

# CRISIS-RESPONSE

VOL:12 | ISSUE:1 | SEPTEMBER 2016

WWW.CRISIS-RESPONSE.COM

JOURNAL

PROTECTION | PREVENTION | PREPAREDNESS | RESPONSE | RESILIENCE | RECOVERY



## ANTIBIOTIC RESISTANCE CONFRONTING THE GLOBAL CRISIS

**PLUS: Brexit; Flooding in France; Nanoparticles & First Responders; Agriculture & terrorism; Search & Rescue in Antarctica; Crisis leadership; Stability policing; Public information & social media; Conflict de-escalation; Robotic developments; Command & Control in the 21st Century**

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**Subscriptions**

*Crisis Response Journal* is published quarterly; it is available by subscription in hard copy, digital and online  
Tel: +44 (0) 208 1661690; subs@crisis-response.com

**Back issues**

Existing subscribers: £25 (US\$45; €36) per hard copy issue (free with online access);  
Non subscribers: £40 (US\$72; €58) per issue  
Tel: +44 (0) 208 1661690;  
backissues@crisis-response.com

Published by Crisis Response Journal Ltd  
PO Box 6269, Thatcham, RG19 9JX, UK  
Tel: +44 (0) 208 1661690; mail@crisis-response.com  
www.crisis-response.com  
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Printed in England by Gemini Press  
ISSN 1745-8633

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Pierre Joubert

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US Navy | Photographer's Mate 2nd Class Jim Watson



Cover story: Antimicrobial resistance

Cover illustration: Алексей Нуждин | 123rf

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As usual, this edition spans emergency and disaster analysis, prevention, protection, preparedness, response and resilience.



Admittedly, it is equally morbidly fascinating and disturbing to see how crises intersect, conflating and exacerbating one another, spawning greater emergencies that appear simply beyond the scope of prevention or mitigation, sometimes leaving agencies seemingly powerless to respond effectively to their sheer scale and complexity. But how bad is the global situation?

After all, it is not beyond experts' capabilities to predict, identify and categorise tomorrow's most devastating disasters. Terrorism, natural catastrophes, conflict: This edition addresses and provides insight into all of the above.

At this time, we don't have definitive statistics for 2016. But, despite the widely-held perception that terrorist attacks are increasing, the US State Department's annual terrorism report notes a 13 per cent decrease in attacks in 2015, with 14 per cent fewer deaths. This year's figures might be higher (page 52), and modus operandi may be shifting, but the line between criminality and terrorism has become blurred, and we must be wary of classifying all violent criminal acts as terrorism, as Christine Jessup warns (page 54).

Again, we know that natural disasters are on the rise. But Munich Re says last year saw a fall in losses from such catastrophes in terms of incidents, fatalities and in financial losses.

Granted, these figures are in no way cause for complacency; we are certain to face larger and more complex emergencies in the future. But there is an even greater lurking disaster, which CRJ has touched upon in past editions (Prof Steiner, CRJ 10:1); one that we can no longer afford to ignore. Deaths in a world without antibiotics could dwarf all other catastrophes, killing up to ten million people a year (page 26).

How sobering it is to reflect that, despite all our technological advances, prevention, co-operation and hard work in crises and disasters, an absence of antibiotics would not only claim more lives than climate, conflict and terrorism combined, but augment their effects immeasurably. Let's hope that the high level UN meeting on this subject in September produces the unequivocal commitment that this smouldering global health emergency demands.

Emily Hough

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Jessica Fitzpatrick

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2 Scots | Andrew Brown



# Mass evacuation mission

**Jörg Szarzynski** and **Albrecht Beck** report from a combined IOM and UNDAC preparedness mission in the Republic of Vanuatu, considered to be the country most at risk of natural disasters in the world



**T**hree months after Tropical Cyclone Pam (category 5 cyclone) hit the South Pacific in March 2015, the Government of the Republic of Vanuatu officially requested a Mass Evacuation in Natural Disasters (MEND) preparedness mission at the International Organisation for Migration (IOM), together with the United Nations Disaster Assessment and Co-ordination (UNDAC) team as part of a wider project on evacuation preparedness. This aimed to identify gaps in existing mass evacuation planning and provide recommendations, including the drafting of national and sub-national contingency plans for specifically targeted areas.

This South Pacific region is dominated by a larger number of small island states that are endangered by a variety of natural hazards. They are threatened by cyclones, flooding or storm surges, and landslides, volcanic eruptions, earthquakes and tsunamis.

Tropical Cyclone Pam was catastrophic for Vanuatu. Some of the main islands, such as Tanna and Erromango, saw numerous casualties and many villages were destroyed. Communication was interrupted for several days. This incident emphasised the paramount importance of being able to evacuate the population within short time frames, especially for small islands. This includes on-island evacuations to safer ground, but also from one island to another. Despite the general need, mass evacuation planning is often limited, fragmentary or insufficiently adapted to realities on the ground, especially with regard to land ownership, limited resources or local customs and traditions.

The IOM project offers a threefold preparedness programme, including training on evacuation planning through assessment

*The seismic hazard in Vanuatu poses an imminent risk, as this area comprises an arc of active islands, including at least seven active volcanoes that mark the recent boundary between the Australian plate and the micro plate of the North Fiji basin*

## Authors

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missions, exploring the status of evacuation planning and providing guidance on how to improve evacuation preparedness, and long-term projects supporting government preparedness.

A range of different actors, recruited locally and internationally, typically conducts these assessment missions. The IOM team in Vanuatu was supported by members of UNDAC, part of the Office for the Co-ordination of Humanitarian Affairs (UN OCHA).

## Evacuation for remote islands

UNDAC is primarily designed to help the UN and governments of disaster-affected countries during the first phase of a sudden-onset emergency. More recently, its members took part in national disaster response preparedness missions as part of a wider process by OCHA and its partners.

The mission was conducted for 15 days in June 2016 and, at the request of the National Disaster Management Office (NDMO) of Vanuatu, focused on volcanic risk on Tanna, Ambae, Ambryn and Gaua. The 12-person mission team worked in close co-operation with the National Disaster Management Office, analysing the current status of evacuation planning.

Mission results show that there is no 'one-size-fits-all' solution in place. Evacuation planning for remote islands of the Pacific is very different compared to modern Western countries or large-scale urban areas. It became obvious that a single mission visit is not sufficient and these activities need to be supplemented by local expertise and competency, in combination with strong engagement and ownership from government and local community stakeholders.

Assessment missions can only capture instantaneous institutional settings and provide first recommendations based on information the team receives in country. The strongest advantage of an international mission team probably lies in how it triggers the necessary processes. But these processes have to be designed and led by national actors.

Evacuation preparedness is a long-term process that involves training, exercising, and regularly reviewing plans. Against this background, any preliminary mass evacuation preparedness mission can only represent part of the foundations of a comprehensive mass evacuation preparedness campaign.

Mass evacuation preparedness is of key importance – not only in the Pacific – but also at an international level, owing to emerging issues such as cumulative environmental degradation, sea level rise, and extensive urbanisation into high-risk areas.

Unfortunately, many donors still focus on response and neglect the importance of preparedness. However, despite limited resources, a step-by-step process to improve evacuation systems and related planning procedures can save lives in the Pacific and significantly strengthen the resilience of local communities.