Two tropical storms and sustained heavy rainfall during July, August and September 2018 have affected the entire country, including an estimated 2,400 villages and 132,000 households. 3,616 households have been evacuated, and 55 people reportedly died. Approximately 150 km of national and provincial roads, as well as 133 km of district and 350 km of rural roads and 47 bridges have been damaged. Moreover, 90,667 hectares of rice paddy field and 11,607 hectares of other crop fields have been damaged. A large number of livestock has been lost, including 21,000 large animals and 79,000 poultry. 861 irrigation systems have been damaged. The most affected provinces are Attapeu, Khammouane, Savannakhet, Champasak and Oudomxay.

A beriberi outbreak has been reported in Khammouane province, which may be linked to a lack of dietary diversification brought about by flood induced geographical insolation. Price increases of essential goods were reported in the regions with damaged road access. Apart of flooding and landslides, the country is also currently affected by a continuing locust outbreak in five provinces in the North, a flood-related White Back Hopper outbreak in Xayaboury and Xekong and a rat epidemic in Luang Namtha.

The Humanitarian Country Team originally launched this Disaster Response Plan on 7 August 2018. As the floods have increasingly affected other parts of the country, the Humanitarian Country Team has enhanced the Disaster Response Plan to cover the entire country.

### SITUATION OVERVIEW

Map 1: Composite Index of Population and Crop Exposure to Flooding, 17 July - 31 August 2018

- 55 reported deaths
- 3,616 evacuated households
- ? around 100 people missing
- 647,000 people affected

### STRATEGIC OBJECTIVES

- Provide life-saving assistance to people affected by the floods and re-establish basic services.
- Support the restoration of livelihoods and self-reliance.
- Provide safety and protection for vulnerable people, including women, girls, boys and men, the elderly and people with disabilities, including through the provision of transitional shelter.

### FUNDING

The Humanitarian Country Team (HCT) is seeking US$ 42,716,500 to provide humanitarian assistance to 110,000 households in Food Security and Nutrition, Health, Shelter, including camp management, Education, Protection, WASH and Logistics and to conduct early recovery activities.

US$ 3,064,000 have been contributed to date.
### FOOD SECURITY AND NUTRITION

**Affected areas:** Entire Country, with focus on 12 most affected districts  
**Target beneficiaries:** 290,000  
**Funding required:** $21,988,800  
**Lead Agency:** WFP and FAO  
**Partners:** UNICEF, Ministry of Agriculture and Forestry, Ministry of Labour and Social Welfare and Ministry of Health

**Sector Overview:** Flood damage data is being reported from all provinces in the country. The government has indicated that this is the worst flooding in 11 years. 132,000 households are impacted by the flood. Agriculture and thus livelihoods have been severely impacted. 90,667 hectares of paddy field have been damaged, 11,607 ha of crop area are flooded, and a large number of livestock has been lost, including 21,000 large animals and 79,000 poultry. 861 irrigation systems have been damaged. Of the paddy fields damaged, the majority is in the lowland paddy areas in Khammuane, Savannakhet, Champasack and Attapeu Provinces. Fields have been badly affected by flash floods. Strong currents have washed away standing crops (mid-season), bringing high levels of deposits of silt and mud to fields. Homestead gardens have been impacted as well, with standing vegetables and some fruit trees washed away and otherwise affected. The damages and losses are having an effect on the immediate food production and nutrition, this seasons’ production and harvest of food crops, as well as future seed material and households’ food security. Flash floods and standing flood waters have resulted in areas being cut off from other parts of the country and especially markets, so that no food commodities can be brought it. With the food crops in these areas also severely affected in specific areas people had to resort to foraging in forests eating what they could gather. In some places this has resulted in malnutrition and in particular outbreaks of micro-nutrient deficiencies such as beri-beri which even resulted in some deaths. Flash floods and strong water currents even washed away or displaced animals. The remaining livestock is at risk of disease and starvation, requiring protective measures for the remaining livestock, providing water, fodder and measures to prevent disease outbreaks. Given that the flooding and associated damages to agricultural production has occurred before the harvest, production this year will be much less than usual and will put the affected population in a precarious food security situation. Khammuane and Savannakhet are the largest rice producing areas in the country and appear to be most damaged. There is a therefore a risk for severe food insecurity not only locally, but across the country.

**Priority Response:**  
- Life-saving food assistance  
- Provision of agriculture inputs (seeds, fertilizers, agriculture tools and others) to immediate restore the crop production and catch up with the winter crop season.  
- Provision of vaccination, fodders, vitamins and mineral, animal health services for the remaining livestock population in the affected areas.  
- Provision of unconditional cash for food security and livelihood restoration; cash for work to rehabilitate the irrigation system, land reclamation and aquaculture pond recovery.

**Agency**  
- **Food and Agriculture Organization of the United Nations (FAO)**  
- **World Food Programme (WFP)**

### EARLY RECOVERY

**Affected areas:** Entire country  
**Target beneficiaries:** Displaced persons; Farmers (male and female); Single-headed households; Women  
**Funding required:** $3,970,000 (of which $630,000 already funded)  
**Lead Agency:** UNDP  
**Partners:** Ministry of Labour and Social Welfare; Ministry of Agriculture and Forestry; Ministry of Natural Resources and Environment; Ministry of Planning and Investment; Ministry of Public Works and Transport; National Regulatory Authority; UXO Lao; Provincial Authorities; District Authorities; Ministry of Justice, Ministry of Home Affairs, Ministry of Information, Culture and Tourism, Lao Women’s Union

**Sector Overview:** The Early Recovery Cluster is an important part of this response, including cross-cutting issues such as gender and disaster risk reduction. Experience and lessons learnt from other emergencies have clearly made the case for activation of the Early Recovery Cluster. The interface between emergency response, humanitarian activities and early recovery are along a continuum rather than with definite demarcations. Lao PDR is recognized for being heavily contaminated by UXOs. Attapeu Province is one of the most affected, with 94% of villages contaminated. Caution is therefore needed in access to areas and activities such as search and rescue, clearance, and debris removal. Cluster specific activities will include 1) debris management 2) assessment of potential UXO cover and risk; 3) restoration of livelihoods 4) environmental management 5) adjustment of governance systems to address emergency and recovery aspects 6) coordination and implementation of Post-Disaster Needs Assessment

**Priority Response:**  
- Coordination support to IASC to develop Response Plan and PDNA  
- Clearance, infrastructure and construction rubble, solid waste disposal, UXO assessment and clearance  
- Cash Transfers/Cash for Work Programmes for livelihoods restoration  
- Environmental management  
- Access to services and information sharing  
- Post-Disaster Needs Assessment

**Sector Early Recovery**

<table>
<thead>
<tr>
<th>Agency</th>
<th>Required (US$)</th>
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</thead>
<tbody>
<tr>
<td>Debris management (clearance of infrastructure and construction rubble, solid waste disposal)</td>
<td>$4,600,000</td>
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<tr>
<td>UXO assessment, clearance and risk awareness</td>
<td>$660,000</td>
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<tr>
<td>Cash Transfers and Cash for Work Programmes, restoration of livelihoods, farming and animal husbandry activities</td>
<td>$2,140,000</td>
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<tr>
<td>Adjustment of governance systems for emergency and recovery</td>
<td>$200,000</td>
</tr>
<tr>
<td>Environmental management, reforestation, slope stabilization</td>
<td>$200,000</td>
</tr>
<tr>
<td>Coordination and implementation of Post Disaster Needs Assessment</td>
<td>$230,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$7,970,000</strong></td>
</tr>
</tbody>
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Office of the UN Resident Coordinator Lao PDR (as of 4 Oct 2018)
**HEALTH**

Affected areas: Attapeu Province; Khammouane Province

Target beneficiaries: 149,665

Funding required: $ 8,037,500

Lead Agency: WHO

Partners: Ministry of Health, UNICEF, UNFPA, IOM, HPA

Sector Overview: Initial reports have revealed that 34 health facilities have damaged in 10 provinces. Khammouane has been identified as one of the most affected province with 10 health centres reported as being affected by flooding. Due to the destruction and damage to homes in Attapeu province, many people are living in unhygienic conditions in camps, with overcrowding compromised access to safe water and sanitation infrastructure, and an expected surge in communicable diseases. Therefore, disease surveillance needs to be strengthened, with gaps in the provision of health services urgently needing to be filled. The Ministry of Health (MoH), in close collaboration with the World Health Organization (WHO), is closely monitoring communicable diseases through robust disease outbreak surveillance systems, and water quality monitoring. Preventive health actions, such as special immunization activities for cholera and typhoid, which are not part of the routine immunization, will serve to reduce the risk of acute outbreaks. Due to the sudden displacement coupled with the loss of homes and livelihoods, the MoH has identified the need for psychosocial support for the displaced community.

Priority Response:
- Enhance surveillance and outbreak investigation and response capacity for outbreak prone diseases in the affected areas
- Support MoH to respond to cases of thiamine deficiency detected in Khammouane Province
- Support access to essential primary health care services with appropriate medical supplies and staffing to provide access to curative health services and referrals
- Provide support to the Ministry of Health on water quality testing and monitoring with a focus on safe water supply to affected populations
- Provide operational support for the planning, administration, and training for preventive health actions such as emergency supplementary vaccination campaigns vaccine-related activities
- Enhance health and hygiene communication dissemination and infection prevention and control strategies (health care waste management) across all areas of health interventions such as health posts, the district hospital, and provincial hospital
- Collaborate with health implementing partners and the related departments of the MoH to promote integrated health service delivery including communicable disease control, maternal, newborn and child health, screening for malnutrition, and psychosocial support.

| Sector Health
<table>
<thead>
<tr>
<th>Agency</th>
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<tbody>
<tr>
<td>WHO</td>
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<tr>
<td>UNICEF</td>
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<tr>
<td>UNFPA</td>
<td>$ 160,000</td>
</tr>
<tr>
<td>IOM</td>
<td>$ 150,000</td>
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<tr>
<td>Total</td>
<td>$ 837,500</td>
</tr>
</tbody>
</table>

**SHELTER (INCLUDING CAMP MANAGEMENT, EDUCATION AND PROTECTION)**

Affected areas: Entire country

Target beneficiaries: Focusing on 110,000 affected households in 11 provinces across the country.

Funding required: $ 8,000,000 for Shelter (reconstruction/rehabilitation, shelter kits and NFIs), $ 500,000 for camp management

Lead Agency: IOM, UN-Habitat


Sector Overview: According to the latest data shared by the National Disaster Management Office, 110,000 households have been affected by flooding in 110 districts across 17 provinces across the country. A total of around 1,900 houses across the country have been totally damaged (of which around 1,500 in Attapeu), and around 400 houses have been partially damaged. Approximately 4,000 individuals reside in overcrowded emergency camps in Attapeu, mostly in school buildings. The individuals continue to occupy the sites even after the start of school in September, since half of the camp residents’ housings were heavily damaged or destroyed and require longer-term arrangements. The other half needs adequate assistances to rebuild and repair their housings. The Department of Housing and Urban Planning as the Shelter Cluster’s key counterpart will take part in the planning and implementation of rebuilding process upon receiving findings from the ministry’s assessment taskforce. The department is ready to support and cooperate with line ministries and international agencies at any stage of operations, especially technical issues related to its responsibilities. The master plans for the four most affected villages Tamayor, Pinchadong, Dong Bak and Done Bok are currently under review by the government. The affected people of these four villages will be resettled on a priority basis. It is therefore expected that by 2019 the remaining nine affected villages will be provided assistance based on Build Back Better principle.

Priority Response:
- Map the affected villages, temporary shelters and evacuation centres
- Track movements of camp population, their needs and the gaps to improve response capacity
- Provide camp management support, guidance and resources to temporary shelters / evacuation centres, including direct mentorships and trainings.
- Provide emergency shelter kits, toolkits and non-food items based on the needs and response phase
- Support Ministry of Public Works and Transport to assess shelter-related damages and partake in the reconstruction efforts with an agreed shelter recovery strategy
- UN-Habitat and IOM will cover work in 11 provinces, with the focus towards rebuilding and rehabilitating the completely and partially destroyed houses and communal facilities, along with providing Non-Food Items to facilitate the recovery and rehabilitation of the affected communities.
- The reconstruction plan is based on the latest information received from NDMO (refer to table 1). The repair and rehabilitation of the shelters will be based on the Building Back Better & Safer principle and develop guidelines and trainings in the affected villages.

| Sector Shelter (including camp management) |
|-------------------------------|----------------|
| Agency         | Required (US$) |
| WHO            | $ 3,500,000    |
| IOM            | $ 5,000,000    |
| UN-Habitat     | $ 8,500,000    |
| Total          | $ 8,500,000    |

Office of the UN Resident Coordinator Lao PDR (as of 4 Oct 2018)
### WATER, SANITATION AND HYGIENE

- **Affected areas:** Severely affected provinces, including Attapeu
- **Target beneficiaries:** 8,000 people
- **Funding required:** $ 509,000
- **Lead Agency:** UNICEF

**Partners:** Central Nam Saat, Provincial Department of Health, Provincial Department of Public Works and Transport, WHO, UN-Habitat, Lao Red Cross, World Vision

**Sector Overview:** The floods have impacted Water, Sanitation and Hygiene (WASH) infrastructure in the 17 affected provinces. The country's access to basic drinking water supply remains at 80% and access to basic sanitation at 73% with 22% of the population still practicing open defecation nationally. The Mekong river that flows the length of the country is the principle water sources for people in the villages along with dug wells and boreholes. So far, 206 gravity fed water supply systems have been damaged along with few bore holes and dug wells that were the main source of drinking water of the affected population. Drinking water quality test have confirmed prevalence of e-coli in the boreholes and dug wells. With lack of access to safe and clean water, water-borne disease outbreaks, such as diarrhoea, are likely to occur. This risk is further compounded by the destruction of sanitation facilities and unsafe hygiene practices. Open defecation in rural communities remains high. The lack of clean water and poor sanitary conditions are putting the health of affected population in the communities, temporary shelters and evacuation centers at risk. Diarrhea and other water borne diseases which are common in natural disasters pose a serious threat especially to children and the elderly in the affected areas.

**Priority Response:**
- Distribute water treatment and hygiene kits (purification tablets, buckets and water containers).
- Support construction of latrine facilities in the temporary emergency centers and sludge management safely.
- Rehabilitate/restore damaged water supplies, sanitation facilities, pipes, fixtures and fittings in damaged facilities in communities including health centers and schools.
- Support water quality testing for essential parameters (E-coli, chlorine residual, Ph, turbidity, arsenic) and promotion of household water treatment (chlorination, bio-sand filters, rainwater jars, etc.).
- Conduct WASH promotion activities and distribute safe drinking water, sanitation and hygiene materials.
- Develop water safety plan for sustainable and safely manage water quality including increasing ownership of community people.
- Support the government to coordinate WASH emergency response and early recovery efforts by leading the WASH cluster

### PROTECTION

- **Affected areas:** Attapeu province
- **Target beneficiaries:** 13,100 people including 5,711 women and girls
- **Funding required:** $ 335,000
- **Lead Agency:** UNFPA/UNICEF

**Partners:** Ministry of Labour and Social Welfare, Ministry of Health, Lao Women Union, Lao Red Cross

**Sector Overview:** A rapid assessment conducted by Ministry of Health and UN agencies has indicated protection concerns among affected population, including overcrowding temporary shelters. No protection mechanisms are available such as safety and security of women and children, including risk of gender-based violence and abuse against women. No data is being collected on these risks. Inadequate camp management has been evidenced, with people going in and out without control. There is also an urgent need to respond to psychological trauma of women and girls who experienced the disaster, in addition to ensuring risk mitigation measures of GBV and to guarantee the community participation in the disaster response. Protecting women and girls, adolescent boys, older persons and people with disabilities displaced by the flooding in Attapeu Province by improving community-driven mechanisms that safeguard women, girls, boys and other vulnerable groups against GBV and ensuring survivors the access to life-saving interventions are urgent needs. The protection cluster will focus on:
  - Reducing risks to GBV as well ensuring that GBV survivors receive life-saving care and services.
  - Providing psycho social support and referral services to displaced children aged 3-18 through child friendly space.
  - Identifying and supporting vulnerable children that need special support, including orphans, separated children and children with disabilities.

**Priority Response:**
- **Addressing Gender-Based Violence**
  - Coordinate protection cluster in partnership with national authorities and relevant UN entities
  - Reduce risks of violence
  - Ensure access of GBV survivors to appropriate, life-saving care
  - Establish and operationalize a women-friendly space to ensure protection and empowerment of women girls affected by crisis, to facilitate an organized and gender-responsive way of delivering services displaced women, including psychosocial support.
- **Supporting Child Protection**
  - Child Friendly Space Operations
  - Identification and support to vulnerable children focusing on orphans, separated children and children with disabilities.
  - Awareness raising and empowerment of government sectors, NGOs, families and communities at large to prevent and respond to violence, abuse and trafficking of children and children in emergency

<table>
<thead>
<tr>
<th>Agency</th>
<th>Required (US$)</th>
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<tbody>
<tr>
<td>WHO</td>
<td>$ 25,000</td>
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<tr>
<td>UNFPA</td>
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<tr>
<td>UNICEF</td>
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<td><strong>Total</strong></td>
<td><strong>$ 335,000</strong></td>
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Office of the UN Resident Coordinator Lao PDR (as of 4 Oct 2018)
**EDUCATION**

**Affected areas:** Attapeu province (and other affected provinces as needed)

**Target beneficiaries:** Approximately 4,300 school-aged children and adolescents (age 3-18) in affected villages and emergency camps in Attapeu province (and additional # of school-aged children in other affected provinces as needed)

**Funding required (Planned Amount): USD 2,226,200**

**Lead Agency:** UNICEF


**Sector Overview:** The flash floods had raised the education needs as the flood impacted on approximately 4,300 school-aged children and adolescents aged 3-18 in Attapeu province, and additional increasing numbers of school-aged children in other affected provinces. A total of 29 schools were affected in Attapeu alone, requiring rehabilitation and reconstruction before full restoration. Government has announced “Back to School” as a top priority, aiming to ensure all children, including disaster-affected children and those in host communities, will get registered and attend school by end of September. While schools in Sanamxay district in Attapeu province are partially open to date, many grades and classes remain closed, since some classrooms continue to be occupied as shelters, and there are shortages of classrooms and teachers in schools in host communities to accommodate increased number of students with evacuated children. Temporary learning spaces (TLSs) are necessary both for primary and secondary levels, along with support to textbooks and other teaching-learning materials. Many of the affected children and their families, as well as teachers are psychologically affected without due care and supports.

**Priority Response:**
- Collect and consolidate data (RAPID Assessment, incl information on disability) on the affected school-aged children, teachers, school facilities and required materials.
- Develop action plans (including M&E) with MoES and local authorities supporting the full registration of children and the operationalization of schools in time for the beginning of the school-year.
- Based on the above-mentioned action plan, to support: 1) facilitation of school registration; and 2) tracking of students’ attendance (by disaggregation, incl children with disabilities); and 3) restoration of schooling, including school re-construction and rehabilitation
- Provide textbooks, teacher guides, teaching-learning, IEC materials and school furniture and equipment to the affected schools and children.
- Utilize and support Child Friendly Space (CFS) as temporary learning centres to progressively restore formal education (in coordination with CP programme), in locations where schools are not able to be restored before the beginning of the school year
- Train teachers on use of teaching-learning materials, psychosocial support, positive care, child protection, health, hygiene practices and school disaster management.

**Sector Education**

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<td>Plan International</td>
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<tr>
<td>ChildFund</td>
<td>$ 56,200</td>
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<tr>
<td>Good Neighbors</td>
<td>$ 300,000</td>
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**LOGISTICS**

**Affected areas:** Entire Country

**Target beneficiaries:** N/A

**Funding required: 350,000**

**Lead Agency:** WFP

**Partners:** MoLSW

**Sector Overview:** Since the beginning of the disaster, the Logistics Cluster has acted as an information sharing and coordination body with participation from at least 15 different organizations. The purpose of the cluster is to provide logistics information and suggest solutions to logistics issues. Partner organizations are encouraged to find resolutions to logistics gaps and bottlenecks and share that knowledge with other members of the cluster. In addition, logistics support has been provided by WFP to the Government upon request. That has included the provision of two Mobile Storage Tents, one in Sanamxay and one in Vientiane. Warehouse space has also been made available in Vientiane at WFP’s warehouse for storage of Government relief items. Furthermore, basic warehouse management training has been provided to Government staff both in Sanamxay and Vientiane. However, it has become apparent that storage of relief item has become difficult for the Government. Relief items are stored in multiple places around the country taking up valuable space at schools and Government building. No inventory is available to determine quality and quality of goods. Food items are stored with non-food items and basic warehouse practices are not being employed putting at risk the suitability of goods. Therefore, support is needed to train Government staff on warehouse management, including setting up an inventory management system. And, sorting of items is required so that an accurate inventory can be produced, and items stored properly safe guarding their status. These activities require staff and financial resources.

**Priority Response:**
- Provide expert staff to guide Government counterparts on basic warehouse management (including stacking/sorting) and inventory management (record keeping).
- On the job training on warehouse management.
- Design and handover warehouse management materials.
- Provide labour support for reorganizing of relief items.
- Provide transport of items from one storage location to another to facilitate sorting.
- Provide warehouse space by temporary renting additional capacity or purchase of Mobile Storage Units.

**Sector Logistics**

<table>
<thead>
<tr>
<th>Agency</th>
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<td>WFP</td>
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<tr>
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<td>$ 350,000</td>
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**COORDINATION STRUCTURE**

- **RC**
- **HCT**
- **IASC**
- **NDPCC**
- **DDMCC**
- Vice Prime Minister
- Other Line Ministries (MAF, MoH, MoPWT)
- ETF
  - Early Recovery
  - Protection
  - Food & Nutrition
  - WASH
  - Health
  - Education
  - Shelter
  - Logistics
  - MoLSW
  - MAF
  - MoH
  - MoE
  - MoPWT

**TIMELINE OF KEY EVENTS**

1. **18-19 July**: Tropical Storm Son-Tinh affects 13 provinces across Lao PDR with heavy rains.
2. **23 July**: Flash floods hit Sanamxay District in Attapeu Province as water discharges from the Xepien-Xe Nam Noy Dam. Government declares National Emergency Disaster Zone.
4. **16-17 Aug**: Tropical Storm Bebinca hits North of Lao PDR.
5. **24 Sept**: Post-Disaster Needs Assessment launched.

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Office of the UN Resident Coordinator Lao PDR (as of 4 Oct 2018)