

Tsunami Damages and Library Recovery



**IN NANGRO ACEH
DARUSSALAM
INDONESIA**

EARTHQUAKE AND TSUNAMI DISASTER IN ACEH



In the Indian Ocean tsunami of 26 December 2004, coastal Aceh was the worst hit, being closest to the quake's epicentre. Aceh suffered massive losses in terms of life and property, infrastructure and natural environment. Entire settlements were swept away, and a large part of the capital Banda Aceh was destroyed.

MAP OF INDONESIA



Map of Nangro Aceh Darussalam



Infrastructure and Environment Damages



Infrastructure

2005 2 24



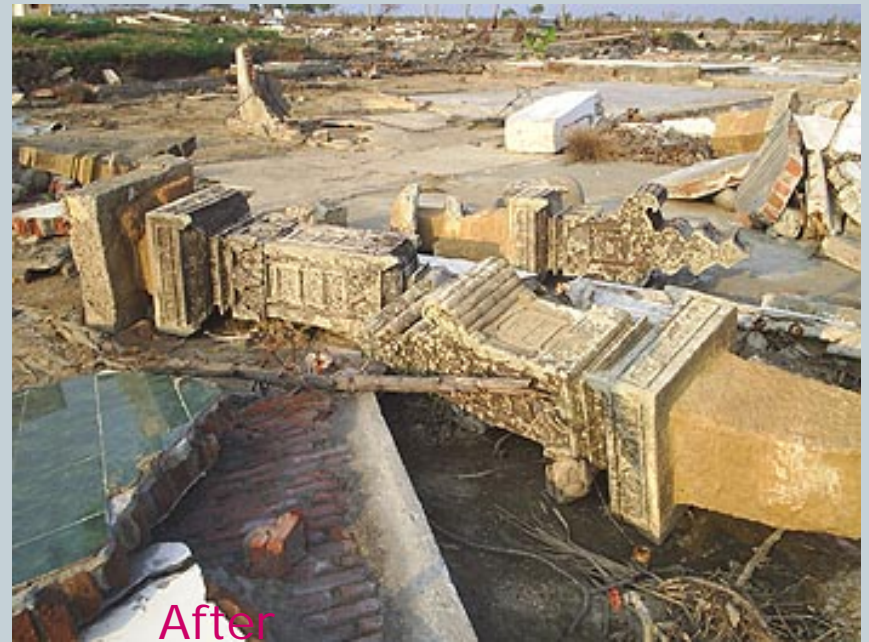
Environment

2005 2 25

Heritage Damages



Before



After

Library Damages Including



- **Man Power**
- **Building**
- **Collection**
- **Equipment**
- **Mobile Libraries**

Public Library



Looked from the
front side



Looked from the back side

Public Library Damages



207,000 copies of
Books was destroyed



Equipment

Inside the Library

Public Library Damages



Mobile Libraries
Damages



Mobile Libraries
Damages

Ali Hasyimi Library collects rare book and manuscript



The library wasn't destroyed by tsunami but when the earthquake came the books fell down on the wet floor and became wet, the librarian spread out the books in the sun to dry.

Rare books and Manuscript Collections

Damages



Their manuscript collection is now become more important as source of Aceh history, because Aceh Documentation and Information Center which is collect large of Aceh manuscript totally damaged

SCHOOL LIBRARY DAMAGES: Buildings





Equipment



Books

The librarian Spread Out the Books in The Sun to Dry, they don't know what should they do on the wet books

Problem and Solution

Problem	Solution
Lack of Librarians	<ul style="list-style-type: none">- Staff Recruitment- Hold Library Technical Training Program
Lack of Knowledge How to Handle Library Materials after Disaster	Hold Disaster Preparedness Training Program

Problem and Solution



- **Library Building Damages**

Reconstructions

- **Library Equipment Damages**

Purchasing

Problem	Solution
Mobile Libraries Damages	Purchasing
Books Damages	Purchasing
Manuscripts Damages	<ul style="list-style-type: none">◆ Conserving◆ Searching for compiling local manuscripts title and Media Transforming

The efforts done

Type of Support	Supporter
Book collections and Equipments	<ul style="list-style-type: none">-National Library of Australia-Goethe Institute Jakarta-National Library of Indonesia
Mobile Library	<ul style="list-style-type: none">- National Library of Indonesia
Buildings	<ul style="list-style-type: none">-German government-Sampoerna (private body)

**Conserving Land
certificate**

**- JICA (Japan
International Cooperation
Agency**

-National Archive

**-National Library of
Indonesia**

**Searching and
Conserving Banda Aceh
Manuscript**

-National Archive

**-Indonesian Islamic
University**

**-Nusantara Manuscript
Society**

**-National Library of
Indonesia**

Searching Manuscript



- Search Aceh Manuscript in Tanoh Abee.
- Tanoh Abee is Pesantren, a place that educate people to boarder their knowledge of Islam.
- It was built in 1625 by Al Farusy Al Bagdadi

Tanoh Abee Ancient Library

- The library collects 6000 manuscripts, originally 100.000 manuscripts. They lost most of their collection because they can maintain the collection properly



The Manuscript Condition

- Holed and torn by insect
- Dirt by fungus
- Brittle caused of climate



The Manuscript Collection will be

- Fumigated
- Conserved
- Digital Preserved

Important Archive Rescuing



- Land certificate Nasional (National Land Agency)

Kept by Badan Pertanahan



Importance of Land Certificate should be Rescued



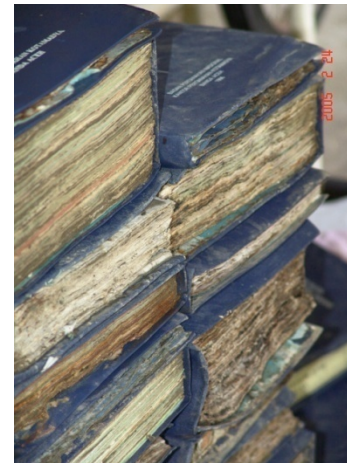
- as evidence of land ownership
- most of tsunami victim lost their land certificate
- after tsunami disaster the land border changed extremely.

Form of Important Archive

- Sheet



- **Binding**



The Document Damages



- Dirt
- Wet
- Fungus
- Torn

Steps to Rescue the Document



- Evacuating the documents from disaster area
- Transporting the documents to the save place
- Cleaning the documents from mud
- Dip drying the documents in ethanol 70%
- Drying the documents (sheet)
- Wrapping the document in silicon paper
- Packaging the document (binding) in boxes
- Keeping the documents in to Cold Storage -30° C
- Moving the binding documents in to vacuum chamber to make them dry
- Transform the documents in digital
- Building the data base

Evacuating the Documents



DISASTER AREA

The Document to be transported from Disaster Area



Transporting to a Safe Place



Keeping in A Strorage



Cleaning



- **Dry Cleaning:** Clean the dirt at the cover and the edges using a brush
- **Wet Cleaning:** Soak the archives in the water, brush the wet paper to remove the dirt inside the cover

Dip Drying the Documents in Ethanol

- Dip drying the document in ethanol 70% to keep the document wet and eliminate the spreading of fungus.



- Covering the documents with plastic sheet to keep the document stay wet until drying step.



The Room Temperature and Humidity



Document Drying



- **Done by drying tool, natural and mass drying**

The Document Drying (individually)

- Using Dryer Tool
- It takes a day per person to dry a bound document



The Sheet Document Drying

- **Dry in the** room temperature (Natural Drying)



Mass Drying

• Problem

- _ There was no vacuum chamber
- It takes 5 months to get vacuum chamber from overseas
- The document getting dry day by day
- There was no cold storage in Banda Aceh to keep the document stay wet in 5 months

• Solution

- Purchase the vacuum chamber
- The documents to be transported to Jakarta to keep in cold storage

Document Packaging

- Wrapping the documents with silicon paper and package them in boxes before they are transported to Jakarta





- **Moving the documents from Banda Aceh to Jakarta by Airplane**



Moving the Documents from Airport to cold storage, 20 miles distance



● Moving the Documents from the Truck




Moving the Document to Cold Storage



- The storage temperature is -30°C
- The document kept in a cool storage until the vacuum chamber arrive from Japan.

The Recommendation



Num	Activities	Time
1	Books and Library Equipment Purchasing	2005-2006
2	Library and Disaster Training Program	2005
3	Library Buildings Reconstruction	2005-2008



4	Mobile Library Purchasing	2005-2006
5	Land Sertificate Rescuig:: Conservation, Digital Preservation, Data BaseBuilding	2005-2006
6	Searching, Conserving and Media Transforming Aceh Manuscript	2005-2007

The Progress



Num	Activities	Explanations
1	Books and Library Equipment Purchasing	Done 2005 to 2009
2	Library and Disaster Training Program	Done 2006 to 2009
3	Library Buildings Reconstruction	Done 2005 to 2008



Number	Activities	
4	Mobile Library Purchasing	Done 2007
5	Land Certificate Rescuing: Conservation, Digital Preservation, Data BaseBuilding	Done 2005 to 2010
6	Searching, Conserving and Media Transforming Aceh Manuscript	Done 2005 to now

Library and Disaster Training Program



Library Buildings Reconstruction



before

after

Mobile Library Purchasing



At the time of the
incident



The brand new
mobil libraries



The Handover of Land Titles



The damage document

