Flood Alarm System for Middle Region of Myanmar

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Abstract

- Flooding is a crucial disaster for people and need to protect and reduce of damage from it.
- Myanmar faced on flood in 2015 and 2016.
- It is necessary to develop flood alarm system for many dams to protect flood damage.
- This system can alarm the affected flood region to reduce rick of flood, prevent natural hazard and response for emergency conditions.

Introduction

- This system alarms for Mone Dam in Magway region which is the most affected region of flood damage in Myanmar.
- It is situated on Middle West region of Myanmar and built across on Mone creek.
- It is a hill region and there is only one main land road to Salin town.
- Mone creek can be overflow water due to torrential rain from Chin hill and Rakhine hill.
- It is essential fact to develop alarm system for Mone Chaung dam.

Objectives

- To monitor the climate change and rainfall amount for water level elevation
- To forecast on water storage capacity and water surface area in dam for warning the flood event
- To support decision for response emergency event
- To reduce and prevent from damage of flood
- To save humans' lives

Motivation

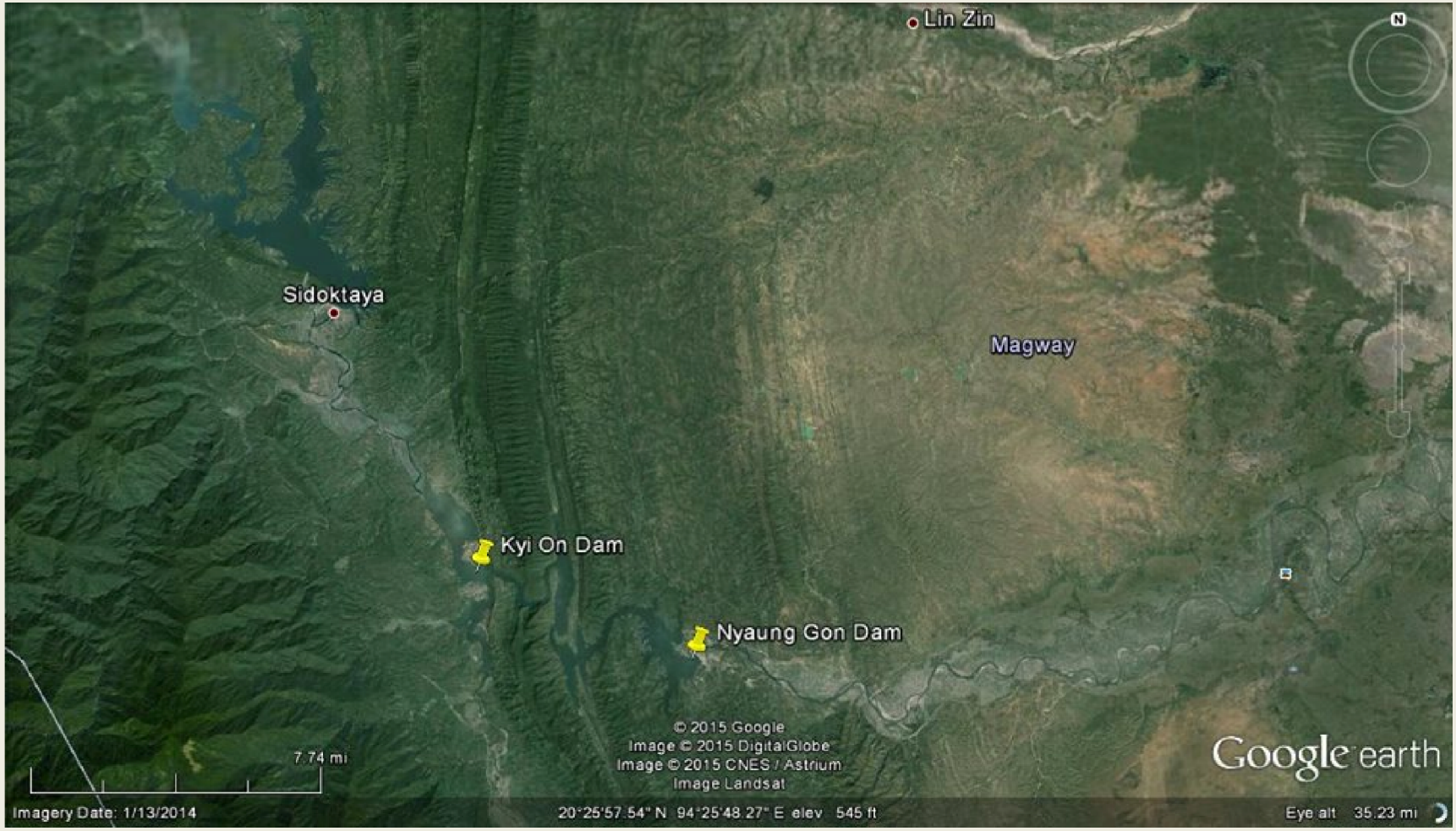
- Myanmar faced severe flooding in monsoon at 2015 and 2016 and Torrential rains destroyed farmland, roads, bridges and houses.
- July 1 to August 18, 2016: Magway (204,365), Mandalay (107,200), Ayeyarwaddy (74,989), Bago (53,357) and Sagaing (27,996).
- The worst hit region is Magway that was affected by flooding in 2015 and 2016.
- Myanmar is weak for controlling in flooding and it is necessary to develop alarm system for preventing flood and natural hazard.

Mone Chaung Dam

- Mone Chaung Dam is situated in Magway region and it is very mountainous area.
- The other two dams are situated in low lying area and if it will break, affect on about 300 villages and two towns in that region.
- Its alarm level is 540' and Dam crack level is 560'.

Year	Water level (ft)	Overflow water (ft)	Overflow Capacity (ft^3/s)
2010	RL 540.30	20.30	99,200
2011	RL 536.30	16.30	71,400
2015	RL 535.90	15.90	66,800

Mone Chaung Dam



Conclusion

- Flooding is a severe disaster for people in globe and need to protect and reduce of damage from it.
- It can be caused by climate change and rise of water level.
- Myanmar was affected by flood in 2015 and 2016.
- It is need to develop flood alarm system for Myanmar.
- This system supports decisions to alarm for Mone Chaung dam in middle region of Myanmar.