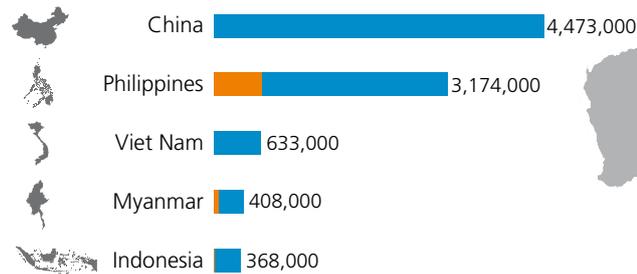


## EAST ASIA AND PACIFIC



DISASTERS 45.8%  
CONFLICT 6%  
OF THE GLOBAL  
TOTAL

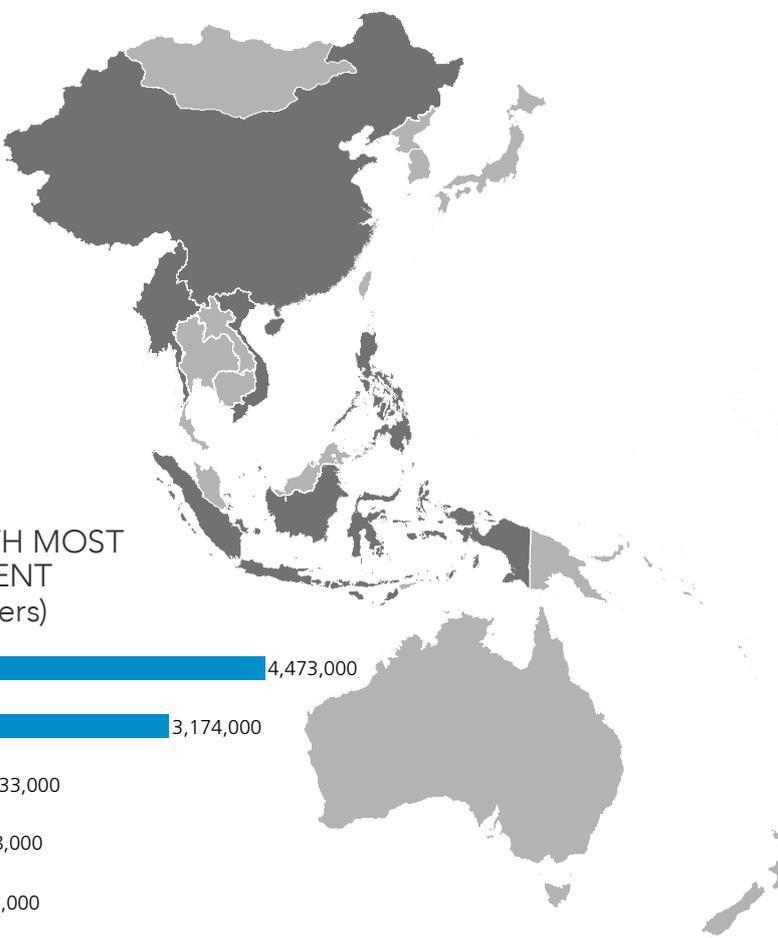
### 5 COUNTRIES WITH MOST NEW DISPLACEMENT (conflict and disasters)



Sudden-onset disasters triggered most of the internal displacement recorded in East Asia and Pacific in 2017. This is not surprising given that the region is the most disaster-prone in the world. Disasters displaced 8.6 million people during the year, accounting for 46 per cent of the global total. **China**, the **Philippines** and **Viet Nam** were among the ten worst-affected countries in the world, with 4.5 million, 2.5 million and 633,000 new displacements respectively. **Indonesia** and **Myanmar** ranked 12th and 13th with 365,000 and 351,000.

The region is affected by both intensive (less frequent but high-impact) and extensive (recurrent but lower impact) events.<sup>118</sup> Our disaster displacement risk model estimates that sudden-onset disasters are likely to displace an average of more than 1.3 million people in **China**, more than a million in **Viet Nam** and more than 700,000 in the **Philippines** during any given year in the future. Across the region as a whole the prospective figure is five million. Thirty-six per cent of global disaster displacement risk is concentrated in East Asia and Pacific, more than any other region.<sup>119</sup> Flooding is the most common and recurring natural hazard and claims most victims.<sup>120</sup>

The Hunan floods in southern **China** between June and July triggered the region's largest displacement,



more than 1,620,000 people. Further flooding displaced 547,000 in other southern provinces. Tropical storm Tembin, known locally as Vinta, displaced 865,000 people in **Viet Nam** and the **Philippines** in December, and tropical storm Kai-tak, known locally as Urduja, 765,000 in the Philippines and **Malaysia**, also in December. A number of smaller-scale storms, floods and volcanic eruptions also caused displacement in the region.

Beyond the nature and intensity of the hazards themselves, two factors lie behind the scale of displacement associated with disasters in East Asia and Pacific. The number of people and assets exposed to floods and cyclones is thought to have increased by around 70 per cent between 1980 and 2015, largely as a result of urban expansion driven by the region's booming economy.<sup>121</sup> Today the region accounts for 30 per cent of the global population, most of whom live in urban areas exposed to a wide range of hazards including cyclones and storm surges, coastal and riverine floods, volcanic eruptions, earthquakes and tsunamis.<sup>122</sup> Vulnerability is also important. As of 2014, 25 per cent of urban residents lived in slums and other settlements less able to withstand the impact of natural hazards.<sup>123</sup>

Disasters have historically caused significant physical and economic losses, but the region has succeeded in

reducing mortality, the result of several countries introducing disaster risk reduction measures including early warning systems and pre-emptive evacuations.<sup>124</sup> The latter also constitute displacement, but of a different nature to that caused by the impacts of hazards themselves. If successfully implemented by more countries across the region, such measures would greatly reduce the scale of disaster mortality (see spotlight, p.30).

Pacific states in particular have established policies and guidelines to address human mobility associated with disasters, and these initiatives should be monitored closely for best practices and lessons learned for use in other countries and regions.<sup>125</sup> **Fiji, Kiribati and Vanuatu** have led the way in incorporating relocation, IDPs' human rights and cross-border movements into their governance arrangements, but clearer links between these national initiatives and the Nansen protection agenda and the Guiding Principles on Internal Displacement are needed.<sup>126</sup>

Though the vast majority of people displaced in East Asia and Pacific in 2017 fled disasters, the region was not immune from displacement associated with conflict. At least 655,500 Rohingya Muslims fled across the border into Bangladesh to escape **Myanmar's** military crackdown and inter-communal violence in Rakhine state, which also caused the internal displacement of about 26,700 non-Muslims. An unknown number of Rohingya may also have been internally displaced en route to Bangladesh. There were reports of thousands of people stuck at the border in northern Rakhine.

The refugee crisis in Bangladesh has been well-documented in the media, but access constraints in Rakhine mean little is known about the scale of internal displacement during the second half of the year, and figures cannot be verified.<sup>127</sup> Only a few international NGOs are able to operate in Rakhine, including the International Committee of the Red Cross and UNHCR. The scale of the refugee crisis, however, gives some indication of the protection concerns that any Rohingya still displaced in northern areas of the state, and more than 128,000 Rohingya and Kaman Muslims living in protracted displacement in central areas since 2012, are likely to face.

Nearly 22,000 new displacements were also recorded in Kachin, Shan and Chin states, areas where ethnic minorities have been in armed conflict with the **Myanmar** state for nearly seven decades. About 16,000 took place

in Kachin, where more than 89,000 people have been living in protracted displacement since 2011.

In the **Philippines**, the battle between the armed forces and ISIL affiliates for Marawi was the most significant outbreak of urban warfare in the country's recent history.<sup>128</sup> It began in May, lasted for five months and led to more than 350,000 new displacements before the government declared its military victory.

The Philippines adopted a national law in 2010 that recognises IDPs' rights in line with the Guiding Principles.<sup>129</sup> There are numerous examples of how it has helped people displaced by disasters, but it is unclear whether it has been put into action to protect and provide restitution for people fleeing conflict, including those in Marawi.<sup>130</sup>

There are clearly disparate levels of governance capacity and responses to disaster and conflict induced displacement across East Asia and Pacific. Good practices such as some governments' recognition of the importance of protecting IDPs via laws, policies and strategies, and the implementation of measures to minimise or prevent displacement, such as pre-emptive evacuations, are encouraging. But better monitoring and disaggregation of displacement data will be required in order to assess gaps in responses, and allow countries with differing capacities to design and implement concrete measures to better support the region's IDPs.

## SPOTLIGHT

# INDONESIA AND VANUATU

## Displacement for good reason

The responses of the governments of Indonesia and Vanuatu to volcanic activity in 2017 show how effective early warning systems can be in reducing people's exposure to hazards. They also illustrate the fact that displacement need not always be a negative outcome, in that pre-emptive evacuations save lives and are an effective resilience measure. The two countries have unique approaches to disaster risk management, using the Sendai framework and the Sustainable Development Goals to improve their preparedness and responses as a means of reducing loss of life and people's vulnerability.

The Indonesian island Bali was on high alert for much of the last four months of the year as seismic activity around Mount Agung on the eastern end of the island increased. Shallow volcanic earthquakes began in August and evacuations started in September, peaking on 4 October when more than 150,000 people were

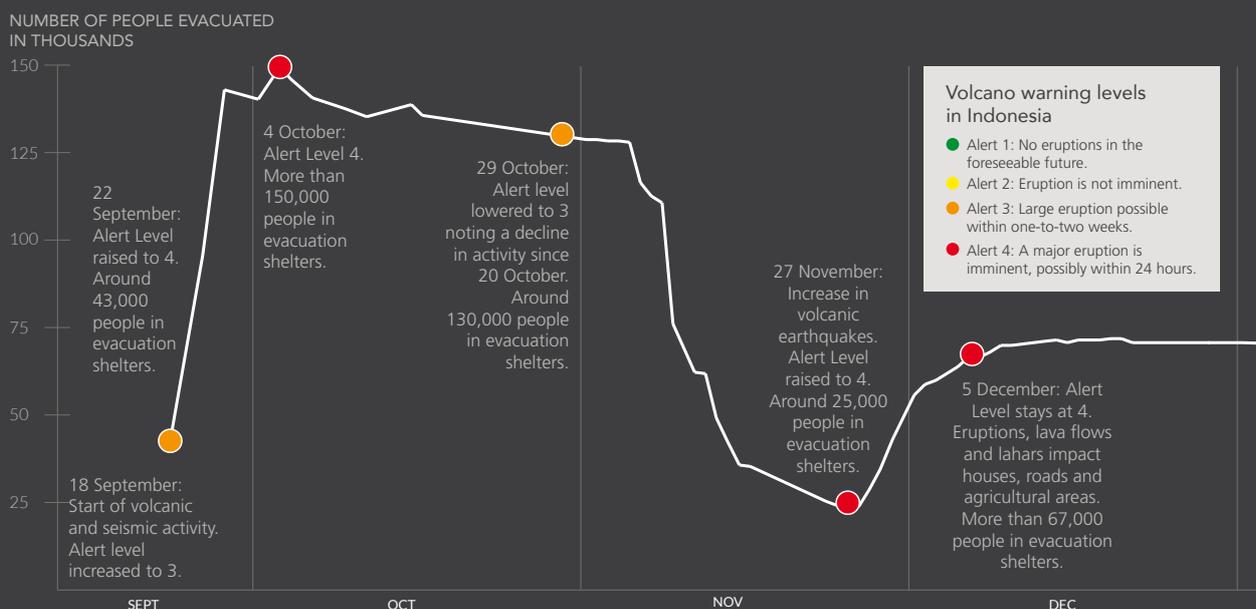
staying in 435 shelters.<sup>131</sup> Agung's activity and the subsequent alert level continued to fluctuate, and the exclusion zone around the volcano was extended from six to 12 kilometres before a series of eruptions began in late November.

Evacuations were carried out effectively, and can be attributed to Indonesia's disaster management system, which includes agencies that monitor and respond to natural hazards. Volcanic activity is closely watched by the country's Centre for Volcanology and Geological Hazard Mitigation.<sup>132</sup> Its alerts and notifications inform the National Disaster Management Agency, the police and the military, who in turn prepare potentially affected populations for evacuation.<sup>133</sup> Memories of Agung's eruption in 1962-63, which claimed 1,100 lives, also helped to make people more responsive to alerts, warnings and evacuation orders.<sup>134</sup>

The primary purpose of displacement in the form of evacuations is to save lives, but it still takes a toll on people's physical and psychological wellbeing. About 10,000 evacuees in Bali were reported to be suffering from fatigue and stress, and from cold and uncomfortable living conditions in their shelters.<sup>135</sup> Evacuations also separate people from their livelihoods, homes and other assets, and they may take undue risks to protect them.

Some evacuees in Bali returned early to tend to their land and livestock, while others, particularly those in

FIGURE 5: Evacuation trends in Bali



Source: Badan Nasional Penanggulangan Bencana (BNPB), Pusat Vulkanologi dan Mitigasi Bencana Geologi (PVMBG), The Smithsonian Institution's Global Volcanism Program



isolated mountain communities, refused to leave at all.<sup>136</sup> In an effort to prevent people on Bali making daily trips in and out of the exclusion zone, the authorities also evacuated as many as 30,000 cows.<sup>137</sup>

While Indonesia was responding to the threats posed by Mount Agung, **Vanuatu** was preparing for the possible eruption of Manaro Voui, also known as Aoba, on the island of Ambae. Faced with an event that potentially put the whole island at risk, the government took extraordinary steps to protect its population of around 11,600 people.<sup>138</sup>

The Vanuatu Meteorology and Geo-Hazards Department (VMGD) is a national body whose tasks include monitoring the country's active volcanoes.<sup>139</sup> When its alert levels change on a scale of zero to five, it notifies various agencies which in turn use the information to guide responses. VMGD issued a level-four alert on 23 September in response to Manaro Voui's increased activity, which in turn prompted the government's council of ministers to declare a state of emergency on Ambae.

Some residents were moved to temporary shelters between 28 September and 2 October, but the national disaster management office then decided that the entire population of the island should be evacuated before 6 October.<sup>140</sup> The state of emergency was lifted on 27 October, when the government announced that conditions were suitable for the evacuees to return. Most did so within three days. Manaro Voui's activity continues, but as of 31 December the alert level stood at two.

The government has initiated discussions to relocate the population permanently due to the increasing risk of future eruptions.<sup>141</sup>

The Bali and Ambae evacuations highlight the importance of robust early warning and disaster management systems which ensure that alerts are translated into action. Such displacement should be seen not as an unnecessary inconvenience, but as a preventive necessity that reduces loss of life. These examples also point to socioeconomic and other challenges that must be considered when planning for pre-emptive evacuations in the context of natural hazards.

## SPOTLIGHT

# VIET NAM

## Disasters, poverty and displacement

Viet Nam is one of the most disaster-prone countries in the world. More than 65 million people, or 70 per cent of the population, live in coastal areas and low-lying deltas exposed to typhoons, tropical storms and floods.<sup>142</sup> The mountainous interior is also frequently hit by flash floods and landslides.

The combination of hazard intensity, high exposure and vulnerability puts the Vietnamese population as a whole at high risk of disaster displacement.<sup>143</sup> Our global risk model estimates that sudden-onset disasters are likely to displace an average of more than a million people in any given year in the future, giving Viet Nam the 4th highest disaster displacement risk ranking behind India, China and Bangladesh.

Ten disaster events caused 633,000 new displacements in 2017. Typhoon Doksuri caused 117,000 evacuations in the country's North Central administrative region in October, and typhoon Tembin 431,000 across southern provinces in December. Tembin was unusual in that its course was outside the usual typhoon trajectory. Typhoon Damrey, which occurred in November, caused only around 35,000 evacuations, but attracted significant media attention because it made landfall while the 2017 Asia-Pacific Economic Cooperation summit was underway in Viet Nam. Like Tembin, it struck an area unaccustomed to such ferocious storms, in this case the touristic Khanh Hoa province in the South Central Coast region of the country.

The fact that most of the displacement associated with disasters in Viet Nam in 2017 was in the form of pre-emptive evacuations is encouraging, but Tembin and Damrey point to the longer-term risks associated with the uncertainties of climate change. While it is difficult to attribute the characteristics of individual storms directly to climate change, these storms were in line with the government's official climate projections,



which forecast more frequent, intense and unpredictable typhoons, often on southerly tracks.<sup>144</sup>

A single typhoon has the potential to destroy families' homes and crops, and rebuilding a modest 30 square-metre house to a standard that can withstand future storms costs about \$2,000 - a huge sum for rural farmers and foresters who often earn less than \$2 a day.<sup>145</sup> The cost of recovery on top of livelihood losses has the potential to plunge those affected into a cycle of unaffordable debt, which in turn helps to drive the rural to urban migration associated with Viet Nam's rapid economic transformation over the past 30 years.<sup>146</sup>

Working-age members of families affected by disasters face pressure to look for work in provincial capitals and megacities such as Hanoi or Ho Chi Minh. Exact numbers are hard to come by, but population movements following disasters appear to be significant. According to Viet Nam's central statistics office, around 17,000 people, or one in 100 residents, left Kiên Giang province during and after drought in 2016.<sup>147</sup>

Rural to urban displacement carries its own risks. All Vietnamese citizens have equal rights under the constitution, but in practice the country's household registration system - which determines access to social services, utilities, land and housing - creates barriers for non-residents, including migrants and IDPs. These impede poor families' access to benefits such as free healthcare and primary education, and unregistered and temporary migrants may be unable to access any services at all.



*Flooding in Hoi An, the World Heritage site of Viet Nam. Photo: Shutterstock.com/ NguyenQuocThang, November 2017*

Some cities, such as Ho Chi Minh, have relaxed their rules and taken steps to facilitate household registration, but significant obstacles remain.<sup>148</sup>

Concern about the environmental sustainability of rural livelihoods is also growing. Viet Nam's provincial governance and public administration performance index (PAPI) for 2016 found that behind poverty and hunger, citizens ranked environmental concerns as the most urgent matters they wanted their authorities to address.<sup>149</sup>

The government has begun in recent years to realise the importance of providing low-income groups with flood and storm resilient housing, and of promoting community-based approaches to disaster risk management. A national programme has helped more than 20,000 of the most vulnerable households build safer homes, and is now being improved and scaled up through Viet Nam's first Green Climate Fund project, a partnership between the United Nations Development Program and the government.<sup>150</sup>

To be truly effective, however, safe housing needs to be combined with efforts to build resilience and better manage climate risk. As smallholders' farms continue to be divided, becoming smaller with each generation, targeted funding to support more efficient and diversified agricultural livelihoods and more integrated rural planning is essential to create the necessary resilience to climate impacts. So is the facilitation of safe and voluntary movement for those who want to undertake it.