



International  
Recovery Platform

# DRAFT Guidance Note on Recovery TELLING LIVE LESSONS FROM DISASTERS AS A PART OF RECOVERY



The Guidance Notes on Recovery: Telling Live Lessons from Disasters as a Part of Recovery was developed by the International Recovery Platform (IRP) inspired from stories shared during the TeLL-Net International Forum on Telling Live Lessons from Disasters Kobe, Japan in March 2010. IRP acknowledges the leading work of the focal person Liz Maly.

**IRP** was conceived at the World Conference on Disaster Reduction (WCDR) in Kobe, Hyogo, Japan in January 2005. As a thematic platform of the International Strategy for Disaster Reduction (ISDR) system, IRP is a key pillar for the implementation of the Hyogo Framework for Action (HFA) 2005-2015: Building the Resilience of Nations and Communities to Disasters, a global plan for disaster risk reduction for the decade adopted by 168 governments at the WCDR. The key role of IRP is to identify gaps and constraints experienced in post disaster recovery and to serve as a catalyst for the development of tools, resources, and capacity for resilient recovery. IRP aims to be an international source of knowledge on good recovery practice. IRP promotes “Build Back Better” approaches that not only restore what existed previously but also set communities on a better and safer development path and support development of enhanced recovery capacity at regional, national, and sub-national levels with particular focus on high-risk low-capacity countries.

The findings, interpretations and conclusions expressed in this paper do not necessarily reflect the views of the IRP partners and governments. The information and advice contained in this publication is provided as general guidance only. Every effort has been made to ensure the accuracy of the information. These volumes may be freely quoted but acknowledgement of source is requested.

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## Introduction

### **Introduction: Why Live Lessons?**

On March 11, 2011, a 9.0 earth quake and tsunami took tens of thousands of lives and destroyed a vast part of north eastern Japan. This region, known as Tohoku, or the Sanriku coast, is no stranger to tsunamis. The last major one occurred on March 3<sup>rd</sup>, 1933, and before that, in 1896. Along with a comprehensive system of sea walls, evacuation routes and warning systems, in the towns along the coast of Tohoku, there are many reminders, inscriptions saying ‘when there is an earthquake, beware of tsunami’, or markers of where the water reached at that time. This most recent disaster is the largest that Japan, a very seismically active country, has ever seen, and it overwhelmed many systems of disaster prevention and response, including sea walls and evacuation sites thought to be safe. However, without the disaster training and preparedness systems that were in place, without a doubt, the lost of life would have been greater. In the several generations between the 1933 tsunami and today, enough time has passed so that people start to forget the danger. This tsunami is an example both of the value of live lessons, and also a reminder that we need to keep passing on these stories.

We must learn from the experience of disaster and recovery, to reduce suffering in the future. If we can ‘Build Back Better,’ a resilient recovery leaves a community and region with improved infrastructure, policies and networks, and higher levels of disaster mitigation and preparedness.

It is important to share the lessons of recovery so that we can all learn from the experiences of people in other places and see what worked and what didn’t. Then not only can we prevent damage from disasters in the future, but also in the tragic event of a disaster, we can learn from the lessons of recovery, and engage in a recovery process that is the most beneficial to the people of the stricken area.

Although it is important to collect the data and documents that describe the disasters, one of the most powerful ways to share the lessons of disaster and recovery is through the process of telling live lessons. Through the various methods of sharing experiences directly, the power of the story told by the person who experienced the disaster themselves can have multiple impacts.

Live lessons can contribute to disaster preparedness, mitigation, and a recovery that builds back better. They also have great value as a way to create monuments and memorials, and can be transformative and therapeutic activities for individuals and whole communities.

### **Inspiration-the Transfer Live Lessons Network**

The inspiration for this document came from the stories that were shared during the TeLL-Net International Forum on Telling Live Lessons from Disasters Kobe, Japan in March 2010. With the Secretariat office in the Human Reconstruction and Renovation Institute in Kobe Japan, TeLL-Net is an international network working to

transfer experiences and lessons of disasters across borders in the hope of reducing future damage. Many of the examples and cases included in this document are from TeLL-Net members or Forum. For more information about TeLL-Net and information about past events and participants, please visit <http://tellnet.jp/>.

### **Methods and Examples**

For clarity, the cases included here have been grouped together by theme, although in practice there is a lot of overlap and interrelated aspects of passing on lessons and stories. Many of the most successful examples combine more than one of the themes. The following categories are intended to give an idea of the broad range of strategies and approaches that can be employed to share the lessons of disaster.

The examples in this document have been selected within the following categories:

1. Museums
2. Preservation of Physical Disaster Damage
3. Memorials and Monuments
4. Memory Transfer
5. Storytelling
6. Folk Media

## 1. Museums

As a physical object and venue for presentations and activities, museums are a primary way to pass on the experience of a disaster. Museums can collect, store, and display artifacts that bring home the reality of what happened, and can also include spaces and programming where people with experience of the disaster can interact with visitors. Along with presenting information, disaster museums can provide a format for a variety of activities and opportunities for education, including sharing the memory of the event, the lessons learned, and preparedness and mitigation information.

Exemplary disaster museums can combine many of the methods for passing on live lessons that are included in this document. One such example is DRI in Kobe, Japan.

### **Case 1: The Disaster Reduction and Human Renovation Institute, Kobe, Japan**

In cooperation with the Japanese National Government, the Hyogo Prefectural Government established the Disaster Reduction and Human Renovation Institute (DRI) in April 2002. DRI's mission is to transfer the live experiences of the Kobe Earthquake, and to apply lessons learned from this disaster toward a better future. With the overarching goal of realizing a safer and more secure civil society, DRI is also intent on cultivating a disaster resistant culture, reducing social risk and vulnerability, and developing disaster reduction policies.

The main functions of DRI are: museum exhibits, collection and preservation of documents and materials; action research on DRR; training disaster management practitioners; assistance in disaster response, and exchange and networking.

The main museum exhibits are supplemented by volunteers who tell stories, interpret into foreign languages, and explain the exhibits. The museum also includes the 1.17 theater, which makes it possible for visitors to have an experience similar to that of the Kobe earthquake, and exhibitions of materials and documents from the recovery process. In addition to the exhibitions, DRI has a vast collection of documents and artifacts from the recovery.

DRI conducted trainings for disaster risk reduction and disaster management practitioners, and also support for full-time and senior researchers. The DRI is engaged in ongoing research about earthquakes which are predicted to strike Japan in the future, and DRI is also prepared to and does act as Headquarters of Disaster Response for domestic and international disasters.

As part of the storytelling activities that take place within the museum and DRI, now there is special emphasis on conveying the story of the earthquake to the younger generation. As 15 years have passed since 1995, we can say that now is the time when there are now longer any children who can remember the earthquake, and therefore it is important to create a method to pass on the information. One approach that has been taken is for people who were children at the time of the

earthquake (now adults) to tell about their experiences to today's children. This helps connect with the point of view of the youth audience.

Source: Disaster Reduction and Human Renovation Institute website, <http://www.dri.ne.jp>

After experiencing a disaster, many people feel the desire to pass along the lessons they have learned. The Pacific Tsunami Museum in Hawaii is one example of a unique museum created by local residents after a tsunami in 1993.

### Case 2: Pacific Tsunami Museum in Hilo, Hawaii

The motto of the Pacific Tsunami Museum is:

“We believe that through education and awareness no one in Hawaii should ever again die due to a tsunami.”

The activities of the Pacific Tsunami Museum began when a survivor of the 1993 tsunami had the idea to collect photos and stories of the tsunami, and other volunteers joined in (Murata, 2010). In 1997 when a bank donated a building, the museum gained a permanent space. Exhibits in the museum include information about the science of tsunamis as well as historical events, and video interviews with survivors. It also houses, organizes, and preserved various types of documents, including scientific papers, newspaper articles, and other relics such as a bent parking meter, photographs and videos, and other primary and secondary materials, and makes these items available to researchers. In particular, it is active in collecting interview records and memoirs of tsunami survivors and tsunami witnesses (Murata, 2010).

The museum also sponsors events that give disaster survivors a chance to gather together. Many museum visitors are local residents, including school children; as an almost entirely volunteer run museum, the Pacific Tsunami Museum is small, but with a strong connection to the community.

Source: Murata, Susumu, Fumihiko Imamura, Kazumasa Katoh, Yoshiaki Kawata, Shigeo Takahashi, and Tomotsuka Takayama. *Tsunami: to survive from Tsunami*, in *Advanced Series on Ocean Engineering*, vol. 32. World Scientific Publishing: Singapore, 2010, p. 218

Reference: The Pacific Tsunami Museum website. <http://www.tsunami.org>

Beyond focusing on the story of the disaster and actions for disaster prevention, museums (including those already mentioned) often incorporate the aspects of scientific study related to disaster. The following Mimatsu Masao Memorial Museum honors a very unique citizen-scientist who gathered data about a developing volcano in the 1940s, which was later used to make a hazard map that minimized the effect of a later volcano in 2000.

### Case 3: Mimatsu Masao Memorial Museum

The story of Masao Mimatsu is one of a local postmaster who documented a volcano that developed near his house during 1943-43. Because it occurred during World War II, there were no resources or experts who could study about the volcano at that



time. Mimatsu watched as the wheat field rose up to become a mountain and active volcano.

In 1943, Mt. Showashinzan swelled and rose up from the green wheat fields with earthquakes and the sound of eruptions. For four months there were eruptions, and during that time the earth gradually rose as hardened dacite lava was pushed up by the energy of the Earth's depths, thus creating the 402-meter belonite volcano. Mt. Showa Shinsan is now inside the Toya Caldera and Usu Volcano Global Geopark.

Sources: [http://www.town.sobetsu.lg.jp/kanko/english/midokoro/syowa\\_sinzan/syowa\\_sinzan.html](http://www.town.sobetsu.lg.jp/kanko/english/midokoro/syowa_sinzan/syowa_sinzan.html). Accessed 01.05.2011. <http://www.toya-usu-geopark.org/en>. Accessed 01.05.2011

Although he did not have scientific training, Mimatsu documented the changes and evolution of the volcano through the use of detailed sketches, which were later praised by the scientific organization, and became known as the Mimatsu Diagram. His notes are preserved in the Mimatsu Masao Memorial Museum. His research led to the creation of a hazard map, that was useful during the Mt. Usu eruption in 2000, and minimized loss and chaos at that time.

Source: Mimatsu, Saburo. "Role of Those Living at the Foot of the Volcano—Handing Down the Wisdom to the Next Generation." Kobe, Japan. The International Forum on Telling Live Lessons from Disasters. 3.21.2010. Conference Presentation

One of the newest museums dedicated to a disaster is the Hurricane Katrina Museum in New Orleans, which opened in 2010. This museum includes a focus on what happened and went wrong leading to this disaster, and also disaster preparedness and scientific information.

#### Case 4: Hurricane Katrina Exhibition at the Louisiana State Museum

*This exhibition, which opened in October 2010, uses Hurricane Katrina as a 'teachable moment'—a way to examine failed engineering, emergency planning and environmental practices as well as an opportunity to highlight the immense efforts on the part of ordinary citizens, scientific experts, and others to ensure that people around the world are able to learn from these failures and plan for a safer future. The Museum aims for visitors to take an active part in understanding hurricanes and floods and preparing for them. The exhibit will also ask visitors to consider what disaster preparedness means nationally and globally.* - Karen T. Leathem

The museum includes artifacts from the storm, explanations of the history of the city and past hurricanes and flooding, information about the evacuation and the storm itself. There is a storm theater, where visitors can experience what the hurricane was like. An attic room features oral histories of actual people who were trapped in their attics, and another room has oral history audio, images, and artifacts. A variety of objects and images convey the experience of the storm and aftermath.

Scientific information about storm systems, forecasting, and how the levels failed, is presented with interactive media. Finally the issues of preparedness and planning are considered. Educational programming will be expanded in the near future.

Source: Leathem, Karen. "Living with Hurricanes: Katrina and Beyond--an Exhibition." Kobe, Japan. The International Forum on Telling Live Lessons from Disasters. 3. 21.2010. Conference Presentation.

References: Louisiana State Museum website. <http://ism.crt.state.la.us/> Exhibition website: <http://ism.crt.state.la.us/katrina/>

As do several of the tsunami museums mentioned so far, the International Tsunami Museum in Khao Lak, Thailand includes information about what happened during the disaster. It also presents information about preparedness and the tsunami warning system now in place. By explaining tsunamis and preparedness, the museum helps local people feel less worried and more prepared. This case is an example of a museum telling stories, but underscores a connection between the museum and psycho-social aspect of recovery.

#### Case 5: International Tsunami Museum in Khao Lak, Thailand

##### The Story Behind the founding of the International Tsunami Museum in Khao Lak

*Many survivors told us that they were fearful about future tsunami threats. They said they did not have a good understanding about the warning signs of a tsunami, how to evacuate, or how tsunamis form. We also were told that they did not realize how millions of people around the world pulled together to help those affected by the tsunami.*

*Something special happened when we informed them about these topics. Their fears diminished, and they thanked us for sharing this information. Hearing about the worldwide response made them feel proud and thankful. Most said they had not heard the information we shared with them. Not having the information is a result, in part, of their losing homes and possessions (e.g., television and radio) due to the tsunami and not having insurance to recover. I wondered how we might apply these findings in order to inform large numbers of people in Thailand about these topics.*

*In March 2006, I came up with an idea to build an educational museum in an area especially hard hit by the tsunami. A museum could help people understand the event that changed so many lives by showing how the Indian Ocean tsunami formed, showing how the tsunami affected the environment, and how foundations, organizations, businesses, and individuals around the world rallied to help. Exhibits in the museum also could discuss the warning signs of a tsunami and how to evacuate, and the new tsunami warning system being built in the Indian Ocean. And, the museum could show hope, resilience, and the human spirit, and help people move forward with their lives.*

*-Dr. David Sattler*

Source: Tsunami Museum website, <http://faculty.wvu.edu/sattled/tsunamimuseum1.htm>.

The following examples show how museums document and explain the local experience of disasters using artifacts, photos, recreations, and dioramas.

### **Case 6: Adapazan Earthquake and Cultural Museum, Turkey**

After the August 1999 Earthquake which killed over 17,000 people, the Adapanzi Earthquake Museum was constructed to pass on the lessons of the disaster to future generations. This is the 1st earthquake museum in Turkey, and the 4th in the world.

Exhibits include photos taken immediately after the quake, recreation of an ordinary family's room after the quake, before and after photos of main points in the city, and records of past earthquakes.

**Source:** Dikmen, Bilge. "17 August 1999." Kobe, Japan. The International Forum on Telling Live Lessons from Disasters. 3.21.2010. Conference Presentation.

### **Case 7: Telwatta Tsunami Photo Museum, Sri Lanka**

On the 26th of December 2004 the Tsunami hit different countries. Also in Sri Lanka many lives were lost and the damage was huge. Many people on the coast lost nearly everything they had. It is impossible to tell all the Tsunami stories, as there are too many. But by telling some of them we think people will get a general idea about what happened. The museum is about the Tsunami and the first years after, as so much changed every day. Here we see local people build up their lives from scratch.

**Source:** Telwatta Tsunami Photo Museum website, <http://tsunami-photo-museum-srilanka.blogspot.com/>

The Telwatta Tsunami Photo Museum in Sri Lanka is partly supported by the Watersnoodmuseum in the Netherlands, which is introduced in a following section.

### **Case 8: Civil Protection Museum, Algeria**

Due to the May 21st, 2003 Earthquake, many school buildings were damaged. Subsequently, the government introduced a comprehensive disaster education program that targeted school children and teachers, including disaster preparedness. One aspect of this program is the Civil Protection Museum, where children and other visitors can see dioramas depicting what it was like after the earthquake.

**Source:** Benouar, Djillali. "Using Telling Live Lessons in Preventative Education and Training for Disaster Risk Reduction: Algerian Experience." Kobe, Japan. The International Forum on Telling Live Lessons from Disasters. 3.21.2010. Conference Presentation

Inspired by the traditional Acehnese house raised on stilts, which is naturally disaster resistant and can withstand a tsunami, the Aceh Museum includes the functions of a memorial for victims as well as an evacuation site in the case of future disasters.

### **Case 9: Aceh Museum**

A grand building shaped like a cruise ship stands proudly in Banda Aceh, the capital of Aceh Province. The tsunami museum cost the Aceh-Nias Rehabilitation and Reconstruction Agency, or BRR, Rp 67 billion (\$5.6 million) to build and is said to represent the strength of the Acehnese in surviving the Dec. 26, 2004, Indian Ocean tsunami. The 2,500-square-meter museum stands on a 10,000-square-meter plot north of Blang Padang field.

Eddy Purwanto, operations deputy for BRR, said the concept for the tsunami museum was “Rumoh Aceh [traditional Aceh house] as Escape Hill.” A traditional Aceh house on stilts and is a symbol of local wisdom, and has been incorporated into the museum’s design. When Aceh was struck by a tsunami, many houses on stilts were able to survive the raging water.

“If you look at the walls of the museum, you will see thousands of people doing the saman dance,” Eddy told the Jakarta Globe. “The philosophy behind it is that the Acehnese are a disciplined and orderly people. The saman dance is another symbol of the strength of the Acehnese.”

In 2007, a nationwide design contest was held for architects and planning consultants. From the 125 submissions, the Acehnese jury chose a design by Ridwan Kamil, a professor of architecture from the Bandung Institute of Technology, or ITB, in Bandung, West Java Province, for its portrayal of Acehnese characteristics.

The contours of the building, according to the jury, show the designer’s efforts to delve into the Acehnese culture and psyche. A chamber in the museum is shaped like a tapering chimney with the Arabic inscription for God written on its top. This reflects the religious nature of Aceh’s people, who believe that God holds supreme might and power over all things.

The museum’s first floor is an open space, as is traditional in an Acehnese house. In addition to its use as a public space, the space allows floodwater and tidal waves to run unencumbered. The building’s exterior expresses the cultural diversity of Aceh through its use of transparent, decorative ornaments. The interior takes the visitors through a “tunnel of sorrow” that invites contemplation of the disaster.

The museum also has an escape hill, a park on a knoll that people can run to in the event of a flood or tsunami. It also features a hill of light, in addition to a garden with space where people can lay flowers. Another memorial room is located underground, complete with an exhibition hall.

The chimney wall will be inscribed with the names of tsunami victims. Eddy said the names had been listed by the Aceh government. “More than just a place to remember the martyrs who died in the tsunami, the museum will serve to educate people and can serve as a refuge in the event of another tsunami,” he said.

“The initial idea [for the museum] came from looking at memorials in other countries,” he said. “There was no memorial for the many people who fell victim to the tsunami. Victims of the Kobe earthquake in Japan have their own memorial. Pearl Harbor has a museum. So we built a memorial for the tsunami victims in Aceh after we consulted with the public.”

**Source:** Nurdin Hasan “Memorial for Tsunami Victims Pays Tribute to Acehnese Culture,” *The Jakarta Globe*. February 24, 2009. <http://thejakartaglobe.com/news/memorial-for-tsunami-victims-pays-tribute-to-acehnese-culture/308397>

## 2. Preserving Physical Disaster Damage

In the previous section, several cases included recreations of the disaster experience or scenarios in the context of a museum. Preserving the physical conditions of the disaster itself is a related method to teach about the disaster that can bring home the reality of the event and preserve its memory. Physical disaster damage includes artifacts such as damaged structures or broken objects, but also the preservation of larger areas, such as fault lines or landslides, as they were at that time.

### Case 10: 915 Earthquake Museum in Taiwan

At 01:47AM on September 21, 1999, the central part of Taiwan was struck by an earthquake that registered 7.3 on the Richter Scale. The resultant loss of life and damage to property put it among the worst natural disasters of the past century in Taiwan. In the wake of the 921 disaster, the local government decided to preserve some of the phenomena related to the earthquake such as slips in the fault line, collapsed school structures, raised river beds and other selected locations, to serve as reminders for the public of the need to prepare for such disasters and to be ready to provide emergency rescue services.

Source: 915 Earthquake Museum website,  
[http://www.921emt.edu.tw/e\\_content/about/about01.aspx](http://www.921emt.edu.tw/e_content/about/about01.aspx)

### Case 11: Kobe Port Earthquake Memorial Park

Kobe Port Earthquake Memorial Park is located on the east of the Kobe Maritime Museum. It is an area of the Meriken Pier which was struck by the Great Hanshin-Awaji Earthquake, and has been preserved in its damaged state. It is intended to convey a message to the world regarding the devastation of the earthquake and the city's subsequent restoration. In conjunction with the earthquake-related exhibition inside the Kobe Maritime Museum, it relays the tragedy of the disaster.

Source: Kobe City website, [http://www.city.kobe.lg.jp/life/access/harbor/english/kankou-1\\_e.html](http://www.city.kobe.lg.jp/life/access/harbor/english/kankou-1_e.html)

The Nojima Fault Museum on Awaji Island, in Hyogo Prefecture preserved the fault area itself as it was after the Kobe Earthquake. It includes buildings and structures near and on the fault line, as well as exhibiting the effect of the earthquake on a typical house. The museum also includes a memorial.

The following several cases show examples of disaster-affected areas that have been preserved at a larger scale, where the entire area can function as an outdoor museum.

### Case 12: Unzen Geopark

The Mt. Unzen Disaster Memorial Hall was established in 2002 as the central facility of the Shimabara Peninsula Geopark, in Nagasaki Prefecture, Kyushu, Japan. The function is to pass on the lessons of the Mt. Unzen volcanic eruption which occurred from 1990-1995, both to local children of the next generation, and also visitors who come from areas. Nearby there is also a damaged elementary school building that

has been left as it was as a reminder of the disaster. The Mt. Unzen Memorial Hall includes exhibits about the science of disaster, process and experience of recovery, activities of storytelling, memorial and other events.

The geopark is a sort of 'outdoor museum' where visitors can experience the earth and how it works directly. Along with the geological features and topography, local history and culture is also exhibited.

Sources: Kawamoto, Fujio,. "The Role of a Museum Passed Down to Posterity about Volcanic Disasters on Mt Unzen." Kobe, Japan. The International Forum on Telling Live Lessons from Disasters. 3. 21.2010. Conference Presentation.

Sugimoto, Shin'ichi. "Telling Live Lessons of Volcanic Eruption Disaster of Mt. Unzen." Kobe, Japan. The International Forum on Telling Live Lessons from Disasters. 3. 21.2010, Conference Presentation

References: Murata, Susumu, Fumihiko Imamura, Kazumasa Katoh, Yoshiaki Kawata, Shigeo Takahashi, and Tomotsuka Takayama. *Tsunami: to survive from Tsunami*, ( Advanced Series on Ocean Engineering), vol. 32. World Scientific Publishing: Singapore, 2010, p. 217.

Reference: <http://www.city.shimabara.lg.jp/section/shokan/geopark/index.html>

### Case 13: Sichuan Earthquake-Damaged Area Becomes a Museum

In the Area of Beichuan County, which was devastated by the 2008 earthquake, the decision was made to reconstruct the county in another place and preserve the entire area as an earthquake city.

This is also an approach included in the Wenchuan Earthquake Museum in Sichuan, China. The value of the damaged site that was selected is to exhibit "the historical moment of the happening of the natural disaster....[it is] significant to preserve the valuable cultural heritage...[including] twisted houses, crashed building by landslide broken automobiles in the street, large rocks falling down from the mountain, and traces on the road."

Source: Liu, Huabin, "Wenchuan Earthquake Site Museum." Kobe, Japan. The International Forum on Telling Live Lessons from Disasters. 3. 21.2010. Conference Presentation.

In the case of the Watersnoodmuseum in the Netherlands, the museum itself is located inside the concrete caissons that were used to block the break in the dyke during the flood of 1953. The museum presents the events of the flood and also is dedicated to raising awareness of issues of water and climate change as part of disaster prevention for the future.

### Case 14: Watersnoodmuseum in the Netherlands

Four concrete mega-structures in the old sea dyke near Ouwkerk in Schouwen-Duiveland, the Phoenix caissons, accommodate the unique collection of the recently renovated Watersnoodmuseum. It was not until nine months after the flood that the last breach in the dykes of the south-westerly part of the Netherlands was closed off with these caissons. This historic site, with these silent witnesses of the flood and the following reconstruction, and the surrounding area were declared a National Monument fifty years later.

The museum remains a place to remember the events of 1953, and is also the very spot to look ahead, with the experience of the past and present-day technology in mind. Walk through the museum, see the four caissons and experience the whole tragic story of the Flood, the following reconstruction and our awareness of the environment and water management, now and in the future.

### **Surrounding area**

The area surrounding the museum is also a part of the National Monument. The creeks, washed out by the sea water, the marshes, the remaining part of the old sea dyke, the new sea dyke, and the nature reserve all these are the results of the Flood.

There is a small watch tower overlooking the Easter Scheldt River in front of the caissons, close to the monument of the municipality of Schouwen-Duiveland to commemorate the victims of the Flood.

Source: [http://www.watersnoodmuseum.nl/en\\_GB/](http://www.watersnoodmuseum.nl/en_GB/)

*This museum is commemorating the flood of 1953, and the last part of the broken dike that was closed. In this museum, which is housed in 4 caissons, the story of the flood is presented, along with the experience of people at that time, the reconstruction and planning of the region, and an exhibit about living with water now and in the future.*

*Climate is changing and sea levels are rising. We are surrounded by water everywhere. If we want to live safely and dry, in our low-lying country by the sea, our approach to water management must change. Technologically, much can be done, and a lot can also be achieved by a clever use of nature and natural processes and resources, or by different views on housing. And what can we do to improve our own safety?*

Source: Geluk, C.J. "Watersnoodmuseum: Remember, Learn and Look Ahead." Kobe, Japan. The International Forum on Telling Live Lessons from Disasters. 3. 21.2010. Conference Presentation.

Physical artifacts can also be preserved from the disaster recovery phase. Refugee cottages that were occupied by survivors of the 1906 earthquake in San Francisco, have recently been restored. They have been exhibited in various venues and used to house exhibits and stories of the victims, to keep people from forgetting the earthquake.

### **Case 15: Refugee Cottages preserved after the San Francisco Earthquake and Fire**

In San Francisco, the Western Neighborhoods Project has preserved four refugee cottages built after the 1906 San Francisco Earthquake and Fire. The cottages were originally built for victims of the earthquake and fire, but after the refugee camps closed in 1908, the shacks were sold, moved, and eventually their story of the earthquake was forgotten. In honor of the centennial of the Earthquake, the Western Neighborhoods Project restored a shack, and it was on display in the center of San Francisco, where it was used to house exhibits about the disaster and stories of the

victims. Other shacks have also been restored and are on permanent display at other locations.

Source: Western Neighborhoods Project website. <http://www.outsidelands.org/shacks> and <http://www.outsidelands.org/sw17.php>



### 3. Monument/Memorial

As a physical marker, memorial monuments are created to preserve and honor the memory of the precious lives lost in a disaster. As mentioned in earlier sections, monuments are often combined with a museum or other education facilities. The examples in this section include monuments that include physical artifacts of the disaster, preserved areas, or other educational and memorial activities.

#### Case 16: Nepal Earthquake Monument

Nepal has been highly susceptible to earthquakes over hundreds of years. There was a M 8.3 Richter scale earthquake in 1934 which killed over 5000 people. 5 years later, in 1939, there was a stone monument erected, which included lessons inscribed on the 6 marble plates around the column. After the reconstruction of that earthquake, there was another monument to the earthquake constructed in the city of Lalitpur, also with lessons inscribed on the column, and also the start of the Annual Earthquake Safety Day. In addition, a clock with which was stopped at 2:15 (the time of the earthquake) and a wrenched steel beam have been preserved in the condition that they were in and included in an exhibit in the National Museum of Nepal.

Source: Dixit, Amod Mani, "Telling Live Lessons of Disaster: Nepal's Experience." Kobe, Japan. The International Forum on Telling Live Lessons from Disasters. 3.21.2010. Conference Presentation

#### Case 17: El Salvador Earthquake Monument and Historical Memory

The January 13 2001 Earthquake in Santa Tecla, El Salvador killed at least 944 people. After this disaster, there have been several initiatives to preserve the historical memory of the event, including the creation of a video library, memorial park, commemorative events on the anniversary of the earthquake, promotion of volunteer work towards diffusion of testimonials, and conferences about risk management. One significant monument that has been created is the public cemetery. There, the remains of over 110 victims who could not be identified were laid to rest. This municipal cemetery has many visitors on the earthquake anniversary (Jan. 13th), and also on the Mexican Day of the Dead (Nov. 2nd). In addition, local government officials also pay respects to this cemetery every year.

Source : Hernandez, Luis, "Municipal Policies for Disaster Risk Reduction: Historical Memory." Kobe, Japan. The International Forum on Telling Live Lessons from Disasters. 3.21.2010. Conference Presentation.

#### Case 18: Okushiri Tsunami Museum, Hokkaido Japan

After the 1993 Hokkaido Nansei-oki earthquake, there was a fire and tsunami. 198 people lost their lives. The severely affected low-lying district of Aonae was not rebuilt: rather the Okurishi Museum was opened there, along with a memorial greenbelt and stone monument. The museum also includes the recreation of Okushiri Town in 3-D models, and a documentary film about the Earthquake.

Source: Murata, Susumu, Fumihiko Imamura, Kazumasa Katoh, Yoshiaki Kawata, Shigeo Takahashi, and Tomotsuka Takayama. Tsunami: to survive from Tsunami, in *Advanced Series on Ocean Engineering*, vol. 32. World Scientific Publishing: Singapore, 2010, p 15.

## 4. Memory transfer

One of the most powerful ways to pass on the experience from a disaster is for visitors to have direct contact with local people or disaster survivors. These activities can be supported by artifacts and tangible reminders of the tragic events, as mentioned earlier with regards to the DRI museum in Kobe and the Pacific Tsunami Museum in Hawaii. Memory transfer activities can occur within a museum, but are not limited to this context.

### Case 19: Earthquake Memory and Information Center, Kaynasli, Turkey

After the Marmara Earthquake in Turkey, there was an Earthquake Memory and Information Center established in the city of Kaynasli. It was started on November 12, 2005 by a local women's initiative, with the support of the city. The Center preserves photos and artifacts from the earthquake, but also introduced a system for women volunteers who experienced the earthquake to accompany visitors. The Center's location close to the school means that it is easy for children and mothers to visit, which will lead to higher awareness of disaster in daily life and the home.

Source: Sakamoto, Mayumi. "Disaster Recovery and Disaster Memory Transfer-Cases of Japan and Turkey." Kobe, Japan. The International Forum on Telling Live Lessons from Disasters. 3.21.2010. Conference Presentation.

Usually memory transfer would be considered as the direct transference of personal memory of the speaker. In the case of Mt. Asama volcano in 1783, villagers of the affect area have managed to pass along the memory of the disaster over many generations, and also preserved original documents, created monuments, and continue to observe regular memorial ceremonies and other related activities.

### Case 20: Village memory passed down after the Mt. Asama Volcano of 1783

The village of Kambara was buried by the mud flow of the eruption of Mt. Asama volcano in 1783, which killed 1,490 people in 37 villages. In Kanbara village, 477 people perished, and the 93 people who survived rebuilt a new village, and continued to pass on the story of the volcano, and events remembering the victims, for more than 200 years. Original documents that include description of damages from the eruption, ash-fall and mud flow have been preserved, along with artifacts of the volcano itself, such as a large rock which is now a monument. The ruins of a damaged former temple, Kabasukune Shine, have been enshrined, and stone markers/monuments were erected in the disaster affected area on the 3rd, 33rd, 100th, 150th, and 200th anniversary of the volcano, along with memorial ceremonies (Inoue, 8). The memory of the disaster is kept alive by the community through various activities, such as religious memorial ceremonies and events, chanting sutras, hymns about the eruption, the activities of community organizations, even the distribution of a special kind of food-migo dango, or steamed rice flour balls on a stick.

Excavations of this area were carried out between 1979 and 1982, and unearthed the ruins of the village and victims who had been buried under 6 meters of earth.

Sources: Seki, Toshiaki, "The Initiatives in Kanbara Area, Tsumakoi Village and other Mud Flow Stricken Areas-Mt. Asama Eruption Disaster in 1783" Kobe, Japan. The International Forum on Telling Live Lessons from Disasters. 3. 21.2010. Conference Presentation

Inoue, Kimio, "Debris Flows and Flood-induced Disaster Caused by the Eruption of Asama Volcano in 1783 and Restoration Projects Thereafter," *Interpraevium* 2d10, Taiwan

## 5. Storytelling

Storytelling is a key part of telling live lessons. All of the approaches included in these categories could be referred to as a kind of storytelling, or incorporate some storytelling activities. At the basic level, the story told to the listener is the way to connect with personal experience. This is especially important from an intergenerational point of view—older storytellers may have unique experiences, and younger listeners have no personal experience with the events in the story. As mentioned in the introduction of DRI in Kobe, storytelling is important. In the example from Kobe (DRI): students who were 6th and 7th graders at the time of the earthquake (now adults) tell their stories to students who are now 6th or 7th graders.

The following story, *Inamura no Hi*, is a tale of historic disaster mitigation during a tsunami in the 1850s, and has been broadly circulated. In Japan, this story became part of the Japanese elementary school curriculum for a time. Today, with the support of the Japanese Government, the Asian Disaster Reduction Center (ADRC) has made it available in nine languages and distributed it to eight Asian countries as education material for tsunami awareness.

### Case 21 Inamura no Hi; Japanese Story of Disaster Mitigation

"Inamura no Hi" is a story of a man who noticed a precursor of a large tsunami at the earliest stage and led village inhabitants to a high ground by burning harvested rice sheaves (inamura in Japanese). This story was based on a true story at the time of Ansei-Nankai Tsunami in 1854, which claimed around 3,000 lives in the coastal areas of Western Japan.

Source: <http://web.adrc.or.jp/publications/inamura/phase1.html>

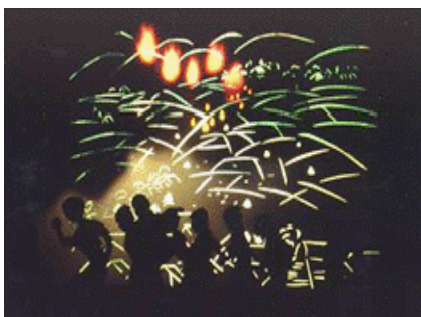
This story was later adapted and included in textbooks for Japanese elementary school children from 1937-1947.

This story has been made into a booklet by ADRC and distributed in many languages and many countries, in formats both for children and adults, and can be downloaded here: <http://www.adrc.asia/publications/inamura/list.html>

Outline of the Story of Inamura-no-hi

A big earthquake occurred in the evening. Mr. Gohei, a village chief, became very much worried about tsunami. From the garden of his house on the top of the hill, Gohei looked down at houses situated along the coast. The villagers did not seem to notice that tsunami was coming. "I should warn the villagers at once!" He decided to set a fire to inamura (rice sheaves) which were made of just-harvested rice crops.





The villagers saw the fire and shouted, "There is fire at the house of the village chief!" They made their way up to the hill. They were shocked to see the burning inamura. They tried to put out the fire at once. But Gohei exclaimed in a loud voice, "Leave the fire as it is. Tell everyone hurry up to the hill. A disaster is coming." They could not understand what was happening.

Just then, Gohei pointed out to the sea, and shouted. "Look. Tsunami is coming." The sea water stood up like a wall.

The villagers saw the terrible white water destroying their village. They finally understood that it was the fire that saved their lives. They could not find the words to thank Gohei.

**Source: Reprinted from the ADRC pamphlet: <http://web.adrc.or.jp/publications/inamura/phase1.html>**

This story is based on actual events of the time, and the village chief Goyrou, who is the hero of the story, supported other disaster recovery measures after the tsunami, including housing reconstruction, and paying daily wages to villagers who contributed to the building of a dike. This Hiromura dike, which is 5 meters high and 600 meters long and planted with pine trees, took 4 years to build and protected the village from late high waves and tsunamis, especially the Showa Nankai Earthquake of 1946. Although the surrounding area has changed, the dike still exists as it was created, and every year school children repair it by adding soil during the yearly tsunami festival. In this way the lessons of disaster preparedness are being passed down to the younger generations.

**Source: <http://www.tokeikyou.or.jp/bousai/english/inamura-link-story.htm>**

Nearby, "Inamura-no-Hi no Yakata," consisting of the Hamaguchi Goryou Archives and Tsunami Educational Center was established in April, 2007 in order to learn from and hand down the achievements and spirit of Hamaguchi Goryou, who is renowned for "the fire of rice sheaves."

In Inamura-no-Hi no Yakata, visitors can learn about the events and life of Hamaguchi Goryou, and also learn about tsunami disasters, recovery, and preparedness.

**<http://www.town.hirogawa.wakayama.jp/inamuranohi/english/index.html>**

The following cases show the effectiveness of traditional storytelling as a way to integrate disaster preparedness in everyday life, leading to a drastic reduction in disaster loss and casualties. For the Moken people, who are nomadic and live much of their lives on the Ocean off the coast of Thailand and Burma, there is a story that before a tsunami when the sea recedes, a monster wave called Laboon appears to eat children. Children learn that they need to run away to avoid this monster. In this way, the legend helps to become part of the daily routine, and the Moken people survived the 2004 tsunami because they were able to escape to high ground.

#### Case 22: Moken “Sea Gypsies”

There is one group who live precisely where the tsunami hit hardest who suffered no casualties at all. They are the sea gypsies of the Andaman Sea, or as they call themselves, the Moken.

They’ve lived for hundreds of years on the islands off the coast of Thailand and Burma. They are, of all the peoples of the world, among the least touched by modern civilization.

They miraculously survived the tsunami because they knew it was coming. It’s their intimacy with the sea that saved the Moken. They’re born on the sea, live on the sea, die on the sea. They know its moods and motions better than any marine biologist. They’re nomads, constantly moving from island to island, living more than six months a year on their boats.

At low tide, they collect sea cucumbers, and catch eels. At high tide, they dive for shellfish. They’ve been living this way for so many generations that they’ve become virtually amphibious.

Kids learn to swim before they can walk. Underwater, they can see twice as clearly as the rest of us, and by lowering their heart rate, can stay underwater twice as long. They are truly sea urchins.

**60 Minutes** discovered a Moken village on an island two hours by speedboat from the coast of Thailand. It had become something of an exotic tourist Mecca before the tsunami.

A Bangkok movie star and amateur photographer named Aun was here on Dec. 26, 2004, taking pictures of Moken village life, when someone noticed the sea receding into the distance. Aun’s pictures showed the Moken on the beach crying. Did she have any idea why they were crying? “I feel like they know what bad will happen,” says Aun. Her pictures also show the Moken fleeing towards higher ground long before the first wave struck. Aun pointed out how high the water first came. And that was just the first wave. The worst was yet to come, and the Moken knew because of signs from the sea.

It wasn’t only the sea that was acting strangely. It was the animals, too. On the mainland, elephants started stampeding toward higher ground. Off Thailand’s coast,

divers noticed dozens of dolphins swimming for deeper water. And on these islands, the cicadas, which are usually so loud, suddenly went silent.

Saleh Kalathalay, a skilled spear-fisherman who was on a different part of the island, also noticed the silence. He ran around warning everyone. Kalathalay brought the skeptics to the water's edge, where they, too, saw the signs. Eventually, everyone, the Moken and the tourists, climbed to higher ground and were saved. But there's nothing left in the village.

Why does Kalathalay think the tsunami happened? "The wave is created by the spirit of the sea," says Kalathalay. "The Big Wave had not eaten anyone for a long time, and it wanted to taste them again."

How did the Moken know that the tsunami was coming? "The water receded very fast and one wave, one small wave, came so they recognized that this is not ordinary," says Hinshiranan. "And then they have this kind of legend that passed from generations to generations about seven waves."

It's a legend recited around campfires, bearing an astonishing resemblance to what actually happened on Dec. 26, 2004.

They call it the Laboon, the "wave that eats people," and it's brought on by the angry spirits of the ancestors. Before it comes, the sea recedes. Then the waters flood the earth, destroy it, and make it clean again

Source Leung, Rebecca. "Sea Gypsies Saw Signs In The Waves: How Moken People In Asia Saved Themselves From Deadly Tsunami" June 10, 2007  
<http://www.cbsnews.com/stories/2005/03/18/60minutes/main681558.shtml>

More Information : Sukrung, Karnjariya. 'Andaman Sea Gypsies Heeded Pre-Tsunami Signs ; Wisdom Of The Sea,' Bangkok Post 01.28.2005 <http://www.rense.com/general62/pretns.htm>

Maiani, Gianni. Tsunami: interview with a Moken of Andaman Sea  
[http://www.maiani.eu/video/moken/moken\\_en.asp](http://www.maiani.eu/video/moken/moken_en.asp)

Holland, Jennifer S. 'Tsunami Update: Saved by Knowledge of the Sea' National Geographic Magazine Online. April 2005. <http://ngm.nationalgeographic.com/2005/04/sea-gypsies/holland-text>

### Case 23: Traditional Knowledge about Smong in Aceh

'Smong' Legend Becomes a Lifesaver: Sumatra, Indonesia

While the Indonesian language does not possess a word for "tsunami" and therefore uses the Japanese expression, Simeulue language has a specific term for a tidal wave: smong.

As every child on the island knows, the last smong occurred in 1907. That time, more than half of the population along the west coast died.

"Even today the old story from our ancestors tells us what we should do: When the earth beyond the sea rumbles, run to the hills and save your life before the sea mountain breaks above your head," recounts Sudarmi in the village of Leubang.



“I knew of this legend when I was a little child and now pass it on to my grandchildren”, the 50-year-old says. In Banda Aceh, people had no idea about the risk and even summoned relatives to help “collect fish” from the beach, when the sea suddenly draw back after the earthquake of Dec. 26, 2004.

On Simeulue, the islanders, instead, ran immediately to the mountains, leaving everything just as it was. Only nine people died on the entire island.

At Leubang, there were no victims at all, although the village was completely washed away. “We lost everything but our lives,” Sudarmi says.

**Source: Christina Schott, Planet Mole, June 4th, 2006 <http://www.planetmole.org/indonesian-news/smong-legend-becomes-a-lifesaver-sumatra-indonesia.html>**

Simeulue Island, off Aceh’s west coast, offers lessons on surviving a near-source tsunami without technological warnings. Generated near the earthquake epicenter just 50 km from the island’s north end, waves meters high reached most the island’s shores a few tens of minutes after the shaking began. The islanders received no advance notice from radios, sirens, cell phones, or tsunami warning centers. Yet just seven people died. What saved thousands of lives was a combination of natural and traditional defenses: the island’s coastal hills and the islanders’ knowledge of when to run to them.

Islanders had passed along this knowledge, most commonly from grandparent to grandchild, by telling of smong—a local term that covers this three-part sequence: earthquake shaking, withdrawal of the sea beyond the usual low tide, and rising water that runs inland. Smong stories filled free time, taught good behavior, or provided perspective on a fire or earthquake. The teller often concluded with this kind of lesson: “If a strong tremor occurs, and if the sea withdraws soon after, run to the hills, for the sea will soon rush ashore.” Smong can be traced to a tsunami in 1907 that may have taken thousands of Simeulue lives. Interviews in 2006 showed islanders familiar with tangible evidence of the 1907 tsunami: victims’ graves, a religious leader’s earlier grave that the 1907 tsunami had left unharmed, stones transported from the foundation of a historical mosque, coral boulders in rice paddies.

Langi, barely 50 km from the epicentral area where the tsunami began, evacuated in 2004 with astonishing speed and success. The tsunami is said to have started coming ashore there 8 minutes after the earthquake. The waves, reaching heights of 10-15 meters, swept houses off their concrete foundations. Yet none of the village’s 800 residents died. When Simeulue’s system for early warning saved thousands from the 2004 tsunami, its only hardware consisted of reminders of a preceding tsunami, such as the mosque foundation, graves, and coral boulders pictured here. Storytelling reinforced by these reminders had taught the islanders to use earthquake shaking as a natural signal to run to nearby hills.

**Source: IOC Brochure 2009-1 (IOC/BRO/2009/1): Surviving a Tsunami – Lessons to Learn from Aceh and Pangandaran Tsunamis, UNESCO, 2008.**

**Surviving a Tsunami: Lessons from Aceh and Southern Java, Indonesia.**

<http://unesdoc.unesco.org/images/0018/001831/183133e.pdf>

**Reference: Community Based Disaster Preparedness in Indonesia/UNESCO/UNISDR**

<http://www.siagabencana.lipi.go.id/index.php?q=node/15>

Traditional storytelling methods can also be used with new information to present the ideas of disaster preparedness in an accessible and enjoyable format, such as the following case from Japan.

#### **Case 24: Traditional Japanese Story Play used to teach about the Tsunami in Tarou**

In Tarou Town, there is a disaster education activity, where an elderly lady made an illustrated children's story, using a traditional Japanese story play format that tells about the danger of the tsunami. Because Tarou Town is a vacation spot, many families visit during vacation, and their children are not familiar with the dangers of the ocean/tsunami. Coming to hear her perform this story has become a popular attraction for the children.

**Source: C.O.D.E. Kobe, Japan. The International Forum on Telling Live Lessons from Disasters. 3. 21.2010. Conference Presentation.**

## 6. Folk Media

When stories about disaster and lessons about preparedness are incorporated into traditional folk media, such as songs or theater, the lessons become stronger and people can connect with them more directly. The rest of this document shares examples of community-based disaster education that was carried out using local folk media.

### Case 25: Traditional Telling of Live Lessons in Bangladesh

Living in disaster-prone areas for hundreds of years have taught the disaster vulnerable people indigenous coping strategies and survival techniques e.g. floating at the height of tidal surge during a tropical cyclone with indigenous life jacket made of dry coconut; climbing tall trees and tying with tree trunks for protection from tidal surge; using rafts made of banana plants for evacuation, even living on ti for days during the peak of the flood, etc.

Lessons of these indigenous survival techniques passed through generations by various means, e.g. telling live lessons through maternal hierarchy...also by folklore, folk songs, open-air-stage performances, etc.

However, after the 1970 cyclone, which killed 500,000 people in Bangladesh, these indigenous practices of lessons shared by families, community leaders, and elders, have largely been replaced by NGOs, schools and government-run media.

**Source:** Rahman, Muhammad Saidur. "Telling Live Lessons of Disasters in Bangladesh: the Declining Trend." Kobe, Japan. *The International Forum on Telling Live Lessons from Disasters*. 3. 21.2010. Conference Presentation.

### Case 26: Local Poetry with the Story of the Earthquake in Nepal

There are numbers of local poetry 'sawai' written in remembrance of 1934 earthquake. One of such Sawai published as 'Lokmanjari': the folk-bud by Lok Nath Pokharel has explained about the devastation of earthquake of 1934 which is known by earthquake of 'Nabbesaal'. Nabbesaal is translated as year of Ninety which is 1990 BS. BS is Bikram Sambat, which is the official calendar still being practiced in Nepal. The folklore in form of poetry has shaded the lights on earthquake of Nabbesaal and has minutely explained about vulnerability. In one of the stanzas of Lokmanjari it is written that local technology and small huts are less vulnerable and the poet has prescribed to have one such hut for each family.

**Source:** Marahatta, Punya Sagar. (2007). *Cultural Capital for Earthquake Vulnerability Reduction: The case of Kathmandu Valley*. Thesis for Master's programme in urban management and development. from SAARC Disaster Management Center (2008) *Draft Indigenous Knowledge for Disaster Risk Reduction in South Asia*. New Delhi.

### Case 27: Examples and Suggestions Gathered from Solution Exchange in India

Responding to the query seeking experiences "Using Traditional Folk Media in Disaster Risk and Vulnerability Reduction," members pointed out that effective communication between stakeholders is one of the vital pillars for the success of any

disaster risk reduction programme. They thus appreciated that Tata-Dhan Academy is attempting to use folk media to enhance community level understanding and knowledge on vulnerability and disaster risk reduction (DRR).

Respondents stressed the importance of using folk media to create awareness, because it has clear-cut advantages over other forms of media (i.e. print and electronic). Folk media uses local languages and dialects and a very simple approach. Along with the familiarity of language, the gestures, music and rhythm also make this form of media more acceptable among rural communities, who generally have low literacy levels, limited exposure to other forms of communication and face difficulties understanding new concepts. Moreover, folk media allows for direct personal contact between the sender of the message and the receiver. Thus, personal contact and familiarity make the messages very credible and acceptable.

Discussants shared various experiences using traditional folk media to spread disaster preparedness messages. Several organizations in Maharashtra have successfully used media, for example in rural areas of the state a professional group composed Powada (a ballad that includes singing with extensive use of harmonium, dafli, dhol, manjira (musical instruments) etc.) and Lavni (a folk dance form) to educate communities on appropriate responses to different disasters. Another experience shared from Maharashtra in Kohapur District, highlighted how the Government of India (GoI)-United Nations Development Programme (UNDP) Disaster Risk Management (DRM) Programme used Podwa (a traditional singing art) to educate soldiers and increase community participation in the disaster preparedness process. Additionally, in Thane District, the GoI-UNDP DRM Programme successfully organized Lawani, Powada, Koli Geet shows to attract people's attention on the subject and create awareness on important disaster preparedness messages.

Groups in Orissa are also using folk media effectively. An NGO in Korapur District developed Geetakudi (songs) in a local tribal language to sensitize tribal communities on the importance of disaster preparedness and in the Keonjhar District the district administration composed poems to spread awareness on to respond to different types of disasters.

Members also shared how in Morigaon District of Assam, one of the GoI-UNDP DRM Programme states, "Baato Naat" (a street play) has been used as medium for generating awareness on disaster preparedness in the district.

In addition, to mentioning cases where folk media was used to create awareness on disaster preparedness, respondents highlighted examples of effective use of traditional media to convey other types of messages. For example, in Rayagada District of Orissa, an NGO developed scripts and concepts on various health problems and went around all the villages in the district to educate people on them and in Nuapada District folk arts like Kalajatha, Pala and puppet shows were organized to sensitize people on child rights.

Finally, discussants shared an experience from Koothupatarai District, Tamil Nadu where an NGO used theatre and folklore to effectively break down social restrictions and highlight the specific risks and vulnerabilities of women during disasters.

Along with discussing different experiences, members listed a range of folk plays and songs from across India and recommended the project consider using them to create awareness on disasters, including:

- Palla, Daskatia, Kirtan and Chadheiya Nacha from Orissa
- Villapattu from Tamil Nadu
- Bhavai from Gujarat
- Kavigaan and Jatra from West Bengal
- Burkatha from Andhra Pradesh
- Lavani from Maharashtra
- Bihoo dance and songs from Assam
- Snow Lion dance from Sikkim
- Religious meetings from Mizoram
- Traditional art and paintings, such as Madhubani in Bihar

Respondents strongly opined that theatre could prove instrumental in community development projects intended to generate awareness and mass sensitization. They felt that through dramatization, people's attention could be focused on problems in a way that challenges their perceptions. Due to its deep impact, the community is encouraged to look at the situation, break free of old traditions and work out new solutions to be better prepared for the future.

Finally, discussants made various suggestions for effectively conducting programmes using traditional folk media:

- Undertake studies to explore different prevalent folk art forms and troops in each coastal district in Tamil Nadu
- Involve professional agencies in the development of communication tools and have Disaster Management professionals provide technical inputs
- Ensure local communities have a sense of ownership over the initiative by selecting interested community members (especially women and children) to perform (this also ensures sustainability)
- Use radio to disseminate information on the folk programmes
- Train local troops on disaster management concepts and involve them in the process of composing programmes

- Involve various schools/educational institutions in the process of content development on DRR and also reaching out to the communities

Members concluded that using folk medium to communicate important messages, like “disaster preparedness” is a time tested and successful practice that continues to work without losing its appeal and thus its use should be encouraged in all DRR programmes.

**Source: Contributed by Sudhir Kumar, United Nations Development Programme (UNDP), Mumbai, and included in: Solution Exchange for the Disaster Management Community. Consolidated Reply Query: Using Traditional Folk Media in Disaster Risk and Vulnerability Reduction - Experiences . Compiled by G Padmanabhan, Resource Person and Nupur Arora, Research Associate, Issue Date: 30 September 2008**

<http://www.c4india.org/publications/UsingTraditionalFolkMediaInDisasterRiskReductionandManagement.pdf>

### **Case 28: Traditional Theater for Community Education of Girls**

Restructuring society, post-tsunami

Many widows and destitute women in the fishing communities of Tamilnadu have been left out of tsunami relief because of acute gender bias. Men are also abusing relief funds on liquor, with women bearing the brunt. In the meantime, NGOs are trying to erode rigid attitudes with social awareness, reports Freny Manecksha.

3 June 2005 - The drums pound away in the kuppam (fishing settlement). A lively street play by one of Chennai's foremost cultural troupes, Koothupatarai, is in progress a short distance from the city. Borrowing from mythology and folklore, the troupe seeks to entertain as well as to dwell on issues that have come to the forefront since the December 2004 tsunami killed more than 10,000 persons in India. According to a report by the NGO Oxfam, 'The Tsunami's Impact on Women', released in early 2005, more women and children died in the worst affected areas, like Nagapattinam in Tamilnadu. In Nagapattinam, 2,406 women died compared with 1,883 men.

One explanation for women dying in larger numbers is that many men were out fishing at sea, where the waves passed over the waters relatively calmly, while the women were on the shores waiting for the catch. Besides, many women died because of their caring role in society - trying to protect children and the elderly. More significantly, women died because traditional taboos prevent them from entering the sea in this highly patriarchal society of meenavars (fishing community). Many women simply do not know how to swim!

Today, the message the Koothupatarai troupe gives is: "Little girls, you must learn how to swim if you live by the sea."

**Source: Manecksha, Freny. "Restructuring Society, Post-Tsunami," India Together, June 2005**  
<http://www.indiatogether.org/2005/jun/wom-aftersu.htm>

### Case 29: Folk Troupes used to spread Lessons of Disaster Management and Safety

Reaching out to the rural population and in a way they can best comprehend is the main challenge of communication. The very purpose of communication is to simplify the information and make people understand. The challenge comes when you are dealing with the rural population with a very high level of illiteracy. In the rural areas of Uttar Pradesh (UP), such as Gorakhpur, Siddhant Nagar, Bahraich, Gazipur, Deoria, Rampur, Gonda, Balrampur and Saharanpur, the literacy level is only 42% as against the national average of 65%.

The Disaster Management Authority of UP decided to turn to local media to inform, educate and entertain people. Various training programme of local troupes was organized and puppet shows, magic shows, and street plays (locally called as nukkad natak), were performed by these local troupes in different places. These troupes through the medium of traditional folk forms and in the local dialect made people aware of various issues related to disaster management. In addition, the cadence of ancient folk songs was used to convey new, crucial messages of safety when dealing with disasters. These songs were composed in local languages such as Hindi, Bhojpuri, Bundelkhandi and Awadhi. Supported by the District Administration, the folk troupes fan out through the rural and semi-urban areas of the state, creating awareness about disaster preparedness and mitigation.

The songs and skits of these troupes have also been compiled into a manual for wider dissemination. Indeed, translation of the manual into other languages, would aid in spreading awareness about disaster management techniques in rural and semi-urban areas throughout the country.

**Source: Government of India and UNDP India. Good Practices in Community-Based Disaster Risk Management, 2002-2009 Program Report.**

[http://www.reliefweb.int/rw/lib.nsf/db900sid/PSLG7QRHB4/\\$file/UNDP\\_Dec2008.pdf?openelement](http://www.reliefweb.int/rw/lib.nsf/db900sid/PSLG7QRHB4/$file/UNDP_Dec2008.pdf?openelement)

### Case 30 : Community Theater Leads to Buy-in and Women's Participation

The AKDN proposed a multi-faceted strategy to improve the disaster resilience of 15 target communities – about 15,000 people. Before work could begin, the input of the communities was vital in helping to implement the project and ensuring that it would be relevant and sustainable.

In some villages elders were skeptical of the community-led approach. Typically, aid has come in the form of handouts, such as food or fishing nets. Rarely were villagers consulted beforehand, or asked to contribute time or labour, let alone to work across gender or caste lines. It took a creative approach to convince community members that an inclusive and participatory approach was necessary to achieve the project's objectives.

In Pathaupkali village a youth group prepared a play depicting how the community could save lives and livelihoods if all villagers were properly trained in disaster preparedness. It was a hit. "The show purified our hearts," said Mr. K. Babu Rao, an elder. "We now understand the importance of lessons and training."

Similar plays were staged in all 15 villages and stressed messages of inclusion and collaboration. “The play not only mobilized our community but also increased women’s participation in disaster mitigation activities,” said Ms. V. Bimala of Gullalamoda village.

It proved to be a turning point. Village development committees, which include village elders, youth and women, were formed to draft disaster management plans and recruit volunteers to support all aspects of the plan. With community participation, new cyclone shelters and water distribution systems were constructed, emergency stockpiles created, and an education initiative focusing on health and hygiene implemented.

The combination of volunteers trained in disaster management and new infrastructure, including an effective emergency warning system, has created a safety net, ensuring that when the next cyclone comes, as it surely will, families will not be left to stem the tide without the necessary resources.

**Source: Aga Khan Development Network (AKDN). Stemming the Tide: Relief, Reconstruction and Development in Coastal Andhra Pradesh. 2009.**

[http://www.akdn.org/publications/2009\\_akdn\\_andrapradeshdev\\_india.pdf](http://www.akdn.org/publications/2009_akdn_andrapradeshdev_india.pdf)

### **Case 31: Rupantar Method of Multiple Media and Folk Drama**

#### **Folk Drama**

Rupantar has incorporated folk drama in Alternative Living Theatre (ALT) form, a third generation theatre. To perform Rupantar Method Folk drama there is no need of decorative light, heavy make-up, costly props and stages. Script is prepared through participatory method with the performers. It is possible to perform this type of drama for large number of audience at low cost. It is one of the strongest media that help audience enjoy the drama interestingly. This form of drama is for education and communication and usually issue-based and the desired messages are conveyed in attractive style and rhythmic form that allows everyone understand the theme. The ALT finds the issue (subject) from real life and tries to show the ways to overcome the problems.

Rupantar has developed a number of folk dramas on various issues like women rights, human rights, civic education, voter education, environment, water resource management, conservation of the Sundarbans, Prevention of trafficking, Reducing vulnerability to climatic changes etc.

#### **Pot Song**

From the ancient time, the media on which information has been communicated to the people in the rural Bengal is the folk song. The rhythms of the songs are so catchy that even today the satellite media are using such music. There are some songs found in some area that are very popular in particular area and are localized.

The Pot song performed by Rupantar has been accepted by millions of the audience. This form of folk song has been collected from southern parts of the country. This



form of Pot song is a historical event of some area practiced by the rural performers. Rupantar has made some improvements of the Pot song and use as a media for mass awareness. This living media has the direct effect on the people towards motivating them on specific messages in a rhythmic and catchy nature.

Pot song is performed by a number of performers using a Pot that is a pictorial view of what is being sung. The picture is painted on canvas that specifically indicates the messages that are intended to be focused for the audience. The Pot song has the dual effect of audio and visual and is usually quite attractive.

Moreover, the Pot songs performed by Rupantar in BTV, ATN Bangle and in many national and international seminars/occasions have been praised very much. Rupantar has developed the capacity to perform folk songs for any development issues.

Rupantar has so far developed 40 Pot songs on specific issues like women rights, gender and development, water resource management, conservation of mangrove forest, civic awareness, democracy and governance, voter education, strengthening local government, reducing trafficking of women and children, reducing vulnerability to climate change, Arsenic mitigation and management, cooperative, conservation of environment etc.

Source: Rupantar website. <http://www.rupantar.org/rupantar-method.php>

### Case 32: Powada and Lavani : Folk Media in Maharashtra

Use of traditional folk media is a very effective medium for information dissemination especially social issues in rural context. In Disaster Risk Management context, I would like to add following:

Tools1.

Powada; is a ballad from Maharashtra and it includes extensive use of harmonium, dafli, dhol, manjira (musical instruments) etc when folk song (powada) is sung. Powadas using Do's and Don'ts of different disasters such as floods, earthquake, fire, etc were prepared in association with a professional group named Shahir Adinath Vibhute and Party.

2. Lavani; is another popular folk form of Maharashtra and it includes dance format. Some shows of lavani on Disaster Management theme were developed in association with professional groups.

Both forms of folk were used extensively, mainly in rural areas. During the performances, women usually turned up in good number and this may be due to the fact that two women artists were in the group. The group immediately captured the attention audience.

Lessons

1. I would suggest that the professional agencies may be involved in development of such tools, though technical assistance may be provided by the Disaster Management professionals.

2. I would also suggest inclusion of women artists in such groups.

**Source: Contributed by Sudhir Kumar, United Nations Development Programme (UNDP), Mumbai, and included in: Solution Exchange for the Disaster Management Community. Consolidated Reply Query: Using Traditional Folk Media in Disaster Risk and Vulnerability Reduction - Experiences . Compiled by G Padmanabhan, Resource Person and Nupur Arora, Research Associate, Issue Date: 30 September 2008 <http://www.c4dindia.org/publications/UsingTraditionalFolkMediainDisasterRiskReductionandManagement.pdf>**

## References

Aga Khan Development Network (AKDN). *Stemming the Tide: Relief, Reconstruction and Development in Coastal Andhra Pradesh*. 2009.

Benouar, Djillali. "Using Telling Live Lessons in Preventative Education and Training for Disaster Risk Reduction: Algerian Experience." Kobe, Japan. *The International Forum on Telling Live Lessons from Disasters*. 3. 21.2010. Conference Presentation

Dikmen, Bilge. "17 August 1999." Kobe, Japan. *The International Forum on Telling Live Lessons from Disasters*. 3. 21.2010. Conference Presentation.

Disaster Reduction and Human Renovation Institute website, accessed 01.05.2011.

Dixit, Amod Mani, "Telling Live Lessons of Disaster: Nepal's Experience." Kobe, Japan. *The International Forum on Telling Live Lessons from Disasters*. 3. 21.2010. Conference Presentation

Geluk, C.J.. "Watersnoodmuseum: Remember, Learn and Look Ahead." Kobe, Japan. *The International Forum on Telling Live Lessons from Disasters*. 3. 21.2010. Conference Presentation.

Government of India and UNDP India. *Good Practices in Community-Based Disaster Risk Management, 2002-2009 Program Report*.

Hernandez, Luis, "Municipal Policies for Disaster Risk Reduction: Historical Memory." Kobe, Japan. *The International Forum on Telling Live Lessons from Disasters*. 3. 21.2010. Conference Presentation

Holland, Jennifer S. 'Tsunami Update: Saved by Knowledge of the Sea' *National Geographic Magazine Online*. April 2005. <http://ngm.nationalgeographic.com/2005/04/seagypsies/holland-text>

Inoue, Kimio, "Debris Flows and Flood-induced Disaster Caused by the Eruption of Asama Volcano in 1783 and Restoration Projects Thereafter," *Interpraevwnt 2d10*, Taiwan

IOC Brochure 2009-1 (IOC/BRO/2009/1): *Surviving a Tsunami – Lessons to Learn from Aceh and Pangandaran Tsunamis*, UNESCO, 2008.

Kawamoto, Fujio,. "The Role of a Museum Passed Down to Posterity about Volcanic Disasters on Mt Unzen." Kobe, Japan. *The International Forum on Telling Live Lessons from Disasters*. 3. 21.2010. Conference Presentation

Kumar, Sudhir, Contributor. United Nations Development Programme (UNDP), Mumbai, and included in: *Solution Exchange for the Disaster Management Community. Consolidated Reply Query: Using Traditional Folk Media in Disaster Risk and Vulnerability Reduction - Experiences* . Compiled by G Padmanabhan, Resource Person and Nupur Arora, Research Associate, Issue Date: 30 September 2008

Leathem, Karen. "Living with Hurricanes: Katrina and Beyond, An Exhibition." Kobe, Japan. *The International Forum on Telling Live Lessons from Disasters*. 3. 21.2010. Conference Presentation.

Leung, Rebecca. "Sea Gypsies Saw Signs In The Waves: How Moken People In Asia Saved Themselves From Deadly Tsunami" June 10, 2007

Liu, Huabin, "Wenchuan Earthquake Site Museum." Kobe, Japan. The International Forum on Telling Live Lessons from Disasters. 3. 21.2010. Conference Presentation

Maiani, Gianni. Tsunami: interview with a Moken of Andaman Sea

Manecksha, Freny. "Restructuring Society, Post-Tsunami," India Together, June 2005 <http://www.indiatogether.org/2005/jun/wom-aftersu.htm>

Marahatta, Punya Sagar.( 2007). Cultural Capital for Earthquake Vulnerability Reduction: The case of Kathmandu Valley. Thesis for Master's programme in urban management and development. from SAARC Disaster Management Center (2008) Draft Indigenous Knowledge for Disaster Risk Reduction in South Asia. New Delhi.

Mimatsu, Saburo. "Role of Those Living at the Foot of the Volcano—Handing Down the Wisdom to the Next Generation." Kobe, Japan. The International Forum on Telling Live Lessons from Disasters. 3. 21.2010. Conference Presentation

Murata, Susumu, Fumihiko Imamura, Kazumasa Katoh, Yoshiaki Kawata, Shigeo Takahashi, and Tomotsuka Takayama. Tsunami: to survive from Tsunami, in Advanced Series on Ocean Engineering, vol. 32. World Scientific Publishing: Singapore, 2010, p. 218

Nurdin Hasan "Memorial for Tsunami Victims Pays Tribute to Acehnese Culture," The Jakarta Globe. February 24, 2009. <http://thejakartaglobe.com/news/memorial-for-tsunami-victims-pays-tribute-to-acehnese-culture/308397>

Rahman, Muhammad Saidur. "Telling Live Lessons of Disasters in Bangladesh: the Declining Trend." Kobe, Japan. The International Forum on Telling Live Lessons from Disasters. 3. 21.2010. Conference Presentation.

Sakamoto, Mayumi. "Disaster Recovery and Disaster Memory Transfer-Cases of Japan and Turkey." Kobe, Japan. The International Forum on Telling Live Lessons from Disasters. 3. 21.2010. Conference Presentation

Schott, Christina. Planet Mole, June 4th, 2006 <http://www.planetmole.org/indonesian-news/smong-legend-becomes-a-lifesaver-sumatra-indonesia.html>

Seki, Toshiaki, The Initiatives in Kanbara Area, Tsumakoi Village and other Mud Flow Stricken Areas-Mt. Asama Eruption Disaster in 1783" Kobe, Japan. The International Forum on Telling Live Lessons from Disasters. 3. 21.2010. Conference Presentation

Sugimoto, Shin'ichi. "Telling Live Lessons of Volcanic Eruption Disaster of Mt. Unzen" Kobe, Japan. The International Forum on Telling Live Lessons from Disasters. 3. 21.2010. Conference Presentation

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