

**HFA Implementation Review – Simplified Version  
for ACDR2010**

<b>Country:</b>	<b>Republic of Korea</b>
<b>Date of data filled out:</b>	<b>Nov. 25, 2009</b>
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**1 Priority for action 1:**

*Ensure that disaster risk reduction is a national and local priority with a strong institutional basis for implementation*

1-1. National policy and legal framework for disaster risk reduction exists with decentralised responsibilities and capacities at all levels

	Name	Area (please select)	Year of Enforcement
National laws for disaster risk reduction	- Disaster and Safety Management Basic Act - Natural Disaster Countermeasures Act	Response/ Recovery/ Mitigation/ Preparedness  holistic	- 2004  - 1967
National policy for disaster risk reduction	National Safety Management Basic Plan	Response/ Recovery/ Mitigation/ Preparedness  holistic	2005

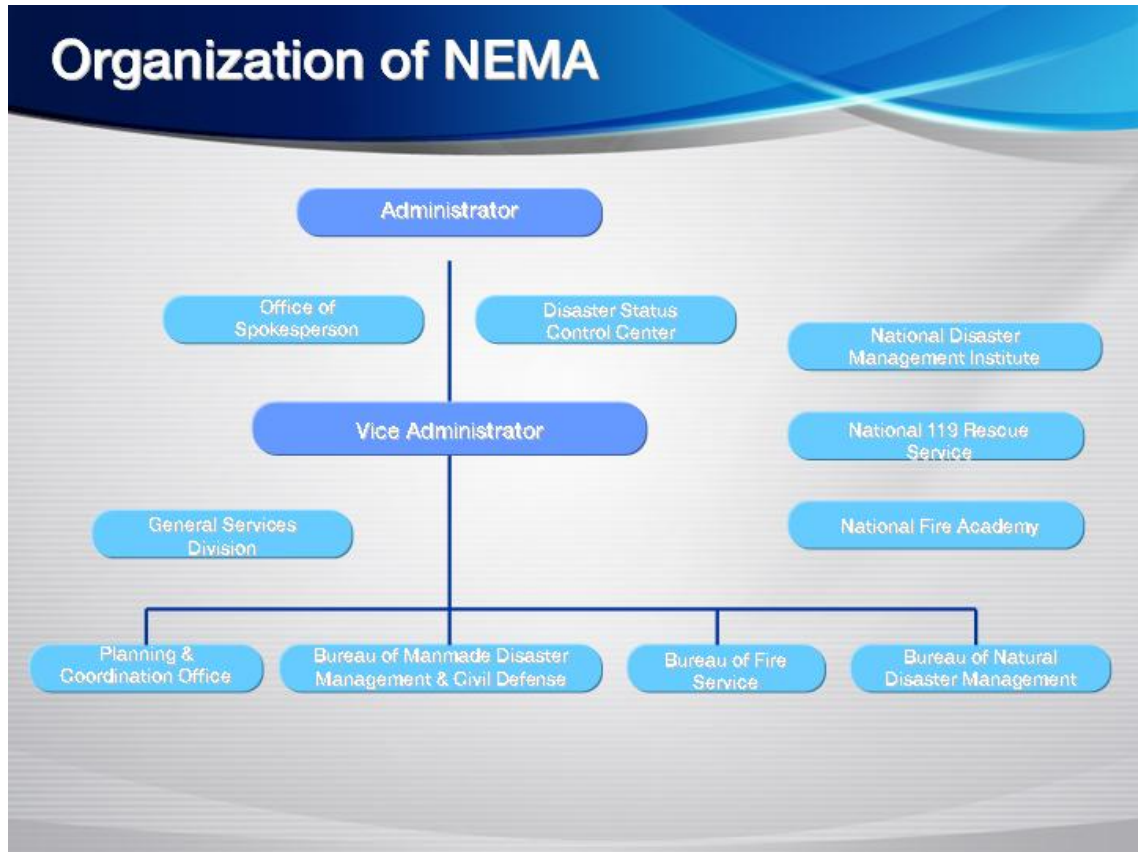
[Comments (if any)]

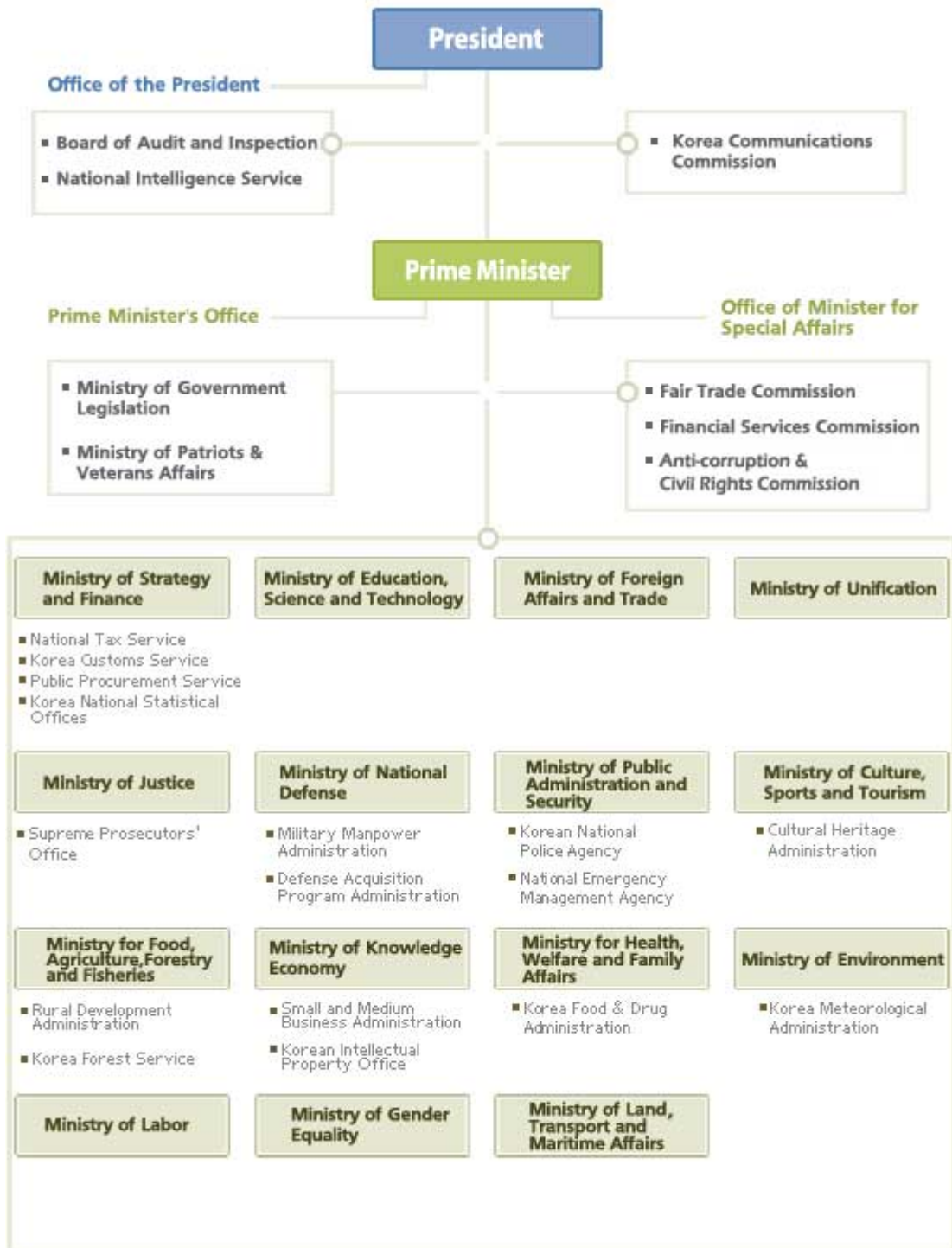
- Institutional and operational systems have been established including enforcement of the Disaster and Safety Management Basic Act, the Natural Disaster Countermeasures Act, etc., and set up of disaster management organization in central and local governments from 2004 to 2006.
- The First National Safety Management Basic Plan covering 2005~2009 has been set up to provide framework for mid- and long-term safety management system.
- Field functions have been strengthened with new policies including emergency support system for local disasters, advanced emergency response team, disaster mitigation and countermeasures task force.
- Local disaster volunteers and local disaster assistance office play important roles in strengthened field functions and promoting culture of safety.

1-2. Dedicated and adequate resources are available to implement disaster risk reduction activities at all administrative levels

	Amount (currency, year)	Main Purpose (please select)
Funds allocation for disaster risk reduction	About US\$ 2 billion per year (other emergency extra budget for recovery action)	Mitigation
	Name	Number of Staff
Department for disaster risk reduction at national Level (Please attach an organization chart)	The National Emergency Management Agency	460

[Comments (if any)]





1-3. Community participation and decentralization are ensured through the delegation of authority and resources to local levels

	System (Policy, Organization, Network, etc.)	Main Purpose (please select)
System to ensure community participation in disaster risk reduction	Korean Disaster Safety Network ( <a href="http://www.kdsn.or.kr/">http://www.kdsn.or.kr/</a> only for Korean)	Response/ Recovery/ Mitigation/ Preparedness

[Comments (if any)]

- The Korean government focuses on securing the budget for disaster mitigation activities, searching for new budget sources such as disaster fund, and inviting private capital.
- Using media disaster education and campaign are broadcasted during typhoon and rainy season. Also, May 26 is designated as Disaster Prevention Day to promote community participation.

1-4. A national multi-sectoral platform for disaster risk reduction is functioning

	Name	Main Purpose (please select)	Year of Establishment
Multi-sectoral platform for disaster risk reduction (Please attach an organization chart)	The Central Disaster and Safety Countermeasures Headquarters (CDSCH) headed by Prime Minister and operated by NEMA (attached is general chart, Not CDSCH)	Response/ Recovery/ Mitigation/ Preparedness	

[Comments (if any)]

- CDSCH can be formed with different participating agencies depends on disaster types
- In 2006, the Disaster Mitigation and Countermeasures Task Force has been established inviting private experts to survey and analyze disaster causes and to feedback what went wrong in disaster sites.
- The task force organize annual forum inviting local governments' officials and experts in private sector to find better ways to minimize disaster risks in Korea

## 2 Priority for action 2:

*Identify, assess and monitor disaster risks and enhance early warning*

2-1. National and local risk assessments based on hazard data and vulnerability information are available and include risk assessments for key sectors

	Activities	Type of disasters	Year of Completion
Development of hazard maps	hazard maps	- flood - landslide	- on going - on going

Risk assessment	local governments routine checking	- inundation - landslide	- annual
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[Comments (if any)]

- Disaster-prone areas and risky small creeks are checked and assessed regularly to minimize disaster potential and several early warning systems have been adopted against typhoon, heavy rainfall, earthquake, and tsunami using information technology.
- Since Aug. 2005, disaster-prone areas are systematically managed categorizing them with types and seriousness. Six categories are adopted as inundation area, washed-away zone, isolation area, collapse area, vulnerable facilities, and storm surge area.
- Based on the nationwide survey in 2006, 352 areas are designated as new disaster-prone areas.

2-2. Systems are in place to monitor, archive and disseminate data on key hazards and vulnerabilities

	Name	Type of disasters
Disaster monitoring system	- automatic rainfall warning system	- flash flood
Disaster Information system (archive & dissemination of data)	- the national disaster management system (disaster data compilation computer system)	- holistic

[Comments (if any)]

- Using IT and communication infrastructures, it is possible to disseminate disaster information to the people rapidly and efficiently.
- Since May 2005, with the support from the private telecommunication companies, real-time disaster information can be disseminated to more than 30 million citizens, if necessary, by so-called Cell Broadcasting Service.
- Also, since August 2007, DMB has been recognized as a new media that can be utilized to deliver disaster information.
- To monitor flash flood in mountainous area and give early warning in downstream, automated rainfall warning systems are established in national parks and other attractive gorges.

2-3. Early warning systems are in place for all major hazards, with outreach to communities

	Description	Type of disasters
Disaster warning system (information flow)	- CBS (cell broadcasting service) - automatic verbal notification system -DMB	- holistic
Early warning and evacuation system	- not actively enforced but possible for landslide, flood, etc.	

[Comments (if any)]

2-4. National and local risk assessments take account of regional / trans-boundary risks, with a view to regional cooperation on risk reduction.

	Description	Type of disasters
Regional (trans-boundary) information sharing system for disaster monitoring and early warning	<ul style="list-style-type: none"> <li>- In 2005 capacity assessment system regarding early warning has been adopted in 250 local governments. The assessment system covers items on disasters response organization, mitigation activities, response capacity, recovery processes, etc.</li> <li>- Real-time disaster information dissemination system is in operation against tsunami, flood, typhoons, and other common disaster types in Korea.</li> </ul>	tsunami, flood, typhoons, and other common disaster types

[Comments (if any)]

### 3 Priority for action 3:

*Use knowledge, innovation and education to build a culture of safety and resilience at all levels*

3-1. Relevant information on disasters is available and accessible at all levels, to all stakeholders (through networks, development of information sharing systems etc)

	System, Activities	Type of disasters
Public awareness on disasters and disaster risks	<ul style="list-style-type: none"> <li>- The National Disaster Management Institute was established in March 2006 to provide various education opportunities and disaster information for citizens and officials in class and virtual learning.</li> <li>- Also, disaster simulation facilities were constructed so that people can experience the power of natural disasters.</li> </ul>	- holistic

[Comments (if any)]

3-2. School curricula, education material and relevant trainings include disaster risk reduction and recovery concepts and practices

Items	
School curricula include disaster risk reduction concepts	Yes/ No/ Other (only small portion, education supplementary materials were developed)
Educational materials for learning/teaching disaster risk reduction	For informal education
Training program for learning disaster risk reduction	Yes

[Comments (if any)]

- To promote and strengthen disaster risk reduction concept, various school contents are under development covering subjects such as fire science and disaster management science.
- The number of undergraduate department in college and university level is increasing. Also graduate programs covering disaster management subject are more common compared to previous years.
- However, the infrastructure and backup system for sophisticated school curricula are rather weak. It is necessary for the central government help and lead in developing standard disaster education textbooks setting up the identification of fire science and disaster management science.

3-3. Research methods and tools for multi-risk assessments and cost benefit analysis are developed and strengthened

	Description
Development of research methods and tools for multi-risk assessment	<ul style="list-style-type: none"> <li>- The National Institute for Disaster Prevention under the National Emergency Management Agency is the leading research institution promoting disaster risk reduction technologies and policies.</li> <li>- More than ten specific research projects are executed annually with the pure research fund about US\$ 6 million.</li> <li>- To outreach and promote other institutions' involvement in disaster risk reduction technology and policy, extra research funds exceeding US\$ 15 million are distributed annually.</li> <li>- The topics of the research are broad including socio-economic impact of various disasters, automatic assessment system for tropical cyclone impact, etc.</li> </ul>

[Comments (if any)]

3-4. Country-wide public awareness strategy exists to stimulate a culture of disaster resilience, with outreach to urban and rural communities

	Name	Year
Country-wide public awareness strategy	<ul style="list-style-type: none"> <li>- To promote public awareness and simulate a culture of safety, the Safety Management Charter has been declared in 2004. It declares that the safety is one of the most important issues in the modern society and several key factors that the government and the people should emphasize for disaster risk reduction.</li> <li>- Also, every 4th day of each month is designated as the Safety Checking Day and public campaigns are done for various seasonal disaster types.</li> <li>- Korea Disaster Safety Network has been formulated involving thirteen key players in voluntary organizations and NGOs such as the Korea Red Cross in Dec. 2004.</li> </ul>	

[Comments (if any)]



**4 Priority for action 4:**

*Reduce the underlying risk factors*

4-1. Disaster risk reduction is an integral objective of environment related policies and plans, including for land use natural resource management and adaptation to climate change.

Environmental related policies include disaster risk reduction concepts	Yes
National land use planning include disaster risk reduction concepts	Yes

[Comments (if any)]

- Disaster Mitigation Pre-Consideration Regulation has being enforced since August 2005 to predict and analyze any disaster potential due to changed land use and development.
- Also, disaster standards are being revised reflecting climate change in Korea and natural disaster comprehensive plans are being updated accordingly.
- Coping with climate change, seven national strategies are proposed as follows;
  1. Study on the mechanisms between climate change and disaster occurrence
  2. Establishment of national goal and mid- & long-term strategy for disaster mitigation
  3. Establishment of holistic disaster response system in national level
  4. Establishment of improved recovery system for recurrent disasters
  5. Establishment of infrastructure such as disaster industry, education, BCP (Business Continuity Planning), etc. against mega-disasters
  6. Strengthening vulnerable disaster management system with climate change
  7. Reestablishment of disaster prevention standards with climate change

4-2. Social development policies and plans are being implemented to reduce the vulnerability of populations most at risk

Social development policies include disaster risk reduction concepts	Yes
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[Comments (if any)]

- Complex disasters are increasing in Korea due to land use densification and underground space due to urbanization.
- Emerging risks also need to be tackled which can arise with changes in living patters.

4-3. Economic and productive sectorial policies and plans have been implemented to reduce the vulnerability of economic activities

Economic and productive sectorial policies include disaster risk reduction concepts	Yes
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[Comments (if any)]

- Natural disaster damages in small and medium businesses (SMB) are about US\$ 120 million annually in Korea from 2001 to 2006.
- To promote autonomous activities and countermeasures for natural disasters by SMB themselves, the Act for Support for Enterprises' Voluntary Disaster Mitigation Activities has been established in 2007.

- The Act will provide guidelines for SMB disaster management standard in mitigation, response, and recovery activities.

4-4. Planning and management of human settlements incorporate disaster risk reduction elements, including enforcement of building codes

Planning and management of human settlements include disaster risk reduction concepts	Yes

[Comments (if any)]

- To secure disaster-free settlement and enhance building code considering changing disaster factors, following items are currently reviewed and implemented.
  1. Establishment of design code for disaster-prevention facilities considering river basin characteristics
  2. Strengthening of design code considering abnormal climate
  3. Reinforced construction for rainfall infiltration and detention facilities

4-5. Disaster risk reduction measures are integrated into post disaster recovery and rehabilitation processes

Disaster risk reduction measures are integrated into post disaster recovery processes	Yes

[Comments (if any)]

- Disaster management is a cycle connecting disaster recovery and disaster mitigation phases.
- To block fundamental disaster factors and to enhance feedback functions in disaster management cycle, following policies are proposed and enforced.
  1. Vitalization of the Disaster Mitigation Pre-Consideration Regulation
  2. Strengthening assessment system to promote disaster management capacity of local governments and expansion of relevant authorities and organization.
  3. Reflecting local disaster risks and consequences, reduction capacity, and safety factors to recovery planning

4-6. Procedures are in place to assess the disaster risk impacts of major development projects, especially infrastructure

Procedures to assess the disaster risk impacts of major development projects	Yes

[Comments (if any)]

- Disaster Mitigation Pre-Consideration Regulation has being enforced since August 2005 to predict and analyze any disaster risk impact due to development.
- Also, five-year water and wind related disaster mitigation comprehensive plans for each local government have been established reflecting local risks.

**5 Priority for action 5:**

*Strengthen disaster preparedness for effective response at all levels*

5-1. Strong policy, technical and institutional capacities and mechanisms for disaster risk management, with a disaster risk reduction perspective are in place

	Policy/ Mechanisms
Policy and mechanisms for disaster risk management (ex. task force for disaster risk management)	<ul style="list-style-type: none"> <li>- Total of 63 laws and regulations related to disaster management have been amended and newly established. For instance, the Water and Wind related Disaster Insurance Act provides legal background for disaster insurance program and amended Natural Disaster Countermeasures Act provides legal base for the Disaster Mitigation Pre-Consideration Regulation.</li> <li>- Also, earthquake disaster prevention comprehensive countermeasures was proposed with other programs such as disaster management system assessment program, safety incident forecast program for citizens, pan-governmental disaster management network, integrated radio communication system, and etc.</li> </ul>

[Comments (if any)]

5-2. Disaster preparedness plans and contingency plans are in place at all administrative levels, and regular training drills and rehearsals are held to test and develop disaster response programmes

	Name	
Disaster preparedness plans	- National Safety Management Action Plan	
Disaster contingency plans	same	
		remarks
National level disaster management drills	(*) Regularly conducted ( ) Periodically conducted ( ) not conducted	
Local level disaster management drills	(*) Regularly conducted ( ) Periodically conducted ( ) not conducted	

[Comments (if any)]

- The Safe Korea Exercise (SKX) is performed every year with support from the civil society, the government, and the military.

- Through this exercise the effectiveness of emergency response manuals are reviewed and cooperation systems are checked among 370 disaster authorities to strengthen disaster preparedness.
- Two types of exercise are performed.
- One is selection and concentration exercise and the other is focusing on localized disaster exercise. The former one is to select any specific large-scaled disaster such as typhoon, earthquake, and explosion and perform drills against the disaster. The latter one is to reflect local characteristics based on the previous historical disaster types.

5-3. Financial reserves and contingency mechanisms are in place to support effective response and recovery when required

Items	
Financial reserve for disasters	Yes (more than US\$ 1 billion, 0.08% of local income tax should be reserved by law in each regional government)
Compensation for disasters	Yes (Name of system: Disaster Relief Act)
Insurance for disasters	Yes (Name of system: Wind- and water-related disaster Insurance)
Tax reduction or exemption	Yes (Name of system: disaster tax reduction policy)

[Comments (if any)]

- About US\$ 5.2 billion are invested annually for mitigation activities in Korea.
- For the recovery cost, however, about US\$ 6.7 billion are spent every year.
- When a disaster happens, reserved funds are allocated based on the recovery guidelines.
- It takes about two weeks to transfer the money to the affected people's bank accounts and more time is needed to secure recovery budget for public facility recovery.

5-4. Procedures are in place to exchange relevant information during hazard events and disasters, and to undertake post-event reviews

Items	
Procedures for exchanging relevant information during disasters (Knowledge compilation of lessons learned from previous disasters)	Yes

[Comments (if any)]

- There are assessment system for disaster management organization and tasks after major disasters in Korea.
- Assessment criteria are developed to maximize assessment processes.
- Also, feedback systems are secured through best practice sharing and public notification.
- Financial incentives are introduced and practiced for local governments.