

ASEAN Coordinating Centre for Humanitarian Assistance on Disaster Management (AHA Centre)



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ONE RESPONSE**

30 Oct 2018

Primary Regional Coordinating Agency

The AHA Centre is the **primary ASEAN regional coordinating agency for disaster management and emergency response**, and has been entrusted under the Declaration on One ASEAN One Response to develop measures, procedures and standards for effective and well-coordinated regional response.

The AHA Centre will coordinate with SG-AHAC, work in partnership with relevant regional and international agencies and centres to strengthen HADR efforts, and engage with relevant sectors and stakeholders to promote One ASEAN One Response.



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ASEAN Agreement on Disaster Management and Emergency Response (AADMER)

AADMER serves as the main regional policy backbone for **coordinated regional response** where **One ASEAN One Response** emanates. The **principles of AADMER also guide the operationalisation of One ASEAN One Response:** respect for sovereignty, territorial integrity and national unity; respect for affected country's overall direction and control of assistance; promote solidarity and partnership and in accordance with their respective needs, capabilities and situations; and involvement of all stakeholders.



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Regional cooperation



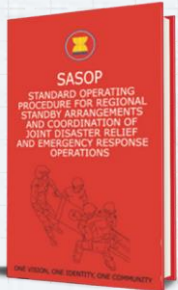
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Joint Operations and Coordination Centre of ASEAN



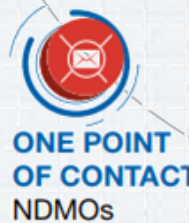
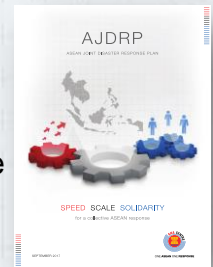
Standard operating procedure for regional standby arrangements and coordination of joint disaster relief and emergency response operations



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ASEAN Joint Disaster Response Plan



BRUNEI DARUSSALAM National Disaster Management Centre	MYANMAR Department of Disaster Management
CAMBODIA National Committee for Disaster Management	PHILIPPINES National Disaster Risk Reduction And Management Council And Administrator
INDONESIA National Disaster Management Agency	SINGAPORE Singapore Civil Defense Force
LAO PDR National Disaster Management Office Department Of Social Welfare	THAILAND Department of Disaster Prevention and Mitigation
MALAYSIA National Security Council	VIET NAM Department of Natural Disaster Prevention and Control (DNDPC)



Regional cooperation through strategic coordination and commitment

In the event of large-scale disasters or when there is significant humanitarian impact, the AHA Centre establishes coordination with the **Secretary – General of ASEAN** as the **ASEAN Humanitarian Assistance Coordinator**



THE WAY AHA CENTRE WORKS

WHEN LARGE-SCALE DISASTERS TAKE PLACE IN SOUTHEAST ASIA

01 NOTIFICATION OF DISASTER

- ▶ analyse the initial report and notify other party/entity of the disaster
- ▶ analyse each Situation Report and immediately notify the other party/entity of the significant developments (a) periodically or (b) by 10:00 am (Jakarta time)

02 REQUEST FOR ASSISTANCE

- ▶ forward the request to other party/entity
- ▶ explore other possible assistance

03 OFFER OF ASSISTANCE

- ▶ forward the offer to the receiving party

07 DEMOBILISATION OF ASSISTANCE AND REPORTING

- ▶ receive and update of this development
- ▶ received within 2 weeks of departure from the affected country

PERFORM MOST OF THE ASPECTS UNDER SASOP

06 MOBILISATION OF ASSETS AND CAPACITIES

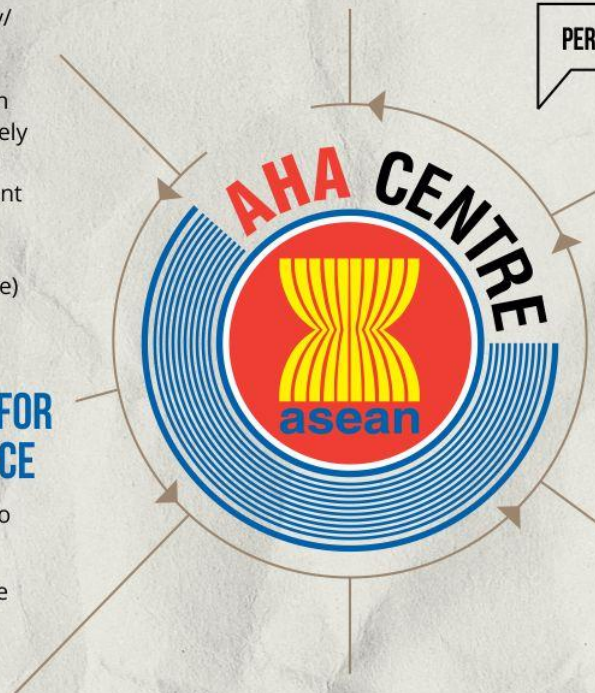
- ▶ facilitate the processing of exemption for provision of assistance and facilities, transit of personnel and equipment

05 JOINT ASSESSMENT OF REQUIRED ASSISTANCE

- ▶ facilitate mobilisation of ERAT
- ▶ receive updates on any plans and findings of joint assessment
- ▶ receive copy of the Contractual Agreement for Assistance

04 DISASTER SITUATION UPDATE

- ▶ receive report within 24 to 48 hours of arrival of assistance at disaster site





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LIST OF AHA CENTRE RESPONSES

The AHA Centre has responded to a total of 23 incidents in 7 countries across the region, and conducted preparedness and assessment mission in another 5 occasions.



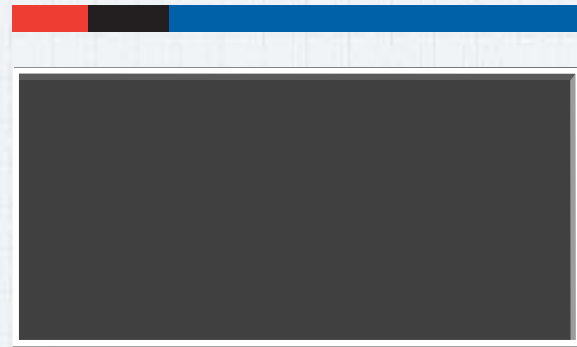
- | | | | |
|---|---|--|---|
| 1 2012 MYANMAR, NOV
THABAITKKYIN EARTHQUAKE | 8 2013 THE PHILIPPINES, OCT
BOHOL EARTHQUAKE | 15 2015 MYANMAR, AUG
MYANMAR FLOOD | 22 2017 VIET NAM, AUG
FLASH FLOOD & LANDSLIDE |
| 2 2012 THE PHILIPPINES, DEC
TROPICAL STORM BOPHA | 9 2013 CAMBODIA, OCT
FLOOD | 16 2015 THE PHILIPPINES, OCT
TYPHOON KOPPU | 23 2017 MYANMAR, OCT
IDP IN RAKHINE STATE |
| 3 2013 INDONESIA, JAN
JAKARTA FLOOD | 10 2013 THE PHILIPPINES, DEC
TYPHOON HAIYAN | 17 2016 THE PHILIPPINES, OCT
TYPHOON HAIMA | 24 2017 VIET NAM, NOV
TYPHOON DAMREY |
| 4 2013 MYANMAR, MAY
TROPICAL CYCLONE MAHASEN | 11 2014 THE PHILIPPINES, JUL
TYPHOON RAMMASUN | 18 2016 INDONESIA, DEC
ACEH EARTHQUAKE | 25 2018 MYANMAR, APR
LANDFILL FIRE, YANGON |
| 5 2013 INDONESIA, JUL
ACEH EARTHQUAKE | 12 2014 VIET NAM, JUL
TYPHOON RAMMASUN | 19 2016 PHILIPPINES, DEC
TYPHOON MELOR | 26 2018 LAO PDR, JUL
FLOOD |
| 6 2013 LAO PDR, AUG
FLOOD | 13 2014 THE PHILIPPINES, DEC
TYPHOON HAGUPIT | 20 2016 THE PHILIPPINES, DEC
TYPHOON NOCK-TEN | 27 2018 MYANMAR, AUG
FLOOD |
| 7 2013 THE PHILIPPINES, AUG
TROPICAL STORM MARING | 14 2015 MALAYSIA, JAN
FLOOD | 21 2017 THE PHILIPPINES, JUL
INTERNALLY-DISPLACED PEOPLE IN MARAWI (IDP) | 28 2018 INDONESIA, AUG
LOMBOK EARTHQUAKE |

AHA Centre responses

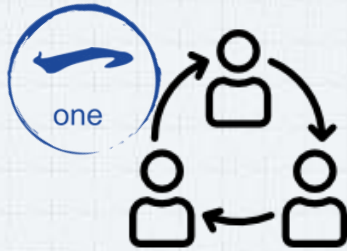
Till 20 October, AHA Centre has responded to **25 incidents** with preparedness and assessment missions for 5 occasions.

The latest responses were:

- Super Typhoon Mangkhut (Ompong)
- Central Sulawesi Earthquake



Regional Cooperation



Information sharing



Relief items and stockpile



Building strong networks



Research collaboration



Emergency funds and fund raising

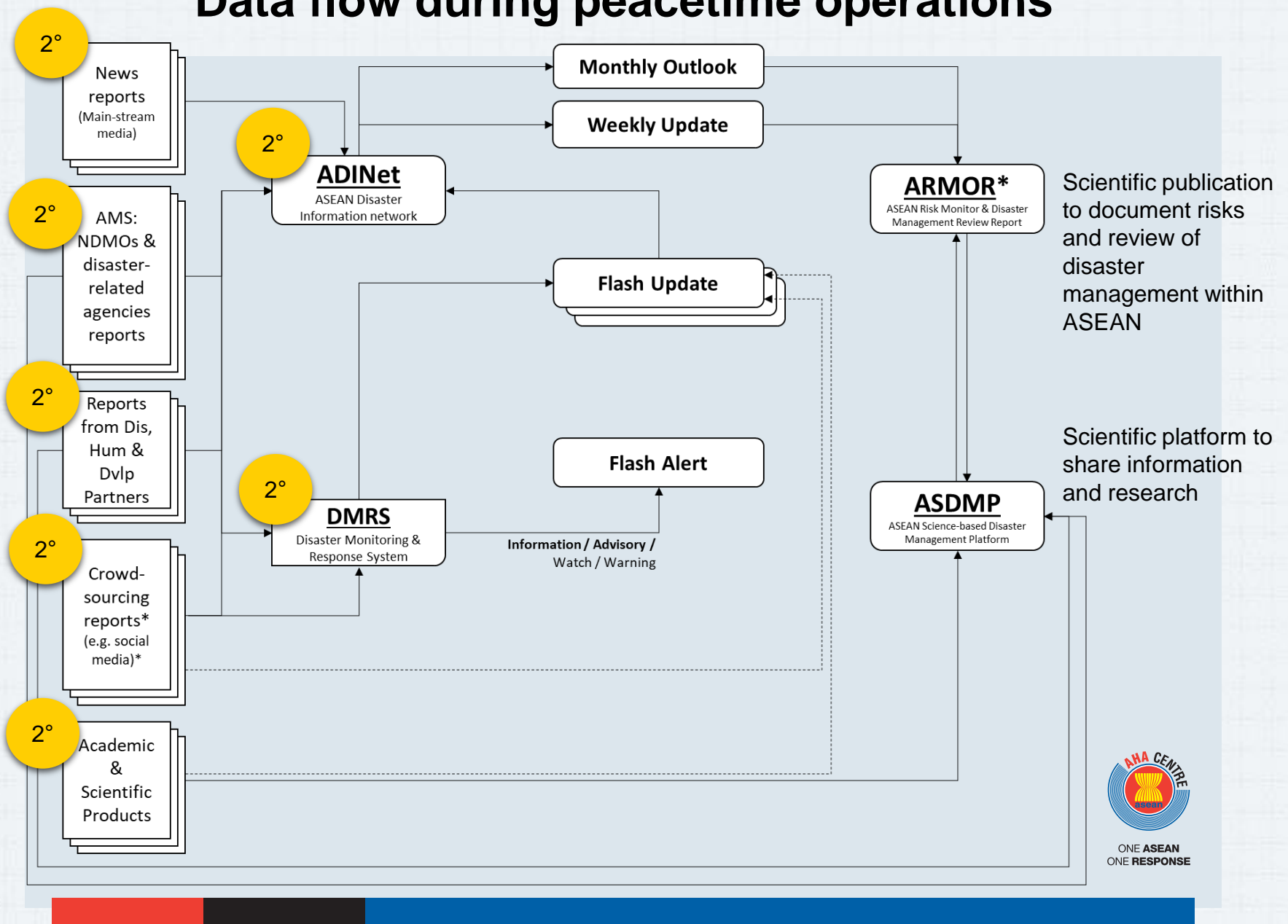


Capacity building



Trainings and simulation exercises

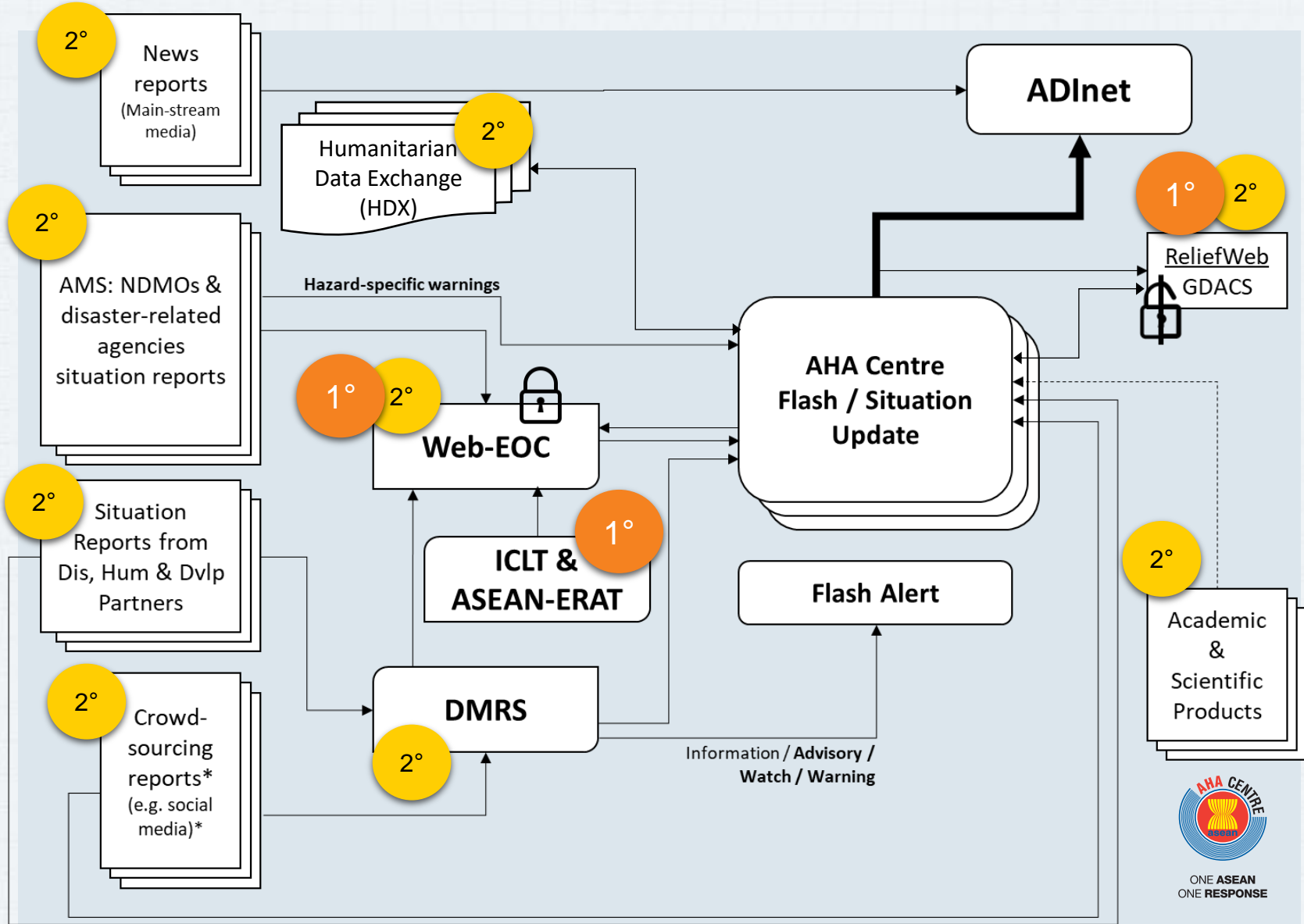
Data flow during peacetime operations



1° Primary data

2° Secondary data

Data flow during emergency operations



1° Primary data

2° Secondary data

Closed platform

Platform with open and closed platform

ASEAN Science Based Disaster Management Platform



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Disaster | Documents & Publications | DM Community | Discussion



Disasters

Malaysia, Flood in Sabah

National Disaster Management Agency (NADMA) of Malaysia reported flood in Penampang, Sabah, on 1 June 2018 0800 hrs (UTC+8) due to heavy rainfall, which

Fri, 01 Jun 2018 01:05:00 GMT

Indonesia, Flood in Asahan Regency

Health Crisis Center of Ministry of Health reported flooding in Asahan Regency, on 31 May 2018, 2030hrs local time (UTC +7). Heavy rainfall caused the local river

Thu, 31 May 2018 13:38:00 GMT

Indonesia, Storm in Southeast Minahasa Regency

Health Crisis Center of Ministry of Health reported major storm in the coast of Southeast Minahasa Regency on 31 May 2018, 0500hrs local time (UTC+8). The

Wed, 30 May 2018 22:00:00 GMT

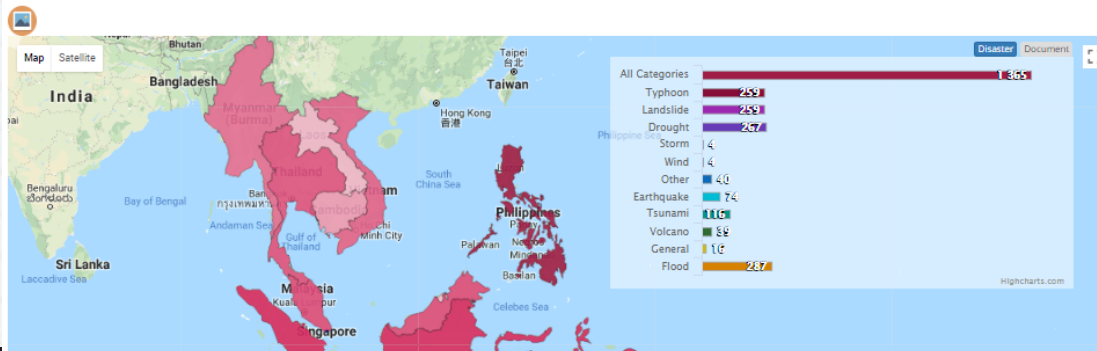
Indonesia, Flood in Musi Rawas Regency, South Sumatra

Health Crisis of Ministry of Health reported flooding on Musi Rawas Regency on 30 May 2018, 1300 hrs local time (UTC + 7). Heavy rainfall has caused

Wed, 30 May 2018 06:16:00 GMT

[more disaster](#)

Documents & Publications



ASEAN-Emergency Response and Assessment Team (ASEAN ERAT)

To support the affected country in the initial phase of a disaster emergency, ASEAN established the ASEAN-Emergency Response and Assessment Team (ASEAN-ERAT)

GUIDELINES



OBJECTIVES :

1. Conduct rapid assessment
2. Coordinate with the AHA Centre for the mobilisation, response and deployment of regional disaster management assets
3. Facilitate incoming relief assistance from ASEAN Member States



A ten-day of 100 hours training on various aspects of emergency response mirroring approximate reality with combination of class rooms and field exercises

256 members trained from 10 ASEAN Member States and 9 ASEAN ERAT induction courses conducted

AHA Centre Executive (ACE) Programme



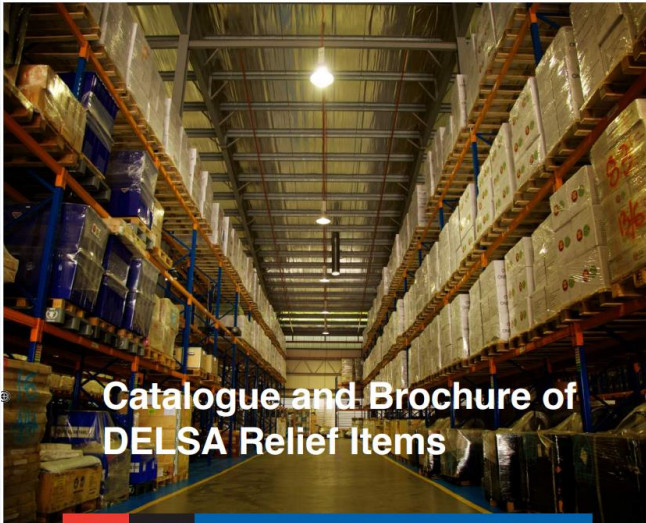
Besides ERAT, we have the ACE programme where mid-level officers from National Disaster Management Organisations partake in a 4-months training programme

This fosters and build greater network amongst the countries and increases the level of trust.

Disaster Emergency Logistics System for ASEAN (DELSA)



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Catalogue and Brochure of DELSA Relief Items

Disaster Emergency Logistics System for ASEAN



2 Personal Hygiene Kit

Code: B362 35001



Contents	Units
Landry Powder	1
Sanitary Pad	2
Hand Towel	1
Tooth Brush	1
Tooth Paste	1
Toilet Soap	2
Hair Shampoo	1

Personal Hygiene Kit comes in 32W x 20D x 17H mm box



3 Family Kit

Code: B36235002



Contents	Units
Plastic Bucket	1
Water Bags	2
Towels	5
T-shirts	5
Mosquito Net	2
Candles	5
FM Radio	1

Family Kit comes in 55W x 40D x 38H mm box



ASEAN Regional Disaster Emergency Response Simulation Exercise (ARDEX)

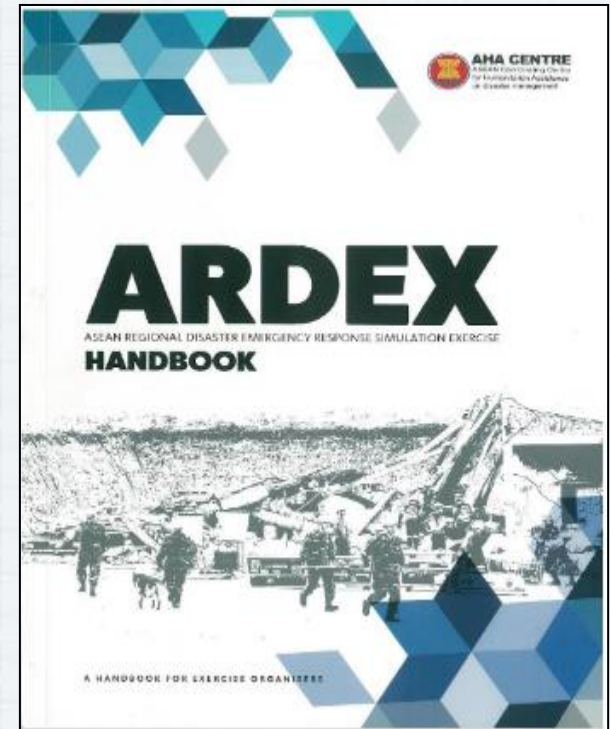


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ASEAN organises regular exercises called the ASEAN Regional Disaster Emergency Response Simulation Exercise (ARDEX) since 2005 to test & validate the ASEAN-SASOP

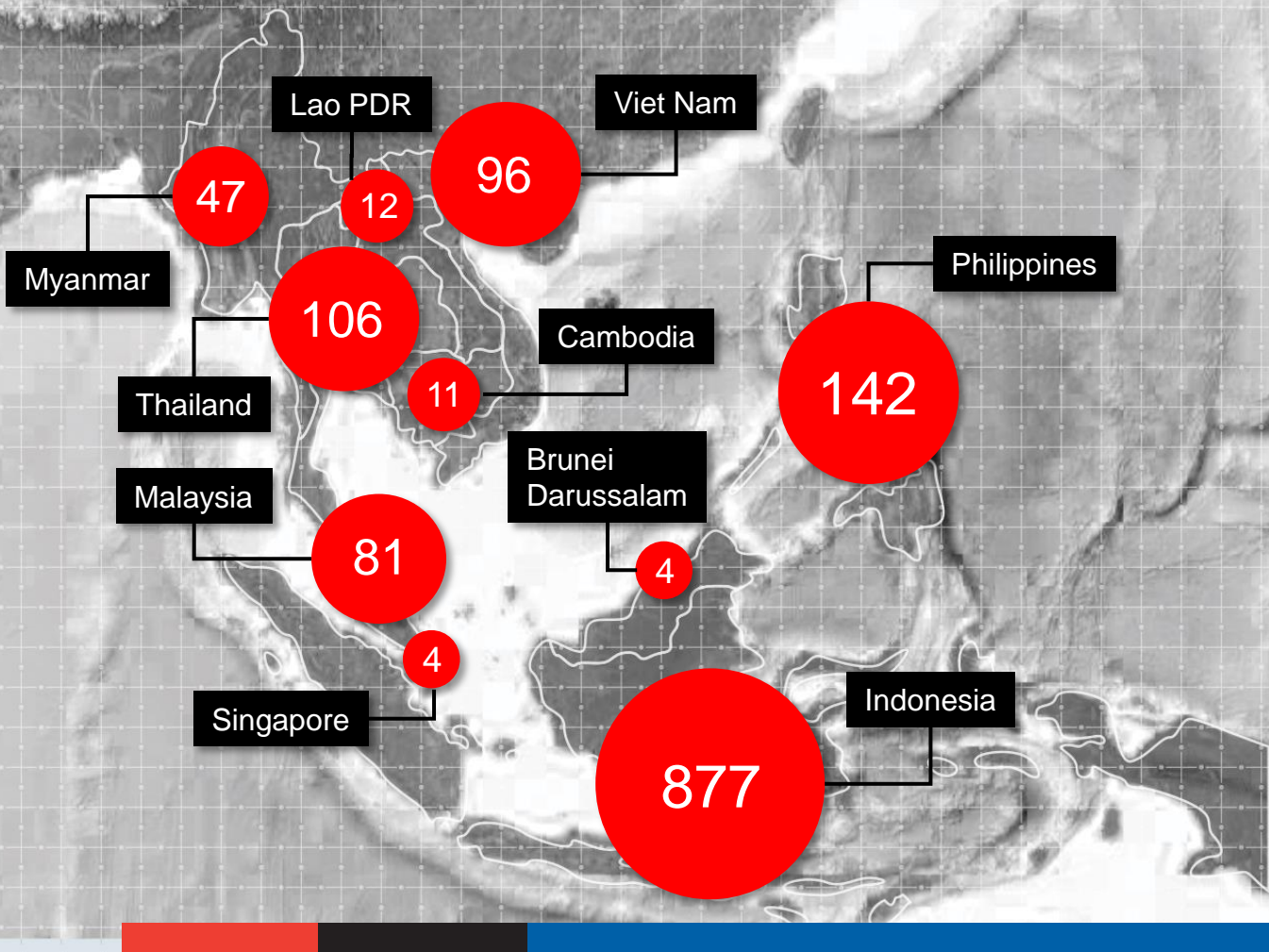


- AHA Centre co-organised the ARDEX-16 Brunei Darussalam
- Previous to this, ARDEX was held in 2013, Viet Nam
- ARDEX tested SASOP and other tools and operational procedures, including the concept of One ASEAN One Response



Total reported disasters within ASEAN

(Between Jul 12 and Jun 18)

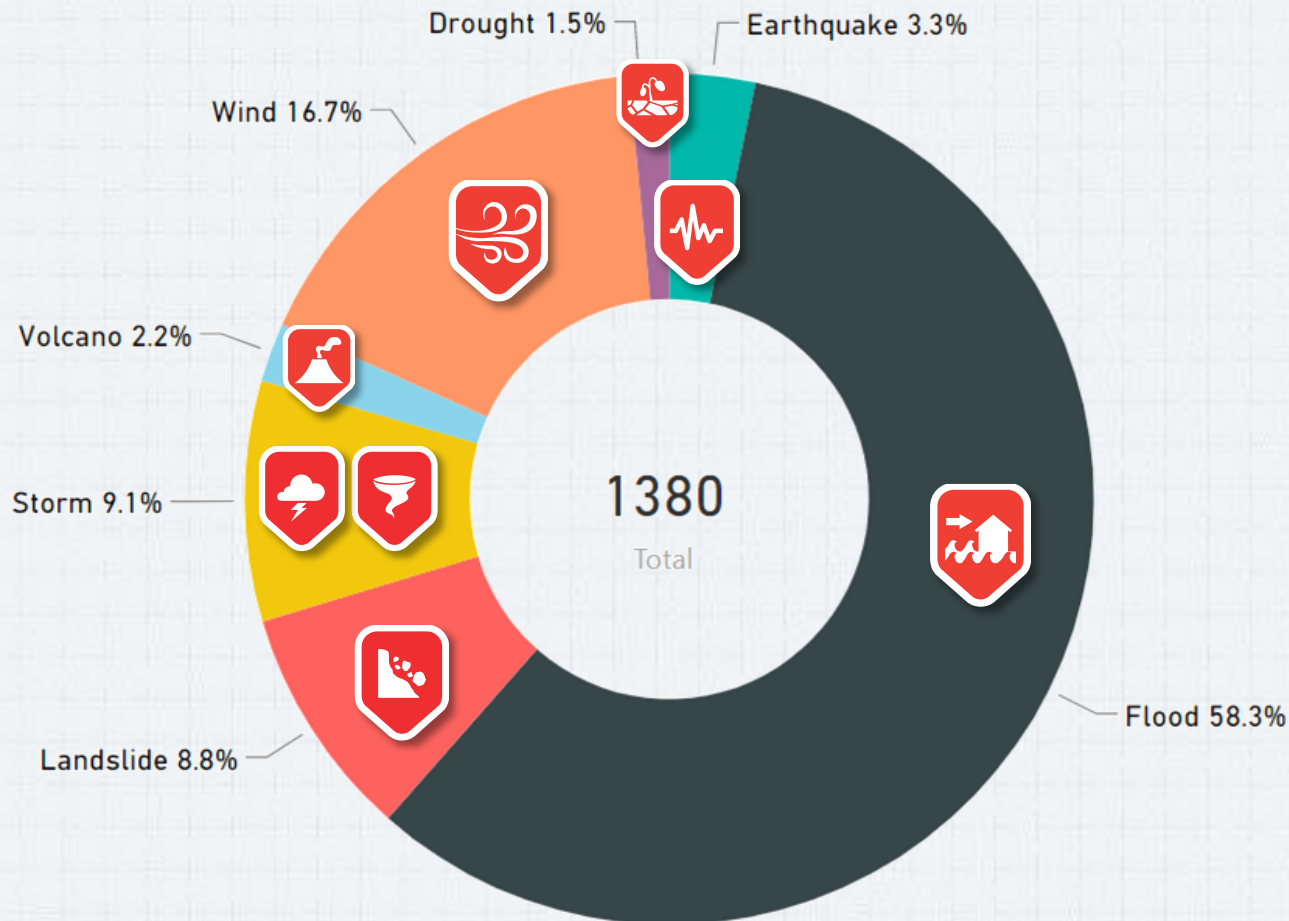


Total
reported
disasters
1380

Between
Jul 12
and
Jun 18

Total reported disasters breakdown by hazard

(Between Jul 12 and Jun 18)



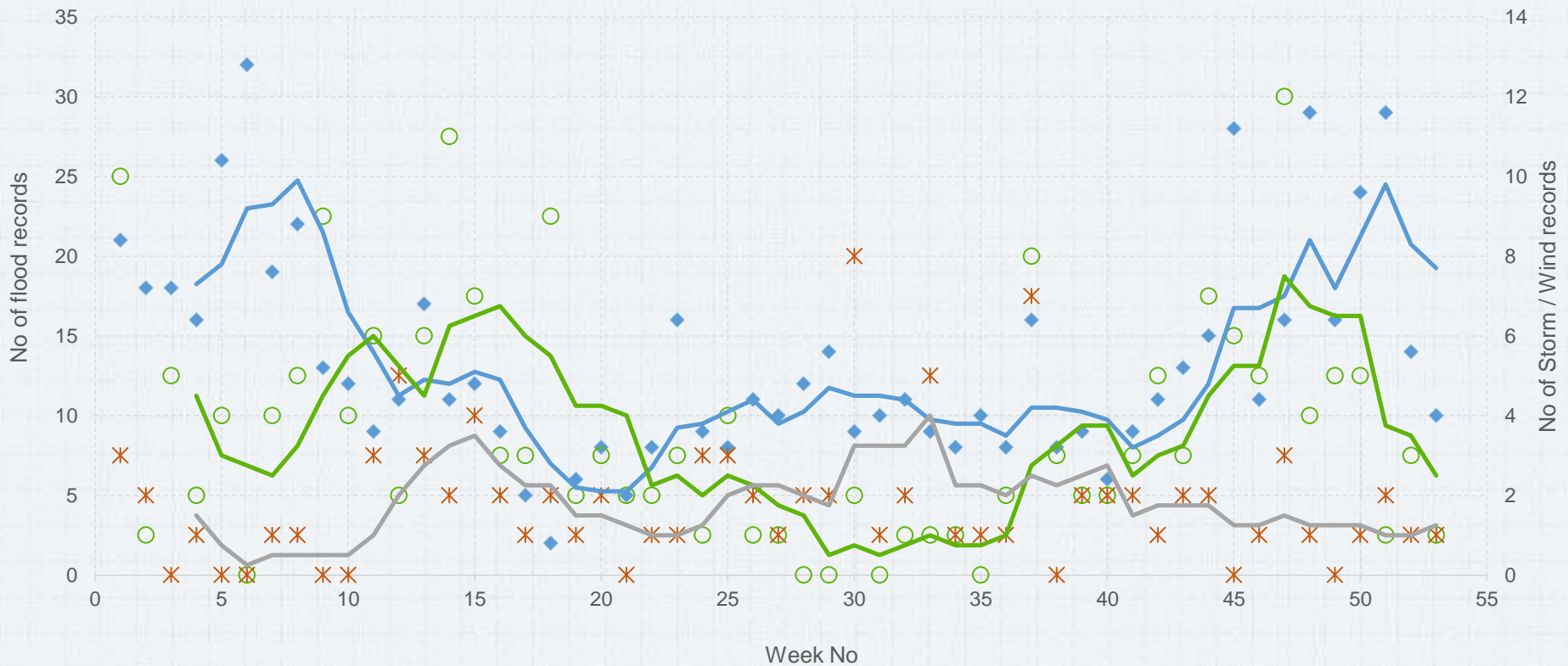
hydro-met
85.6%
14.4%
geophysical



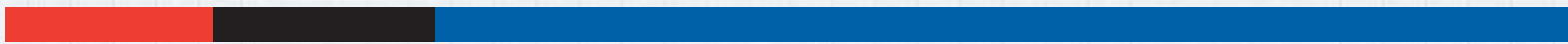
Moving Average (4 weeks) trend lines

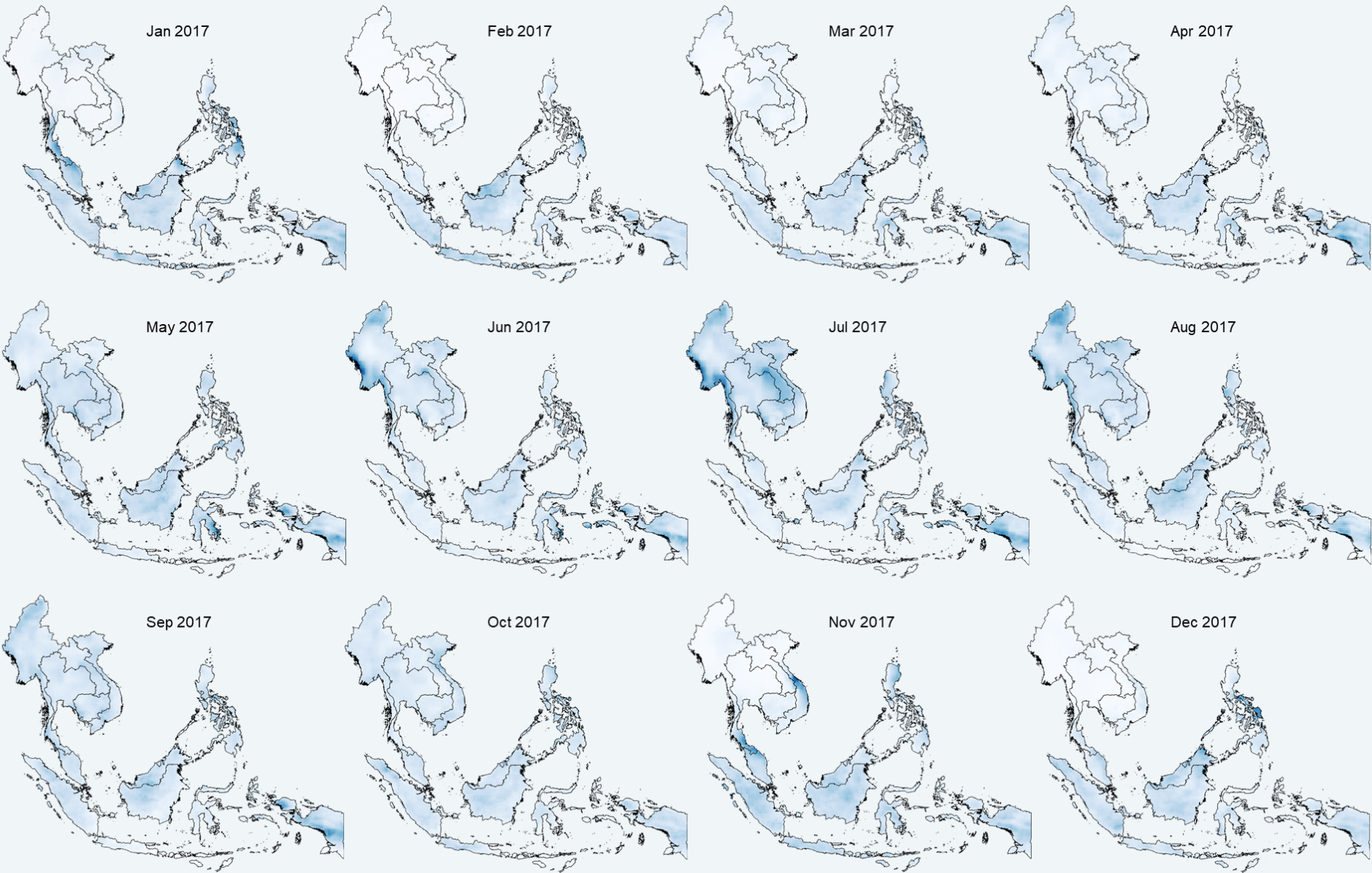
4 week moving average for recorded disasters between 2012 and 2017 by week

◆ Flood ○ Wind ✖ Storm — 4 区間移動平均 (Flood) — 4 区間移動平均 (Wind) — 4 区間移動平均 (Storm)

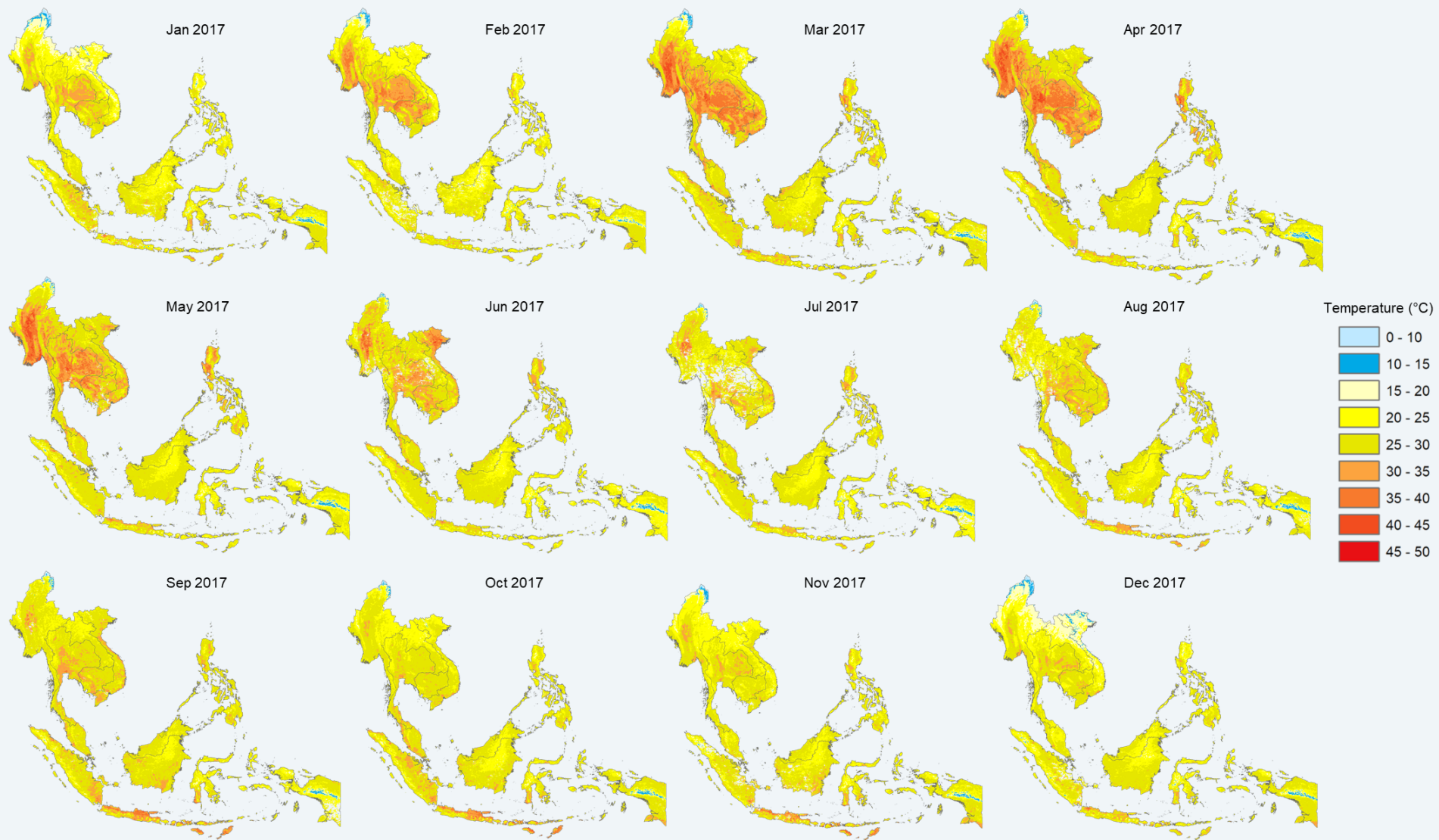


Statistical correlation was not conducted at this point as the data would not have significant power and there is under-reporting of disasters across certain countries.





Data source: NASA Precipitation Measurement Missions, TRMM 3A26 Surface Rain Total



Data Source: MODIS MOD11C3 Land Surface Temperature/Emissivity Monthly



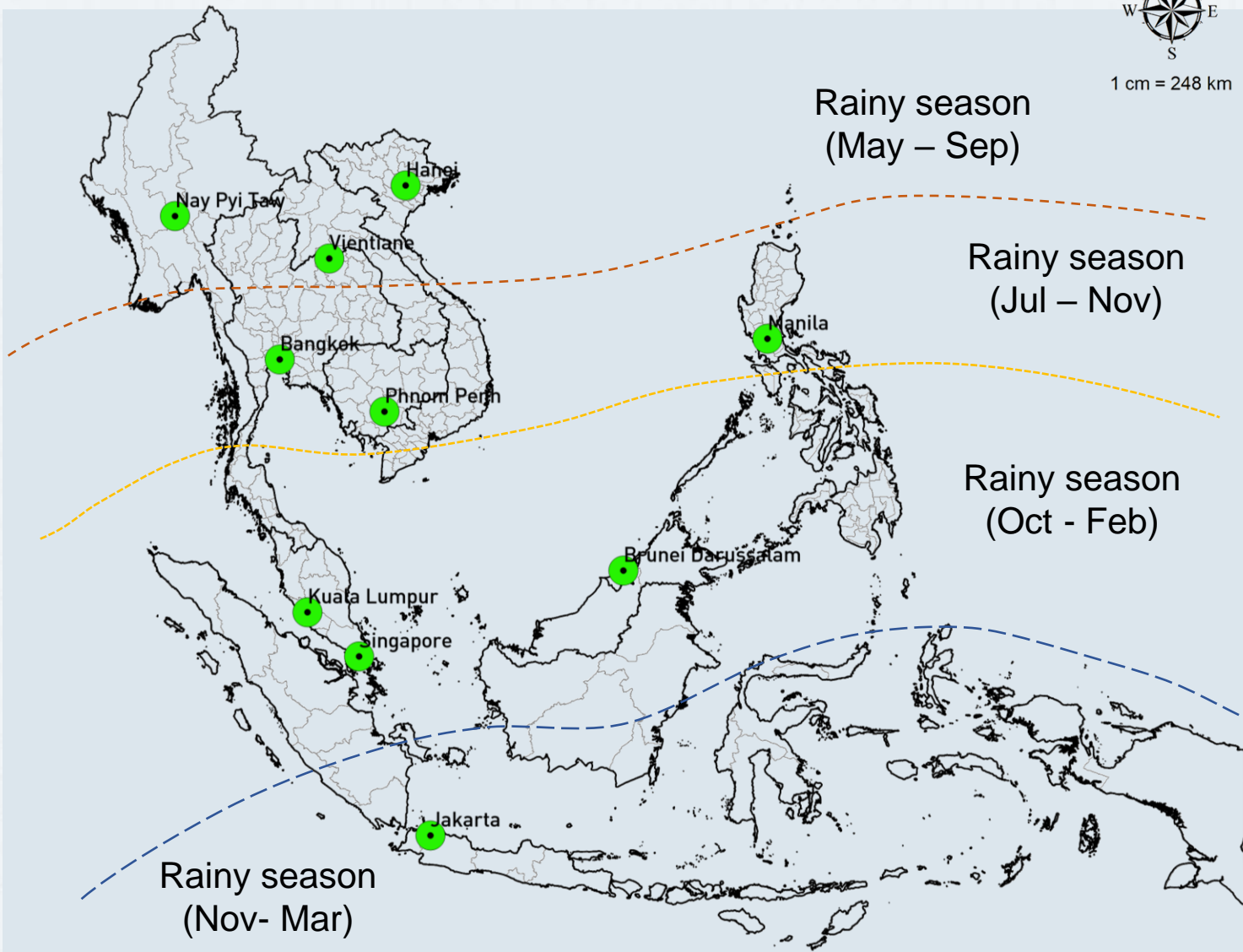
1 cm = 248 km

Rainy season
(May – Sep)

Rainy season
(Jul – Nov)

Rainy season
(Oct - Feb)

Rainy season
(Nov- Mar)



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Growing concerns and pressures within ASEAN

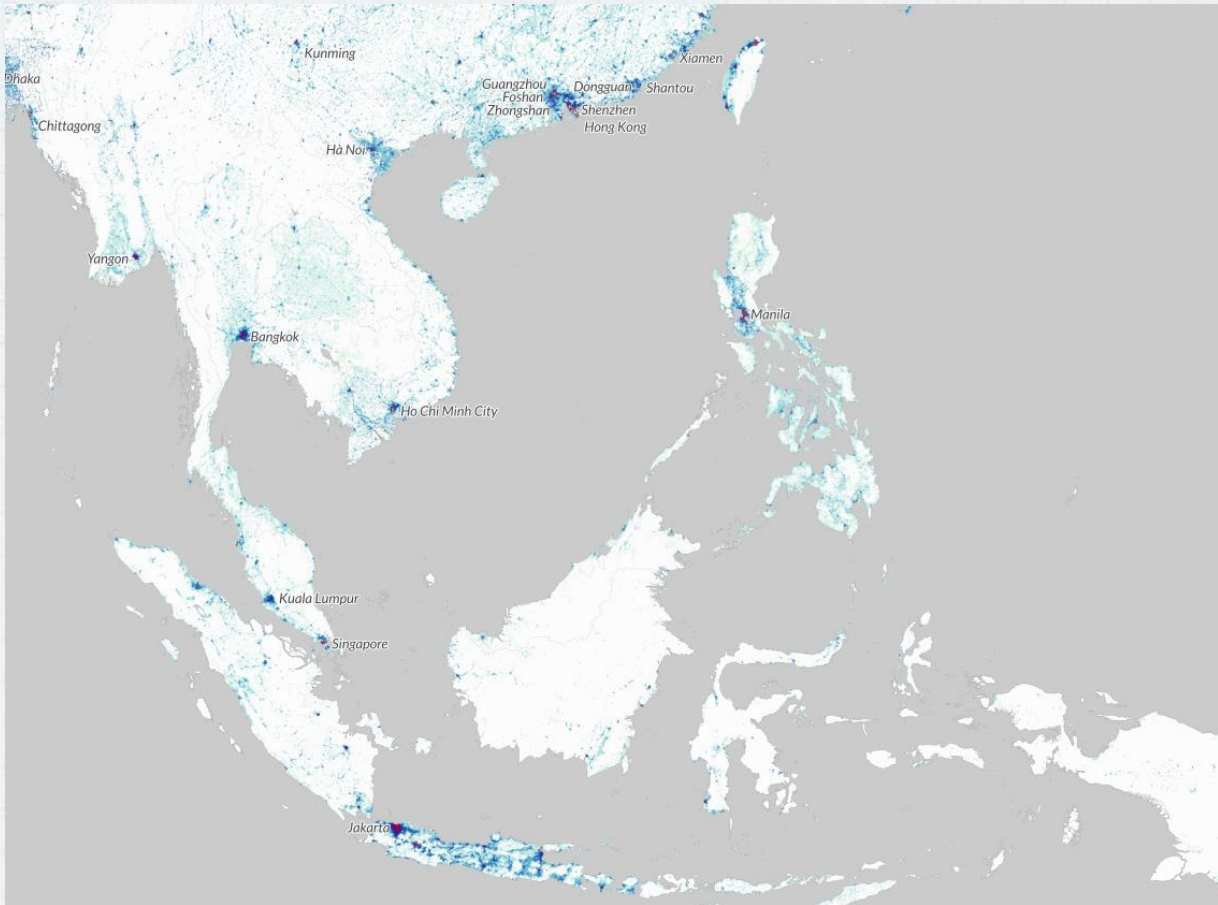


Image source: <http://luminocity3d.org/WorldPopDen/#5/8.733/107.183>

1. Rural to urban migration is projected to increase (~48% settled in urban areas)
2. Increasing demands for energy, resources and food to keep up with economic growth
3. Increasing industrialization and land-clearing leading to increased pollution
4. Transboundary pollution within the region

Projections from academic studies



- Flood risk is projected to increase largely in Asia as the world warms.
- Affected population is modelled at 35 million per year with impacts largely on residential (39%), commercial (32%) and industrial (21%)
- Increasing deforestation and land cover loss may likely hasten the process and raise the risk including impact to such areas.
- Mekong river basin is predicted to decrease in frequency of 20 century 100 year flood (104.9 year), but an increase in annual discharge (10.94 mm/day).
- In addition, drought is projected to increase with just small and minimal increase in proportion of drought days (+ 1.20 days).

References:

- Alfieri, L., Bisselink, B., Dottori, F., Naumann, G., de Roo, A., Salamon, P., Wyser, K. and Feyen, L. (2017), *Global projections of river flood risk in a warmer world. Earth's Future, 5: 171–182. doi:10.1002/2016EF000485*
- HIRABAYASHI, YUKIKO & KANAE, SHINJIRO & EMORI, SEITA & Oki, Taikan & KIMOTO, MASAHIDE. (2008). *Global Projections of Changing Risks of Floods and Droughts in a Changing Climate. Hydrological Sciences Journal-journal Des Sciences Hydrologiques - HYDROLOG SCI J. 53. 754-772. 10.1623/hysj.53.4.754.*

Projections from academic studies

- **Water scarcity will be an issue** as per capita freshwater in SEA will likely decrease due to climate change, increased population growth and increasing industrial activities.
- T.A. Räsänen, M. Kummu, 2013 found that **flood period during La Niña years were on average 1 month compared to El Niño years.**
- The precipitation and discharge was found to decrease during El Niño years and increase during La Niña years.
- M Thilakarathne, V Sridhar, 2017 model indicated an increased probability of droughts in the lower Mekong Basin and projections show that it is **expected to be drier in the future.**
- Even though these figures are obtained from models, ASEAN has to be prepared for the worst.

References:

- Timo A. Räsänen, Matti Kummu, *Spatiotemporal influences of ENSO on precipitation and flood pulse in the Mekong River Basin*, In *Journal of Hydrology*, Volume 476, 2013, Pages 154-168, ISSN 0022-1694, <https://doi.org/10.1016/j.jhydrol.2012.10.028>
- Zbigniew W. Kundzewicz, Daisuke Nohara, Jiang Tong, Taikan Oki, Su Buda, Kuniyoshi Takeuchi, *Discharge of large Asian rivers – Observations and projections*, In *Quaternary International*, Volume 208, Issues 1–2, 2009, Pages 4-10, ISSN 1040-6182, <https://doi.org/10.1016/j.quaint.2009.01.011>
- Madusanka Thilakarathne, Venkataramana Sridhar, *Characterization of future drought conditions in the Lower Mekong River Basin*, In *Weather and Climate Extremes*, Volume 17, 2017, Pages 47-58, ISSN 2212-0947, <https://doi.org/10.1016/j.wace.2017.07.004>

How does it link to the larger picture?



- Increased deforestation and change of green landscape
 - Increased risk of natural hazards such as landslides
 - Climate change risk is unknown and such phenomenon will contribute to the overall risk
- Threatens biodiversity and **economic livelihoods** which are dependent on eco-tourism, agriculture and aquaculture
- **Food security** is at risk as
 - Arable agricultural lands are at risk following flood and drought events (topsoil wash off, decline in water table etc.)
 - Aquaculture yields may be affected due to increased hydrological-meteorological events
 - Malnutrition and undernutrition will follow as food security is threatened

How does it link to the larger picture?



- Increasing health risks:
 - Rising temperatures with variable precipitation may increase risk of vector-borne diseases (malaria, dengue etc.)
 - Increase in flood frequency and intensity could compromise hygiene and increase risk of water-borne diseases.
 - Introduction of novel pathogens to naïve communities arising from large scale displacement resulting from biodiversity loss.
- Rapid industrialization and creation of huge Industrial estates (containing Chemical Radiological or Nuclear elements) situated close to ad-hoc residential areas poses a large threat following a natural disaster event



Potential considerations for collaborations



Capacity Building

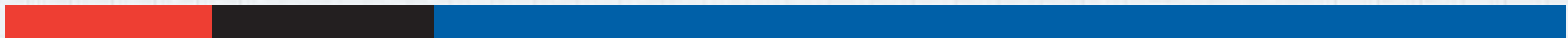
- Cross training programmes or short internships for staff to promote greater understanding and sharing of experiences
- Development of innovative training programmes

Research capacity

- Increasing science generation (social science, earth sciences, international relations etc.) through collaborative research arrangements
- Studies on risk of technological disasters within the region

Operational support

- Supporting emergency operations on various aspects which can be done remotely or in the EOC – satellite imagery analysis, social media analysis, horizon scanning etc.

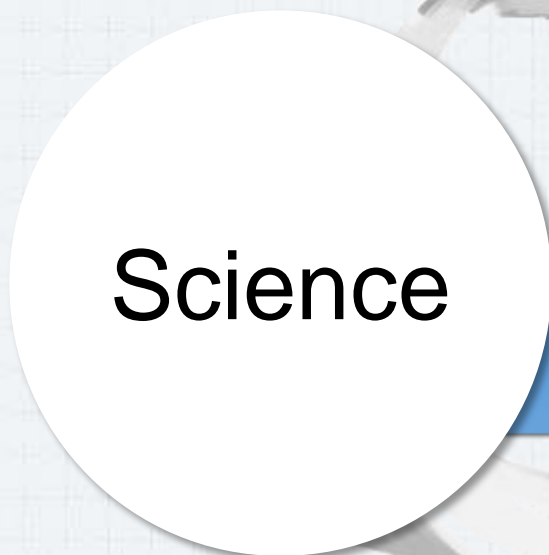


Delicate balance between science and policy in DRR



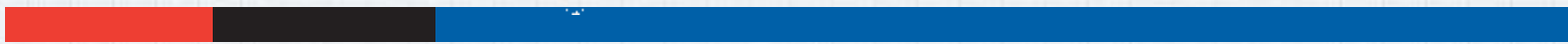
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- Data driven
- Logic
- Rigorous



- Opportune timing
- Social norms driven

via BestPickr.com

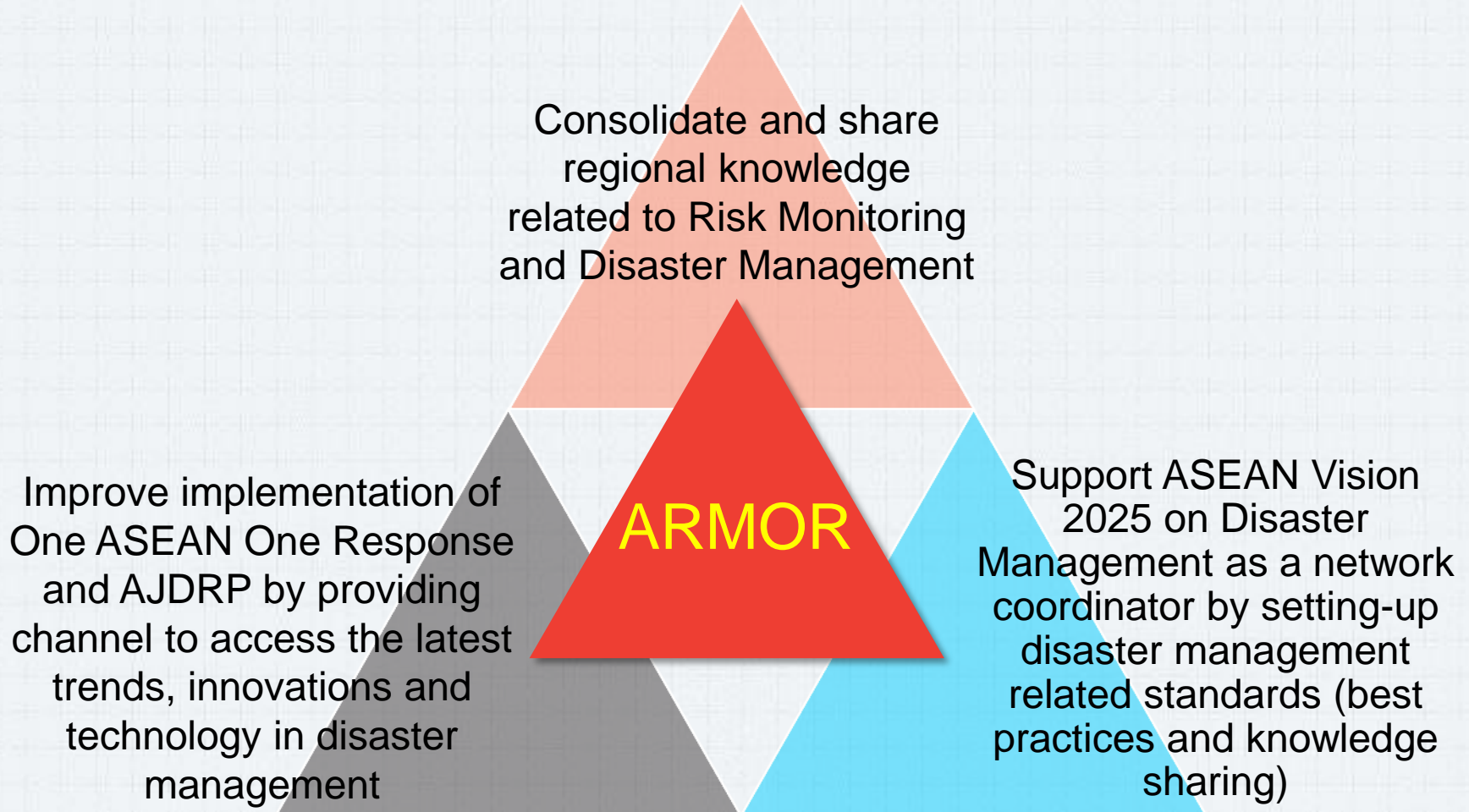


The quality of decision is like the well-timed swoop of a falcon which enables it to strike and destroy its victim.

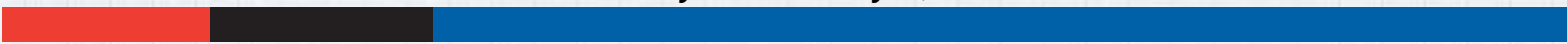
Sun Tzu

In the pipeline

ASEAN Risk Monitor and Disaster Management Review Report (ARMOR)



Contributes to AHA WP Priority 1 & Priority 2, AADMER WP PP1 & PP5



ASEAN Risk Monitor and Disaster Management Review (ARMOR)



ARMOR Anticipated Outreach Impacts

Policy impact

- ❑ Inform the policy making of ASEAN and its Member States through provision of the latest science available on risk identification, awareness, and governance.
- ❑ Reinforce disaster risk governance; increase investment in disaster risk reduction efforts; and promote resiliency and preparedness through education and information sharing

Practical impact

- ❑ Promoting functional and application research by bridging greater understanding between sectoral stakeholders, ranging from public, private, humanitarian to academic sectors
- ❑ Fostering inclusiveness of robust science-based techniques for informing operations planning and decision making throughout the disaster management cycle
- ❑ Developing and nurturing successive generations of dedicated ASEAN disaster management professionals and researchers

Scientific impact

- ❑ Key periodic synthesis report on the ASEAN Member States' disaster risks
- ❑ Provide reality-check, source of credible feedback and information for disaster management knowledge development through scholarly and scientific works
- ❑ Serve as credible information and key references on ASEAN disaster risks analysis, monitoring and research for academic and scientific works