

Panel Discussion for Group IV and V

"Education and outreach for disaster
reduction and Investigation of
community based disaster prevention"

Group 4
Introduction

Prof. Masatomo Umitsu
Nagoya University

Group 4
**Mitigation of social vulnerability
against geohazards**

<災害対応と復興における社会の脆弱性の克服>

Objectives:

Study on the solution of social vulnerability in
reconstruction from disasters

目的: 災害対応と復興における社会の脆弱性の解決

Local Community

Social Vulnerability

Rehabilitation and Reconstruction

Information and communication

Subgroups:

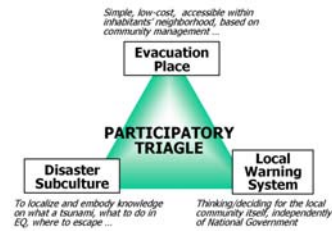
- 4-1 Support measures to establish community-based disaster preparedness mechanism <コミュニティーに立脚した災害対策の構築に関わる支援策の検討>
Sub-group leader :UMITSU Masatomo (Nagoya UNiversity)
Deny Hidayati, Jan (LIPI)
- 4-2 Investigation of community based disaster prevention and restoration based on cultural background and local knowledge in disaster management <地域文化に即した防災・復興概念>
Sub-group leader :YAMAMOTO Hiroyuki (Kyoto UNiversity)
Muhammad Dirhamsya (TDMRC, Syiah Kuala U.), Krishna S Pribadi (ITB)
- 4-3 Development of long term recovery framework from natural disasters <災害復興のあり方に関する検討:地域・産業の復興への提言>
Sub-group leader :MAKI Norio (Kyoto UNiversity)
Pariatmono (RISTEK)
- 4-4 Study on warning dissemination and residents' psychological process under natural disasters <災害発生時における情報伝達と被災者の心理>
Sub-group leader :TANAKA Atsushi (Tokyo UNiversity)
Dicky Pelupessy (UI)

Subgroup 4-1

4-1 Support measures to establish community-based disaster preparedness mechanism

RESEARCH ISSUE

- **Government/community mechanism** for the post-disaster reconstruction, and their interrelationships
- **Socio-cultural background** for mobilizing material/human resources into the collective mechanism for response/reconstruction, and its geographical conditions
- **Inhabitants' attitudes** toward the natural matter, and community disaster prevention scheme



EXPECTED GOAL

- To construct, and/or to support the attempts to construct the community-based/ grassroots disaster preparedness mechanism, available for underdeveloped regions, being flexible in local contexts for example Southeast Asian countries including Indonesia



Subgroup 4-2

4-2 Investigation of community based disaster prevention and restoration based on cultural background and local knowledge

地域文化に即した災害・復興概念
Pengetahuan dan Pengertian Setempat
dalam Penanggulangan Bencana Alam

1. 被災地情報の地図化
Pemetaan informasi bencana
2. 地域文化に即した理解
Pengertian luar, pengertian setempat
3. 災害地域情報プラットフォーム
Wacana informasi bencana alam (WIBA)



Subgroup 4-3

4-3 Development of long term recovery framework from natural disasters

Background

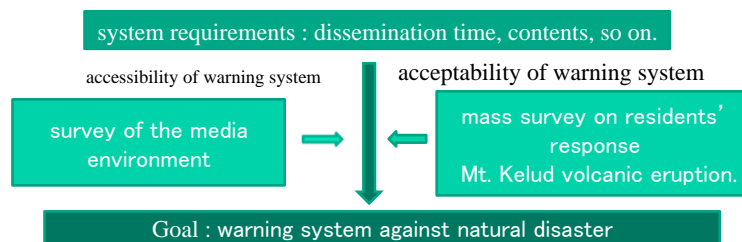
- [Recovery of infrastructure](#) is critical for recovery of economy and individual life.
- It needs at least ten years to complete long-term recovery. Studies
- Recovery is the opportunity to upgrade community
- [Long-term recovery is important topics within disaster research.](#)
 - Lack of Researchers, Research Community, Research Results
- Goal of recovery is survival of community

Output

- Research Community on Long-term Recovery
- Standardized Scheme and Tools for Asian Long Term Recovery Studies
- Composite Index for Long-term Recovery in Asian Countries
- [Guideline for Sustainable Disaster Recovery](#)

Subgroup 4-4

4-4 Warning dissemination and residents' psychological process under natural disasters



Research topics

- (1) survey of the [media environment](#).
- (2) mass survey on [residents' response to warnings and their evacuation behavior](#) in case of Mt. Kelud volcanic eruption in 2007.
- (3) [proposing the warning system](#) against natural disasters [based on the residents behavior and their source credibility](#).

The final goal: development of [more suitable warning system](#) which adequately considers residents behavior in disaster.

Introduction and Group 4-1

Deni Hidayati

GROUP IV MITIGATION OF SOCIAL VULNERABILITY AGAINST GEOHAZARDS

Deny Hidayati

LIPI

Bandung, April 21, 2009

4.1. Strengthening Community-Based Disaster Preparedness

Research Topic

1. Gender Roles in Community-Based Disaster Preparedness in Aceh

- **Dr. Deny Hidayati and team (LIPI)**

Expected Result

- **Effective ways to ensure women issues are considered both in the disaster management policies and their actual implementation.**

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GENDER ROLE IN COMMUNITY DISASTER PREPAREDNESS

Background

- **It is important to identify women needs and requirements have not been able to be integrated in the implementation of disaster preparedness.**
- **Disaster victims are mostly women and children**
 - **Substantial increase in sex ratio**
 - Leupung from 131 to 96
 - Pulo Aceh from 120 to 101



GENDER ROLE IN COMMUNITY DISASTER MANAGEMENT

Background



- **Loss of lives, homes and family members, often leads to the swapping of gender roles of men and women**
- **To survive women who have lost their husbands, must now support themselves and their children.**
- **Women are often marginalized in disaster and in rehabilitation and reconstruction process**

4.1.1.GENDER ROLE IN COMMUNITY DISASTER PREPARDNESS

Objectives:

- **To assess the implementation of disaster preparedness from gender perspective and factors influencing the integration of gender in the management.**
- **To develop effective practical method to integrate gender in the implementation of disaster preparedness**

4.1. Strengthening Community-Based Disaster Preparedness

Research Topic

2. Quality of Settlement in Bantul Lowland Area at Pre – and Post – 2006 Earthquake with Regard to the Paleo-Environmental Condition

• **Dr. Djati Mardianto and team (UGM)**

Expected Result

A description of paleo-environmental condition in relation to the settlement development

4.1.2. STUDY ON THE QUALITY OF SETTLEMENT WITH REGARD TO THE PALEO- ENVIRONMENTAL CONDITION

Objectives



- **To analyze the paleo-geomorphological condition in Bantul lowland Area**
- **To observe the settlement change pattern before and after 2006 earthquake**
- **To observe some institutional (formal and non formal) capabilities during rehabilitation and reconstruction phase after 2006 earthquake**

4.2. Community Disaster Prevention and Restoration Based on Cultural Background



- Community Perception Towards Natural Hazard, Their Prevention and Restoration Based on Cultural Background

– Makmuri Sukarno and team (LIPI)

Objective:

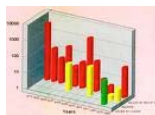
- To assess how people in a community perceive natural disasters
- To assess how the people restore their livelihood if a disaster occurs
- To develop compatible and effective ways in linking traditional and modern scientific ways of knowledge and perception towards natural disaster.

4.2. Community Disaster Prevention and Restoration Based on Cultural Background

- **The Role of Mbah Marijan in Merapi : the man in charge of spiritual surveillance**
 - Conflicting perceptions and actions: Traditional versus modern
 - The government instruct the people to go down the slope for evacuation
 - Mbah Marijan's call: don't go away
people will be save since the mountain only leak a small amount of lava → the people believe him

4.2. Community Disaster Prevention and Restoration Based on Cultural Background

- The government works with scientific ways, rational explanation with sophisticated instruments to anticipate, evacuate, save the people
- Mbah Marijan and the mountain community have traditional knowledge or perception about the sign of natural disaster and the way to prevent it.



**GROUP IV
MITIGATION OF SOCIAL VULNERABILITY
AGAINST GEOHAZARDS**

**4.3. Development of long term recovery
framework from natural disaster**

– **Muhammad Dirhamsyah and team (TDRMC,
Syiah Kuala Aceh)**

Objective:

- To develop framework to understand long term recovery process
- To develop "Recovery Timeline"

**4.3. Development of long term recovery
framework from natural disaster**

Activities

- *Collaborative field survey on long term recovery of Banda Aceh
- *Finding out issues on long term recovery in Banda Aceh
- *Sharing information about Japanese Long-term recovery

4-4

Dr. Nishi Yoshimi

社会の脆弱性(ソフト)

Memberdayakan Kemampuan Penanggulangan
Bencana Alam dari segi Sosialbudaya

地域文化に即した災害・復興概念
Pengetahuan dan Pengertian Setempat
dalam Penanggulangan Bencana Alam

第4サブグループ Kelompok 4-4

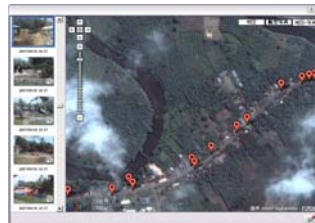
山本博之 Dr. Yamamoto Hiroyuki

山本直彦 Dr. Yamamoto Naohiko

西芳実 Dr. Nishi Yoshimi

1. 被災地情報の地図化 Pemetaan informasi bencana

- 一般報道情報と現地写真
Berita umum/ gambar lapangan
2007年9月12日、スマトラ島西部沖地震(M8.2)
地震発生から24時間の一般報道を地図化
現地での被害と救援の写真を地図化
Gempa bumi Bengkulu: 12 Sept. 2007 (M8.2)
Pemetaan informasi berita umum
Pemetaan gambar-gambar di lapangan



インドネシアの一般報道をもとに作成した被害状況地図(地震発生から24h時点)

被害地で撮影した写真の位置。幹線道路沿いに集中

2. 地域文化に即した理解

Pengertian luar, pengertian setempat

- 支援物資のコメを撒く被災者
Korban bencana melemparkan beras bantuan
2種類の避難のかたち・・・幹線道路沿い(古くからの入植者)と沿岸部(新来の入植者)
幹線道路沿いでは自宅前に／沿岸部住民は津波を恐れ、郡境を越えて幹線道路沿いに
「災害は新しい問題を作るのではなく、その社会が潜在的に抱える問題をはっきり見せる」
pengungsian di halaman rumah sendiri... penduduk lama (tepi jalan raya) yang berada
pengungsian di lapangan umum... penduduk baru (tepi laut) yang kurang berada
“Bencana alam bukan membawa masalah baru tetapi mengemukakan masalah yang sudah ada”



コメを撒く被災者。テレビニュースで全国に放映された



幹線道路沿いの自宅前のテントで避難(左・上下)
アブラヤン園や公共施設に集団で避難(右・上下)

3. 災害地域情報プラットフォーム

Wacana informasi bencana alam (WIBA)

- 災害地域情報プラットフォーム

WIBA sebagai arena penukaran pengetahuan

災害被災地に関する多様な情報に地理情報をつけて1枚の地図上で表現する

(1) [自然災害被災地域 被災状況マッピング \(Peta bergambar gempa bumi Bengkulu 2007\)](#)

(2) [一般報道情報データベース \(Database artikel gempa dan tsunami Aceh, 2004\)](#)

