1. PURPOSE

The report is a summary of the outcomes from the Myanmar Dissemination Workshop (02 September 2016). It is intended for the Department of Meteorology and Hydrology (DMH) to use in moving forward with their Common Alerting Protocol - Myanmar (CAP-MM) and Sahana Alerting and Messaging Broker (SAM BRO) expansion work. The report outlines the discussion points and recommendations for addressing the concerns raised by the participants during the discussion.
2. INTRODUCTION

Myanmar has operationalized the CAP-enabled SAMBRO software: *Myanmar Warning and Situational Awareness System*, hosted at [www.dmhwarnings.gov.mm](http://www.dmhwarnings.gov.mm). The Myanmar Dissemination Workshop, an activity of the “CAP on a Map” project, was carried out to share the new achievements in Myanmar's warning practices. The workshop was held at the Hotel Royal ACE, in Naypyitaw, on 02 September 2016. The workshop was hosted by the Myanmar Department of Meteorology and Hydrology in collaboration with the Sahana Software Foundation (Sahana), USA, and the Asian Institute of Technology (AIT), Thailand. The “CAP on a Map” project activities are made possible through funding from the United Nations Economic and Social Commission for the Asia and the Pacific (UN-ESCAP).

The intent of the workshop was to:

1. Share the project achievements with Stakeholders; especially, the decision-makers
2. Create an opportunity for the Stakeholders to discuss the uptake and integration of CAP-MM and/or SAMBRO in their warning practices

The report summarises the content from the four Speakers and discusses the questions raised by the participants. Subsequently, the report discusses questions raised by the audience and plans made for the next steps that Myanmar might consider in executing to continue with the CAP-MM and/or SAMBRO expansion.

The workshop participants involved members from DMH, General Administration Department (GAD), Department of Relief and Resettlement (RRD), Department of Irrigation and Dam Safety (DOIDS), Department of Health (DOH), Myanmar Ports Authority (MPA), Myanmar Police Force (MPF), Fire Services (FS), Myanmar Television & Radio (MRTC), Myanmar Red Cross Society (MRCS) and Myanmar Post and Telecommunications (MPT). The Myanmar Press was invited to the workshop.

3. SPEAKERS

**DMH, Dr. Hrinnei Thiam** - opened the workshop by reminding the participants that Myanmar was a “very high risk” Nation exposed to meteorological and hydrological events. She explained the reasons for DMH to adopted CAP and the CAP-enabled SAMBRO tool in their warning practices. Essentially, it was to foster interoperability and the seamless exchange of warning information with National and International Organizations. Moreover, it would improve the warning efficiencies with the introduction of Internet and Mobile technology.

**AIT, Dr. Manzul Hazarika** - acknowledged the outstanding commitment from DMH in implementing the CAP-enabled SAMBRO system. He congratulate Myanmar for accomplishing
the project objectives above and beyond the other two beneficiary countries who are part of the CAP on a Map project. Dr. Hazarika mentioned that Mr. Tun Lin Kyaw had presented the Myanmar CAP-MM implementation at the 2016 CAP Implementation Workshop, held at AIT, 23 and 24 August, 2016.

**DMH, Mr. Tun Lin Kyaw** - introduced the CAP standard and its benefits. The presentation emphasised the various CAP data elements that required specific attention in the Myanmar context. He illustrated these aspects through a series of examples. Following the presentation, Mr. Kyaw demonstrated the functions of the SAMBRO software. He explained the implementation workflows of defining the Event Types, Warning Priorities, and CAP-MM Message Templates. Thereafter, a message was issued to show how the messages were disseminated to targeted recipients through Email, Web, and the Mobile APP.

**Sahana, Mr. Nuwan Waidyanatha** - provided a quick overview of Sahana emphasising that the software was distributed under the MIT License, which removes Myanmar from any obligations to pay any licensing fees and the system is free to use and redistribute. Outcomes from the evaluation exercises were discussed to indicate the minor shortcomings. The evaluation points to the users “agreeing” that CAP-MM and SAMBRO are useful. The system was “simple” and the workflows were easy to accomplish in a “single attempt”. Although the uptake of the CAP-MM and SAMBRO was very positive with DMH, in spite of the training and interactions with the other Stakeholders, their uptake and interest was none. Mr. Waidyanatha presented a set of next steps that would support DMH and Myanmar to move forward with expanding CAP-MM and possible adoption of SAMBRO.

## 4. DISCUSSIONS

The participants discussed various issues:

1. Acquiring a SMS Gateway
2. Training Stakeholders for CAP and SAMBRO adoption
3. Registering the Myanmar CAP feed
4. Forming a CAP Working Group
5. Developing Standard Operating Procedures

### 4.1. SMS Gateway

The first discussion was on the intricacies of DMH obtaining a “bulk SMS” package from MPT. Over the past half a year, DMH has been asking MPT to provide them with a SMS Gateway to integrate with SAMBRO. There are three functions that SMS presents: 1) alerting message dissemination Approvers (i.e. Executive Staff/Decision-Makers), 2) alerting focal persons (e.g. First-Responders), and 3) serve as path for First-Responders to acknowledge the receipt of alerts.
There has been very little support from MPT give to DMH with operationalizing the SMS Gateway. The participant from MPT explained the commercial availability of the Bulk SMS service and that he will assist MPT with moving forward on acquiring the service. He also discussed that MPT was investigating the options of operationalizing Cell Broadcasting, which may serve as a future broadcast medium.

4.2. Training Stakeholders

DMH had trained staff members, belonging to the Stakeholder Organization, and invited them to participate in the implementation. However, there was no interactions beyond those events and encounters. Having seen and recognized the DMH achievements to date, the Stakeholders expressed interest in receive training on CAP and gaining access to SAMBRO. There were discussions as to how they may proceed. DMH has generously offered to train them but would require an official invitation from the respective Stakeholder Departments.

DMH asked if the CAP on a Map project could support the Stakeholder training. Given that the Project is coming to an end and funds are depleted, it would not be feasible for the project to supplement the training. AIT offered to provide alternative funds and a staff member, if required. Sahana assured that DMH was competent in carrying out their own training with CAP and SAMBRO. Sahana offered to provide off-site support through Skype or other online medium. DMH would first attempt to train the Stakeholders on their own. If the need arises that external expertise are required, then AIT and Sahana might consider supporting DMH.

Instead of training all the Stakeholders at once, DMH might consider training the individual Organizations one at a time. Thereby, giving them a personalized and contextualized training. It would be far more effective providing each stakeholder Organization with a customized training than conducting a collective training for all the Stakeholders in one sitting. DMH may become overwhelmed with addressing the individual Organization’s needs. if they were to conduct a collective training for all, the Stakeholders may lose the interest and credibility of DMH. It was recommended that DMH offer two course: 1) CAP training and 2) SAMBRO training. The Stakeholders may decide on their choice of one or both.

4.3. DMH CAP RSS Feed

The DMH SAMBRO software is now providing a validated CAP RSS feed through the hosted instance at www.dmhwarnings.gov.mm. The World Meteorological Organization (WMO) Register of Alerting Authorities (http://alerting.worldweather.org/) requires that DMH register the CAP RSS feed (http://www.dmhwarning.gov.mm/eden/cap/public.rss) in the WMO repository. Dr. Hrinnei Thiam, Director General DMH, is the Permanent Representative to WMO. Thereby, she is the designated Editor of the WMO Register and will need to edit the repository introducing the CAP RSS Feed.
MRCS representative mentioned the International Federation of Red Cross/Crescent (IFRC) mobile Hazard APP\(^1\), a component of the Universal APP program. MRCS is keen in integrating the DMH alerts/warning with the IFRC Hazard APP. Sahan mentioned that they are working with IFRC’s Global Disaster Preparedness Center to enable the customized Hazard APP for Myanmar with the DMH warnings.

4.4. Forming a CAP-MM Working Group

The report from the controlled-exercise\(^2\) realized the need for Myanmar to form a working group around CAP-MM. Such a group would allow for all Stakeholders to harmonize on policies and procedures around CAP-MM. It would foster a participatory approach for everyone to come to a common consensus on the terminology, content structures, and classifications. The representative from the MPF explained the current laws and disaster management governance structure.

At present the National Disaster Management Committee (NDMC) is spearheaded by the Vice President of Myanmar. DMH is a member of the NDMC along with several other Stakeholders. NDMC has several subcommittees (SCs). It was identified that the CAP-MM Working Group could fall within the charter of the NDMC Information-SC.

The NDMC Information-SC might consider appointing DMH as the CAP-MM Custodian. Thereby, any CAP-MM policy and procedures would be managed by DMH. A representative from DMH should serve as the CAP-MM Manager (or CAP-MM Steward) with the responsibilities of managing the changes relating to CAP-MM and publicising the CAP policies and procedures. All CAP-MM information should be made publicly available possibly through www.dmg.gov.mm/cap-mm or any other public domain suggested by the CAP-MM Working Group.

4.5. Standard Operating Procedures

It was recommended that the CAP Working Group establish a set of Standard Operating Procedures (SOPs). These SOPs would define the operating procedures for:

1. Requesting DMH for CAP-MM and SAMBRO training
2. Requesting DMH for SAMBRO User Accounts
3. Requesting DMH with managing changes

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4.5.1. Training

DMH might consider establishing protocols for Stakeholders to request for CAP-MM and/or SAMBRO training. A request form can be made available at [www.dmh.gov.mm](http://www.dmh.gov.mm) and/or [www.dmhwarnings.gov.mm](http://www.dmhwarnings.gov.mm) for Stakeholders to submit an official request. The protocol should define the administrative procedures for carrying out the training and a synopsis of the training.

4.5.2. User Accounts

DMH might consider establishing a protocol for Stakeholders to request for user accounts. A form is already made available through the SAMBRO instance: [http://www.dmhwarning.gov.mm/eden/default/user/register](http://www.dmhwarning.gov.mm/eden/default/user/register). It is recommended that DMH establish a contact person, namely the CAP-MM Manager (or CAP-MM Steward). She or He would be the person that Users would contact to resolve any concerns the users may encounter.

4.5.3. Change Management

DMH might consider establishing a change management process. The change management is for Stakeholders to request and change the CAP-MM and SAMBRO implementation specific information. The information would typically be of interest to changing the Event Types, Warning Classifications, Predefined Alerting Areas, and Message Templates. Such a change should be approved by the CAP-MM Working Committee. The CAP-MM Manager (or CAP-MM Steward) would be the responsible person for carrying out the relevant changes. The changes should follow with a series of silent-tests and controlled-exercises to ensure that the change is practical and applicable.

**CONCLUSION**

The overall consensus is that the workshop had met its objectives with making the Stakeholders aware of the new changes to DMH warnings with the adoption of CAP and the SAMBRO system as well as providing an opportunity for the Stakeholders debate and plan a way forward. While some issues remain unsolved and other issues that are in the working, in general DMH has now operationalized a CAP-enabled warning dissemination and situational awareness platform in Myanmar.