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Evaluation Report of the Korean Emergency Response System and Results from Past Experiences 'Focused on the dispatch of emergency response teams'

KOICA

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2011.12



**KOICA**  
한국국제협력단

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The Korea International Cooperation Agency (KOICA) performs various types of evaluation in order to secure accountability and achieve better development results by learning.

KOICA conducts evaluations within different phases of projects and programs, such as ex-ante evaluations, interim evaluations, end-of-project evaluations and ex-post evaluations. Moreover, sector evaluations, country program evaluations, thematic evaluations, and modality evaluations are also performed.

In order to ensure the independence of evaluation contents and results, a large amount of evaluation work is carried out by external evaluators. Also, the Evaluation Office directly reports evaluation results to the President of KOICA

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This evaluation study was entrusted to the Institute of Health Policy and Management of Seoul National University by KOICA for the purpose of independent evaluation research. The views expressed in this report do not necessarily reflect KOICA's position.

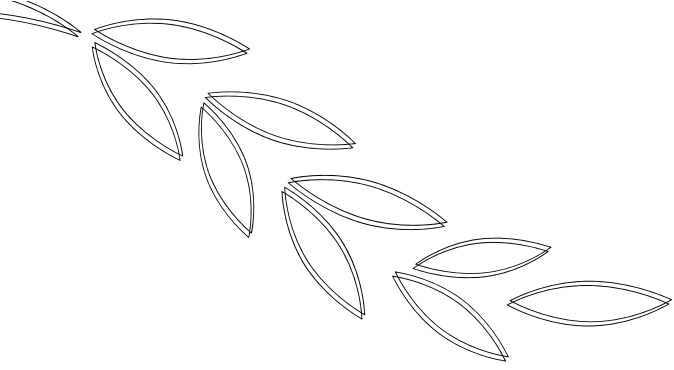




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# Introduction





# I Introduction



## ■ 1. Background of the Evaluation

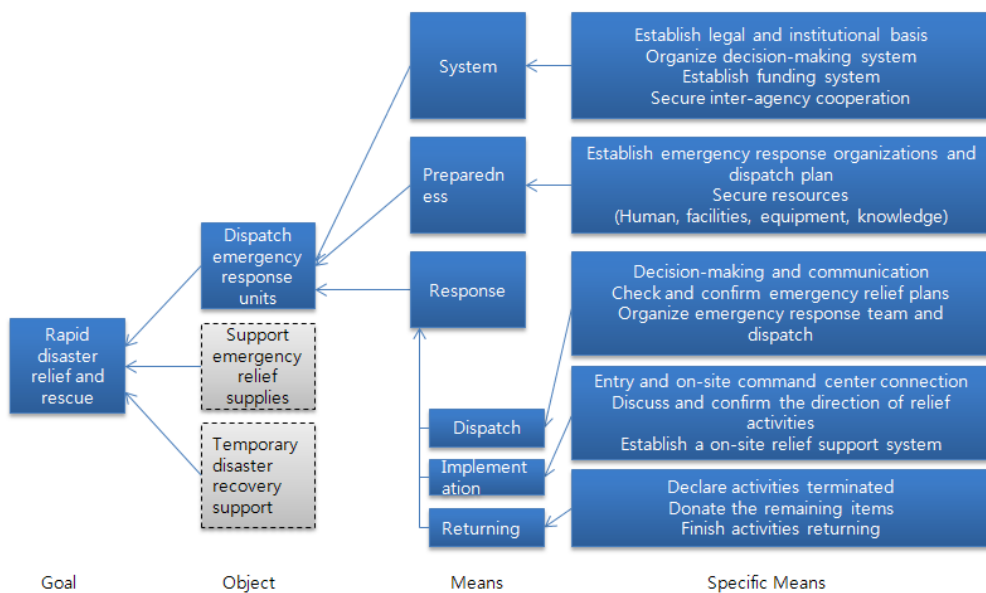
- With the increasing number of natural disasters worldwide in recent times, the concomitant need for emergency relief and support to the affected country has likewise expanded as well. Such a tendency has also resulted in an increase need for the evaluation and improvement of the Korean emergency response system in the following two ways:
  - Strengthening the role of the health sector by amending the law for emergency response in overseas disasters on July 14, 2011
  - An increased need for an effective early response system in the rescue sector
- However, there has been no systematic performance evaluation of the timeliness and effectiveness of past emergency responses through close cooperation between the recipient country and international organizations based on statutory legal declarations of 'humanitarian' and 'humanity.' Therefore, there is a clear and definite need for the discussion and systemic evaluation of the Korean emergency response system for overseas disaster.



## 2. Purpose and Scope of the Evaluation

- The purpose of this study is to suggest improvements for the Korean emergency response system focused on the dispatch of emergency response teams through consideration for relevant systems and international principles on emergency relief.
- We excluded evaluations of the emergency relief supplies and temporary disaster recovery support parts of the Korean emergency response system from this study. The time period of this evaluation ranges from the Indonesian tsunami in 2004 to the Haiti earthquake in 2010.

Fig 1. Evaluation scope for the emergency response system



- To accomplish this evaluation we,
  1. Developed an evaluation framework for an emergency response system through a literature review of relevant domestic and international documentations.

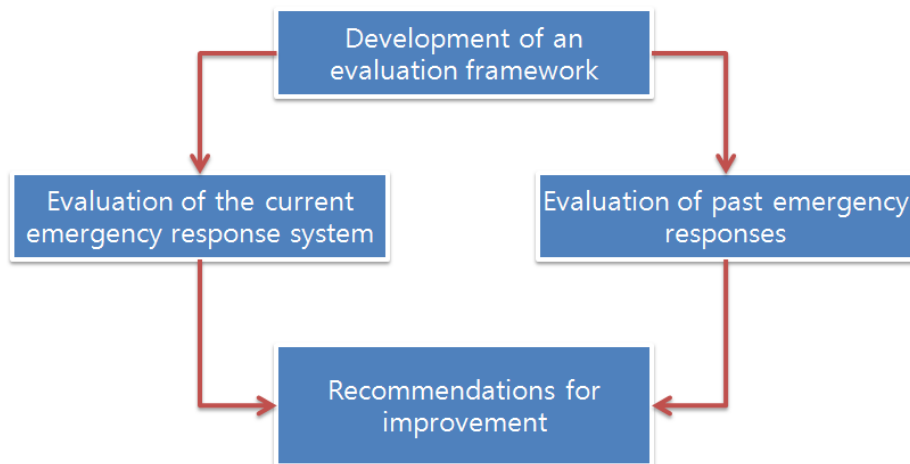
2. Examined the Korean emergency response system and compared it with existing international organizations and foreign governmental systems.
3. Evaluated the process and results of past emergency responses.
4. Suggested improvements for the Korean emergency response system based on the evaluation results.



### 3. Evaluation Process

- The evaluation process is depicted by the following diagram.

Fig 2. Evaluation process of the Korean emergency response system and past responses









## **Evaluation Method**





# II

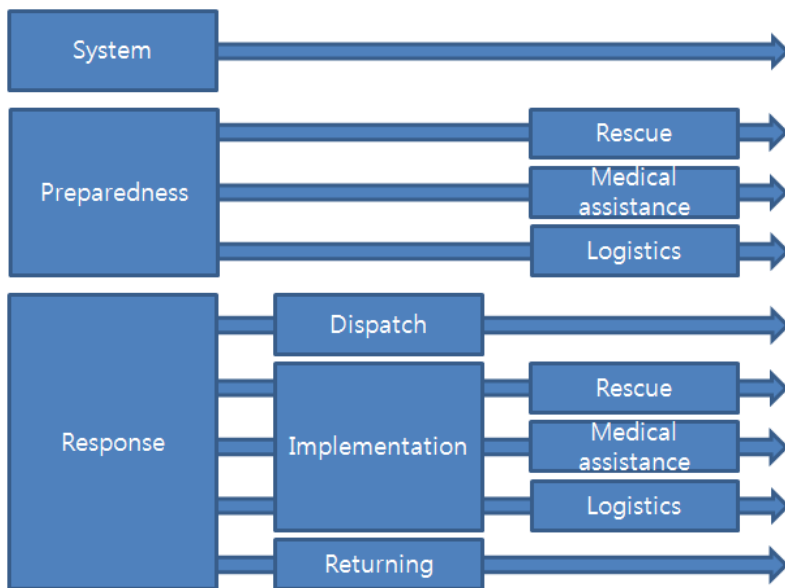
## Evaluation Method



### 1. Evaluation Targets

- We evaluated the Korean emergency response system and outcomes mainly in terms of the lessons learned from the Haiti earthquake response by dividing analysis into categories of ‘systems,’ ‘preparedness,’ and ‘response’. Moreover the response system was sub-divided to three other units of analysis: ‘dispatch,’ ‘implementation,’ and ‘returning’.
- We evaluated preparedness and implementation systems by dividing the analysis into the technical areas: rescue, medical assistance, and logistics.

Fig 3. Concept of evaluation targets



## 1) System

- System is defined by the complex rules of emergency response system.
  - Regulations
  - Decision-making (Planning, Organizing, Implementing, etc.)
  - Information systems
  - Inter-agency cooperation (Cooperation with international organizations, foreign governments, and local organizations)
  - Emergency response team command system
  - Public-private cooperation system
  - Cooperation system with the media

## 2) Preparedness

- Preparedness is defined by the means of an emergency response system.
  - Organizations
  - Resources (Human, Facilities, Equipment, and Knowledge)

## 3) Response

- Dispatch: The decision of providing emergency relief, the making of plans according to the disaster situation and the mobilization of resources.
  - Determination of emergency relief and communication with related organizations after a disaster
  - Checking and confirming emergency relief plans
  - Organizing and dispatching emergency response team
- Implementation: Transporting resources and implementing according to the plans
  - Entry and on-site command center connection
  - Discussing and confirming the direction of relief activities
  - Establishing an on-site relief support system

- Returning: finishing activities and return
  - Declaring terminated activities
  - Donating the remaining items
  - Returning



## ■ 2. Foreign Reference for Evaluation

- Evaluation framework and method for emergency response systems and results are not the same in each report. Also it is not systematically organized since international attention to emergency relief evaluation is a relatively recent phenomenon.
- Furthermore, evaluations of emergency response systems and its performance are carried out in unstable, complex, and unsafe condition. Thus, these assessment methods are highly variable and employ different methodologies unlike general social science methods.<sup>1)</sup>
- Relevant international references to this review include:
  - Norway: Norad. Evaluation of the Norwegian Emergency Preparedness System (NOREPS). 2008.<sup>2)</sup>
  - US: USAID. USAID POLICY ADS Chapter 203: Assessing and Learning. 2011.<sup>3)</sup>, Clark J., Garas N., Carvalho AM. Evaluation: USAID/OFDA Humanitarian Assistance Program in Angola 2000-2003. USAID. 2003.<sup>4)</sup>
  - Japan: Muta H., Kawakami T., et al. Evaluation Study on Japan Disaster Relief (JDR) Scheme (Summary Report). MoFA of Japan. 2004.<sup>5)</sup>, JICA. New

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1) OCHA. 2009 Annual Report. UN. 2010.

2) Norad. Evaluation of the Norwegian Emergency Preparedness System (NOREPS). 2008.

3) USAID. USAID POLICY ADS Chapter 203: Assessing and Learning. 2011.

4) Clark J., Garas N., Carvalho AM. Evaluation: USAID/OFDA Humanitarian Assistance Program in Angola 2000–2003. USAID. 2003.

5) Muta H., Kawakami T., et al. Evaluation Study on Japan Disaster Relief (JDR) Scheme (Summary Report). MoFA of Japan. 2004.



### 3. Evaluation Framework

- In this study, we modified the OECD/DAC criteria, which have been widely used recently in humanitarian assistance field as a common evaluation criteria for systems, preparedness and response. Definitions of each criterion are shown below.

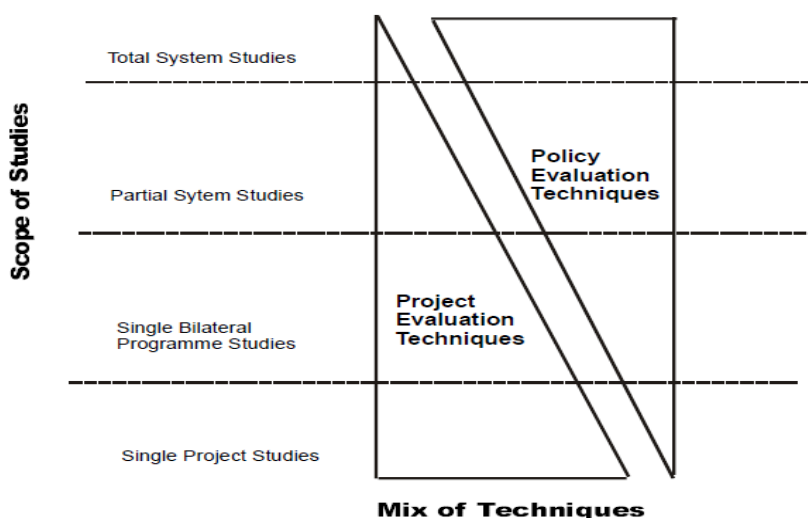
Table 1. Common evaluation criteria (OECD/DAC criterions + Responsiveness)

| Criterion                     | Definition   |
|-------------------------------|--|
| Relevance/<br>Appropriateness | <ul style="list-style-type: none"> <li>◆ Relevance is concerned with assessing whether the project is in line with local needs and priorities (as well as with donor policy).</li> <li>◆ Appropriateness is the tailoring of humanitarian activities to local needs, increasing ownership, accountability and cost-effectiveness accordingly.</li> </ul> |
| Connectedness                 | <ul style="list-style-type: none"> <li>◆ Connectedness refers to the need to ensure that activities of a short-term emergency nature are carried out in a context that takes longer-term and interconnected problems into account.</li> </ul>  |
| Coherence                     | <ul style="list-style-type: none"> <li>◆ The need to assess security, developmental, trade and military policies as well as humanitarian policies, to ensure that there is consistency and, in particular, that all policies take into account humanitarian and human-rights considerations.</li> </ul>  |
| Coverage                      | <ul style="list-style-type: none"> <li>◆ The need to reach major population groups facing life-threatening suffering wherever they are.</li> </ul>   |
| Responsiveness                | <ul style="list-style-type: none"> <li>◆ Timeliness and smoothness of response process.</li> </ul>   |
| Efficiency                    | <ul style="list-style-type: none"> <li>◆ Efficiency measures the outputs – qualitative and quantitative – achieved as a result of inputs. This generally requires comparing alternative approaches to achieving an output, to see whether the most efficient approach has been used.</li> </ul>  |
| Effectiveness                 | <ul style="list-style-type: none"> <li>◆ Effectiveness measures the extent to which an activity achieves its purpose, or whether this can be expected to happen on the basis of the outputs. Implicit within the criterion of effectiveness is timeliness.</li> </ul>  |
| Impact                        | <ul style="list-style-type: none"> <li>◆ Impact looks at the wider effects of the project – social, economic, technical, environmental – on individuals, gender- and age-groups, communities and institutions. Impacts can be intended and unintended, positive and negative, macro (sector) and micro (household).</li> </ul>                           |

6) JICA. New JICA Guidelines for Project Evaluation: First Edition. JICA. 2010.

- As we stated above, we divided the analysis of the emergency response system into system, preparedness, response (dispatch, implementation, returning) and subdivided preparedness and implementation systems to three technical areas (rescue, medical assistance, logistics) as foreign evaluation reports had previously divided the analysis of the emergency response systems to conceptual and functional parts.
- We selected meaningful indicator areas created through combination of the evaluation criteria and area.
  - Move the focus of evaluation from the policy level to the project level as evaluation areas move from system to response.<sup>7)</sup>
  - In evaluation of system and preparedness, principles like relevance, connectedness, coherence, coverage, and responsiveness are important. However, results like efficiency, effectiveness and impact are more important than other criteria in evaluation of the response part.

Fig 4. The appropriate mix of policy and project evaluation techniques will vary with the scope of the study



7) Gasper. D. Notes on the logical framework approach and the planning and evaluation of (complex) emergency relief. ISS mimeo. The Hague. 1998.

- Therefore, we used 8 criteria differentially in system, preparedness, response.

Fig 5. Evaluation indicator areas (Shading areas)

|              | Relevance      | Connecte<br>dness | Coherence | Coverage | Responsi<br>veness | Efficiency | Effectiven<br>ess | Impact |
|--------------|----------------|-------------------|-----------|----------|--------------------|------------|-------------------|--------|
| System       |                |                   |           |          |                    |            |                   |        |
| Preparedness |                |                   |           |          |                    |            |                   |        |
| Resp<br>onse | Dispatch       |                   |           |          |                    |            |                   |        |
|              | Implementation |                   |           |          |                    |            |                   |        |
|              | Returning      |                   |           |          |                    |            |                   |        |

## 1) Evaluation indicators of system, preparedness, and responsiveness

### (1) System

- The following elements of the system need to be evaluated: law and regulation, decision making process, information gathering tools, cooperation of organizations, emergency rescue team management, collaboration with NGOs, and connection with media.
- Evaluation results would be presented and its appropriateness and consistency are provided as well.

Table 2. System evaluation matrix

| Evaluation items               | Subsidiary elements | Indicators  | Methods  |
|--------------------------------|---------------------|---|--|
| Relevance/Appro<br>priateness) | Decision-making     | -Inclusion of the needs of the affected country in emergency law and wider legislation<br>-Reflection of the needs of the affected in decision-making process | Literature review,<br>In-depth interviews,<br>Focus group Interview,<br>Questionnaire, |
|                                | Information         | -Presence of information system for systematic prioritization and decision making process reflecting local needs  | Fieldwork,<br>Expert Advisory  |



Table 2. continued

| Evaluation items               | Subsidiary elements                 | Indicators   | Methods   |
|--------------------------------|-------------------------------------|--|---|
| Relevance/Appro<br>priateness) | Cooperation of<br>organizations     | -Assessment for the collaboration of<br>organizations<br>-Collaboration with local governments<br>and international organizations to<br>meet local needs | Literature<br>review,<br>In-depth<br>interviews,<br>Focus group<br>Interview,<br>Questionnaire,<br>Fieldwork,<br>Expert<br>Advisory |
|                                | Emergency rescue<br>team management | -Leadership and management of<br>emergency response team to respond<br>to local needs  |   |
|                                | Public-private<br>partnership       | -Reconstruction through role division<br>with the private sector for more<br>sustainable action  |   |
|                                | Cooperation with<br>media           | -Secure media coverage of emergency<br>relief process without disruption   |   |
| Coherence                      | Decision-making                     | -Decision-making based on humanitarian<br>grounds  |   |
|                                | Public-private<br>partnership       | -Humanitarian development goals that<br>aim to see the restoration of the<br>affected areas through role division<br>with the private sector             |   |

## (2) Preparedness

- Under this criterion, organizational structure, resource allocation, and training systems need to be evaluated by the table below.
- Evaluation results are presented, and its relevance, coverage, responsiveness need to be assessed.

Table 3. Preparedness evaluation matrix

| Evaluation items | Subsidiary elements                     | Indicators   | Methods  |
|------------------|---|--|--|
| Connectedness    | Organizational structure                | -Strategic resource allocation system (human and materials) for the realization of long term recovery and reconstruction plans   | Literature review, In-depth interviews, Focus group Interview, Questionnaire, Fieldwork, Expert Advisory |
|                  | Resource recruitment & Training systems | -Strategic resources development for the realization of long term recovery and reconstruction plans  |  |
| Coverage         | Organizational structure                | -Professional staff placed with responsibility for emergency relief  |  |
| Responsiveness   | Organizational structure                | -Clarification of chain of commands<br>-Organize relief team considering estimated arrival time<br>-Existence of simulation training and collaboration with relevant agencies  |  |
|                  | Resource recruitment & Training systems | -Private institution's cooperative system to mobilize emergency rescue team, composition of emergency rescue team workforce to meet the needs of the affected areas, reflection of local needs by ensuring the quality of workforce and the existence of simulation training |  |

### (3) Response

- Responses are evaluated according to the following criteria: overseas counterparts of emergency rescue team dispatch; execution of plans; returning of the team; step-by-step guidelines for emergency relief; organization and preparation of the team; leadership and on-site management; establishment of on-site medical activities and support system; conclusion of activities and donation of any remaining materials; and security and health protection for emergency rescue team.
- Evaluation results are presented, and effectiveness, efficiency, and scope of the impact of emergency relief must be studied.

- The impact of a country’s emergency relief cannot be evaluated solely based on its own outcome, but the outcomes of the Joint Humanitarian Impact Evaluation in conjunction with other nations and responsible organizations as well. Thus, it is difficult to evaluate the results of the emergency rescue and medical assistance separately. Therefore, in this study, the impact will be discussed in a separate chapter.

Table 4. Response evaluation matrix

| Evaluation items | Subsidiary elements | Indicators   | Methods  |
|------------------|---------------------|--|--|
| Efficiency       | Dispatch            | -  | Literature review, In-depth interviews, Focus group Interview, Questionnaire, Fieldwork, Expert Advisory |
|                  | Implementation      | -Compare outcomes with inputs using the past records<br>-Numbers of people rescued or treated  |  |
|                  | Returning           | -  |  |
| Effectiveness    | Dispatch            | -Timeliness of the past emergency relief plan and its organization<br>-Timeliness of the mobilization of resources used for the previous emergency relief<br>-Timeliness of emergency relief team’s transportation during the previous emergency relief operations   |  |
|                  | Implementation      | -Timeliness of immigration and connection with on-site command center<br>-Responsiveness of emergency relief work to the needs of the locals<br>-Responsive constitution of human resource for the needs of the locals<br>-Security of emergency relief team<br>-Cooperation with the local government and other relevant agencies |  |
|                  | Returning           | -In the returning process, communication with local government and other emergency relief teams<br>-Conclusion of activities and donation of remaining materials<br>-Appropriateness of long term care for the emergency relief workforce  |  |
| Impact           | Dispatch            | -  |  |
|                  | Implementation      | -Evaluation of emergency relief work by the locals<br>-Need for further restoration procedure  |  |
|                  | Returning           | -  |  |



## 4. Evaluation Tools

- The evaluation of emergency relief work was based on a relevant literature review with joint feedback from expert advisory group and other organizations involved (policy, administration, restoration and health care insurance). Furthermore, in-depth interviews and questionnaires were also conducted to collect feedback and further information from the affected.

### 1) Literature review and interviews

- The Literature review includes a review of international literature concerning emergency relief work, international guidelines for emergency relief work, government documents on Haitian emergency relief work, and evaluation.
- Interviews with relevant governmental agencies included; the Ministry of Foreign Affairs and Trade, Korea International Cooperation Agency, the National Medical Center, the Ministry of Health and Welfare, Korea Foundation for International Healthcare, and Ministry of Defense and the National Emergency Management Agency.
- Interviews with experts included: the National Emergency Rescue Team, medical staff for past responses, Dominican embassy, and volunteers.
- Interviews with international organizations include international agencies (OCHA, PAHO/WHO, International Federation of Red Cross), the Haitian government (Department of Strategic Planning, the Ministry of Health and the Ministry of Internal Affairs), overseas governmental bodies (Japanese Ministry of Foreign Affairs and JICA) and NGOs (World Vision, Good Neighbors, and Japan Platform).
- Interviews with locals in Haiti were conducted to obtain feedback on the evaluation of international emergency relief work and their needs to reconstruct communities affected by the earthquake.

## 2) Questionnaire

- In order to elucidate the elements to build the capacity of the emergency relief workforce in Korea, the survey of 180 doctors from the Department of Emergency Medicine and the National Disaster Life Support (NDLS) was conducted. It was a web-based questionnaire with a strong focus on improving awareness and motivation of emergency relief work.
- Only medical staff were questioned since the human resource problems of rescue part in a governmental organization are relatively few or easy to be modified by government's protocol
- It was designed to identify their awareness, education, experience and value of international relief work.



## ■ 5. Improvement through Evaluation

- The results of the evaluation was organized into systems, preparedness and response, rather than OECD-DAC criteria in order to simplify analysis, though the OECD-DAC criteria were still incorporated.
- Systems: law, regulation, decision making process, information gathering tools, collaboration between agencies, emergency rescue team management, and involvement of private organizations and media
- Preparedness: organizational structure, resource allocation and training
- Response: dispatch, implementation and returning





# **Emergency Response System in Korea**







# III

## Emergency Response System in Korea

- Evaluation of the national emergency response system is conducted with the following references to international emergency response work regulation and protocols.
  - Overseas Disaster Relief Standard Operational Manual (KOICA, 2006)<sup>8)</sup>
  - Overseas Emergency Relief Policy (Ministry of Foreign Affairs & Trade, 2008)<sup>9)</sup>
  - Overseas Emergency Relief Standard Operational Manual (Ministry of Foreign Affairs & Trade, 2010)<sup>10)</sup>
  - New Policy for Overseas Emergency Relief (National Policy Commission, 2010)<sup>11)</sup>
  - Overseas Emergency Relief Standard Operational Manual (KOICA, 2011)<sup>12)</sup>



### 1. System

#### 1) Decision-making system

- Establishment of public-private joint emergency relief task force.
  - Purpose: in the case of natural disasters, a consultative group is required to effectively deliver necessities and dispatch relief teams

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8) Beck T. Joint humanitarian impact evaluation: options paper. OCHA. 2009.

9) KOICA. Overseas Disaster Relief Standard Operational Manual. 2006.

10) Ministry of Foreign Affairs & Trade. Overseas Emergency Relief Policy. 2008.

11) Ministry of Foreign Affairs & Trade. Overseas Emergency Relief Standard Operational Manual. 2010.

12) Ministry of Foreign Affairs & Trade. New Policy for Overseas Emergency Relief (National Policy Commission). 2010.

- Function: key decision making process to determine whether or not to provide emergency relief, contents and scale of the work and collaborate with the federal government in the affected area
- Establishment of a rapid response consultative group among governmental agencies.
  - After a large scale disaster, it is important to consult with relevant government authorities, and if necessary, organize a meeting with the deputy minister of Foreign Affairs and Trade within 24 hours
  - Consultation with the Ministry of Defense, Ministry of Health and Welfare, National Emergency Management Agency, the Korea International Cooperation Agency and other related agencies to discuss the dispatch of emergency response team (if necessary, consult with the Prime Minister's office)
- Important factors to consider provision of the emergency rescue team
  - Magnitude of damage and impact: the scale of the disaster and nation-wide disaster alert
  - Importance of international aid: responsive international aid to the affected area (involvement of the United Nations and the damaged nation's call for help)
  - Proposal of Korean diplomatic offices in the affected countries
  - Proposals for the help of other countries
  - Other factors: relationship with the affected country and major diplomatic issues
- To determine the degree of aid, the capacity of the affected country's emergency relief work, current affairs in Korea, accessibility and efficiency must be considered.
  - Casualties: the number of deaths, missing people, injured and refugees
  - Physical damage: houses, industrial facilities and infrastructure
  - Capacity of the affected country: GDP, function of the government
  - Member states, the UN and International Red Cross involvement
- For adjacent areas, the emergency rescue and medical team will be dispatched along with relief supplies. For remote areas, the medical staff will be dispatched mainly along with basic necessities, and further financial assistance can be

achieved through international aid organizations or bilateral relations.

- If a large-scale damage is observed, the emergency rescue team will be dispatched with a plan for further instructions within 72 hours
- If the team cannot reach the affected area within 72 hours, the medical staff should be the primary dispatch group, if possible.

## 2) Information system

- Early information is obtained through the earthquake and tsunami alert system (in collaboration with the earthquake alert department), embassy and international disaster-related websites.
- More information is obtained through communication channels between government bodies and other relevant organizations like international organizations from Geneva.

## 3) Collaboration

### (1) Collaborative relationships between domestic organizations

- The Korea International Cooperation Agency will establish a communication channel for collaborative relationship with the Korea Foundation for International Healthcare, the National Emergency Management Agency and other related agencies.
- Within 24 hours after the occurrence of a natural disaster, the Ministry of Foreign Affairs and Trade will convene a meeting with the Ministry of Defense, Ministry of Health and Welfare, National Emergency Management Agency and other related agencies.

## (2) Collaboration with international organizations

- Currently, there are several types of collaboration with multiple international organizations.
  - OCHA Donors Support Group (ODSG)
  - UNDAC (UN Disaster Assessment and Coordination)
  - UN Central Emergency Response Fund (CERF)
  - GHD (Good Humanitarian Donorship) Initiative
  - APHP (Asia-Pacific Humanitarian Partnership)

## 4) Emergency response team command system

- Captain of the international emergency relief team: the Minister of Foreign Affairs and Trade will appoint the captain of the team from a pool of government authorities with plenty of experience in relevant fields.
  - The captain will be in charge of all activities of the team that is comprised of Central 119 Rescue Team, the Korea International Cooperation Agency, Korea Foundation for International Healthcare, the National Medical Center and other participating organizations
  - The captain will organize and assign roles of participating on-site organizations for the coordination of activities

## 5) Public-private cooperation

- Collaboration with private organizations is mainly endorsed by a public-private joint emergency relief task force.
  - Korea NGO Council for Overseas Cooperation is the central communication hub for private areas

## 6) Cooperation with media

- Staff handling media and information will be dispatched to ensure that interviews can be held, as well as to provide convenience for the media such as accommodation and transportation arrangements for journalists.



## ■ 2. Preparedness

### 1) Rescue

#### (1) Organizational structure

- Organizational structure of each rescue team is defined in the rules cited below.
  - Article 11 of Foreign Emergency relief Law
  - Article 9 of National 119 Rescue Law
- Reserve pool of rescue team for international disaster (56 persons)
  - To cover a central 119 rescue team

#### (2) Recruiting and training

- Equipment of emergency rescue team
  - 172 species and 2,070 units of equipments
  - Tools and equipment are stored at the Central 119 Rescue Center.
- Joint training is performed in order to improve advanced skills and international collaboration capacity with foreign organizations like UNDAC and INSARAG.

## 2) Medical Assistance

### (1) Organizational structure

- Medical assistance is conducted by the Ministry of Health and Welfare, the National Medical Center, Korea Foundation for International Healthcare,
  - The Ministry of Health and Welfare will command the organization and the dispatch of the medical assistance team
  - The Korea Foundation for International Healthcare will educate and train medical personnel for emergency relief.
  - The National Medical Center will provide medical personnel

### (2) Recruiting and training

- The Korea Foundation for International Healthcare will develop a pooling system for medical personnel and educate them on basic and advanced courses to increase the capacity for emergency relief. Also the Korea Foundation for International Healthcare will provide a list of medical facilities and equipment in accordance with the international guideline (Inter-agency Emergency Health Kit, Emergency Response Unit, etc.)

## 3) Logistics

### (1) Organizational structure

- The logistics member is organized into distribution and information sections after the experience in the Haiti earthquake response.
  - The relief team which is focused on rescue: 7 persons of distribution part, 4 persons of information part
  - The relief team which is focused on medical assistance: 4 persons of

distribution part, 4 persons of information parts

- Korea International Cooperation Agency will maintain close communication with the Ministry of Foreign Affairs and Trade. The diplomatic office in the affected country will maintain close communications with the affected governments.

## (2) Recruiting and training

- The Korea International Cooperation Agency will manage a list of general supplies, relief equipment and secure the supply of goods.



## ■ 3. Response

### 1) Dispatch

- The role of a central 119 rescue team is defined in Overseas Emergency Relief Standard Operational Manual as the following:
  - Identifying the disaster condition
  - Collecting general information of affected country
  - Identifying foreign emergency relief team activities
  - Listing and packing of necessary equipment
- The Ministry of Health and Welfare will organize medical assistance teams and announce recruitment of the medical personnel pool.
- For nearby Asian countries, the emergency relief team will use military airplanes and for far countries, the team will use commercial airlines for transportation.
- On-board training, vaccination and other preventive programs will be carried out.

## 2) Implementation

### (1) Rescue

- On-site protocol is as follows:
  - Communication with diplomatic offices to direct activities
  - Registration of the team to the regional disaster center of the affected country
  - Coordination with On-site Operations Coordination Center (OSOCC) and other disaster managing organizations
- The scope of relief teams activity is as follows:
  - Rescue : Planning and conducting of rescue activity
  - Searching : Search for survivors, manage equipment and safety, assess safety
  - Medical assistance : Deliver treatment of survivors and rescue teams
  - Distribution : Manage equipment and man-power, secure transport, conduct other related activities
  - Information : Report to the command center, collect information, cooperate with the media, manage communications equipment

### (2) Medical assistance

- Points to be considered in medical assistance are as follows:
  - Finding appropriate fields for patient treatment
  - Attending WHO Health Cluster Meetings
  - Communicating with local hospitals for assessing local needs

### (3) Logistics

- Activities of the logistics team are as follows:
  - Assist the captain of the emergency relief team
  - Relay information from the information team to the captain, the diplomatic office and the command center in Korea



### 3) Returning

- The process of returning are as follows:
  - Decide the time-frame for activity termination and returning
  - Establish finishing actions and plan for return
  - Inform the affected country and related organizations of the plan
  - Donate equipment
  - Prepare transportation of equipment
  - Report summary of activity and returning to command center
- The following is conducted after returning:
  - Health screening tests for the participants
  - Meetings within 7 days for process and outcome discussion and debriefing
  - Compensate the health problems for the participants
  - PTSD (Post-traumatic Stress Disorder) management





# **Evaluation of the Emergency Response System**





# IV

## Evaluation of the Emergency Response System



### 1. System

#### 1) Relevance

##### (1) Decision-making system

- Decision-making process in terms of relevance is stated in related law and regulations to consider the call of the affected country, the state of the international community, the available budget, the accessibility to the affected areas and the local situation.
- However, actual local needs were not reflected due to the practical problems, so the relevance in terms of practice did not meet the criteria. Thus we need a decision-making system that can consider an appropriate approach that reflects the condition of the affected country as a declaration of a law and guideline state.

##### (2) Information system

- The current information collection system in Korea is designed to ascertain the local circumstances and unmet needs. As a result, the Korean emergency response system does not properly collect information pertaining to casualties and physical damage at the acute phase of a natural disaster.

- A systematic information collection system is needed to effectively respond to various conditions like complex disasters.
  - Location and scale of casualties
  - Information detailing the local architectural style and collapsed building
  - Major emergency health problems caused by a disaster and pre-existing health problems
  - Local health capacity such as medical personnel, facilities, equipments
  - State of local government to respond to the disaster and the major contact point in the affected country

### (3) Cooperation with organizations

- The emergency response coordination between related organizations was not sufficient because the frequency and quality of joint training was not enough to respond effectively.
- In terms of cooperation with the affected country and the diplomatic office, the KOICA office is in charge of establishing contact and working level networks. However, staff of these offices are not routinely trained and a manual was not prepared for responding with emergency relief in case of a disaster.

### (4) Emergency response team command system

- The chain of command did not properly function in the Haiti earthquake response because many organizations participating in the Korea emergency relief team did not cooperate closely with each other due to disparate agendas.

## (5) Public-private cooperation

- Actual cooperation with the private sector such as NGOs and religious organizations was difficult because they were acting independently with governmental aid. Therefore, the role division of the public and private sectors are not clear and are even competing with each other.

## (6) Cooperation with media

- Many reporters cover activities on site and compete with each other for exclusive news. This places an increased pressure on the emergency relief team who need to support the daily necessities for the reporters in camp.

## 2) Consistency

- We excluded the technical area such as information system, command system which cannot be evaluated in terms of consistency. Accordingly, we evaluated the decision-making system and public-private cooperation.

### (1) Decision-making system

- It is not easy to focus on humanitarianism for emergency relief because of practical issues such as public opinion and diplomatic relations. For this reason, the effectiveness of emergency relief in terms of humanitarianism is hard to be achieved.

### (2) Public-private cooperation.

- As we stated in the section on relevance, the role division of public and

private sector is not clear and the two sectors even act competitively with each other. Private emergency relief organizations pursue their own interests such as advertising their activities, and as such, many private organizations do not focus on humanitarianism. This makes emergency relief ineffective and unsustainable in the long-term.



## ■ 2. Preparedness

### 1) Connectedness

- We excluded evaluation rescue activities in terms of connectedness because it is meaningless in that rescue mission usually finished within a short period.

#### (1) Organizational structure

##### a) Medical assistance

- There is no exclusive group that specified for emergency relief in medical assistance part. The Korea Foundation for International Healthcare now covers recruiting and training. Korean relief efforts were usually executed during the acute phase, mostly within two weeks due primarily to the difficulty in sustaining human resources over an extended period.

##### b) Logistics

- There is no appropriate organization implementing logistics for long-term assistance.



## (2) Recruiting and training

### a) Medical assistance

- Medical personnel who were trained for emergency relief is not enough even though the human resource pool had recently expanded.

### b) Logistics

- Supporting staff for rescue and medical assistance is not enough for ongoing activities in a long-term point of view.

## 2) Coverage

- Cooperation with the local government and international organizations in Haiti earthquake response was not successful when compared with the past disaster relief efforts such as in the case of the cyclone Nargis response. There are two reasons that were identified:
  - No staff who have the capacity to coordinate with international agencies
  - No specialist who was trained and qualified for emergency relief

## 3) Responsiveness

### (1) Organizational structure

#### a) Rescue

- There is no guideline for the chain of command in the joint dispatch of rescue and medical assistance team.
  - Confusion and disruption in communication and coordination between rescue, medical assistance and logistics teams.

## b) Medical assistance

- The same structural problem we stated already in medical assistance: it was not successful in terms of responsiveness because of the difficulty in combining medical personnel in joint training sessions partly due to the fact that the major source of medical personnel was the private sector recruitment.

## c) Logistics

- The rules about assistance staff were revised after the Haiti earthquake response, so there is a clear need to evaluate any improvements.

## (2) Recruiting and training

### a) Rescue

- The number of trained rescue staff for foreign disasters and the availability of equipment are not enough for complex disasters.
  - The needs for sufficient number of staff for ongoing rescue teams
  - No specialist regarding specific parts on rescue mission

### b) Medical assistance

- Safety equipment for medical team was not enough to protect medical personnel during their procedures.
  - Preventive kits or vaccinations for injuries such as needle stick injury did not exist previously

### c) Logistics

- In terms of responsiveness, logistics were in line with the purpose.



### 3. Response

- We evaluated the response step in terms of efficiency, effectiveness, and impact.
  - We organized analysis on dispatch, implementation, and returning
- However, the impact was evaluated separately by interviews with residents and refugees because the impact of each country or each team, rescue and medical assistance, could not be assessed independently and only the whole effort to Haiti earthquake could be measured.
- Moreover, effectiveness, which means the ratio of input to outcome is measured roughly in the implementation step while other steps are evaluated in terms of efficiency because quantitative data is rare in emergency relief.

#### 1) Dispatch

##### (1) Efficiency

- The emergency relief team arrived in Haiti three days after the earthquake, which is a necessary condition for saving people from preventable deaths. Other past responses took more than three days as well.
- According to the report of the Korea Foundation for International Healthcare after returning from Haiti, there was general dissatisfaction among medical personnel. The study employed a questionnaire composed of the 5-point Likert scale.

Fig 5. Evaluation results from medical personnel for the Haiti earthquake relief

|  | Total | Order of action |              |         | Past experience of foreign disaster relief |     |         | Occupation |      |         |
|--|-------|-----------------|--------------|---------|--|-----|---------|------------|------|---------|
|  |       | First group     | Second group | p-value | +  | -   | p-value | Doctor     | Else | p-value |
| Number of respondent (N)                         | 18    | 6               | 12           |         | 6  | 12  |         | 9          | 9    |         |
| Dispatch   |       |                 |              |         |  |     |         |            |      |         |
| Appropriateness for recruiting                   | 3.4   | 3.2             | 3.5          | 0.50    | 3.5  | 3.3 | 0.71    | 3.4        | 3.3  | 0.81    |
| Transporting equipments and supplies             | 2.5   | 3.0             | 2.3          | 0.16    | 2.3  | 2.6 | 0.68    | 2.8        | 2.2  | 0.32    |
| Size and constitution of medical team            | 2.9   | 2.8             | 2.9          | 0.86    | 2.8  | 2.9 | 0.88    | 2.6        | 3.2  | 0.20    |
| Preparedness of medicine and medical supplies    | 2.9   | 3.3             | 2.7          | 0.06    | 2.7  | 3.0 | 0.44    | 2.9        | 2.9  | 1.00    |
| Preparedness of medical equipments               | 2.9   | 3.2             | 2.8          | 0.29    | 3.0  | 2.8 | 0.64    | 2.7        | 3.1  | 0.24    |
| Implementation                                   |       |                 |              |         |  |     |         |            |      |         |
| Appropriateness of selecting camp location       | 4.1   | 4.0             | 4.1          | 0.82    | 3.5  | 4.3 | 0.06    | 4.1        | 4.0  | 0.78    |
| Timeliness of arriving                           | 3.2   | 2.3             | 3.6          | 0.05    | 3.3  | 3.1 | 0.62    | 3.4        | 2.9  | 0.30    |
| Administrative process for immigration           | 3.3   | 2.7             | 3.7          | 0.07    | 3.7  | 3.2 | 0.19    | 3.4        | 3.2  | 0.62    |
| General condition(Safety, Meal, etc.)            | 3.4   | 3.5             | 3.4          | 0.86    | 3.2  | 3.6 | 0.34    | 3.3        | 3.6  | 0.62    |
| Location and quality of accommodation            | 3.7   | 4.0             | 3.5          | 0.11    | 3.3  | 3.8 | 0.16    | 3.6        | 3.8  | 0.59    |
| Location of field hospital                       | 3.5   | 2.8             | 3.8          | 0.06    | 3.5  | 3.5 | 1.00    | 3.6        | 3.4  | 0.79    |
| Coordination in medical team                     | 3.9   | 3.2             | 4.3          | 0.04    | 3.8  | 3.9 | 0.83    | 3.8        | 4.0  | 0.64    |
| Medical treatment time and number of patients    | 3.8   | 3.3             | 4.0          | 0.13    | 3.7  | 3.8 | 0.69    | 3.6        | 4.0  | 0.26    |
| Appropriateness of medical record                | 3.7   | 3.2             | 3.9          | 0.06    | 3.8  | 3.6 | 0.39    | 3.7        | 3.7  | 1.00    |
| Activity of participant                          | 4.4   | 4.2             | 4.5          | 0.36    | 4.3  | 4.4 | 0.78    | 4.3        | 4.4  | 0.71    |
| Duration of activity                             | 3.6   | 4.0             | 3.3          | 0.01    | 3.3  | 3.7 | 0.41    | 3.4        | 3.7  | 0.52    |
| Correspondence to objects                        | 3.8   | 3.3             | 4.1          | 0.09    | 4.2  | 3.7 | 0.12    | 3.7        | 4.0  | 0.38    |
| Coordination with other part staffs              | 3.5   | 2.7             | 3.9          | 0.01    | 3.7  | 3.4 | 0.52    | 3.7        | 3.3  | 0.46    |
| Coordination with other organizations            | 3.1   | 2.8             | 3.3          | 0.33    | 3.2  | 3.1 | 0.82    | 3.1        | 3.1  | 0.97    |
| Coordination with foreign organizations          | 2.6   | 3.0             | 2.4          | 0.17    | 2.7  | 2.5 | 0.80    | 2.4        | 2.8  | 0.32    |
| Returning  |       |                 |              |         |  |     |         |            |      |         |
| Smooth transition                                | 3.1   | 2.7             | 3.3          | 0.23    | 3.2  | 3.0 | 0.75    | 3.0        | 3.1  | 0.83    |
| Local satisfaction                               | 4.0   | 3.7             | 4.2          | 0.07    | 4.2  | 3.9 | 0.28    | 4.0        | 4.0  | 1.00    |
| Willingness to participate for the next disaster | 4.0   | 3.0             | 4.5          | <0.01   | 4.2  | 3.9 | 0.58    | 3.9        | 4.1  | 0.64    |

## 2) Implementation

### (1) Effectiveness

- The input and output of the past emergency relief activity after the Indonesian tsunami in 2004 is shown in the following.

Fig 6. Effectiveness of past emergency reliefs after Indonesian tsunami

|   | Duration of activity                         | Location                                   | Number of personnel  | Type of disaster                                | Effect of disaster                      | Outcome                                       |
|---|--|--|--|---|---|---|
| 1 | 2006.5.28-6.4<br>(8 days)                    | Indonesia,<br>Yogyakarta,<br>Bantul region | 19 (Doctor 7, Nurse 6,<br>pharmacist 1,<br>Administrative supporting 2,<br>KOICA2,<br>Central119 Rescue 1) | Earthquake<br>Mag. 6.2<br>(2006.5.27.<br>08:00) | Death<br>5,400,<br>Injured<br>20,000,   | Medical<br>treatment<br>for 312<br>patient    |
| 2 | 2008.5.16-23<br>(8 days)                     | China, Sichuan                             | 41, Central119 Rescue  | Earthquake<br>Mag. 8.0<br>(2008.5.12<br>14:28)  | Death<br>80,000                         | Recovering<br>27 bodies                       |
| 3 | 2008.6.5-15<br>(11 days)                     | Myanmar,<br>Yangon,<br>Kongyangan          | 30 (MoFA and KOICA 6,<br>Medical personnel 19,<br>Central119 Rescue 5)                                     | Cyclone<br>Nargis                               | Death<br>120,000                        | Medical<br>treatment<br>for 2,766<br>patient  |
| 4 | 2009.10.1.-7<br>(7 days)                     | Indonesia,<br>Sumatra                      | 49 (Central 119 rescue 41,<br>KOICA 8)   | Earthquake<br>Mag. 7.9<br>(2009.9.30.<br>17:16) | Death<br>1,117<br>Injured<br>3,000      | Recovering<br>3 bodies                        |
| 5 | First group<br>2010.1.15-25<br>(11 days)     | Haiti,<br>Port-au-prince                   | 41 (Central119 Rescue 25,<br>Medical personnel 7,<br>KOICA 8, Redcross 1)                                  | Earthquake<br>Mag. 7.0<br>(2010.1.12<br>16:53)  | Death<br>112,250,<br>Injured<br>194,000 | Recovering<br>33 bodies                       |
|   | Second<br>group<br>2010.1.20-30<br>(11 days) |  | 45 (Central119 Rescue 4,<br>Medical personnel 16,<br>others 24)  |   |   | Medical<br>treatment<br>for 1,328<br>patients |

- The total number of patient treatments was 1,328, composed of pediatrics (343), internal medicine (313), and OBGYN (233) patients. The chief

complaints of the patients were mostly related with chronic disease such as cold (396), abdominal pain (306), and vaginal discharge and itching (278). Patients with conditions directly related to the earthquake damage were comparatively few (179).

## (2) Efficiency

- In the Haiti earthquake, a needs assessment that took the local conditions and general information into account was not sufficiently executed due to the uncoordinated activity between UN OCHA and UNDAC, and a lack of information about acute phase. Therefore effective and systemic aids coordinated with other agencies were not possible.
- acute-phase information

## 3) Returning

### (1) Efficiency

- Donation of remaining equipment and supplies to local organizations was conducted well.
- There was an insufficient supporting system for emergency relief personnel's rehabilitation back into society upon their return to Korea. In particular, participants were not examined PTSD test even though its possibility was considerably high.



## ■ 4. Impacts of Haitian Earthquake

### 1) Study Design, Case Finding, and Methods

- Haitians who were affected either directly or indirectly by the earthquake and who resided in the camps for internal displaced persons in Port-au-Prince were included in the study. This was a qualitative study based on open-ended semi-structured interviews that lasted 30 minutes to one hour. Informants were identified using the snowball method and through partner organizations. There were 20 participants, of which there were 11 women and 9 men.

### 2) Results

#### (1) Acute Phase Assistance

- The majority of the affected people received benefits in the form of search and rescue activities or emergency medical services by international actors. Rather, neighbors and family were more exposed in the aftermath of the earthquake from minutes to hours.
- They chose food, water, sanitation, housing, and shelter rather than rescue and medical assistance for the people in the refugee camps as crucial aid in the acute phase. This may be explained by the fact that the number of people in need of rescue and medical assistance decreased.
- A lesson from the Haiti earthquake was that a problem is a lack of coordination in relief activities. We need to focus on coordination more closely with other organizations.

## (2) Poverty and Job creation

- Many Haitians interviewed in this study have indicated they wanted jobs. Even if recovery clusters are not specifically focused on job creation, it could be a missed opportunity to create long lasting impact for the Haitian people.<sup>13)14)</sup>

## (3) Micro and macro politics of aid delivery

- One strong theme that emerged from the interviews was the idea that aid distribution was unequal.
  - There were complaints about unequal distribution of aid according to the camp committee members' personal relationships and networks.
  - Aid delivery was better in the acute phase because there was a more equal distribution of aid. After the international actors pulled out of Haiti and made the local actors responsible for distribution problems emerged.
  - Sexual exploitation and corruption was present during the distribution of aid cards
- Delivery systems should incorporate mechanisms to ensure accountability, not dissimilar to the recommendations in the acute phase assistance.<sup>15)</sup>

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13) From residents interview, "Employment is our biggest challenge. We are young, we are powerful, we can work, we need work. Taiwan stays in our memory forever because of the great aid provided to Haiti that created certain jobs for the youth under the former president Jean Bertrand Aristide. We want other [countries] to stay as well."

14) From residents interview. "[International aid organizations] could create jobs in debris removal. That way people without any employment could work, and later on they could start construction, advance in engineering, masonry, electrical engineering, and plumbing. After the experience in constructing buildings we can find work in churches, hospitals, factories and other enterprises. And those enterprises will ask to hire doctors, nurses, lawyers, translators, secretaries, etc."

15) From residents interview. "You can send the international representatives to accompany them in [the camp committee member's] activity...but don't let [the camp committee members] do everything by themselves while you are absent."



### 3) Conclusion and discussion

- The informants of this study have offered their voice for anyone who should hear. According to the Haitians interviewed in this study, direct efforts after the earthquake were better coordinated and more equitable compared to the ongoing recovery and relief efforts. We need a robust delivery system that is able to systematically track the affected areas in a timely manner, and implement real-time tracking of the delivery and receipt of aid.
- Recommendations for acute phase assistance aid are as follows:
  - Improve organization and coordination of aid
  - Implement robust delivery systems for timely tracking of aid
  - Ensure equitable delivery of aid
  - Implement a more active case finding for the afflicted
  - Real-time monitoring of delivery and receipt of aid
  - Real-time needs assessments





# **Improvement of Emergency Response System**





# V

## Improvement of Emergency Response System



### 1. System

- Development of the emergency relief model considering local demand and capacity.
  - Develop a decision-making model including the related variables
  - Building adjuvant information rout
  - Organize and dispatch advance experts team
  - Building information system for foreign disaster
  - Activate joint training of related organizations
  - Strengthen cooperation with affected government
  - Strengthen cooperation with foreign governments and international organizations
  - Establish the chain of command and strengthen responsiveness
  - Strengthen public-private partnership through NGO Accreditation and the public-private roles sharing
  - Strengthen cooperation with media through pool reporting
- Strengthen humanitarianism in emergency response system
  - Adjust priority in the decision-making model
  - Humanitarianism oriented public-private role sharing



## ■ 2. Preparedness

### 1) Rescue

- Align related rules and increase the number of rescue workers to perform ongoing rescue activities.
- Strengthen education and training system for human resource of rescue activities.

### 2) Medical assistance

- Improvement of resource recruiting and training system.
  - Incentive to private hospitals
  - Recruit retired doctors
  - Mobilize public health practitioners trained in emergency medicine
- The National Medical Center should organize a standing organization for advanced experts team and manage human resources.
- Post screening test including PTSD screening for all participants.

### 3) Logistics

- Strengthen joint training with simulation program development
- Strengthen humanitarian education to related organizations and workers



### 3. Response

#### 1) Dispatch

- Decision type and direction of emergency relief by a decision-making model
- Collecting information and preparing a camp setting by an advanced team.
- Improvement of the transportation system by the MOU with a commercial airline and cooperation with foreign governments.
- Reinforcing on-site international cooperation.

#### 2) Implementation

##### (1) Rescue

- Implementation problem of rescue portion is relatively low.

##### (2) Medical assistance

- Organize on-site medical activity and supporting system.
  - Assess local needs dividing into Hyperacute-Acute-Subacute-Chronic steps.
  - Align activities with other medical assistance teams.

##### (3) Logistics

- Secure the safety of emergency response team.
  - Cooperate with the affected government and other international agencies.
- Increasing the number of auxiliary workers.
  - Cooker, packer, medical assistant, etc.

### 3) Returning

- Establish a health management plan for the emergency response team.
  - Support treatment and compensation for the members.
  - Post mission PTSD screening for all members.





## Conclusion





# VI

## Conclusion

- Many organizations like the Ministry of Health and Welfare, the Korea Foundation for International Healthcare, the National Emergency Management Agency are participating in emergency relief to foreign countries in addition to the Ministry of Foreign Affairs and Trade and KOICA. There has been an increase in each organization's interest in humanitarian activity recently.
- The Korean emergency response system has achieved a reasonable outcome from the past experiences in spite of its short history in Korean emergency relief. However, we still have implementation problems in existing rules and their contextual problems related to the reality of Korea.
- We can identify the needs of improvements at the level of decision-making, information, inter-agency cooperation, response team command system, public-private cooperation, and cooperation with the media. In terms of preparedness, we can identify the needs of improvements at the level of human resource recruiting, training, and management. In terms of response, we identified potential improvements in transportation, setting up a camp, cooperation with foreign teams, and management of emergency response teams after the mission.
- We expect improvements in the Korean emergency response system through the suggested practical plans with the results of this evaluation.





## Reference





## Reference

- OCHA. 2009 Annual Report. UN. 2010.
- Norad. Evaluation of the Norwegian Emergency Preparedness System (NOREPS). 2008.
- USAID. USAID POLICY ADS Chapter 203: Assessing and Learning. 2011.
- Clark J., Garas N., Carvalho AM. Evaluation: USAID/OFDA Humanitarian Assistance Program in Angola 2000-2003. USAID. 2003.
- Muta H., Kawakami T., et al. Evaluation Study on Japan Disaster Relief (JDR) Scheme (Summary Report). MoFA of Japan. 2004.
- JICA. New JICA Guidelines for Project Evaluation: First Edition. JICA. 2010.
- Gasper. D. Notes on the logical framework approach and the planning and evaluation of (complex) emergency relief. ISS mimeo. The Hague. 1998.
- Beck T. Joint humanitarian impact evaluation: options paper. OCHA. 2009.
- KOICA. Overseas Disaster Relief Standard Operational Manual. 2006.
- Ministry of Foreign Affairs & Trade. Overseas Emergency Relief Policy. 2008.
- Ministry of Foreign Affairs & Trade. Overseas Emergency Relief Standard Operational Manual. 2010.
- Ministry of Foreign Affairs & Trade. New Policy for Overseas Emergency Relief (National Policy Commission). 2010.
- KOICA. Overseas Emergency Relief Standard Operational Manual. 2011.





**Evaluation Report of the Korean Emergency  
Response System and Results from Past Experiences  
'Focused on the dispatch of emergency response teams'**

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