IFNet Activities
since WCDR in Kobe, January 2005

21 March 2006, WWF4 in Mexico

Kazuo UMEDA
Secretary General, IFNet
Director of 2nd Research Department,
Infrastructure Development Institute-JAPAN
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1. IFNet Overview

1. What’s IFNet?
   - IFNet is an internet-based free network open to everyone.
   - IFNet was set up on the flood day of the 3rd World Water Forum in Kyoto, March 2003

Background:
- Rising trend of flood damages
- Few networks then dedicated to flood issues
- Necessity to view flood issues not as locally limited but as global
- Necessity to give priority to flood issues
2. Objectives

To contribute to flood disaster reduction by:

◆ **Sharing** knowledge and lessons learned,
◆ **Promoting** good practices,
◆ **Raising** awareness of flood issues and flood risk among policy makers and the general public.

3. Membership

◆ By registering name, affiliation and e-mail address.
◆ **Advantage:** Opportunity to present activities in forums etc.
  Custom-made GFAS information (plan)

4. Ongoing projects

◆ **IFNet Action Report**
  - *Good practices, lessons learned, etc.*
◆ **Global Flood Alert System (GFAS)**
  - *Flood early warning, prompt evacuation, etc.*
◆ **Information Exchange/Dissemination**
  - *Participation in forum, training programme, list of worst floods, newsletters, etc.*
II. Participants of IFNet

- Registered number as of 1 March 2005

Total 410
Break Down of IFNet Participants by Region and Affiliation

Region:
- Asia: 67%
- Africa: 17%
- Europe: 9%
- Central/South America: 3%
- North America: 2%
- Middle East: 2%
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III. Activities (except IV. and V.)
Participation in Water-related Forum/Conferences

Since August 2005
◆ 2nd Southeast Asia Water Forum in Bali, Aug. 2005
◆ Tiger Workshop 2005 in Italy, Oct. 2005
◆ International Workshop on Global Precipitation Measurement (GPM) in Tokyo, Nov. 2005
◆ ESCAP/WMO Typhoon Committee 38th General Assembly in Hanoi, Nov. 2005
◆ International Workshop on Flood Risk Management in Tsukuba, Jan. 2006
◆ Asia-Pacific Regional Space Agency Forum, 1st Joint Project Team Meeting in Hanoi, Feb. 2006
◆ 2nd General Meeting and Workshop of Network of Asian River Basin Organization (NARBO) in Indonesia, Feb. 2006
Statistics of Flood Disasters used in Presentation, Brochure, etc (1)

Average numbers of people affected by natural disasters (1973-2002)

Source: International Federation of Red Cross and Red Cross Societies
Statistics of Flood Disasters
used in Presentation, Brochure, etc (2)


- Total Death Toll: (about 470,000 people)
- Total Economic Loss: (about 49 billion US$)

Death Toll:
- Tidal waves/Tsunami: 49%
- Floods: 20% (Target: to halve)
- Earthquakes: 16%

Source: EM-DAT, CRED
# List of Worst Floods on IFNet Website

- **Flood information that claimed over 50 lives** from January 2005
- **Posting since November 2005**
- **Outline of cause of floods, damages, location, etc.**

<table>
<thead>
<tr>
<th>Country</th>
<th>Duration</th>
<th>Outline</th>
<th>Damage</th>
<th>Map</th>
<th>Notes</th>
</tr>
</thead>
</table>
| Thailand      | From middle of November 2005 to middle of January 2006 | Heavy rains caused floods and landslides in the southern Thailand and northern Malaysia. | **Thailand**
- Affected area: Yala, Narathiwat, Pattani, Songkhla, Trang, Satun, Nakhon Si Thammarat and Phatthalung
- Human damage at least 25 casualties (according to the International Federation of Red Cross and Red Crescent Societies), 308,500 affected families
- Agricultural land 15,000 ha inundated
- Economic loss: Business loss in Hat Yai of Songkhla Province, the commercial center in the south of Thailand, is estimated to be more than 500 million Baht ($12.5 million). | Map (Thailand) | Precipitation in 24 hours reached more than 100mm in most affected areas. |
| Malaysia      | From beginning to middle of December, 2005    | Heavys rains hit the central Vietnam, and caused floods and landslides. | **Malaysia**
- Affected area: Kalamant, Terengganu, Kedah and Perlis state
- Human damage 7 casualties, 4,000 evacuated |       |                                                                           |
| Vietnam       | From beginning to middle of December, 2005    | Heavys rains hit the central Vietnam, and caused floods and landslides. | **Vietnam**
- Human damage 80 casualties
- Houses: 550 collapsed, 5,000 inundated
- Khanh Hoa Province
- Human damage: 28 casualties
- Economic loss: 300 billion Vietnamese dong ($19 million) due to inundation of 45,000 ha of rice and subsidiary crops |       |                                                                           |
JICA Group Training “River and Dam Engineering III”

- Course Objectives
  - To enhance capability to tackle water-related issues
- Target Agencies
  - In charge of water resources management especially flood control
- Contents and Covering Fields
- Features
  - Individual training where each participant can propose the individual theme and study it among research division/team at NILIM or PWRI
- Others
  1) Duration
     17 August – 26 November, 2006
  2) Number of Participants
     10 persons
     (2005 participants: Indonesia, Iran, Kenya, Laos, Myanmar, Nepal, the Philippines, Sri Lanka, Syria, and Vietnam)
IV. IFNet Action Report

1. Objectives
   - To disseminate leading initiatives for flood damage mitigation,
   - To raise awareness of the relevance of social factors like urbanization to flood disasters,
   - To promote diversified participation in flood issues from national to community.

2. Features
   - Total thirteen local actions from ten countries/region. (Slovakia, the Philippines, China, Senegal, Indonesia, India, Canada, Hong Kong-China, Cambodia, Lao PDR)
   - Two initiatives are presented at two sessions (TC-IFNet, UNISDR) of WWF4
     - Ms. Babiakova Gabriela, Ms. Leskova Danica, Slovakia
     - Ms. Yolanda Benitez-Gometz, the Philippines
   - Dissemination by IFNet Website, CD, Presentations, etc.
<table>
<thead>
<tr>
<th>Author</th>
<th>Country/Region</th>
<th>Action Title</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Babiakova Gabriela</td>
<td>Slovak Republic</td>
<td>Non-structural Measures - Also Significant Factors of Flood Disaster Reduction</td>
<td>Slovak Hydrometeorological Institute</td>
</tr>
<tr>
<td>Leskova Danica</td>
<td></td>
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<tr>
<td>Resito V. David</td>
<td>the Philippines</td>
<td>Alternative Local Disaster Countermeasures for Agos River, Infanta Quezon</td>
<td>Sabo Engineering Center of Dept. Public Works and Highways</td>
</tr>
<tr>
<td>Jessie C. Felizardo</td>
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<tr>
<td>Liu Jinping</td>
<td>China</td>
<td>Action towards Typhoon-related Disasters Reduction in China</td>
<td>Ministry of Water Resources</td>
</tr>
<tr>
<td>Aliou Mamadou Dia</td>
<td>Senegal</td>
<td>Use of Satellite Image to Map Flood Extension around the City of Saint Louis in the Senegal River Estuary</td>
<td>Univ. of Dakar</td>
</tr>
<tr>
<td>Yolanda Benitez-Gomez</td>
<td>the Philippines</td>
<td>Making a Difference in Managing Water Related Disaster through Survey and Assessment</td>
<td>Mariam College</td>
</tr>
<tr>
<td>S. Sutardi</td>
<td>Indonesia</td>
<td>Action Report toward Flood Disaster Reduction Indonesian Case</td>
<td>Indonesia Water Partnership</td>
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<tr>
<td>Noel L. Lansang</td>
<td>the Philippines</td>
<td>A Flood Forecasting Device in Quezon City, Philippines: a Sound Practice for Flood Disasters Reduction Measure</td>
<td>Dept. of Public Order and Safety</td>
</tr>
<tr>
<td>Supriyo Nandy</td>
<td>India</td>
<td>Floods in India - Disaster and Management</td>
<td>Centre for Built Environment</td>
</tr>
<tr>
<td>Slobodan P. Simonovic</td>
<td>Canada</td>
<td>Computerized Decision Support for Flood Management: Red River Basin Case Study</td>
<td>Univ. of Western Ontario</td>
</tr>
<tr>
<td>Agus Sumaryono Bambang Sukatja F.Tata Yunita</td>
<td>Indonesia</td>
<td>The Application of Sabo Technology for Lahars Flood Mitigation and Warning System in Volcanic Area</td>
<td>Ministry of Public Works</td>
</tr>
<tr>
<td>Henry C.K. Chu</td>
<td>Hong Kong, China</td>
<td>Flood Prevention and Drainage Modeling in Hong Kong</td>
<td>Drainage Service Department</td>
</tr>
<tr>
<td>Long Saravuth</td>
<td>Cambodia</td>
<td>Flood Forecasting and Warning System to the Most Vulnerable Communities in Cambodia</td>
<td>Ministry of Water Resources and Meteorology</td>
</tr>
<tr>
<td>BouaNgeun Oudomchit</td>
<td>Lao PDR</td>
<td>Flood forecasting system and flood management in Lao PDR</td>
<td>Department of Meteorology and Hydrology</td>
</tr>
</tbody>
</table>
Nationwide Flood Sensitivity Analysis
by “Flood Index K”
- Used in area selection for non-structural measures

SLOVAK Republic
Non-Structural Measures –
Also Significant Factors of Flood Disaster Reduction
Babiaková Gabriela, Lešková Danica
Slovak Hydrometeorological Institute, Hydrological Forecasts and Warnings Department,
Division of Hydrological Service, Jeséniova 17, Bratislava 37, Slovak Republic
Flood Hazard Mapping by Satellite Image

Figure: Flood extension in 1999
1. Normal situation in 2001. 2. Flood situation in 1999,
3. Comparison of the 2 period

SENÉGAL
Use of Satellite Image to Map Flood Extension around the City of Saint Louis in the Senegal River Estuary
Aliou Mamadou DIA
Département de Géographie
Faculté des Lettres et Sciences Humaines Université Cheikh Anta Diop
BP 5005 Dakar Fann (Sénégal)
Geohazard Maps of Landslide and Flooding for six pilot areas

THE PHILIPPINES
Making A Difference in Managing Water-Related Disaster through Survey and Assessment
Yolanda Benitez-Gomez
Graduate Student, Environmental Studies, Miriam College, Quezon City
ENR Planner, Department of Environment and Natural Resources, Diliman, Quezon City
Service Communication Vehicle for Roving Purposes in Making Public Announcement

Dialogue with Residents of California Riverside on How to Improve Their Socio-Economic Conditions

THE PHLIPPINES
“A Flood Forecasting Device in Quezon City
A Sound Practice for Flood Disasters Reduction Measures”
Noel L. Lansang, Ph.D.
Organization: California Riverside and Odelco Compound, Barrio (Bgy.)
San Bartolome, Novaliches, Quezon City
Decision Support System Information Screens

CANADA
Computerized Decision Support for Flood Management:
Red River Basin Case Study
Prof. Slobodan P. Simonovic
Professor and Research Chair
Department of Civil and Environmental Engineering
The University of Western Ontario
London, Canada, N6A 5B9
The operator was receiving warning signal for evacuating the people from vulnerable area.

Evacuation Drill by Local People.

INDONESIA
The Application of Sabo Technology for Lahars Flood Mitigation and Warning System in Volcanic Area
Agus Sumaryono, Bambang Sukatja, F. Tata Yunita
Ministry of Public Works
Tai Hang Tung Flood Storage Tank

Capacity = 100,000 cu. m

Flood Prevention and Drainage Modelling in Hong Kong

HENRY C. K. CHU

Drainage Services Department
Sept 2005