SITUATION UPDATE
TROPICAL STORM PODUL AND TROPICAL DEPRESSION KAJIKI
Lao PDR
Monday, 14 October 2019, 18:30 hrs (UTC+7)

This Situation Update is provided by the AHA Centre for use by the ASEAN Member States and relevant stakeholders. The information presented is collected from various sources, including but not limited to, ASEAN Member States’ government agencies, UN, IFRC, NGOs, and news agencies.
1. HIGHLIGHTS

a. On 29 August (Thursday) and 02 September (Monday) 2019, the Lao PDR Department of Meteorology and Hydrology (DMH), Ministry of Natural Resources and Environment, Lao PDR reported potential affected areas in the central and southern part of Lao PDR due to the existence of a Low Pressure Area (LPA), Tropical Storm PODUL, and Tropical Depression KAJIKI. Subsequently, flooding was reported in six (6) provinces: Champasak, Saravan, Savannakhet, Sekong, Khammouan, and Attapeu (in descending order of most affected province).

b. The Ministry of Labor and Social Welfare (MLSW) of Lao PDR organised and led a National Multi-Sectoral Joint Disaster Needs Assessment in the 6 affected provinces, to support information-based efforts to recover faster after the massive flooding. The assessment was conducted from 21 September to 05 October 2019, consisting of a total of 21 persons from several sectoral bodies of Lao PDR ministries - MLSW, Ministry of Agriculture and Forestry, Ministry of Health, Ministry of Education and Sports, Ministry of Planning and Investment, and also representatives from the Lao Red Cross Society, UN Humanitarian Country Team, Non-Government Organisations, and the AHA Centre.

c. Based on the assessment results, as many as 97 bridges, 747 schools, 43 health centres and hospitals, 462 road places, 275,114 livestocks and poultry were affected by the floods. Total damage is estimated to cost US$164 million (1.45 trillion Laotian Kip).

d. The AHA Centre supported the Government of Lao PDR by deploying its In-Country Liaison Team (ICLT) and sending Disaster Emergency Logistics System for ASEAN (DELSA) relief items to Vientiane on 12 September (Thursday) 2019, which was attended by the AHA Centre Executive Director, Acting Director-General of Social Welfare Department of Lao PDR, and Ambassadors of ASEAN Member States based in Vientiane (Press Release).

e. The AHA Centre also provided support in the planning and implementation process of the National Multi-Sectoral Joint Disaster Needs Assessment led by the Government of Lao PDR. In addition, continuous remote support, such as data analysis and mapping, was also provided by the AHA Centre’s Emergency Operations Centre in Jakarta, Indonesia.
2. SUMMARY OF EVENTS

a. Tropical Storm PODUL first made landfall in the Philippines on 26 August (Monday) 2019, before exiting and continuing west. On 29 August (Thursday) 2019, Tropical Storm PODUL made landfall in central Viet Nam and continued moving west over Lao PDR and towards Myanmar. This was quickly followed by Tropical Depression KAJIKI, which formed in the South China Sea close to the Vietnam coast on 02 September (Monday) 2019, made landfall in Vietnam and passed Lao PDR, before moving back out over Vietnam coast on 06 September (Friday) 2019.

b. The Department of Meteorology and Hydrology (DMH), Ministry of Natural Resources and Environment, Lao PDR reported potential affected areas in the central and southern part of Lao PDR due to the existence of a Low Pressure Area (LPA), and tropical cyclones PODUL and KAJIKI. Subsequently, thunderstorm advisories and heavy rainfall warnings were issued for six (6) provinces: Champasak, Saravan, Sekong, Savannakhet, Attapeu, and Khammouan. This was followed by reports of flooding in all 6 provinces.
3. ASSESSMENT OF DAMAGE, IMPACT, AND HUMANITARIAN NEEDS*

a. After the National Multi-Sectoral Joint Needs Assessment was conducted, Lao PDR has updated and validated impact figures.

b. Affected figures and needs (total for the 6 provinces). The breakdown in impact data by province (in descending order of most affected persons) is given in Table 1 below.

<table>
<thead>
<tr>
<th>Provinces</th>
<th>Affected Families</th>
<th>Affected Persons</th>
<th>Dead</th>
<th>Fully Damaged Houses</th>
<th>Partially Damaged Houses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Champasak</td>
<td>48,614</td>
<td>267,258</td>
<td>8</td>
<td>135</td>
<td>193</td>
</tr>
<tr>
<td>Saravan</td>
<td>40,174</td>
<td>186,027</td>
<td>3</td>
<td>118</td>
<td>50</td>
</tr>
<tr>
<td>Sekong</td>
<td>16,018</td>
<td>86,130</td>
<td>-</td>
<td>-</td>
<td>95</td>
</tr>
<tr>
<td>Savannakhet</td>
<td>17,159</td>
<td>103,184</td>
<td>4</td>
<td>16</td>
<td>117</td>
</tr>
<tr>
<td>Attapeu</td>
<td>15,164</td>
<td>52,493</td>
<td>4</td>
<td>12</td>
<td>22</td>
</tr>
<tr>
<td>Khammouan</td>
<td>16,670</td>
<td>69,844</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>153,799</strong></td>
<td><strong>764,936</strong></td>
<td><strong>19</strong></td>
<td><strong>282</strong></td>
<td><strong>477</strong></td>
</tr>
</tbody>
</table>

*Table 1: Figures for impacts in the 6 affected provinces of Lao PDR. Data obtained from NDMO Lao PDR as of 10 October (Thursday) 2019.

c. Breakdown of affected figures and needs per province (see Table 2 below).

<table>
<thead>
<tr>
<th>Provinces</th>
<th>Affected persons</th>
<th>NEEDS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Rice (tons)</td>
</tr>
<tr>
<td>Khammouan</td>
<td>16,670</td>
<td>2,514</td>
</tr>
<tr>
<td>Savannakhet</td>
<td>17,159</td>
<td>5</td>
</tr>
<tr>
<td>Saravan</td>
<td>40,174</td>
<td>5,012</td>
</tr>
<tr>
<td>Attapeu</td>
<td>15,164</td>
<td>1,890</td>
</tr>
<tr>
<td>Sekong</td>
<td>16,018</td>
<td>3,101</td>
</tr>
<tr>
<td>Champasak</td>
<td>48,614</td>
<td>5,420</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>153,799</strong></td>
<td><strong>17,942</strong></td>
</tr>
</tbody>
</table>

*Table 2: Figures for needs in the 6 affected provinces of Lao PDR. Data obtained from NDMO Lao PDR as of 10 October (Thursday) 2019.

*Access to an online interactive visualisation of the summary of effects is on this link.
d. As many as 97 bridges, 747 schools, 43 health centres and hospitals, 462 road places, 123,166 hectares of farm paddy fields, 275,144 livestock and poultry, and 18 piped water places were affected by the floods. Total damage is estimated to cost US$164 million (1.45 trillion Laotian Kip).

e. As a result of the assessment, the province of Saravan constitutes 26% of the budgetary needs for all 6 affected provinces across identified sectors which valued over US$15 thousand. This was followed closely by provinces of Sekong (21%) and Champasak (17%) (see Table 3).

f. On the other hand, as much as 38% of the budgetary needs will address the sector of Public Works and Transport. In this sector, 34% of the budget will be allotted to the province of Sekong, while 31% to the province of Saravan. In addition, Relief Work for three months will entail 28% of the total budgetary needs for the 6 provinces.

<table>
<thead>
<tr>
<th>Province</th>
<th>BUDGETARY NEEDS BY SECTOR (in ‘000 USD*)</th>
<th>Total by province</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attapeu</td>
<td>Relief Work: 1,248, Agriculture &amp; Forestry: 1,327, Health Work: 275, Public Works &amp; Transport: 811, Education &amp; Sports: 72, Energy &amp; Mining: 0, Other: 0</td>
<td>3,733</td>
</tr>
<tr>
<td>Champasak</td>
<td>Relief Work: 3,585, Agriculture &amp; Forestry: 2,179, Health Work: 914, Public Works &amp; Transport: 1,839, Education &amp; Sports: 1,579, Energy &amp; Mining: 0, Other: 0</td>
<td>10,096</td>
</tr>
</tbody>
</table>

Table 3: Budgetary needs by sector and province (*1 USD = 8,817.17 Lao Kip). Data obtained from NDMO Lao PDR as of 10 October (Thursday) 2019.

Figure 1. Budgetary requirement by province (in ‘000 USD)

Figure 2. Distribution of budget needs by sector (in ‘000 USD)
Response by Government of Lao PDR

a. According to the update released by Lao PDR’s National Disaster Management Organisation (NDMO Lao PDR) on 05 September (Thursday) 2019 at 09:00 (UTC +7), the Provincial Disaster Prevention and Control Committee called for an emergency meeting and planning for response, especially to deploy rescue boats for evacuation in collaboration with the army and police. Emergency relief items had been distributed to the affected population.

b. On 07 September (Saturday) 2019, the Prime Minister (PM), Mr. Thongloun Sisoulith, called for an emergency meeting and gave orders to the relevant agencies to quickly assist the affected areas. Working with the Local Disaster Management and Control Committees in the provincial and district levels, the Government has already deployed emergency response teams from the military, police, and health sectors, equipped with trucks, boats, vehicles, helicopters, other aircraft, tools, and other equipment to evacuate affected people and distribute several relief items such as rescue boats, family tents, and packs of drinking water.

c. NDMO Lao PDR, through the National Focal Point (NFP), made a request for assistance to the AHA Centre on 08 September (Sunday) 2019, calling for logistical relief items support. The agency has distributed the AHA Centre relief items support, from Vientiane to the six affected provinces.

Figure 3: Distribution of mosquito nets by Chair of National Assembly and Provincial Governor of Savannakhet province.
d. The Ministry of Labor and Social Welfare was tasked by the National Government to coordinate closely with the other sectoral ministries and provincial agencies to conduct a needs assessment.

e. Other sectors also provided assistance to flood-affected provinces:

1) The Ministry of Defense deployed personnel, as well as, transport vehicles, rescue boats and airplanes;

2) The Department of Homeland Security also deployed assets to maintain security of property of communities, and transport vehicles to provide water to the people;

3) The Ministry of Health sent medical teams and medicines;

4) The Ministry of Public Works and Transport deployed assets to repair roads and bridges;

5) The Ministry of Natural Resources and Environment monitored the weather and water levels of the Mekong River and its tributaries, and periodically provided alerts; and

6) The Ministry of Information, Culture and Tourism deployed a team to ensure compliance of responding sectors to the agreed roles and responsibilities.

f. The Ministry of Labor and Social Welfare (MLSW) of Lao PDR organised and led a National Multi-Sectoral Joint Disaster Needs Assessment in the 6 affected provinces, to support information-based efforts to recover faster after the massive flooding. The assessment was conducted from 21 September to 05 October 2019, consisting of a total of 21 persons from several sectoral bodies of Lao PDR ministries - MLSW, Ministry of Agriculture and Forestry, Ministry of Health, Ministry of Education and Sports, Ministry of Planning and Investment, and also representatives from the Lao Red Cross Society, UN Humanitarian Country Team, Non-Government Organisations, and the AHA Centre.

g. With technical support from the AHA Centre, NDMO Lao PDR compiled the results and conducted gap analysis in the 6 affected provinces for the delivery of immediate needs and faster early recovery efforts.
Response by ASEAN Member States

a. The National Disaster Management Agency (NADMA) Malaysia, together with the Royal Malaysian Air Force (RMAF), provided logistical support in transporting relief items from the DELSA regional stockpile in Subang, Malaysia to Vientiane, Lao PDR.

Figure 4: DELSA relief items loaded onto Royal Malaysian Air Force (RMAF) aircraft for transport to Vientiane, Lao PDR. Source: UNHRD

Response by the AHA Centre

a. The AHA Centre has expressed condolences to Lao PDR and offered support from regional resources, including mobilising ASEAN Emergency Response and Assessment Team (ASEAN-ERAT), providing relief items from the Disaster Emergency Logistics System for ASEAN (DELSA) regional stockpile, and facilitating the deployment of capacities available in the region, such as from the ASEAN Standby Arrangements.

b. The AHA Centre mobilised its ICLT, which met with the NFP of NDMO Lao PDR in Vientiane on 10 September (Tuesday) 2019 and participated in the coordination meeting at the Local Emergency Management Authority in Pakse on 11 September (Wednesday) 2019. ICLT facilitated the handover of the DELSA relief items in Vientiane on 12 September (Thursday) 2019 in support of the emergency response, while continuing to provide technical assistance to NDMO Lao PDR on designing coordination structures and needs assessment during emergency response.

c. The following relief items have been delivered in a handover ceremony by the AHA Centre Executive Director, received by Mr. Vilayphong Sisomvang, Acting Director-General, Social Welfare Department, MLSW of Lao PDR, and witnessed by Ambassadors of ASEAN Member States based in Vientiane on 12 September (Thursday) 2019 in Vientiane, Lao PDR (Press Release):
- 330 Family Kits
- 2,596 Hygiene Kits
- 1,144 Kitchen Sets
- 1,400 Mosquito Nets
- 1,400 Jerry Cans (10 litres)

d. As the Social Welfare Department, Ministry of Labour and Social Welfare of Lao PDR led the National Multi-Sectoral Joint Disaster Needs Assessment, covering the 6 affected provinces, the AHA Centre’s Information Management specialist provided technical support in the planning and implementation of the nationally-led needs assessment, including the introduction and design of the assessment tool - KoBo, and training of assessment teams.

Figure 5: AHA Centre’s ERAT Information Management Specialist, Lawrence Dimailig, attended Joint Disaster Needs Assessment Meeting, training, and implementation in the affected provinces.

e. Together with partners such as mapping and GIS specialist from Map Action, as well as rapid needs assessment specialist member of ASEAN-ERAT affiliated with Arbeiter-Samariter-Bund (ASB) Indonesia and the Philippines, the AHA Centre also provided technical assistance in data processing and analysis through the Emergency Operations Centre based in Jakarta.

f. Currently, the AHA Centre is still providing on-demand remote technical support.
Response by Other Humanitarian Partners

a. The Pacific Disaster Center (PDC) produced a hazard brief on flood impact and exposure estimates on 08 September (Sunday) 2019, in collaboration with the AHA Centre.

b. UNITAR-UNOSAT provided map data on the likely flood extent as of 06 September (Friday) 2019, and updated maps of 3 provinces based on imagery as of 10 September (Tuesday) 2019.

c. MapAction provided a map for internal analysis and was also sending a map and GIS expert in AHA Centre EOC to provide geospatial data processing and analysis as a remote support to NDMO Lao PDR. In addition, Map Action had helped to provide map for assessment priority area which attached in Annex 1.

d. The United Nations Humanitarian Response Depot (UNHRD) supported the logistical operations for the loading of relief items from the DELSA regional stockpile in Subang, Malaysia.

Response by Other Partners

a. The AHA Centre, in lieu of NDMO Lao PDR, requested activation of Sentinel Asia’s Emergency Observation Request (EOR) through the Asian Disaster Reduction Center (ADRC) on 06 September (Friday) 2019. We received first map data on likely flood extent from the ARIA-SG team at the Earth Observatory of Singapore based on satellite data as of 06 September (Friday) 2019.

5. RECOMMENDATIONS AND PLAN OF ACTIONS

The AHA Centre’s plan

a. The AHA Centre will closely coordinate and continue providing on-demand remote support to the NDMO Lao PDR.
Figure 6: Map of affected areas in Lao PDR showing the likely flooded areas (light blue pixels), based on synthetic aperture radar satellite data before (03 April 2019) and during (06 September 2019) the flood event. Analysis was done by the ARIA-SG team at the Earth Observatory of Singapore (EOS) for Sentinel Asia.

Prepared by:

The AHA Centre - Emergency Operations Centre (EOC)

ABOUT THE AHA CENTRE

The AHA Centre - ASEAN Coordinating Centre for Humanitarian Assistance on disaster management - is an inter-governmental organisation established by 10 ASEAN Member States – Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Viet Nam - to facilitate the cooperation and coordination among ASEAN Member States and with the United Nations and international organisations for disaster management and emergency response in the region.

The ASEAN Coordinating Centre for Humanitarian Assistance on disaster management (AHA Centre), Graha BNPB 13th Floor, JL Raya Pramuka Kav 38, East Jakarta, 13210, Indonesia
Phone: +62-21-210-12278 | www.ahacentre.org | email: info@ahacentre.org

Contact:
1) Lawrence Anthony Dimailig, Assistant Director, Disaster Monitoring & Analysis, lawrence.dimailig@ahacentre.org
2) Shahasrakiranna, Disaster Monitoring & Analysis Officer, shahasrakiranna@ahacentre.org
3) Lawrence Aporto, Disaster Monitoring & Analysis Officer, lawrence.aporto@ahacentre.org
4) Justin Chin, Disaster Monitoring & Analysis Intern
ANNEX 1

SITUATION UPDATE

Map of Priority Field Assessment Districts for Laos PDR

Data sources:
- Oxfam, 2019
- Ministry of Social Welfare Department of Laos
- AIDC, Central Asia, BO5, Asia, BO5, Asia Centre, Central Asia

Map Action

Map Document: MA006_Laos_Priority_Districts

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

Map Action

MAP ACTION

THE ASIAN RESPONSE

Map of Priority Field Assessment Districts for Laos PDR

Data sources:
- Oxfam, 2019
- Ministry of Social Welfare Department of Laos
- AIDC, Central Asia, BO5, Asia, BO5, Asia Centre, Central Asia

Created: 18 Sep 2019
Map Document: MA006_Laos_Priority_Districts
Projection & Datum: WGS 1984 / UTM Zone 40N
Map Number: FL-2019-000199_LAO
Produced by MapAction
Supported by German Humanitarian Assistance and the Ministry of Foreign Affairs of the Netherlands.

The depiction and use of boundaries, names and associated data herein do not imply endorsement or acceptance by MapAction.