukabumi increases significantly by 29%, which is the highest improvement among the eight cities. Two parameters improved remarkably: Electricity and Sanitation and Solid Waste Disposal, which are increased by 73% and 75% respectively.
- The score in the Social Dimension changes from low (2.96 in 2010) to moderate (3.11 in 2013). The Health parameter is now 3.93, higher by 23% from the 2010 figure. The Social Cohesion and Community Preparedness parameter also increases by 22%.
- There is a 15% increase in the Economic Dimension score, largely due to enhancement in Household Assets (up by 44%) and Finance and Savings (also up by 44%). However, the overall Economic Dimension score is still low at 2.35 and this will require further attention by Sukabumi in the years to come.
- The Institutional Dimension score declined slightly by 2%. More efforts in mainstreaming disaster risk reduction and climate change adaptation are needed to enhance the climate disaster resilience of Sukabumi.
- After Chennai, Sukabumi exhibits the second highest improvement in the Natural Dimension score. The score in addressing the vulnerability of ecosystem services increases by 43%.

Source: Jarvin at en.wikipedia

SUWON, SOUTH KOREA / 2010

Suwon is the provincial capital and largest city of Gyeonggi-do, South Korea. Suwon is located at the center of the Korean Peninsula and has slowly inclined topography from northeast to southwest. The climate belongs to the Temperate Zone and the average temperature of a year is 13℃. The amount of rainfall is about 1,370 mm.



Policy Implications in Relation to the Hyogo Framework for Action (HFA) Priorities for Action

1. Making disaster risk reduction a priority

Suwon is one of the designated safe communities in Asia by the World Health Organization. It has participated in and hosted international Safe Communities conferences, where disaster preparedness and response is one of the major topics. Suwon's commitment to advance community safety promotion around the world speaks of its DRR efforts as well.

2. Improving risk information and early warning

Being a major educational center hosting 14 university campuses, Suwon has the capability to conduct advanced hazard and vulnerability mapping, as well as design early warning systems. But it must not be forgotten that early warning systems alone do not prevent hazards from turning into disasters. Early action is essential. So community participation in the establishment of the early warning system is important.

3. Building a culture of safety and resilience

Suwon became a member of CITYNET in 1991. Since then, its goal has been to play an active role in the network and, in the process, to contribute to its own aspirations of being known as an international city. It has contributed in promoting disaster education and public awareness and has produced and shared related information products.

4. Reducing the risks in key sectors

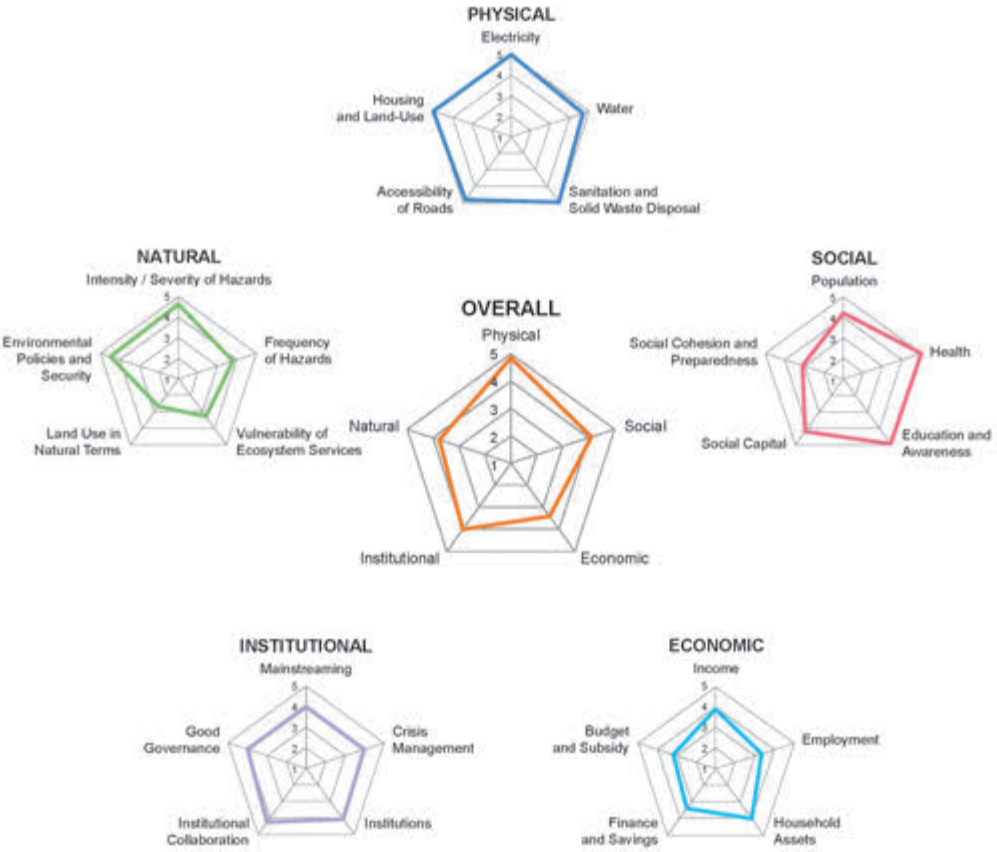
Suwon is fortunate to be safe from typhoons and tsunamis due to its inland location. But still it has to prepare for the occasional floods, like the one that occurred in 2000, which killed one person, affected thousands of people, and caused USD 10 million in financial losses. Sectoral development plans (tourism, industry, health, water resources, environment, etc.) should incorporate DRR elements.

5. Strengthening preparedness for response

Since almost 2% of Suwon's population are foreigners, the city should consider the special needs of this segment of the population for disaster information in a language they can understand. The city government should also encourage greater community participation especially in DRR-related activities. The involvement of the residents in the design and implementation of DRR programs and projects will ensure that they are properly customized to the local vulnerabilities and to the needs of the affected people.

SUWON, SOUTH KOREA / 2013

Suwon is the provincial capital and largest city of Gyeonggi-do, South Korea. Suwon is located at the center of the Korean Peninsula and has slowly inclined topography from northeast to southwest. The climate belongs to the Temperate Zone and the average temperature of a year is 13℃ . The amount of rainfall is about 1,370 mm.



Highlights

Suwon's already high overall CDRI (4.01 in 2010) improved further to 4.04 in 2013. Suwon's score in the Physical, Social, and Institutional dimensions are high while those in the Economic and Natural dimensions are moderate.

There is no change in the Physical Dimension score (4.88) of Suwon. It remains the highest score in this dimension among the eight cities. Suwon has a perfect score in the Electricity, Sanitation and Solid Waste Disposal, and Housing and Land Use parameters.

Suwon's Social Dimension score shifts from moderate in 2010 (3.87) to high in 2013 (4.10). Improvements are observed in the Social Cohesion and Community Preparedness and Health parameters.

There is a slight decrease (2%) in the Economic Dimension score of Suwon due to changes in the Budget and Subsidy parameter.

A small reduction (2%) can also be observed in the Institutional Dimension score. Despite the decrease, the score remains high at 4.04 in 2013, which is second highest among the eight cities.

Like the Physical Dimension, there is no change in the Natural Dimension score of Suwon. It remains moderate at 3.75.

Source: Jpbarrass at en.wikipedia

SUMMARY OF KEY FINDINGS

- This is the first study of its kind where the Climate and Disaster Resilience Index (CDRI) is re-assessed in the span of three years. In 2010, the comprehensive assessment was done through active participation of eight cities from Asia. The cities showed extraordinary enthusiasm in 2010 and this is once again exhibited in 2013. It has emerged that CDRI is a valuable self-evaluation tool and that CDRI should be conducted after regular intervals to track the improvements implemented by the cities.
- In 2013, on the average the cities now have high physical (4.00) and moderate social (3.57), economic (3.21), institutional (3.64), and natural (3.35) resilience. The average overall CDRI is 3.55 out of a perfect score of 5. The dimension with significant improvement is economic resilience (2.83 in 2010 to 3.21 in 2013).
- As can be expected, the cities with the highest improvement in the overall CDRI are the cities with the lowest CDRI in 2010. Dhaka and Sukabumi both post 10% increase in their CDRI while the other cities report improvement of more than 5%, except Suwon, which shows an increase of only 1% (largely because its 2010 CDRI was already high), and Hue, which is the only city to exhibit a slight decline of 3%.
- In this 2013 re-assessment of the cities' CDRI, it can be observed that the set of variables considered as the strengths and weaknesses of the cities is not the same as that in 2010. More than half of the variables rated either very high or very low are new. In a similar way, it can be seen that the variables consistently ranked either very high or very low according to their perceived importance to the cities in 2013 are completely different from those in 2010. This 2013 CDRI can be a start for a more in-depth investigation on the factors that led to the cities changing their views on their strengths and weaknesses and on the variables important to them in enhancing their climate disaster resilience.

FUTURE OPPORTUNITIES

In order to enhance their climate disaster resilience, cities can participate in a number of disaster risk reduction and climate change adaptation initiatives, one of which is the **Making Cities Resilient: 'My City is getting ready!'** campaign, launched in May 2010 by the United Nations International Strategy for Disaster Reduction (UNISDR), to address issues of local governance and urban risk. The campaign has entered its second phase (2012-2015) and will shift its focus to more implementation support, city-to-city learning and cooperation, local action planning and monitoring of progress in cities.

In addition, the campaign will continue to advocate widespread commitment by local governments to build resilience to disasters and increased support by national governments to cities for the purpose of strengthening local capacities. Develop global goals and targets that are applicable for all cities. Private sector partners will be targeted to support development of 'industry standards' and innovative urban risk reduction solutions.

Focus areas of **'My City is getting ready!'** campaign from 2012 to 2015 are as follows:

1. Know More and Commit: sign up more local governments and national government support for resilient cities
2. Invest Wiser, Build Safer: Implementation – city-to-city learning and capacity building, Handbooks and guidelines
3. Benchmarking and reporting: Local Government Self-Assessment Tool and Resilient Cities Report.
4. Emphasis on partnerships and UNISDR capacity as a platform and knowledge management hub.

More information about the campaign is available at http://www.unisdr.org/campaign/resilientcities.