Social Impact and Prevention of Flood and Landslide in Mon State, Myanmar

Thet Thet Zin
University of Computer Studies,
Thaton, Myanmar
ttzucsy@gmail.com

ICT Virtual Organization of ASEAN Institutes and NICT
ASEAN IVO Forum 2019
Nov.20, 2019
Manila, The Philippines

Bago Region

Kayin State

Thaton

Mawlamyine
(State Capital)

Thailand

Bay of Bengal

Ye

Tanintharyi Region

N

1

Abstract

Natural disasters are complex injurious events that occur entirely beyond the control of humans. During present year, flooding and landslide are major challenge in Mon State in Myanmar. In Landslide area, the official death toll has steadily risen over a week and stands at **75**, according to the township administrative office. Residents said that they believe at least 40 more bodies may still be trapped under a thick layer of mud.

- Kyaikmaraw and Ye townships in Mawlamyine are the worse in flooding among the most severely hit.
- According to news and residents, **90 percent of Ye** was under water, and the total of 375 houses destroyed. Food, clothes and other emergency relief goods are much needed.
- Thanlwin bridge leading to the town was shut due to flooding on both sides of the bridge.
- According to United Nations office for the Coordination of Humanitarian Affairs, Myanmar in 2019 people **displaced due to monsoon flood was 37,240 people in Mon State.**
- Some of the houses are destroyed and some are damaged. Schools in flooding area are closed during flooding time and children loosed their text books, note books and other schooling material during flooding.
- Famers and fisher men faced economic problems and difficult for food during this time.
- Government and civil society organizations supported water, rice, medicine and other emergency things in these townships.
- According to 2014 census data, in Mon State, **72 persons live in rural areas while 28 persons live in urban areas.**
- **Faming, forest servicing and fishing are the major income activity of over 75% of the state's population.**

2

Aim of this study

- To investigate the social, economic and environmental impacts of the 2019 landslides and floods in Mon State, Myanmar.

- To identify the impacts of the natural disaster on communities within the region from a range of perspectives including residents, economic, education and infrastructure in this region.

- To recommend community based mitigation policy in Mon State.

- To understand risk that is the heart of building resilience to disasters.

- Primary data was gathered by **asking questions to residents of the directly affected regions.**

- Secondary data was obtained from **media and Myanmar Flood 2019 dashboard from Phandeyar organization.**

Community-based Disaster Risk Reduction

- Communities are the first responders in case of a disaster.

- The approach seeks communities at risk to get engaged in all of its phases:
    - ➢ prevention
    - ➢ mitigation
    - ➢ preparedness
    - ➢ response
    - ➢ recovery

- The main point of this approach is that it involves local level people, leaders and community to provide necessary services and logistics to the victims during and after the disaster.

Partner with local NGOs and community leaders

Identify community needs

Design and implement community-led projects

Evaluate and monitor projects

COMMUNITY-BASED DEVELOPMENT

4

Why Community-based Disaster Management?

- The community is the first responder of any disaster and develops some traditional coping mechanisms to reduce their vulnerabilities.

- In developing country, the government cannot reach out immediately to each and every household/village at the time of disaster.

- At this time, civil society organizations, donors and community play the important role in disaster region.

Stages in Community-Based Disaster Management (CBDM)

- disaster risk assessment
- risk reduction planning (eg. early warning systems)
- post-disaster relief
- participatory monitoring
- evaluation

- Preparedness to face disasters is required at all levels right from the household to the state government to minimize the impact of disasters.

- Facilitators from various governmental, nongovernmental and community-based organization to facilitate and provide support to the community members.

- These activities should be considering the open space, medical facilities, communication facilities, transportation facilities, water facilities, temporary shelters, sanitation facilities, and search and rescue operation facilities.

- The information related to population, economic conditions, and area of the target community would be helpful to decide the responses before and after the disaster.

Landslide in Mon State

- Local and international geologists team have to test types of land of the mountain.
- Restricting or even removing population from previous happened and expected landslide area.
- Early warning systems based on the monitoring of ground conditions such as strain in rocks and soils, slope displacement and ground water level have to support in this region.
- Knowledge sharing seminar should do in this region for the people
    - not to build houses on steep slopes of the mountains and hills
    - residing at the foot of hills
    - digging at the foot of the hill for making plot for building of houses as it is very difficult to control and predict the landslides.

- Malat Mountain crashing down onto homes in Thae Phyu Kone village
- Residents of the Paung township village felt unsafe and want to leave the area.
- Following the disaster, a team of geologists report that the area was at immediate risk of further landslides.
- Illegal excavation at the base of the mountain for the expansion of residential compounds had likely contributed to the disaster.

Flooding in Mon State

- Many townships in Mon were also flooded during this year monsoon season.

- More than 231,000 people have been affected by flooding since the beginning of July.

- The second round of flooding brought heavier rains, resulting in a worsening flood situation which by August 2019.

- In Mon state **Kyaikmaraw and Ye** townships are the worse in flooding among the most severely hit.

- Based on the number of people affected, the scale of the flooding has already exceeded the situation in 2018.

- It was the worst flood in 20 years.

- More **public announcements and supervision** were needed to effectively manage the floods in Mon State.

- The **failure of the telecommunications network** was a major setback.

Planning for House in Mon State

- The wealthier people often live in sturdy, mahogany homes that are raised off the ground and have plank floors and tile roofs.

- Those with lower incomes may live in thatched roof, bamboo houses that have bamboo floors.

- Knowledge sharing and supporting is needed.

- People should have concert floors and replacing materials with more robust alternative.

- local people have knowledge to protect important features such as wetlands and forests which help to mitigate and prevent flooding and erosion.

- Community and government organizations should inform and educate the public.

Landslide and Flooding in Township of Mon State

- Mon State has a tropical climate.
- According to a report from the Regional Integrated Multi-Hazard Early Warning System, nearby Mawlamyine has an average annual rainfall of 4,638 millimeters, including 1,140 in August alone.
- Its monsoon seasons have been getting wetter, on average, and extreme weather events are also increasing, both factors that the report said could lead to increased occurrences of flooding and landslides.
- Data from from media and Myanmar Flood **2019 dashboard from Phandeyar organization.**

Township	Damage/event	No. of Victims
Paung	Landslide	25 homes and 5 vehicles were in undated with mud, 75 death
ChaungZon	Landslide	-
Kyaikmaraw	Flooding	143 household 42,510 victims
Chaunghanakwa	Flooding	
Ye	Flooding	33 houses damaged 2,446 victims 180 households Building destroyed Bridge, school, road destroyed
Kalain Aung	Flooding	damaged
Yebyu	Little landslide Flooding	2 bridge damaged 1 bridge destroyed 2houses damaged
Launglon	Flooding Landslide	Road destroyed 260 victims
Palaw	Flooding	50 household 220 victims
Kyunsu	Flooding	25 household 80 victims

Summary

- Flooding and landslide threat in Mon State.
- Contributing to community emergency planning and preparedness activities is one fact for flood and landslide prevention.
- It is needed to create more wetlands which can act as sponges, soaking up moisture and wooded areas can slow down waters when rivers overflow.
- Campaign and seminar should be done to pass knowledge to local people not to destroy the area to make room for agriculture and development.
- Environment Agency uses a range of temporary or "demountable" defences in at-risk areas.
- To implement the basic principles and approaches, co-operation at all government levels, and co-ordination of sectoral policies regarding environmental protection, physical planning, agriculture, transport and urban development is needed.

Thank You