

Damage Assessment in Natural Disaster

– Compare Korea with America –

Cheon Jik Bae

When a natural disaster occurs, there are to be occurred lots of disaster victims and they request government for many kinds of helps, and than government officers have to assess the damages which are reported by the victims. In these cases, there are many different type of damage assessment in many countries. The purpose of this paper is to know the important of damage assessment in the natural disasters, how to assess the damage. So I compare korea assessment methods and america's. And then let me find out different parts, let me know results.

key word: disaster theory, damage assessment, natural disaster

I . Introduction

One of the most important elements of a county's response to a disaster is damage assessment. This process is essential in determining what happened, what the effects are, which areas were hardest hit, what situations must be given priority and what types of assistance are needed. Emergency response can be more effective, equipment and personnel can be better used, and help can be provided quicker if a thorough damage assessment is performed.

In the aftermath of a disaster, both public and private non-profit and individual damage assessments must be performed, because of the corresponding types of Government's assistance available. Each type of assessment is designed to quantify the eligible amounts of damages a community incurred.

The purpose of this paper is to know the important of damage assessment in the natural disasters, how to assess the damage. So I compare Korea Assessment methods with America's.

And the processes of this paper are as follows:

First of all, let me know disaster theory. The second, let me analyze the damage assessment

between Korea and America including process. Finally, let me know the results.

II. Disaster Theory

A disaster is "a natural or human-caused event, occurring with or without warning, causing or threatening death, injury or disease, damage to property, infrastructure or the environment, which exceeds the ability of the affected society to cope using only its own resources". Disaster can be natural(arising in the environment and outside our control) or human-caused(from identifiable human actions, directly or indirectly, deliberate or not). often disasters such as famine or drought have interacting human and natural causes.

Sudden disasters can lead to emergency: an unforeseen event that calls for immediate measures to minimize its adverse consequences. Slow onset disasters result when the ability of people to support themselves, and sustain their livelihoods, slowly diminishes over time. Such disasters may also be aggravated by ecological, social, economic and political conditions. Which events qualify as 'disasters' is a social issue.

It is not true that disasters are entirely unpredictable. Earthquakes and typhoons occur mostly in places with a known history of such events. Mudslide may occur in uninhabited areas; but when there are homes in their path they can become disasters. Hazards are threats to life, well-being, property and/or the environment. Hazards result from extreme natural processes, technological developments, and various forms of social exclusion. They are risks that can be described in advance.

Disaster management encompasses all aspects of planning for and responding to disasters, including hazard analysis, vulnerability reduction (preparedness), prevention, mitigation, response, recovery and rehabilitation. It may refer to the management of both the risks and consequences of disasters. Contingency planning relates to events, which may or may not occur, in which objectives and scenarios are agreed, managerial and technical actions defined, and potential responses put in place to prevent, or respond to an emergency situation. Mitigation is action to reduce the consequences of a disaster. While it may not be possible to prevent all disasters, the effects can be modified or reduced if appropriate steps are taken.

Disaster management is a recognised dimension of government responsibility. Many have permanent structures, at national, regional and local level, set up specifically to manage disasters due to natural or other causes.

- Establish a permanent disaster management line function assigned to a senior post – director or higher (currently Director Health Care Support)
- Create a post of Assistant Director to head a “Disaster Unit” with full-time responsibilities for disaster planning and management, which would include:
 - Develop and maintain a written and regularly updated Disaster Plan
 - Set up and run a disaster operations room and team that can be activated at short notice
 - Establish a central epidemiological and administrative data facility and functional communications network with centre and periphery
 - Network with key officials, other departments, NGOs, and with Disaster structures at all levels of government
 - Plan health/welfare scenarios for likely or predictable disasters
 - Train and evaluate for disaster readiness, and advocate for prevention, especially reductions in vulnerability and risk.

Disaster manage phases are as follows:

- Mitigation–Deciding what to do where a risk to the health, safety, and welfare of society has been determined to exist; and implementing a risk reduction program;
- Preparedness–Developing a response plan and training first responders to save lives and reduce disaster damage, including the identification of critical resources and the development of necessary agreements among responding agencies, both within the jurisdiction among responding agencies, both within the jurisdiction and with other jurisdictions;
- Response–Providing emergency aid and assistance, reducing the probability of secondary damage, and minimizing problems for recovery operations; and
- Recovery–Providing immediate support during the early recovery period necessary to return vital life support systems to minimum operation levels, and continuing to provide support until the community returns to normal.

This paper focus on damage assessment in natural disaster.

The Damage Assessment is to encourage explicit consideration of natural-hazard related risks in assessing everything which is damaged materials in hazard-prone areas between Korea and America.

III. Compare Korea's Damage Assessment with America's

1. Damage Report systems

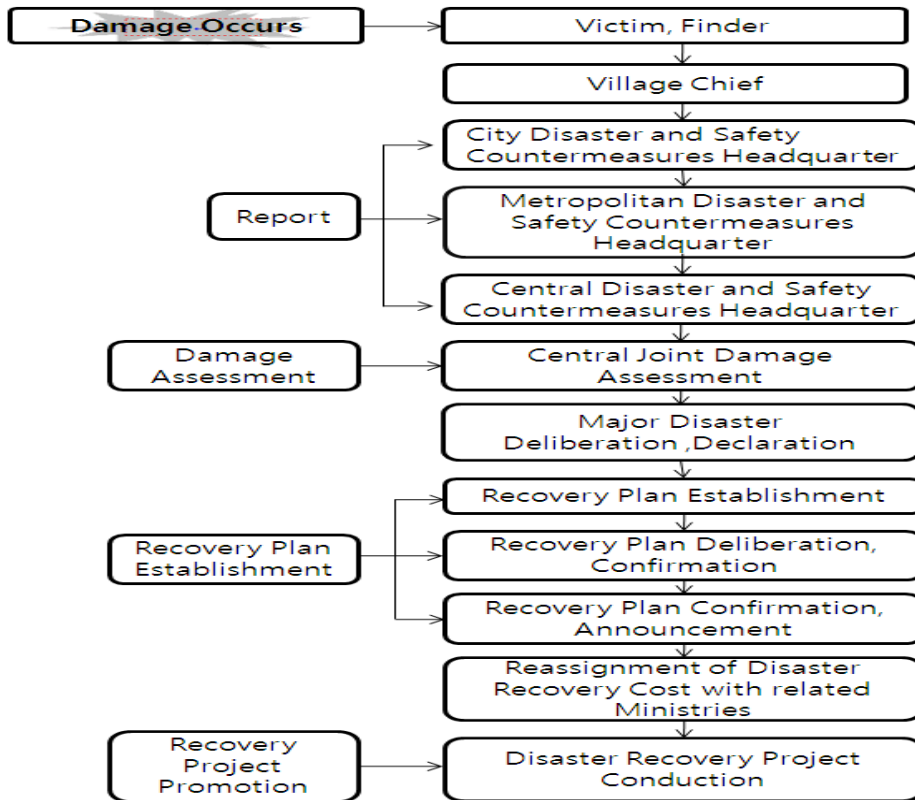
1) Korea

Flowchart of the Damage Report and the Recovery Plan in natural disaster looks like in figure 2. First of all, when a disaster occurs, the victim or the finder reports the damage by natural disaster to village chief and the village chief should report the statue of damage to the CDSCH(City Disaster and Safety Countermeasures Headquarter).

After receiving the report, Mayor of CDSCH(City Disaster and Safety Countermeasures Headquarter) make the department of receiving their duty inspected and after inspecting the damage, put the data into the NDMS(National Disaster Management System) and Mayor of CDSCH(City Disaster and Safety Countermeasures Headquarter) should report the statue of disaster to Governor of MDSCH(Metropolitan Disaster and Safety Countermeasures Headquarter).

After being taken into the deliberation of the data of the damage, Governor of MDSCH(Metropolitan Disaster and Safety Countermeasures Headquarter) reports the total statue of the damage in case of over a certain size that could receive the National Disaster Funds to the CDSCH(Central Disaster and Safety Countermeasures Headquarter).

After these, Minister of the CDSCH(Central Disaster and Safety Countermeasures Headquarter) make a inspection of Central Joint Assessment Corps to the damage in case of over a certain size that could receive the National Disaster Funds and the facilities of inspection is to be extensive damage facilities. So, according to the results, damaged area is to be the General Disaster area which could be supported National Disaster Funds or the Major Disaster area which could be supported the National Disaster Funds more than the Funds of the General Disaster area.



<Figure 1> Flowchart of the Damage Report and the Recovery Plan in natural disaster

After declaring the General Disaster area or the Major Disaster area, it will be made a Recovery Plan which could support the damaged area and each related department of Central Government discuss the Recovery Plan with each others and the Recovery Plan is to be confirmed by them. And the Recovery Plan joined Local Disaster Funds is to be conducted by Local Government, according to each parts which are metropolitan, city, county and district.

2) America

It is possible for people to get the help they need for disaster-related losses by applications.

The majority of applications are taken by telephone through FEMA National Processing Service Centers (NPSCs).

If a referral is made to the disaster housing or the individual and family grant programs, a FEMA inspector will be assigned to visit the property to verify damage and obtain information needed to determine eligibility for these programs.

The inspector will ask the applicant to sign two documents. The first document is a certification that the information given to FEMA is true and correct; it grants to FEMA the right to use the information to determine eligibility. The second document is a declaration that the person is a United States citizen, a non-citizen national, or a qualified alien (i.e., a green-card holder). Other individuals are not eligible for Federal assistance, even if they are lawfully present in the U.S. The inspector will ask for documentation to verify occupancy. If the applicant is a homeowner, the inspector will need documentation to verify ownership. The landlord. The proof of ownership can be a mortgage payment book, insurance policy, or tax bill.

The inspector uses a hand-held computer to record both real and personal property damage. All aspects of the inspection are customer service-orientated, including providing sufficient time for the applicant to ask questions about disaster assistance and the inspector to answer or to provide a source for the answer.

It is important to understand the difference between the FEMA inspection and one that is done for an insurance settlement or for a Small Business Administration (SBA) loan.

The FEMA inspector looks for basic needs that FEMA and the State can help with to ensure the applicant's home is a habitable, safe and secure place to live. Insurance adjusters and the SBA inspectors look at all damages for purposes of providing funds to help restore the property to pre-disaster condition.

Once the FEMA inspection is complete, the information is transferred to FEMA's NPSC for eligibility determination. The applicant is notified by letter of FEMA's decision concerning the Disaster Housing Program. If a disaster housing grant is awarded, a check is mailed to the applicant from the United States Treasury. The State notifies the applicant by letter concerning eligibility for the Individual and Family Grant (IFG) program. If an IFG grant is awarded, a check is mailed to the applicant from the State.

Applications to the IRS, the Red Cross, the Farm Service Agency, or other agencies will be followed up by each agency according to their own procedures.

The State is FEMA's partner in disaster recovery and works closely with the Federal government to determine how to best address community needs. Following the President's major disaster declaration, the Governor's Authorized Representative (GAR) will conduct an Applicants' Briefing for potential public assistance applicants. The GAR will notify the potential applicants of the date, time, and location of the briefing. The size of the disaster area and number of potential applicants will determine whether more than one briefing is held.

The Applicants' Briefing addresses:

- Application procedures.
- Administrative requirements.
- Funding.
- Program eligibility criteria.

Applicants attending the briefing are requested to complete and submit a Request for Public Assistance (Request). The Request is an applicant's official notification to FEMA of the intent to apply for public assistance. The Request outlines general information identifying the applicant, including the applicant's name, address, and primary and secondary contacts. Typically, the Request is submitted at the Applicants' Briefing. Alternatively, it may be submitted to the GAR no later than 30 days following the designation of a county (meaning a declared area) for public assistance.

An applicant need not wait until all damage is identified before requesting assistance. Federal and State personnel will review each Request to ensure applicant eligibility. Once Requests have been submitted to the State, the State may designate an Applicant Liaison (Liaison) to ensure that the applicant's needs are met. Likewise, once the Request has been forwarded to FEMA by the State, the applicant is assigned a Public Assistance Coordinator (PAC). The PAC is a FEMA program expert who serves as the applicant's customer service representative on the Public Assistance Program matters and manages the processing of the applicant's project.

Shortly after the Applicants' Briefing, the PAC will contact the applicant to schedule a Kickoff Meeting. The Kickoff Meeting is designed to provide a much more detailed review of the Public Assistance Program. During the Kickoff Meeting, the PAC also discusses special considerations, such as floodplain management, insurance, hazard mitigation opportunities, and compliance with environmental and historic preservation laws, that could potentially affect the type and the amount of assistance available and the documentation needed.

Local governments are the first line of defense against emergencies. When needed, they serve as the link between individuals and the emergency response and recovery efforts carried out by State and Federal government. If the State's resources are also overwhelmed, the Governor may request specific types of assistance from the Federal government.

2. Damage Assessment

1) Korea

The damage assessment in natural disaster can be divided into public facilities damage assessment and private facilities damage assessment.

(1) Damage Reports

If some people want to receive the Disaster funds, they should report village chief or Major of City or Country the fact which was damaged by 10days after finishing the disaster.

People who didn't report village chief or Major according to long trip and long-term hospitalization, should report village chief or Major of city or country the fact which was damaged by 10days from known the fact that should be reported to Major.

The fact of permitting of CDSCH(Central Disaster and Safety Countermeasures Headquarter) are long trips, long-term hospitalization, the old and elderly people alone who don't have the ability of reporting the damage.

Additionally, the damage report period is able to be postponed by the scale and situation of the disaster in its communication and transportation.

(2) Approval of the Damage Assessment

Damage assessment and report are that Major, there are 232 city, county and district in korea, should report the result of the Damage Assessment to the Local Governor and the Governor, there are 16 Metropolitans in korea, should report the Minister(Central Disaster and Safety Countermeasures Headquarter), Chief of the local marine police should report the result of damage on the sunken ship to Major of located area.

When Major of damaged area have to inspect the damage, Major should assess all of the damage in the damaged area and if Major missed a victim accidentally, the Major have to contain the victim to the list of Recovery Plan.

Casualties and the victims of ship and fishing net damages should report their damages to Major of their residence, and then Major has to include the list of damaged victim in Recovery Plan and should report Minister(Governor) of Central(Local) Disaster and Safety Countermeasures Headquarter.

Facilities, farmland, crops, fisheries, forest products should be included to the Recovery Plan in victims addressed.

Missing the damage on the Recovery Plan as Major was not noticed or reported by victims lately, Major of City Disaster and Safety Countermeasures Headquarter should support missing victims.

2) America

(1) Preliminary Damage Assessment

The PDA is a specific process used to gather supporting information for the Governor's request for a Presidential Disaster Declaration. The PDA is conducted after the State determines that the response to the disaster exceeds the local and State resources and ability to respond to the needs of victims.

A PDA may take several days or weeks to establish the official estimates of damage levels to homes, businesses, and infrastructure, and the dollar values of losses. The PDA includes the overall economic impact, demographic information, comparison of insured versus uninsured losses, and the commitment level of local and State resources.

A team of local, State, and Federal personnel conducts a PDA.

In a "garden variety disaster" when losses are relatively light, the PDA process is needed by officials to justify the request for assistance from a specific Federal disaster program.

Catastrophic disasters often result in an expedited declaration that allows the President to bypass the PDA process initially. Assistance and resources that are needed move into the area quickly. The PDA is completed later to document the scope of the disaster, determine additional resource needs, aid in DFO staffing decisions, and locate Disaster Recovery Centers (DRC).

The documentation process starts during the PDA and is important over the several years it takes to close big disasters. Do not shortcut the PDA process just because you received an expedited declaration.

The formal damage assessment process may not officially start for several days but the foundation needs to be in place as soon as there is an indication that a request for a Federal disaster declaration will be made.

① Preliminary Damage Assessment Checklist

Preliminary damage assessment checklist identify local and State assessment team members.

This team may be composed of the same people who performed the RNA(Rapid Needs Assessment), with a need for engineers and infrastructure specialists in particular.

The second checklist set a jurisdictional priority list. A Federal declaration is tied to specific political jurisdictions, and need and damage thresholds must be met. The PDA team should plan its inspections with priorities set so that the jurisdictions are inspected in order of greatest to

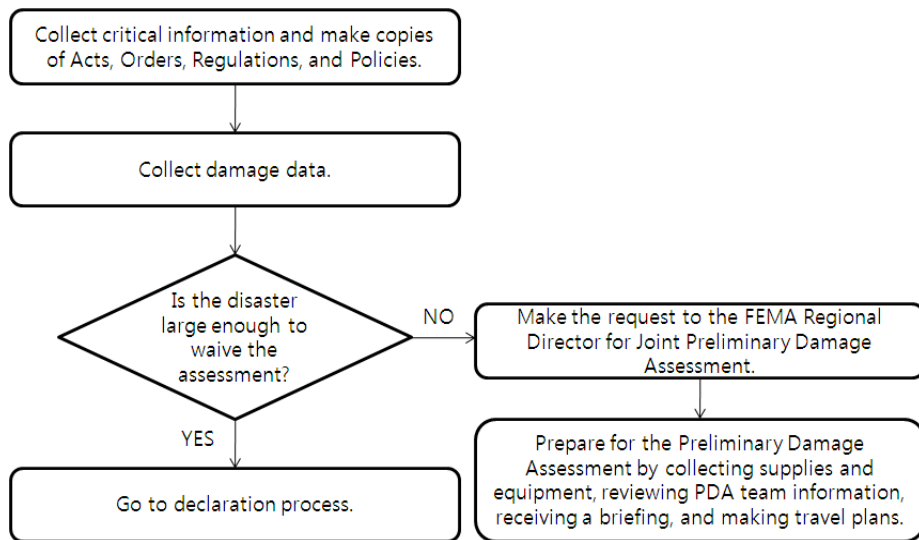
least damage.

In FY 2000 the thresholds are \$1.00 per capita statewide or \$2.50 per capita in a county for PA only. Confirm the thresholds; they change with the Consumer Price Index. The PDA process continues after the damage threshold is reached and the Governor sends the request letter. The PDA continues and additional jurisdictions may be added to the declaration but the goal is to get the declaration made as quickly as possible.

The PDA Integrate remote imagery assessment, computer damage, and impact models, use whatever real-time data you have and incorporate data into computer models to make them as realistic as possible.

Any worksheets that have already been prepared for the PA program should be factored into the PDA.

② Joint Preliminary Damage Assessment Preparations Flowchart



<figure 2> Flowchart of jointing Preliminary Damage Assessment Preparations Flowchart

• Step 1

Collect critical information.

That makes copies of the following documents available, including: public Law 93-288 (Stafford Act), as amended, Federal Disaster Preparedness and Response Act of 1993, current executive orders, regulations and procedures governing the various Federal disaster assistance programs.

- Step 2

Determine if you should request a Joint PDA.

Collect damage data/information including:

First of all, American Red Cross on-site damage assessment summary, RNA reports, state/local/county damage "spreadsheet" data summary. Secondly, Secondly, you determine if the disaster is "catastrophic" or of such magnitude that the FEMA Regional Director can be asked to waive the PDA.

You decide if the damage information warrants a joint PDA by looking at the affected communities'. Policy and guidance relative to per capita damage incurred (total damage estimates vs. population), number of businesses affected, income levels, insurance estimates, current unemployment and estimated number of homes destroyed or that suffered major damage.

- Step 3

Make the request to the FEMA Regional Director, if the damage data warrants a Joint PDA

If an assessment is warranted, go to step 4.

- Step 4

Prepare for the PDA.

Collect supplies and contact information including: state road maps, maps of each county/city that you will be surveying, names and phone numbers of all city/county officials in the areas to be surveyed, emergency Management Directory of phone numbers (or Duty Officer book), damage photographs and video provisions, your business cards, travel forms or job aids, review information and handouts in the PDA team member folder.

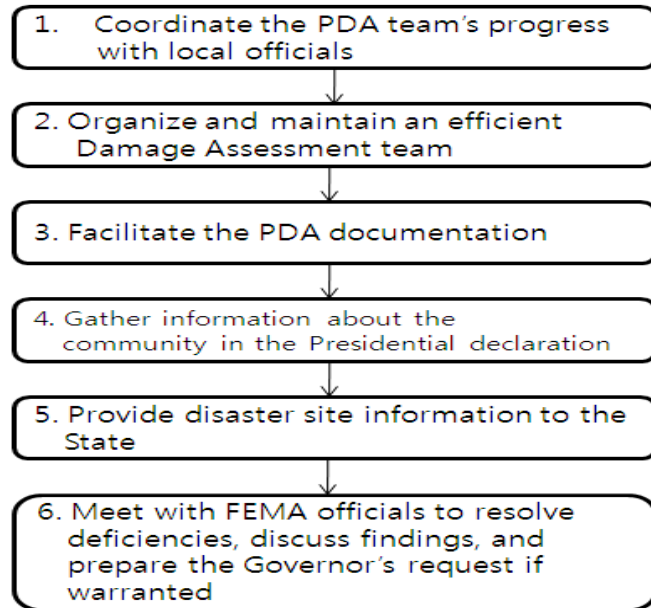
And You make necessary travel plans which are travel and lodging arrangements, pack clothes that are conducive to an outside setting. (PDA team members' tasks involve outside work in sometimes dirty surroundings.)

You contact individuals who will play a role in the PDA and identify and, if possible, contact or meet with the FEMA and State members in your team. You ensure that a local representative has been contacted and is aware of the time and location of the starting point.

Receive a briefing or special instructions from the following:

State Emergency Management personnel, individual Assistance (IA) Officer, and PA Officer.

③ Joint Preliminary Damage Assessment Operations Flowchart



<figure 3> Flowchart of jointing Preliminary Damage Assessment Operations Flowchart

- Step 1

Coordinate the PDA team's progress with local officials.

You keep local officials abreast of details by briefing local official representatives on the procedure and purpose for conducting the PDA, preparing to answer local officials' questions, and coordinating details with county/city representatives whom you will be working with before the assessment date.

You ensure that local officials are pleased with the progress of the assessment by developing timely method(s) for conducting the damage assessment inspections and related transportation arrangements, ensuring that appropriate tasks are not unnecessarily repeated (e.g., transportation arrangements, maps, and enlistment of local officials) if and when the PDA turns into a Presidential Declaration, and ideally, the same team(s) could accomplish the PDA, and you could please your customers and save time.

- Step 2

Organize and maintain an efficient PDA Team.

You have to designate an onsite PDA coordinator and PDA team leader(s), enlist State staff for team(s) as needed, recruit local staff for team(s) as needed.

The minimum PDA team should consist of at least one State and one Federal person.

You have to maintain an efficient and informed team when you provide team critical information and timely briefings. Brief members about assessment criteria, level of detail, and requirements, local officials, proper communication equipment or procedures for each team member, use of earlier estimates as guideline information in order to help yield a comprehensive assessment.

You have to coordinate activities of the team. The team is clear about time that team members should report to work, locations and area assignments for damage sites, and expectations for the team.

You have to attempt to keep the team on schedule and contact the State EOC at the end of each day. You have to report your team's activities, progress, and problems.

- Step 3

Facilitate the PDA documentation process.

You have to ensure that the PDA checklists and forms (Human Services 90-80 and Infrastructure Support 90-81) are ready for each team member, and compile PDA data in an ongoing manner utilizing all sources in a spreadsheet.

- Step 4

Gather information about the community to use in the Presidential Declaration.

You have to collect preliminary information to draft the Governor's application for a Presidential Declaration.

You have to find details about the community's population including. unemployment rate, effect of incident on employment, affected elderly population, ethnic/minority population, and general income level of affected population.

You have to research insurance information including insurance coverage (via State Insurance Commissioner) of homeowners and enters, number of claims and total dollar amount of claims filed to date.

You have to gather flood insurance information including your own and National Flood Insurance Program ratios (if flooding is involved), names of sanctioned communities.

You have to determine the number of policies in effect vs. the number of dwellings affected.

- Step 5

Provide disaster site information to Federal and State offices.

It Provides disaster site information to the Regional Office, including type(s) of damage (public and private), location/geographic spread, rural/urban or both, type of terrain and accessibility, and

magnitude/severity and preliminary damage data, and problems at the sites including inaccessibility to disaster site, large utility losses, and emergency food, water, or medical needs. It provides disaster site information to the Regional Office, including preliminary insurance estimates too.

It passes on the following information to the FEMA Regional Office, name of onsite State PDA coordinator, name(s) of team leader(s), and location and time for meeting with FEMA and other Federal PDA team members for PDA briefing.

It ensures that State/local participants are clear on funding source(s) for the PDA effort.

- Step 6

Meet with FEMA officials to resolve deficiencies, discuss findings, and prepare the Governor's request if warranted.

3. Central Government Decision to support Damaged area

1) Korea

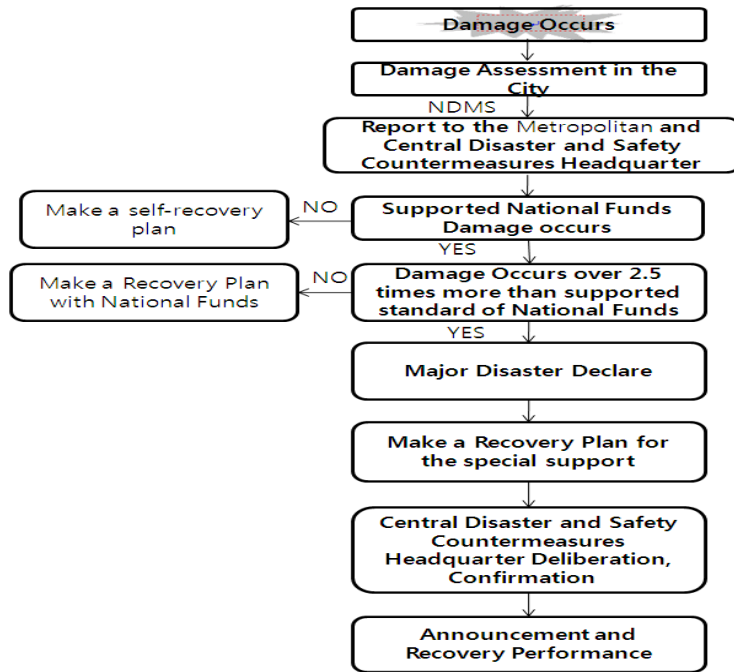
Flowchart of Supporting Disaster Funds in Public damaged Facilities looks like in <figure 4>.

All of the flowchart of supports in the public facilities are as follows.

First of all, when a disaster occur, Local Government is to inspect the damage and put the data of damage into the NDMS(National Disaster Management System) and report it to the CDSCH(Central Disaster and Safety Countermeasure Headquarter).

If reported data of the damage is to be the disaster of supported National Disaster Funds, the recovery plan will be made by the Central Government and the Central Government gives the limited National Disaster Funds, 70% of all of the Disaster Funds, for the victims and Local Government and if the damage is to be the Major Disaster, the damaged area could receive more supports than the General Disaster area by the Declaration of Major Disaster.

If the damage is a few, it is necessary for Local Government to make a plan by themselves and conduct it.



<figure 4> Flowchart of Supporting Disaster Funds in Public damaged Facilities

2) America

When the President determines that a State requires supplemental Federal assistance, a formal disaster declaration is made. The Governor, members of Congress from the affected area, affected Federal departments and agencies, and the media all receive notice of the declaration.

After the President declares a major disaster, FEMA prepares a document called the FEMA-State Agreement. This agreement describes the period of the incident (or disaster), the types of assistance to be provided, the areas eligible for assistance, the agreed-upon cost-share provisions, and other terms and conditions.

Both FEMA and the State commit to the terms and conditions of the document.

It may be amended if the situation changes; for example, additional counties may be included in the declaration, or an end date for the disaster may be specified.

The Stafford Act established the Presidential Declaration Process. There are four steps in this process:

When a disaster is considered "catastrophic," the sequence differs in that the Preliminary Damage Assessment (PDA) is conducted after the Presidential Declaration.

The Stafford Act defines the types of incidents considered covered by a Presidential declaration.

It identifies two bases for a declaration by the President: Major Disaster, Emergency.

(1) Emergency

Emergencies involve any event for which the President determines that there is a need to supplement State and local efforts in order to save lives, protect property and public health, and ensure safety. Many different types of incidents may qualify as an emergency; however, the Federal assistance available for emergencies is more limited than that available for a major disaster.

An emergency is defined as "Any occasion or instance for which, in the determination of the President, Federal assistance is needed to supplement State and local efforts and capabilities to save lives and to protect property and public health and safety, or lessen or avert the threat of a catastrophe in any part of the United States."

A Presidential declaration of an emergency provides assistance that is beyond State and local capabilities, serves as supplementary emergency assistance, does not exceed \$5 million of Federal assistance.

The Governor must request a Presidential declaration for an emergency within 5 days of the incident.

(2) Major Disaster

Major disasters may be caused by such natural events as floods, hurricanes, and earthquakes. Regardless of cause, they also include fires, floods, or explosions that the President feels are of sufficient magnitude to warrant Federal assistance. Although the types of incidents that may qualify as a major disaster are limited, the Federal assistance available is broader than for emergencies.

A major disaster is defined as "any natural catastrophe or, regardless of cause, any fire, flood, or explosion, in any part of the United States, which in the determination of the President causes damage of sufficient severity and magnitude to warrant major disaster assistance to supplement the efforts and available resources of States, local governments, and disaster relief organizations in alleviating the damage, loss, hardship, or suffering caused thereby."

Major Disaster Declaration process is following.

The first Step is to joint FEMA/State Preliminary Damage Assessment.

The second step is the Governor's request for assistance.

The third step is FEMA's recommendation to the President regarding the request .

The fourth step is the Presidential Declaration.

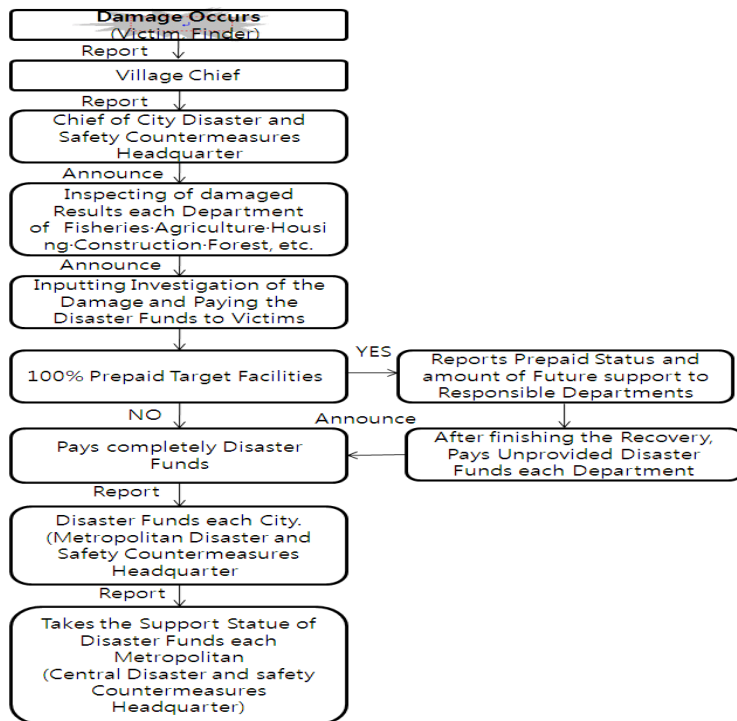
A Presidential declaration of a major disaster provides assistance that is beyond State and local capabilities, supplements available resources of State/local governments, disaster relief organizations, and insurance.

The Governor must request a Presidential declaration for a major disaster within 30 days of the incident.

4. Assistance Methods

1) Korea

Flowchart of Supporting Disaster Funds in Private damaged Facilities looks like in <figure 5>.



<figure 5> Flowchart of Supporting Disaster Funds in Private damaged Facilities

When the damage occurs, the victim or finder should report village chief the fact which was damaged by 10days after finishing the disaster with writing to a Natural Disaster Damage Report and the chief village should report Major of city, country and district the statue of data which are

reported by the victim or finder.

Major(City Disaster and Safety Countermeasures Headquarter) who received the damaged data from the victims or finders gives the job of inspecting damage to the department and the department office is going to inspect the damage and they input the data of results of inspection into the NDMS(National Disaster Management System) immediately.

After inspecting and put the data into NDMS, there are victims who are to be people of receiving the Disaster Funds and then Major(Governor) give them the Disaster Funds through the their account.

After giving the Disaster Funds to the victims, Major(Governor) should report the results of giving the Disaster Funds to the victims.

(1) Methods to calculate Recovery Cost

Methods of calculating Recovery Cost are that first of all, multiply damaged materials and support standard index, secondly, add each of the calculated values, finally, multiply the values by 1000.

Disaster Index Production = (Support Standard Index × Damage Materials) + (Support Standard Index × Damage Materials)

Amount of money = Disaster Index Production × 1,000

Disaster Assistance Money assists 500 thousand won to 50 hundred won according to disaster levels.

(2) Disaster Funds

Disaster Funds supports such as following:

To relief among the families of the deceased, missing people and the injured people of leading obstacle in daily life. The families that have experienced damage which is over 50% in their facilities could receive the Disaster Funds. There are other supports, such a repayment postponement, finance support of a housing recovery fund, reduction of local taxes and indirect supports in parts of agriculture, forestry, fishery, salt production.

Item of disaster funds support recovery of housing, recovery of farmland and salt field, recovery of agriculture facilities, agriculture crop and forest. recovery of propagation facilities and support of livestock, recovery of fisher net, recovery of propagation of fishery products, farm facilities and support of a living thing., recovery of public facilities.

Especially, movable property is excluded in recovery plan such as materials, merchandise and agricultural machinery. And If some people who are public servant, office worker, etc. work a extra job which is agriculture, forestry, fishery, salt production, they could not receive Disaster Funds.

① Conditions for the government's burden

According to the 'Rule about expense burden of disaster relief and recovery', the money of central government can be used for the local government's damages if the average amount of common tax of a city, county or district average fulfills the below left side's conditions, damaged loss are more than the following conditions.

First of all, average amount of common tax is less than 10billion won: 1.4billion won. Secondly, average amount of common tax is between 10billion won and 35billion won: 2billion. Thirdly, average amount of common tax is between 35billion won and 60billion won: 2.6billion. Fourthly, average amount of common tax is between 60billion won and 85billion won: 3.2billion. Finally, average amount of common tax is more than 85billion won: 3.8billion.

② Disaster Funds Principle is as follows

First of all, Disaster Funds is to relief victims in private facilities and according to total disaster index.

Secondly, the share rate of the 'Split Disaster Support Money' is that the central government is 70%, the local government is 30%. Thirdly, the amount of disaster support money is a disaster index multiply by 1,000. Finally, the local government should support victims with the disaster support money within themselves budget and the disaster which is disaster index under the 300 could not receive the Disaster Funds

2) America

There are many Federal assistance for individuals. A Presidential declaration does not guarantee that all forms of assistance will be made available; that depends on the extent and type of damage caused by the disaster, as well as the specific requests made by the Governor.

(1) Providing Food to Affected Individuals and Families

The Food and Nutrition Service is an agency within the U.S. Department of Agriculture (USDA) that oversees two major disaster assistance programs: food coupons and food commodities. Assistance in purchasing food is available through the Disaster Food Stamp Program. After national-level approval by the Food and Nutrition Service of the USDA, the responsible State and/or local social services agency would provide disaster food stamps to eligible households, who would apply through the local social services office.

The Secretary of Agriculture has the authority to donate surplus commodities for the mass feeding of disaster victims. Eligible applicants are public or voluntary agencies or households on Indian reservations served by the Needy Families program.

(2) Disaster Housing Assistance.

The Federal government can make funds available to restore homes to a habitable condition.

Homeowners must prove they owned and occupied the home at the time of the damage and that damage was disaster-related. The Disaster Housing Program can provide funds to be used in renting a place to live. Renters must prove that they lived in the disaster damaged house.

Homeowners or renters who can prove they suffered financial hardship as a result of the disaster and cannot pay their rent or mortgage may also qualify for financial help to make those payments.

(3) Disaster Loans for Individuals and Businesses.

Disaster victims whose property is damaged or destroyed by a disaster may be able to receive a loan from the Federal government to help with repairs. Even without a Presidential declaration of disaster, the Small Business Administration (SBA) may provide disaster assistance in the form of lowinterest loans to qualified individuals and businesses. To receive an SBA loan, applicants must demonstrate their ability to repay the loan. Disaster loans may be made available to homeowners to repair or replace homes or personal property. Renters also may be eligible for loans to repair or replace personal property damaged by the disaster.

Businesses may receive physical loss disaster loans intended to repair disaster related damage to property owned by the businesses, including inventory and supplies. Economic injury disaster loans provide working capital to small businesses and to small agriculture cooperatives to assist them through the disaster recovery period. These are available only if the business or its owners cannot obtain this type of assistance from nongovernment sources.

Homeowners who live in rural areas devastated by disaster may be eligible for special loans from the Farm Service Agency (FSA), an agency of the U.S.

Department of Agriculture. These loans can be used to buy, build, or repair housing located in rural areas and are available to persons within eligible income limits whose homes are damaged or destroyed. Those seeking additional information or wishing to apply for assistance should contact their local FSA county office.

(4) Individual and Family Grant Program.

Some disaster victims who are determined to be ineligible for loans through SBA may be eligible for assistance from the Individual and Family Grant (IFG) Program. This program is designed to help disaster victims with disaster-related serious needs and necessary expenses who have no other source of governmental, private, or insurance assistance available.

(5) Assistance for Farmers and Ranchers

Agencies of the U.S. Department of Agriculture can give assistance to farmers and ranchers even without a major disaster declaration by the President. The Farm Service Agency (FSA) helps fund repair of fencing, debris removal, or restoration of damaged land by grading and shaping. During a drought, costs of emergency water conservation measures, or water for livestock, can be shared.

The FSA can provide direct payments to farmers to reduce financial losses that result from a disaster that causes a catastrophic loss of production or prevented planting of an eligible crop. This is known as the Uninsured Crop Disaster Assistance Program.

The FSA also can make emergency management (EM) loans in counties (or parishes) where severe physical property damages and/or severe production losses occur as a result of a natural disaster that substantially affects farming, ranching, or aquaculture operations.

(6) Internal Revenue Service (IRS)

The IRS provides counseling on how to prepare or amend returns to include casualty loss deductions. Certain casualty losses may be deducted on Federal income tax returns through an immediate amendment to the previous year's return.

This strategy is often not as advantageous as claiming the loss on the return for the calendar year in which the disaster occurs, but for those who urgently need funds (to cover uninsured losses, for example), the amended return may be an appropriate option.

(7) Legal Services

Low-income individuals who need legal assistance due to a disaster may be eligible for free legal consultation and services. This type of assistance may be provided by the Young Lawyers Division of the American Bar Association, the State Bar Association, or the State's Attorney, and coordinated through the FEMA Regional Director or the Federal Coordinating Officer. Assistance may include: insurance claims, lost legal documents, powers of attorney, and home repair

contracts.

Social Security Benefits The Social Security Administration (SSA) does not offer special disaster benefits. However, in a disaster, it is important that those who depend on Social Security checks continue to receive them, even though they may be displaced from their homes. Therefore, the SSA Regional Commissioner provides support staff to do the following:

- Process Social Security claims.
- Provide advice and assistance in regard to regular and survivor benefits payable through Social Security programs.
- Process disaster-related death certificates.
- Resolve problems involving lost/destroyed Social Security checks.
- Make address changes.
- Replace Social Security cards.

(8) Assistance to Veterans

The Department of Veteran Affairs (VA) provides a variety of disaster assistance specifically targeted to veterans and survivors, including the following:

- Medical assistance.
- Burial assistance.
- Priority in acquiring VA-owned properties if you are displaced in a disaster.
- Health care supplies and equipment, drugs, medicine, and other medical items.
- Temporary use of housing units owned by the VA.

(9) Crisis Counseling

In a major disaster, many people become stressed, grief-stricken, or disoriented.

The Stafford Act authorizes the President to provide funding for training and services to alleviate mental health problems caused or exacerbated by major disasters. The training is designed to supplement the available State and local government resources. There are two types of grants: immediate services funding and regular program funding.

Immediate services program support training on screening, diagnostic, and counseling techniques, as well as outreach services such as public information and community networking, to help meet mental health needs immediately following a disaster up to 60 days from date of the declaration.

Regular services program provides funding for crisis counseling, community outreach, and consultation and education services to assist people affected by the disaster up to 9 months from

the date of the declaration. These grants are provided by FEMA through the Center for Mental Health Services, part of the Department of Health and Human Services (HHS); they are usually administered by State health departments.

(10) Cora Brown Fund

This fund is used to assist victims/survivors in Presidentially declared disasters with disaster-related needs not met elsewhere. Potential recipients do not need to apply for this assistance; rather, they are identified by FEMA representatives with assistance from other Federal, State, local, and voluntary relief agencies.

Assistance that can be provided by the Cora Brown Fund include: disaster related home repair and rebuilding, health and safety measures, assistance to self-employed persons (with no employees) to reestablish their businesses, and other services which alleviate human suffering and promote well being of disaster victims.

VI. Conclusion

In this paper, we knew that the Damage Assessment compare Korea and America in natural disaster.

Damage Assessment is not only the basis of supporting victims but also the basis of supporting by Central Government. The victims in the damaged area, which the cost of damage over the scope prescribed by law, could receive the Disaster Funds and other assistances by Central Government.

The differences according to compare Korea with America in Damage Assessment of natural disaster are as following:

1. Damage Report Systems

In Korea, When the damage occurs, the victim or finder should reports village chief the fact which was damaged by 10days after finishing the disaster.

In America, there isn't period of reporting the fact that damaged situation including materials, housing, etc., and instead a period of reporting the damaged fact, the Central(State/County, etc.) Government gives informations of helping the victims overcome their bad situation and guides

how to ready to report the damages.

2. Damage Assessment

In Korea, a disaster occurs, Government officer inspect the damage according to reporting of the victims and there are emergency rescue and emergency support at the same time.

In America, there are Rapid Needs Assessment and Preliminary Damage Assessment, the Rapid Needs Assessment support the life-saving and life-sustaining in parts of short time recovery and PDA(Preliminary Damage Assessment)s have a broader scope and are conducted over a longer time span than RNAs and the PDA is a specific process used to gather supporting information for the Governor's request for a Presidential Disaster Declaration. The PDA is conducted after the State determines that the response to the disaster exceeds the local and State resources and ability to respond to the needs of victims.

3. Central Government Decision to support Damaged area

In Korea, the damaged area, which the cost of damage over the scope prescribed by law, could be inspected by Central Joint Assessment Corps. After these inspection of damaged materials, the Central Government make decision of whether the Central Government gives the Disaster Funds or not.

In America, the Governor must request a Presidential declaration for an emergency within 5 days of the incident in Emergency, the Governor must request a Presidential declaration for a major disaster within 30 days of the incident in Major Disaster. And after PDA, the President will declare them.

4. Compare Korea with America in Assistance Funds

In Korea, Disaster Assistance Money assists 500 thousand won to 50 hundred won according to disaster levels. In America, A Presidential declaration of an emergency provides assistance that does not exceed \$5 million of Federal assistance.

5. Cost Share

In Korea, the cost share ratio of the Central and Local Government is 7:3.

In America, the Robert T. Stafford Disaster Relief and Emergency Assistance Act was passed in November 1988. The Robert T. Stafford Disaster Relief and Emergency Assistance Act legislated a minimum 75 percent Federal/25 percent State and local cost sharing for the public assistance program.

6. Calculating Damaged Cost

In Korea, the thresholds are 1 thousands won per capita and the damage calculation is applied to the disaster index. In America, the thresholds are \$1.00 per capita statewide, or \$2.50 per capita in a county for Public Assistance (PA) in FY 2000.

7. Assistance Methods

In Korea, victims from natural disaster usually receive the cash in cases of casualties, damage homes, and livelihood supports rather than other assistance by Government.

In America, victims from natural disaster usually receive lots of assistance more than the cash in cases of casualties, damage homes, and livelihood supports by Government. For instance, there are Providing Food to Affected Individuals and Families, Disaster Housing Assistance, Disaster Loans for Individuals and Businesses, Individual and Family Grant Program, Assistance for Farmers and Ranchers, Internal Revenue Service (IRS).

In this paper we have known the damage assessment between Korea and America including 7 parts; Damage Report systems, Damage Assessment, Central Government Decision to support Damaged area, Compare Korea with America in Assistance Funds, Cost share, Calculating Damaged Cost, Assistance Methods. There are similar between Korea and America on the damage assessment except for assistance methods. In Korea disaster assistance focus on supporting Disaster Funds for disaster victims directly, but in America disaster assistance focus on lots of assistance programs including Funds.

We should know that we have to help the victims overcome their situations and we should consider how to help them during natural disaster. So we should develop many methods of supporting the victims, many things which are needed to the victims of natural disaster.

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裒天稷: 동티모르에서 UN 평화유지군(Peace Keeping Forces)으로 활동하였으며, 현재 전국재해구호협회에 재직 중이다. 주요 논문으로는 “허리케인 카트리나 발생에 따른 구호활동(2005)” 등이 있으며, 주요관심분야는 국제구호, 취약성 평가 등이다(bcjswlr@hanmail.net).

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