

Policies and Actions for Achieving Implementation of HFA in Korea

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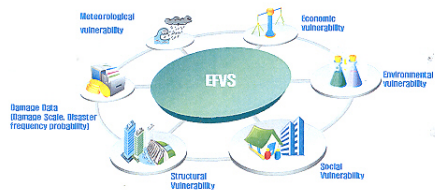
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Implementation of HFA in Korea

1 Establishment of Risk Prediction System

- Development of national standard disaster scenario
- Set up of natural hazard and disaster risk prediction system
 - Identify local vulnerability → Priority of investment and measures
- Vulnerability assessment system for abnormal flood

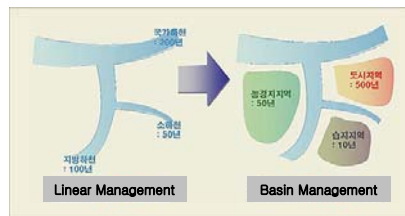


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Implementation of HFA in Korea

2 Linking Land Development Plan

- Linear flood control by levee ⇔ Area flood control by basin
 - Concept change focusing on regional flood safety



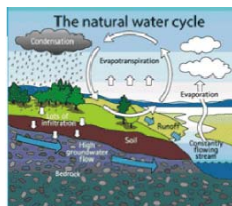
- Linking disaster policy to land and urban development
 - Fundamental measures through relocation from flood-prone areas
 - Housing environment improvement through re-development

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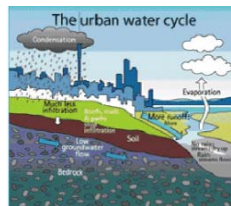
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3 Establishment of Nature-friendly Disaster Prevention

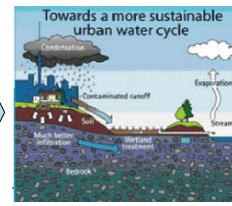
- Flood hazard reduction caused by increased impervious areas
 - Restoration of nature-friendly water cycle system



Natural Water Cycle:
Rain-Evaporation-
Infiltration-Runoff



Urban Water Cycle:
Rain-Direct Surface
Runoff



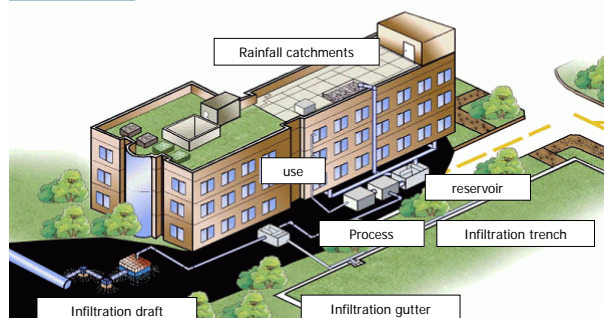
Restored Water Cycle:
Rain-Evaporation-
Infiltration-Runoff

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3 Establishment of Nature-friendly Disaster Prevention

- Supply and expansion of rainfall runoff reduction system such as rainfall detention and infiltration facilities

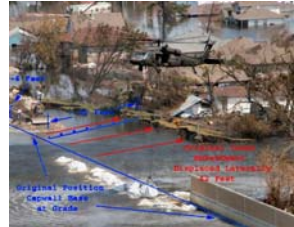
Rainfall Infiltration New Town Schematics



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3 Establishment of Nature-friendly Disaster Prevention

- Higher Levee → Higher Risk
 - Lessons from Hurricane Katrina
- Strengthening of Land Constitution
 - Not fight against nature
 - Change the way of thinking
 - But cope with nature
 - Adaptation technology development



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4 Resetting the Design Codes for Prevention Facilities

- Changed extreme rainfall history due to climate change

From design code based on previous history
→ To improved design code for future extreme events

- Increased rainfall intensity
- Increased local heavy rains
- Strengthened typhoon power due to sea surface temperature change
- Increased flood level in downstream due to sea level rise

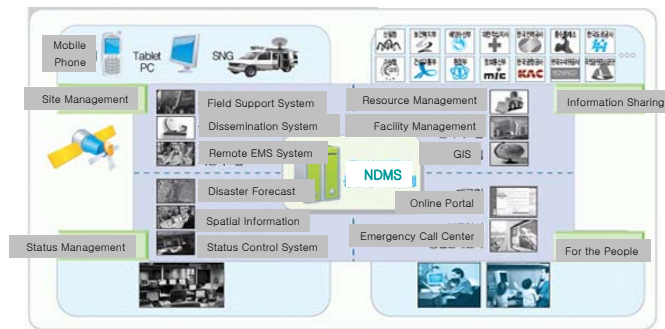
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5 Development of Disaster and Safety Technology using IT

- NDMS (National Disaster Management System)

Comprehensive disaster information system for disaster prevention, preparedness, response, and recovery



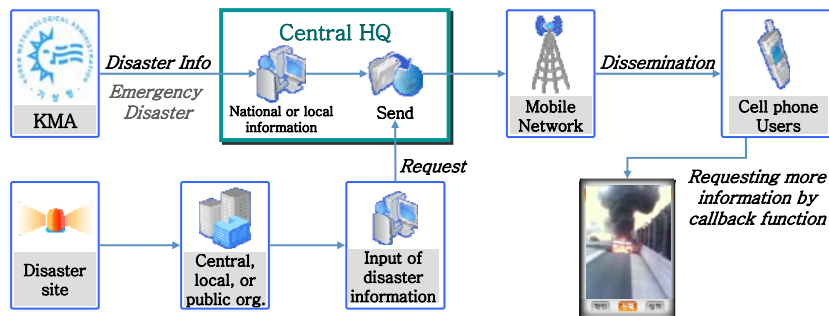
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5 Development of Disaster and Safety Technology using IT

- CBS: Cell Broadcast Service for Disaster Information

Sending disaster information to cell phone users in disaster area



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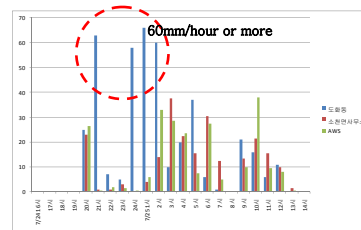
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5 Development of Disaster and Safety Technology using IT

- Automated Rainfall Warning System

Measurement in upstream for the warning in downstream in mountainous area

Case study in Bongwha County in 2008

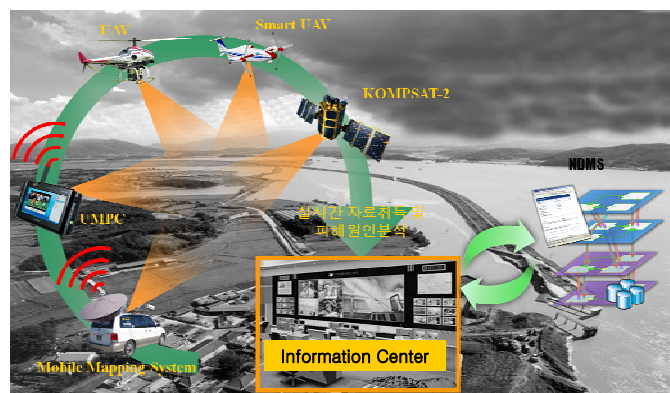


The location of the system is higher than that of AWS and the gap of measurement is not small.

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5 Development of Disaster and Safety Technology using IT

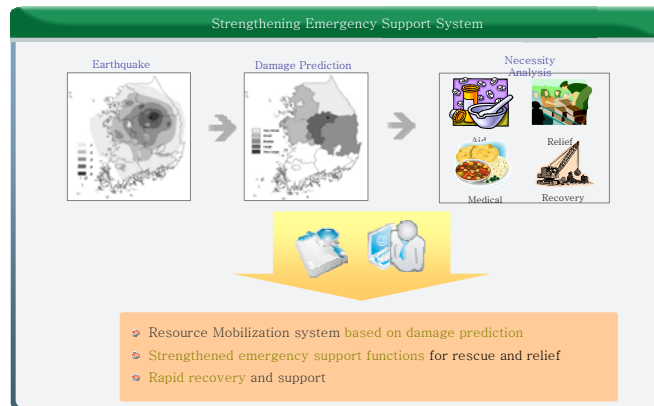
- Automated Disaster Damage Survey System



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5 Development of Disaster and Safety Technology using IT

- Earthquake Response System

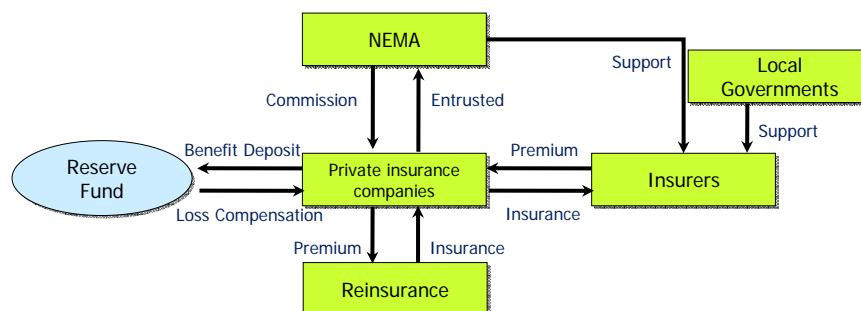


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6 Promoting Natural Disaster Insurance Program

- Emergency Relief → Emergency Relief + Insurance Program (2006)
 - House, greenhouse, barn → small business, shop, factory
- Program management and operation
 - Management: NEMA, Operation: Private insurance companies



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7 Strengthening Emergency Rescue and Relief System

- Preparing for extreme situation



8 Strengthening Climate Change Adaptation including Health

- Against heat wave and tropical epidemics with relevant Ministries
- Heat wave early warning, emergency medical services, etc.

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9 Promoting Voluntary Participation of Civil Society

- Supporting education and participation programs
 - Vitalization of local voluntary organizations
 - Disaster and safety education program development



4. Conclusions

• Natural disasters may be inevitable

- Expecting increased natural disasters in the future



Establishment of Disaster-Resilient Society against Emerging Risks

- Reset the design code
- Strengthening of land constitution by changing way of thinking.
 - Nature-friendly disaster prevention
 - Adaptation of high technology

Invitation to the 4thAMCDRR

Main Theme

“Disaster Risk Reduction through Climate Change Adaptation”

Necessity

- Urgent need for international cooperation system considering emerging disasters due to climate change
- Need to propose Asia's initiatives for climate change adaptation and disaster risk reduction considering vulnerabilities in our region
- Need to establish tangible and practical strategies for disaster risk reduction in our region to share information and technologies for climate change adaptation

Invitation to the 4thAMCDRR

Background

- Need for International Responses against Climate Change
- Biannual AMCDRR since 2005 for International Cooperation
- Confirmed Korea as the 4th Host during the 3rd conference in Malaysia 2008

Overview

- Event: The 4th Asian Ministerial Conference on Disaster Risk Reduction
- Date: October 25 (Mon.) ~ 28 (Thur.), 2010
- Venue: ConvensiA, Songdo Incheon, Republic of Korea
- Participants: 800 (Ministers from 62 States and UN Agencies)
- Host: Korea NEMA & UN ISDR

Thank you~!

